STABILIZATION

HEARINGS

BEFORE THE

COMMITTEE ON BANKING AND CURRENCY
HOUSE OF REPRESENTATIVES

SIXTY-NINTH CONGRESS

FIRST SESSION

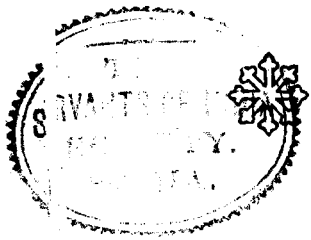
ON

H. R. 7895

A BILL TO AMEND PARAGRAPH (d) OF SECTION 14 OF THE FEDERAL RESERVE ACT, AS AMENDED, TO PROVIDE FOR THE STABILIZATION OF THE PRICE LEVEL FOR COMMODITIES IN GENERAL

MARCH 24, 25, 30, 31, APRIL 1, 6, 8, 9, 12, 13, AND 14, 1926

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COMMITTEE ON BANKING AND CURRENCY

HOUSE OF REPRESENTATIVES

SIXTY-NINTH CONGRESS, FIRST SESSION

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STABILIZATION

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Wednesday, March 24, 1926.

The committee met at 11 o'clock a. m., Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will come to order. This is a hearing on H. R. 7895, a bill introduced by Mr. Strong of Kansas, proposing to amend paragraph (d) of section 14 of the Federal reserve act, as amended, to provide for the stabilization of the price level for commodities in general. I understand that Mr. Shibley is here on that subject.

Mr. STRONG. Might I suggest that the bill itself be placed in the record at this point?

The CHAIRMAN. Without objection, Mr. Strong's suggestion will be followed and the bill will be placed in the record.

[H. R. 7895, Sixty-ninth Congress, first session]

A BILL To amend paragraph (d) of section 14 of the Federal reserve act, as amended, to provide for the stabilization of the price level for commodities in general

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That paragraph (d) of section 14 of the Federal Reserve act, as amended, is amended to read as follows:

"(d) To establish from time to time, subject to review and determination of the Federal Reserve Board, a minimum rate of discount to be charged by such bank for each class of paper, which shall be made with a view to accommodating commerce and promoting a stable price level for commodities in general. All of the powers of the Federal reserve system shall be used for promoting stability in the price level."

The CHAIRMAN. This amendment strikes from the existing law the words "and business," and adds

and promoting a stable price level for commodities in general. All of the powers of the Federal Reserve System shall be used for promoting stability in the price level.

The word "minimum" in the bill, second line, is there by mistake and is to come out.

Mr. STRONG. That is correct, Mr. Chairman. The word "minimum" is an error and is to come out. However, I anticipate that as a result of these hearings it may be desirable to change the phraseology of the bill altogether. I hope the purpose will be adhered to.

I do not claim that the idea of this bill is an original one. It is simply an effort to renew the various attempts that have been suggested to carry out the direction of the constitution wherein Congress is authorized "to coin money and regulate the value thereof."

Congress has directed "the coinage of money" but the on effort to "regulate the value thereof" was provided in the Feder reserve act and I feel that the provisions therein set up have bee used rather in the interest of the creditor class instead of for th purpose of the stabilization of the purchasing power of our mone which certainly is the great need of all classes of our citizens sa perhaps those who speculate therein.

The purchasing power of our dollar, of course, must be dete mined by the amount it will purchase of those commodities th the people generally must exchange for it. The Department c Labor has been for sometime publishing an index number whic represents the average wholesale price of 404 commodities in genera and the fluctuations that have occurred since 1914 in such index num ber demonstrate the fact that the purchasing power of our dolla determined by what it will purchase of commodities in general, ha so greatly fluctuated that while it had a purchasing power in 191 of about 100 cents, in 1919 it was only about 50 cents and now i the neighborhood of 70 cents.

The language of the bill is a direction from Congress to the Fed eral reserve system, which is the agent it has set up, to establis such rate of discount to be charged the banks for each class of pape with a view to accommodating commerce and promoting a stabl price level for commodities in general with a further instructio "that all the powers of the Federal reserve system shall be use for promoting stability in the price level."

The Federal reserve system has the power of increasing or de creasing the volume of money and regulating the rental or cost valu thereof and also powers of publicity that I feel can be used to bette regulate the stability of the price level of commodities in general or what is the same thing, the purchasing power of our dollar

I anticipate that those who have come to believe that the Federa reserve system, though created by Congress, has become a sacred thing that Congress should not seek to change or improve upon may attempt to prejudice the country by pretending to believe that the purpose of this bill is to fix prices or perhaps stabilize individual prices like agricultural products. Nothing of the sort is contemplated, the prices of individual commodities, as they respond to supply and demand, are solely under the control of such law. The general price level—that is, the purchasing power of the dollar—however, changes only with some fundamental variation in relation of money as a whole to commodities as a whole; and may have no true economic cause.

I will at this point insert some remarks I made in the House on February 20 last with reference to this bill. It will be noted the word "minimum" is not in the bill as I then quoted it and I think the chart of the price level clearly shows the need for stabilization.

AMENDMENT TO THE FEDERAL RESERVE ACT

[Speech of Hon. James G. Strong, of Kansas, in the House of Representatives, Saturday, February 20, 1926]

(The House in Committee of the Whole House on the state of the Union had under consideration the bill (H. R. 9341) making appropriations for the Executive office and sundry independent Executive bureaus, boards, commis-

sions, and offices for the fiscal year ending June 30, 1927, and for other purposes.)

Mr. STRONG of Kansas. Mr. Chairman and gentlemen of the committee, I wish to call the attention of Members of Congress to House bill 7895, which I have introduced, proposing a brief amendment to the Federal reserve act, but an amendment which, if adopted, may have a far-reaching effect, namely, the stabilization of the price level of commodities in general.

This amendment is to section 14 of the Federal reserve act, paragrph (d). This section and paragraph provide that—

"Every Federal reserve bank shall have power * * * (d) to establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business"—

The amendment strikes out the words "and business" and adds—

"and promoting a stable price level for commodities in general"—

And further adds—

"All the powers of the Federal reserve system shall be used for promoting stability in the price level."

The meaning of price level is the average of prices for commodities in general at wholesale. This average of prices is indicated by an index number, so that as the measurement takes place month after month the changes in the index number describe the changes in the height of the price level. I have here a chart showing the price level for this country since 1909. Notice how this price level went up like a skyrocket during the World War and later came down even more rapidly, since which time it has been fluctuating up and down between 140 and 165. At the right-hand side of the chart is shown the even condition of the price level that would result from the stabilitzation of the general price level.

This chart is constructed from data supplied by the United State Department of Labor, which measures the price level for the use of mankind; and so does Dun's Review, and Bradstreet's Weekly, and Prof. Irving Fisher, of Yale University.

This chart presents the changes in the price level—the changes in the average of the prices for commodities in general at wholesale, in this Nation.

Stated in another form, this chart pictures the changes in the purchasing power of United States money. The Constitution provides that—

"Congress is empowered * * * to coin money and reguate the value thereof."

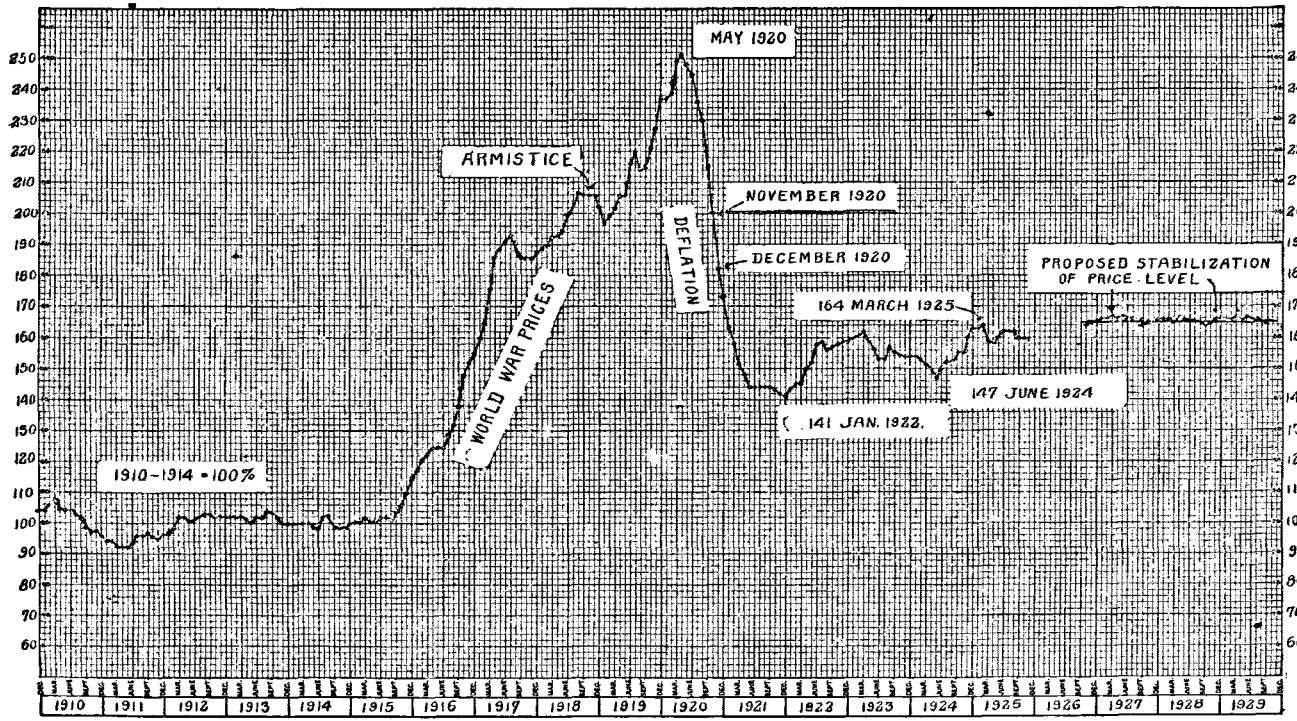
Now the proposal is that Congress shall instruct the members of the Government commission, the Federal Reserve Board, to use the powers of the Federal reserve system for promoting stability in the value of money—stability in the price level for commodities in general. Our yardstick has a stable number of inches and our money should be stabilized in its purchasing power. Stable money is the ideal gold standard.

This price level now stands at about 160, a drop from 251, and my bill instructs the officials in the Federal reserve system to use the powers of the system "for promoting stability in the price level." In other words, in place of the existing discretionary power in a majority of the eight commissioners on the Federal Reserve Board to bring on falling prices, they should be obliged by law to hereafter operate the great Federal reserve system to maintain stability in the index number of general prices—the price level.

I am speaking of the average of prices, the price level. This average of prices for commodities at wholesale is represented by what is termed an "index number," which accurately shows the height of the price level month after month and year after year. The chart which I am showing has for its index number a measurement each month by the Department of Labor in its Bureau of Statistics, using the wholesale prices of about 300 commodities and striking an average, which is represented by the index number. These commodities fluctuate in price among themselves according to the changes in supply and demand, and at the same time another deflation would again lower the prices of practically all products at wholesale.

Furthermore, all the countries of the earth would be injuriously affected, along with the evil effects in this Nation. That is, each nation throughout the world is endeavoring to maintain a stable par of exchange in its transactions of business with other peoples, and gold prices are the standard, actually dominated by the Federal Reserve Board in this country.

PRICE-LEVEL CHART



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My bill when adopted will promote stability in the price level. The time has come, in my judgment, when the Congress of the United States, to whom is confided the exercise of the power "to coin money" and to "regulate the value thereof," should declare for stability. Now is the opportune time in the world's history when the needed stability can be attained. We have nearly two-thirds of the world's gold and so can safely instruct for stability in the gold standard of prices.

In 1913 the Federal reserve bill of Senator Owen actually had in it a provision instructing the Federal reserve system to be so operated by its officials as to "promote stability in the price level." Furthermore, I am informed that this was written in the bill after it had been agreed to by the President and his financial advisers, but the World War was about to be fought and the time had not yet arrived for this great advance in the industrial and business world; but now the conditions are completely ripe in all directions. In addition to the essential factors for the maintaining of stability in the price level which I have mentioned are the additional elements:

First. The maintenance of the existing price levels will be the most nearly just, as between debtors and creditors, taking into account the conditions as a whole.

Second. A further lowering of gold prices in this country will injure every human being in this world who is not a creditor in considerable degree; and even those large creditors are where they do not need more wealth, and they are vitally concerned in making world conditions safe from the revolutionary radicalism which flares up whenever falling prices set in and unemployment increases.

Third. For now the sixth year a crisis has existed for the farming population, and one of the remedies is for Congress to instruct the Federal reserve officials to promote stability.

Why should we not seek to stabilize the general price level for the good of all, business, agriculture, and industry? Is it not time to take the money question out of politics or any special class? And at the same time develop the prosperity of all of our citizens and assist the world at large, for our Federal Reserve Board is controlling the gold price level of the entire world. Should not this gold standard of prices be a stable standard, to result in stable money and no longer be a standard that acts like a jumping jack, as is shown in the price level.

I ask the serious consideration of Members of the House to this proposition. I have asked the chairman of my Committee on Banking and Currency for a hearing on the bill I have introduced, and I have been assured that such opportunity will be given. If there is any objection to such legislation, I hope the Members will not hesitate to come to me and present their arguments. I have been for seven years a member of the Committee on Banking and Currency and have been trying to build up and strengthen our financial systems, both for agricultural and commercial interests. I do not want to do anything to weaken or impair them, but if we can, by such an amendment, stabilize the price level of commodities in general, why should we not do so? [Applause.]

As I have said, I anticipate that as a result of these hearings it will be desirable to change the phraseology of the bill, to better carry out the purpose intended and to that end I ask the assistance of the committee and those who shall appear before us on the proposition.

STATEMENT OF GEORGE SHIBLEY, DIRECTOR OF THE RESEARCH INSTITUTE OF WASHINGTON, D. C.

Mr. SHIBLEY. Mr. Chairman and gentlemen of the committee, my full name is George Shibley. In recent years I have shortened my name by dropping from the middle the initial H. I am director of the Research Institute of this city. I come before you as an independent investigator; I am not employed by any group or interest.

Before I take up this bill you are entitled to be told as to my training and experience in the science of money and prices.

At an early age I became the head of a family of considerable size, my father having passed on. At the age of 16 years I began working my mother's 200-acre farm. The soil was fertile and nature was bountiful. I raised good crops, but at times the prices were so low that they sold for less than the cost of production. That was my introduction to the farmers' problem. I have been through the mill. That was 1877 to 1883, a period of falling prices the larger part of the time.

In 1886 I began the study of law in Chicago at the Union College of Law. Two years later I was admitted to the Illinois bar, and later I became a member of the United States Supreme Court bar.

Before I was admitted to practice law I became interested in law book publishing and quickly laid the foundation of a modest fortune, which accounts for my being an independent investigator of public questions, free to follow wherever truth should lead.

In the law book publishing I became the head of the research corps of law writers. At the age of 29 years I retired from business and began independent researches, which developed into an exploration of the elements of law; that is, the structure of industry and of government, and the spirit of the ruling power, and how it manages to stay in office.

While I was thus engaged I took a course of studies at the University of Chicago. I studied economics, political science, and social science. I did so as a lawyer trained in weighing evidence and logic, and as a retired business man.

I discovered, among other things, at that university, that the text book "Mill on the Principles of Political Economy" had put forth a tremendous fallacy as to free trade being desirable for a new country like the United States. And to my amazement I found that no one had exposed that fallacy. I began to write on the subject and a year quickly passed by.

Then I awoke to the fact that armies of unemployed were marching to our National Capital. That is 1894. I began to investigate as to why there were armies of unemployed, along with large losses to the business interest and the farmers.

The socialists declared that the cause was private enterprise. The single taxers declared that the cause was private ownership in the land. The creditor class denied the claim of another group that the cause was deflation; namely, a shrinking volume of money and credit and falling prices and losses to the business interests and farmers; and that these discharged hands. The creditor class, however, were seemingly being benefited by an increase in the purchasing power of money.

Which of the four groups of citizens was right? That was 32 years ago. I will tell you, gentlemen, just what took place, as I found by actual investigation.

I found that in the preceding year, 1893, Congress had repealed the law that was adding to the volume of money in use. That increase in the volume of money was needed to maintain stability

in the price level: but the creditor class secured the repeal of that law and the price level dropped—prices for commodities dropped and kept dropping. This resulted in losses to all who were in business, and they in order to lessen their losses discharged some of the help in the factories and mines; and this loss of wages lessened the purchasing power of the Nation, so that more hands were discharged, causing a growing army of unemployed, amid growing bankruptcies of business men and growing losses for the farmers. The creditor class thought that they were profiting because of the growing purchasing power of the debts owing to them.

But in the year 1898 the world entered upon a new area. In 1898 in the contest for the nomination and election of Members of the National House and Senate in this country, the creditor class was defeated and big business won; the trust magnates won. They realized that a rising price level would help to offset the tendency to unemployment that was resulting from the under consumption, that was being caused by the relatively high trust prices. In December, 1899, at the opening of the new Congress, a bill was brought in which provided for considerable inflation by the printing of paper money—national bank notes. That bill became law during March, 1900, and it supplied a gradual inflation for a time on top of the rising flood of gold from the mines.

Mr. STEVENSON. Do you want to be allowed to finish before we begin asking questions?

Mr. SHIBLEY. I should prefer that.

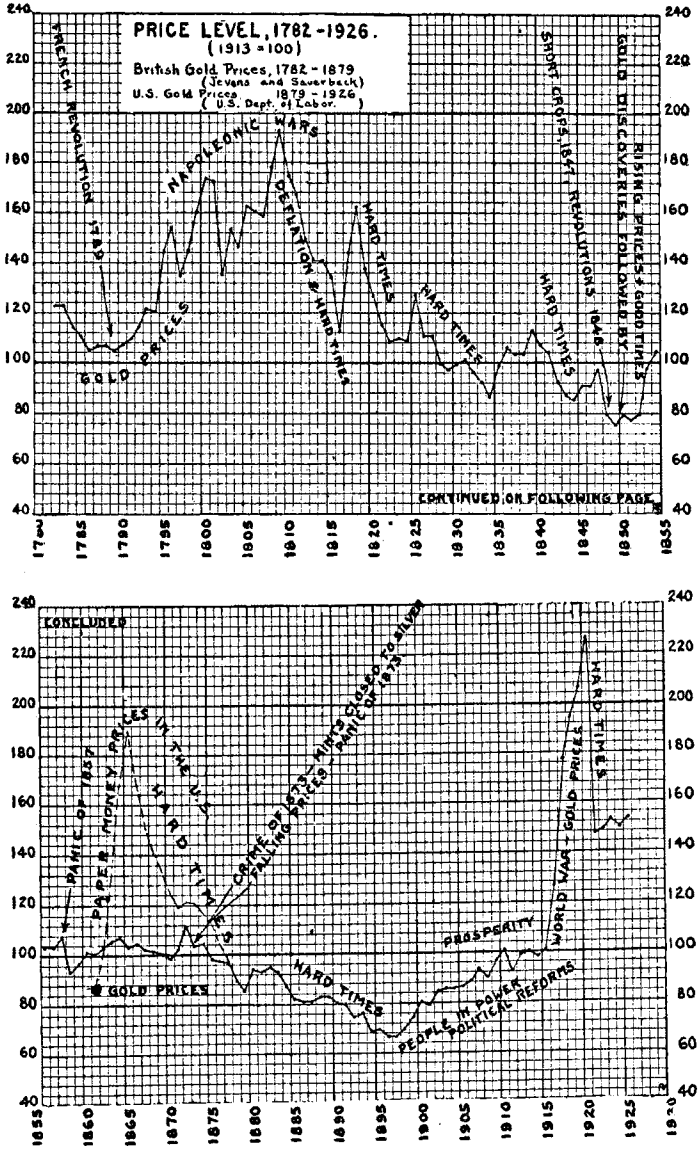
From that time, 1900, until the close of the great war, 1918, the volume of money increased and prices rose most of the time; inflation was taking place; the creditor class was underfoot. From the close of 1894, for 20 years, the inflation was such as to raise the price level 50 per cent; that is, a rise in the price level of 2½ per cent a year. This rise in the price level of 2½ per cent a year, meant that a person who received 5 per cent interest lost half of it from depreciation in the value of money. That took place for a period of 20 years. The business interests were in power.

Now, in 1926, after 6 years of falling prices for the larger part of the time, with the farmers a submerged group, and with the bankers and other creditors in the Nation so badly affected that they have joined with the farmers in a political revolt, except in the East, and with another deflation now being brought about by the Government's agent, the Federal Reserve Board, the times are ripe for this Banking and Currency Committee to report a bill that will tend to stabilize the price level—end the existing deflation, and do so permanently. This reform will be of tremendous importance, as we will explain presently.

I. I began by placing before you a chart which pictures to the eye the history of the changes in the average height of prices for commodities at wholesale for the past 140 years; that is, since 1782. Mr. Strong has placed before you a chart for 20 years and I would like to insert in the record, charts for 140 years.

The CHAIRMAN. Without objection these charts will be inserted in the record.

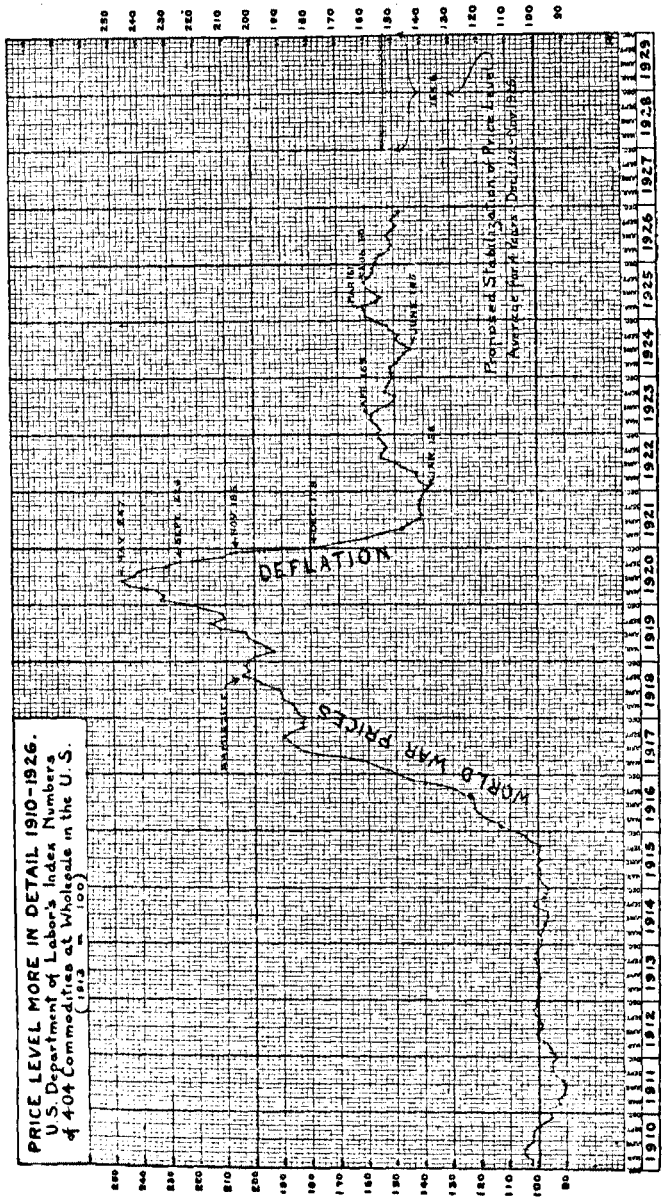
Mr. SHIBLEY. That price level for a period of 140 years shows this: That whenever there has been a falling price level—falling prices for commodities, that if these falling prices have continued until the business interests have recognized the situation—recog-



nized the growing depression and have started in to discharge hands to lessen their losses, then there has commenced a period of "hard times"—hard times for the producing classes, coupled with benefits to the creditor class because of the increase in the purchasing power

of debts. That is the principle that is shown in the foregoing chart of prices for 140 years.

The cause of these periods of hard times for the producing classes and benefits to the creditor class, alternated by a period of rising



prices for commodities and profitableness in business, has been the lack of proper regulation of the quantity of money and bank credit. An exception is now the sixth year of low incomes for the farming population, caused principally by the combinations of the business

interests in the trade associations for raising their selling prices (or preventing the necessary decline), and forcing down the prices at which they buy.

The lack of proper regulation of the supply of money and bank credit has been caused mainly by false education as to the relation between the quantity of money and the resulting prices for commodities, a false education which has been spread by the creditor class and their numerous representatives. The need is for proper regulation of the quantity of money and bank credit. The establishment of the Federal reserve system was a wonderful advance, which now should be carried a step farther as proposed in the Strong bill which we are considering, but it is only one of several measures, the enactment of which is necessary at this time.

Now let us turn again to the chart which shows a zigzag line, which is the price level for commodities at wholesale and is to be explained.

II. A century ago or thereabout there was devised a method for measuring the average height of the prices for commodities at wholesale. The invention consists—

1. In listing the prices of commodities at wholesale, for such commodities as there can be found a continuity of wholesale markets for a stated grade, plus the existence of fairly reliable statistics as to the quantity of the sales for that commodity within the country.

2. Then for the month there is ascertained the height of the price for each commodity, day by day, with the average for the month represented by an index number, with 100 as the base, so that comparison will result. If the average height of the price for a commodity is up, it will show in the index number; and if the price is down, it will show in the index number. This calculation is made for each commodity that is listed. In the Statistical Bureau of the Department of Labor in this country the number of commodities used is 404.

3. Next the commodities thus indexed are grouped, each group being given an index number.

4. Finally all of these groups combined are given an index number—the all-commodity index number or price level. By charting it, month after month, there is pictured to the eye the comparative height of this price level. (See Chart 2.)

For 24 years the United States Government has been measuring this country's price level. The start was made by our Government in 1902 in the Bureau of Labor under the direction of Carroll D. Wright, who appreciated the citizen's need for accurate knowledge as to the course of the price level—the changes in the purchasing power of money—to aid, for example, in the settlement of disputes as to the proper wage rate. Also the Bureau of Labor began to measure the height of the cost of living, including retail prices of food products.

In this section is explained the system for the measurement of the height of the average of prices for commodities at wholesale. The resulting index number from this measurement is the index number of all-commodity prices, the price level.

III. The next step in an understanding of the science of money and prices is to know that the measurement of the price level for

commodities at wholesale is the means whereby is measured the purchasing power of a nation's money—the value of money.

For example, in 1920, before the deflation was started, the height of the price level for commodities was 247. (All-commodity index number of the Department of Labor, May, 1920.) This meant that the purchasing power of the money used in the sales of those commodities was only 40 cents as compared with 1913, the year that is taken as 100, the base year. (This figure, 40 cents, is ascertained by dividing 100 cents by 247, the index number for May, 1920.)

To-day the basis for calculating the price level should be the past five years, for the price level is not to be lowered, nor should it be raised to any considerable degree, for adjustments have taken place. A falling price level is exceedingly harmful, and so is a rising price level, as compared with the continued use of a practically stable price level. Also there are other reasons for the immediate stabilization of the price level, as I will explain presently.

A further fact to be understood in the science of money and prices is that our price level registers the purchasing power of the gold dollar, which consists of 25.8 grains of gold nine-tenths fine. This gold dollar has changed in purchasing power in this country, the same change as in the other forms of money, for all of our money is kept at a parity.

Thus, the gold standard, which merely means that a certain weight of gold is placed in the dollar as "the standard unit of value" (act of Mar. 14, 1900, sec. 1), and that all forms of money shall be maintained at a parity therewith (same section), actually changes in purchasing power as the price level for commodities rises or falls.

The ideal is to provide for the stabilization of the price level for commodities and thereby stabilize the purchasing power of the gold dollar—stabilize the gold standard. For May, 1920 the gold dollar was a 40-cent dollar as compared with 1913; and for February, 1926, the gold dollar was a 65-cent dollar as compared with 1913. Now, there should be taken a new base, 100, as we have explained.

In this section is described the purchasing power of money—the value of money.

IV. In 1913 a tremendously important step in advance was taken in this country by the legislative department in the National Government. It framed the Federal reserve system and after eight months of debate in Congress the bill as amended was enacted into law. Following is a description of this new Federal reserve system, preceded by the provisions in the Constitution under which the Congress and the President acted.

The basis of our National Government is the Constitution which sets up the legislative department as follows: "All legislative powers herein granted shall be vested in a Congress of the United States" subject to a veto power in the President, whose veto may be overcome by two-thirds vote. The President also recommends legislative action, and he is the leader of the party in office in the White House.

One of the groups of subjects for the exercise of this legislative power in the National Government is as follows:

To coin money and regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

The national legislative department of this Government has fixed the standard of weights and measures and has established the National Bureau of Standards; has provided that "the money of account of the United States shall be expressed in dollars or units, dimes or tenths, cents or hundredths, and mills or thousandths"; has provided that gold shall have unrestricted coinage into money at the rate of $1 for each 25.8 grains of gold nine-tenths fine, and that "all forms of money issued or coined by the United States shall be maintained at a parity with this standard"; and in 1913 the national legislative department established the Federal reserve system, possessing a monopoly of the right to issue paper money based on gold and commercial securities, under strict supervision by the Government, acting through a commission, the Federal Reserve Board. To this board is delegated the authority and the duty to regulate the quantity of the Nation's paper money, and the quantity of the bank credit, the total quantity of the medium of exchange to be to supply an elastic quantity "with a view of accommodating commerce and business."

These words "with a view of accommodating commerce and business" are indefinite as to the quantity of money and bank credit except as a construction is placed upon those words, and the Government commission is construing those words so as to be meaningless, thereby leaving the commission free to apply their own policy, which is for deflation as fast as it can be brought about without arousing too much opposition. Also this Government commission and the creditor class with whom it is cooperating—the bankers, are telling the public that this Government commission and the Federal reserve system is not regulating the quantity of the people's money and bank credit—a manifest untruth, while at the same time the Federal Reserve Board for the past six years has been doing all that has been humanly possible to deflate the quantity of credit and money—lower the price level for commodities; that is, increase the purchasing power of money and debts. Had the Federal Reserve Board attempted to deflate more rapidly it would have brought on more violent protests, and there were two campaigns and elections in which the party in power used the board to bring on a temporary inflation—rising prices and the finding of jobs for the jobless, as I will presently describe. Now, early in 1926, one of the issues is the imperative need for ending the deflation that is taking place in the quantity of money and credit. The existing power of the moneyed interests to bring on further deflation must be ended. Fortunately, for a year the peoples of earth have again been entering into another era of progress, so that the times are ripe for the needed legislation along several lines.

The Strong bill that is the basis of this hearing has for its object the amending of the Federal reserve act of 1913 so as to definitely instruct the officials in the Federal Reserve Board and thus end their policy of deflation. The wording that is proposed for the amendment to the Federal reserve act is that the discount rate at each of the several Federal reserve banks shall be fixed—

with a view of accommodating commerce and promoting stability in the price level for commodities in general. All of the powers of the Federal Reserve System shall be used for promoting stability in the price level.

The index number of the price level will be publicly known each week and the law will be obeyed.

In other words, in place of the existing indefinite instruction by the legislative department of the National Government to its agent, the Federal Reserve Board, to regulate the quantity of money and bank credit "with a view of accommodating commerce and business," which places in the Federal Reserve Board the authority to deflate the people's money and bank credit, or inflate, as the majority of the board may decide from time to time, whereas the proposed amendment to the law is that the Government commission, the Federal Reserve Board, shall aim at "promoting a stable price level for commodities in general. All of the powers of the Federal reserve system shall be used for promoting stability in the price level."

Such is the special issue, namely, that the legislative department of the National Government which by the Constitution is charged with the duty "To coin money" and "regulate the value thereof" shall declare in unmistakable words its instruction to its agent, the Federal Reserve Board, as to the quantity of money and bank credit which it shall supply for the people's use. The need is for an elastic quantity of money and bank credit to accommodate commerce and business by meeting the seasonal and other requirements, without deflation or inflation, as evidenced by the index numbers of prices for commodities at wholesale, the price level.

That is the meaning of the proposed legislation in the Strong bill.

And still more power can be transferred to the Federal Reserve Board, and details should be incorporated in an enlarged bill by Congressman Strong.

Also, further plans for stabilization of the price level can be devised and should be inserted in the bill.

There certainly should be placed in an enlarged bill all of the possible powers for the stabilization of the price level; that is, the deflation now being engineered must be stopped. That is the pressing need, along with prevention of inflation.

Only the short-sighted members of the creditor class will refuse to help stop the deflation by instructing for stability. Except in the Eastern States the condition of the farmers is so very bad again that some of the bankers and other creditors have joined with the farmers in a political revolt. For one thing, the existing deflation is to be stopped!

In this section there is described the existing mechanism for regulating the quantity of the people's money and credit. This mechanism as it is being used at present is a trick system, in behalf of the money power, the creditor class. The Strong bill raises the special issue: Shall Congress and the President place in the law a definite declaration for stable money? The existing deflation now being inflicted on mankind must be stopped!

V. I now present very briefly the historical background of this special issue which I have described.

In the year 1910 in this country there came the people's peaceful revolution at the polls. Just previous a similar uprising at the polls had taken place in nearly all of the other leading countries

of earth. Thus there came into power Progressive Government, pledged to end the privileges which the former ruling few had taken to themselves. The pledge was to install equal rights to all, privilege to none.

In this Republic the people's leaders who thus came into office used their powers of government so wisely that as the time drew near for the next general election, in 1912, the only real issue was, Which of the progressive leaders shall be chosen President?

After the decision as to national leadership in 1912, the incoming majority in Congress in 1913 consisted of a coalation of the progressives in both parties.

Two subjects were taken up promptly at a special session: tariff revision downwards, and the ending of the money trust in Wall Street, which had been shown to exist by extensive investigations by the Pujo Committee in the progressive House.

The outcome from tariff revision and from currency and banking legislation was an unexpected middle course, beneficial to every citizen, as follows:

Both parties in the past had been partly right and partly wrong, and when the people came into power the advance in the form of legislation was along a sane, middle course, beneficial to the Nation and to all mankind. It is the new progressiveism.

The tariff revision recognized the difference in the cost of production at home and abroad; and the currency and banking legislation brought together a new system which joins together private enterprises and Government supervision, opening up a wholly new road, a system of Industrial Democracy.

INDUSTRIAL DEMOCRACY

The general application of this new principle in private enterprise will solve the main problem in industry. This new feature in private enterprise is self-regulation by majority rule of the citizens who are most vitally affected, with Government supervision for unified regulation within the Nation's territorial area, and for the equal protection of all the groups and individuals.

It is similar to political home rule, except that home rule is territorial, while this new system of self-regulation of industry.

It is similar to political home rule, except that home rule is territorial, while this new system of self-regulation of industry is along group lines.

Following are the high spots in this new Federal reserve system of the year 1913:

There are 12 reserve banks each a monopoly in its district, cooperatively owned and managed by the members as a self-governing corporation. This management is by means of a board of directors and majority rule, subject to the Government's supervision for unified regulations within the Nation's boundaries, and for equal rights to all.

Under this system the decision as to technical points in the discount of negotiable paper to the 12 corporations which create paper money and withdraw it, is by representatives of the banks, who are entirely unconnected with the officials in the Government. But the quantity

of the people's money and bank credit is regulated by Government officials acting under instructions in the law.

Until the framing of this new system for self-regulation of private enterprise by majority rule within the group, subject to Government supervision, there was no provision for Industrial Democracy; that is, the only way for cooperation in private enterprise was—

First. By voluntary cooperation.

Second. By cooperation in the management of a privilege in the midst of private enterprise, such as a railway.

Third. By cooperation by all within a territorial area by Government management; for example, the post office.

In 1913, which was the year after the people's peaceful revolution at the polls, there opened up a fourth system, as follows:

Fourth. Industrial Democracy; that is, cooperative management regulation of private enterprise by the citizens who are most vitally affected, operating by majority vote, and subject to Government supervision for the unification of the regulations for the entire area, and for equal rights.

The general application of this new system in private enterprise will solve the main problem in industry—the ending of the privileges. I have three bills for presentation in Congress.

The kernel of this new system of Industrial Democracy is that the individuals within each industry in private enterprise are to manage it (regulate it) by majority vote, subject to Government supervision.

GOVERNMENT SUPERVISION

One element in this industrial democracy is Government supervision, as I have said, an all-important feature. In the Federal reserve system it means that the Government has reserved to itself the sovereign power of regulating the value of the people's money and bank credit by regulating the quantity. This is achieved by providing a Government commission, the Federal Reserve Board, and instructing it in the administration bill of the year 1913 to supply an elastic quantity of money and bank credit—

with a view to accommodating the commerce of the country and promoting a stable price level. (H. R. 6454, sec. 15, par. d.)

Here was a definite instruction against inflation by the printing press, and protection against deflation. The price level was being measured by the Government each month.

In opposition at the time that this administration bill was decided upon was the money power—the bankers and others of the creditor class, plus the business interests, most of whom had stood for the Aldrich plan; namely, that the quantity of the paper money and bank credit for this Republic should be regulated by representatives of the bankers. False teaching had been put forth that the masses aimed at inflation, whereas the truth, as I have found by investigation, is that the times when the masses have insisted on a larger quantity of money was when they were being robbed by deflation! (The Money Question, by George (H) Shibley, 1896, subtitle Stable Money.)

In my researches I found that the invention for the measurement of the height of the average of prices for commodities at wholesale

had opened up the way to stable money as soon as the people should come into power. In 1900 I was on hand to secure and did secure a declaration for stable money by the allied reform parties, including the Democratic Party; and in 1913 I was on hand to propose it for the administration bill and again the plan was accepted.

But that stable money plan was stricken out in the House Committee on Banking and Currency, without a public hearing. I had requested to be heard and was refused. (Senate hearings on the Federal reserve bill, p. 1819.)

Recall that the business interests profit by inflation and that in 1913 the inflation during the preceding 20 years of their dominancy had been 50 per cent. In the House in 1913 the quantity of bank reserve in lawful money for their own vaults was nearly cut in two, also $200,000,000 of Government funds were to be placed in circulation. (Senate hearings, p. 1778.) And there was stricken from the administration bill the specific instruction that the index number of all-commodity prices at wholesale should be kept as stable as possible. That restriction on inflation was stricken out and then the only thing which prevented inflation was the Government's agent, the Federal Reserve Board, which did stand firm for stability until overwhelmed by the flood of gold from Europe toward the close of 1915. (Chart for years 1910–1926.)

On the other hand, in 1913 the money power, the creditor class, helped to strike out from the administration bill the instruction in definite terms for stable money; and in after years—namely, in 1920 to date—that creditor class has been securing an increase in the purchasing power of money and debts for the larger part of the time, as we presently will describe.

This section sets forth the historical background, showing that the business interests have aimed at and secured inflation; and that the creditor class have aimed at and secured deflation. Both deflation and inflation have injured the masses, as contrasted with the effects from stable money, and the masses are again to insist on stable money.

VI. The outcome of the new Federal reserve system of 1913 is now to be described.

In the late months of 1915 there came a flood of gold from Europe and the business interests secured rising prices. Gold imports continued and prices rose; and in 1917 after this country entered the war the law was amended to provide for enough paper money and bank credit to maintain the higher price level.

Beginning May, 1920, there came deflation. Something of a deflation should have come but not to the extent that was forced by the bankers after they had started the avalanche.

The duty of the Government's agent, the Federal Reserve Board, was to regulate the quantity of the people's money and bank credit "with a view to accomodating commerce and business," which should have meant the largest possible stability in the value of money after a reasonable drop in the price level.

The record of the agent of the Government, the Federal Reserve Board, is indelibly written in the index numbers of the price level. I ask you, gentlemen, to look at the chart before you (chart 2) and note just what has taken place in this country's wholesale markets since May, 1920. Bear in mind that our Federal Reserve Board

is the Government's agent for the regulation of the height of the price level for commodities at wholesale, and in thus regulating the price level regulates the gold standard of prices, both for this country and for all of the other gold standard countries, and regulates the gold standard par of exchange with each of the other countries.

Gentlemen of this committee, I ask you to note the following criticism:

1. This chart of the price level in this country shows that from May, 1920, to February 1, 1922, a period of 1 year and 9 months, there was a dreadful era of falling prices, the price level descended rapidly from 247 to 138! This was a total drop of 109 points, or 44 per cent, in less than two years!

In this connection I direct your attention to what the Brussell's International Financial Conference of 1920 declared:

> Deflation, if and when undertaken, must be carried out gradually and with great caution, otherwise the disturbance to trade and credit might prove disastrous.

Following is the report of the Joint Commission of Agricultural Inquiry in the United States Congress, in 1921, which reported October 14:

> The commission believes that a policy of lower discount rates [by the Federal reserve banks] and greater liberality in extending credits could have been adopted in the latter part of 1920 and the early months of 1921, and that such a policy would have retarded the process of liquidation and thus have spread the losses incident to the inevitable decline of prices to a lower level over a longer period, and that the adoption of such a policy at that time would have been advisable. (Vol. 2, on Credit, p. 13.)

In language much more denunciatory is the testimony of a former member of the Federal Reserve Board, Hon. John Skelton Williams, former Comptroller of the Currency, in his testimony before the Joint Commission, just named. (Vol. 2 of Hearings, pp. 2–268.)

2. Temporary relief for the producing classes was brought about by vigorous protests in Congress, beginning May 31, 1921. Under the leadership of the Senate there was formed the Joint Commission of Agricultural Inquiry, which began an investigation and reported October 14, 1921. But not until the next February, 1922, with party elections at hand did the officials in the Federal reserve system so regulate the quantity of money and credit as to result in rising prices for commodities at wholesale, which meant an increase in profits to factories and mines and the taking on of additional hands—the lessening of unemployment. This was just before and during the congressional and State campaigns of 1922. But the party in power lost the Congress counting the insurgents as outside of the party. This reverse was caused in part by the farmer-vote who in large numbers were dissatisfied with the deflation policy of the Federal Reserve Board; and were dissatisfied with the deflation policy of the banks; and were dissatisfied with the deflation policy of the party in power. Two of the President's direct representatives, the Secretary of the Treasury and the Comptroller of the Currency, were members of that Government commission.

To-day, 1926, with a further deflation in progress, the enactment into law of the Strong bill will stop the deflation, because the public will receive notice that the aim of the Government commission is to promote stability, which should mean stability on a par with the

height of the price level, say of last November, before this last deflation was started.

In 1922, as we have said, an election year, the regulation by the Federal Reserve Board was such as to increase the quantity of money and bank credit in use and thereby tend to boost the prices at wholesale except prices fixed in foreign markets. Those rising prices for manufactured goods in 1922 increased the profits in business and more hands were employed, and this was continued during the months of the partisan campaign for the control of Congress and of the State Governments. And again in 1924, two years later, a similar era of rising prices and stimulated business and the reemployment of the jobless took place during the campaign, beginning in the month of the national conventions. The President's two representatives, the Secretary of the Treasury, and the Comptroller of the Currency were on that Government commission which did those political stunts. The law should declare in more specific terms for stability, the same as the number of inches in the yardstick are stable.

In the words of Doctor Beckhart, writing during the first half of 1924 and evidently referring to 1922:

Politicians assume that the discount rate policies of the Federal reserve system may be controlled in the interest of party leadership. (The Discount Policy of the Federal Reserve System, by Benjamin Haggott Beckhart, M. A., assistant professor of banking, School of Business, Columbia University, p. 537.)

3. In 1923, after the election of 1922 and beginning in May, 1923, there was then started a deflation which amounted to a 9 per cent drop in 14 months; that is, the gold standard of prices for commodities at wholesale was put down 9 per cent in 14 months, at a time when the producing groups of the world were struggling to get on their feet. Our producers and the peoples abroad were in great need of stabilization of the price level, but it was forced down, down! It was in behalf of the money power—creditor class—of this country and of other countries; and the falling prices for commodities were dreadfully harmful to all groups other than the creditor class.

And here is an additional fact: It helped to kindle anew the radical revolutionary sentiment throughout the world. The return of falling prices in this country, with growing unemployment, reflected abroad, was a demonstration of the continued dominance of reaction in government and the continuance of the evils from private enterprise. It resulted in the world-wide spurring up of the Communist program.

The evils from reactionism in 1923–24–25 were described as follows at the next meeting of the business men of the International Chamber of Commerce, in 1925, in Belgium.

The continued economic disorder in a large part of the world is not only a dangerous obstacle to the establishment of permanent peace, the elimination of unemployment, and the restoration of normal living conditions to millions of people, but involves the menace of still further unhappy developments—the Red peril.

The peoples of the world demand and are entitled to have a just solution of these problems with the least possible delay.

This was the utterance of the businessmen's international organization in 1925.

In these United States, apart from the revolutionary radical sentiment, our farming population are now in the sixth year of being a submerged class, who are practically enslaved by the dominant business and banking interests, as is demonstrated by the index numbers of prices at wholesale. Details I am about to present to a House or Senate committee.

For one thing this Banking and Currency Committee should report favorably the Strong bill for prompt stabilization of the price level. The economic expert of the New York Federal Reserve Bank in a statement three years ago, to which I have referred, closes his argument for immediate stabilization as follows:

> The idea, in sum, is to keep the amount of currency and credit in balance with the price level and maintain the latter at as nearly a constant figure as is practically possible. It is not generally known or realized that in the years just before the war, and extending even past the first year of the war, this country at least reached a quite extraordinary degree of economic stability, beyond that perhaps of any similar period in a century and more. In the seven years from the end of 1908 to late in 1915, the annual averages, even of commodities at wholesale, varied only four points on the Bureau of Labor index—from 97 to 101.
>
> Investigations carried on by the writer in the last three years—

And remember that this is the statistical expert of the Federal Reserve Bank of New York City—

> seem to indicate distinctly that this high degree of economic stability could again be attained, rather quickly, and by the simplest of means, as has here been sketched (pp. 284–285).

The existing instability is shown by the 9 per cent fall in the price level in 1923–24, as compared with the 8 per cent fall after the panic of 1907.

This section has continued the historical background by describing just what came from the new Federal reserve system, namely, inflation during the years 1916 to 1920 as the outcome of the domination of the business interests; and then a necessary deflation was started, and the money power, the creditor class, succeeded in getting the upper hand and keeping it. There is a possible middle course of stable money, as is described by Mr. Carl Snyder, the economist of the Federal Reserve Bank of New York.

VII. I have been describing the price level, as distinguished from individual prices. There is a price level, as is shown in the chart, and there are individual prices of commodities. That is now clear; that distinction is to be noted.

The price of each individual commodity changes in proportion to the changes in the relation between its supply and the demand if there is an open market.

Second. The prices of nearly all of the individual commodities tend downward in the open market whenever our Federal Reserve Board causes deflation—undue contraction in the quantity of credit, or currency, or both.

Third. The prices of nearly all of the individual commodities tend upward in the open market whenever our Federal Reserve Board causes inflation—undue expansion in the quantity of credit, or currency, or both.

The ideal is for the Government commission, the Federal Reserve Board, in whom is vested the regulation of the 12 banks of issue, to so regulate the issuance of Federal reserve notes and the quantity of bank reserves, as to supply to commerce, industry, and agriculture an elastic quantity of money and credit to meet the seasonal and other requirements, without deflation or inflation. The gauges are various whereby the Federal Reserve Board keeps track of the needed supply of money and credit but the chief gauge, the master gauge, should be the index numbers of prices for commodities at wholesale. The need is to help maintain the utmost possible stability in these prices—the utmost possible stability in the all-commodity index number except as unusual conditions prevail for some of the commodities, such as sagging prices for grain, as has been the case during the past four months, in which case the all-commodity index should slightly decline. But, speaking broadly, the need is for stability in the all-commodity index, the price level; also termed "stable money." Everyone will be benefited.

THE GOLD STANDARD OF PRICES

A further point is that the achievement of stable money will mean a stable gold standard of prices. In other words, gold is the basis of the vast superstructure of money and bank credit in this country. Following is one portion of our statutes on the subject:

> That the dollar consisting of twenty-five and eight-tenths of gold nine-tenths fine, as established by section thirty-five hundred and eleven of the Revised Statutes of the United States, shall be the standard unit of value, and all forms of money issued or coined by the United States shall be maintained at a parity of value with this standard, and it shall be the duty of the Secretary of the Treasury to maintain such parity. (Act of March 14, 1900, sec. 1.)

The presence of this statute insures that all of the money and bank credit in use in this country shall be kept at a parity with gold, and the system as a whole is the gold standard of prices. This system when stabilized will be the stable gold standard of prices. This term will be synonymous with stable money.

PRICE STABILIZATION

I further point out that this program for stable money and a stable gold standard of prices can also be described as a program for price stabilization. To get the meaning, recall that I have pointed out in this section:

> Second. The prices of nearly all of the individual commodities tend downward in the open market whenever our Federal Reserve Board causes deflation—undue contraction of the quantity of credit, or currency, or both, or its policy is by the public understood to be deflation.
>
> Third. The prices of nearly all of the individual commodities tend upward in the open market whenever our Federal Reserve Board causes inflation—undue expansion in the quantity of money, or credit, or both, or its policy is by the public understood to be inflation.

The wording is that "whenever our Federal Reserve Board causes deflation" it lowers the prices of nearly all of the wholesale prices of the individual commodities; and "whenever our Federal Reserve Board causes inflation" it raises the prices of nearly all of

the wholesale prices of the individual commodities. The need is that our Federal Reserve Board shall cease to deflate and inflate—principally deflate, in behalf of the money power, the creditor class. The need is for price stabilization.

This term "price stabilization" gives one an idea of the mighty change in the system that is being proposed. There existed price stabilization during the two years after the enactment of the Federal reserve law of 1913. (Chart 2.)

In this section individual prices for commodities are distinguished from the price level; also we have described how deflation and inflation affect the individual prices.

VIII. Next as to the power of the Government in this Republic to prevent deflation or inflation in the quantity of the people's money and bank credit.

On March 4, 1921, there came back into full power the party which in 1912 had stood for the Aldrich plan for bankers' control of the quantity of the people's money and bank credit.

The incoming President was directly represented on the Government commission for the regulation of the quantity of the people's money and bank credit. The incoming Secretary of the Treasury and the Comptroller of the Currency took their places on the Federal Reserve Board, possessed of stupendous power in that board of seven members.

The records show that the policy of the board continued in the direction of gentle deflation, although the price level for March, 1921, was already down to 155 from 247, a drop of 37 per cent in less than a year.

On May 31, 1921, the progressives in the Senate brought about a majority vote for a proposal for the establishment of a Joint Commission of Agricultural Inquiry in Congress. The House consented and the taking of testimony as to the causes of the farmers' distress began in July, and the report in October condemned the rapidity with which deflation had been forced by the Federal reserve system. Then, as late as October, 1921, did the Federal Reserve Board begin to actively counsel the 12 banks of issue to provide cheaper money; and then there was no public statement as to policy, and not until February, 1922, did the business men's confidence in rising prices revive so that buying again commenced in considerable volume.

The principle to be borne in mind is that during these five years 1921 to date, the power of the Federal Reserve Board has been such that whenever its underground powers have all been exerted it has halted an upward trend of prices or stopped a downward trend of prices; and the speculators, who have been the first to receive knowledge of the secret change of policy, have been able to speculate with certainty on the stock exchange.

Repeatedly inflation has been headed off, even with a billion dollars of excess in gold flowing in; and the road has been kept open for deflation, in the interest of the creditor class. The mighty issue has been and still is, At what height shall the price level be permitted to become stabilized?

Last summer the experts in market conditions in their guesses as to what was the secret policy of the Federal Reserve Board predicted

for and against deflation, and events proved that deflation is their present-day policy. (March 24, 1926.) (Chart for years 1910–1926.)

In brief, the Government commission's secret policy for the regulation of the quantity of the people's money and bank credit is deflation, as rapidly as practicable; and the officials in power in the legislative department—the Congress and the President, are those of the party who in 1912 stood for the Aldrich plan of bankers' control of the price level. These legislative leaders during the past five years could at any time have stopped the deflation by threatening to enact a more definite instruction for stability in the value of money.

IX. To-day the need for the stabilization of prices is very great. There are at least three fields wherein any further deflation at this time would be extremely harmful to mankind.

First. The economic system in this Nation—industry, agriculture, commerce, and so on—is suffering from an ill-balance; that is, an ill-balance of the incomes of the various groups. The business men, as everyone knows, are receiving an undue share of the Nation's products, and the lack of purchasing power by the farmer and by the other consumers is restricting the output from the factories and mines. Everyone is being injured as compared with the possibilities. At the present time proposed legislation is being considered by the Agricultural Committees of the two Houses for partial relief for the farmers, the suggested remedies being to set up an improved system of cooperative marketing whereby to care for the surpluses. This should be supplemented by the Strong bill so as to provide for the necessary supply of money and credit. The soundness of this logic is indisputable.

Second. The peoples of Europe are striving to restore their industries to where international trade shall again become normal. These peoples are very largely dependent on international trade, especially with the peoples of the other continents, from whence come their raw materials, in exchange for manufactured goods. The basic needed in these European countries is to maintain a stable price level, plus their need that the United States of America, whose Federal Reserve Board is controlling the purchasing power of gold for the entire world, shall aim to stabilize its purchasing power. The creditor-class domination in this country must be terminated.

Third. During the past 26 years the peoples of the leading countries of this earth have actually entered into a really new age, which includes universal suffrage. This is to become an effective system of the people's rule, without doubt, in place of the rule of the few who in some of the nations are operating by means of machine rule. True there is as yet an obscurity as to just how a return to equal rights in private enterprise is to be brought about, but more is known than is generally supposed. For more than a year there has been a growing era of progress, wherein animosities are being laid aside for a sane, middle course in the direction of the restoration of equal rights in private enterprise. This is being interfered with by the deflation policy of the Federal Reserve Board, the Government's agent. And this reactionary and extremely harmful policy by those in authority causes the former radicals to hesitate to trust the capitalist régime. The urgent need, therefore, at this time, is for the

Congress of the United States and the President to work together to again provide for the stabilization of the price level. That will help to renew the people's faith that progress is being achieved.

I have described three fields wherein there is urgent need for the immediate stabilization of prices in so far as is possible by the action of the Government's agent, the Federal Reserve Board. In support of my analysis as to the existence of these great needs for immediate stabilization I cite the following evidence:

EVIDENCE

First. The existence of the ill-balance between the incomes of the competing groups in this country is known to everyone. The business interests by means of combinations known as trade associations, one in each line of business, validated by the United States Supreme Court by a vote of 6 to 3 Cement Case and Maple Flooring case, June 1, 1925), have maintained unduly high selling prices and unduly low buying prices; for example, the low price of corn last autumn. The need, therefore, is for legislation by Congress and by the States that shall go ahead with the reconstruction of the economic system which was interrupted by the outbreak of the World War. One of the needed laws is the prompt passage of the Strong bill, with an increased scope, as I am suggesting.

Second and Third. I now will cite evidence to prove that an enlarged Strong bill for the stabilization of the price level should be enacted to help the other nations recover from the disturbances in their industries by the four and a third years of World War, which was succeeded by three years or more of world-wide class conflict of an acute nature—the contest between constitutionalism and radicalism. Constitutionalism has won except in Russia; and for more than a year there has opened up a return of progress, as is evidenced by the Locarno treaties in Europe, and other advances, including the widespread recognition in this country that the farmers are to receive an effective relief. I proceed to cite evidence to the effect that the economic conditions in Europe, as well as the subsidence of objections to the continuance of private enterprise, depend in part on the cessation of the creditor-class policy by the Government of the United States. I quote declarations by experts in international meetings.

Last year, 1925, at a meeting in Belgium, the International Chamber of Commerce, consisting of leading representatives of the business men from each of the principal countries of earth, including the United States, declared as follows:

> It is not the aim or desire of business men to promote any class interest. Healthy business conditions depend upon and advance the prosperity of all classes.

The report of the Committee on Economic Restoration points out the need for "stability in prices."

And there is republished the following declaration of the preceding meeting, of 1923, at Rome, which I have quoted and quote it again:

> The International Chamber of Commerce recognizes that the continued economic disorder in a large part of the world is not only a dangerous

obstacle to the establishment of permanent peace, the elimination of unemployment, and the restoration of normal living conditions to millions of people, but involves the menace of still further unhappy developments [the Red Peril].

The peoples of the world demand and are entitled to have, a just solution of these problems with the least possible delay. The fundamental principles which must obtain in arriving at such a settlement are clear, and with united action are possible of early application.

We turn now from these statements by the business men's International Chamber of Commerce, to the declarations by the Brussel's International Financial Conference, in the autumn of 1920. This conference consisted of experts representing 39 countries, called together by the League of Nations "with a view to studying the financial crisis and looking for the means of remedying and of mitigating the dangerous consequences of it."

Among the resolutions unanimously adopted was that

Banks, and especially banks of issue, should be freed from political pressure and should be conducted on the lines of sound finance.

Also that 1920 International Financial Conference at Brussels declared:

Deflation, if and when undertaken, must be carried out gradually and with great caution, otherwise the disturbance to trade and credit might prove disastrous.

Preceding that Brussel's International Financial Conference there was issued for its use various memoranda on the topics to be discussed, one of these statements being "On the world's monetary problems," which says in part:

X. The problem of deflation: If we only pay some earnest attention to the serious difficulties we shall have to overcome in order to stabilize a depreciated monetary standard at about its present value [mark those words, "at about its present value" in the spring of 1920] we shall immediately realize that the idea of deflation—the bringing back of that money to its pre-war level—is altogether Utopian. The popular belief that prices by some mysterious reason will come down themselves to their old "normal" level is a result of the systematical fostering of false conceptions in regard to the causes of the rise of prices, which has been carried on with such remarkable zeal during the whole period of deflation.

* * * A prolonged period of falling prices and consequent general economic depression will never be accepted as a wise device of deliberate economic policy * * *. It seems hardly advisable to enter into any deflation scheme which would involve a reduction of the general level of money wages; for every such endeavor would without doubt lead to social unrest, and in that way make harm out of all proportion to the advantages it could bring.

* * * The problem of stabilizing the dollar exchange [with the United States; that is, stabilizing a depreciated currency with gold] would be aggravated if the United States increased the value of their money by a process of deflation. A deflation in the United States was actually planned at the middle of 1919 when a great campaign against high prices was started. But relying upon popular means, regulation of prices and prosecution of profiteers, the campaign had naturally no success; in March, 1926, the general level of prices in the United States had risen to 253, against 217 on the average for 1919. * * * It is now clearly in the interest of all countries endeavoring to stabilize their dollar-exchange [endeavoring to stabilize their currency with the gold standard of prices] that the United States should not enter upon any policy to raise the internal value of the dollar [deflation and falling prices and hard times for all except the creditor class]. In fact the problem of stabilising the world's exchange being in its nature an international problem, it is desirable that one country should take the lead by fixing the internal value of its money, and it seems natural that this country should be the United States.

In the same manner, it is of great interest for all countries striving to restore a definite parity with gold, that the value of gold should not be raised [the price level in the United States be lowered], and that when the new parities once have been settled, the value of gold should remain as constant as possible. * * * a prolonged process of deflation would have a pernicious effect on trade and enterprise and on the financial burdens of the state (pp. 27, 35, 36, 37).

To the same effect are the resolutions of two years later at the Genoa International Economic Conference, April, 1922, at which there were representatives of Germany, of Russia, and of each of the other leading nations except the United States. These Genoa resolutions include the following:

The essential requisite for the economic reconstruction of Europe is the achievement by each country of stability in the value of its currency [stability in its price level for commodities].

Credit [further declared the conference] should be regulated not only with a view to maintaining the currencies of the countries at par with one another, but also with a view to preventing undue fluctuations in the purchasing power of gold [stability in the price level].

Reviewing these declarations by the international conferences for promoting the economic restoration of the world, there is an agreement that the operations of government should be such as to provide the citizens with stability in the price level—stability in the value of money.

We have described three fields wherein any further deflation at this time would be extremely harmful to mankind.

X. That a deflation is actually taking place is evidenced by the index number of the all-commodity prices of the Department of Labor. For the month of March, 1926, this index number is down to 151.5, from 155 for the preceding month, and 157.7 for the preceding November.

But this deflation has not as yet slackened up buying power as much as would be expected, judging from the fact that the pay rolls in factories and mines have stayed up and slightly increased. Wages have risen slightly, and the building program now in progress is the largest on record.

A necessary element for sound economic conditions in the immediate future is to be stability in the price level, and Congress and the President should at this session cooperate in amending the Federal reserve act, thereby to instruct their agent, the Federal Reserve Board, to operate in the direction of stabilizing prices as far as possible.

The special issue that is being raised by the Strong bill is that no valid reason exists why the legislative department of the Government, that is charged with the duty of regulating the quantity of money and bank credit for the people's use, should refuse to declare in unmistakable terms its instruction to its agent, the Federal Reserve Board, to operate in the direction of stability in the value of money—stability in the price level.

That is the real issue which the Strong bill has placed before the public. That issue is, Are you for or against stable money?

XI. In conclusion, I summarize the points in my statement.

The charts which I have presented describe to the eye the history in the changes in the purchasing power of money for 140 years.

The problem in connection with money and banking is to provide a system for the proper regulation of the quantity of money and bank credit. The chief aim should be to maintain stability in the value of money—stability in the price level. (Sec. I.)

By means of an invention for measuring the purchasing power of money there has opened up the possibility of proper regulation of the supply of money and bank credit, to result in stability in the gold standard of prices internationally. (Secs. II, III.)

The existing mechanism in this country for the regulation of the quantity of the people's money and bank credit is a trick system. (Sec. IV.) The Strong bill has raised the issue, Shall Congress and the President unite in ending this trick system?

In explanation of how the existing trick system came into being and how it has been continued, I have set forth some of the high spots in the history of money and prices, showing that the money power—mainly the creditor class, have aimed at deflation in the quantity of the people's money and bank credits; while the business interests have aimed at inflation—rising prices; and both sets of interests have at times robbed the people. The self-interest of the masses are such that they will gladly vote for leaders who pledge for stable money. (Sec. V.)

Since the enactment of the Federal reserve law in 1913 the pages of history show that the administration of the system at the start was such as to result in an almost complete stability in the value of money—stable money. Then came a flood of gold from Europe and the business interests secured inflation. This included the passage of a law in 1917 providing for a larger quantity of paper money and bank credit.

Beginning in May, 1920, deflation was started and the creditor class, the money power, had its inning. It controlled the banks and it struck hard and fast and kept it up. (Report of joint commission of 1921, vol. 2, on "Credit," p. 13.)

On March 4, 1921, there was a full return to power of the party which in 1912 had stood for the Aldrich plan for bankers' control of the people's volume of money and bank credit; and the price level for commodities has been forced down as fast as public opinion would permit. At present another deflation is being engineered. But stabilization is practicable, as is explained by Mr. Snyder, the economist of the New York Reserve Bank. (Sec. VI.)

I have been describing the price level as distinguished from individual prices.

The price of each individual commodity changes in proportion to the changes in the relation between its supply and the demand if there is an open market.

But also bear in mind that the prices of nearly all of the individual commodities tend downward in the open market whenever our Federal Reserve Board causes deflation, as it is now doing. (Sec. VII.) The need is for price stabilization.

And we have exposed some of the half-truths whereby the public has been fed, for instance, on the declaration that the Federal Reserve Board has not possessed sufficient economic power to stop the falling price level. (Sec. VIII.)

To-day the need for stabilization of the price level is very great. (Sec. IX.)

That a deflation is actually taking place is evidenced by the index numbers of the Department of Labor. A necessary element for sound economic conditions in the immediate future is to be the stabilization of the price level. The Strong bill has raised the needed issue, Are you for or against stable money? (Sec. X.)

Gentlemen, I thank you.

XII. QUESTIONS AND ANSWERS

Mr. STEVENSON. You refer to the inflations just before the elections, in 1922 and 1924, which by inference you, of course, state were brought about for political purposes, for election purposes. Who was responsible for those inflations?

Mr. SHIBLEY. Gentlemen, the data are before you to this extent: The index number shows the trend of the price level, and this price level is controlled by the Federal Reserve Board.

Mr. STEVENSON. Suppose we now go further and fix it so that they will have absolute carte blanche under the statute to go ahead and inflate or deflate, to set the price level as they see fit, you would commit it to the same fellows that inflated and deflated for that very same purpose.

Mr. SHIBLEY. That is what has come about under the existing system, and this bill proposes that the Federal reserve law shall definitely instruct them to maintain stability.

Mr. STEVENSON. It gives them a direction, but it is for their judgment to say what is a proper action to take for stability; and when it comes to the political feature of that action, it will be exercised by a majority of the views of the board.

Mr. SHIBLEY. Let me call your attention to this fact: Part of the mechanism is to use the index number of the Department of Labor, which will be in plain sight. That is a point which you haven't thought of.

Mr. STEVENSON. This bill does not say anything about using that.

Mr. SHIBLEY. That is implied. The Department of Labor is measuring the price level and its index number is being used by the Federal Reserve Board. The existence of this index number is generally known. It is in plain sight. It is similar to the steam gauge on a boiler. When you say to a stoker, "Keep it at a hundred," anybody can go and see what is being done. And so it will be with the Federal Reserve Board—the index number of all commodity prices will be published each week and the board will operate in the direction of stability; in fact during the past six months the board has stabilized the price level except that recently a policy of deflation has been started.

Mr. WILLIAMSON. So far as this particular bill is concerned, it neither adds to or takes from the power that the Federal Reserve Board already has. Of course, it gives them a direction.

Mr. SHIBLEY. Yes.

Mr. STRONG. And this bill says that they shall exercise that power to do a specific thing, that is, to bring about stability of the general price level.

Mr. WILLIAMSON. It is a direction only. You haven't any means of enforcing it.

Mr. STEVENSON. It is left under their judgment as to what action they shall take. If they have been formerly influenced by political considerations, they are liable to be influenced by political considerations again.

Mr. STRONG. Not if they have regard for the general price level, which they are directed to do.

Mr. WILLIAMSON. Could there not be a specific reference to the price level as a guide by which they could be controlled?

Mr. SHIBLEY. It says, "stability in the price level."

Mr. WILLIAMSON. It doesn't furnish any gauge.

Mr. STRONG. Do you say, Mr. Shibley, that the price level is measured and determined by the Department of Labor?

Mr. SHIBLEY. Yes.

Mr. STEVENSON. There you are. You are going back into the most political bunch in the United States—the Department of Labor.

Mr. WILLIAMSON. There is no gauge by which the Federal Reserve Board is bound.

Mr. STRONG. It has been said that they are recognizing the index number of the price level.

Mr. STEVENSON. You would not want the Department of Labor or any other department to do that. There is this suggestion: Two members of the Cabinet of the President, two direct representatives of the President, have been on that board which has inflated it at times when it was politically expedient to do it and which we might suppose will deflate in the same way. The question is whether we want to give them more power to inflate or deflate as the political exigencies arise.

Mr. LEATHERWOOD. This is a debate between members and not between the witnesses and the members.

Mr. SHIBLEY. Mr. Stevenson is entirely in error. At the present time the law as it is being construed by the Federal Reserve Board (as evidenced by their published statements) gives to the board the power to do anything they choose. They, by their actions, say that the law says, "We can do as we please; we can deflate or inflate!" In 1913 the Congress struck out from the administration bill a specific instruction to the Federal Reserve Board to operate in the direction of stability in the price level. In 1915 there came into this country a flood of gold from Europe and inflation resulted. Possibly it was all right in a hard-fought war. But now, for Heaven's sake, put in a specific instruction for stability in the price level, and thus place a limit on the existing unlimited power of the Federal Reserve Board.

Mr. FENN. You have read this chart? [Chart 2.]

Mr. SHIBLEY. Yes.

Mr. FENN. Now, let me ask you something. In looking at the chart you will see in the lower left-hand part of it that there was a singularly stable price level from 1908 until 1915.

Mr. SHIBLEY. Yes.

Mr. FENN. What made that price level so accurate? There was no reserve board at that time.

Mr. SHIBLEY. The world conditions had become such that the outflow of gold from the mines and the business of the world resulted in an even exchange.

Mr. FENN. That is your statement, but what is to prevent the country from returning to that price level automatically, if I may say that. Of course, a great war might come on which no price level could prevent in any way. But what is to prevent that return? What is the reason for this new legislation when you take into consideration the extremely even price level without any legislation of this kind from 1908 until 1915? What is to prevent the country from returning to it? I would like to find a reason for this bill more than a mere supposition.

Mr. SHIBLEY. Let me explain it to you. Here is the point——

Mr. FENN. Will you tell me why that price level was so very even for that period of seven years?

Mr. SHIBLEY. I have told you.

Mr. FENN. The country was in good shape. We went through the Roosevelt panic.

Mr. SHIBLEY. After the panic there was a depression.

Mr. FENN. You take this price level. It is singularly even. You could not under this law get a more even price level than that. What is the reason?

Mr. SHIBLEY. It shows that during 1908 to 1914 the output of gold and the development of commerce had just about equalized each other.

Mr. FENN. But it is tending, as Congressman Leatherwood has just suggested to me, to become stabilized automatically. What I would like to know is the reason for this legislation, taking into consideration the price level which the country seems to have fixed for itself.

Mr. SHIBLEY. The Federal reserve law was enacted in 1913 and it placed in the hands of the Federal Reserve Board the direct control of the price level. How are they discharging their duty to-day?

Mr. FENN. The law of supply and demand makes that.

Mr. SHIBLEY. It is the Federal Reserve Board that is controlling the price level by regulating the rediscount rate and the open-market operations of the 12 central banks, or is consenting to a tendency to deflation. Thus this board in place of operating in the direction of stability, as a whole, is working for the creditor class. The situation is such that Congress should instruct the board to work for stability, and take it out of politics by regulating neither for the creditors nor the debtors.

Mr. WILLIAMSON. By what means is the Federal Reserve Board now changing the price level? Is it done by fixing the discount rate?

Mr. SHIBLEY. It is done by fixing the discount rates at the 12 central banks, and it is done by the open-market operations of the 12 central banks, and it is done by other methods. The board has described them with considerable fullness in its 1923 report (p. 3).

Mr. WINGO. It seems to appear from the report to which attention is called that our changes toward instability have followed the enactment of the Federal reserve law and the action of the Federal Reserve Board. We have had more trouble since then than we had prior to that time, in the absence of that law. Isn't that true?

Mr. SHIBLEY. Certainly, that is true. That is my point.

Mr. WINGO. If, then, that is true, would it not be better to attempt to restrict the powers of the Federal Reserve Board in so far as they may be used improperly to affect the price level, and hold that board and the Federal reserve system within the lines that I think the Federal reserve act was intended to hold them in—to have a system of credit responsive automatically to the needs of commerce and industry and agriculture?

Mr. SHIBLEY. I wish to correct you as to one of your statements. You said that the Federal Reserve Board had acted improperly. That is not so for they now are left free to exercise their own will.

Mr. WINGO. I don't say that they have acted improperly, and I don't mean to ask you to say that they have. What I meant to ask you was, if it is true that the difficulties which you undertake to remedy—I am not committing myself on that point one way or the other; you may be right, but I have an idea about it—but is it not true that the difficulties which you seek to remedy have been accentuated and have occurred more often since the enactment of the Federal reserve law than was the case before that time?

Mr. SHIBLEY. Certainly, in recent years.

Mr. WINGO. That being true, instead of giving further power to the Federal Reserve Board and specific instructions to meddle with that very thing in which we have found trouble, would not it be better to undertake to limit that power and to hold the Federal reserve system within those lines that make the credit resources responsive to the normal economic demands of the country without artificial interference as far as possible?

Mr. SHIBLEY. There is artificial interference. The regulatory control is in that board.

Mr. WINGO. That is what I am talking about. Would this bill stop that? Would it cure that evil and eliminate that difficulty, or does it give them further power or at least a direction to exercise further the power they already have, out of which have grown the very difficulties that you talk about?

Mr. SHIBLEY. May I answer that?

Mr. WINGO. It occurs to me at the point that we have come to——

Mr. WILLIAMSON. Let him answer that.

Mr. SHIBLEY. The answer is this: At the present time the Congress of the United States, to whom is delegated the power and duty of providing for the regulation of the exchange value of money, has given the Federal Reserve Board the authority to do with it as they choose. The board has not acted improperly according to the law as they have construed it; the board has acted as it in its judgment has seen fit. This bill proposes that the Federal reserve law shall more definitely declare the policy which the Government commission shall apply, so that the commission shall no longer formulate its own policy. At present it may lawfully inflate or deflate. If the Congressman can propose a still more definitely stated policy——

Mr. WINGO. That brings us to this inquiry: You would not take any power from the Federal Reserve Board?

Mr. SHIBLEY. Yes; the power to do as it may choose.

Mr. WINGO. But you direct them as to the proposition which shall govern their actions——

Mr. SHIBLEY. Isn't that changing their power?

Mr. WINGO. When, under the exercise of that power heretofore, difficulties have resulted which you say is not due to any improper purpose on their part. So, I do not see where we need to act.

Mr. SHIBLEY. The question that is before the committee is to plan to place some limit on their power.

Mr. LUCE. In order that the statement may appear in the record somewhere near the matter to which it refers, I want to say at this point that your imputation of political motives on the part of the Federal Reserve Board would not be accepted by all the members of this committee; and that for one I wish to enter a specific and complete denial of the suggestion that in 1921 and 1922 or 1924 there was any political purpose on the part of the Federal Reserve Board. With the somewhat intimate knowledge of their course which all the members of this committee possess, I think I am justified in saying that the Democrats on the board acted in practical unanimity with the Republicans and that there was no political purpose in their course. While I sympathize with much that you have said and heartily indorse it, I should be very sorry to have the question confused by the introduction of a suggestion that the board had ever played politics.

Mr. STRONG. I agree with the statement of Mr. Luce.

Mr. FENN. I agree with it also.

Mr. SHIBLEY. I simply call atttention to the figures themselves as shown in the chart that is before you. The price level started upward in 1922 and kept going up, resulting in the stimulation of business which absorbed some of the unemployed by putting them to work during the campaign; and then the same thing commenced again in 1924 during the convention month.

Mr. STRONG. You are taking that coincidence as proof that the board, which is composed of both Democrats and Republicans——

Mr. SHIBLEY. The control was in that board. They did it.

Mr. STRONG. Do you suppose that the Democrats joined with the Republicans to help the Republicans in the election?

Mr. SHIBLEY. I don't care how they did it——

Mr. FENN. You make that charge and I think that it is entirely untenable.

Mr. SHIBLEY. I point to the facts.

Mr. FENN. That is a coincidence.

Mr. STRONG. You are simply pointing to a coincidence.

Mr. WINGO. I make a point of order. I believe, as I recall it, that lawyers are restrained by the court from impeaching their own witness. I think Brother Strong is doing that.

Mr. STRONG. I want to say that there are many statements made by Mr. Shibley that I would impeach if I were giving testimony.

Mr. WILLIAMSON. Let me make this inquiry here: Calling your attention to the inflation of prices, beginning with 1922: What methods did the Federal Reserve Board use in inflating those prices at that time?

Mr. SHIBLEY. The committee can inquire from the Federal Reserve Board and they will find out. I can not say.

Mr. WILLIAMSON. Was it done by decreasing the discount rate?

Mr. SHIBLEY. I can not say.

Mr. STRONG. Why do you make the statement?

Mr. SHIBLEY. Here is the fact——

Mr. STRONG. No, it is not a fact; it is a coincidence.

Mr. SHIBLEY. Then I will say that the prices rose by coincidence just at the time of the two elections.

Mr. STRONG. By the action of both Democrats and Republicans.

Mr. SHIBLEY. It was done by the Federal Reserve Board.

Mr. STRONG. It was the unanimous action of the Federal Reserve Board.

Mr. SHIBLEY. It makes no difference; it was done and that is a fact. The question before this committee is to give instructions for stability, that there shall be no politics in it, that there shall be stability rather than politics.

Mr. STRONG. You have brought politics into it at this hearing.

Mr. WINGO. I would like to ask some questions on the economic phase of it. Let us get away from politics. I would like to be permitted to ask several questions without interruption, Mr. Chairman.

The CHAIRMAN. Might I just ask him one question before you proceed and while he is on this one point?

Mr. WINGO. Certainly.

The CHAIRMAN. Mr. Shibley, what effect on the price level do the open-market transactions of the Federal Reserve Board have?

Mr. SHIBLEY. The open-market transactions, if they sell, restrict prices for commodities by taking money out of circulation. If they buy, it puts money into circulation. Thus the Federal Reserve Board can put money in and out of circulation by means of the open-market transactions at one or more of the 12 central banks at any time.

The CHAIRMAN. Are open-market transactions utilized to affect the rate of discount?

Mr. SHIBLEY. Yes; the Federal Reserve Board says so in its reports, but of course the board has a purpose in mind when it does so.

The CHAIRMAN. What other facilities do they utilize in stabilizing?

Mr. SHIBLEY. In the 1923 report of the Federal Reserve Board on page 3, they state very distinctly and clearly just how they operate. They have three methods, the rediscount rate, the open-market operations, and also they may in an emergency instruct the 12 central banks to use moral suasion on the member banks as to how they shall conduct their operations. Thus they have a very quick-acting and thoroughly efficient system of regulating the price level.

The CHAIRMAN. You say "they." Whom do you mean?

Mr. SHIBLEY. The Federal Reserve Board.

The CHAIRMAN. The Federal Reserve Board does that here in Washington?

Mr. SHIBLEY. Yes.

The CHAIRMAN. And the Federal reserve banks in New York and Chicago and Washington——

Mr. SHIBLEY. The reserve banks act on their own initiative, subject to the supervisory power in the board.

The CHAIRMAN. You interpret the law to the effect that the Federal reserve banks each has the right to fix its own discount rate?

Mr. SHIBLEY. To start with.

The CHAIRMAN. But not the final one?

Mr. SHIBLEY. Not the final one, for the law says:

Every Federal reserve bank shall have power * * * (d) To establish, from time to time, subject to review and determination of the Federal Reserve Board, a rate of discount.

And so forth. There also is a clause in the law stating that the open-market operations by the 12 reserve banks are under the regulations to be issued by the Federal Reserve Board. So, the operations of 12 reserve banks are under the control of the Federal Reserve Board.

Mr. WILLIAMSON. Mr. Shibley, let me ask you just one question before Mr. Wingo starts his series of questions. You have said that you think that politics have been involved in the inflation and deflation of prices. Let me call your attention to this: That at the time of the severe deflation which occurred in 1920 and partly in 1921, at that time the majority of the Federal Reserve Board was constituted of Democrats or was Democratic in character. Now, that tremendous deflation occurred during that period and during the Democratic administration and you say that it resulted in defeating the Democratic Congress and resulted in putting in a Republican Congress. You don't assume that the Democratic board caused that deflation for the purpose of defeating their own party?

Mr. SHIBLEY. I referred to 1922 and stated that it was the action of a creditor-class board.

Mr. WINGO. It would be interesting to know, while we are on the general question of the deflation of commodity prices, why the subsequent deflation of credit prices, is shown by another chart, which ought to accompany this chart, as a deflation of commodity prices and not a deflation of credit.

Mr. SHIBLEY. The credit acts on the commodity prices

Mr. WINGO. I want to ask right there—have you seen the chart prepared for a Member of the Senate by the Federal Reserve Board some six years ago, which is a chart showing the volume of credits? It was the contention of the board and the point that they made, that the deflation of credits followed the fall of the price level and not that the fall in the price level flowed from the deflation of the credits.

Mr. SHIBLEY. That was undoubtedly the case in 1920 after the avalanche had been precipitated.

Mr. WINGO. I have asked you, is that a fact or not?

Mr. SHIBLEY. I suppose it is a fact, as you say.

Mr. WINGO. Then, your first statement a while ago was incorrect?

Mr. SHIBLEY. No. it was not.

Mr. WINGO. At the proper time I am going to put that chart in the record.

Mr. SHIBLEY. May I answer your question?

Mr. WINGO. Does credit control prices or do prices control the volume of credit?

Mr. SHIBLEY. Let me answer that, please. History shows that whenever the price level drops and business men know that it is going down, then down go the prices quickly; and next, of course, there

follows the deflation of credits. In 1919 the per capita circulation of money fell 4 per cent in one month, January. Why? Because the business men said, "There is going to be a depression and we don't want your money!"

Mr. WINGO. The Federal Reserve Board was criticised at the time for an increase in the credits, at the time when there was a deflation of 4 per cent in the per capita circulation.

Mr. SHIBLEY. In January, 1919?

Mr. WINGO. I don't recall the month. I think you are right—January. It was during the time when the commodity price level was falling down. The Federal Reserve Board was permitting, as one Member of the House charged at the time, an inflation of credits.

Mr. SHIBLEY. The point is just simply this: The business men broke it down. They anticipated that prices were going to fall.

Mr. WINGO. That shows you that you will never reach an agreement on that question. There are two theories. I want to ask several questions, if I may, without interruption, Mr. Shibley.

Do you claim in your statement of some years ago before this committee that you got the provision placed in the first bill in 1913, which carried the language which is in this bill?

Mr. SHIBLEY. The substance of this language——

Mr. WINGO. As a matter of fact, did not the original print in the first copy of the Federal reserve act, as presented to this committee by Mr. Glass, carry the identical language, maybe with the words "with a view to promoting a stable price level?"

Mr. SHIBLEY. Yes.

Mr. WINGO. You claim that you are responsible for getting that in there?

Mr. SHIBLEY. Yes.

Mr. WINGO. What was the fight that caused that to go out? What were the two contending theories at that time?

Mr. SHIBLEY. Permit me to answer your first question first. As to my relation with that clause in the bill, it was while the administration was considering it preparatory to its introduction that my advice was asked by Senator Owen, chairman of the Senate Committee on Banking and Currency. I pointed to the need for a definite instruction to the Government commission, the Federal Reserve Board, as to the direction at which its chief aim should be directed, namely—

with a view to accommodating the commerce of the country and promoting a stable price level.

The price level was being measured and by instructing to promote stability in that index number of all-commodity prices the ideal instruction in the law would be stated. The Senator understood the situation and he said, "Shibley, I believe that is right," and he took it to the President and his advisers and they O. K'd it, and Congressman Glass, the chairman of the House Committee on Banking and Currency, O. K'd it, and it was placed in the bill, and two identical bills were introduced in the two houses.

Mr. WINGO. Didn't that appear in the draft of the bill that was drawn before President Wilson had ever been inaugurated?

Mr. SHIBLEY. No.

Mr. WINGO. Are you sure?

Mr. SHIBLEY. I am certain.

Mr. WINGO. Well, anyhow that is an immaterial proposition. In other words, that was stricken out and the language was made that they should undertake to influence the rediscount rate with a view to accommodating business?

Mr. SHIBLEY. Commerce and business.

Mr. WINGO. With a view to accommodating commerce and business. Those are general terms. The general idea was to accommodate business and the credit demands of business in general. You belong to one school and they said that the Federal reserve banks should be established and that they should have the power to control business and fix prices and the price level, and the other school contended that the Federal reserve system should be set up for the purpose of accommodating and serving the credit merchants and that the law of supply and demand should have free play and that each individual credit merchant—a member banker—should be permitted to continue as he had done before, to exercise his judgment in his local credit market. Those were the two contending schools?

Mr. SHIBLEY. No, you have not stated it quite correctly, in my judgment. Here is the point: That the control of the price level, the regulation of the quantity of money and bank credit, is always in some established institution in every country. It is not left open.

Mr. WINGO. I beg your pardon. You are begging the question. I am asking you if at the time that this language was stricken out of the original bill in 1913, there were not two viewpoints contending for adoption here at this table. One of them—and you belong to that school—thought that we ought to give them the power to control the price level, and the other school said, "No. We are not setting up a controlling board here to parcel out credit and act as a master of the credit merchants and tell them what they should do, but we are setting up a system for the benefit and service to accommodate them and we want to accommodate business so that there could not be a congestion and artificial control of credits." That is the thing that we were trying to remedy and eradicate. The purpose of this system was to accommodate business. Was not that the reason?

Mr. STRONG. You gave the Federal Reserve Board the power to regulate discounts.

Mr. WINGO. Certainly, but for the purpose of accommodating business. The expressions "accommodating business" and "controlling the price level" are contradictory terms and they were then so regarded. As the record shows, at that time there were two schools of economists who fought each other's viewpoint?

Mr. SHIBLEY. May I answer that without interruption? That question came up for debate in the Senate hearings; the first public hearings on this Federal reserve bill was in the Senate after it had passed the House. There came before that committee a delegation from the bankers' conference of Chicago. The bankers had held a nation-wide conference and they sent this delegation to appear before the Senate committee to state their views.

They insisted that one half of the members of the Federal Reserve Board should be named by the bankers. At that point Senator Shafroth said to one of the bankers:

Is it fair that on that board which is to control the policy as to the interest rate on money there shall be representatives of the banker? (Vol. 1. p. 41.)

Then I went out and brought to the Senator an excerpt from a book printed in England, Bagehot's "Lombard Street," describing the English system and just what it is, and Senator Shafroth read it to them (pp. 64, 130, 135 of hearings), and it undoubtedly refuted them and they had to admit that the British system is this: The Bank of England controls the discount rate and the board is composed wholly of big merchants, men who are interested in business. They do not permit on the board a banker who deals in checks. The bankers at the Senate hearing had to admit it and then they ceased pressing their request that the Federal Reserve Board should have on it three representatives of the bankers.

Mr. WINGO. If you will permit me, that is all very interesting, but that is subsequent to what I asked you about. That was after we had wrestled here for months in this room and after the House had debated for some time and the Federal Reserve Board bill, after it passed the House, got over to the Senate.

What I am asking you about is whether or not months before the controversy that you are talking about by Senator Owen and his group in the Senate were holding these hearings, there was conflict here in the House committee and didn't those who insisted that instead of setting up a governmental socialistic control of credits and undertaking to fix the price level of potatoes, corn, cotton, wheat——

Mr. SHIBLEY. Which one do you refer to?

Mr. WINGO. To the price of commodities generally.

Mr. SHIBLEY. Not the individual prices, but the price level?

Mr. WINGO. They are the same thing.

Mr. SHIBLEY. No; no!

Mr. WINGO. We will not quibble about the terms. Those who opposed the bill finally won out and they struck that out of the bill. They set the system up for the service of the business of the country.

Mr. STRONG. You gave the Federal Reserve Board the right to regulate discounts?

Mr. WINGO. Certainly. Every bank regulates discounts, but we gave it to them for the purpose of accommodating and not controlling business.

Mr. SHIBLEY. Permit me to answer that, please. I call your attention to this fact: how have they controlled it—they have put the price level down and up.

Mr. WINGO. I am going to get to that.

Mr. SHIBLEY. They have done that in the interest of the creditor class.

Mr. BEEDY. Will the Doctor answer that question yes or no? There were two contentions at that hearing?

Mr. SHIBLEY. Yes, two contentions, and I will answer it this way: When one school of thought stated that the regulation of the quantity of currency and credit (the exchange value of money) should be in the individual bankers it was an argument to continue the then-existing system in this country, as distinguished from the proposed Federal reserve system with its Government supervision, for a unified control of the quantity of the people's money and bank credit. The Federal Reserve Board, a Government commission, was proposed as the unifying agency for the regulation of the monetary and banking system.

In opposition there were those who had stood for the Aldrich Plan, whereby representatives of the bankers in a central bank would control the interest rate on money.

Mr. WINGO. Was that the proposition——

Mr. SHIBLEY. May I answer your question, please?

Mr. WINGO. My question?

Mr. SHIBLEY. I am answering your question.

Mr. WINGO. I don't believe you are getting anywhere except to take up time. You can tell us whether or not that was the proposition that was considered by this committee. I was a member of it and I have a very lively recollection and I spent considerable time reading over my notes and refreshing my recollection.

I have a very interesting article which says what one group said about that proposition, which is the very theory that you are advancing here, that we should not have arbitrary control by a governmental agency; said that they were opposed to it unless they could have a central control. They said they wanted one bank, one central bank, to maintain the price level and control business.

Mr. SHIBLEY. Not to control business; to control the price level.

Mr. STRONG. You are taking all the time to talk about past history.

Mr. WINGO. He brought this up.

Mr. STRONG. I am directing my remarks to Mr. Shibley.

Mr. WINGO. You said in your previous statement, Mr. Shibley, that the Federal Reserve Board controls the purchasing power of gold and has done so for six years.

Mr. SHIBLEY. Yes.

Mr. WINGO. You say they have done that. How have they done it?

Mr. SHIBLEY. Through the exercise of this provision of the law which states that the Federal Reserve Board shall determine, and thereby control, the rediscount rate. There is another provision of law which states that the board shall determine the open-market operations of the 12 central banks. There is a third way, by bringing influence to bear on the bankers.

Mr. WINGO. But those are the two major ways—through fixing the rediscount rate and through open-market operations? Has the purchasing power of gold ever run counter to the theory that it is dependent upon the rediscount rate? For illustration, how would they control the rediscount rate if they wanted to decrease the purchasing power of gold?

Mr. SHIBLEY. When conditions are normal the rediscount rate is operative, but if there is a panic the rediscount rate can not become operative.

Mr. WINGO. You did not get my question. I want to know the specific action that they would take if they want to decrease the purchasing power of gold. What would the banks do to the rediscount rate?

Mr. SHIBLEY. Simply provide such means——

Mr. WINGO. Would they raise it or lower it?

Mr. SHIBLEY. They would make such an arrangement as would bring about a rising price level for commodities, whatever those conditions might be.

Mr. WINGO. I am talking about fixing the rediscount rate.

Mr. STEVENSON. That would increase the purchasing power of gold?

Mr. WINGO. I am perfectly willing to have him make an explanation, but my question was a very specific one. If they wanted to decrease the purchasing power of gold, would they raise the rate or lower it?

Mr. SHIBLEY. My dear Congressman, I prefer to word it, that under normal conditions the Federal Reserve Board raises the discount rate and lowers the price level. At other times the board lowers the discount rate and raises the price level.

Mr. WINGO. You say that under some conditions it will work one way and at other times that it will work the opposite way?

Mr. SHIBLEY. Not under normal conditions.

Mr. WINGO. You have said that under normal conditions it will work sometimes one way and sometimes a different way.

Mr. SHIBLEY. You misunderstood me.

Mr. WINGO. I beg your pardon.

Mr. SHIBLEY. I said that in normal times when they wish to lower the price level for commodities the discount rate must be high enough to drive it down, and when they wish to raise the price level the discount rate must be low enough to help it up. Conditions must be such as——

Mr. WINGO. I will take it one at a time. If they want to decrease the purchasing power of gold, do they raise or lower the rediscount rate in normal times?

Mr. SHIBLEY. If they wish to do what?

Mr. WINGO. If they want to affect the purchasing power of gold adversely, to decrease it, do they raise or lower the rediscount rate?

Mr. SHIBLEY. If they wish to raise the price level?

Mr. WINGO. If they wish to decrease the purchasing power of gold.

Mr. SHIBLEY. The purchasing power of gold is registered in the price level and I reduce it to terms of price—prices for commodities at wholesale.

Mr. WINGO. You have made that statement—I ask you if you did not make the further statement, that the Federal Reserve Board has controlled the purchasing power of gold and done it for six years? I am asking you now to consider the purchasing power of gold and I am talking about this phase now: We have got down to this point: If there are three methods that they have—one is the open market proposition, another is the rediscount rate, and the other is moral suasion on the banks—I am going to take up each one so as to have a detailed picture of these methods and then I am going to ask you what has been done.

Now, it is true that if they want to increase the purchasing power of gold, then, so far as the rediscount rate is concerned, they raise it? Is that true? I mean in normal times.

Mr. SHIBLEY. I will transmute that to the term "price level." I use that method. If they want to force down the price level for commodities they raise the interest rate; and if they want to put the price level up, they lower the interest rate.

Mr. STEVENSON. If you increase the price of cotton, you decrease the power of gold, don't you, because it takes more gold to buy a pound of cotton if you raise the price than if you lower it?

Mr. SHIBLEY. I am not speaking about individual prices.

Mr. STEVENSON. I mean all prices. That was just an example.

Mr. WINGO. Whatever way they do it, isn't it true that there have been times when the purchasing power of gold declined following a reduction of the rediscount rate and under practically the same general business conditions in America during the last six years the reverse took place at another time?

Mr. SHIBLEY. The point is right here——

Mr. WINGO. That either happened or not. Do you know whether it did?

Mr. SHIBLEY. The Federal Reserve Board controls it.

Mr. WINGO. Please stick to my question. That is either a fact or it is not a fact.

Mr. SHIBLEY. It is not a fact.

Mr. WINGO. Of course, the records will show the statistics of the board and the Labor Department.

Now, every time that they have used the open-market operations there have not been any contradictory results? In other words, that is the major control, the open-market operations?

Mr. SHIBLEY. I believe not, Mr. Wingo.

Mr. WINGO. Can you show one single time where the Federal reserve banks went into the open market and there was any contradictory action? In other words, during the past six years has not the result when they went out and sold bills always been the same and the result when they went in and bought bills always been the same?

Mr. SHIBLEY. I suppose so.

Mr. WINGO. In other words, the only absolutely sure way to automatically and instantaneously affect the purchasing power of gold during the past six years has been the open-market operations of the Federal reserve banks?

Mr. SHIBLEY. I could not say.

Mr. WINGO. Isn't that true?

Mr. SHIBLEY. No.

Mr. WINGO. Hasn't that been the only constant result which has followed their operations during the past six years? The control of the rediscount rate has had contradictory results. The falling off of business on the reduction of the rediscount rate did not automatically retire the Federal reserve notes, as it is supposed to do; but every time that the Federal reserve banks have gone into the open market they instantaneously got the result? Didn't they get the result within one day's time when they went into the market with their fifty-five millions to cover fifty millions that had been withdrawn that day on call loans to meet withdrawals by banks out in the country? Didn't the result come within one day?

Mr. SHIBLEY. You admit that the Federal reserve banks do control the interest rate on money.

Mr. WINGO. I am not talking about whether it is right or wrong. I am asking you whether that actually took place. Have not the results of experience in the last six years been constant enough so that we can deduce from them a rule that will operate permanently?

The CHAIRMAN. Might I suggest that it is nearly 12.30?

Mr. BEEDY. Doctor, will you please answer that question?

Mr. SHIBLEY. I will say that when they put their $55,000,000 of money in the market for the purchase of securities they got immediate results.

Mr. CHAIRMAN. I suggest that we recess now until 2.30.

(Thereupon, at 12.30 o'clock p. m., the committee took a recess until 2.30 p. m.)

AFTER RECESS

The committee resumed its session at 2.30 o'clock p. m., at the expiration of the recess.

The CHAIRMAN. The committee will come to order. We will resume the hearings on H. R. 7895.

STATEMENT OF GEORGE SHIBLEY—Continued

Mr. WINGO. Mr. Shibley, my attention has been directed to the fact that possibly one of my questions this morning was reversed, and in order to straighten it out I will repeat the question.

In theory, now, assuming that all of the other factors remain constant, if you want to decrease the purchasing power of gold you will decrease the discount rate. That is the theory, is it?

Mr. SHIBLEY. In order to think of that in a direct manner I translate it into terms of price.

Mr. WINGO. All right. If you want to increase the price of commodities, you decrease the discount rate?

Mr. SHIBLEY. If I wish to increase the price level.

Mr. WINGO. I mean the price level.

Mr. SHIBLEY. Yes, sir.

Mr. WINGO. That is the abstract theory?

Mr. SHIBLEY. You are correct.

Mr. WINGO. Some one said this morning that I got it reversed.

Now let us get back to where we were. I think we can agree that the most important factor of those three is the open-market operation; that experience has shown that the most instant and direct effect of any of these operations has flowed with more certainty, and with constant repetition, from a change in the open-market operations, than it has either from the discount rate or the "moral suasion" upon the bank.

Mr. SHIBLEY. I presume so.

Mr. WINGO. Now, you speak about a stable price level. Just what do you mean by a stable price level?

Mr. SHIBLEY. The all-commodity index number as measured by the Department of Labor in its statistical bureau consists of 104 articles, and for the base they take the year 1913, which is 100. Then each month they measure again, and then, as it stands, they give it a number to show whether it is up or down from the preceding month.

Mr. WINGO. In other words, you mean the average of the price of these 404 commodities?

Mr. SHIBLEY. Yes; properly weighted.

Mr. WINGO. Suppose there was an abnormal production of wheat in one year, and a surplus of wheat, and at the same time there was an abnormal underproduction of cotton, or a shortage of cotton, and that the effect upon the law of supply and demand was negligible

because the shortage of one was counterbalanced by the surplus of the other; then under your theory, the Federal Reserve Board would not have to do anything, because the average level would remain the same?

Mr. SHIBLEY. That is correct.

Mr. WINGO. So there would be no action by the Federal Reserve Board, either antagonistic or favorable, that would help the depressed commodity or check the advantage of an increased price of the short commodity?

Mr. SHIBLEY. That is my understanding.

Mr. WINGO. Now, if you had then a stable price level, as you contemplate, that would not mean a relatively uniform price for the various commodities?

Mr. SHIBLEY. No; it would not.

Mr. WINGO. For illustration, all commodities might be 200, as measured by the 1913 level; all commodities except wheat might be 200, and wheat would be down to 65. You would have a stable price level there, would you not, but it would not be a uniform level?

Mr. SHIBLEY. That is correct.

Mr. WINGO. The wheat grower would still be distressed, even though he had a stable price level. So is it not more important, and are not most of the economic distresses and displacements of industry produced by lack of a relatively uniform level than one of stability?

Mr. SHIBLEY. If the price of wheat drops to 65, it is because of supply and demand.

Mr. WINGO. All right. Now, suppose that the price of wheat and the prices of all of the 404 commodities gradually and automatically march side by side, with a sudden rise of 60 points all the way along; the effect on the country would be nil, would it not, according to your theory in relation to industrial prosperity?

Mr. SHIBLEY. Oh, no indeed.

Mr. WINGO. You deny that. Now, why would it not be? Let us see.

Mr. SHIBLEY. A rising price level has various effects. It stimulates business; it overstimulates, usually. The business man is not able to forcast, to make contracts.

Mr. WINGO. Now, why did not that rule work at one time in 1923, and also in 1924?

Mr. SHIBLEY. I wish you would explain your meaning.

Mr. WINGO. You say that a rising price level produces what?

Mr. SHIBLEY. A rising price level stimulates business.

Mr. WINGO. Now, it is not a fact that with a rising price level in 1923 there was a sudden depression in business for about two months, and the same thing happened in 1924?

Mr. SHIBLEY. I am glad you asked that question.

Mr. WINGO. Now, what was the reason for that exception to the rule? There are always exceptions to every rule, they say. What was the occasion for the exception in that year?

Mr. SHIBLEY. I am glad you asked that question. The rising price level of 1912 did stimulate business, but the farmers' prices at that time dropped to such an extent that they lost one-sixth of the average price of farm commodities as compared with the business men's prices which were shoved up. The farmers could not shove

up their prices—their prices actually fell; and the differences between the two groups was such that the farmers lost one-sixth of the whole average price of their commodities in a few months in 1922.

Mr. WINGO. Due to the decrease in purchasing power?

Mr. SHIBLEY. Yes, sir, decrease in relative purchasing power, as compared with the business men's prices.

Mr. WINGO. So that, as a matter of fact, you did have a situation where the price level was stable——

Mr. SHIBLEY (interposing). Oh, the price level went up.

Mr. WINGO. Well, it went up; and yet you had one great commodity that was out of line, that was not uniform with the level; you decreased the purchasing power of that group of consumers, as well as of producers, and yet you say the effect was not bad?

Mr. SHIBLEY. I say the effect was bad on the farers; but it was due to action by the organized business interests.

Mr. WINGO. Now, will your proposal here, this stump speech of directions to the Federal Reserve Board—I am not speaking disrespectfully; I am just using a blunt expression—do you think it will check these business interests?

Mr. SHIBLEY. Certainly not.

Mr. WINGO. If you write these words into the law, will not those same business interests act with the same inherent selfishness with which all of us would act if the same set of circumstances should arise again?

Mr. SHIBLEY. I have stated that the idea is that this bill of Mr. Strong when enacted into law will result in the stabilization of the price level. I also am going before a House or Senate committee with a bill to provite for self-regulation by the business interests, subject to Government supervision; and a similar bill for cooperative marketing by the farmers.

Mr. WINGO. How do you propose to regulate them? In other words, you admit that this proposal would be ineffective of itself, and that you have got to have supplementary legislation of another kind in order to maintain a stable price level; that the board could not maintain a stable price level with this authorization, but that you have got to have something from the Agricultural Committee to join with it. Now, just what would be its general terms?

Mr. SHIBLEY. Excuse me, Congressman; I think you are mistaken in saying that a stable price level can not be maintained. I say, maintain a stable price level, and then, with a stable average of prices for commodities you can begin to handle the other remedies concerning prices and get results. But if you attempt to remedy the other matters as to price, and leace the price level so that it goes up or doyn, you can not get any real relief for the farmers, in my judgment.

Mr. WINGO. What do you understand the word "level" means? What is the legal as well as the dictionary definition of the word "level?"

Mr. SHIBLEY. That it continues at about whatever the index number may be; if it is 100, it will continue at about 100.

Mr. WINGO. "Level" means along on an even line, does it not, to use a homely expression? It means running along on the same space, in an even line, does it not?

Mr. SHIBLEY. Yes.

Mr. WINGO. And "stable" means what—fixed?

Mr. SHIBLEY. No.

Mr. WINGO. What does "stable" mean?

Mr. SHIBLEY. We say, promote stability.

Mr. WINGO. I am talking about "stable" now. "Stable" means fixed, does it not; without much fluctuation or change?

Mr. SHIBLEY. It means on a practically constant level.

Mr. WINGO. It means constancy?

Mr. SHIBLEY. Yes.

Mr. WINGO. Without change; without violent fluctuation?

Mr. SHIBLEY. You are correct.

Mr. WINGO. Then, if you want to have a stable price level, you will have one that runs along on an even line, without much fluctuation, but with constancy?

Mr. SHIBLEY. Yes.

Mr. WINGO. Now, who is going to say where you shall place that line; the board? Or are you going to have an agricultural bill that will designate a group of farmers to fix the level?

Mr. SHIBLEY. As stated in the bill, it directs them to begin wherever they may be at that time.

Mr. WINGO. In other words, you propose to place the level at the average price of commodities at the time the act goes into effect?

Mr. SHIBLEY. Yes. My preference is 162.

Mr. WINGO. Now, even though you did not call it that, that would have the effect of pegging prices at what they were on the day your bill went into effect?

Mr. SHIBLEY. Will you explain what you mean by "pegging prices"?

Mr. WINGO. It means to fix them right there; keep them there.

Mr. SHIBLEY. You mean individual prices?

Mr. WINGO. The average price.

Mr. SHIBLEY. That is what I am getting at. Yes; certainly, the average height of prices.

Mr. WINGO. So you would not prevent fluctuations within the 404?

Mr. SHIBLEY. No.

Mr. WINGO. There might be distress among the wheat growers and affluence among the cotton growers, or just the reverse, but as long as it all averaged up—the distress of one and the extravagant expenditures and the extraordinarily prosperous conditions of the others, which would lead them to extravagance—that would not affect the public welfare at all? You would just let that run on?

Mr. SHIBLEY. I do not say that. What I say is this: That there would be kept a stable average, and then if one commodity goes down it is due to supply and demand or some combination. That has to be handled by itself.

Mr. WINGO. Certainly; and is not that the thing you are getting at—telling the board to do it? Now, how are you going to have the board do it?

Mr. SHIBLEY. To do what?

Mr. WINGO. To do just what you have been proposing.

Mr. SHIBLEY. I am simply recommending that this bill should be enacted into law.

Mr. WINGO. All right. After this bill is enacted into law, how is the board going to carry out the direction? What are the minute details of the practical operation and the machinery that they would employ?

Mr. SHIBLEY. The index number which they have been using right along, of the Department of Labor's statistical bureau, will be before them, and the law would instruct them to keep that index number of all-commodity prices at a practically stable figure. It will be similar to where directions are given to a man who is stoking a furnace; you tell him to keep his steam at 100, and anybody can come in and look at the steam gauge and see what it registers. And a similar situation will exist as to the index number of all-commodity prices, for it will be known by the public at all times, and if the law is enacted it will be obeyed.

Mr. WINGO. You think that if the steam is kept at 100 that would be consolation and salvation to the man that might be washed overboard by a storm that struck the decks, or if the hull was rammed? If the steam were kept normal on the ship—that is, if the steam register were at an average level, just so it was stable, the welfare of the ship and its cargo would be all right?

Mr. SHIBLEY. That simile is not in line.

Mr. GOLDSBOROUGH. You are not undertaking to cure all economic ills by this legislation? That is your answer, is it not?

Mr. SHIBLEY. Thank you, Mr. Goldsborough. That states it correctly. It is not intended as a panacea.

Mr. WINGO. I beg your pardon. I thought you said that the trouble with the country, economically, was that we had a fluctuating price level, that the purchasing power of gold fluctuated violently and disturbed people, and I thought that was one thing that we had told the farmer was the trouble; that we had violent fluctuations; that here are these manufacturers—and I am not making a partisan argument—our Republican friends from the Wheat Belt say, "Your manufacturer can cut down his production when he sees that the demand has decreased, but the poor farmer has put his crop in the ground and he can not curtail it." Then another thing: There may be an extraordinary season which may give him a surplus production, and the hail, the storms, the droughts and the floods may come, and he will have a shortage. He can not control that; and I thought the object was to remove this economic distress that comes from a lack of balance, and I thought the sacred magic and panacea for all that was to have a stable price level by Government ukase. I want to know who are going to be the mechanics to bring about this great salvation.

Mr. SHIBLEY. I am glad you have the correct idea about the price level.

Mr. WINGO. What is going to be the operation of the Federal Reserve Board in carrying out these directions?

The CHAIRMAN. Mr. Shibley, in connection with your answer to that question, are you familiar with the plan of operation by the Federal Reserve Board in handling the discount rate?

Mr. SHIBLEY. I went to their offices and was told by the statistician that each week he goes before the board and reports to them the situation in production and the various matters that interest them.

The CHAIRMAN. And makes a definite recommendation?

Mr. SHIBLEY. No; he states the facts.

Mr. WINGO. I was coming to that, Mr. Chairman. After he had answered my question, I was going to ask him to point out one single thing that he suggested that the board was not already doing. But, go ahead.

The CHAIRMAN. I beg your pardon for interrupting you.

Mr. WINGO. That is what I was going to do. In other words, I was going to ask him to define what it is that this statute is going to do. If they are already doing the very things that we expect them to do, what good is this bill going to do?

Mr. SHIBLEY. Permit me to correct that statement, when you say they are doing all we expect them to do.

Mr. WINGO. All right. Tell me some of the things that this bill, if enacted, would cause them to do that they are not now doing. Tell me some of the things that the impelling force of this authority would cause them to do that they are not doing now.

Mr. SHIBLEY. The statistician of the Federal Reserve Board goes before the board and describes to them various things that are taking place throughout the country, but the determining of a policy in fixing the rediscount rate and other operations is for the board in executive session. Now, when the Board comes to determine a policy, as the law stands at present they have absolute power to do as they will. The present direction in the statute says, "to accommodate commerce and business." It is so general that history shows that for the past six years, at least, the Government commission has put the price level up or down as it might decide should be proper.

The CHAIRMAN. Mr. Shibley, right there, is that the sole controlling argument on which they base their decision, or are there other controlling influences that enter into the conference that you speak of, after they have had the statistician's report? What other influence, in other words, is given to them which tends to make a decision on the question of rates?

Mr. SHIBLEY. Well, the board members themselves have their attitude of mind as to what should be the general policy of the Federal Reserve Board, but this bill gives them an instruction to work toward stability and not toward fluctuation, up or down.

The CHAIRMAN. Is the question of the amount of Federal reserve notes outstanding, or the amount of rediscounts of the reserve banks, or the amount of reserves, one of the controlling features that enter into that final decision by the Federal Reserve Board?

Mr. SHIBLEY. Not a controlling feature at present, for this reason: This country has such a large quantity of gold that the Federal Reserve Board is free to do as it chooses—to put up or down the quantity of currency and credits; because the board is not limited by a solid wall beyond which it can not go in the expansion of credit. The board has a free field up and down. And so, as is stated in a book by Doctor Beckhart published in 1924 on "The Credit Policy of the Federal reserve system," the existing gold supply in this country is so large that the only available gauge for the Federal Reserve Board to use is the index number of the price

level, which should be kept stable. And this morning in my statement I placed before this committee a quotation by the economist of the New York Federal Reserve Bank in advocacy of stability in the price level.

The CHAIRMAN. Mr. Shibley, in that connection, does the price of stocks have anything to do in the minds of the members of the Federal Reserve Board, in your judgment, in determining the discount rate? In other words, would a speculative condition, evidencing large concentration of loans for stock exchange purposes, influence them in determining the discount rate?

Mr. SHIBLEY. Oh, that is a separate matter. It might, yes; most assuredly.

The CHAIRMAN. Then there are a good many influences that may get into the minds of the various members of the board that would affect the discount rate?

Mr. SHIBLEY. Exactly; and this bill proposes that the Federal reserve law shall instruct the Government commission, the Federal Reserve Board, to take as their chief aim stability in the price level, which means stability in the value of money. As I have stated, the Federal Reserve Board in recent years has put the price level up 15 per cent in 1922–23 and then down 9 per cent. [Chart 2.]

Mr. STEVENSON. I want to ask you a question right here, and it is fundamental with me. Would not this amendment to the act be equivalent to striking out the word "accommodating" where it says "which shall be made with a view to accommodating commerce and business" and inserting the word "controlling"? Is not that what it would amount to? In other words, the Federal Reserve Board now has the power and the direction of Congress to accommodate the seasonal business needs of the banks and of the business of the country for discounts, for credit, and they are to accommodate them. Now you propose instead of that to require them to control?

Mr. SHIBLEY. No, indeed.

Mr. STEVENSON. Is not that what will happen?

Mr. SHIBLEY. No, indeed. When it says that the price level for commodities shall be kept stable, it means that the Federal reserve system shall supply all the credit and cash that is necessary to maintain this stability.

Mr. STEVENSON. Yes; but if the price level begins to hop away up they are required to prevent the price level from going exceedingly high as well as from going exceedingly low, and they would have to control by contracting credits in order to do that. It is a direction to them to control business, it seems to me.

Mr. SHIBLEY. Because I did not have an opportunity to put forth my objection to the decision stated by Mr. Stevenson nor have an opportunity to complete answer to the main question I wish to state as follows:

The wording in the Strong bill to which Mr. Stevenson refers is that the discount rate at the Federal reserve banks—

> shall be made with a view to accommodating commerce and promoting a stable price level for commodities in general. All of the powers of the Federal reserve system shall be used for promoting stability in the price level.

The meaning of these words is that the quantity of currency and bank credit shall thenceforth be elastic, with a view to accommo-

dating commerce and business, without deflation or inflation, as evidenced by the index number of the price level.

This fuller statement or something like it should be placed in an enlarged bill by Mr. Strong to avoid misunderstanding.

Mr. STEVENSON. Now let me ask you this——

Mr. WINGO (interposing). Before you get away from that, let me ask this question: Do you not know that if we had a bumper wheat crop and a bumper cotton crop, and at the same time there was an extraordinary revival of consumptive demand, so that both the wheat growers and the cotton growers sold that bumper crop at a big price, that that would, judged by past experience, increase the purchasing power of those two great groups, the wheat growers and the cotton growers, and they would come in and enhance the great demand for manufactured goods; and do you not know that that enhanced demand for manufactured goods, with the dealers' shelves cleaned out, would force the price up automatically? Would you want to check that rising tide of prosperity by saying, "No; you are going to disturb the price level; we have got to hold this price down; we must hold down the manufactured goods; we must not permit them to go up by reason of the operation of this law of supply and demand; we must check the operation of the law of supply and demand, and we must maintain this price level." Do you not know that if you did that you would check the very prosperity that you ought to foster, and which the original purpose was to accommodate and foster?

Mr. SHIBLEY. Congressman, you are mistaken.

Mr. WINGO. I hope I am.

Mr. SHIBLEY. For this reason: The manufactured products can be multiplied indefinitely; and the point is that the prices of manufactured products should be maintained at a fairly stable rate and be multiplied at that rate, and not that their prices should be put up and down.

Mr. WINGO. In other words, you think that the unfilled orders of the steel mills are not a correct barometer of business? You think that the steel mills of the country are foolish whenever they reduce their prices to encourage business when their unfilled orders decline?

Mr. SHIBLEY. We have nothing to say about that; we are speaking about the price level.

Mr. WINGO. Do you not know that if their unfilled orders increase, following the law of supply and demand, the natural, enlightened, justified selfishness of people is such that where they think they can sell a greater volume at a greater price they both produce the greater volume and put up the price; and you think that ought to be checked? You think it is a part of the function of the Government, through a Government board, to check that and to put the business and industry of this country in a strait-jacket so as to hold it on an even keel?

Mr. SHIBLEY. In every country it is done.

Mr. WINGO. What other country that is worth living in, outside of this one?

Mr. SHIBLEY. The Bank of England——

Mr. FENN. Oh, the Bank of England.

Mr. SHIBLEY. The Bank of England controls the rediscount rate and the price level.

Mr. FENN. That is not here.

Mr. SHIBLEY. And France——

Mr. FENN (interposing). France is bankrupt; you know that.

Mr. SHIBLEY. I am saying that every country——

Mr. FENN (interposing). Tell us something that has some sense in it.

Mr. STEVENSON (interposing). I want to come to a concrete illustration of the proposition here. Suppose everything except wheat is on a rising price; that it rises during the current year; that there is an extraordinary crop of wheat, and that there is an extraordinary one in Canada and Argentina and Australia and in all the other great wheat-producing countries, and it goes down to 65, but the rise in the other commodities maintains the price level at 162, notwithstanding wheat is down to 65. Now, this bill would provide that they have got to stand in their tracks and maintain it just that way, although the one great commodity that is suffering, that is faced with bankruptcy, needs special provision made for it. Now, you absolutely tie the hands of the Federal Reserve Board from making special provision for the one suffering industry that is threatened with bankruptcy, because the level is 162 and they must maintain it on account of the rise in prices of everything else.

That may be an extreme illustration, but it illustrates the principle upon which you are going. Is not that so?

Mr. SHIBLEY. Let me separate what you have stated into two propositions.

Mr. STEVENSON. All right; as many as you please, but let me have the answer.

Mr. SHIBLEY. The Federal Reserve Board has almost unlimited power to help an industry if it can do so and still maintain the stable price level.

Mr. STEVENSON. How will it do it? If the price level is 162, with wheat at 65, then if they are going to fix it so as to raise the price of wheat from 65 to normal, they have got to put something else down, have they not?

Mr. SHIBLEY. They are not going to do it. That is not their function.

Mr. STEVENSON. What is the use of your bill?

Mr. WINGO. Then, Mr. Strong has been misled. He thought it would bring wheat up.

Mr. SHIBLEY. I beg to differ with you. Mr. Strong understands this bill accurately and states it accurately.

Mr. WINGO. He thought that this would relieve the farmer; that this is one of the farm relief bills.

Mr. SHIBLEY. It is one of the farm relief bills by providing for stability in the price level.

Mr. BEEDY. I wish, Mr. Chairman, that a couple of minutes could be given the gentleman to answer Mr. Stevenson's question.

Mr. STEVENSON. Yes. He was about to separate it into its constituent elements.

Mr. BEEDY. I have been trying to follow this thing, and I can not see that we are getting anywhere. I do not think the doctor has a

chance to answer our questions. We argue with him without allowing him to answer.

Mr. STEVENSON. I want to give him the opportunity to answer. Go ahead, Doctor.

Mr. SHIBLEY. As I was stating, with the establishment of a stable price level, then if the price of wheat is low it is caused by something about the supply or the demand of wheat, and you have to work at that direct, not through the interest rate on money, to put the price level up or down. That has nothing to do with it. The price level should be kept stable; and then go at your other problems for relieving the farmers. If it is wheat, find out what the trouble is. If too much is being raised, get him to cut down the acreage. If he can not find a market for his surplus, try to correct it. But do keep your price level stable. How can a cooperative marketing association of to-day conduct its business when it does not know what the Federal Reserve Board is going to do with the general price level? As I have shown, in 14 months during 1923–24 the price level went down 9 per cent. How can the cooperative marketing association succeed under such a system as that?

The CHAIRMAN. That was due entirely to the action of the Federal Reserve Board, do you contend?

Mr. SHIBLEY. I do.

The CHAIRMAN. How did they reduce it?

Mr. SHIBLEY. The Federal Reserve Board has absolute control as to certain factors which can be made to dominate the price level under normal conditions.

The CHAIRMAN. What factors entered into that reduction you have just referred to?

Mr. SHIBLEY. I would have to examine into that reduction and ascertain what the factors were.

The CHAIRMAN. In other words, just what definite action did they take to bring that about?

Mr. SHIBLEY. I can not say as to that except by an examination. I do point to the fact that the price level went down when the action of the Federal Reserve Board should have been such as to have kept the price level stable.

The CHAIRMAN. How do you know, then, that the Federal Reserve Board did that?

Mr. SHIBLEY. Because that board, a Government commission, had been placed in control of the price level by regulating the quantity of currency and bank credit and its duty should have been to maintain stability, but under the law as it is being construed the board is free to do as it may choose and it chose to deflate. That board can start the price level up or down in 24 hours.

Mr. GOODWIN. Have they exercised that power in that way?

Mr. SHIBLEY. Yes. They have done it time and again; and, as they are operating at present, whoever is on the inside to know what their policy is, can play the stock market, as has been done time and again; because the board does not publicly declare its policy in words that mean anything. The words "to accommodate commerce and business" are meaningless.

Mr. WINGO. That is a pretty serious charge; that they can play the stock market, and have done it. Have you any proof of that,

Doctor? If you have, I would like to have it. If you have any proof that anybody on the inside of the Federal Reserve Board is playing the stock market and taking advantage of what they are going to do, I think you ought to give names and facts.

Mr. SHIBLEY. My statement is that whoever knew the policy was in a position to do it.

Mr. FENN. Well, that is the board itself.

Mr. SHIBLEY. I say, whoever among the speculators on the outside knew it.

Mr. FENN. Do you intimate that the Federal Reserve Board is giving information outside for the sake of speculating?

Mr. SHIBLEY. I do nothing of the kind; no, sir. But I do say that there should be a declaration by law, declaring for stability, and not leaving it up in the air for speculators.

Mr. BEEDY. Doctor, let me see if I understand what you have been driving at here. You do not claim that this bill would prevent the rise and fall of prices, owing to the law of supply and demand in specific products and industries?

Mr. SHIBLEY. You are correct.

Mr. BEEDY. But you do say that before we can begin intelligently to take legislative action to minimize crisis, we must have at least one yardstick maintained which we may use at all times?

Mr. SHIBLEY. That is my position.

Mr. BEEDY. That is all of your contention?

Mr. SHIBLEY. That is all. It is well said; splendidly!

Mr. BEEDY. Well, I think you are right.

Mr. WINGO. That brings up another question. I thought you were talking about a stable price level, not a yardstick. I thought you had been talking about credits and not about the gold dollar, the standard dollar. There is quite a distinction between the money and the basis of your money and the credit machinery.

Mr. BEEDY. What I understand him to say is that having once gotten the level of prices—that is, the yardstick—that he would always keep it. Now, then, that yardstick will not prevent fluctuation in the individual prices of individual products due to the inevitable working of the law of supply and demand. Those you have got to deal with specifically.

Mr. WINGO. That is what I understand.

Mr. BEEDY. But under the present régime you have no stable standard. He wants Congress to fix a standard.

Mr. WINGO. I am hoping, though, that he will show us what the virtue of that is. It it does not relieve the distress of the farmer, if it does not relieve the distress of the steel mills when their orders are falling off, I am wondering what the virtue is of maintaining this little line that is nonfluctuating.

Mr. BEEDY. All I understand is that you have got to get a start somewhere. That is his contention.

Mr. SHIBLEY. You are correct.

Mr. STEVENSON. If you will permit me, that simply involves what I undertook to state a while ago; that you have got a general price level made up of the average of all the prices. Here are some commodities way below the level of the cost of production. They have got to be gotten up, or the folks will have to quit. Whenever you elevate them, you necessarily have got to lower the others or disturb

your price level, and it authorizes the board to step in and control the business of this country by saying that when wheat goes up steel must come down in order to keep the price level stable; and if you give them the power to do that, you are going to have trouble in this country.

Mr. SHIBLEY. Congressman, they have the power; they are doing it now. (See also the more complete answer, above.)

Mr. STEVENSON. Well, we have not given it to them. That is a very different proposition. I am not responsible for it, if they are doing it; and I am not going to be, either.

Mr. SHIBLEY. Are there any more questions?

Mr. ALLEN. I would like to ask a question, Doctor. I am thinking now of the agricultural interests—of the farmers. Let us take the farming interests out in Iowa, we will say. You know about the condition of the farmer, as represented to us. Now, if you could put this into operation, what picture could you draw of the farmer in Iowa a year hence, and what would this do to bring about a better condition out there? I ask that as a question.

Mr. SHIBLEY. That is a splendid question. As Congressman Beedy stated a moment ago, to stablize the price level would supply a basis, so that the specific problems in connection with the price for individual commodities can be dealt with intelligently. The Agricultural Committee is trying to ascertain what it should recommend to correct the prices of individual commodities—corn, cotton, tobacco. You of this Banking and Currency Committee are considering an entirely different proposition—the general price level, that is being regulated as to its height by a Government commission which regulates the quantity of the people's money and bank credit. That Government commission, the Federal Reserve Board, should operate in the direction of stability in the value of money—stability in the price level for commodities. And the Strong bill proposes that the law shall instruct for stability in that price level definitely, and then with a practically stable price level the prices of individual commodities can be dealt with intelligently.

Mr. STEVENSON. Mr. Shibley, there are one or two statements that you made this morning I want to get back to, in the interest of accuracy in history. This is a hearing that may be perpetuated. You stated this morning that the era of falling prices came about from the contraction resultant on the repeal of the silver purchase act in 1893.

Mr. SHIBLEY. Yes; that is correct. The era of falling prices in 1894 came about from the repeal of the silver purchase act in 1893.

Mr. STEVENSON. Now, do you not remember that that era of falling prices began as far back as 1888, and that the result was a reversal in this country; Mr. Cleveland was defeated and Mr. Harrison was elected because of the contraction that was going on then? The prices were down to below cost of production. They were shipping horses and selling them by the carload in my country at $10 a head. That went on until the election of 1892, and it still got worse and worse, until in 1892 the whole country turned over, and Mr. Cleveland got nearly all of the electoral votes, because of the contraction in prices and the tremendous panic that was pervading the farming interests of this country, and the commercial interests,

too. So that did not begin with the repeal of the silver purchase act. While I was opposed to the repeal of that act, that did not begin then.

Mr. SHIBLEY. You admit that the silver purchase act was increasing the volume of money?

Mr. STEVENSON. Yes; it was increasing the volume of money; how much? $2,000,000 a month.

Mr. SHIBLEY. You will admit that when that silver purchase law was repealed it decreased the volume of money?

Mr. STEVENSON. No; it did not decrease the volume of money.

Mr. SHIBLEY. It stopped the increase.

Mr. STEVENSON. It stopped the increase to that extent; yes—$2,000,000 a month.

Mr. SHIBLEY. And prices fell, and that was the trouble.

Mr. STEVENSON. Well, but prices had been falling until we had had two revolutions in politics here in five years, and when Mr. Cleveland came in on the 4th of March, 1893, it had gone on until our gold reserve was so depleted that he had to sell bonds within 30 days after he came in to get gold to keep his gold reserve up. So that was one of those world-wide things that started with the failure of Baring Bros. in London about 1885 and played havoc for 10 years. So do not let us lay it onto the fact that we cut out $2,000,000 a month increase. I just do not want that to go unchallenged in this record.

Mr. ALLEN. You touched just lightly on Baring Bros. Was it not generally thought that that was the one that started it?

Mr. STEVENSON. That was the one that started it; the failure of Baring Bros. in London, with their branches all over the world. It was the beginning of a contraction that was very disastrous for a whole decade.

Now, there is one other matter. You spoke of the increase in circulating medium and the act of 1900 increasing the national-bank circulation. That increase only amounted to allowing the national banks to issue circulation up to a 100 per cent of the bonds which they had filed that were at par, when they were only issuing 95 per cent before; was not that it?

Mr. SHIBLEY. And the result was it increased it $700,000,000.

Mr. STEVENSON. Well, that may have been, but I question the figures. I question very seriously whether 5 per cent of the amount of the national-bank circulation that was in existence at that time was $700,000,000; but it may have been.

Mr. WINGO. Can you furnish the figures to support your statement?

Mr. SHIBLEY. I will bring in the exact figures to you.

Mr. WINGO. I think you are in error either in your percentage or your amount. How much did you say—$700,000,000?

Mr. SHIBLEY. $700,000,000.

Mr. WINGO. That would be 5 per cent. Ten per cent would be one and one-half billion; and 100 per cent would be how much?

Mr. STEVENSON. From the report of the Comptroller of the Currency for 1900 you will see how much national-bank circulation was outstanding. Do you know positively that it was that much?

Mr. SHIBLEY. I will bring in the figures.

The CHAIRMAN. The total amount outstanding at the present time is something over $700,000,000.

Mr. STEVENSON. Yes; that is all.

The CHAIRMAN. And that is the largest amount that has ever been outstanding.

Mr. SHIBLEY. With your permission, I will bring in the exact figures.

The CHAIRMAN. We shall be very glad to have you do it.

Mr. STEVENSON. Mr. Shibley, you are confusing the total national-bank circulation with the increase of 5 cents on 95 per cent—really about 6 per cent—which was made by the act of 1900. That is all that was done by that act. I do not want a whole lot of history to go in here that is not accurate.

The CHAIRMAN. Thank you very much, Mr. Shibley.

We will now hear Professor Fisher.

STATEMENT OF PROF. IRVING FISHER, PROFESSOR OF ECONOMICS, YALE UNIVERSITY

The CHAIRMAN. Professor Fisher, do you want to make your statement without interruption?

Professor FISHER. I would rather do so; but just as you say.

The CHAIRMAN. I would suggest that Professor Fisher proceed with his statement to the committee without interruption until he has completed it, and then we will question him in regard to any angles of it that we may want to know about.

DISAGREEMENTS WITH MR. SHIBLEY

Prosfessor FISHER. I appear here in favor of this bill, but I would like to begin by saying that I do not agree altogether with the preceding speaker, and particularly in regard to what he said that impugned the motives of the Federal Reserve Board. I know those men—some of them, I think, extremely well—and I want to indorse what Congressman Luce said in regard to that matter.

I also do not agree altogether in regard to the extent of the power of the Federal Reserve Board to stabilize the price level. I think it is very definitely limited, and ultimately will be much more limited by circumstances than it is to-day.

THREE PROPOSED CHANGES IN THE BILL

In other words, in the main, I agree with what Mr. Shibley has said, and favor the bill with three modifications.

In the first place, I see no reason for that word "minimum" being put in the bill. I think that should be stricken out.

In the second place, I prefer the wording that Mr. Goldsborough suggested to this committee originally, on December 19, 1922, at the hearings on the Goldsborough bill for stabilizing the dollar. At that time, on page 47 of the hearings, he asked me the following question:

What would be your idea of amending that section—

the section of the Federal reserve act here referred to in the present bill, subsection (d) of section 14 of the Federal reserve act—

What would be your idea of amending that section to read: "To establish from time to time, subject to review and determination of the Federal Reserve

Board, rates of discount to be charged by the Federal reserve banks for each class of paper, which shall be fixed with a view of accommodating and stabilizing agriculture, commerce, and business, and preventing deflation and inflation"?

I think it would be a stronger and at the same time a more elastic statement if it were put that way; that the object of this bill is to prevent deflation and inflation.

In the third place, while I think this bill is a step in the right direction, I do not think that it will succeed in fully solving the problem until there is coupled with this credit control, as provided for in this bill, also a gold control. As I said in former hearings, you must have gold control and credit control together, as two legs to walk with. I will come back to that later.

RÉSUMÉ OF PREVIOUS TESTIMONY

I will endeavor not to repeat unduly what I have already said, which some of you have heard, and the rest of you can easily read if you care to, in the previous hearings (on H. R. 11788, 67th Cong., and H. R. 494, 68th Cong.). As a background I will merely recall to your minds that I made five points.

In the first place, we are all subject to a money illusion. If it were not for that, we would not need this bill to-day. Stabilization would be taken as a matter of course. I found in 1921, when I visited Europe, that even with the depreciated and depreciating currencies of Europe scarcely anyone realized that their own money was changing. Even in Germany, where money had lost 95 per cent of its value, there was by actual count and examination by me and another economist there, among those that we spoke with, not more than 1 person in 24 who realized that anything had happened to the mark. They measured the dollar in terms of the mark, and thought the dollar had gone up, just as we measured the mark in terms of the dollar and thought the mark had gone down. Of course, both should be measured in terms of ordinary commodities purchasing power.

Every country has a money illusion in regard to its own money, because it is living in that money atmosphere and is unconscious of it, just as we are unconscious of the pressure of the atmosphere in which we live and breathe. That is the basis of the whole problem—this money illusion—the idea that we have got a dollar that is stable already. We have not.

In the second place, I went over the facts as to the instability of the dollar; that is to say, the instability of the price level. I showed that prices had changed from 1860 to the present, the price level jumping from 100 in 1860 to 250 in 1865, down to 67 in 1896, up to 250 again in 1920, down to 138 in January, 1922, and then up and down somewhat less until now—last week, according to my own index number, it is at 153. Or, putting it the other way around, the purchasing power of the dollar had shifted in the opposite way, because, of course, it means the same thing to say—relatively speaking, at any rate—that when prices have doubled a dollar will buy half as much. The purchasing power of money is cut in two when the price level is doubled, or when the price level is cut in two the purchasing power of money is doubled. So, in terms of our pre-war dollar, either 1860 or 1913—because the dollar is in those two years hap-

pened to have the same purchasing power substantially—that same history that I have just described would be described as follows: In 1860 we had a 100-cent dollar, because you take that arbitrarily as the starting point. In 1865 it was a 40-cent dollar; in 1867 it was a 150-cent dollar. In 1920, in May, it was again down to 40 cents. It got up in January, 1922, to 72 cents, and has fluctuated since then, and last week it was about 65 cents. That is to say, the dollar to-day will buy as much as 65 pre-war cents bought.

Mr. STEVENSON. By "pre-war," do you mean pre-World War or pre-Civil War?

Professor FISHER. Either one; because the two years, 1860 and 1913, happened, just by accident, to have much the same price level; within a few per cent.

So the facts are that we have unstable money all over the world. Of course, we all know that Europe has it. Each country knows less about the instability of its own money than any other.

In the third place, I spoke about the causes of this, and showed that the chief cause of rising prices—that is, of falling money, falling purchasing power of the dollar—is inflation, and that the chief cause of falling prices—that is, a rise in the purchasing power of the dollar—is deflation; and by inflation and deflation I mean an increase or decrease of the circulating medium, which may be gold inflation, paper-money inflation, or credit inflation. Any kind of inflation of the circulating medium will tend—it may be conteracted by other causes—but it will tend to depreciate our money. I think there is no reputable economist to-day who does not agree that this is the great cause. We may disagree among ourselves a little as to the relative magnitude of other causes. Personally I believe that this explains at least 90 per cent of all the economic history on the subject of price levels that we have available in index numbers.

If you want to go into this matter for yourselves—and that is more my object in coming here than anything else; I take it that you men are looking for the truth; you are not here to hector me or here for fun; you are interested in this as a serious problem—I suggest you read the book by Bordes on the Austrian crown. It is the finest piece of work in any country of Europe—the monograph on the history of the Austrian crown—that I have seen. I am in hopes that other monographs will appear on other currencies of the world and on that of the United States, but at present I do not know of anything that goes into the matter historically any better than this book by Bordes on the Austrian crown. So my third point is that inflation and deflation are the master keys that give the explanation of these price movements. Such fluctuations are not primarily a matter of supply of and demand for goods, but currency. They are monetary matters primarily. Mr. Wingo is correct that there are other things that affect the price level. But we must make a distinction between the price level and individual prices, and we will make much progress when we get that distinction. The price level can be affected by deflation and inflation. I do not say that inflation and deflation are 100 per cent the cause, but I do say that in my opinion they are 90 per cent and always have been, and that the rise in prices during the war was not due to war scarcity of commodities; it was due to inflation; it was due to the increase of credit and gold in this country. Likewise, in Germany it was not the

blockade that was the main factor. It was a factor; but the main factor was the tremendous volume of paper money printed by the printing presses of the country and put out through the Reichsbank.

The fourth point I made is that out of this instability of money grow tremendous evils. Some of you may remember that Dr. Willford I. King, secretary of the American Statistical Association and one of the investigators of the National Bureau of Economic Research—one of the most able statisticians this country has—stated before your committee that he believed within the last few years there has been a loss to some people, offset by gains to others—but an unjust robbery—through the unstable dollar of at least forty billions of dollars, and I believe he is correct, and the only reason we do not recognize that is this money illusion.

If you face the fact that the dollar does vary—and it robs us all the worse because we do not see it take our money—you will get further along than otherwise. Out of this primary evil of the loss or unjust transfer of $40,000,000,000 come secondary evils, just because we do not understand them, and one of those very evils, without meaning any offense to Mr. Shibley—but he exemplifies it—is the ill feeling that comes from misunderstanding and fault finding and accusations. Whenever there is inflation you will find socialism thrives, because the socialist, with his suspicious mind, believes that the great corporations are grabbing, and thus you have the word "profiteer" and other nicknames applied to people into whose laps fall the profits which inflation takes away from others; and, on the other hand, you will find when there is deflation the farmers and others blaming Rockefeller and Morgan and others personifying Wall Street as the cause of their troubles when as a matter of fact the cause is an impersonal one. Out of those unjust accusations that the creditor class controls the price level, or the debtor class, you have the evils of distrust and suspicion and ill feeling and class warfare and sometimes bloodshed.

Lord D'Abemon, one of the few men in England who has gone into this matter thoroughly, said in the House of Lords that he believed 90 per cent of the Bolshevism of Europe was due to unstable money. I believe that is too extreme. I would guess, however, that the larger part of this class warfare that we are so much afraid of comes out of this instability of money.

This is not a radical measure, therefore, that is proposed here; it is a way to fight radicalism. It is one of the most conservative measures you have had. It is not a hair-brained dreamer's idea; it is something that will prevent the kind of upset that they had in Russia.

In the fifth place I took up the remedies. At that time we were discussing the Goldsborough bill, which aimed at the fundamental remedy, the control of the gold base. This present bill is a much simpler one and not so ambitious, but it makes a first step in the direction of real stabilization.

THE RECENT STABILIZATION MOVEMENT

Supplementing the foregoing five points I want to add to what I told you, the last time I was here, a few remarks concerning the movement toward stabilization.

In the first place I should like to emphasize again what has already been referred to by Mr. Shibley, the Genoa Economic Conference, in 1922. Thirty-one nations there unanimously passed resolutions, which Mr. Shibley read to you, two of which related to the subject of stabilization and recommended the very thing that is being proposed in this bill, and almost exactly the same method of attaining that object. They said that in order really to have stable money in Europe it was recognized that you should have not only a stable exchange—not only that the mark and pound sterling be in a standard ratio to each other again, but that they should be stable in relation to commodities—that the "internal" purchasing power of moneys should be stabilized. Another resolution stated that this should be done through the central banks controlling their gold reserves and exercising their credit control so as to prevent undue inflation or deflation.

I regard the action taken at the Genoa conference as the most outstanding of the many events which, if there were time, I could go over with you, working in the direction of stabilization of prices, and I have crossing my desk almost every day some new evidence that in Europe and in this country people are waking up to the evils of unstable money, and to the fact that it must be stabilized.

I believe ultimately we will have a genuine stable money level, because to stabilize the dollar is the same thing as to stabilize the price level; to stabilize the price level is the same thing as to prevent deflation and inflation. Those are simply different ways of saying the same thing. I have not the slightest doubt but that we shall have that all over the world, and we can not avoid it because people are waking up.

Mr. WINGO. Professor Fisher, will you repeat what you just said? I did not quite catch it.

Professor FISHER. To stabilize the dollar is the same thing as to stabilize the price level, and to stabilize the price level is the same thing as to prevent deflation and inflation.

The evils of the farmers to-day are the left overs of the deflation of 1919 and 1920, more than any other factor; at least I think 50 per cent of the evils of the farmer come from that. The farmer was one of the most sensitive to that deflation and one of the slowest to get over it. However, I do not regard this as class legislation. I am against all class legislation. I should not like to help the farmer at the expense of other people. This is general legislation for the welfare of everybody. It just happens that to-day the farmer is suffering more than the others, but I should not like to have the price level fixed in the interest of the farmer altogether. It should be fixed in the interest of everybody.

A second step in the progress of stabilization is a little one. You may have noticed the Philadelphia Rapid Transit Co. has recently tried to stabilize the wages they pay, and they are getting up a special index number of the cost of living in Philadelphia for people with incomes such as their employees have; and hereafter the Rapid Transit Co. of Philadelphia will have all their employees paid according to that index number. This is a method of correcting the stability, and not preventing it. After the instability is shown this index number is used to make an adjustment. Of course you

know that was done by the War Labor Board during the war and in Europe, especially, affecting some millions of employees in England alone. This is the first time since we have gotten adjusted after the war that any great company, as far as I know, has taken this up, and they have gone into it from a scientific standpoint.

A third step worth mentioning is the use of a "stabilized bond." This is a copy of a stabilized bond issued by the Rand-Kardex Co. I was concerned in this, although it was not at my own suggestion that the bond was gotten up in this form. It was the suggestion of Mr. James H. Rand, jr., who is president of the Rand-Kardex Bureau, which now includes the Library Bureau, the Globe-Wernicke Co., the Safe Cabinet Co., and some others, including my own former company, the Index Visible. The Index Visible is a company I started myself which merged with these others, and Mr. Rand suggested that the stabilized bond should be exchanged for the preferred stock of the Index Visible. He asked me if I would try to work out such a bond, and here it is. I worked it out with the aid of a lawyer, Mr. Franchot, of Buffalo. Some of you may be interested in it, and I will pass it around.

I have been asked to explain it before law schools and others, because it is different from other instruments of this sort, and lawyers scarcely know what to make of it. It is a scheme whereby the man owning the bond, instead of getting $50 per year, of uncertain purchasing power, will get enough money to buy what $50 would buy to-day, and so, if the price level went up twofold he would get $100, and if the price level was cut in two, he would get $25. The United States Department of Labor index number is used.

As you doubtless know, and as I shall show later, bondholders have been particularly hard hit, and in Europe particularly. Professor Harmack, of Germany, the great theologian, is now penniless because his fortune was invested in bonds, supposed to be the safest thing possible. That does not mean that there were defaults in the bonds, but the purchasing power of the mark dropped 99 per cent and more. This man had several hundred thousand marks invested in bonds, but they are practically worthless for the purchase of bread and butter to-day.

The CHAIRMAN. Without objection, we will put this bond into the record.

(The bond referred to is as follows:)

UNITED STATES OF AMERICA,
STATE OF DELAWARE

No. M. $1,000

RAND KARDEX CO. (INC.)

7 per cent 30-year stabilized debenture bonds

[Registered and safeguarded as to purchasing power of both principal and interest]

Rand Kardex Co. (Inc.), a Delaware corporation, hereinafter termed the "company," for value received, hereby promises to pay to the registered holder hereof on the 1st day of July, 1955, at the principal office of the Buffalo Trust Co., in the city of Buffalo, State of New York, such sum of money as shall possess the present purchasing power of $1,000, with interest thereon at the rate of 7 per cent per annum, payable quarterly on January 1, April 1, July 1, and

October 1, in such sums as shall at the respective times of payment equal in purchasing power of 1.75 per cent of said purchasing power of $1,000, all to be based upon an index number of the prices of commodities defined and fixed in accordance with the amplified statement below.

The company declares that it is its intention, by this obligation, to afford the holder hereof a steadier income in terms of real purchasing power than that obtainable from any other form of obligation, by providing herein for the increase or decrease of the sums of money payable hereunder when the purchasing power of the dollar falls or rises, in the sense that the index number of the prices of commodities rises or falls.

This bond is one of a duly authorized issue of bonds of the company known as its 7 per cent 30-year stabilized debenture bonds (hereinafter referred to as the "bonds") limited to the aggregate principal amount of $500,000 in present purchasing power, issued and to be issued under a trust indenture dated July 1, 1925 (hereinafter called the "indenture"), duly executed by the company to the Buffalo Trust Co., of Buffalo, N. Y., as trustee (hereinafter called "trustee"), to which indenture and indentures, if any, supplemental thereto, reference is hereby made for a statement of the rights and remedies of the holder hereof.

Subject to the provisions for registration hereof this bond is intended to have, to the extent permitted by law, all the characteristics of a negotiable instrument, and the principal and interest will be paid without regard to any equities between the company and the original or any intermediate registered holder or holders hereof.

At the option of the company all of said bonds, or any part thereof, may be redeemed on any quarterly interest payment day prior to maturity, upon at least 60 days' notice in writing to the registered holder hereof, as provided in said indenture, at the principal amount and accrued interest, together with a premium of 3 per cent of the principal amount if redeemed on or before July 1, 1935; or with a premium of 2 per cent of the principal amount if redeemed after July 1, 1935, and on or before July 1, 1945; or with a premium of 1 per cent of the principal amount if redeemed after July 1, 1945, and on or before April 1, 1955. The amount to be paid upon any such redemption, both as to principal and interest, shall be determined in accordance with the provisions hereof in respect to the fixing of the payments to be made in accordance with the purchasing power of the dollar at the time of payment. If less than the total number of bonds issued and outstanding under said indenture are to be redeemed as aforesaid, the particular bond or bonds so to be redeemed may be determined by the board of directors of the company.

In case of certain defaults specified in said indenture, this bond and all other bonds of this issue may be declared and may become due and payable in the manner and with the effect provided in said indenture.

This bond is transferable only by the registered owner in person or by his duly authorized attorney, upon the books of the company, maintained and kept for that purpose at the principal office of the trustee in the city of Buffalo, N. Y.

No recourse shall be had for the payment of the principal of, or interest on, this bond, or for any claim based thereon, or otherwise in respect thereof, or of said indenture against any incorporator, stockholder, officer, or director, past, present, or future, of the company, or of any successor corporation, whether by virtue of any constitution, statute, or rule of law or equity, or by the enforcement of any assessment or penalty or otherwise, such liability being by the acceptance hereof, and as part of the consideration of the issue hereof, expressly released.

This bond shall not become obligatory until it shall have been authenticated by the execution by the trustee of the certificate hereon indorsed.

The United States internal revenue documentary stamps required by act of Congress approved November 23, 1921, have been affixed to said indenture.

AMPLIFIED STATEMENT OF METHOD OF FIXING AMOUNTS TO BE PAID AS PRINCIPAL AND INTEREST HEREUNDER

The index number of the prices of commodities employed hereunder shall be the well-known index number of wholesale prices of the United States Bureau of Labor Statistics as published each month, subject to such modifications and amplifications and changes of method in making and computing the same as shall or may be made by said bureau from time to time.

If as of any due date the index number of the prices of commodities shall remain at approximately the present level—that is to say, if it does not rise or fall as much as one-tenth part of the level fixed as of July 1, 1925, i. e., 157.5—then the amount to be paid as principal shall be $1,000, and the amount to be paid as interest on any quarterly interest date shall be $17.50.

In case the index number as of any due date shall be found to be more or less than that fixed for July 1, 1925, by as much as one-tenth part of said index number of July 1, 1925, then for every full one-tenth rise or fall of said index number there shall be added of subtracted, respectively, one-tenth of the payment then due, said one-tenth being $1.75 for any quarterly payment of interest and $100 for the principal sum.

The index number measuring the present price level as of July 1, 1925, shall be the average of said index numbers for the three calendar months preceding July 1, 1925, which have been published on or before July 1, 1925, namely, the index numbers for March, April, and May of 1925, which average is 157.5 on the basis of 100 as representing the 1913 price level.

The index number measuring the price level as of July 1 of any other year hereunder shall be the average of the said index numbers for March, April, and May of such other year, and the index number as of October 1 in any year shall be in like manner the average of the said index numbers for the preceding June, July, and August, and the index number as of January 1 in any year shall be in like manner the average of the said index numbers for the preceding September, October, and November, and the index number as of April 1 in any year shall be in like manner the average of the said index numbers for the preceding December, January, and February.

Since one-tenth of the normal quarterly payment, i. e., $17.50, is $1.75, and since one-tenth of 157.5, i. e., the index number as of July 1, 1925, is 15.75, the application of the foregoing principles may be illustrated by the following tabulation:

(*a*) The quarterly payment at any due date shall be $17.50 if the index number as of said date shall lie between 141.75 and 173.25.

(*b*) The quarterly payment at any due date shall be—

$19.25, if index is as large as 173.25, but not as large as 189.00
21.00, if index is as large as 189.00, but not as large as 204.75
22.75, if index is as large as 204.75, but not as large as 220.50
24.50, if index is as large as 220.50, but not as large as 236.25
26.25, if index is as large as 236.25, but not as large as 252.00
28.00, if index is as large as 252.00, but not as large as 267.75

And so forth for still higher price levels.

(*c*) The quarterly payment at any due date shall be—

$15.75, if index is as small as 141.75, but not as small as 126.00
14.00, if index is as small as 126.00, but not as small as 110.25
12.25, if index is as small as 110.25, but not as small as 94.50
10.50, if index is as small as 94.50, but not as small as 78.75
8.75, if index is as small as 78.75, but not as small as 63.00
7.00, if index is as small as 63.00, but not as small as 47.25

And so forth for still lower price levels.

(*d*) Likewise the principal sum at maturity shall be $1,000 if the index number as of such date of maturity shall lie between 141.75 and 173.25; it shall be $1,100 if the index number as of such date is as large as 173.25 but not as large as 189.00, etc., for still higher price levels; it shall be $900 if the index number is as small as 141.75, but not as small as 126.00, etc., for still lower price levels. The same results would apply on redemption dates, if any, with the addition of the premiums above specified.

In case the United States Bureau of Labor statistics should discontinue the computation and publication of its said monthly index number of wholesale prices, or the publication thereof should be delayed so as to precent its use hereunder, there shall be substituted therefor by the trustee, as specified more fully in said indenture, such other index number or method of ascertaining changes in the price level as resembles, in the opinion of the trustee, most closely the index number and method of arriving thereat of said bureau.

Unless otherwise directed in writing by the registered holder hereof, the company will mail checks to the registered holder hereof covering the quarterly interest payments addressed in accordance with the registered holder's post-office address, as it appears on the books of the company.

Certain of the provisions of the said indenture may be amended by the written consent of the company and of the holders of 80 per cent of the principal

amount of the bonds of this issue then outstanding, given in writing or at a meeting of said holders as provided in said indenture.

In witness whereof the company has caused this bond to be signed by its president, or by a vice president, and its corporate seal to be hereunto affixed and attested by its secretary, or assistant secretary, as of the 1st day of July, 1925.

RAND KARDEX CO. (INC.),
By ——— ———,
President.

[SEAL.]

Attest:
———— ————,
Secretary.

No. M $1,000

RAND KARDEX CO. (INC.) 7 PER CENT 30-YEAR STABILIZED DEBENTURE BOND

Principal due July 1, 1955; interest payable January 1, April 1, July 1, and October 1.

Principal and interest payable at Buffalo Trust Co., Buffalo, N. Y.

TRUSTEE'S CERTIFICATE

This bond is one of the issue of bonds described in the within mentioned indenture.

BUFFALO TRUST CO., AS TRUSTEE,
By ——— ———,
Vice President.
By ——— ———,
Assistant Secretary.

[No writing hereon except by an officer or agent of the company]

Date of registry	In whose name registered	Registrar

Mr. STEVENSON. If those German bonds had been made payable in marks, consisting of gold of a certain weight, fineness, etc., that would not have occurred, would it?

Professor FISHER. They would have lost then about 30 or 35 per cent, instead of 99 per cent or more.

In the fourth place I want to mention the work that has been done recently by several business men in regard to this matter of bonds and stocks and particularly to the work of Mr. Edgar Smith, a leading broker and a business man of New York City, who wrote a book recently called "Common Stocks as Long Term Investments," in which he went into the thing carefully and statistically, and showed that between 1916 and 1920 bondholders lost more in depreciation of the dollar than they gained in interest. They lost two-thirds of their principal, which more than offset all the interest they received. If anyone had tried to get rich like Hetty Green, by lending money, during this period he would have lost money; and what the bondholder has lost the stockholder has gained. We call those people profiteers who took in the profits that the bondholder lost through this drop in the purchasing power of the dollar.

Kenneth Van Strum, a writer in Barron's Magazine, went over the same matter in much the same way and came to the same conclusion. I have gone over the works of Smith and Van Strum and put their findings in a way I like better. I called by article "When are gilt-edge bonds safe?"

I also call your attention to another article of mine, "Stocks versus bonds," on the same subject, that appeared in the American Review of Reviews.

A fifth event of importance, showing how people are waking up to this subject, is the appointment of a committee on stabilizing the dollar by the Investment Bankers' Association. The chairman of that committee is Lawrence Chamberlain, one of the leading investment bankers of the country, and he has a very strong committee of five, which is quite in earnest in trying to see what is the best method of stabilizing the dollar. They will doubtless want to appear some day before your committee, and you men want to be ready to find out whether this bill of Mr. Strong or the one of Mr. Goldsborough is the best solution of the matter. The problem has got to be solved. The investment bankers are not pleased with the idea of selling "gold bricks" to the public, but that is what they have been doing, without any responsibility for it.

In the sixth place I would like to call your attention to an investigation of my own which applies to some of the points and questions of Mr. Wingo. This article is the last of a series I wrote for the American Statistical Journal. It is called "Our Unstable Dollar and the So-Called Business Cycle." On page 188 of the Journal I have shown the relation between rising and falling prices and the volume of trade. I have shown that there is a very high degree of correspondence between those two things, that when prices are rising business will be good a few months afterwards, and when prices are falling business will be poor a few months afterwards. Of these two curves [exhibiting] one gives the volume of business as it actually was, according to the committee on economic statistics of Harvard, and the other gives the figures as they would be if the influence of the instable dollar were the only influence. The figures are shown there, and the slight differences in the two curves are due to other influences than that of instability. If you will glance at the two curves you will see the strong correspondence between them.

I have recently published, or am about to publish, for the International Labor Office, in Geneva, a study of the relation of price changes—that is, appreciation and depreciation and unemployment—and I find the same thing is true. You have unemployment following deflation quite regularly. Of course, you remember the unemployment following the deflation in this country of 1920 and 1921, and the same thing has happened in England and in Norway and in Czechoslovakia. Wherever we have index numbers to show the changes in price levels and statistics of unemployment, we find this relationship between instability of money and unemployment.

The seventh point I would like to mention in this discussion is the growing number of resolutions in favor of stabilization, calling upon Congress, or the Federal Reserve Board to stabilize. One of

these recently—only the other day—was by the Chamber of Commerce of Paterson, N. J. Another was by the Farmers' Institute, of Illinois, at the institute meeting at Quincy, Ill., about a month ago.

THE HISTORICAL BACKGROUND OF THE FEDERAL RESERVE ACT

Before discussing this bill more definitely, I want to get its historical background before you, in reference to the Federal reserve act, and establish how it was enacted and how it is operated. I want to say, in the first place, just as a plain matter of fact, what J. Maynard Keynes says in the introduction to his book on Monetary Reform, which is one of the books on stabilization in England, that bankers in general do not know their own subject of banking in its public aspects. A banker may be an extremely successful banker and know on which side his bread is buttered, and he may know where to extend credit and he may be a good judge of men and have a good organization, etc., and yet fail completely to understand the public implications of his actions and particularly the effect of his extensions or restrictions of credit on price levels.

If that were not so, we would not have that $40,000,000,000 loss that Mr. King spoke of before this committee. One reason for that is that in this country we have had individual banks, without any responsibility to the country as a whole. Thousands and thousands of banks have been operating, and you could not expect any concerted action between them to maintain a stable price level. In England, where they have had the Bank of England for centuries, they have come to consciousness of public policy, and so the Bank of England has accepted a sort of mandate of public opinion to look out for the general interests of England without looking merely to the private interests of the shareholders, and, among others, they have accepted the responsibility of influencing the price level, of making the price level in England harmonize with the price level outside of England. You will find that definitely stated in the Cunliffe reports, and it has been the practice of England for a long time.

When the Federal reserve system was established, there was this tradition of individually operated banks, with thousands and thousands of them, and no central bank. Back in the days of Andrew Jackson we had a central bank which was abolished almost before it was established and before there was any knowledge of price levels or index numbers or anything of that sort. It is quite likely that very few then understood the necessity of stable price levels and their connection with banking policy. So I am not at all surprised, when a provision was put in the original Federal reserve bill by Senator Owen, for stabilizing the price level, similar to what is now being proposed by this strong bill, that it was stricken out. It is exactly what one would expect, with the lack of understanding of the situation which existed at that time.

Governor Harding said—partly because he realized how the general public regarded these things and partly because the Federal reserve act lacked just what this bill would put back into it—when people were beginning to talk deflation to him and asking him to

deflate or not to deflate and criticising him for the inflation of 1920—that the Federal reserve system had nothing to do with prices but only had to do with sound banking. By this he meant that the bank statements as to liabilities and resources, etc., should be kept in order. But sound banking, to my mind, includes a policy that will avoid those tremendous evils of inflation and deflation which have cost this country, or some of it, that $40,000,000,000.

TWO MISTAKES OF THE FEDERAL RESERVE SYSTEM

Two tremendous mistakes were made because of the lack of this provision in the Federal reserve act. (1) The postwar inflation and (2) the deflation that followed. Whatever I might say in regard to inflation during the war—and much can be said to excuse it as it was more important to win the war than to maintain a stable dollar—certainly we can not justify that postwar inflation that started soon after the armistice. I was a terrible, terrible mistake. Why did it happen? I have not read this book of Governor Harding's fully, but judging from what I have seen of it and heard and read of it in reviews, it virtually places at least a part of the responsibility for that inflation on the Federal Reserve Board in that they refused to raise the rediscount rate, the excuse being the pressure brought to bear by the Secretary of the Treasury.

The CHAIRMAN. What is that book?

Professor FISHER. The "Formative Period of the Federal Reserve System," by W. P. G. Harding. The excuse given for the deflation of 1920 and 1921 is the pressure brought upon the Federal Reserve Board by public opinion and by the McCormack resolution in the Senate for deflation and by the bankers. Please understand I am not one of those that intend to malign anyone for that. I think the trouble was that these men did not realize the tremendous evils that would come from allowing either deflation or inflation.

As to the inflation, there was the Overman Act, which gave the President power to take out of the control of any board or bureau any particular task and put it in some other hands; and judging from what this book says, it was the fear that that might be applied giving to the Secretary of the Treasury the whole power to run the Federal reserve system, that the Federal Reserve Board permitted itself to yield to the pressure of the Secretary of the Treasury. I believe it was a mistake.

Mr. STEVENSON. Why was that pressure brought to bear?

Professor FISHER. In order that the Victory Loan might be sold at a low rate of interest. Of course that is a good object and illustrates what I mean. These men who have been in charge of the big affairs of the country often do not realize the economic results of their actions. The Secretary of the Treasury undoubtedly had the best intentions.

Mr. STEVENSON. That was done by Secretary Glass, who was then in charge and who was insistent that they should not begin to contract. Leffingwell was the man who ran it.

The CHAIRMAN. Doctor Fisher, in that connection, my view has been—and the opinion I had at that time was—that there was an undue amount of fear as regards the flotation of that last Victory

loan. That was one of the controlling elements that entered into treasury domination. My own view of that is that they were in error as to the state of public sentiment. Patriotism was at a high point then and had the situation been known the public would have responded and purchased those bonds no matter what rate of interest was paid.

Mr. BEEDY. I make a point of order that the chairman has violated the very rule he asks us to observe—not to interrupt the speaker.

The CHAIRMAN. The point of order is sustained.

Mr. STEVENSON. Here is a question I should like to ask about this bond: How do you meet the usury laws of the United States? Here is a fellow who has borrowed $1,000 and the index rises and he has to pay $1,200 when he comes to pay it, and some of the rises exceed the amount of interest which the law permits him to establish.

The CHAIRMAN. The question arises also as to how you are going to correctly state an obligation of that kind in your statement of assets and liabilities.

Professor FISHER. You might be interested in my general description of that, as published in The Annalist of New York, which answers one of your questions.

A WELCOME CHANGE IN POLICY OF THE FEDERAL RESERVE SYSTEM

I had gotten to the point of saying that I think the Federal reserve act was passed without due understanding, on the part of those who passed it and of those who operated it, as to the tremendous importance of preventing inflation and deflation. The Federal Reserve Board learned, by bitter experience, the consequence of this inflation of 1919 and 1920 and this deflation of 1921. Also, I hope they have learned that you can not cure deflation by inflation, or inflation by deflation. Reginald McKenna stated that, and you know who he is—former Chancellor of the Exchequer of Great Britain and chairman of the London Joint-City and Midland Bank—he has emphasized it—that both are evils and the only cure for both is stabilization. Therefore, with these lessons before them, the Federal Reserve Board has been doing, without any specific authority beyond the phrase in the Federal reserve act, "accommodate commerce and business," practically what is being proposed in this bill, and you will find an article on this, in such terms, in the Harvard Business Review of April, 1924, by Waddill Catchings and W. T. Foster, two men who have collaborated in producing several important works lately on this general subject.

I am here not to criticize the Federal Reserve Board; on the contrary, I think we owe them a debt of gratitude that can scarcely be measured. I do not blame them for the mistakes they have made, partly because of the excuses Mr. Harding has given and partly because it was a new machine and they did not understand the general theory of running it. Having learned their lesson they are anxious that we should never again go through such a period of inflation and deflation and, while they have not been specifically stabilizing the dollar, they have not been disobeying the law. On the contrary, they have been carrying out the spirit of the law to prevent

the occurrence of deflation and inflation. I say, more strength to their elbow. I say we should recognize the tremendous debt of gratitude we all owe to them for giving the dollar a more or less fixed purchasing power of 64 prewar cents for the last four years; not that they have done it altogether, but they have really tried to prevent any great deviation in the purchasing power of the dollar, and if they had not done that, but had adopted the old individualistic banker's position, "We are here to make money," you men know what would have happened. We would have had a price level 75 per cent above what it is, and a repetition of 1919 and it might have culminated in the same way.

Something has been said in regard to the present situation being favorable to the stock market. I want to say in that regard that, while the price level of stocks is high, it is not as high as it seems, by 30 or 35 per cent, because of this very factor of unstable money. In order to compare the present level of the stock market with the prewar level, you have to take account of the fact that we have a 63-cent dollar to-day compared with a 100-cent dollar in 1913.

Mr. Rand, whom I have quoted and who instigated this bond, has written two articles on that subject, and Secretary Mellon, you may have noticed, also stated in an article recently that the stock market is not as high as it seems, on account of the fact that the purchasing power of the dollar is low compared with what it was. I publish a weekly index number of stock-market prices, as well as one of commodity prices, and the index two or three weeks ago, when the peak was reached, was just about the same as two pre-war peaks, when you translate and correct for this change in the purchasing power of the dollar. A great many people who are afraid of disaster to-day, and think there is an unsound position in Wall Street, would not be afraid if they realized that.

Then the situation is this: The Federal Reserve Board is already doing, in a certain diffident sort of way, what this bill proposes. They would not admit they are stabilizing the price level or stabilizing the dollar, and they have not any index they will stick to, and I do not think that any index should be imposed upon them, but they are, to a certain extent, doing this very thing, preventing inflation or deflation. This bill, if passed with the amendments proposed by Mr. Goldsborough and which I have read, would authorize and direct the Federal Reserve Board to do what they are doing and commend them for doing what they have been doing, and prevent them from being tempted by any interests in this country from doing otherwise. They could then say, "The law says we shall not have deflation or inflation."

RESERVE BOARD POWERS ARE LIMITED

But you must not think that you can go as far as you like in forcing them to stabilize because they can not deliver the goods absolutely. They have not the power Mr. Shibley seems to imagine. They can only do it to a certain extent, and I do not think you should give them too much of a task, unless you give them, at the same time, more power than they now have. While I think some restrictions should be put on—and I regard this as a restriction. It

is certainly not giving them any more power, but is specifying how their present powers shall be used. I think that during this experimental period particularly they should not be tied too hard.

If you now merely say, as this act says, "We do not want any great inflation or deflation," people will say, "Amen. We have had those calamities and we remember them; we want no more of them." But I think a few years from now you will have to go further and pass a real stabilization act. By that time we shall have completed the post-war adjustments and we won't have the quarrels there are now, and you may be able to say, "Let us completely stabilize conditions." If you had tried four years ago to do this, at the price level as it was then, 138, you would have had one of the biggest fights politically and economically you ever had in this country. If you should precipitate it now, you would have less disagreement, and in a few years there will be no disagreement at all.

The proposed act would leave a great deal of discretion with the reserve authorities, but not as much as they now have. They have too much now. I think it is a dangerous situation, as much as I trust these men.

There is a magazine in New York that has criticized the Federal Reserve Board for doing this thing, saying they have no authority to prevent inflation, that they should lend out all the money they have got. If they should do that, you would have a repetition of 1919 and 1920.

Now, Mr. Chairman, I do not know whether I am spinning this out too thin. I have a lot more to say.

Mr. WINGO. I think you had better take your full time. Mr. Chairman, I think we should give him every opportunity to elaborate in his statement. Personally I think this is a very important matter and his statement is very interesting. He knows his subject and I think he ought to be allowed to proceed at length.

The CHAIRMAN. I think so, Professor.

STABILIZATION IS NOT PRICE FIXING

Professor FISHER. Very well; I shall take up the point, Mr. Wingo, that you have been talking about, as to whether this is price fixing. It is not price fixing in the objectionable sense that you have in mind. It is no more price fixing than what we already have. We do now fix the price of gold. It is $20.67 an ounce, which is another way of saying our gold dollar consists of 23.22 grains of pure gold. Now, the changes in the supply of gold since 1837, when the weight of the dollar was fixed, have changed the value of gold. Sometimes up and sometimes down, yet the price remains the same. So we do already have a certain price fixing—gold price fixing—and you can not get away from it, if you have a fixed gold standard. People say, "Of course the law fixed the price at $20.67 because there are 23.22 grains in the dollar, and how else can you have a gold standard?" The Goldsborough bill shows how. But that is not before you now. Even that bill is not any more price fixing than you have got now. I am prejudiced against price fixing just as much as anybody is. I was won over to giving assent to it during the war, but I am not sure now that I ought to have assented even then.

Certainly in peace time I am very much against it, and I dislike these farm relief measures which involve the matter of price fixing, much as I sympathize with the farmer. That is my personal attitude and I want to emphasize it. This bill is not price fixing; it is a step toward stabilization of the general level of all prices—which is a very different thing. The price of gold fixes the standard to-day. It fixes it by tying the dollar to the weight of gold. What the Goldsborough bill would do would be to tie it to the purchasing power of gold. The present bill, introduced by Mr. Strong, by an attempt to control credit, is an attempt to fix the general price level, but not to fix specific prices. It does not fix the price of wheat or of beef or of any other commodity. It merely fixes the general average price level, and I would like to emphasize the fact that it will leave the law of supply and demand just as free as it is to-day as regards individual commodities; in fact, freer.

Anything that now affects the supply of and demand for hogs will affect the price of hogs either under this bill or under the Goldsborough bill, but with stabilization in effect this price will not be mixed up with inflation or deflation, and the two things ought to be entirely distinct. In other words, in every particular price there are two factors, the factor of supply of and demand for that particular commodity and the factor of inflation or deflation. The only place that I know of where that has been brought out explicitly in popular understanding is in Germany. When I was there, in 1921, I got into a taxicab and when I got through I looked at the meter and it read "2 marks," I think it was. I thought that was the cheapest ride I had ever had, but I supposed it was right and I offered the driver 2 marks. "But," he said, "you must multiply that by 25." In other words, that was a corrector, due to inflation. He was not getting 25 times the fare he was getting before the war; he was getting the same price in real value, but in order to get it, he had to get 2 marks multiplied by this factor, 25. Later on I found the same thing was done in the restaurants, so as not to require the reprinting of the menus every day. They would say a dinner is 8 marks or a breakfast is so much, and when you came to pay for it, you were handed a little slip which showed the day's "multiplicator." It would indicate the number by which you should multiply the price on the menu, and that "multiplicator" was changed every day. Everybody recognized that this varying "multiplicator" represented a great evil and that it ought to be fixed, but to fix it would not be fixing the price of the dinner. I maintain, Mr. Wingo, that the real price of food and lodging there consisted of two factors, the "multiplicator" and the supply and demand factor. The "multiplicator" was the money factor, and whether you have it as explicitly as it was there, so that you can readily see it or not, nevertheless, it is always there, so long as you have instability of money or deflation or inflation.

An index is not an average price; it is an average price ratio or "relative." You do not take the average price of cotton, wheat, etc., but you take the average percentages of change in those prices. It is an abstract number; not so many dollars per unit, but an abstract number. And so the price level is a different kind of thing from prices. It is a wholly different kind of thing, it is a "multiplicator." It is a pure, or abstract, number, separate and apart from the supply and demand factor. This bill is not trying to fix prices;

it is not a price-fixing scheme at all. It is an attempt to fix a price level, or scale, an index number, a "multiplicator." I like that word "scale" better than "level." You know if you have a drawing you may have it on different scales. You may look through a magnifying glass and it looks bigger or a reducing glass and it looks smaller. So we are not proposing to change the price of hogs, wheat, or cotton relatively to other prices, but this scale of prices is to be prevented from changing. When you have inflation or deflation you change the scale of prices. In Germany, as you know, this scale went up a hundredfold, a thousandfold, a millionfold, and up to three trillionfold. Inflation did not change the real prices—the drawing—but it did change the price level—the scale. I wish we could get rid of the phrase "price level." It is not a price, but it is a scale. I am just as much a believer in supply and demand as any one can be and I want it as free as possible, untrammeled by the Government or any other agency, but I do believe we must have the general purchasing power of the dollar—the scale of prices—the level of prices, fixed.

To stabilize the price level, or price scale, is simply to fix the "multiplicator," so to speak, not to fix the price of a dinner. The hotel keeper is free to fix that as he finds expedient but the "multiplicator" should be fixed for him.

The two are separate and distinct—the individual prices on the menu and the price scale, or multiplicator, which applies to all alike.

And the forces which determine the individual prices on the menu are distinct from the forces which determine the price scale. Supply of and demand for food and rooms determine the individual prices while inflation and deflation of money and credit determine the scale of prices applicable to all alike. This distinction applies in America as well as in Germany. I am against price-fixing which would interfere with the supply and demand for individual commodities, but in favor of fixing a stable level or scale of prices or, in short, of stabilizing the general purchasing power of the dollar.

THE LIMITATIONS OF THE FEDERAL RESERVE

Now, I want next to take up the limitations in the powers that the Federal reserve authorities have. But first let us look at the present situation.

In the first place, we have a superabundance of gold. We have 75 per cent reserve of gold when we need only 35 or 40 per cent under the reserve act. There are various other conditions that combine with that to make the present situation peculiar and to give the opportunity to the Federal reserve system, to-day, to affect or partially control the price level or price scale, which ordinarily they would not have. If that gold should cease to be superabundant, then that legal limitation of 35 or 40 per cent would come into play and you could not stabilize without disobeying the law or changing the law or suspending the reserve provisions. I think that must be obvious. Suppose the reserve supply of gold was down to 35 or 40 per cent and you decide to prevent a fall of prices by lowering the discount rate. That would mean that there would be extensions of credits by banks, and rediscounting by these banks with the reserve

banks, but the reserve banks would not have enough gold to allow them to extend these credits without breaking below the 35 and 40 per cent figure. They might have to come down to only 25 per cent reserve to keep the price levels from dropping, and bankers might then become alarmed and would object.

Thus, even if you pass this bill, you have not fully solved the problem. It might work for 10 years, or 20 years, or longer, but at some time it may bump against that limitation, where the gold fund will not be sufficient to furnish the base for the credit required. Then you will have to go to the Goldsborough bill for a solution.

Mr. GOLDSBOROUGH. What is that again, Professor?

Professor FISHER. The Federal reserve banks have about two times the gold they need to keep on a 35 or 40 per cent basis, and so the Federal reserve system must and should, as they do, more or less ignore the usual reserve ratio rule. If they should try to extend credit sufficient to utilize all their present reserves on a 35 and 40 per cent basis, they would make a great inflation, and prices would skyrocket. They ought not to do that. So that under present conditions they can stabilize the price level without disobeying the law, or the rule as to that gold reserve, because they have so much gold. But suppose 10 years from now they should not have that gold; suppose the reserve gets down to 35 per cent or so; and suppose we must have more credit or currency in order to maintain the price level. The bankers would then ask for credit from the reserve banks, and they would have to say they could not give it because the reserves were at their low limit. So the system would be jammed and deadlocked, and they could not extend the credit, and prices would fall. This bill would not meet that. You would have to do something more. The Goldsborough bill would meet the situation then.

Now, don't misunderstand me. This bill will not do any harm. Remember, I am in favor of it, but you can not expect too much of it. It may run against a limit in that direction.

PARENTHESIS ON CHANGING THE WEIGHT OF THE DOLLAR

Mr. BEEDY. I wish you would show us how the control of gold under the Goldsborough bill will meet this.

Professor FISHER. I think I would be out of order if I discussed that.

Mr. BEEDY. I should like to have your explanation.

The CHAIRMAN. The Chair will have to sustain the point of order by the gentleman.

Professor FISHER. Briefly, I would say there are two ways of avoiding that embarrassment; one is the Goldsborough bill method and the other is the method of Professor Lehfeldt, of South Africa.

The Goldsborough method would meet this hypothetical situation by lowering the weight of gold behind the dollar; or in other words, by raising the price of gold, in terms of dollars. This would not be interfering with the supply of and demand for gold, but merely recognizing its increased value. Gold would then be scarce and ought to be dear. That is what it would amount to. You would then be experiencing a scarcity of gold, but under the Goldsborough bill its price would be raised to recognize or express this scarcity.

If the amount of gold behind the dollar were reduced in weight, say, 10 per cent, that would mean that a certain lump of gold, say, the size of this room, in the Treasury, instead of having, say, a billion dollars in it, would have a billion one hundred million—10 per cent more—in it, because each dollar would have 10 per cent less gold behind it. At present your yellow backs are out against that gold on the basis of 23.22 grains of gold per dollar of certificates; and if you issued more yellow backs, which you would be allowed to under the Goldsborough plan, up to 10 per cent, you would then have more dollars outstanding. You see, it would not be a dilution, because the gold would have increased in value. The value behind every dollar would be the same as before. So your lump of gold would have a higher value because gold had become scarce, and you could issue a larger number of dollars against that lump, and then there would be a larger number of certificates outstanding to be used by the banks as reserve, and there you get back to your 40 per cent reserve again. You have stabilized.

PARENTHESIS ON CONTROLLING GOLD PRODUCTION

The other method I do not like as well. Professor Lehfeldt, of South Africa, proposes doing the same thing—controlling the value of the dollar by controlling the gold mines. Thus, if the United States and Great Britain, which have most of the gold mines of the world, should come to an agreement on this matter to stabilize the price levels, they could take over the gold mines or make business arrangements with the present owners in such a way that they would subsidize the gold mines when they needed more gold and shut them down when they did not need it. In that way you could get your 40 per cent back by digging gold out of the ground, regardless of expense.

In the second place, it is quite possible to go to the other limit of too much gold, and that is what I am afraid of to-day rather that too little. If we get too much gold, what is to prevent individual bankers building up and pyramiding credit on that? The Federal reserve has no power over nonmember banks. It could not control these thousands of banks that have a great deal of individual freedom and power. The price level might very well get away from them from that cause, and that is what I am afraid of now. Under the Goldsborough plan that situation would be met by increasing the weight of gold behind each dollar, thus decreasing the number of yellowbacks issued against that lump in the Treasury and holding down the reserves. Let me just throw out this thought: Suppose Europe should send us 500,000,000 or 1,000,000,000 of gold; what could we do to prevent inflation?

THE FOUR POWERS OF THE FEDERAL RESERVE TO STABILIZE

Let us see what the methods are by which the Federal reserve system can now stabilize, through the control of credit. What are their present limits of power? They can stabilize, as I see it, in four ways: In the first place, by changing the rediscount rate. That has been emphasized this afternoon. That is, when you think there

is inflation impending, raise the discount rate and that will check it. You remember the other day in the stock market how immediately there was a quietus put upon it or, at any rate, the ardor of the market was dampened, when Boston, 250 miles away, increased its discount rate one-half of 1 per cent. That shows the respect which Wall Street has for this power.

Secondly, there are the open-market transactions—I quite agree with Mr. Wingo, these are most immediate and important propositions. In the exercise of its open-market operations the system acts as a unit in buying and selling capital securities. If they have securities in their possession they sell them and that withdraws that much purchasing power (credit or cash) from circulation. The money or credit they get from the sale of the securities is withdrawn from circulation, and they lock it up. On the other hand, if they buy securities they are putting money or credit into circulation, and they regulate the price levels in that way.

In the third place, they can substitute gold certificates for Federal reserve notes, or vice versa. The Federal reserve notes only require 40 per cent reserve, while gold certificates represent 100 per cent reserve. If they substitute gold certificates for Federal reserve notes they are virtually putting their reserves into circulation and taking it out of their vaults, and that is being done. You will notice there are more yellowbacks to-day than usually.

The CHAIRMAN. May I interrupt? Will you explain to the committee the difference between a Federal reserve note exchanged for gold and a gold certificate, and is inflation possible in that kind of transaction, or not?

Professor FISHER. Well, I am not sure that I understand your question.

The CHAIRMAN. Is there any difference between a Federal reserve note which has been issued in exchange for gold and a gold certificate?

Professor FISHER. Yes; because if gold is deposited and a Federal reserve note is obtained in exchange, the bank can then issue 150 per cent more of the Federal reserve notes against that same gold, because they only need to have in reserve two-fifths of the outstanding Federal reserve, instead of 100 per cent, when they issue the yellow backs. Of course, this device is slow and indirect, but it is being used.

The CHAIRMAN. Would that tend to inflation?

Professor FISHER. No. It would tend to deflation but it takes time. It does not work as immediately as the other——

The CHAIRMAN. Would inflation be possible under the open market policy of the Federal reserve—that is, they can now go into the market and buy paper and Government securities, and use free gold which they might hold and cause the issue of Federal reserve notes, which might not be issued in response to demand for commerce or business but in aid of speculation?

Professor FISHER. Yes.

The fourth method has been known as moral suasion, and that, I think, is a tremendously powerful thing, if they can get the cooperation of the independent bankers. That is one reason why I think you should pass this bill. There are thousands of independent

bankers, and they are told by the Federal reserve bank, with which they rediscount, that the situation is such that inflation should be checked and they ought to call in loans and not extend others. Or they may be told, possibly, that hard times are coming and that they should extend their loans and encourage customers to get in debt with them. So, by passing the word around through the Federal reserve system to the thousands of banks, they get the cooperation of those banks in restricting or loosening up on credit. As it is to-day, any banker can say, "I have got your advice, and I will put it on file, but will not follow it," and the only thing that can be said in reply is, "You will find it hard to do business with us in future." But if you give the specific authorization, by this bill, that the Federal reserve system is expected to maintain stable price levels and prevent inflation and deflation, then the bankers would say, "That is the law of the land and we will do our part in cooperating," and the public would say, "They are doing their duty and we will conform."

THE LIMITATIONS

I want to speak about the limitations on the use of these four devices.

First, so far as the discount rate is concerned, you can not, by lowering the discount rate, have very much effect. The raising of the discount rate has a more immediate effect than lowering it. You can raise the discount rate and check inflation with considerable success, but when you try to lower it, and thus encourage borrowing, if the public is discouraged and there is not much business doing, merely a reduction in the discount rate will not lead to good business. It does not work as well in one direction as the other. Even in raising it, you can not do it indefinitely. You do not want to raise it as Germany did to 12 per cent per month, and even if you did, you may not be able to stop the inflation. It may go on up under the influence of an abundant gold supply or other cause. That was the situation in Japan where their banking system lent itself to that result.

Secondly, as to the open market operations, there is a limit to that device, too. If you are trying to contract through the use of open market transactions you can only contract so far as you have got securities in your own portfolio to sell. As soon as they are gone, you are out of ammunition and that is the situation to-day pretty nearly and that is one reason I am afraid inflation may come in a year or so, unless the authorities use great wisdom and discretion.

There is a limit, therefore, to open market control and likewise to the control exercized by circulating gold certificates.

Thirdly, there is a limit to the use you can put gold certificates to as a basis of reserve for Federal reserve notes or vice versa. There is a limit both ways.

The CHAIRMAN. I want to ask you another question there to get it in the record at this point: Is there inflation in your judgment in the system to-day, and, if so, to what extent?

Professor FISHER. I would not say Mr. Chairman that there is very much evidence of inflation to-day relatively to the last few

years. The price level according to my index number has been going down rather than up during the last month and as I said the stock market is not as high as it seems. The only evidence of inflation I can see is the stock market which is not as much as it seems and the Florida boom.

But I am afraid of inflation when the open market committee gets out of ammunition and this gold that is flowing into the country all the time from Europe gets into circulation. If trouble comes in Europe and our investors stop buying foreign bonds or if Europe adopts a policy of dumping gold on us to run up our price level, then we must have inflation unless additional power is given to the reserve system to stop it.

Fourthly, as to moral suasion, the banks will not follow indefinitely the advice of the Federal reserve banks and board. There is another thing about gold that I meant to have said: The Federal reserve system, by not using gold, loses the interest on it; they have a dead asset instead of a profit-making asset; and they keep it unused for the good of the public. But they can not be expected to do that indefinitely and the member banks will scarcely do it at all. So when you get this country choked up with gold beyond a certain point some banker who has not very much public spirit is going to try to make all there is in it out of it "while the going is good." As soon as he does that somebody else will do the same thing and before you know it you have got inflation and you can not stop it. I have been afraid of that for several years. It has not come yet and I hope it won't. But I feel as if we are in a very dangerous situation and this bill would help very materially to guard against it by strengthening the hands of the reserve authorities.

I will just summarize to emphasize the fact that I regard this bill as a step in the right direction but only a step. After you have passed such a bill which to my mind is merely validating what the Federal reserve system is already doing by saying "We believe this is the way to accommodate business. We want you to prevent inflation and deflation with all the powers you possess," the time will doubtless come in the course of years when you will want to specify more definitely what the price level should be you will want to follow this up by a bill of particulars, etc., which I think would be unwise just now. It might be thought that you were holding too tight a rein over the Federal reserve board and were hampering rather than helping them; but when you run against some of these limits if not before you have got to go further than merely to control credit because controlling credit is only controlling one part of the circulating medium it is the major part undoubtedly but the basic part is gold just the same.

In the old days credit was the minor factor, gold still being the basic factor. But to-day the "tail is wagging the dog;" to-day credit is much more important than gold in magnitude, to-day it is the volume of credit that determines the purchasing power of the dollar—the price level—more than the volume of gold; but both are important factors. In the long run gold is the more fundamental of the two because the credit is merely a pyramid standing in the gold base.

So you can not indefinitely escape this gold problem. You have got to have your gold control as well as your credit control, if you are going to prevent the terrible evils of inflation and deflation in the future.

You could pass this bill with proposed amendments, and stop there and let it stay there a hundred years and do no harm, but the good you would do might be limited to five years. After that you run against one of these limits, and then the bill becomes practically inoperative. Whereas if you couple it with the Goldsborough measure it will work well for a thousand years; or if you substitute the Lehfeldt idea of controlling the gold mines you can accomplish the same thing.

THE GOLDSBOROUGH PLAN

I want to say just one thing more. Professor Hastings, now at Yale (but at the time I am going to refer to, not at Yale, but the researcher of the Pollock Foundation for Economic Research), was deputed by that foundation to study stabilization plans. I do not suppose any one has compared different plans as much as he has. And he took the Lehfeldt plan—I call it that—just for convenience—Lehfeldt is not the only one who has suggested it—and what we call the "Goldsborough plan," and various other plans, and he has shown their limitations and the good and bad features of each. He has commented on the Goldsborough plan, and all the rest, but he concluded that what we call the Goldsborough plan is the only one of the 11 plans that will work under all circumstances, and without throwing on the United States alone the financial burden of stabilizing prices for all the world; and that is the reason I am for that plan. It is not because I am the author of the book "Stabilizing the Dollar" wherein that plan is explained, for I was anticipated by many other people. Simon Newcomb, the economist and astronomer, was one of the first, in 1879. Prof. Alfred Marshall, the dean of English economists, who died a short time ago at Cambridge, suggested it back in 1887; the names of a number of other anticipators are given in the introduction to my book, where I have given them all full credit. It is not pride of authorship; I do not care how you stabilize the dollar, providing only that you stabilize it. To my mind, it is the most important economic problem that we have in the world to-day.

NOT A PANACEA

It will not be a panacea. There are plenty of other economic problems I am deeply interested in, just as you are, Mr. Wingo, including the plight of the farmers. While I do not regard this as farm relief legislation, it will help the farmers just as it will help others. There are lots of economic problems; there are lots of problems I can show you which stabilization will not solve, any more than stabilizing the bushel basket will solve all the problems. Thus, it will not solve the weather problems; but it will stabilize the unit in which all business is transacted and that is why we want to stabilize the dollar.

I think that is all I have.

Mr. STEVENSON. Before we adjourn, I want to put in here this statement, because Mr. Shibley and I had a difference about the increase of bank notes under the act of March 14, 1900. I have the figures here from the comptroller's report.

The CHAIRMAN. I suggest they be placed in the record.

Mr. STEVENSON. I will just put it in the record. This shows capital stock $632,000,000; with possible increase 10 per cent—it was 90 per cent. So there was a possible increase of $63,000,000 from that act, and there was an actual increase up to 1905, October 30, of $270,000,000, because the national banks had increased their capital over $200,000,000. The increased amount that they could issue was about $75,000,000. Anyway, the figures are accurately given here, and I put that in. We ought not to have a difference on figures that are available, and I take it Mr. Shibley wants that to go in as accurate.

Mr. SHIBLEY. Giving circulation of bank notes?

Mr. STEVENSON. I have given it for March 14, 1900, and October 31, 1900, and October 31, 1905; and also the capital stock.

(The statement submitted by Mr. Stevenson is as follows:)

National banks had a capital stock March 14, 1900, of $632,502,395; possible issue of notes, 90 per cent, $569,252,156, 10 per cent, making $63,250,239 increase under act of March 14, 1900, could be added.

But circulation then outstanding was only $253,993,881. This was increased to $331,613,268 by October 1, 1900, making an increase of $77,619,447.

By act October 31, 1905, the capital of banks had increased to $812,026,075 and the circulation to $524,508,249 leaving possible—yet $288,517,826 not issued and being an increase of $270,514,368 in national bank notes instead of $700,000,000, as asserted by Mr. Shibley.

The CHAIRMAN. The committee will now adjourn until 10.30 o'clock to-morrow morning.

(Thereupon, at 5 o'clock p. m., the committee adjourned to meet to-morrow, Thursday, March 25, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Thursday, March 25, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will please come to order. Doctor Fisher, will you take the stand?

STATEMENT OF PROF. IRVING FISHER—Continued

The CHAIRMAN. I want to call the attention of the committee to a memorandum which I received this morning from Dr. Jeremiah W. Jenks, of New York University, regarding H. R. 7895. This memorandum was prepared by W. F. Hickernell, evidently at the request of Dr. Jeremiah W. Jenks, and is as follows:

MARCH 23, 1926.

To: Dr. J. W. Jenks.

From: W. F. Hickernell, regarding H. R. 7895. "A bill to amend paragraph (d) of section 14 of the Federal reserve act, as amended, to provide for the stabilization of the price level for commodities in general."

Gold prices are influenced but not actually determined by Federal reserve banks. The Federal reserve banks can prevent extreme fluctuations, but can

not prevent the index number from drifting to a more or less permanent new level, up or down. Excess gold can cause a general rise which the Federal Reserve Board can not prevent. New inventions and improved methods of production can lower prices of individual commodities and cause the index number to recede, theoretically. Declines in prices due to inventions, etc., benefit mankind and are desirable. However, it is desirable to prevent extreme fluctuations and the Federal Reserve Board can do a great deal in this direction. It can "promote stability." It can not prevent the oscillations which occur during the so-called business cycle. It can not entirely checkmate the inflating influence of excess gold production on the one hand or the deflating influence of complete resumption of the gold standard in Europe, expansion in world output of goods, etc. Thus, while the Federal reserve bank can measurably check extreme fluctuations, we should not raise false hopes that they can maintain an index number at a fixed level.

W. F. HICKERNELL.

Doctor Fisher, you have listened to the reading of that statement?

Professor FISHER. Yes.

The CHAIRMAN. Are you in accord with the views expressed therein?

Professor FISHER. Yes; absolutely.

Mr. STEVENSON. That is a very conservative statement, it seems to me. There is a good deal of sense in it.

ENGLISH BANKING

The CHAIRMAN. Referring, Doctor Fisher, to your statement yesterday as to the influence exerted by the Bank of England on England's situation, you stated that the Bank of England voiced the sentiment of the public pretty thoroughly as regards these economic subjects, particularly the rate of interest, etc., and on stabilization matters. Was that correct?

Professor FISHER. I said that the Bank of England took the public viewpoint as distinct from the private viewpoint to a large extent; that instead of doing a banking business merely for the profit of the shareholders of the Bank of England, they were primarily doing it patriotically, for the country, for the good of the public.

The CHAIRMAN. And I understood you to say that that was largely possible because of the fact that the directorate of the Bank of England was composed of the leading merchants of England and not bankers.

Professor FISHER. No; that is what Mr. Shibley said.

The CHAIRMAN. Oh, Mr. Shibley said that?

Professor FISHER. Mr. Shibley said that; yes, sir.

The CHAIRMAN. Do you agree with him in that respect?

Professor FISHER. To a certain extent, except that in England the word "merchant" is used differently from what it is in this country. The merchant in this country is rather exclusive of bankers, whereas a merchant in London includes the private banker. So these merchants, so-called, are very often what we would call bankers, although not what they call bankers there.

The CHAIRMAN. Now, having the Federal reserve system here, do you think that it is possible for the Federal reserve system to voice the public sentiment as definitely as does the Bank of England?

Professor FISHER. Perhaps not quite, but very nearly. In England they have a long tradition behind them of the leadership of the Bank of England and relatively few banks with a great many branches, whereas here we have thousands of independent banks.

The CHAIRMAN. Do you think it is desirable that the Federal reserve banks should assume such a position in the United States as does the Bank of England to England in that respect?

Professor FISHER. Before answering that broad question, I would like to give it a good deal of study; but from the standpoint of producing stability in the price level I do, because I think stability in the price level should be the first consideration in business. You have got to have a yardstick of fixed length; the very dollar also has to be fixed in purchasing power. We really have not got true civilization until we establish a stable dollar, and I do not see any way more promising of doing it in this country than by utilizing the powers that the Federal Reserve Board and banks have.

The CHAIRMAN. The reason I ask you that question is that there has been indicated from time to time, and quite recently, a disposition on the part of the administrators of the Federal reserve system to make the Federal reserve banks to the United States apparently what the Bank of England is to England. I wondered, in that connection, whether or not it would be possible for the Federal reserve system, constituted as it is, to voice the sentiment in regard to these economic matters that the Bank of England does.

THE $40,000,000,000 ROBBERY

Yesterday you referred to a loss, because of no stabilization, of $40,000,000,000. The question comes to my mind just how that loss is made up. Was that a loss in natural resources, was it a loss of book profits, or just how was that loss arrived at?

Mr. WINGO. Or a shift of values?

The CHAIRMAN. Or a shift of values? And, if there was a shifting of values there, might not that loss be recovered at a later date; and was there also taken into consideration, in fixing that loss, the natural increase in values throughout the country?

Professor FISHER. I think I did, as I remember it, at one stage say "loss," but I ought not to have used that word. I should have said "robbery," which I know I did say in certain other passages. I remember being conscious, as I used the word "loss" that it was misleading. It is a loss to some people, but it is partly a gain by others, just as when a man robs your house it does not destroy that much wealth, but he has got it instead of you.

The CHAIRMAN. That is the point I wanted to raise. The question came to my mind as to whether or not it was a loss on the whole or whether it was a loss by certain classes and a gain by other classes.

Professor FISHER. I would say the latter, except that where there is such an injustice perpetrated on one set of people for the benefit of others there goes with it, as a consequence, just as it goes with gambling, a net loss to society, which, of course, is a small fraction of the forty billions. I do not know how much it would be; it might be five billions.

The CHAIRMAN. I am interested to know whether that loss was to the people of the United States entirely, and if the gain was to the people of the United States, or whether the loss was by the people

of the United States and the gain by people outside of the United States.

Professor FISHER. Within the United States for the most part. It is a shifting. When prices are rising, the stockholder gains and the bondholder losses, and when the prices are falling the opposite is true. If you want to take time to go into that, Mr. Chairman, I would be glad to illustrate it by an imaginary example to show exactly what I mean—that kind of injustice that I had reference to when I quoted Professor King, who made that statement before your committee at a previous hearing, concerning this 40,000,000,000 injustice.

ILLUSTRATION OF SHIFTS BETWEEN STOCKHOLDERS AND BONDHOLDERS

The CHAIRMAN. I would like to have that, if you can briefly state it.

Professor FISHER. It will take about five minutes. If you suppose a company which before the war was doing a business with a capital of $100,000,000, evidenced by stock certificates, and $100,000,000 in bonds, and that company was earning 5 per cent on each, then the stockholder and the bondholder would be getting, respectively, $5,000,000 apiece. Now, suppose that the war comes and doubles prices. Then that company, if it is a typical company, will be able to get for its products double the prices it formerly did. It will also have to pay double the expenses for raw materials, wages, etc. If the receipts, therefore, are doubled, and the expenses are doubled, their profits are doubled; so that instead of making $10,000,000, as they did before, to be distributed to the stockholders and bondholders, they will be making $20,000,000, but this $20,000,000 will only have the same value in purchasing power as the original $10,000,000. They are not really making any more. They are merely making more measured in a depreciated dollar. They are selling the same physical volume of products, and the general price level is doubled, so that, measured in terms of commodities, the $20,000,000 is the exact equivalent of the previous $10,000,000. And if it were not for that disturbance of the price level, the disturbance in the dollar, there would have continued to be this 50-50 division between the stockholders and the bondholders.

But in view of this change you can see at once that the bondholders will not get their half. They are tied down by contract to 5 per cent. Consequently they will get $5,000,000, which nominally is the same amount they got before, but really is half as much in purchasing power. If they get $5,000,000 out of the $20,000,000, there will be $15,000,000 left for the stockholders. The stockholders therefore are getting nominally three times what they got before; and that is the way things looked in 1919. You remember the enormous dividends that were being distributed. But that is partly an illusion, because prices are doubled, so that they really are not getting three times as much, but one and one-half times as much, when you take into account the cutting in two of the dollar.

Therefore, you see, the stockholders have gained 50 per cent over what they used to get. They got $5,000,000 before. Now they get $15,000,000, which has the value that seven and one-half million used to have. So they have increased their real income in bread and butter, the comforts of life, by 50 per cent; and the bondholders have

decreased theirs by 50 per cent. The unstable dollar has picked the pockets of the bondholders and taken half of what they had there in real value, and put it into the pockets of the stockholders.

That is one illustration.

Now take the opposite. Suppose we start with a given price level, and then, because of deflation, it is cut in two. Suppose, as before, that at the start there were $100,000,000 of stocks and $100,000,000 of bonds, each yielding 5 per cent. There will be the $10,000,000 with which you started before, evenly divided between stockholders and bondholders. But after the price level has dropped to half of what it was—in other words, after the dollar has doubled in purchasing power—see what will happen. Instead of sharing 50-50, the bondholders will now take the whole thing, because they are entitled, under the legal terms of the contract, to get 5 per cent, and there is only $5,000,000 now earned. For if the price level is dropped, the receipts and expenses have been cut in two, and the profits cut in two. Instead of $10,000,000 profits, there will be only $5,000,000 profits, and the bondholders will get it all. There will be no net profits left for the stockholders, who will get nothing.

That is exactly what happens when you have deflation. You always have this help to the bondholder and hurt to the stockholder, and very often bankruptcies, closing up shop and unemployment.

Mr. STEVENSON. Doctor, you said a while ago that the shifting of values usually retained the profit that was made as a result of it in this country.

Professor FISHER. Yes.

Mr. STEVENSON. Now, take the matter of exportable surplus. Take the matter of cotton. In 1920 it fell $100 a bale on an average, and there were 7,000,000 bales of it shipped abroad. Now, that was to the benefit of the manufacturer in England and elsewhere. He made $700,000,000, in round numbers, on that. So that $700,000,000 just faded out of this country. Whenever it is a product that is exportable and has to be exported, where there is an exportable surplus, a depreciation in its price works directly to the benefit of the outsider, and the United States loses it absolutely; is not that true?

Professor FISHER. Yes; it may well be, for foreign trade, that there is a gain here and a loss abroad, or a loss here and a gain abroad, but this may be partly or entirely offset by a change in the price of foreign exchange. The foreigner finds, under deflation, that he has to pay more for his dollar exchange. The seller of foreign exchange reaps the profit. I think I said—I meant to have said—that the gain and loss are mostly between individuals in the United States. I said that because most of our commerce is internal commerce. Our foreign commerce is a small fraction of our total. Also still more is it true that most of our indebtedness is internal and not external. We may say, also, that the cotton grower is in the position of the stockholder, Mr. Stevenson, while the foreign-exchange dealer is in the position of the bondholder. Under deflation the stockholder loses while the bondholder gains. The consideration that Mr. Stevenson brings up would apply particularly to international debts. If we were in debt abroad in dollars and prices rose, we would gain as the debtor gains, when prices rise, and the foreign creditor would lose, and vice versa. If they were in debt to us in dollars, the opposite would be true in both instances. At present,

for instance, with Europe in debt to us in dollars, it is to the interest of Europe to see American prices inflated. Then they could pay their debts with a lower value, with less commodities.

Mr. STEVENSON. But it used to be the other way?

Professor FISHER. Yes.

Mr. STEVENSON. And hence, during the long period from the early eighties until about 1910 the cry that Lombard Street was depressing the prices of our commodities and robbing us by manipulation of the gold standard, and one thing and another, was the natural result of the fact that we were debtors and we were having to pay over there in a depressed commodity?

Professor FISHER. Yes; exactly.

Mr. STEVENSON. I heard a very interesting speech once by a candidate for Congress, who was elected on a Farmers' Alliance ticket. He beat a very able man from my district, who preceded me. They had had a lot about Lombard Street in the papers, but he was giving Wall Street hail Columbia, and an old fellow who had been reading these papers stepped up and said, "Jeff, hold on; ain't that the wrong fellow you're a-cussing? Lombard Street is the damn rascal that has been robbing us, ain't he?"

CAN ENGLAND MAKE US INFLATE

The CHAIRMAN. In that connection, Doctor Fisher, I am reminded of the thought expressed during recent months, that because of the very necessity that you have just stated here, and which has been referred to by Mr. Stevenson, English influences were brought to bear in this country, through the Federal reserve, to influence prices, as you suggested, particularly advocated by those people who believe in cancellation of the debts which are owed by foreign nations to the United States. In other words, the statement is made that that was another method by which a reduction in the amount that the other countries owed us could be effected, rather than by an entire cancellation. From your observation, have you seen any thing to indicate that such an influence was being exerted to that end?

Professor FISHER. No; I have not; and I would be very loath to believe that our Federal reserve people would lend themselves to any such plan, if it were suggested. I think they would feel insulted and resent it.

I do think, however, that a great many private citizens of Great Britain are hoping for inflation in this country. It has been expressed in their newspapers, and, in fact, when I was over there in 1921 I found economists telling me that they hoped that that could be done; that the way to serve America right was to send her a lot of gold so that it would inflate prices here. They thought that would be inevitably the result if they sent the gold over here. It would have been, I believe, if the Federal Reserve Board had not stopped it.

"EARMARKED" GOLD

The CHAIRMAN. In regard to this subject I notice in the Washington Post an editorial this morning headed "A creditor or debtor Nation," which is in part as follows:

> It is claimed by many good authorities that most of the gold in the United States now is here only temporarily, much of it only loaned; that large sums

of foreign money have been invested recently in American securities, and that if our commodity commerce in the near future is against us rather than in our favor as a country, the United States may soon be, if it is not already, a debtor Nation instead of a creditor Nation.

If there is solid foundation for this position it has an important bearing on the economic attitude and course of Congress and the Executive. It may be that, while we have been placing our national bills receivably up in the billions, the fact is that our national bills payable are larger than is commonly known or admitted.

In connection with that statement I would like to ask you whether, in your judgment, the gold which was referred to yesterday as held in this country, principally by Federal reserve banks, and otherwise, is held in trust or is "earmarked," or is the property of others, which may be withdrawn at an early date; and in that connection I think it would be interesting for you to state to the committee just how gold gets into the Federal reserve system.

Mr. WINGO. And how it gets out.

The CHAIRMAN. And how it gets out.

Professor FISHER. Which question do you want me to answer first?

The CHAIRMAN. I have given it to you, and you may answer it in your own way.

Professor FISHER. I remember Mr. Hoover said some years ago that the excess gold in this country should not be utilized to build a credit structure on but should be "earmarked" for ultimate return to Europe when Europe got on a gold basis. I think it was one of the cleverest suggestions that has ever been made for helping the popular mind to reconcile itself to keeping gold apparently idle. The first impression of the average man, who has not studied the effect on the price level, is that we ought to keep everything at work just as we keep a machine at work; that if we have all of this gold it ought to be used as a basis for credit. That is the opinion of a great many to-day, and it is a very dangerous opinion and may lead us to inflation. The other idea, that we ought not to use it but to earmark it and keep it for Europe, is a very good one to instill into popular psychology. Whether there is any actual earmarking in any literal sense or not, because foreigners have deposited gold here and earmarked it, with the approval of the banks, I do not know. I doubt it very much. I think that is a metaphor more than anything else. But I think it is a very good idea.

The CHAIRMAN. How can that be definitely ascertained, Doctor Fisher?

Professor FISHER. I should suppose by inquiring of the bankers.

The CHAIRMAN. Which bankers?

HOW GOLD COMES IN AND GOES OUT

Professor FISHER. The Federal reserve, the Federal reserve banks, and the larger banks of New York City.

As to the other question, as to how gold gets into this country——

Mr. BEEDY (interposing). Into the Federal reserve system; is not that the question?

The CHAIRMAN. That is the primary question; I think it would be interesting to have in this hearing a statement as to just how gold gets into and out of the Federal reserve system.

Professor FISHER. I suppose you intend to include how it gets into play as affecting the price level. That is partly in the system and partly otherwise.

There are two sources from which gold comes in. One is from the mines and the other is from imports. The mines of the Klondike or Cripple Creek or California or the mines of other countries can pour their product in, and in that case the miner theoretically coins that gold under our system of free coinage. But he does not think of it as coining. He thinks of it as selling; and, as a matter of fact, that is literally what is done. It almost never happens that he takes the gold to the mint says, "Please turn this bullion into gold coin and hand it back to me," which was the original theory. What he does is to exchange it for money that he does want—paper money—which normally will be gold certificates. It may be warrants that he gets at the assay office, which afterwards are so converted. But you may take that as the normal thing, that the gold is exchanged for gold certificates, or that the gold is deposited in the bank and from the bank finds its way to the Federal reserve bank, and from there to the subtreasury of the United States.

The CHAIRMAN. Before you go into that, the gold received either from the sale of goods or from the mines passes through the assay office, does it not?

Professor FISHER. Yes; or, if it is already in coined form, it may be directly deposited in a bank, usually in New York, when it comes from abroad; and when it is so deposited it is actually exchanged or sold for whatever the depositor wishes. He may get gold certificates; he may get bank notes; he may get Federal reserve notes; he may get just a deposit book credit. But he carries off whatever he gets for it in those four forms, and the bank then possesses the gold. It no longer belongs to the man who put it there, nor is it "earmarked" as from him. He has no further connection with it. It belongs to the bank.

The bank then can use it in any way it sees fit. It can sell it in the market; it can sell it to the jeweler. Normally, however, it is used either as a part of its own reserve or more frequently it is redeposited in the subtreasury of the United States in return for gold certificates, which are more convenient for reserve, or it is deposited in the Federal reserve bank in that district and used to get a credit with the Federal reserve bank. The Federal reserve bank, in turn, may give it to the subtreasury of the United States and get gold certificates for it. At each stage there is an actual exchange of that gold for something else; but it ultimately forms the basis for a reserve—a bank reserve, ordinarily.

The CHAIRMAN. May I interrupt you right there? Are you familiar with the practice pursued by the Federal reserve banks now in regard to their gold reserve? Do they hold the gold, or is that held by the Government as security for the certificates which are issued in the form of gold certificates?

Professor FISHER. I think the latter is the more usual procedure.

The CHAIRMAN. That is to say, the gold is held by the Government?

Professor FISHER. Yes.

The CHAIRMAN. And the Federal reserve bank holds the gold certificates instead of actual gold as their legal gold reserve?

Professor FISHER. Yes.

Mr. STEVENSON. If you will permit an interruption, it is the Federal reserve agent; it is turned over to him.

Professor FISHER. Yes.

Mr. STEVENSON. When they ask for a million dollars of certificates, they have got to turn the gold over to the Federal reserve agent.

The CHAIRMAN. Yes; I understand that. The point I was raising was whether the actual gold was turned over, or whether it was turned over in the form of certificates.

Mr. STEVENSON. Yes; I see.

The CHAIRMAN. I understand your answer, then, to be that the Government holds the gold and it is the practice of the Federal reserve to hold the certificates and treat them as gold?

Professor FISHER. Yes; that is my understanding.

The CHAIRMAN. I interrupted you. You had not completed your statement as to how gold gets into the Federal reserve system and gets out of the Federal reserve system.

Professor FISHER. I think I have completed the statement so far as its getting in is concerned. As to its getting out, it is very much the reverse. The gold can get out either by being exported abroad or by being used by the jeweler. There are two kinds of gold that come in, one of import and the other by gold mining. There are two kinds of gold that go out; one by export——

The CHAIRMAN (interposing). If you will pardon me I would like to get this in the record. I do not think you have discussed, at least not as fully as I would like to have you the exchange of gold for Federal reserve notes, which is another method by which gold gets into the Federal reserve system.

Professor FISHER. Yes.

The CHAIRMAN. I would like to have you state also, if you will, just what is done with that gold when it is received by the Federal reserve bank in exchange for Federal reserve notes; that is, what the Federal reserve bank does with that gold.

Professor FISHER. My understanding is, as I said, that it usually turns that gold over to the vaults of the United States Government in return for gold certificates, and keeps the gold certificates as its own reserve. But, of course, it can do both or either.

The CHAIRMAN. If it exchanges for certificates, what does the Federal reserve bank do with those certificates which represent gold that they have already issued Federal reserve notes for?

Professor FISHER. They can make two exchanges. They can accept the gold and give Federal reserve notes for the gold; then the gold belongs to them; and they can substitute gold certificates for that gold by asking the Treasury to give them the gold certificates.

GOLD AS BASIS FOR PAPER INFLATION

Mr. WINGO. May I interrupt you right there?

Professor FISHER. Yes.

Mr. WINGO. Can they, and do they, ever use that same gold as a gold reserve against Federal reserve notes issued on rediscount opera-

tions? I am talking about gold that they have bought with Federal reserve notes. That is their gold, you say. It is there in their vaults. Now, can they, and do they, use that same gold as a part of the reserve against Federal reserve notes issued subsequently in a rediscount operation?

Professor FISHER. Yes; because when they get the gold in exchange for the notes, they have got it dollar for dollar; not on the 40 per cent basis.

Mr. WINGO. Your contention is, an expressed by what you said a while ago, that they have bought the gold and have paid for it, and it is theirs?

Professor FISHER. Yes. Now, they have got a 100 per cent reserve against the Federal reserve notes, so far as that particular transaction is concerned. But the gold goes into general pot as reserve for all the issue, and not for that particular batch. Consequently, if they have more than a 40 per cent reserve, they can issue more Federal reserve notes on the basis of rediscount, backed up by collateral, etc.

Mr. WINGO. That is the next question I am going to ask you. Can they do that? When their reserves have gotten down low?

Professor FISHER. No; not when their reserves are too low.

Mr. WINGO. In other words, they can only do what looks like a duplication of the use of the gold as long as they have got an abnormal volume of gold on hand; and the word "abnormal" covers the margin between what they have and the legal requirement for a gold reserve against all outstanding Federal reserve notes?

Professor FISHER. Yes. But if at the start they had just a 40 per cent reserve, and then somebody comes in with a million dollars of new gold, and they issue Federal reserve notes to the extent of a million dollars in exchange for that, which is all they can do, they will now have a little higher per cent of reserve than before; because for that particular batch they have 100 per cent of gold behind the notes and they had 40 per cent behind all the rest, and this goes into the general pot, and it increases their gold reserve by that amount.

Mr. WINGO. Let us follow that up for a moment. It may be very simple to you, Doctor, but I get a little confused on it. Assume that they have a 40 per cent reserve against what is outstanding and you sell them another million dollars of gold and they give you Federal reserve notes for it. Now, they have 40 per cent against all of the notes outstanding before that transaction, and then they have 100 per cent reserve against that one million. Now, that is a surplus of reserve. Then they can take that surplus, you contend—and they do it—and use that as a reserve against a further issue without procuring any more gold?

Professor FISHER. Yes; but, of course, they do not do it just as a fiat issue. They do it in return for other assets in the re-discount process. They can not run a paper mill and do it.

Mr. WINGO. Let us carry it a little bit further. You have sold a million dollars of gold to them, and they have given you a million dollars in Federal reserve notes. I am a member bank. I come in and make a rediscount operation, putting up the necessary collateral, and I get a million dollars in Federal reserve notes. Now, they use some of the same gold—because, as you contend, there is a 100

per cent reserve back of that—they use some of that same gold, which would be 40 per cent, or $400,000 of that gold, as a reserve back of this $1,000,000 of Federal reserve notes which they gave me?

Professor FISHER. They have got $600,000 of free gold.

The CHAIRMAN. In connection with that, Doctor Fisher, you have stated that one of the methods of retirement of gold in the Federal reserve system is through just such a transaction as Mr. Wingo has just recited?

Professor FISHER. Yes.

ELASTIC CURRENCY

The CHAIRMAN. Now, that kind of a transaction evidently is from a demand of commerce and business for funds which causes that rediscount by the Federal reserve bank?

Professor FISHER. Yes.

The CHAIRMAN. That is one of the real purposes of the creation of the legal reserve fund in the Federal reserve banks?

Professor FISHER. Yes.

The CHAIRMAN. To provide elasticity to meet the demands of legitimate business throughout the country.

Now, there is another source by which that gold can be absorbed through the open-market transactions, is there not, which is under the control of the open-markets committee? At any time when, in their judgment, they deem it advisable, for one purpose or another, can they not go into the open market and buy paper and place it with the Federal reserve agent with a certain amount of this free gold, and thus cause the issuance of Federal reserve notes by the Federal reserve system?

Professor FISHER. Yes; provided they keep within the legal reserves.

The CHAIRMAN. Yes; of course. But that is another method by which Federal reserve notes, which are payable in gold, can be put into circulation?

Professor FISHER. Yes.

The CHAIRMAN. Do you consider that method—the issuance of Federal-reserve notes in exchange for open-market paper and gold—to defeat to any extent the real purposes of the Federal reserve system, which was to create an elastic currency? In other words, what I am driving at is, is it not possible to secure inflation in the Federal reserve system by resort to open-market transaction which result in the issuing of Federal-reserve notes instead of the rediscount by member banks of what is known as commercial-business paper, which is responsive to the demands of industry and commerce throughout the country? Is not such a note issue apt to aid speculation to a greater extent than the other method in which your Federal-reserve notes are issued through a rediscount by the member banks of eligible paper in response to actual trade needs?

Professor FISHER. I think it is quite possible that there should be such abuse. I mean, with the set-up as it is now, it would be quite possible for the open-market committee to misuse their powers in such a way and to produce inflation. I should not suppose it would make any material difference to speculation, because funds once in

the market are fluid and can be used as the public sees fit, in speculation or in commerce or in business, the difference only being according to the profits which offer in both and the discount rates that the member banks have on loans, or the rates for the call loans.

The CHAIRMAN. I desire here to call attention to the fact by this method of issuing Federal-reserve notes based upon open-market paper, supported by free gold which happens to be in the possession of the Federal reserve banks, permits the Federal reserve banks to control the amount of Federal-reserve notes outstanding, at least to the extent that these issues are based upon open-market paper, and also permits the use of gold as security of such notes which may have been received by the Federal reserve banks by the exchange of Federal-reserve notes for gold, that inflation is possible. Where gold is exchanged for Federal-reserve notes by the system, why should not the Federal-reserve banks hold the gold thus acquired in the same manner as does the United States Treasury when it exchanges gold certificates for gold, as a trust fund, and the gold certificates as a warehouse certificate?

Mr. WINGO. Before you leave that proposition, I happened to be present at a conversation the other day where the same statement was made that you just made, and it was challenged that it could not be used in speculation, but this was the contention, and I want to see if it is sound, that if the Federal reserve bank, we will say, in New York, put out $50,000,000 under an open-market operation and paid $50,000,000 of paper from one of the banks that was loaning funds on call——

Professor FISHER. I do not understand that.

Mr. WINGO. Say that the Federal reserve bank started to increase its purchases under the open-market operations, $50,000,000; it goes to one of the banks that has eligible paper which they can buy under the open-market operations, and it buys $50,000,000 of these securities under the open-market operations from this bank; that bank then has $50,000,000 additional available to lend on call on the street, and that transaction has actually happened. Is that accurate?

Professor FISHER. I do not see why it is not. If the bank receives Federal reserve notes in place of some of its own assets, in the form of investments, it can more readily lend them out than it could in the other form, but, as I said before—and I should like to emphasize that—I do not think the net effect in encouraging or discouraging speculation in the stock market, as distinct from transactions in commerce and business, would be very great, if any, because money used in that bank might not go into the stock market. It might go to the West if the West would bid more for it than the stock market. If the profits to be obtained from its use in commerce and business offered more than the speculative profits expected in using the money in the stock market, naturally it would go into commerce and business. It seems to me it is merely a question of two forces affecting the flow of funds to the stock market or to other uses; namely, the force of expected profits on the one hand, and the deterrent force of the rate of interest on the other hand plus safety and availability. That is a matter for the particular bank to take up rather than the Federal reserve system.

Mr. WINGO. Aside from the profits?

Professor FISHER. Yes.

The CHAIRMAN. The public generally understands that the Federal reserve system is responsive to the demands of agriculture, industry, and commerce, and that its credit goes up and down as the demands go up and down, through the rediscount of their eligible paper with the Federal reserve system. The general public must also understand, in that connection, should they not, that there is another method which can be pursued, which is entirely in the control of the Federal reserve banks, through this committee on open-market transactions. In that connection it might be perfectly legitimate and perfectly right that they have the opportunity to go into the open market to buy paper that is known as being dealt in in the open market. It may or may not be the same class of paper rediscounted by the member banks, but I think it should be understood that the Federal reserve member banks have the right, through this system, to cause the issue of Federal reserve notes; and might it not also occur, in as much as the transactions in the open market are principally handled in New York City, where there is also a stock exchange with a centralization of speculation probably which does not appear anywhere else in the United States, that an undue amount of Federal reserve notes might be used to take care of speculative market situations?

Professor FISHER. I think it is possible. I do not think, however, in the constitution of the Federal reserve system, there is very much possibility of any such discrimination.

The CHAIRMAN. In that connection, pertinent to that very situation, is the recent call by the Federal Reserve Board for a list of the borrowings from banks in New York for speculative purposes.

Professor FISHER. Yes.

The CHAIRMAN. A recent statement of one of the financial papers indicated there was a concentration of available cost and credit of 65 per cent being used in speculative loans. Do you think that is a fair average, and would you think there was an undue concentration of loans for stock-exchange purposes that might be detrimental to the business interests of the country?

Professor FISHER. I do not know whether 65 per cent is right or not. I know nothing about that, but I do not think there is very much in the idea that this process is detrimental to the United States in any sense in which you can remedy it. If it is a disease—if it is something that should be deplored, it is something more or less separate and apart from the operation of the Federal reserve system—I mean because of this fluidity of the money market; if you dam it in one place, it will flow around the dam in some other way.

The CHAIRMAN. In that connection you realize, as many of us do at this time, that there are large profits made in underwriting large domestic issues, both domestic and foreign, and naturally that chance of profit creates a demand for funds that does not exist probably in any other part of the country while that distribution is taking place. The point I think of as bearing on this whole situation of the concentration of funds—the point I was getting at—was whether or not that might be influencing a slowing up of industry.

Professor FISHER. I think it is because industry has not taken up the funds available for industry that we have the surplus. The most you can say is that we have so much gold and so much expan-

sibility in our Federal reserve system that it is quite natural that it should go into speculation, especially with the mergers going on, the economies of which have increased the speculative profits, and this boosted the stock market. That is one of three or four things behind the recent rise of stock prices.

The CHAIRMAN. How do you know we have too much gold, Doctor?

Professor FISHER. We have got about twice what is necessary for the legal reserves and I believe it is a very great menace to the price level or the purchasing power of the dollar.

The CHAIRMAN. Don't you think we need more gold now than we needed in 1914?

Professor FISHER. Yes; but we have more than we need, and abroad they are not using it very much, even when they go on the gold standard, and it will be a long time before France and Italy get on the gold standard and before there is a universal gold standard abroad.

The CHAIRMAN. How much gold is there, and where is it, in this country? You say there is too much gold. I think a supporting statement and analysis of that situation would be most interesting to the committee.

Professor FISHER. I have no figures in my mind.

The CHAIRMAN. Are you arriving at it in an arbitrary way?

Professor FISHER. No; I am simply watching that one figure in the newspapers as to the gold reserve—that is, the gold that is functioning for the support of currency or credit.

The CHAIRMAN. In arriving at that decision, you should also, I should think, have to know whether or not any of this gold is held in trust. If it is held in trust, of course it belongs to outsiders.

Professor FISHER. But in that case it must be held idle and the interest otherwise to be earned on it by utilizing it for loans is lost to the owner.

THE CREDIT OF $200,000,000 TO THE BANK OF ENGLAND

The CHAIRMAN. How does, in your judgment, this $200.000,000 credit established for the Bank of England, to go back on the gold basis, affect our gold situation?

Professor FISHER. I have not considered that question, Mr. Chairman. I should like to give it some thought before trying to answer it.

The CHAIRMAN. Members of the Federal Reserve Board appeared before the committee, and one member of the Federal Reserve Board stated they established a credit available for the bank of England. Would that take gold out of this country, in your judgment, or tend to leave it here?

Professor FISHER. As this credit has, I believe, been hitherto unused and as it did not encroach on domestic credit, there being enough and to spare for all, there has been no tendency apparent in either direction. As soon as the credit is used the situation will be different.

The CHAIRMAN. Would that affect the price level?

Professor FISHER. It would tend to.

The CHAIRMAN. Lower or raise it?

Professor FISHER. It would tend to raise it as soon as the credit was used for purchasing goods in this country. But it would have other reflex effects. For instance, it would tend temporarily to reduce by $200,000,000 the gold or goods to be exported from England in payment of her debt to us and this would neutralize the price-raising effect in this country and substitute a price-raising effect in England (or what amounts to the same thing would deter any tendency of prices to fall there). Its main object is to make it possible to keep gold in England, or ultimately, perhaps, to buy gold here and ship it there.

The dominant thought in England has been to get back on the gold standard. This idea of boosting the price level in the United States is merely an idea of a group. The dominant idea—the one they put across—was to get back on the pre-war gold basis. They have made a tremendous sacrifice in unemployment to do that.

The CHAIRMAN. Do you think we should aid to get them back on a gold basis as quickly as possible and should lend assistance by the shipment of gold to them?

Professor FISHER. I am not enthusiastic about it, but in as much as what I should like is out of the question for the immediate future—that is, universal stabilization for the whole world—I do not see any other second-best thing than to encourage them to get on the gold standard and help them get there. Of course, that means deflation of prices in England or inflation in America.

The CHAIRMAN. Do you think there is any danger on our part in holding such a large amount of the world's gold, because other countries might declare gold a commodity and it might thus lose its value in international trade?

Professor FISHER. You mean if they do not go on the gold standard?

The CHAIRMAN. Yes.

Professor FISHER. I do not think it would change the situation as it now stands.

The CHAIRMAN. You do not think it would affect the value of gold?

Professor FISHER. A mere declaration?

The CHAIRMAN. Yes.

Professor FISHER. I do not think so.

The CHAIRMAN. Could they accomplish that by a mere declaration?

ELASTICITY AGAIN

Professor FISHER. I do not think so. Of course, gold is a commodity in the paper-money standard countries of the world to-day, just as it was in our country during the Civil War.

You asked me in regard to the elasticity, Mr. Chairman.

The CHAIRMAN. Yes.

Professor FISHER. When the Federal reserve act was passed it was largely in response to that slogan of an elastic currency, the idea being that the money or credit put in circulation should be matched up always with some business transaction so that the flow of money should be parallel to the flow of commerce. That is merely a crude formula to cover very much the same ground as that which I tried

to cover when I spoke of stable money and stable price levels. It means that money should not be in excess of the demands of commerce. In the equation of exchange you have money multiplied by its velocity equal to the price level multiplied by the volume of trade.

If the volume of trade is kept proportionate to the money, then the price level will remain fairly constant. So it amounts to very much the same thing as saying we want an elastic currency that expands when business expands and contracts when business contracts; that is to say, we want money to be such as not to disturb materially the price level. So, in that way, I think the Federal Reserve Board was quite within the law and carrying out the spirit of the law when they "accommodated commerce and business" by preventing inflation or deflation. This was, by implication, the fundamental idea of elastic currency and the fundamental idea of the Federal reserve act.

The CHAIRMAN. In that connection, Doctor, under the present practice of the Federal reserve system, the Federal reserve notes are becoming more extensively in circulation than other forms of money. Now there is $1,650,000,000 of Federal reserve notes outstanding—somewhere between one and a half and three-quarter billions at this time. Is this due to the fact that the Federal reserve system is using the Federal reserve notes to a greater extent than originally intended that these notes are outstanding and is an undue amount of Federal reserve notes outstanding, or has there been taken from circulation an amount of money of other classes so that to take care of the needs that Federal reserve notes must be out in increasing amounts?

Professor FISHER. I could not answer such a question specifically without going into the records, and you are evidently much more familiar with them than I am; but I should say that the expansion of our circulating medium, including that of Federal reserve notes, has been in response to a great increase in business activity since the war and also in response to this large amount of gold that we had sent to us from Europe.

The CHAIRMAN. You think it is incumbent upon the Federal reserve system to furnish circulating medium in the form of Federal reserve notes rather than the old forms of circulating medium such as prevailed before the Federal reserve system was created, which are now becoming secondary?

Professor FISHER. Yes; to a large extent, because it is more elastic.

The CHAIRMAN. Is it not possible that, from these operations, we may affect prices and the price level?

Professor FISHER. If too much circulating medium goes into the channels of circulation, it tends to raise the prices; and if too little, it tends to restrain them.

The CHAIRMAN. How can that be controlled?

CREDIT VERSUS POCKET MONEY

Professor FISHER. By the process we were speaking of yesterday, by the Federal reserve system substituting gold certificates for Federal reserves, or vice versa. However, I do not think the actual

pocket money in circulation is the chief determining factor. It is the checkbook deposits that are ten times as important.

The CHAIRMAN. I judge from what you say then that it does not matter whether there are five billions of circulating medium out or ten billions of circulating medium out. Do I understand you correctly there? It would have no effect on the price level whether there was five billion of notes or ten billion.

Professor FISHER. Of notes?

The CHAIRMAN. Money, I mean—actual currency—pocket money.

Professor FISHER. It would make a difference, but not as much difference as 50 years ago, because now we have such a large volume of credit in circulation and it is the deposits subject to check which have the upper hand rather than the pocket money, and that is one reason for the paradox often mentioned by people who do not thoroughly understand the quantity theory of money and want to discredit it, that very often the quantity of money in circulation follows the price level rather than precedes it.

The CHAIRMAN. In your judgment it does not make any difference who furnishes the money so long as it is available, whether issued in the form of silver certificates or Federal reserve bank notes or gold certificates?

Professor FISHER. It is dollar for dollar. Of course, greenbacks will always be $346,000,000. They will not fluctuate, that is the law, and the Federal reserve notes will fluctuate. The Federal reserve notes are elastic and meet the fluctuations of business better than the other forms we previously had. The important thing is to have true elasticity in the deposits subject to check. If you can get them to correspond to the demands of business and be neither too much nor too little, the pocket money will take care of itself.

Mr. STEVENSON. Is not that governed by the extension of credit by all banks?

Professor FISHER. Yes.

The CHAIRMAN. There is really no definite control, through the Federal reserve operations, of the amount of credit than can be granted?

Professor FISHER. I will answer that by referring to the letter you read written by Professor Jenks. There are thousands of nonmember banks, none of which the reserve board can control, but they can influence them by moral suasion. They can influence them by their rediscount policy. You can check the expansion when there is a tendency of the member banks to put out too much credit and the price level is rising. The Federal reserve system can put a quietus on it.

The CHAIRMAN. Should the rediscount rate be above or below the rate for money?

Professor FISHER. I do not think it is essential that it should be uniformly in one direction or the other. I think the Federal reserve system should be given wide discretion in regard to that.

LOSSES TO CREDITOR CLASSES SINCE 1913

Mr. LUCE. I should like to recur to that phase of the subject with which the discussion began this morning. Ten years ago, as a result of foregoing the enjoyment of certain luxuries during 30

years, I had laid aside a certain amount of purchasing power against the needs of sickness and old age. I had become a member of the creditor class, which is, I fear, sometimes referred to with an invidious suggestion. I had put this purchasing power partly in savings banks and cooperative banks and a little in bonds and I had a life insurance policy. Four years later I found that one-half of the fruits of my sacrifices and denials had disappeared.

Professor FISHER. You mean in purchasing power?

Mr. LUCE. Yes. About that time the bulk of the economists in the country expressed the hope that we would never get it back. They desired to have that price level stabilized and predicted that it would be stabilized at something over 200, and unless my memory deceives me, you were one of those who brought grief to me by predicting that the price level would not fall and intimated that it should not fall. To my great satisfaction, in the six years that have passed since that prediction was made, I have got back part of it and now I am only 33⅓ per cent out. I have now one-third less of that purchasing power than I had 10 years ago.

Professor FISHER. Yes.

Mr. LUCE. Yesterday's discussions brought out the belief apparently by Mr. Shibley and yourself that I ought to abandon all hope of getting back the third I lost, which again, to my very selfish impulses, is a very disagreeable outlook. I should like to know what there is ethically unsound in my desire to get it back.

Let me, before you answer the question, point out I am not wholly selfish in this matter. I come from a city of 30,000 persons, an industrial city. There are about 20,000 adults there and I imagine that about 18,000 of the 20,000 are in this obnoxious creditor class. The wage earners are almost universally in the creditor class. We have savings banks that have deposits of about $15,000,000, of which ten or twelve million dollars is the property of the reprehensible creditor class that toils in the woolen factories, and other factories in that town. Of these 20,000 adults, I surmise that more than 15,000 have life-insurance policies and that most of them or very many of them held those policies 10 years ago. I happen to be a director of one of the smaller mutual life insurance companies and so it was brought home to me at every directors' meeting I attended that the great bulk of the funds which have been put into our hands to be held in trust for this creditor class, which works in the mills and factories, is invested in bonds, and those bonds have, in the last 10 years, lost a third of their value. I am one of the board of trustees, therefore, for a great many thousands of wage earners, because this life-insurance company deals chiefly with the industrial class and the great bulk of our policyholders are wage earners who very often have taken out a policy in order that there might be enough money to bury them and pay the cost of the last illness.

Am I wrong, unjust, or unfair or inequitable in holding that the purchasing power which has been taken away from these thousands and thousands of working people shall be returned to them? I talk about it with a sort of earnestness because the money is held by us as trustees. Will you explain why it is wrong for me to desire to get my own purchasing power back or for these thousands of

depositors to desire to get their purchasing power back? Why should we not, in other words, return to the scale of 1916 and deflate and get back the money which you say has been robbed from us?

Professor FISHER. Mr. Chairman, that is just the sort of thing that is wringing my heart, and I say that literally, and I have sympathy not only with our friend who has spoken for himself personally, but for the thousands that he represents, and I also have sympathy——

The CHAIRMAN. The situation he depicts is a typical one throughout the country.

Mr. LUCE. Let me also point out that I have a very keen sympathy with the educational institution that gave me my education and I have seen one-third of its endowment disappear. I am interested in a hospital and in a church and various bodies that are supported for philanthropic purposes by their endowments and I have seen a third of that go and that adds to my anxiety.

Professor FISHER. Not only do I have sympathy——

Mr. STEAGALL. Before you proceed, I want to express some gratification that wells up in my heart as to the statements here that the money of this country had drifted into the hands of laboring people. I am unselfish enough to rejoice with those sections of the country to which it applies. In the section of the country in which I live the laboring people have nothing but their labor and some of them just a little of its products.

MUST COMPROMISE BETWEEN JUSTICE TO CREDITOR AND JUSTICE TO DEBTOR

Professor FISHER. I was going to say, Mr. Chairman, that from the standpoint of sympathy and justice we must take into account not only the men who are in the position Mr. Luce has described, but those who are in the opposite position. The farmer, for instance, who mortgaged his farm in 1920 at the peak of prices—thousands and thousands of them have done it—is in that position. I notice in my notes I wanted to speak about your reference to my personal prediction and desire back in 1919. At that time, I think, I was the the only one who came out and predicted there would be a rise in the price level. (There was a general expectation there would be a fall.) Such a rise did occur. And I coupled with that prediction an opinion that in about a year's time there would be some recession and that recession did come, and it came with a vengeance, a great deal more than I expected. So that my prediction was partially fulfilled and partially not. But the time when I may have stated, as you seemed to have remembered that I did, that the price level should not fall, I think was after that first fall. I may be mistaken.

The principle on which we should decide what is just should take account of all concerned, debtor and creditor, and the different dates of the debts and credits. What you say is true, undoubtedly, and your loss is part of the $40,000,000,000 that I have been talking about. I spoke yesterday of how the same thing had happened in Europe to a large extent. I mentioned the fact that the leading professor of Germany, perhaps, had lost his entire fortune. I might

mention the fact called to your attention by Professor Rogers when he was studying, after the war, these various conditions, that he went to Budapest and visited a poorhouse which was philanthropically run by a lady for the benefit of the "new poor," as they are called, in Europe, the middle class who had saved a medium amount of money and invested it in bonds and savings banks, etc.. and expected to live on it in their old age, and she pointed out a little hall bedroom where two ex-justices of the supreme court lived, men who had come to her poorhouse to live because their savings had been swept away. I know there are millions of people in the United States suffering to-day because they made investments at the pre-war level of 1913, and now, at the level at which I would propose to stabilize, they are going to lose permanently a third of their investments. If there were some way of individualizing this and scaling these debts so that you, Mr. Luce, should have an addition to your bonds, and that should come out of others who had invested in stocks and who got what you lost, that would be ideal justice. But that would not be practicable and would not correspond with your contract. The answer is, "Well, Mr. Luce, you made the investment and you should know there was no guaranty that the dollar would be stable. You took your chance and you must toe the mark and play the game and take your loss." That is the answer.

From the standpoint of the individual that is a sufficient answer, but it still goes against the grain if more people lose that way than otherwise, and so the question of justice to the people must be considered on its merits, and so, because you can not individualize and say how much should be restored, the only thing you can do is take the course that will do the greatest good to the largest number and the least harm to the smallest number. That means you should take into account the creditor and debtor and the dates of the debts; you should take into account those who went into debt in 1920, like the farmer, and those who made investments in bonds in 1913, like yourself, and those have to be balanced against each other and a sort of center of gravity taken. If everybody had done as you have done—and there are doubtless millions of them—if all debts had been contracted in 1913, I would say the only thing to do in the United States to-day, in justice to everybody, would be to get back to the 1913 level. If, on the other hand, all the debts that exist had been contracted in 1920, I would say that the farmer was right and we should go back to the 1920 price level.

I had on my desk at one time two letters that came to me, one representing the farmer class and another representing the Government employee, one saying that "the only justice I can see is to go back to the 1920 price level," and the other saying, "The only justice I can see is to go back to the 1913 price level."

What is the average? I tried at one time to calculate that, and I found as nearly as I could estimate it or guess at it, on the basis of such statistics as I could get hold of as to the duration of loans, that the average loan was one year old.

Mr. LUCE. I wonder if you took into account the average life of life-insurance policies and savings-banks deposits and the endowments of educational institutions?

Professor FISHER. I did endowments, in the sense of including bonds. I did not with respect to life insurance. As to savings banks, it is different. There is a constant flowing in and out.

Mr. LUCE. I interpolated that because I was surprised you discovered it was a year or less.

Professor FISHER. I may be wrong, and I think to-day it may be more than that, because of the Liberty loans. Billions of Liberty bonds are out now. The ideal method would be to get to-day the bonds you own and the savings-banks deposits, which range according to the time they have been carried, and the farmers' loans, and take their debts and see those that now exist. You can not do anything with those that have been liquidated, but for the bonds and debts and mortgages now outstanding, what is the average date when they began? My impression is that they would be two or three years, on account of the Liberty bonds carrying them back. Then there would be three groups, the group you represent, the farmers' group, and the group of Liberty bond holders, and perhaps a fourth group, scattering. The Liberty bond price level was, if I remember correctly, not much above the price level we are at now. I would have to see the figures to state just exactly what it was. The price level is now 153.6, according to my index number last week. What it was then I will find for you in a moment. The price level at which you contracted was 100. The price level at which the farmer contracted in many cases was about 200 or 220, I suppose. I have never recently tried to work this out.

My guess would be that almost all the indebtedness which now exists was created during the last four years, except for the Liberty bonds, which run into billions. Of course, that means there are still billions that go back to 1913, but with all the new issues that came out in the last four years, which deserve consideration, the average would be very close to our present average, and, rather than enter into a long discussion, if I were to stabilize or had the power to stabilize and people would accept my dictum or decision as to what it should be, it would be the average of the last four years.

Mr. LUCE. After the Civil War, when the thing was left alone, the creditor class got back its money.

Professor FISHER. Yes; but it was not the same individuals that got it back. That was the idea in 1920 to some extent, that justice required getting rid of the high cost of living. That was one cry, and it was on the theory that people would be better off and better pleased to get back to the pre-war level, and you immediately bankrupted other people; in other words, the water is over the dam; so we should let bygones be bygones and try to prevent a repetition of the evils you describe.

The CHAIRMAN. Suppose Mr. Luce, representing the creditor class, was an investor in farm-mortgage bonds which you refer to, issued at a price level of 220; that would not change the situation at all so far as his situation was concerned, would it?

Professor FISHER. Yes; he has made money on that. The man who bought the farmers' mortgages in 1920 is the man that the farmers lost to. He has gained, while the farmer lost, during the deflation. The investor in farm mortgages from the period of May, 1920, to the present, has been the gainer.

The CHAIRMAN. In other words, if Mr. Luce's investment was represented in loans placed in 1920, he would not have suffered that loss of 33⅓ per cent.

Professor FISHER. No; he would have had a gain instead.

The CHAIRMAN. Then it has been profitable for the creditor class that invested in farm loans when the price level was at that high point?

Professor FISHER. Yes; and the farmer is therefore angry at those people—the money lenders—because he now has to pay back that which he then borrowed with a 60-cent purchasing power dollar.

Mr. LUCE. I might say that the insurance company of which I spoke puts a material amount of the money entrusted to it into farm mortgages, but I can not recall at any time in the last six years any difference in the rate of investment. It has always been on the same basis.

Professor FISHER. Yes; but when prices are falling at the rate of 5 per cent the money has gained 11 per cent in purchasing power. If you invest $100 to-day and the next year get back $106, and the gain in purchasing power is 5 per cent, you have gotten back next year the equivalent of $111 this year.

Mr. WINGO. Doctor, the contemplation of Mr. Luce on one end of the seesaw, with the others who were compelled to go into debt and give their promise to pay in 1919 on the other end of the seesaw, furnishes an argument in favor of your attempt to prevent instability and prevent further violent fluctuations?

Professor FISHER. Yes, sir.

Mr. WINGO. The men, including the insurance companies, who were so fortunate as to buy telephone stock and other forms of investment, when they were down to 98½ in 1920 and could sell them to-day at 140 and something, on an average—there has been about a 43 per cent rise in the standard groups—they have recouped some, but those people who went into debt——

Mr. LUCE. I might say that the insurance company with which I am connected buys no stocks.

Mr. WINGO. But there has been a class, to which Mr. Luce belongs, that has recouped somewhat by the rise in prices. But take the other gentlemen on the other end of the see-saw comparable to Mr. Luce. I have in mind a gentleman very similar to Mr. Luce. He contemplated laying aside funds to take care of his minor children and forewent luxuries in order that he might be able to give to his three children a university training, something that was denied to him. When the time came for him to put two of them into the university he found that the cost of clothing and all the other expense incidental to educating the children had more than doubled and his meager savings, under the old price level, were wiped out and were not sufficient, as he figured they would be and expected that they would be, and he had to mortgage his home at a time when the level was about 200. Now, as the seesaw works up again and the time comes to pay the mortgage, he is going to have to pay it in a 100-cent dollar, whereas he borrowed a 50-cent dollar.

Professor FISHER. Stung twice.

Mr. WINGO. And he is going to lose as Mr. Luce lost. In other words, Mr. Luce's seesaw goes back up and the other man is cut, and your conclusion is that there is not any practicable way by which we can wipe out the inequities that have occurred in the past for everybody, and theoretically we must assume that they are just about evened up, because individuals flow into the mass and flow out, but the only thing left in a practical way that the bankers who control credit, or Congressmen who can legislate to aid in this matter, is to prevent the same injustices recurring by the future operations of the credit machinery.

STABILIZATION IS FOR PREVENTION RATHER THAN RELIEF

Professor FISHER. That is my idea, and that is the reason we do not make very much progress, because the immediate problems before Congress are problems looking toward relief—what you can do to help the farmer and help these particular men in this particular predicament instead of attempting to legislate against a recurrence. Prevention is worth many times cure, because prevention may last for a million years.

The CHAIRMAN. He who borrows should know whether he is in a rising price level or a lowering price level.

Professor FISHER. Absolutely.

Mr. BEEDY. Of course, he can not know that.

Mr. WINGO. In other words, we have been focusing our attention on emergency matters and have lost sight of these preventive measures?

Professor FISHER. Yes.

Mr. WINGO. I am constrained to recall at this point a statement made by an Englishman, that English statesmen never sacrificed the security and stability of the future of the British Empire to present interests and temporary benefits, whereas the American can not see beyond the present emergency and frequently sacrifices the stability of the future in order to appease desires created by temporary distress.

Mr. BEEDY. His charges that the standards of statesmanship, so called, and the standards of legislation have declined in the past 50 years are that we have been administering legislation in the form of anesthetics rather than in the form of sound fundamental remedies.

Mr. WINGO. I must dissent as to the gentleman's use of the word "anesthetics." You have been attempting to use an artificial stimulant in industry under the name of a protective tariff.

OPEN-MARKET OPERATIONS

Mr. BEEDY. Getting back to the query of the chairman and the line of discussion he had as to the open-market operations, aside from the profit that is accruing to the Federal reserve banks by open-market operations, and assuming that there is a surplus of funds, as there has been for several months—practically 24 months—the member banks not needing any increase by reason of rediscount operations, assuming that to be true, aside from the profit that flows to the Federal reserve banks, what benefit is there in a Federal

reserve bank engaging in open-market operations, what public benefit?

Professor FISHER. It is a device they can use for stabilizing the price level. That is the benefit, and they have been using it for that. They have not advertised it, but it is, as you were saying the other day, the most powerful weapon they have.

The CHAIRMAN. Might it not be possible that the influence that caused them to do that might be a desire to make earnings to pay the operating expenses of the Federal reserve system? Would they be justified in going into the open market for that purpose, with no other thought as to the effect upon the credit situation?

Professor FISHER. I think they would be if it did not interfere with the public purposes for which the system was created.

The CHAIRMAN. If they did not have earning power to cover current expenses, and went into the open-market operations to get those earnings, might they not do something that would have a very bad effect?

Professor FISHER. Yes, sir; it is possible, especially if people criticize the Federal Reserve Board, as they do—and, I think, unjustly to some extent—egg them on and say, "Why should we lose money for nothing?" whereas if you could validate what they are doing and say, "This is done under authority of law and in order to prevent deflation and inflation; that is one of our great public utilities and we are expected to prevent any great deflation or inflation"—in that case they would be encouraged to go on and do this.

The CHAIRMAN. Take a situation, though, where the 12 banks in the Federal reserve system are having difficulty in earning an income sufficient to cover expenses; for instance, last year they returned to the Government a surplus which was a very small amount. Some of the 12 Federal reserve banks did not earn their operating expenses.

Mr. WINGO. Take the instance referred to by the chairman, that of making expenses. The Federal reserve bank is a trustee for the member banks, and when they go into the open market under conditions that prevail, because they say that the banks are so prosperous and have such a surplus of funds, they do not rediscount with the banks to the extent that would enable them to pay expenses out of the rediscount revenues—if that is true and banks have the surplus and they are looking for investments with which to pay their own running expenses, then when the Federal reserve bank goes into the open market in competition with them, every time they make a dollar to cover expenses, do they not take that same dollar out of the member banks themselves? Is it not taking it out of one bank and putting it in another?

The CHAIRMAN. Don't they keep up the rediscount rate by that and tend to prevent deflation?

Professor FISHER. Yes. I think the member banks should be told this: "Sometimes we compete with you and to that extent we do you damage, but that is nothing compared with having your yardstick of commerce stabilized and avoiding these evils that Mr. Luce refers to."

Mr. WINGO. That might be true, but when they say not that commerce needs it to save fluctuations, but merely to make profits to pay salaries, they would not be justified, would they?

Professor FISHER. I agree with you.

Mr. WINGO. Because if they have a right to protect this situation you refer to by giving an indirect benefit to all classes, especially the credit banks, they have no right to disturb that stability simply for the purpose of making money to pay expenses, because it is taking money out of one bank and putting it in another.

The CHAIRMAN. Don't they go to the market for another purpose? Don't they go into the open market for the purpose of influencing the money market?

Mr. WINGO. That is the point I am talking about. If they go in for the benefit of—assuming that they have the legal and moral right to try to control the money market for the purpose of maintaining the stability of prices, then if you assume they have that right, both morally and legally, then it is not wise for them to go in there and disturb that purely to make profits.

The CHAIRMAN. Doctor Fisher has stated that is one of the most powerful weapons in their hands. It has been argued by some gentlemen who claim to know, that the Federal Reserve Board or this committee on open-market transactions, watching the trend of prices, gauge their operations in the open market as to what they think the market should be. For instance, if the market is going up or general prices turning up and the general prices of the stock exchange are too high, they go into the market for the purpose of controlling that situation. Is not that about what you stated? The effect of what you said would be about that?

Professor FISHER. Something like that; yes.

Mr. WINGO. I am not criticizing that, but suppose that the price level is on an even keel; the point I am making is that it violates the very purpose for which they are to function by disturbing that even keel, because if it does have any effect it would undoubtedly depress the credit market by throwing surplus credit on the market and raising prices.

Professor FISHER. May I go back to the point Mr. Luce made——

The CHAIRMAN. Does not the fact that the Federal reserve banks engage so extensively in open market transactions affect the stock market and is not that a function that should be more properly carried on by banks outside of the Federal reserve system?

Professor FISHER. I am not sure whether you are speaking from the standpoint that is in my mind all the time, of stable price levels, or speaking of it on the hypothesis that the price level is all right and does not need such regulation. If you are talking from the standpoint of stable price levels, I think that is the paramount issue of the time and the disturbance caused by the going in or the going out of the market is, in other ways, too small to be compared with the other extremely important thing of maintaining the dollar at a fairly stable purchasing power. If you are going into the market on the other theory, that is a banking proposition entirely which will have to be considered by the individual member bank as to its duty to the stockholder.

FOREIGN TRADE VERSUS DOMESTIC TRADE

Mr. WINGO. Before you go on the other matter, I do not recall your exact language, but somehow, in discussing the foreign trade, you gave expression to the thought that you agree with those who treat as of very small importance the volume of our foreign trade,

because, as you frequently stated, compared with the great volume of domestic trade, it is infinitesimal. I thought possibly those who took that view overlook this fact: I will take a concrete illustration, because sometimes that is very helpful in explaining a point. Take the very illustration Mr. Stevenson used when there was a slump of $700,000,000 in the cotton industry.

Mr. STEVENSON. $700,000,000 in that which was exported.

Mr. WINGO. And, of course, it meant something like five or six hundred million dollars additional on the whole crop; in other words, I think we can safely assume there was a billion lost on the whole crop that was affected by the breakdown of prices. But even taking the $700,000,000 in the foreign market, that decreased the purchasing power of those farmers to the extent of $700,000,000, and you are more familiar than I am with the ratio of what that represented, with the compounding of the purchasing power. If they could have spent that $700,000,000 in the purchase of automobiles, hats, shoes, and necessities of life, and the manufacturers could have spent that money in the employment of additional labor, is not that the real crux of our domestic trade—the purchasing power of the people?

The CHAIRMAN. That $700,000,000 is part of the $40,000,000,000 referred to by Professor Fisher as "robbed" in this country because of the fluctuation of the price level, is it not?

Mr. WINGO. But here is the question——

The CHAIRMAN. I wanted to know if this $700,000,000 lost was not part of the $40,000,000,000 loss he spoke of.

Professor FISHER. I think so.

The CHAIRMAN. It is a loss in values.

Professor FISHER. Yes; but not a loss as between debtor-creditor; it is a loss by producers benefiting traders.

Mr. WINGO. Is not the foreign trade of a great deal more importance than the mere statistical percentage as compared with the domestic trade? As a matter of fact, was it not a frequent statement in the financial papers and trade papers some months ago that the revival in business that came from the last slight depression was brought about by the increase in the purchasing power of the farmer, and do they not all recognize that the purchasing power of the farmer has a very decided stabilizing or depressing effect on the commerce of the country?

Professor FISHER. I think that is unquestionable, and the few statistical computations made, taking into effect all the foreign trade you refer to, do not generally amount to over 10 per cent of the total domestic trade of the country, and the highest percentage, as I recollect, was 18 per cent. However, I dislike to quote figures from memory, and I find I am in error in one figure already.

Mr. WINGO. Does not a percentage of 5 per cent represent the difference between depression and boom figures?

Professor FISHER. Yes.

Mr. WINGO. In other words, take a favorite illustration that I use: That where there are 11 men seeking for 10 jobs as compared with 10 men seeking for 11 jobs, there is only a small difference of two, yet it represents the difference between prosperity and depression in the labor world.

THE PRICE LEVEL WHEN LIBERTY BONDS WERE ISSUED

Professor FISHER. I see your point.

If I may go back now, Mr. Chairman, to the questions Mr. Luce raised and the answer I made, in special reference to Liberty bonds, here in my book, Stabilizing the Dollar, at page 157, in a footnote I have indicated that computation. The first Liberty loan had the average date of June, 1917, and was issued on a price level of 184. The second Liberty loan was dated as of November, 1917, and the index number was 182; the next Liberty loan was 191; the next, 204; and the last, 200. Taking into account the relative amounts of these and averaging the price levels for the whole, they average 195. So the influence of that disturbing factor on the whole average, if it was possible to get the statistics and find the ideal justice, probably it would work against your side of the case. It would tend to raise the price level, but it would be just to all concerned.

UNEMPLOYMENT AND DEFLATION

One other matter in connection with what Mr. Luce said as to the working people: You would injure the working people much more than you would help them by trying to come back to the price level of 1913, because unemployment is an absolutely necessary sequel of deflation. I speak with absolute confidence on that, because of the experience of this and other countries. Unless we took many years to get back to the 1913 price level, in which case it would not do any good, deflating would ruin these men in whose behalf Mr. Luce was speaking, by throwing them out of jobs. They would derive a very small benefit in augmenting the purchasing power of their savings as compared with the disastrous effect of unemployment.

Mr. LUCE. How do you meet the suggestion, if that be the basis of our procedure, that every time there is an abnormal rise in the price level, as after all great wars, it ought to be pegged at the new top reached?

Professor FISHER. I have never taken that ground myself.

Mr. LUCE. Is not that the logical conclusion from what you say? You say all periods of deflation are objectionable because of unemployment. I do not question the validity of the statement, but it arouses the question whether, if we should reach the heights, we should invite these periods of unemployment by deflation.

Professor FISHER. It is hard to treat of situations theoretically when you have a practical situation to deal with. I have tried to show theoretically what should be done. I believe that you reach pretty close to where you are to-day—163 or perhaps 170—by taking the average of all the price levels at which debts now outstanding were contracted, including those Liberty bonds. Then you have to take the industrial effects into account and weigh one against the other. As far as the industrial effects are concerned, unemployment, that is true, and from the standpoint of the prosperity of general business the price level ought to stay just where it is. So far as that consideration goes, if you are away up in the sky, keep there; or if you are away down, keep there. You have to keep account of both considerations, debts and unemployment, and it is difficult for me

to solve and come before you with a definite recommendation. That is the reason I do not think we should say, "Stick to 162," as Mr. Shibley would. What we should say to the Federal reserve system is, "Do not have any great deflation or inflation. Let the price level stay near where it is for a few years, and then we will have a long period of years upon which to average it."

The CHAIRMAN. You stated very clearly that when the price was rising labor is more regularly employed and wages increase.

Professor FISHER. Not in purchasing power.

The CHAIRMAN. But in actual money wages rise.

Professor FISHER. But the high cost of living offsets that.

The CHAIRMAN. And conversely, in a declining price level, labor is unemployed to a greater extent?

Professor FISHER. Yes.

The CHAIRMAN. That is one of the troublesome things, that the wage level remains high, while the price level is going down. Is there any other way to reduce wages in a proper ratio other than through unemployment?

Professor FISHER. Well, I do not know whether you are assuming that the wages are too high. I doubt if they are too high to-day.

The CHAIRMAN. Might they not be too high in relation to other prices. I am not assuming they are, but when labor is unemployed there comes deflation in wages, and when labor is employed the old wages stick?

Professor FISHER. Yes.

The CHAIRMAN. I was questioning whether there was any other way than unemployment to reduce wages, when cost of living is going down.

Professor FISHER. Yes; by the process of supply and demand, as Mr. Wingo suggested—11 men seeking 10 men's jobs.

THRIFT MADE A MOCKERY

Mr. LUCE. Is there anything to indicate that your average that you refer to would result in a benefit to the greatest number of people? Have you got figures to show that more than half of the people showed a willingness to forego luxuries and be thrifty during the period you refer to or otherwise?

Professor FISHER. Just at the present time?

Mr. LUCE. Yes. Would not the net gain accrue more largely to the less thrifty people? Would not the injustice be greater if you took an exact average?

Professor FISHER. I do not know. It is staggering to think of the number of complications you might introduce. But you must remember the number of people who were thrifty when prices were falling, and they have got more than they ought to get, just as you have gotten less, because they invested in 1920 and you invested in 1913. It would be hard for me to answer that question. But I have absolute sympathy with what you say. When prices are rising there is no reward for thrift. Thrift is then mockery. You are cheating the servant girls and laboring men who yield to the educational propaganda of thrift campaigns, and it is a fraud on those people. I think when we know prices are going to rise there is a personal responsibility there. During the campaign for the Liberty

loans I believed that prices were going to rise (and they did rise), and when I was speaking for Liberty loans I always refused, in spite of those who urged me to say what I did not want to say, that Liberty loans would prove a good investment. I said, "Do not invest merely as a matter of investment. This is a matter of patriotism," because I believed they were going to lose in purchasing power. They did for a time, but later there was that deflation which benefited those who held on.

The CHAIRMAN. During the period of high-price levels the Federal farm-loan bonds were put out or sold, representing loans to farmers, and a great many rich people bought them because of the tax-exemption feature. Those people who bought those bonds during the high-price levels have been extremely fortunate. They not only received a tax-exempt security but a security that did not depreciate in value 33⅓ per cent, as Mr. Luce stated.

Mr. WINGO. That is true of all securities which were sold for a diluted dollar.

The CHAIRMAN. It is a quarter to 1. What is the pleasure of the committee?

Mr. WINGO. I suggest we get back at 2 o'clock.

The CHAIRMAN. Are there any other questions of Professor Fisher?

Mr. BEEDY. I have a question.

Professor FISHER. I will be back this afternoon, if you want me longer.

The CHAIRMAN. Very well; we will adjourn now until 2 o'clock.

(Whereupon, at 12.45 o'clock p. m., the committee took a recess until 2 o'clock p. m.)

AFTER RECESS

The committee resumed its session at 2 o'clock p. m., at the expiration of the recess.

STATEMENT OF PROF. IRVING FISHER—Continued

The CHAIRMAN. With the exception of a question that Mr. Beedy wanted to ask Doctor Fisher, I think we had finished. If, on the contrary, there are further questions, Doctor Fisher will be glad to answer them, I think.

PROPOSED AMENDMENT DELETING WORD "MINIMUM," ETC.

Mr. CANFIELD. I would like to ask the doctor a question. I notice you referred yesterday to the word "minimum" and said that you thought the bill would be better without it. Is that correct?

Professor FISHER. Yes; I see no reason for that word.

Mr. STRONG. That "minimum" was a mistake, gentlemen, as I have stated. I will ask to have that taken out.

Mr. CANFIELD. And as to the word "level," you said you thought that that word should be changed to "scale."

Professor FISHER. I suggested that you go back to the wording which was first suggested to this committee by Mr. Goldsborough, which I have before me:

To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal re-

serve banks for each class of paper, which shall be fixed with a view of accommodating—

That far, I think, it is identical with the act as it now stands—

accommodating and stabilizing agriculture, commerce, and business, and preventing deflation and inflation.

I suggest that this wording take the place of part of the wording of this bill, but that you include the last paragraph of Mr. Strong's bill, which is to the effect that all the powers of the Federal reserve system shall be used to this end. As it stands otherwise, without that addendum, it would merely authorize them to use the discount power; but with that last paragraph included they can use the open-market power and the other powers. It seems to me that these ought to be added. Otherwise, my suggestion is merely that this original statement of Mr. Goldsborough be substituted for the statement in the Strong bill.

Mr. STRONG. You think the language directing them to use all their powers should be kept?

Professor FISHER. Yes.

Mr. STRONG. The purpose of that, of course, was with regard to the open-market operations.

Professor FISHER. Yes. That last paragraph in your bill, I think, should be kept.

Then I also said, if you will recall, that in order to have a complete bill, that would not only operate under present conditions, as I think this bill would, but indefinitely, you should add the whole of the Goldsborough bill.

Those are the three changes that I suggested: That you eliminate the word "minimum"——

Mr. STRONG (interposing). That was a mistake, as I have explained. Mr. Goldsborough, have you introduced your bill this year?

Mr. GOLDSBOROUGH. Yes.

Mr. WINGO. Do you mean it was a mistake of the stenographer?

Mr. STRONG. I suppose so. I did not catch it until my attention was called to it after the bill was printed.

Mr. WINGO. That is a wholly different bill, Doctor, if you will permit the suggestion. That would be a different proposition and would apply, in a different light, to a good many of us.

Professor FISHER. It would seem a good deal different to the public.

Mr. WINGO. It would be a different philosophy entirely.

Mr. STRONG. No; it would not be a different philosophy at all.

Mr. WINGO. For the purposes of the record, I wish to suggest this, and I think it is material: The gentleman brings in a bill here under which he wants to authorize the Federal Reserve Board to assume control of credits and fix the minimum rate which the credit merchant might charge. The sky would be the limit. He could charge all the traffic would bear and use that for the purpose of maintaining a stable price level. Now, the Doctor suggests that, from time to time, they fix the rate of discount—one rate—for the purpose of stabilizing agriculture, industry, and business and preventing inflation and deflation. That is a wholly different proposition.

Mr. STRONG. Let me say, for the benefit of the record, that the gentleman's statement, of course, is facetious. It was just stated to him that the word "minimum" crept in there in some way unknown

to myself. I just now understand from Doctor Shibley that it was a mistake of the drafting board of the House, and I have already said that I will ask to have it eliminated.

Mr. WINGO. Well, it is not facetious. You admit my impeachment of it.

Mr. STRONG. I do not do anything of the kind. I just say that after having explained to you that it was unintentional and that it is to come out, you then try to make a speech on it.

Mr. WINGO. Oh, no. It is a wholly different proposition. You admit that it is a different proposition. You will not defend the original proposition.

Mr. STRONG. You are trying to "play horse."

Mr. WINGO. No, I'm not. I am just calling attention to the fact that your stenographer is very careless.

Mr. STRONG. No; you are trying to "play horse." It has already been explained to you that it was an accident, and that it will be eliminated from the bill.

Mr. WINGO. However it got in there, you admit that it is an accident and that it is unsound, and you ought to back off of it. Whether it is an accident or not, it is a wholly different proposition. You can not defend that proposition.

Mr. STRONG. I do not want to. As I told you, I have asked to have it taken out.

Mr. WINGO. I am glad you have seen your error.

Mr. STRONG. You were advised that it was an error before it was discussed here at all.

Mr. WINGO. No, sir; this is the first time I have ever heard that it was an error. I thought it was intentional.

The CHAIRMAN. Mr. Lombard, the committee will hear you now.

STATEMENT OF NORMAN LOMBARD, EXECUTIVE DIRECTOR OF THE STABLE MONEY ASSOCIATION, SAN FRANCISCO, CALIF.

The CHAIRMAN. Mr. Lombard, will you state your name and occupation for the record?

Mr. LOMBARD. My name is Norman Lombard. I am the executive director of the Stable Money Association.

The CHAIRMAN. And your residence?

Mr. LOMBARD. San Francisco.

The CHAIRMAN. What is the Stable Money Association?

Mr. LOMBARD. The Stable Money Association was organized in 1925—

to ascertain the most effective method of preventing the vast, though subtle, evils arising from unsound and unstable money, and to promote a better understanding thereof, in the expectation that crystallized public opinion will result in constructive congressional action.

The CHAIRMAN. Who is the organization?

Mr. LOMBARD. If I may, I will read a few of the names, for the information of the gentlemen here, and ask to have this complete list inserted in the record.

The president is Dr. H. Parker Willis, the editor of the Journal of Commerce, of New York, and formerly secretary of the Federal Reserve Board.

Mr. KING. May I ask what his connection with Wall Street is?

Mr. LOMBARD. He is editor of the Journal of Commerce. That is at 32 Broadway, just around the corner from Wall Street.

Mr. KING. I do not care anything about the street. I am asking with relation to the residents and occupants of the street and their particular business. What connection has he with them?

Mr. LOMBARD. You are referring to psychological rather than geographical location?

Mr. KING. Financial connections.

Mr. LOMBARD. I do not know. I am not personally acquainted with his financial affairs.

The active vice presidents of the association are Mr. W. F. Gephart, vice president of the First National Bank in St. Louis, and Mr. Henry A. Wallace, editor of Wallace's Farmer, Des Moines, Iowa.

The executive committee consists of these gentlemen and Mr. Frederick W. Roman, professor of economics at New York University; Doctor Fisher, who just preceded me, professor of economics at Yale University and chairman of the Kardex Institute of Business Management; Hudson B. Hastings, professor of industrial engineering at Yale University; Dr. Willford I. King, secretary of the National Statistical Association; Dr. Harry W. Laidler, director of the league for Industrial Democracy in New York; Mr. George Soule, director of the Labor Bureau, New York City; and Col. Henry M. Waite, treasurer of the Ross Demurrage Bureau of New York.

We have a list of vice presidents consisting of a number of bank officials, including Mr. Lawrence Chamberlain, chairman of the investment economics committee of the Investment Bankers' Association——

The CHAIRMAN (interposing). Mr. Lombard, so that we may get this matter clearly, this is the "window dressing" of your organization?

Mr. LOMBARD. Exactly.

The CHAIRMAN. And they are not always active in the detail work of your organization, are they? They are sustaining members, so to speak?

Mr. LOMBARD. These honorary vice presidents are not active. The executive committee are very active. But these honorary vice presidents have loaned their names as evidence of their belief in the validity of our purposes.

The CHAIRMAN. But the active management of this organization is in the hands of gentlemen like you, who are experts in their particular line, in analyzing these various economic problems; is that correct?

Mr. LOMBARD. Yes, sir; the executive committee is the directing head of the organization.

The CHAIRMAN. Now, will you tell us—I do not want to interrupt you, but for the benefit of the committee, because I think they would like to be informed—what college are you from?

Mr. LOMBARD. I was going to ask you, after I put in this list, whether you wanted me to go into my personal experience.

The CHAIRMAN. We like to know something about the men who are addressing us.

Mr. LOMBARD. May I continue with this "window dressing," as you term it?

The CHAIRMAN. Yes.

Mr. LOMBARD. We have a large advisory council—I had better not read the names—of some 30 or 40 professors of economics of colleges all the way from the Pacific to the Atlantic, who by the acceptance of positions on our advisory council indicate their approval of our aims.

I would like to submit this list as a part of the record in lieu of what I have been saying.

The CHAIRMAN. Without objection, it will be inserted into the record at this point.

(The list submitted by Mr. Lombard is as follows:)

THE STABLE MONEY ASSOCIATION

Organized to ascertain the most effective method of preventing the vast, though subtle, evils arising from unsound and unstable money, and to promote a better understanding thereof, in the expectation that crystallized public opinion will result in constructive congressional action.

Executive director, Norman Lombard, room 1909, 104 Fifth Avenue, New York City, tel. Chelsea 5489.

Officers (members of executive committee, ex officio): President, H. Parker Willis, editor and vice president Journal of Commerce, New York, formerly secretary Federal Reserve Board; vice presidents, W. F. Gephart, vice president First National Bank in St. Louis; Henry A. Wallace, editor Wallace's Farmer, Des Moines; Secretary, Frederick W. Roman, professor of economics and education, New York University; treasurer, Edward B. Swinney, 104 Fifth Avenue, New York City.

Honorary vice presidents: Sydney Anderson, president Millers' National Federation, Washington, D. C.; Lewis C. Babcock, vice president Midland National Bank, Billings, Mont.; Lawrence Chamberlain, chairman investment economics committee, Investment Bankers Association of America; Thornton Cooke, president Columbia National Bank, Kansas City, Mo.; T. Alan Goldsborough, Congressman from Maryland; M. K. Graham, Graham, Tex.; Arthur T. Hadley, president emeritus, Yale University, New Haven, Conn.; Hamilton Holt, president Rollins College, Winter Park, Fla.; William Kent, former United States tariff commissioner, Kentfield, Calif.; Harold A. Ley, president Fred T. Ley & Co., New York City; Robert Luce, Congressman from Massachusetts; George Foster Peabody, director Federal reserve bank, New York City; E. W. Wilson, president Pacific National Bank, president Foreign Trade Club, San Francisco, Calif.

Executive committee: Irving Fisher, professor of economics, Yale University; Hudson B. Hastings, professor of industrial engineering, Yale University; Willford I. King, economist National Bureau of Economic Research, New York City; Harry W. Laidler, executive director League for Industrial Democracy, New York City; George Soule, director Labor Bureau (Inc.), New York City; Col. Henry H. Waite, treasurer Ross Demurrage Bureau, New York City.

The advisory council of the Stable Money Association: Darien Austin Straw, department of logic and rhetoric, Wheaton College; John B. Andrews, secretary, American Association for Labor Legislation; Charles A. Bell, statistician, United States Bureau of Labor Statistics; Harry Gunnison Brown, professor of economics, University of Missouri; T. N. Carver, professor of political economy, Harvard University; John M. Clark, professor of political economy, Harvard University; John M. Clark professor of political economy, University of Chicago; H. J. Davenport, professor of economics, Cornell University; D. R. Dewey, professor of economics and statistics, Massachusetts Institute of Technology, managing editor American Economic Review; Henry W. Farnam, professor emeritus of economics, Yale University; Frank A. Fetter, professor of political economy, chairman department of economics and social institutions, Princeton University; W. T. Foster, president Pollak Foundation for Economic Research; Harry G. Guthmann, University of Chicago; G. D. Hancock, dean, School of Commerce and Administration, Washington and Lee University;

Jacob H. Hollander, department of political economy, the Johns Hopkins University; E. W. Kemmerer, professor of economics and finance, Princeton University; Edwin A. Kopf, assistant statistician, Metropolitan Life Insurance Co., New York City; Samuel McCune Lindsay, president the Academy of Political Science in the city of New York; Wesley Clair Mitchell, professor of economics, Columbia University, director of research, National Bureau of Economic Research, New York City; Henry R. Seager, professor of political economy, Columbia University; Edwin R. A. Seligman, McVickar professor of political economy and finance, Columbia University; O. M. W. Sprague, Converse professor of banking and finance, Harvard University; Carl Strover, counsellor at law, Chicago, Ill.; C. M. Walsh, Bellport, Long Island, N. Y.; G. F. Warren, professor of agricultural economics and farm management, Cornell University; Holbrook Working, professor of economics, Leland Stanford Junior University.

A FEW EXPRESSIONS

"We the people of the United States, in order to * * * establish justice * * * promote the general welfare * * * do ordain and establish * * *.

SEC. 8. The Congress shall have power:

* * * * * * *

5. To coin money, regulate the value thereof."—Constitution of the United States.

"What we all want from this economic system is greater stability, that men may be secure in their employment and their business."—Herbert Hoover, Secretary of Commerce, in Review of Reviews for January, 1926.

"Next to the economic havoc of war itself, there is probably no more devasting agent at work than the rudderless and ballastless unit of value which has resulted in the price anarchy of the past generation."—David J. Lewis, United States Tariff Commission, in a private letter.

"It is the self-evident duty of the Federal Reserve Board to administer the Federal reserve act in such a manner as will safeguard the Nation from inflation and deflation in the future, and we heartily approve all sincere efforts being made to find and apply the best legislative method for safeguarding the purchasing power of money."—Iowa Bankers' Association in convention at Ames, 1923.

"Although many believe that only with rising prices can prosperity be secured, true prosperity is dependent on stability."—James S. Alexander, chairman National Bank of Commerce, New York, in annual address to shareholders, January 8, 1924.

"I firmly believe that the purchasing power of money can be stabilized. I believe that the solution, when we have it, will be found to be simple; and I trust that that solution will soon be embodied in legislation."—Hon. T. Alan Goldsborough, in the House of Representatives, May 23, 1922.

"The truth is, of course, that both (inflation and deflation) are bad. What is needed is stability, the point from which both alike proceed in opposite directions. When we have stability of prices we have a basis upon which trade can be carried on with confidence."—Reginald McKenna, chairman Joint City & Midland Bank, at the annual meeting, January, 1922.

"It may be that the stabilization of the purchasing power of the dollar along the lines advanced by economists will some time help to remove some of the problems of the counterfeit wage. A solution is highly desirable."—Edward A. Filene, in New York World, May 21, 1922.

"The primary monetary need, then, is a stable unit of value, and this does not come chance. Even if we had no other evidence, the records of the past five years in the United States should convince us that the country is not safeguarded against inflation by reserve ratios or merely because bank credit is expended 'in response to the legitimate demands of business,' or 'in the ordinary course of financing production.' There are at least four compelling reasons for taking measures now to make a dependable dollar for the deliberate aim of conscious policy."—W. T. Foster, president Pollock Foundation, and Waddill Catchings, of the Goldman, Sachs & Co., in Harvard Business Review, April, 1924.

"The explanation is simple enough—'radicalism' is always found where there is suffering, injustice, and failure."—New York World, March 10, 1926.

Mr. LOMBARD. Since this was printed, and since I have been in Washington, we have acceptances of honorary vice presidencies from William C. Redfield and Louis F. Post. We have also acceptances on the advisory council from Vernon Kellogg, the permanent secretary of the National Research Council; Mr. J. Edward Meeker, the economist of the New York Stock Exchange; Mr. Robert E. Chaddock, of Columbia University; Mr. A. W. Loseby, president of the Equitable Trust Co., of New York; Mr. Ray B. Westerfield, of the department of economics of Yale University; Mr. Royal Meeker, of the department of economics at Carlton College, Northfield, Minn., and formerly director of the Bureau of Labor Statistics in Washton; and Mr. Frank D. Graham, of Princeton University.

I might read Mr. Graham's little note. He says:

I have pleasure in accepting your nomination to membership on the advisory council of the Stable Money Association. It is trite, I suppose, to name anything as the most important of social reforms, but I do feel that this matter of stable money is something to which too much time and attention can scarcely be devoted.

As to my own experience, my memory runs back to the panic of 1893, when my father was president of the First National Bank, of Kansas City, which he founded, and he was also the vice president and western manager of the Lombard Investment Co., the largest privately owned farm mortgage company in the country. That company failed in 1893 with something like $50,000,000 of guaranteed mortgages outstanding and $4,000,000 of capital, and the effect upon my father's mind and health is a very vivid memory.

The CHAIRMAN. Those were very pretty bonds. They were very beautiful.

Mr. LOMBARD. There was lots of criticism of the management, as there always is, because nothing succeeds like success, and nothing fails like failure. But I am thoroughly convinced that the failure was due to the unstable dollar.

During the period from the seventies down to 1893 the influx of population in the West, due to the building of the railroad system, just about counterbalanced the depreciation in the dollar value of the farms, so that there was a constantly rising farm value.

Do I make my point clear? The increase of population in the West a little bit more than overcame the depreciation in the purchasing power of the dollar, so that farm-land values were rising, and it was a very profitable period for the farm-mortgage men. They received large commissions, and they had constantly rising collateral. But, as always happens when you have a long period of declining prices, a social reaction set in. The East lost confidence in the West, and refused to buy western securities, and about that time the free silver agitation set in, and, as Mr. Stevenson was saying awhile ago, the repeal of the Sherman Silver Purchase Act occurred, and there was a general conflict between the East and the West, which resulted in the failure of numerous farm-mortgage companies and the wrecking of numerous banks, and a general condition of social and political upheaval in this country, which is possibly more vivid to most of you than it is to me, because I am probably the youngest man in the room.

I was educated at Massachusetts Institute of Technology as an engineer. After finishing at Boston Tech I studied law at the Kansas City School of Law, while working in a bank which had a mortgage department. After three years I removed to California and entered the farm-mortgage business actively in the office of the financial correspondent of the Union Central Life Insurance Co. I rose to become general manager of their operations in California. In 1913 I organized my own mortgage company, which continued until the farm-loan system was inaugurated, which made it inadvisable for me to continue in that operation, because it is neither profitable nor patriotic to compete with the Government. I then engaged in other activities, rather actively, exporting and importing, financing time sales of tractors, and doing an investment banking business, lately acting as a professional business counsellor.

About 1917, I think, I saw a little squib in the paper saying that Dr. Irving Fisher, of Yale University, had been publishing something about the unstable dollar. I had worried a great deal about the loans I was making on farm lands. Many of the treasurers of these eastern life insurance companies would ask me, "What is the value of this farm?" I did not know much about the subject at that time, but I had to reply that "the value now is thus and such; I can not tell what it will be in the future, but the income from the farm is thus and such." There was subconsciously a feeling that there was something wrong. After I had studied the unstable dollar I realized that the securities I was selling were not desirable securities for the reason explained here a while ago—that the real rate of interest on them was nil. The dollar was depreciating faster than the interest return. I also had my whole system of thought so upset by this relaization that the universal yardstick of commerce, the dollar, was not fixed in value, and that there was no science and no exactitude in business whatsoever by reason of that fact that I decided to devote a great deal of my time to this question of stabilizing the dollar. So I proceeded to make lectures, and so on, and cultivated my acquaintance with Doctor Fisher, who, by the way, came out to California and delivered a series of lectures at the university during this period, which got me even more interested. Now, I have come back to the East to accept this position of executive director, with the idea of doing as much as I can to promote this idea of stabilization of price levels, to discourage inflation and deflation, and to promote stability.

Does that cover the situation, Mr. Chairman?

The CHAIRMAN. I think so.

Mr. LOMBARD. I think that the desirability and the necessity of stabilizing the general level of prices is becoming more and more evident. Business men, bankers, farmers, labor organization men, are seeing these effects, as the fluctuations have been great, and they are coming to allow for these fluctuations in arranging their various affairs. For instance, the fixing of the wages of the employees of the Philadelphia Rapid Transit Co. in terms of an indext figure is a concession of the fact that the dollar in which these wages have been paid has not meant anything. Advances in wages for laboring men which are immediately counteracted by a decrease in the purchasing power of the dollars in which those wages are stated is an empty

victory. If we are going to have any permanent sense of satisfaction between employer and employee, this dollar in which their relations meet has got to be stabilized so that it means something.

Mr. STRONG. The same thing would apply to the farmer, would it not?

Mr. LOMBARD. Yes, sir; and to every line of business. This, gentlemen, is the most fundamental problem, I believe, that has ever come before this committee. It has more far-reaching social and economic consquences, and its wise and complete decision is very, very much to be desired.

This Kardex bond that Doctor Fisher explained to you is another evidence. This was a bond issued by the Kardex Co. While on its face it is for $1,000 and draws 5 per cent interest, there is a schedule inside that states that if prices go down the amount of dollars paid shall be adjusted accordingly, and that if prices go up the number of dollars paid shall be adjusted accordingly, so that the investor at the maturity of the bond will receive back the identical purchasing power that was represented when the bond was issued, regardless of the value of the dollar at that date; and the same way with the quarterly payments of interest; they represent the present purchasing power at the time the bond was issued.

Now, I am very glad, gentlemen, that Doctor Fisher has stepped out of the room while I am mentioning this bond—and this can go in the record or not, just as you see fit. But I want you gentlemen to know something about Doctor Fisher. I think that you are entitled to it.

I know that the ordinary concept of a college professor is a man who puts salt in his coffee and sugar on his eggs, and so on—an absent-minded dreamer, a theorist who gets nowhere. But Doctor Fisher is a different sort of man. I might say that at the time these bonds were issued he contributed to the combination of the Rand-Kardex Co., a little business which he had established based on an invention of his own and which he built up, and he received in compensation for that $1,600,000 in market value. There was quite an editorial in the Wall Street Journal about this college professor that had done a great deal more in a business way than most business men have done. In the meantime he was conducting classes in economics at Yale, was chairman of the hygienic reference board of the Life Extension Institute, which he founded, and very active in numerous directions, and a large contributor to the various movements and various charities in which he was interested.

I want you to know something about Doctor Fisher because I think you will give more weight, probably, to what he has had to say before this committee with this knowledge before you of just what type of man he is.

Now, economists have long felt the need for some stabilization because they have seen many sincere attempts to correct undesirable social conditions or to further social progress of some sort thwarted because of the instability of the dollar. I think that subject was touched on here yesterday. Legislators and the public generally have been confused by the instability of the dollar in studying various subjects, and they have attempted to apply palliatives; to treat the symptoms instead of going to the source of the trouble.

This has applied in studies of taxation, unemployment, minimum wage, credit, exchange, banking, production, marketing, distribution, transportation, tariff, and everything where the dollar enters.

I have here a publication, a Senate committee print, a copy of which each of you has received, I am told, on the increase of judicial salaries; considerable study having been given to this question of increasing the salaries of judges. All of this work would have been totally unnecessary if we had had a stable dollar in which those salaries, when originally granted, could be stated.

It is interesting to see the comments of some of these judges. I have not had a chance to read this document through thoroughly, but I have marked a few extracts. I think it is better not to mention the names, because I imagine that these letters were submitted more or less in confidence.

Mr. LUCE. It is a public document, Mr. Lombard.

Mr. LOMBARD. Well, not exactly, Congressman.

Mr. LUCE. Oh, yes, it is; absolutely.

Mr. FENN. Yes.

Mr. LOMBARD. Do you think I had better read it?

Mr. LUCE. I think you had better read it.

Mr. LOMBARD. This one is from Mr. Justice Sutherland. He says that a deterioration in the quality of the judiciary will eventually result unless something is done to fix this situation.

Here is Mr. Justice Stone, who says:

In considering the amount of salary to be paid it should be remembered that the present salaries were established at a time when the purchasing power of the dollar was double what it is to-day.

Mr. STEVENSON. That was done in 1918.

Mr. LOMBARD. I would hesitate to criticize the word of a Supreme Court Justice.

Mr. STEVENSON. Yes; but I would not. That was done in 1918, and the purchasing power of the dollar was not any greater then it is now. We passed the act to raise all judicial salaries in 1918, according to my recollection.

Mr. LOMBARD. I am only pointing out, that there is a fluctuation. That is a detail, Mr. Stevenson.

The CHAIRMAN. You are not referring to these for the purpose of advocating this raise in pay of the judges, but rather to illustrate a point, I assume?

Mr. LOMBARD. Illustrating the harmful effects of the fluctuating price level.

Mr. STEVENSON. I understand.

Mr. LOMBARD. Judge Anderson of the first circuit says:

I suppose the present purchasing power of judicial salaries is the lowest in our history.

These men are not economists, of course. Judge Meadows of New York says:

There has been a very heavy increase in the cost of living since the time the present salaries were established.

Judge Rodgers of New York City says:

At the time the present salaries were fixed the purchasing power of the dollar was much greater than it is now.

And so on through this whole business, 140 pages of letters from Federal judges taking very much the same position.

Unfortunately, this fact of fluctuation has been taken advantage of by agitators who have made appeals to prejudice and class hatred. I want to say this is not a matter of class against class it is not a matter of party against party it is not a matter of nation against nation, it is not even a matter of race against race. I will tell you how I conceive this situation. It is a factor in the great contest of man against nature. All of the advance of man has been due overcoming the natural effects of nature. We take what nature has given us and capitalize it to our own ends. We build houses to protect us from the weather, and fires to protect us from cold and wear clothes for the same purpose and so on. Man's continual efforts are to overcome natural conditions.

This stabilization proposed is just equipping man with a desirable weapon against fluctuation which is primarily a fundamentally at the root of this whole problem. Just as Doctor Fisher said the Federal reserve board has the power to a limited extent to stabilize, to prevent inflation and deflation. All that is a temporary matter, but for a final cure we have got to adopt one of two or three of a very limited number of plans: Either the Lehfeldt plan or the compensated dollar plan, or the plan proposed by Carl Snyder of the Federal Reserve Bank of New York. I believe there are some others. I do not pretend to be an expert on the theory of this matter. I am surrounded by advisers that I can never hope to equal in the knowledge of the subject.

Mr. LUCE. Can you explain the Snyder plan?

Mr. LOMBARD. I am not competent to explain it, but I can refer you to where it is given. It is in the American Economic Review.

The CHAIRMAN. Page 277 of the American Economic Review of June, 1923. That is the article referred to.

Mr. LOMBARD. There are numerous other plans varying in their minor details, but all having for their object the stabilization of the price level. I might say that our association is not advocating any plan. We are advocating a policy, a policy of stabilization.

I want to run over some of the effects of falling and rising prices that have appeared to me as a business man. When prices are falling merchants do not buy as freely as they do when prices are rising. They buy from hand to mouth. The result is that factories are shut down and we have unemployment, we have soup kitchens, and all of the phenomena that go along with that situation. That leads to misery and suffering and distress, because these people usually live pretty close to the poverty line and when their pay checks stop they frequently have nothing whatever to act as a buffer between them and want. Stockholders lose during these periods of falling prices. The factories and industries fall into the hands of bondholders, who are usually not competent to run them. The result is inefficient management.

Under those conditions we blame men in business for not having made a success under impossible conditions. Mortgagees become owners, owners become tenants, and tenants become Bolsheviks. Reorganization is the order of the day. Lessened production follows, resulting in disorganization and general demoralization of business; new development is stifled.

On each of these things a volume could be written. I have briefly run over some of the results that follow falling prices. The result of a long and severe fall, such as from the close of the Civil War down to 1893, as shown by the chart on the wall, is a political uprising, such as greenbackism, free silverism, and other inflationary appeals, demagogic as a rule, but not always. I do not mean to say the people who advocate a high price level have not been sincere. I think some of them have not had a complete understanding of the evils that would follow from the very thing they proposed as a remedy for the condition they are trying to meet.

When prices are rising the situation is reversed, and we have entirely different kinds of evils. Merchants buy beyond their needs, borrow and stretch their credit in order to buy more goods; factories boom; stockholders propsper inordinately; extravagance is rampant; the Great White Way is very active during such a period. On the other hand, bondholders and trust funds, such as belong to colleges and hospitals, life-insurance beneficiaries, all suffer through the inadequacy of their fixed incomes to meet their constantly mounting expense, constantly mounting because of the decreasing purchasing power of the dollar.

People with fixed incomes measured in dollars (such as schoolteachers), public servants of all kinds (such as your experts in the various departments at Washington), judges (such as I have mentioned here), if I may say so, Congressmen, salaried clerks, widows, orphans, pensioners, all of these suffer because of the decreased purchasing power of their dollars, and they are frequently pinched beyond endurance.

These are times when labor strikes. You would think that wages would increase as rapidly as the cost of living does, but they do not. The cost of living is always a little ahead. Prices rise, and they have to have a committee to take it up with the superintendent or the boss, and the boss is not always ready to yield the advantage he has, and the result is a strike. I am satisfied that 90 per cent of the strikes would be avoided if we had a stabilized price level.

During these periods we have sabotage; labor is dissatisfied due to the fact that they are not getting as much as they should get, and the boss is riding around in a fancy automobile; soldiering on the job; all these fallacies run riot. Those are the periods when demagogues thrive and class hatred rules. This should be an economic question, not a class question, not a political question. All these phenomena America has experienced time and again in the brief period of my short life. I have experienced them myself.

Now, America has the gold standard. We hear so much of the gold standard that I want to emphasize this feature. Say the general price level in America was 100 in 1860. This is more for the benefit of the Congressmen who have not been here during the last couple of days. From a level of 100 in 1860 it went up to 200 in 1865. It dropped to less than 66 in 1896 and rose again to over 240 in May, 1920; fell to less than 140 in January, 1922; and is now hovering around 155 to 160.

Europe, with her gold reserves depleted, has frequently suffered from the same phenomena of rising and falling prices. Millions were reduced to abject poverty by the recent post-war inflations.

Supreme judges slept in charity beds. Musicians sold their priceless violins for a meal. Professors picked up coal from the gutters. Probably a million people died from the resulting disease, hunger, and starvation. And all of this for the want of a sound policy of stabilization and public understanding of the problem.

You may want to know how you will know when you have inflation or deflation. I will tell you what I think. I am not an expert, and I may be wrong. I think a falling price level is unfailing evidence that there is an inadequacy of available bank credit or money in circulation to support the volume of business being done; in other words, falling prices show deflation.

Now, a rising price level, on the other hand, is unfailing evidence of a superabundance of bank credit or money in circulation; otherwise, rising prices show inflation. Deflation is not a cure for the ills of inflation, and inflation is not a cure for the ills of deflation. Each has its own inevitable and dire consequences of far-reaching social and political importance.

The remedy for the ills of both inflation and deflation is stabilization.

As I said, our association is interested in stabilization as a policy and not primarily in any particular plan or bill. It is immaterial whether stabilization comes by one or another method or device or organization or individual. We feel that as a first step in the right direction the efforts and methods of the Federal reserve authorities during the last four years have been admirable.

I want to point out just here that these were patriotic efforts and done at the expense of the banks. As you know, the Federal reserve banks are privately owned institutions. They are owned by the member banks. When they keep a surplus gold reserve in the Treasury in order to prevent inflation, they are sacrificing the interest they might receive if they loaned out the Federal reserve notes, which they might base upon that gold reserve, two and one-half times the amount of the gold reserve. They are patriotic in sacrificing that income, in order that you Congressmen, if you please, may exist on your present scale of living with your present fixed salaries in order that inflation may not come upon us with its attendant evils.

Mr. STEVENSON. Of course, you understand that no matter how much they make, the owners can only get 6 per cent. The balance must go to the United States Treasury. And they always manage to get the 6 per cent.

Mr. LOMBARD. I have noticed in that connection that in the annual reports of these banks there seems to be much emphasis placed on high profits and high dividends and high earnings.

The CHAIRMAN. Much reference is also made to high operating expenses.

Mr. STEVENSON. I just wanted to lodge my protest against the assumption that because they refuse to make loans of money that these banks are suffering. These banks can only get 6 per cent, and the always get that. They are not suffering at all.

Mr. LOMBARD. Of course, if the member banks discounted their bills at the reserve banks and took that money and loaned it at a higher rate they would make the difference.

Mr. STEVENSON. The member bank would.

Mr. LOMBARD. Of course, the reserve banks are just agents of the member banks in that connection.

Mr. STEVENSON. Yes.

Mr. LOMBARD. I think we can allow them credit for foregoing some profit they might otherwise make in the interest of maintaining a stable level and preventing inflation under present conditions. I believe that is sound.

We are hoping to see the activities of the reserve board in the direction of preventing inflation and deflation extended, refined, perfected, legalized, and made mandatory on future boards, and made to operate ministerially and not left to discretion, and in so far as we can we shall be glad to aid in that process.

You gentlemen here are at the spearhead of the conflict between two economic theories. One is that money volume has nothing to do with price levels, which theory is advocated by some economists of some standing. I think they are a little less active now than they were before the war, because the ocular demonstration of the effect of inflation upon prices has been almost compelling in its cogency

Then there is another theory that the use to which the money is put makes a difference, the point in the "circuit flow" at which the money enters makes a difference. The theory is that if the money is given to manufacturers or producers it does not inflate, because the production brought about by the use of the money makes a level situation, whereas if it is loaned to a consumer the automatic effect is to increase the price level. You gentlemen are faced by that economic theory. You have supporters on both sides.

Mr. STEVENSON. What about land speculation? That also raises the price level, does it not?

Mr. LOMBARD. As I say, I am not a theorist. Just at what point in the actual flow the money has to enter in order to affect the price level, I do not know, but I can state as my positive belief that there is a casual connection there. I think I can say that without having any economist differ with me, that there is a casual connection between money volume and prices.

Mr. KING. Can you answer the question asked by the gentleman from South Carolina, in respect to the money lenders and speculators?

Mr. STEVENSON. We will say, for instance, here is a man who has a tract of land to sell. We will say there are half a dozen fellows who see where they can make some money developing it. If all of them have the money, or if they can get the money, there will be competition that will put the price of that land up when it goes on the market. But if only one has the money, he will buy it as cheaply as possible. It also applies to speculators in stocks and securities. You put a lot of cheap money into the hands of men who are speculating on the exchange and they are going to spend it, and they are going to make the prices of securities and prices of stocks go up.

The CHAIRMAN. Is not that exactly what occurred recently in Florida?

Mr. STEVENSON. That is what happened in Florida.

Mr. LOMBARD. I think as you increase the currency volume you increase prices, but you can not tell where it is going to break out.

Mr. STEVENSON. Or increase the trading volume.

Mr. LOMBARD. Yes, sir. I tried to make that plain in my first formal statement. That is even more effective than increasing currency. It is something like when you squeeze a handful of putty. You can not tell where in your hand the putty is going to break out, whether between the first and second fingers in Florida, or between the second and third fingers on the stock exchange. The situation is there, and it is going to break out some day. Does that answer the question?

Mr. KING. That will do.

Mr. LOMBARD. I want to read you something from the report of a general conference of 35 nations of the world gathered in Genoa.

The CHAIRMAN. Will you dwell a little more fully on that part of the subject you just touched upon—the amount of actual money in circulation in contrast with the extension of credit? Say there are $100,000,000,000 of cash and securities and credit. Say five billions are in cash and ninety-five billions in credit. Suppose the credit amount is extended twenty-five billions and the cash remains the same. What is the result in the price level?

Mr. LOMBARD. That is a very complicated question, Mr. Chairman, and I would have to go somewhat into theory to answer it. If you are willing to stand for the theory, I will give you as complete an answer as I can.

Mr. STEVENSON. We will listen to anything. We do not say we will stand for it.

Mr. LOMBARD. This chart is an algebraic statement of the equation of exchange. I will explain what that means. Take this half dollar and transfer it to some one for some commodity; then the commodity has transferred in commerce. Take every piece of money in the world, and it has its own velocity of circulation, and every commodity has its own price. I think it is a self-evident truth that the two will balance. The money, multiplied by the velocity with which it circulates, must equal the prices of all the commodities in the world, multiplied by the total volume.

Mr. GOLDSBOROUGH. Do you mean after a period of inflation when there has been a vast volume of bank credits?

Mr. LOMBARD. I see what you are getting at. If you will let me finish my explanation, I think it will be answered.

Mr. GOLDSBOROUGH. Very well.

Mr. LOMBARD. This letter M represents each piece of money, and the letter V represents the velocity of the money of the world. The total of those multiplied together must equal the price level multiplied by the volume of trade. That is obvious. I do not believe anybody will controvert that fact. That is a self-evident proposition.

Now, take a summation of both sides of the question and it would be expressed a little differently. We then have the total volume of money multiplied by the velocity, plus the total volume of substitutes, such as credits, checks, and what not, multiplied by the velocity of circulation equals the price level multiplied by the volume of trade.

Bringing that equation down you have $\frac{MV}{T}$, equals P. That is, there are four factors in the equation of exchange—the money in circulation, its velocity, the volume of trade, and the price level. If

you want to stabilize the price level P, you must stabilize the other side of the equation $\frac{MV}{T}$.

Obviously, the velocity of M circulation (V) is something that is not under Government control. The volume of trade (T) is something you do not want to control. You do not want to depress or increase it. In order to keep the price level constant therefore, you must manipulate M, and by manipulating M one way or the other you can keep a constant price level.

The CHAIRMAN. By manipulating the money in circulation?

Mr. LOMBARD. By manipulating the money in circulation, or the substitutes for money.

Mr. GOLDSBOROUGH. If your M and T remained constant and your credit became solid—that is, V became smaller—the price level would fall?

Mr. LOMBARD. It would fall, but you can prevent its falling by putting more money into circulation.

The CHAIRMAN. Is not that exactly what occurred when the Federal reserve notes were put into the market?

Mr. LOMBARD. Yes. When you go to the bank and borrow a thousand dollars, that is what occurs. There are a large number of transactions going on which somewhat tend to neutralize each other.

The CHAIRMAN. Is there any difference between issuing and putting in circulation Federal reserve notes and the credit established by loans at the bank?

Mr. LOMBARD. It is very difficult to say which is the most effective. It is very difficult to trace to determine whether V represents a greater velocity than V'. V represents the velocity of circulation of real money, and V' represents the velocity of circulation of substitutes for money, such as bank credits. If you borrow a lot of money at the bank and leave it there it will not affect the price level; but if you immediately draw your checks upon it, it does affect it.

The CHAIRMAN. And the use to which that money is put?

Mr. LOMBARD. There are some theories to the effect that the point at which that money enters into business affects the situation differently from what it otherwise would be.

The CHAIRMAN. If that $1,000 credit is spent by the borrower for waste or extravagance, or for investment in useful production, does not that have something to do with it?

Mr. LOMBARD. What is useful production, and what is waste? That is the question that we must answer. The use of an automobile by a doctor may be useful production. So may silk hosiery for the ladies. It is a question of which is a luxury and which is necessary. The doctor might walk to see his patients. On the other hand, a woman may get real gratification from wearing silk hosiery, more real gratification than she would from a square meal. It is not for us to say which is waste and which is actual production or a necessity. We are dealing with a great fundamental, economic question. I say it is up to the individual to squander his own money in his own way. If he wants to spend his money for Florida real estate or on the New York Stock Exchange or for automobiles, that is his privilege. We are dealing with a fundamental, economic problem.

Mr. KING. Do you suppose we could include that chart in the record at this point?

The CHAIRMAN. Can you give the reporter a copy of the chart for that purpose?

Mr. LOMBARD. Yes.

The CHAIRMAN. The explanation you have made will be more understandable. Without objection, that will be inserted at this point.

(The chart referred to is on file with the committee.)

Mr. LOMBARD. I feel as though this explanation is very inadequate. It is so extemporaneous.

The CHAIRMAN. If you want to enlarge or elucidate, you will have that opportunity.

Mr. LOMBARD. I will now read this Genoa conference reports.

Mr. KING. What Genoa conference?

Mr. LOMBARD. The conference of 35 nations in Genoa in 1922. It was an economic conference, for the economic reconstruction of the world.

The CHAIRMAN. Was it held under the auspices of the League of Nations?

Mr. LOMBARD. No. I do not think the league had anything to do with it. Did it, Doctor Fisher?

Doctor FISHER. I do not think so.

Mr. LOMBARD. It was an economic conference held for the purpose of suggesting methods for getting the world back to a normal condition.

Mr. KING. Through what influence was the representatives appointed?

Mr. LOMBARD. I think Lloyd George instigated it.

Mr. STRONG. Was this Nation represented?

Mr. LOMBARD. I think not. Frank Vanderlip was there reporting it for the New York World. He was not an official representative.

Resolution No. 1. The essential requisite for the economic reconstruction of Europe is the achievement by each country of stability in the value of its currency.

I want you to get that, because that is very important. That is 35 nations of the world putting that into an official document. They say:

The essential requisite for the reconstruction of Europe is the achievement by each country of stability in the value of its currency.

The CHAIRMAN. When you say it was a conference of 35 countries of the world, you mean it was a conference of economists from these 35 countries, do you not?

Mr. LOMBARD. Yes. I mean the men assembled in that conference put that out as the cure for the situation.

Resolution 9. The purpose of the convention would be to centralize and coordinate the demand for gold, and so to avoid those wide fluctuations in the purchasing power of gold, which might otherwise result from the simultaneous and competitive efforts of a number of countries to secure metallic reserves.

Resolution No. 11. It is desirable that the following proposals to form the basis of the international convention contemplated in Resolution 9 be submitted for the consideration of the meeting of central banks suggested in Resolution 3.

Then they give six clauses, and I will quote the seventh:

Credit will be regulated, not only with a view to maintaining the currencies at par with one another, but also with a view to preventing undue fluctuations in the purchasing power of gold. It is not contemplated, however, that the discretion of the central banks should be fettered by any definite rules framed for this purpose, but that their collaboration will have been assured in matters outside the province of the participating countries.

You will see these countries practically stated that the central banks control the reserves of credit.

Mr. FISHER. Might I interject a word here?

The CHAIRMAN. Yes.

Mr. FISHER. You raised the question of economic experts. This was not a gathering of economic experts as such, but an official conference of those 35 nations, trying to solve the economic proposition. The conference failed in its purpose, because France took the position that that problem should not be considered. Therefore, it only has a moral value, but it was an official conference, not an unofficial conference.

Mr. LOMBARD. There is a frank admission of the control of reserves or credit by the central banks. That is what I am getting at.

The CHAIRMAN. Does that apply to the Federal reserve system in the United States?

Mr. LOMBARD. Absolutely. It must, if that equation of exchange is correct.

Mr. KING. It is all leading to the gold standard, after all?

Mr. LOMBARD. Of course, the old gold standard is pretty firmly fixed in their minds.

I think, Mr. Chairman, it might be well if I further answered your question as to who composed the conference.

The CHAIRMAN. Yes.

Mr. LOMBARD. These 35 nations were officially represented, and their representatives were accompanied by their economic advisers.

The CHAIRMAN. They were appointed or designated by the government which sent them?

Mr. LOMBARD. Yes. They were official representatives of these governments.

Now, per contra, Hon. George W. Norris, governor of the Federal Reserve Bank of Philadelphia, is quoted by George E. Roberts, vice president of the National City Bank of New York in the Economic World for December 15, 1925. Here is what Roberts quotes Norris as having said:

It is not one of the functions of the Federal reserve bank to determine whether prices of stocks or commodities are too high or too low, or to make any effort to raise or lower such prices. It was never the intention of Congress to give any such power to the system. It is a very dangerous power to put in the hands of any man or group of men, no matter how wise or altruistic they might be.

Mr. KING. They did exercise that power in 1920.

Mr. LOMBARD. Mr. Roberts goes on:

It is a power which the American people will never be willing to entrust to any board or commission, and it is fair to say it is a power the Federal reserve bank has never attempted to exercise.

Then he quotes Dr. A. C. Miller, a member of the Federal Reserve Board:

The CHAIRMAN. Was that a speech delivered in Boston just prior to the change in the discount rate by the Federal Reserve Bank of Boston?

Mr. LOMBARD. Mr. Roberts does not say just where Doctor Miller made that statement.

Then Mr. Roberts says in his own right:

It is not clear that a rediscount rate of itself can be relied upon to give the desired degree of control.

He also says further:

The CHAIRMAN. What book are you reading from?

Mr. LOMBARD. The Economic World for December 15, 1925, an article by G. E. Roberts.

The CHAIRMAN. I gained the impression that Governor Norris's statement is in conflict with your views.

Mr. LOMBARD. I am not putting forward my own views. I am pointing out that you are the spearhead of conflict of two economic theories. One says the central bank can control, and the other says they can not.

Mr. STEVENSON. As I understood Norris, he says it should. He does not say it can.

Mr. GOLDSBOROUGH. Mr. Roberts is vice president of the National City Bank?

Mr. LOMBARD. Yes; and one of the foremost economists and bankers of the United States.

I am going to mention a speech he made in Kansas a few years ago. This is his closing sentence in this article:

The reserve banks constitute a great reserve of credit which should be used, as Doctor Miller has said, to give steadiness, stability, and strength, and equalize business conditions.

Mr. Roberts stated in his address before the Kansas Bankers' Association in 1922 that the control of credit exercised by the reserve banks reflects itself in the level of prices. I am quoting him from memory, and that may not be his exact words, but that is the substance of his thought.

Mr. BEEDY. You do not mean reflecting itself in the control of prices?

Mr. LOMBARD. In the price levels.

The CHAIRMAN. I can say, Mr. Lombard, that probably one of the greatest students of the reserve system stated in this room that the open-market transactions of the Federal reserve system would control the money rate, and when carried to its fullest extent would affect prices of commodities and prices on the stock exchange of stocks and securities.

Mr. GOLDSBOROUGH. That was Mr. Warburg, was it not?

The CHAIRMAN. Yes; Mr. Paul Warburg.

Mr. LOMBARD. I want to read some quotations from the report of the Cunliffe Commission of England, of which Lord Cunliffe was chairman, and which reported in the latter part of 1918.

Mr. STRONG. What was that commission?

Mr. LOMBARD. It was formed with the idea of studying what steps should be taken following the World War.

Mr. STRONG. Who formed it?

Mr. LOMBARD. It was formed by the Government in power at that time. I think David Lloyd-George was premier at that time. I am just going to refer to some portions of it. I can not give you the context without burdening you gentlemen unduly. I would like to have you read this report. It can be found in this book. I have two copies, one in the Journal of the Canadian Bankers' Association for January, 1926, and a copy from the Congressional Library.

I want to point out to you how, by repeated references to the fact, they maintain that the central bank does exercise control over the price level.

PAR. 5. But the raising of the bank's discount rate and the steps taken to make it effective in the market necessarily led to a general rise of interest rates and a restriction of credit. * * * The result was a decline in general prices in the home market.

PAR. 6. Domestic prices were automatically regulated so as to prevent excessive imports.

PAR. 18. They tended to check expenditure and so to lower prices in this country.

PAR. 19. For the low home rate, by fostering large loans and so keeping up prices which continue to encourage imports and discourage exports.

PAR. 20. The issue of extra notes stimulates the conditions which tend to produce an advance of prices.

PAR. 21. No doubt it would be possible for the Bank of England, with the help of the joint-stock banks, without any legal restriction on the note issue, to keep the rate of discount sufficiently high to check loans, keep down prices, and stop the demand for further notes.

The CHAIRMAN. I would suggest that at this point there be inserted in the record the summary of the conclusions reached by this commission. Lord Cunliffe in 1918 was governor of the Bank of England and chairman of that commission. It seems to cover the situation fairly well, and I think it should go in the record at this point.

Mr. LOMBARD. I would be glad to see the whole report in the record. I think it is a masterly document.

(The document referred to is as follows:)

SUMMARY OF CONCLUSIONS

47. Our main conclusions may be briefly summarized as follows:

Before the war the country possessed a complete and effective gold standard. The provisions of the bank act, 1844, operated automatically to correct unfavorable exchange and to check undue expansions of credit. (Pars. 2 to 7.)

During the war the conditions necessary to the maintenance of that standard have ceased to exist. The main cause has been the growth of credit due to government borrowing from the Bank of England and other banks of war needs. The unlimited issue of currency notes has been both an inevitable consequence and a necessary condition of this growth of credit. (Pars. 8 to 14.)

In our opinion it is imperative that after the war the conditions necessary to the maintenance of an effective gold standard should be restored without delay. Unless the machinery which long experience has shown to be the only effective remedy for an adverse balance of trade and an undue growth of credit is once more brought into play, there will be grave danger of a progressive credit expansion which will result in a foreign drain of gold menacing the convertibility of our note issue and so jeopardizing the international trade position of the country. (Par. 15.)

The prerequisites for the restoration of an effective gold standard are:

(a) The cessation of government borrowing as soon as possible after the war. We recommend that at the earliest possible moment an adequate sinking fund should be provided out of revenue, so that there may be a regular annual

reduction of capital liabilities, more especially those which constitute the floating debt. (Pars. 16 and 17.)

(b) The recognized machinery, namely, the raising and making effective of the Bank of England discount rate, which before the war operated to check a foreign drain of gold and the speculative expansion of credit in this country, must be kept in working order. This necessity can not, and should not, be evaded by any attempt to continue differential rates for home and foreign money after the war. (Pars. 18 and 19.)

(c) The issue of fiduciary notes should, as soon as practicable, once more be limited by law, and the present arrangements under which deposits at the Bank of England may be exchanged for legal tender currency without affecting the reserve of the banking department should be terminated at the earliest possible moment. Subject to transitional arrangements as regards currency notes and to any special arrangements in regard to Scotland and Ireland which we may have to propose when we come to deal with the questions affecting those parts of the United Kingdom, we recommend that the note issue (except as regards existing private issues) should be entirely in the hands of the Bank of England. The notes should be payable in London only and should be legal tender throughout the United Kingdom. (Pars. 20 and 21.)

As regards the control of the note issue, we make the following observations:

(1) While the obligation to pay both Bank of England notes and currency notes in gold on demand should be maintained, it is not necessary or desirable that there should be any early resumption of the international circulation of gold coin. (Par. 23.)

(2) While the import of gold should be free from all restrictions, it is convenient that the Bank of England should have cognizance of all gold exports and we recommend that the export of gold coin or bullion should be subject to the condition that such coin and bullion has been obtained from the bank for the purpose. The bank should be under obligation to supply gold for export in exchange for its notes. (Par. 24.)

(3) In view of the withdrawal of gold from circulation we recommend that the gold reserves of the country should be held by one central institution and that all banks should transfer any gold now held by them to the Bank of England. (Par. 25.)

Having carefully considered the various proposals which have been placed before us as regards the basis of the fiduciary note issue (pars. 26 to 31), we recommend that the principle of the bank charter act, 1844, should be maintained, namely, that there should be a fixed fiduciary issue beyond which notes should only be issued in exchange for gold. The separation of the issue and banking departments of the Bank of England should be maintained, and the weekly return should continue to be published in its present form. (Par. 32.)

We recommend, however, that provision for an emergency be made by the continuance in force, subject to the stringent safeguards recommended in the body of the report, of section 3 of the currency and bank notes act, 1914, under which the Bank of England may, with the consent of the Treasury, temporarily issue notes in excess of the legal limit. (Par. 33.)

We advocate the publication by the banks of a monthly statement in a prescribed form. (Par. 34.)

We have come to the conclusion that it is not practicable to fix any precise figure for the fiduciary note issue immediately after the war. (Pars. 35 to 39.)

We think it desirable, therefore, to fix the amount which should be aimed at as the central gold reserve, leaving the fiduciary issue to be settled ultimately at such amount as can be kept in circulation without causing the central gold reserve to fall below the amount as fixed. We recommend that the normal minimum of the central gold reserve to be aimed at should be, in the first instance, £150,000,000. Until this amount has been reached and maintained concurrently with a satisfactory foreign exchange position for at least a year, the policy of cautiously reducing the uncovered note issue should be followed. When reductions have been effected, the actual maximum fiduciary circulation in any year should become the legal maximum for the following year, subject only to the emergency arrangements previously recommended. When the exchanges are working normally on the basis of a minimum reserve of £150,000,000, the position should again be reviewed in the light of the dimensions of the fiduciary issue as it then exists. (Pars. 40 to 42.)

We do not recommend the transfer of the existing currency note issue to the Bank of England until the future dimensions of the fiduciary issue have

been ascertained. During the transitional period the issue should remain a Government issue, but new notes should be issued, not against Government securities but against Bank of England notes, and, furthermore, when opportunity arises for providing cover for existing uncovered notes, Bank of England notes should be used for this purpose also. Demands for new currency would then fall in the normal way on the banking department of the Bank of England. (Pars. 43 and 44.)

When the fiduciary portion of the issue has been reduced to an amount which experience shows to be consistent with the maintenance of a central gold reserve of £150,000,000 the outstanding currency notes should be retired and replaced by Bank of England notes of low denomination in accordance with the detailed procedure which we describe. (Pars. 45 and 46.)

Mr. LOMBARD. I will now read a paragraph from a statement by former Gov. W. P. G. Harding. He is now governor of the Federal Reserve Bank of Boston. He was formerly governor of the Federal Reserve Board.

The CHAIRMAN. He made several appearances before this committee during that period.

Mr. LOMBARD. This is the first time I have had the honor of appearing before this committee, and I had no knowledge of that fact.

I take it that you gentlemen are familiar with the Overman Act, which placed supreme power in the hands of the President to transfer the functions of one bureau or department to another.

The CHAIRMAN. A very powerful act.

Mr. LOMBARD. The reason for making that statement will appear as I read:

As a matter of fact all legitimate steps were taken by the Federal Reserve Board to restrict expansion, inflation, speculation, and extravagance during the year 1919, except one—a sharp advance in the discount rate. And it is not at all certain that even that would have been effective at a time when the public seemed to care little for expense. At all events the necessities of the Treasury during that period should not be overlooked, and the board felt that it was its duty to cooperate with the Treasury authorities. Failure to cooperate would have been tantamount to an undertaking by the board to dictate the policies of the Treasury, and in such a case I think the board would have heard something of the Overman Act. Under that act, which at that time was still in effect, the President could by Executive order have transferred any of the functions of the Federal Reserve Board to the Secretary of the Treasury or any other officer of the Government.

The CHAIRMAN. That is a very guarded statement, but it indicates to me that the action of the board was in response to a demand from the Secretary of the Treasury.

Mr. LOMBARD. I think that was clearly brought out in the hearings of the agricultural inquiry before the joint commission of the Sixty-seventh Congress, in which it was clearly demonstrated that the Treasury had exercised tremendous influence upon the board as to its rediscount policy, with the result that rates of interest were kept low, making it possible to float the Victory loan at a low rate of interest and booming prices.

I would like to quote a few expressions on this subject, then I will take up a few of the points mentioned by some of the members of the committee earlier in the hearing, after which I will be glad to answer any questions that members of the committee may desire to ask.

Mr. Herbert Hoover, Secretary of Commerce, in the Review of Reviews for January, 1926, says:

What we all want from this economic system is greater stability, that men may be secure in their employment and their business.

Mr. James Alexander, chairman, National Bank of Commerce, New York City, in his annual address to the shareholders on January 8, 1924, said:

Although many believe that only with rising prices can prosperity be secured, true prosperity is dependent on stability.

Although Congressman Fenn is not favorable to expressions from foreigners, I would like to quote from Dr. Alfred Zimmermann, commissioner general of the League of Nations at Vienna, in an interview reported in the press of October 29, 1923.

Mr. FENN. I have no objection, but I like them to be from strong financial countries.

Mr. LOMBARD. Doctor Zimmermann has made a very strong country out of Austria.

Faith will return as the policy of inflation finally falls before a sound financial administration and stable money.

W. T. Foster, president of Pollok Foundation, and Waddill Catchings, of Goldman, Sachs & Co., in Harvard Business Review, April, 1924:

The primary monetary need, then, is a stable unit of value, and this does not come by chance. Even if we had no other evidence, the records of the past five years in the United States should convince us that the country is not safeguarded against inflation by reserve ratios or merely because bank credit is expended "in response to the legitimate demands of business" or "in the ordinary course of financing production." There are at least four compelling reasons for taking measures now to make a dependable dollar the deliberate aim of conscious policy.

The Iowa Bankers' Association, in convention in 1923, adopted the following resolution:

It is the self-evident duty of the Federal reserve bank to administer the Federal reserve act in such a manner as will safeguard the Nation from inflation and deflation in the future, and we heartily approve all sincere efforts being made to find and apply the best legislative method for safeguarding the purchasing power of money.

That is practically the reading of this bill with the amendment Doctor Fisher pointed out as desirable.

The CHAIRMAN. Was Doctor Fisher present at that time?

Mr. LOMBARD. He is here. He can speak for himself.

Mr. FISHER. I was. I was not the sole author.

The CHAIRMAN. It was evidently pleasing to you?

Mr. FISHER. Not at all displeasing.

Mr. LOMBARD. Reginald McKenna, chairman, Joint City & Midland Bank, at the annual meeting, January, 1922:

The truth is, of course, that both (inflation and deflation) are bad. What is needed is stability, the point from which both alike proceed in opposite directions. When we have stability of prices we have a basis upon which trade can be carried on with confidence.

Dr. Frank A. Wolff, Bureau of Standards, Washington, D. C., before the Committee on Banking and Currency of the House of Representatives, February 26, 1924:

One of the greatest difficulties with which the Bureau of the Budget has to contend and over which it has no control is the evil of an unstable price level.

The CHAIRMAN. Is there a difference in the instability in England and in this country? Is there instability of price levels in England, and, if so, how does it compare with the United States?

Mr. LOMBARD. Yes. This low line on this chart illustrates the fluctuations in the price level in England, and the upper line illustrates the fluctuations in the price level in the United States, running back over 100 years.

The CHAIRMAN. They are quite similar.

Mr. LOMBARD. They are both gold standard countries. I have a chart here which illustrates the fluctuations of price levels in the United States, Canada, Great Britain, France and Germany.

Mr. LOMBARD. These are all gold standard countries. There is one common cause for it. Here is a chart which is also exceedingly interesting on the subject of stabilizing the dollar.

The CHAIRMAN. Have you small copies of these charts that you could give the reporter?

Mr. LOMBARD. I think some of them are in the previous hearings. These two lines illustrate the fluctuations in the price levels in India and England. They are very interesting. During the period shown on the chart from 1860 to 1912, different conditions obtained between those two countries. From 1860 to 1873 both countries were on a bi-metallic basis, and while the fluctuations in price levels varied in degree, both go up and down at the same time, illustrating that the same fundamental cause was at work.

Between 1874 and 1893 there was no tie between the two countries. There you will notice that frequently the price level in India goes up when in England it goes down, and similarly it goes up in England sometimes and goes down in India. From 1894 to 1921 India was on a gold exchange standard, and again you will notice the similarity in the movement that occurred, illustrating that the metallic basis is a fundamental controlling factor in the fluctuations of the price levels. If I may now read some more of these expressions:

Hon. T. Alan Goldsborough, Member of Congress, in the House of Representatives in May, 1922:

I firmly believe that the purchasing power of money can be stabilized. I believe that the solution, when we have it, will be found to be simple; and I trust that that solution will soon be embodied in legislation.

The Constitution of the United States, section 8 provides that: "The Congress shall have power to coin money, regulate the value thereof."

Dr. Frank Crane in McClure Newspaper Syndicate, February, 1926:

It is well known that gold fluctuates. Sometimes there is more and sometimes less of it, and its value decreases or increases accordingly. * * * Some method ought to be devised to base the value of a dollar upon a balance of human necessities; that is, for instance, upon corn, meat, hide, wool, cotton, and gold, instead of upon gold alone.

Prof. Gustav Cassel, of Sweden, in a report to the League of Nations:

The downward movement of prices has not, as is sometimes assumed, been merely a spontaneous result of forces beyond our control. It is essentially the result of a policy deliberately framed with a view to bringing down prices and giving a higher value to the monetary unit.

Edward A. Filene, in New York World, May 21, 1922:

It may be that the stabilization of the purchasing power of the dollar along the lines advanced by economists will sometime help to remove some of the

problems of the counterfeit wage. A scientific solution is highly desirable * * *.

Carl Snyder, economist, Federal Reserve Bank, New York, in American Economic Review, June, 1925:

With the general level of prices established upon a level keel, the prices of individual commodities and wages and salaries and interest rates would fluctuate widely among themselves, just as they do now under the varying pressure of demand and supply, but in a greatly lessened degree. * * * We should no longer have an appalling and endless number of strikes and wage disputes and tie-ups and traffic blockades; for almost every strike and wage dispute grows out of a changing level of the purchasing power of money, and if this level of purchasing power can be made fairly stable, a large part of our troubles, so-called, will disappear. And with this would come a corresponding opening to all the talents of our inventors and discoverers and engineers and efficiency and production experts, giving them a wide open opportunity to get at ways to enhance the man product per hour, to distribute the product more equably, to diversify and lighten human toil.

David J. Lewis, United States Tariff Commission, in a private letter:

Next to the economic havoc of war itself there is probably no more devastating agent at work than the rudderless and ballastless unit of value which has resulted in the price anarchy of the past generation.

Howard S. Mott, vice president, Irving National Bank, New York, May, 1920:

All violent, long-continued, or extensive changes in the general level of prices probably create more human misery than all other things put together.

A. C. Miller, member, Federal Reserve Board, October, 1921:

We should seek just as earnestly to avoid deflation as we should to avoid inflation. By inflation I mean an expansion of credit that eventuates in a rise of general prices. By deflation I mean a restraint of credit that eventuates in a fall of prices. Good economic and credit policy will endeavor to steer a middle course between these two dangerous shoals.

Lawrence Chamberlain in the Principles of Bond Investments, 1911:

For loans of long duration there is involved in this matter of fixity of interest a more profound question than mere certainty and regularity of payments—and that is the future purchasing power of the money in which interest is usually payable. If dealing in long loans it is well to know that the certificate of indebtedness given by the borrower calls for payment of interest and principal "in gold coin of the United States of the present standard of weight and fineness" rather than in mere "lawful money of the United States." however synonymous those two terms may now seem; but it would be better if the lender by any possible system of accounting could exact interest of so much per cent "in present purchasing power of the necessities of life."

Investors' Digest, December, 1925:

A report comes via London that gold in immense quantities has been located in the Rand, South Africa. Any great increase in gold production leads inevitably to inflation in the prices of all commodities.

New York World, March, 1926:

The explanation is simple enough—"radicalism" is always found where there is suffering, injustice, and failure.

Secretary Mellon, in a speech yesterday in Philadelphia, reported in the Washington Herald this morning, said:

Every one of us here in America has a material interest in seeing that stabilization is promptly effected.

Going back to the question of the power of the central banks to influence credit, I would like to quote Mr. W. F. Gephart, vice president of the First National Bank of St. Louis, a very important institution, in his speech before the reserve city bankers at French Lick Springs, Ind., June, 1923:

Price inflation could easily take place should we permit our gold accumulations to be converted into effective purchasing power through credit expansion. This responsibility is shared not only by the reserve banks but by the independent commercial banks as well. They, in the last analysis, can probably do more to prevent the evil by comprehending the dangers involved than the reserve banks can by attempting to control the situation through warnings.

Mr. STEVENSON. You spoke of the price level in 1865. Was that determined by the currency in circulation, or was it figured on the gold basis?

Mr. LOMBARD. In 1865 I referred to paper prices. The solid black line is the paper price and the dotted line is the gold price.

Mr. STEVENSON. Silver was running about 2.16 or better for a dollar in gold. The gold price was pretty near level.

Mr. LOMBARD. You can see that by referring to the chart.

Mr. STEVENSON. That shows the gold price.

Mr. LOMBARD. That solid line shows the gold price in England. The solid line shows the idiosyncrasies introduced into the economic system by the fluctuations in gold.

Mr. STEVENSON. I understood you to say that it was the falling price level for the next few years that caused the greenback controversy. Was not that rather caused by the contention of a very powerful group that United States bonds, having been paid for in greenbacks, which were worth 52 and were bought from 65 to 70, ought to be paid in greenbacks. Was not that the basis of the greenback row, and not the question of falling prices? It started before the prices fell very much, did it not?

Mr. LOMBARD. That question of whether debts should be paid in the purchasing power in which they were contracted has entered into economic discussion for many hundreds of years. A decision handed down by Grotius, the great international lawyer, held that a pound is a pound, and a debt had to be paid in the currency in which it was contracted, regardless of varying purchasing power. George Washington, in the early history of this country, rebelled against receiving payment in inflated currency for money which he had loaned out when the dollar had a higher purchasing power. We are getting constantly, through an organization to which we subscribe, reports of similar conflicts going on in Germany, where there is a tremendous amount of litigation over whether or not debts should be paid in depreciated marks or whether there should be some scaling down of prices. You will remember that the Hamburg-American line paid their bonded indebtedness at the cost of about $1,100 in gold, which has given rise to more litigation.

Mr. STEVENSON. I am not interested in that particular development. I do not want to get a false premise in this record about what caused that greenback row. If you will read the debate between Benjamin F. Butler, from Massachusetts, and James G. Blaine, of Maine, in which that question was settled, you will see that there was made perfectly clear one of the most wonderful speeches ever delivered on the floor of the House, by Benjamin F. Butler, for whom I

have absolutely no respect in the world, in which he absolutely demolished Mr. Blaine and Mr. Garfield on that issue, not whether they should be paid on the same price level they were bought on but whether they should be paid in the same kind of money they bought the bonds with. That was the issue.

The bonds provided that the interest should be paid in gold, but did not make any provision as to the principal, and the announced purpose was to pay them in gold when the banks had bought them with paper worth 52 cents on the dollar. The greenback movement grew out of the assertion of a lot of people in this country that they ought to be paid in the same kind of money they were bought with. and not paid in gold which was worth $2 or better.

Mr. LOMBARD. Congressman Stevenson, you will concede that there were two fundamental thoughts in the minds of those two men. One was inflation, high prices; the other was deflation, low prices.

Mr. STEVENSON. That was not the issue there at all. It was a question of what form of currency the Government could honestly pay its obligations in. It was claimed that there was a currency that was worth 50 cents on the dollar in gold, but it was the currency which the Government got for the bonds, and therefore the bondholders should take the same kind of money at par, when they were getting 100 cents on the dollar when they only paid 70 cents. I was not a greenbacker, but I heard all about it.

Mr. BEEDY. I understood your original statement to be that was one of the incidents of an era of falling prices, that greenbackism was one of the incidents of that era. Was that it?

Mr. LOMBARD. Yes, sir. That was the product of that long period of falling prices, where suffering and a general feeling of unrest arose. It culminated in greenbackism. That is my opinion. I may be wrong, because my age is not sufficient to carry me back that far.

Mr. STEVENSON. The general mass of the people contended that the Government by its greenback statutes required them to take greenbacks. It was legal tender. It is legal tender now. The Government required them to take it in discharge of every debt they had, and yet the Government said, "We will not require these bondholders to take it." That was the proposition, and it caused all that row that almost smashed the national banking system. The national banks bought those bonds. They got them at 70 cents, and when they fell due they got 100 cents on the dollar in gold. These people said, "We have to take a 50-cent dollar for our debts, and these fellows, who are making an unlawful profit out of the Government, are going to get 200 cents on the dollar." That is what made the trouble, and there was a good deal of reason for it.

Mr. LOMBARD. All of which would have been avoided if we had had a stable dollar.

Mr. STEVENSON. The greenbackers undertook to fight that, and you will find the statute on the subject of resuming specie payments. They decreed by act of Congress that the amount of greenbacks should never be reduced, and it never has been. There have been $346,000,000 outstanding, still outstanding to-day. If you will look in the Treasury daily balances, you will find it.

The CHAIRMAN. And gold reserves of $150,000,000 against it.

Mr. STEVENSON. Yes. We had no gold reserve behind it until the second administration of Cleveland, when they repealed the Sherman

Act and put up $150,000,000 of gold to back it, and that is outstanding.

Mr. LOMBARD. All of which would have been avoided if we had been on a stable price level.

Mr. STEVENSON. Yes.

The CHAIRMAN. Reference has been made to the fact that at the close of the Civil War gold was at a premium. The price of gold is fixed by the act, is it not?

Mr. LOMBARD. Yes; just like the number of eggs per dozen is fixed.

The CHAIRMAN. Then how could it vary during that period?

Mr. LOMBARD. The price of paper was depreciated by overissue.

The CHAIRMAN. What effect does the existence of the large amount of gold that we have at the present time, with gold at a premium, have in this country?

Mr. LOMBARD. None, so long as you can take the paper to the Treasury and get gold.

Mr. STEVENSON. That is different. There was no gold reserve behind paper then.

The CHAIRMAN. How much paper money, payable in gold, is in circulation now.

Mr. LOMBARD. A good deal more than the gold fund, if that is what you are aiming at. There is a good deal more outstanding currency than there is gold to redeem it, but it is never all presented at one time.

The CHAIRMAN. That brings up the statement of Doctor Fisher that there is too much gold in the country. Do you consider there is too much gold in the country?

Mr. LOMBARD. The minimum reserve contemplated by the act was 40 per cent. It is now something like 75, indicating that there is a good deal more gold than is necessary to act as a reserve for the volume of currency outstanding.

The CHAIRMAN. Suppose an emergency should arise, as there did five or six years ago, when large rediscounting is necessary, might we not find ourselves in the position of not being able to expand and extend credit to the business needs of this country, if we permit the gold to go out of this country that we now deem excessive?

Mr. LOMBARD. No; I think not, Mr. Chairman. I think business will accommodate itself to whatever volume of money you give it. My only test for inflation and deflation, or sufficiency of circulating medium, is the price level.

The CHAIRMAN. I recall, during that period of about 1920, when the Federal reserve system was considerably concerned about the outstanding Federal reserve notes and rediscounts being almost at the breaking point. There was considerable discussion in regard to reducing the legal reserve requirement of gold, because of that condition. Might not that condition occur again, because business is expanding beyond what it was during that period?

Mr. LOMBARD. It might, if the excess of imports over exports be too great and we loan too much money in Europe. However, that situation would automatically correct itself through the operation of exchange—the fluctuations in exchange—it would not long be profitable to lend to Europe, and loans would stop.

The CHAIRMAN. Do you consider that we have inflation at the present time, either through rediscount of paper in member banks or

through the issue of Federal reserve notes, or through the plan of exchanging Federal reserve notes for gold?

Mr. LOMBARD. Or through too much gold?

The CHAIRMAN. Or through too much gold.

Mr. LOMBARD. Inflation and deflation are relative terms. We have inflation with rising price levels, and deflation with falling price levels. If you are asking me whether we have inflation relative to 1865, I say no, we have deflation.

The CHAIRMAN. As compared with 1913.

Mr. LOMBARD. As compared with 1913, we have inflation.

The CHAIRMAN. To what extent?

Mr. LOMBARD. To the extent of about 30 per cent. I think the purchasing power of the dollar is about 62 cents to-day.

The CHAIRMAN. How was that inflation brought about?

Mr. LOMBARD. Principally through the gold in this country, the result of large exports.

The CHAIRMAN. Could not that be controlled by the Federal Reserve Board?

Mr. LOMBARD. It has been controlled by the Federal Reserve Board, which has kept the level down much lower than it might have gone without the system. If we now had the old national banking system we would have a price level two or three times as high as it now is.

The CHAIRMAN. You do not consider that we have an excessive amount of inflation?

Mr. LOMBARD. We have had practical stability for the last four years.

The CHAIRMAN. Suppose the price level were reduced to that of 1913, and money and credit remained where they are, what would be the result?

Mr. LOMBARD. I do not believe you could do it. I do not think you could reduce the price level and keep money and credit where they are. I think you would have to reduce them.

Mr. STEVENSON. Contract them both?

Mr. LOMBARD. One or both.

Mr. STEVENSON. And some of the contraction would have to be a considerable amount, would it not?

Mr. LOMBARD. The only way to put prices down is to bring about deflation.

The CHAIRMAN. The statement has been made before the committee that the power vested in the Federal Reserve Board is being exercise to the extent of fixing prices, not only in this country, but throughout the world. Do you agree with that statement?

Mr. LOMBARD. That was a statement quoted in the United States Daily this morning. I think it is a mistake, except our reserve bank authorities can not control prices abroad so far as the Federal Reserve Board may send its gold abroad or lend its credit or buy or sell exchange.

The CHAIRMAN. Do you agree with Doctor Fisher that the open market transactions of the Federal reserve system are the most potent device they have for the purpose of stabilization?

Mr. LOMBARD. I hesitate to differ with Doctor Fisher, because he is the world's greatest authority on this question of stabilization, but I think maybe he overlooked the tremendous power of moral

suasion, and the power of publicity which the Federal Reserve Board has, bearing in mind that large numbers of our banks are not members of the system and are out at the end of a string, as it were, running wild to suit their own notions. I think the power of the Federal Reserve Board, through warning and suggestion and publicity, is greater in this country than the open-market operations.

Mr. STRONG. We heard this morning from the governor of the Federal reserve bank, who stated that the banks are getting information from various business men as to business conditions; that the reports show that while they had a prosperous January, February was rather reactionary, and that the consensus of opinion seemed to be that was caused by conditions on the stock exchange, being a psychological condition of mind that if stock prices are going down trouble will come and we would better be careful.

The CHAIRMAN. Is that not somewhat similar to the plan pursued by the Bank of England in regard to the statement of that kind of conditions and warnings in regard to the use and misuse of credit?

Mr. LOMBARD. They do not function in that way.

The CHAIRMAN. It would have the same effect?

Mr. LOMBARD. They are very much more frank and open with their public than our financial authorities are. They seem to impute to the public a larger degree of intelligence than is imputed to our people. Of course, one of the controlling policies of the Bank of England has always been to maintain the gold fund at the proper level. They have been more interested, because of their large foreign business, in maintaining stable foreign exchange than they have in maintaining stable local prices. You have to make up your mind which you are going to stabilize—discount rates, foreign exchange, or prices. Few people are interested in stable foreign exchange. People who are borrowing and lending money are interested in interest rates, but everybody is interested in the price level. Every dollar he has got or every investment he has got, every commodity he owns, is affected by the price level. So I consider the stabilization of the price level is the fundamental economic necessity of the world to-day.

Mr. KING. May I ask a question?

Mr. LOMBARD. Yes, sir.

Mr. KING. What are the various elements that enter into the fixing of the price level?

Mr. LOMBARD. First is the gold supply, because our dollar is a unit of weight; it is a fixed weight of gold. Then, of course, the power of the Federal Reserve Board, exercised through their four devices: (1) Rediscount rate, (2) open market operation, (3) circulating gold, (4) moral suasion.

Mr. KING. Do you take into consideration the law of supply and demand?

Mr. LOMBARD. The law of supply and demand is very much misquoted. I would like to quote a remark I heard made by a college professor who said you could teach a parrot what the average business man knows about economics by teaching him to say "Demand and supply, demand and supply." I asked him if it were not true,

if a man knew demand and supply in all of its ramifications, he knew economics. He said yes.

Demand and supply has four factors. There is the demand and supply of the article which I sell, and the demand and supply of the article which you sell. You are selling gold, and I am selling wheat. The demand and supply of gold is just as important as the demand and supply of wheat. But the trouble is the weight of our dollar has been fixed in gold; the law of demand and supply has been suspended in the case of gold. We want to see it stabilized, so it will have a fixed purchasing power in terms of commodities we all buy and sell and wear and eat.

Mr. KING. Then these employees in Philadelphia ought to be paid on the same basis. What various commodities would enter into their pay? What would they get for their work?

Mr. LOMBARD. I do not recall now, but I think the index figure is based upon the things that men in their station of life consume and use.

Mr. KING. The higher the prices, the higher their pay?

Mr. LOMBARD. Yes, sir.

Mr. KING. What effect would there be if certain industries would proceed along the line of taking a flyer in food? You gentlemen are familiar with that. A number of men a few years ago cornered all of the condensed milk. They borrowed money on it and gave notes, which came out as Federal reserve notes. They had back of it the notes and had the condensed milk. They sold it for whatever price they saw fit to take. That is one of the things we experienced during the war and just after the war. What effect would that have on the price level.

Mr. LOMBARD. That opens up a subject which will require considerable time to explore. I am very willing to do it, if the committee wants to take the time, and will answer your question specifically. The index figure is made up of a large number of commodities. Any fluctuation in any one has very little effect on the general price level. When the price of one commodity increases automatically there tends to be a decrease in the price of others.

Mr. KING. Then you must of necessity be guided or controlled by the same system we have now, when the price level gets very high.

Mr. LOMBARD. You can stabilize it at any point you want in terms of gold.

Mr. KING. Not in corners of food.

Mr. LOMBARD. There are no corners of food at all times.

Mr. KING. They operate pretty well on that line. Take clothing to-day, it is controlled by that system; sugar has been controlled; condensed milk has been controlled; meats have been controlled.

Mr. LOMBARD. I think this chart will explain my position. If you put the price of one thing too high, the public will immediately buy the substitute.

Mr. KING. And if they can not get butter, they buy oleomargarine?

Mr. LOMBARD. If they can not get linen collars, they buy cotton collars.

Mr. KING. Will that not make Bolsheviks, as you suggested?

Mr. LOMBARD. Here is a chart which illustrates the similarity of the price levels as calculated by using different numbers of commodities. You will hear some objectors to this plan ask, "What price index are you going to take, or what commodities are you going to use?" It is said to be a matter which will be manipulated by schemers, and so on.

Here [illustrating] is one line based on 25 commodities; here is another one based on 50 commodities; and here is another one based on from 242 to 261 commodities—various numbers at different times. You will notice the similarity with which those curves move. Of course, they are not identical. This system that we are proposing, this system of stabilization, is not a perfect system. There is nothing perfect under the sun, but it is so much closer an approximation to perfection than the present system that there is no comparison. Under a system of stabilization you would have neither the deflation nor the inflation indicated by the rising line here [indicating] and the falling line here [indicating].

The CHAIRMAN. Mr. Lombard, speaking of price levels, which of the price levels, outside of the Fisher price level, do you consider the nearest correct?

Mr. LOMBARD. You mean the index figure of prices?

The CHAIRMAN. Yes.

Mr. LOMBARD. I think the figure of the United States Bureau of Labor Statistics is a very reliable and satisfactory figure. There is some objection to it because it is calculated by the Department of Labor of the Government, and the suggestion has been made that therefore it might be influenced by considerations other than those purely economic?

The CHAIRMAN. Which of the other indexes would you say would come next?

Mr. LOMBARD. I am really not an expert along that line. I do not think my answer to that question would be worth anything.

Mr. KING. You do not say that this price level can be manipulated, do you?

Mr. LOMBARD. It can be manipulated, you say?

Mr. KING. Yes, sir; either up or down.

Mr. LOMBARD. If you had too few commodities, the effect of manipulation would be greater than if you had a large number of commodities. That is obvious.

Mr. STRONG. If you had 200 or 300, it would be better?

Mr. LOMBARD. If you had two or three hundred, it would be better. It is impossible to suppose that there is going to be a combination of controlling elements in 400 commodities.

Mr. KING. This laborer in Philadelphia will be permitted to take whatever commodity he thinks he needs, will he?

Mr. LOMBARD. No; there is an arbitration committee that determines which commodities enter into the calculation.

The CHAIRMAN. Certain commodities enter this year that were used last year?

Mr. LOMBARD. Not necessarily. The arbitration committee decides that. If they want to include silk shirts, they can do that; and the following year they can include canned milk.

Going back into history, it is interesting to see the standards that were suggested as better than gold. Wheat has often been sug-

gested, rye was used in Germany recently, and it was once suggested in England that velvet be used.

Mr. KING (interposing). And Doctor Wiley suggested calories.

Mr. LOMBARD. Yes; and kilowatt hours have been suggested; but that is largely theoretical. One of the most stable commodities determined by Doctor Fisher is eggs.

Mr. KING. Cold-storage eggs or fresh eggs?

Mr. LOMBARD. The average level of eggs, eliminating seasonal changes, fluctuates more uniformly with the average of all commodities.

Mr. STRONG. Personally, I am in favor of butter and eggs and those agricultural products being fairly high.

Mr. WILLIAMSON. You are speaking of it not being manipulated, but it is conceivable that some great combination of capital could control 50 per cent of these things.

Mr. LOMBARD. No, sir; that is not conceivable—that the controlling elements, if there were such a thing, in a sufficiently large number of these commodities would ever be able to get together in such a way as to work one way, because there would inevitably be leaks which would prevent it.

Furthermore, I want to answer some questions raised yesterday. Even great world conditions never result in such a way that we have an overproduction of corn and an overproduction of wheat and an overproduction of barley and of rye, etc., all over the world at one time.

Mr. WILLIAMSON. No; but sometimes you have a whale of a cataclysm of overproduction of wheat in the world.

Mr. LOMBARD. Yes; some one commodity; but when it is only one it does not affect the whole list to any extent.

Mr. WILLIAMSON. But if wheat drops to 65 and the level is still maintained by other things, you fix it so that the board can not do anything specific to raise the price of wheat because it would elevate the general price level. You are putting a strait-jacket on the Federal Reserve Board that they have to maintain a certain level.

Mr. LOMBARD. This is our difficulty, that we have been looking upon gold as being stable and other commodities as fluctuating. Just so, a man in an elevator in an office building might say, "My, but this building jumps up and down a lot." It is the gold that goes up and down. It is gold and the substitutes for gold that have to be stabilized. We do not propose to stabilize wheat or cotton, but gold and money.

Now, then, you fellows can have your rows among each other as to which is going to have high prices—wheat or corn or cotton or butter—but those commodities will fluctuate between themselves just as much under a stabilized dollar as they do now, but the fundamental measure—the dollar itself—will be stabilized.

In that connection I want to read what Carl Snyder, the economist of the Federal Reserve Bank of New York, says. He is an eminent economist and he knows what he is talking about. He has made a careful study of these matters.

As I said, he is economist of the Federal Reserve Bank of New York, a responsible position. He says:

> The general level of prices established upon a level keel, the prices of individual commodities and wages and salaries and interest rates would fluctuate

widely among themselves just as they do now under the varying influence of demand and supply, but in a greatly lessened degree. We should no longer have an appalling and endless number of strikes, wage disputes, tie-ups, and traffic blockades, for almost every strike and wage dispute grows out of a changing level of the purchasing power of money, and if this level can be more fairly stable a large part of our labor troubles will disappear, and with this would come the corresponding opening to all these talents of our inventors and engineers and efficiency and production experts, giving them a wide-open opportunity to get easier ways to increasing a man's production per hour, to distribute the product more equitably, and to diversify and enlighten human toil.

Mr. BEEDY. There is a good deal of confusion here in the use of terms. Doctor Fisher in his testimony said he would like to get away from the use of the phrase "price levels"; that the proper term was "price scale." A moment ago the chairman referred to "price level" when he meant "index figure." I would like to enlighten myself. There is no such thing as a price level, to be accurate, is there, in all this discussion?

Mr. LOMBARD. No.

Mr. BEEDY. There is a scale of prices, which scale varies and from which we take an average and arrive at an index figure.

Mr. LOMBARD. That is right; it is a mental concept.

Mr. BEEDY. We have had a good deal of confusion on that.

Mr. STEVENSON. It reminds me of an Italian who brought a suit in which the Supreme Court decided that the Constitution did not follow the flag. He brought suit about some lemons that he undertook to bring in, and they imposed a tariff on him, and when the court came in and decided that the Constitution did not follow the flag the dago bobbed up and said, "What has become of my lemons?" The court said, "To hell with your lemons; we are deciding a constitutional question."

If you are going to decide a constitutional question, what is going to become of folks when they have too much wheat?

Mr. STRONG. Just what becomes of them now. Whatever they sell their wheat for, they will have a stable dollar to buy their other products with.

Mr. LOMBARD. Do you want me to give you my idea of what is wrong with the wheat growers?

Mr. ALLEN. Yes; and the corn growers, too.

Mr. STEVENSON. The cotton growers are not fussing now.

Mr. STRONG. The wheat growers are not satisfied with the prices now.

Tell us what is the matter with corn.

Mr. LOMBARD. It is typical of what I referred to in the early part of my address, the confusion which is wrought in our minds by the fluctuating dollar and the efforts that we make to treat the symptoms rather than the ultimate cause, the fundamental cause.

Some years ago we put into effect a farm-loan system, and in many States we had State land settlement boards, and we had various devices and schemes to aid the farmer to get greater production.

Mr. STEVENSON. To get in debt.

Mr. LOMBARD. Yes; for implements, for irrigating ditches, and for everything contributing toward greater production. Every time you monkey with the economic machine the chickens come home to roost some time and in some way, and we can hear them cackle now.

Mr. STEVENSON. In other words, you think that by furnishing greater credit for the farmer you have enabled him to overproduce himself?

Mr. LOMBARD. Yes, sir.

The CHAIRMAN. That has been the claim that has resulted in legislation here in Congress for State aid. I have in mind particularly the aid that is furnished under the Smith-Lever bill, in which we created a system of county agents to teach the farmers how to farm and to make two blades of grass grow where one grew previously. You are speaking now of the results of the accomplishment of that kind of legislation and also the opportunity to borrow money through the Federal farm loan system as two of the causes which enter into this overproduction at this time?

Mr. LOMBARD. Yes, sir. You did not treat the fundamental cause of the trouble. You did not go after the real trouble at that time; you went after one of the symptoms. The farmer was suffering, and he hollered loud, and he got aid, and now he is suffering from that aid.

Mr. STRONG. Do you not believe that if we had not formed the farm-loan system to let the farmer have a little cheaper money than he was having and to let him pay back a small amount each year, he would have borrowed from the mortgage loan companies just the same and had to pay a higher rate of interest?

Mr. LOMBARD. No; and I will tell you why, Congressman Strong.

Mr. KING. He would not have gotten it.

Mr. STRONG. But he did get it.

Mr. LOMBARD. What is the term, Doctor Fisher, for marginal farms right on that line?

Doctor FISHER. The recardian acre.

Mr. LOMBARD. This was the effect under all of that spoon feeding of the farmer; that encouraged a lot of bank clerks and street-car conductors and others to drop their usual occupations and go on the farm and produce. We did that more in California I suppose than in any other place. We even went so far as to have a land settlement board out there that bought land and sold it to the farmers.

The CHAIRMAN. Is that under the Elwood Mead plan?

Mr. LOMBARD. Yes; and on that question he and I stumped the State in opposition to each other. I think that California had no more business to go into the real estate business than into the grocery or the jewelry business. I do not think the farmer is entitled to be spoon fed any more than the groceryman, for the fatalities in the grocery business are greater than the fatalities on the farms.

The CHAIRMAN. And the fallacy of that plan in California has been fully demonstrated.

Mr. LOMBARD. Am I stepping on anybody's toes?

Mr. CHAIRMAN. Not in the least.

Mr. LOMBARD. If there is any party question involved here I will quit because I do not want to say anything to interfere with the movement for stabilization.

Mr. ALLEN. You were referring back to 1903, I believe, when you said the Lombard Co.——

Mr. LOMBARD (interposing). 1893.

Mr. ALLEN. When that money was loaned out in Kansas and Nebraska and Iowa. Then followed the depression and the clean-up but do you not picture from that time to this a great development in that section of the country?

Mr. LOMBARD. The Lombard Co. had loans of $10 an acre on land worth $200 an acre, but unless the farmer can pay his interest when it comes due he loses his farm. One economist says that 1,000,000 farmers were forced to surrender their farms by reason of the deflation in 1920.

The CHAIRMAN. What effect in your judgment did the operations of the Federal farm loan system, in granting these more favorable loans to farmers than they had theretofore been able to get, coupled up with the additional assistance given them through Federal aid. have on the prices of land in the Central West? I am speaking of Iowa, southern Illinois, Nebraska, and Kansas.

Mr. LOMBARD. Of course it gave an artificial stimulus to production. It rendered the farm business more profitable, and that was immediately capitalized in land values.

The CHAIRMAN. And rampant speculation was the ultimate result of that?

Mr. LOMBARD. Partly that and partly the depreciating value of the dollar, but we would have had an increased price of land even with the stabilized dollar under those conditions. If you spoon feed any one business you are going to increase the capital value of that business.

Mr. BEEDY. A good many of those farmers in the Middle West now crying for relief are those who bought lands at those high prices on account of that inflation and now they claim that they can not make any money to pay the overhead.

Mr. LOMBARD. That is true to a certain extent, but let me try to take into consideration all the factors involved. What I am speaking of is one element. One of the big elements is certainly the decreasing purchasing ability of Euroje since the war. Europe has not bought since the war what she did before. That has affected us particularly in California. Germany previously consumed tremendous amounts of dried apricots and prunes and so on but she has not been consuming them so largely since.

Mr. STRONG. I want to say that there has not been any inflation of land values in Kansas in the last 10 years, and there has not been much borrowing of money to buy lands. Neither have there been any conductors encouraged to go out there and buy land and borrow money. Our farmers are practically the farmers that we had 10 years ago, and they are conducting their affairs just about as they did 10 years ago, but they are not making any money. I think that perhaps the fact that the dollar is only worth 63 cents in purchasing power was largely responsible for it.

Mr. BEEDY. Do I understand that your State has not grown any in the last 10 years?

Mr. STRONG. It has grown; yes.

Mr. BEEDY. You have had some new influx of farmers there, have you not?

Mr. STRONG. There are probably some, but I am talking about the mass of the people.

Mr. BEEDY. You said you had the same farmers that you had 10 years ago.

Mr. STRONG. Practically the same. The great majority who were farmers 10 years ago are farming to-day.

Mr. BEEDY. What did they borrow this money for?

Mr. STRONG. Principally to pay their old mortgages, which were at higher rates of interest.

Mr. CANFIELD. Is it not a fact that you have fewer farmers out there than you had 10 years ago? There were farmers making a living then that can not make a living now, and they had to go off the farm.

Mr. STRONG. It is true all over the country that the cities are growing at the expense of the farm districts, principally because agriculture is no longer a profitable industry.

Mr. KING. And the farmer has nothing to say about the price of his stuff.

Mr. STRONG. That is it.

The CHAIRMAN. If I understood your statement correctly, it was to the effect that, owing to the demands from the agrarian group, much legislation was passed which had the effect of overproduction. Now, there is still that demand existing here for additional aid. It seems to me, if I understand you correctly, that the present demand is largely the outgrowth of unwise legislation which has previously passed and which has stimulated overproduction. Is that correct?

Mr. LOMBARD. Yes; I think that is correct.

Mr. STRONG. Would it not be fair or fairer, to say that the requests and demands made upon agriculture during the war to increase their production and feed the boys in France and feed the nations of the world had more to do with stimulating the production of agriculture than anything else?

Mr. LOMBARD. No, Congressmen; I think the farmer did not get a square deal during the war. The prices of his product would have gone higher if they had not been pegged.

Mr. STRONG. I admit that.

Mr. STEVENSON. We want to find out what we are going to do to-morrow.

The CHAIRMAN. What is the pleasure of the committee in that respect?

Mr. STRONG. Is there anybody else to be heard?

The CHAIRMAN. This is what I was going to suggest to the committee. I think that we should have the statistician of the Department of Labor who handles this index matter for the Department of Labor here. He has evidenced interest in this as well as a desire to appear.

I think also that it would be well for us to have the same man from the Federal Reserve Board and the same statistician from the Federal Reserve Bank of New York here.

If that is the pleasure of the committee, I will see that those men, if they have not already been invited, will be invited to appear.

Mr. STRONG. I would like to state that it was my hope that the Federal Reserve Board would have a representative here to hear this discussion and reply to it.

Mr. GOLDSBOROUGH. Mr. Platt was at the door just a few minutes ago.

The CHAIRMAN. I will say to you, Mr. Strong, that a communication which I received from Governor Crissinger indicated a willingness on the part of the board to appear, and stated that they would like to know what was developing here so that they might be able to make a more definite statement or answer to any questions that were raised. Inasmuch as it was a subject which was not being urged by the Federal Reserve Board, I thought, out of deference to them, that that was probably a practical disposition.

Mr. STRONG. I was hoping they would be here so as to know what questions were raised.

Mr. STEVENSON. The question I want to know is, What are we going to do to-morrow?

The CHAIRMAN. So far as the Chair knows, there is no one outside of the gentlemen present here to be heard to-morrow. Doctor Wolff desires to make a statement, I believe; and Mr. Starr told me he wanted to make a statement.

Mr. KING. I would like to ask the chairman a question. Would it not be possible to call in some representatives of farm organizations? They have experts, and good ones, on subjects of this kind, and they are certainly interested in legislation of this kind.

The CHAIRMAN. Mr. Strong has had that in mind, and I think he has gotten in touch with a good many.

Mr. STRONG. I will state that when it was decided to have this heard by a subcommittee, and I was made chairman of the subcommittee, I did invite the farm organizations, and several of them have written me; but when we decided, because of the importance of this matter, to have the hearing before the whole committee, of course, I deferred to the chairman and to the rest of the committee as to who should appear here; but in setting a date to which we should adjourn I would like to present this thought: I would have liked to have had the Federal Reserve Board hear this testimony and be able to present any objections that they may have. As they have not been here, when they do make their statements, it seems to me it would be well if we could then adjourn to a time, within a day or two afterwards, when the gentlemen who have appeared here and made statements could have an opportunity to reply to any arguments that might be presented.

Mr. STEVENSON. All of which is not reaching the question I have in mind, and that is whether we are going to be here to-morrow.

Mr. LOMBARD. In accordance with your suggestion, Mr. Chairman, that I file a supplementary statement, I submit the following:

$$\text{The equation of exchange: } \frac{MV}{T}=P.$$

This is an algebraic statement and proof of what I like to call "the demand and supply theory of money." I do not like the term "quantity theory of money," because that is frequently misunderstood. The quantity theory of money is that "other things being equal, the purchasing power of money fluctuates inversely in proportion to its quantity," but the trouble is that "other things" are never

equal. Money fluctuates in purchasing power in accordance with the law of demand and supply the same as does any commodity or service. This equation shows us that prices vary directly with the quantity of money in circulation multiplied by its velocity of circulation, and inversely as the total volume of trade.

We start the demonstration by taking, as an example, any piece of money. When a purchase is made this piece of money changes hands for a given thing at a given price. If we take every transaction into which money enters and give each piece of money its own designation as m, m′, m″, etc., and if the velocity at which each of these pieces of money circulates is designated by v, v′, v″, etc., it is obvious that their product must be equal to the total of all the things purchased multipled by the price of all those things. If each of these things we designate by t, t″, t″, etc., and the prices of these things we designate by p, p′, p″, etc., it must be obvious that these two must be equal. That is, $mv+m'v'+m''v''$, etc. $=pt+p't'+p''t''$, etc. Taking a summation of the two sides of the equation and redesignating the sum of all the money (and credit) involved by the large letter M, the average velocity of circulation by a large V, the total volume of trade by large T, and the general price level by large P, we have the next step in our equation, viz, $MV=PT$.

Dividing both sides of the equation by T, we secure the algebraic statement of the demand and supply theory of money, $\frac{MV}{T}=P$, which means that the total money and credit in circulation multiplied by the average velocity of circulation and divided by the total volume of trade equals the general price level.

Now, assuming that we desire to keep P (the general price level) constant, and that V is not subject to our control—being a matter of individual determination—and that we do not want to exercise any direct control over T (the volume of trade) such as by limiting production or artificially stimulating the same, then the only factor remaining subject to our control is M, the volume of money and credit.

Under our disjointed banking system, with many thousands of banks not even members of the Federal reserve system and operating under the supervision of State authorities and thinking only of their own profits and security rather than of the common good, the measure of control exercised by the Federal reserve authorities must be even more drastic than would be the case if we had one central institution, such as exists in England, for example.

Also, since it is traditional in banking that gold reserves must have a certain fixed percentage relation to outstanding liabilities, it follows that inflation in the amount of gold in bank reserves or deflation in such reserves will reflect itself in the outstanding bank credit and that the Federal reserve authorities can control this outstanding bank credit only as to their own member banks and this control must be far more drastic and severe than would be the case if all banks in the country were members of the system.

Diagram E: As to the measurement of the factor P in the above equation—the price level—and the influence upon the calculation of excluding certain commodities, I call your attention to diagram E on which are charted price levels from 1890 to 1912 as determined

by using 25, 50, and over 200 commodities, respectively. The close similarity of the three different curves illustrates that it is of comparatively minor importance how many and even what commodities enter into the calculation of the general price level.

Diagram F: Referring to diagram F, upon which are charted the results of calculating the index level by using weighted and unweighted figures, it will be seen that it is of comparatively little importance which of the two methods is followed. By a weighted figure we mean one where the weight given to each commodity in the statistical calculation is dependent upon its importance in commerce and is directly proportionate thereto, whereas in an unweighted calculation each article is given the same weight in the calculation, regardless of its importance in commerce.

Diagram G: Referring to diagram G, whereon have been plotted two series of index figures, one based on retail prices and the other on wholesale prices, we observe that the two closely resemble each other, the fluctations in the wholesale line being greater than in the retail line, evidencing that an index figure based upon wholesale prices is more sensitive, and therefore, perhaps, a better guide in connection with any plan for stabilization than would be an index figure based upon retail prices.

Diagram A: As to the influence of gold upon inflation and deflation, I call your attention to diagram A, whereupon have been charted the index of price levels in the United States and England from 1790 down to 1915. The dotted line on this chart indicates the gold price level, where it was different from the paper level. Since it is paper prices that people have to pay, when inflation goes to such an extent that paper is depreciated in terms of gold, it is the black line which we should more closely observe in considering the affects of paper inflation. It will be noticed that these two lines are strikingly similar—when one goes up the other goes up, and when one goes down the other goes down, illustrating that the same fundamental cause is at work. It is also interesting to note the inflationary periods in England and in the United States during the Napoleonic wars, the American Civil War, and the recent World War.

It is also interesting to note that the price level reached a low ebb and started to climb again about the time of the discovery of gold in California and Australia. After the Civil War the price level declined in both countries until it was at its low point about 1896, at which period we had the characteristic political phenomenon of an "Inflationist Party" almost successful at the polls. At about this time the cyanide process for extracting gold from the theretofore worthless gold dumps of the world was discovered, and also about this time gold was discovered in the Rand. Then the price level began to mount gradually under the natural stimulus of this increase in production of gold until the outbreak of the World War, when M and V, in our equation, were energetically stimulated and T not so much so (because of the fact that the producers were at the front killing each other) so P rose to great heights.

Diagram C: on diagram C are shown the fluctuations in the price levels of Germany, France, Great Britain, Canada, and the United States from 1890 to 1914. During this period all of these countries

were on a gold standard and operating on a more or less fixed gold reserve ratio, so that we have here graphically deplicted the effects on all of the price levels of one fundamental cause, viz, fluctuations in the demand for and the supply of gold itself.

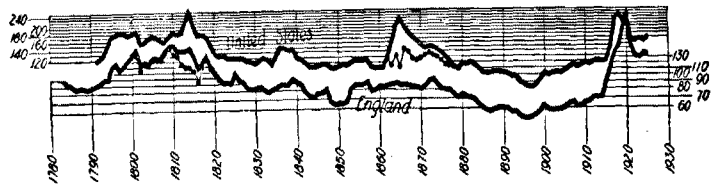
Diagram D: This controlling influence of the metallic base upon the price level is even more strikingly demonstrated on diagram D, where we see charted the price levels in India and in England from 1860 to 1912. During this time there were three briefer periods during which relationships between the countries changed. Thus from 1860 to 1873 both countries were on a bimetallic basis and during this period when the price level in one country rose, it rose in the other country, and vice versa. From 1874 to 1893 there was no tie between the two countries and during this period there was no synchronism between the two lines. Sometimes they rose and fell together, and sometimes when one rose the other fell. From 1894 to 1912, however, India was on a gold exchange standard and during this period again, when the price level rose in one country it rose in the other and when it fell in one country it fell in the other.

Nothing could be more cogent to prove the absolute necessity for some thoroughgoing law which will cause gold in the future to serve, rather than to master, man.

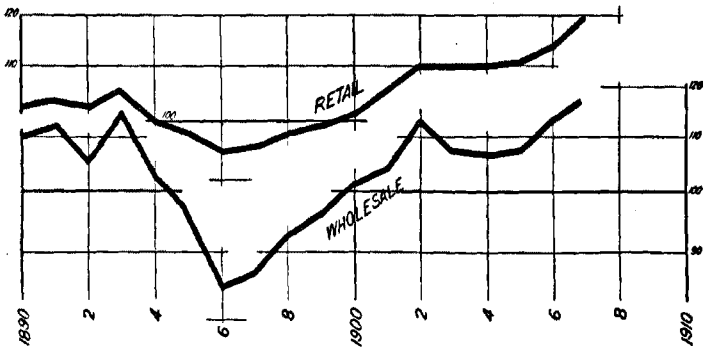
Diagram I: Diagram I illustrates some of the evil consequences of fluctuating price levels. On this chart the crosshatched portions indicate the relative changes in price levels from year to year. The crosshatched portions above the median line indicate increases in the price level and those below the median line indicate decreases in the price level, each as against that of the previous year. In some cases, where the increase or decrease was so great that it could not be shown on the diagram, it has been indicated by figures on the margin.

The heavy black line indicates fire losses. Fifty-three per cent of the total premium income being considered normal, any increase in this normal ratio is shown by projecting the solid black line below the median line, whereas any decrease in the normal fire-loss ratio is shown by projecting the solid black line above the median line. It will be noted that, with the exception of one or two years, fires increased when the price level dropped and they decreased when the price level rose. The frequency with which this is shown removes any question as to its being entirely a matter of coincidence.

Even more interesting and sentient from the point of view of our study is the relationship shown between fluctuations in the price level and the percentage of business failures. Thus, on Diagram I, when business failures increase the dotted line goes down and when they decrease the dotted line goes up. It will be noticed that with absolute fidelity when the price level drops business failures increase, when the price level rises they decrease, thus indicating the fact that business men, more than they realize, are subject as regards their success or failure to the idiosyncrasies in the price level which they have absolutely no way of prophesying or estimating. Thus they are subject to the activities of miners and inventors on the one hand, to the users of gold in the arts on the other; to the whims and the judgment of our Federal reserve authorities in their policies as regards rediscount rates and operations in the open market, and to the activities of a large number of banks operating under the laws of a



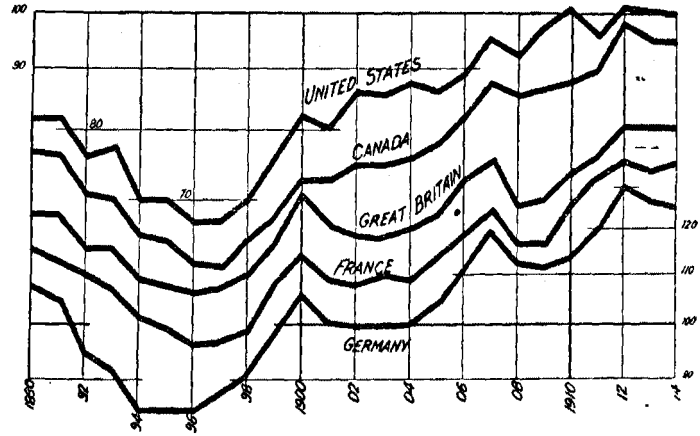
• INDEX FIGURES
AS CALCULATED FROM
WHOLESALE & RETAIL PRICES





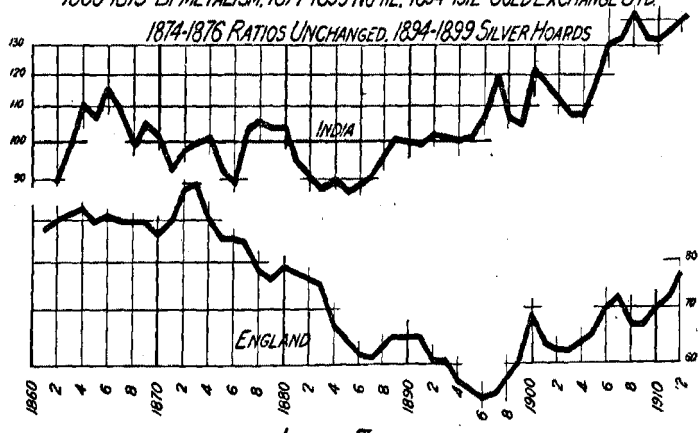
PRICE CHANGES \ RELATED TO BUSINESS FAILURES -- & FIRE LOSS RATIOS —

PRICE LEVELS IN GOLD STANDARD COUNTRIES

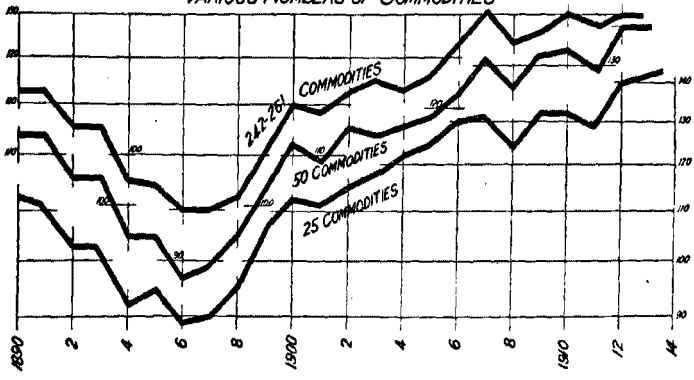


PRICE LEVELS - INDIA AND ENGLAND

1860-1873 BI-METALISM. 1874-1893 NO TIE. 1894-1912 GOLD EXCHANGE STD.
1874-1876 RATIOS UNCHANGED. 1894-1899 SILVER HOARDS



INDEX FIGURES
AS CALCULATED USING
VARIOUS NUMBERS OF COMMODITIES



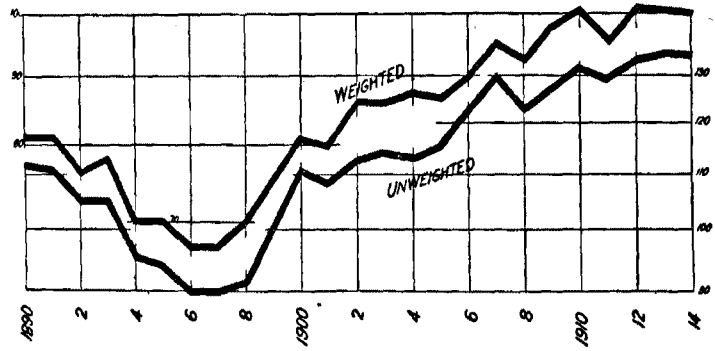
half a hundred jurisdictions, guided only by the natural instincts of the business man and so trying to make as much money as possible for themselves and their stockholders.

This is a general condition which will be immeasurably improved, in my opinion, by the passage of the legislation under consideration, particularly if the bill be amended as has been in these hearings suggested; but the problem is so large that further legislation will in time be needed, and it is hoped that the passage of this bill will be merely preliminary to a study of the much larger problems involved in controlling the fluctuations in the price level which are due to the changing demand for and supply of gold itself.

INDEX FIGURES

AS CALCULATED BY

WEIGHTED & UNWEIGHTED METHODS



Mr. FENN. I move that we adjourn until Tuesday morning at 10.30.

The CHAIRMAN. Mr. Fenn moves that we adjourn until Tuesday morning at 10.30.

(The question was put and the motion was adopted.)

The CHAIRMAN. We will now adjourn until Tuesday morning at 10.30.

(Whereupon, at 4.35 o'clock p. m., the committee adjourned until Tuesday morning March 30, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Tuesday, March 30, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will come to order.

I would like to place in the record at the opening this morning a letter from the governor of the Federal Reserve Board, under date of March 22, as follows:

MY DEAR MR. MCFADDEN: Confirming our conversation over the telephone this afternoon and answering the letter of March 19 addressed to the secre-

tary of the board by the clerk of your committee, inviting Doctor Miler and other members of the board to attend the hearing to be held March 24 to consider H. R. 7895 amending paragraph (d) of section 14 of the Federal reserve act to provide for the stabilization of the price level for commodities in general, which bill was introduced by Mr. Strong, of Kansas, January 18, 1926, I would state that Doctor Miller and possibly other members of the board will be glad to appear before the committee before the hearings on the bill terminate.

In accordance with our conversation over the telephone this afternoon, I understand that there will be a number of economists and others who will appear before the committee upon this bill. In pursuance of my talk with you, I hope it will be satisfactory to you to let us have a report, so far as possible, of the remarks made by these various economists and others appearing in advance of our appearance so that the members of the board may have at hand all the information from which they can determine what points require answer on the part of the board when they appear. After we have this information it will be perfectly agreeable for Mr. Miller to appear before your committee and furnish such information as is available here on the subject.

Very truly yours,

D. R. CRISSINGER, *Governor.*

Hon. LOUIS T. MCFADDEN,
Chairman House Committee on Banking and Currency,
Washington, D. C.

In that connection I would say that the stenographic notes which we have received to date of these hearings have been furnished to the Federal Reserve Board, and it is the purpose of the chairman to keep them supplied with these hearings as they develop from time to time.

We will now hear Doctor Wolff.

STATEMENT OF DR. FRANK A. WOLFF, CHIEF TELEPHONE SECTION, BUREAU OF STANDARDS, WASHINGTON, D. C.

The CHAIRMAN. Doctor Wolff, would you like to proceed without interruption?

Doctor WOLFF. Yes; I think so.

The CHAIRMAN. The Chair will suggest that Doctor Wolff be allowed to complete his statement without interruption, after which he will be open to answer any questions that come to the minds of members of the committee.

Doctor WOLFF. I have appeared before this committee on two previous occasions; first, in connection with the hearing on the Goldsborough bill, H. R. 11788, held December 20, 1922, and again at the hearing on the same measure, reintroduced as H. R. 494, on February 26, 1924. I am here to-day on invitation of your chairman and also of Representative Strong, who has submitted the amendment to the Federal reserve act now before the committee.

As I stated on the previous occasions, I am here as a self-appointed spokesman for one group of victims of inflation. I appear, therefore, in my capacity as an individual and not in my official capacity. Since 1896, with a few minor intermissions, there has been a decrease in the purchasing power of the dollar. Expressed in terms of the 1901 dollar, the present-day dollar, as measured by its purchasing power, is worth 40 cents.

I am connected with the Bureau of Standards, which deals with weights and measures in the broadest sense. I can not avoid the conclusion that the use of our dollar as a unit of value might be compared with the use of yards and quarts and bushels made of

India rubber or some other elastic material. The American public would not put up with the use of India-rubber yardsticks or bushels or quarts or pints for a minute. They insist on accuracy and permanency—permanency with time—so that the units of measure are the same year in and year out. With regard to the unit of value, they do not understand the question, or they would not put up with a variable unit of value any more than they would put up with a variable unit of measure.

In the case of the shifting value of the dollar the question has been too subtle for them. As Professor Fisher stated in his testimony the other day, we live in an atmosphere of money. We, therefore, are not conscious of changes going on, and it is for that reason that people are not wise to the fact that one of the most important things that this country ought to do is to stabilize, if possible—and I do regard it as possible—the purchasing power of the dollar, so that it will become a real unit of value.

At one of the previous hearings I introduced a memorandum on the legalization of the standards of weight and measure by this country. I found that the principal actions of Congress with regard to weights and measures were as follows:

In 1828 a certain troy pound was adopted as a standard for coinage.

In 1836, by joint resolution, Congress directed the Secretary of the Treasury to deliver to the governor of each State—

a complete set of weights and measures adopted as standards and now either made or in process of manufacture for the use of the several customhouses.

In 1866 the metric system was legalized for permissive use throughout the United States.

In 1911 Congress provided that the standard troy pound of the Bureau of Standards should be the standard troy pound for the regulation of coinage, thus repealing the previous act of 1828.

In 1915 a mandatory standard barrel was adopted for the sale of dry commodities, whether in intrastate or interstate commerce.

A standard lime barrel and standard baskets have also been legalized for use in interstate commerce.

In addition to that, in 1894 Congress legalized standards for electrical measurement suggested by the International Electrical Congress held at Chicago in 1893. These, I am frank to state, we disregard at the Bureau of Standards, because that action has been superseded by the decisions of subsequent Congresses.

The Constitution provides, among other things, that the Congress shall have among its powers the right—

to coin money, regulate the value thereof, and of foreign coin, and fix the standard of weights and measures.

Now, in a sense, the second part of that clause has been ignored, except in so far as there has been the direct legislation just outlined. In effect the regulation or fixing of standard weights and measures has been informally delegated to the Bureau of Standards. The standards in customary use are actually those which have been adopted by the Bureau of Standards. They pass by general sanction without any strict legalization.

In the same way Congress has not lived up to the first part of this provision of the Constitution—to regulate the value of money. It

has passed certain legislation fixing the amount of gold or other metal in the adopted coinage; it has passed banking legislation; it has passed the Federal reserve act; but it has given no attention to regulating the value of the dollar. And yet the real value of the unit of money—currency—is of the very highest importance. Nearly every business transaction involves the units of weight or measure on the one side and the unit in terms of which payment is to be made—the dollar—on the other. It is just as important to fix the second as it is to fix the first.

The results of inflation and deflation have been referred to in the previous hearings and also in these hearings. Among other evidence presented, reference was made by Willford I. King, the economist of the National Bureau of Economic Research, that during the period of inflation from 1914 to 1920 $40,000,000,000 of value were transferred from one set of pockets to other sets of pockets. During the following period of deflation, which only went half as far, about one-half of that sum was again transferred from one set of pockets to other sets of pockets—not the same sets of pockets, as Professor Fisher pointed out.

At a previous hearing I raised the question whether, in either case—during the periods of inflation or deflation—this was in conformity with the preamble to the Constitution, which breathes its spirit—the preamble to the instrument which you have all sworn to uphold and defend.

The preamble reads:

> We, the people of the United States, in order to form a more perfect Union, establish justice, insure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

I also raised the further questions:

> To form a more perfect Union, or to endanger its disruption?
> To establish justice, or to enthrone injustice?
> To provide for the common defense, or to foment an internal clash of divergent interests?
> To insure domestic tranquility, or to engender unrest?
> To promote the general welfare, or to reduce our standards of living?
> To secure the blessings of liberty to ourselves and to our posterity, or to strengthen the economic bonds which fetter us in our normal development?
> And this situation has been brought about largely through a lack of understanding of the basic economic laws of money and credit, as has been so ably presented to you by Professor Fisher.

I read that again because I want to bring home to you that under the preamble, and also under the specific provision of the Constitution, it seems to me that this committee and Congress should give earnest attention at the earliest possible moment to this question of stabilization.

In nearly all of the discussion on the money question the terms "inflation" and "deflation" are used, but most often they are used without any clean-cut understanding of what they mean. In any physical science we do not consider that we know anything about the science until we are able to express relations in numerical measure.

I would therefore like to put this question: What is the measure of inflation or deflation?

During the war and the period immediately following the war we had a vast increase of the price level. We were then told that this is not inflation. But what is the measure of inflation or deflation? It is the change in the index number, which represents the average price level of commodities. With this definition we can apply the acid test to determine whether or not we are having inflation or whether we are having deflation or stability. In the case of inflation there is an increase in the index number, and in the case of deflation a lowering of the index number.

Inflation and deflation are to be contrasted with the purported object of the passage of the Federal reserve act. At the time it was under consideration by Congress, it was stated that the purpose of that act was to provide for elasticity of the currency and of credits, in order to provide for the variations in the need by business and commerce for currency and credit; that in order to provide that elasticity required to meet the varying needs of business and commerce it is necessary to expand the currency and expand credits when more currency and more credits are legitimately needed. But if the expansion is carried beyond the limits which are required to meet these varying legitimate needs of business and commerce, it is reflected by an increase of the index number of prices, and then we have inflation. If it is not carried far enough, we have deflation. That distinction must be made; and once you get it, the purpose and importance of this bill is easily understood.

I believe that control of money and credit must be vested in the Federal Government; in Congress or in some agency created by Congress; and I believe that the proposed amendment to the Federal reserve act would result in effectual stabilization.

I approve of the objects of the bill. I prefer the wording that Mr. Goldsborough suggested to the wording in the Strong bill.

Mr. STRONG. That is the use of the words "Inflation and deflation."

Doctor WOLFF. Yes, sir. However, we may have to come to the Goldsborough plan or some other plan at some later time, if the world stays on a gold basis, and if for any reason our gold reserve is depleted. I believe that if we adopt the plan of stabilizing the dollar it would result in a clarification of many other problems in which this is an underlying difficulty. Stabilization, of course, as Professor Fisher has pointed out, is not a panacea for all the economic ills that we are subject to.

I believe the influence of publicity has been underestimated. I believe it would have a very far-reaching effect if the Federal Reserve Board would publish the index number from time to time, in cases where the index number had gone up, to publish the fact that it had gone up, and that it was the purpose of the Federal Reserve Board to bring it back to normal. I believe that that would have a greater effect than any of the other means that the Federal Reserve Board has at its disposal.

As to the bearing which the stabilization question has on other problems, take the question of Government expenditures.

Back in 1920 the then Director of the Bureau of Standards, Doctor Stratton, appeared before a subcommittee of the House Committee on Appropriations to defend the 1921 estimates which he had presented. These called for necessary increases all along the line, to expand the work of the bureau and correct grave injustices.

When the chairman of the subcommittee saw these estimates he "went up in the air," to use a colloquial expression, and said, "My God, this would bankrupt the Government!" Later the bill was reported to the House, and in so doing the chairman of the subcommittee paid a very high tribute to the Bureau of Standards and to its director—he has always been a friend of the bureau—but repeated the quoted remark in other words. That led Dr. E. B. Rosa, then the chief physicist of the bureau, to inquire whether there was any real danger of bankrupting the Government by providing the increases for which the director's estimates called. Doctor Rosa first undertook an analysis of the appropriations for that year, the fiscal year 1920, and found that out of a total of five and one-half billion dollars carried by all the appropriation acts of that year only 1 per cent was provided for all the research, educational, and development work; 3 per cent was for public works; 3 per cent was for the ordinary civil functions of the Government; leaving the balance, 93 per cent, to take care of the obligations arising out of the World War and for current naval and military expenditures.

Mr. GOLDSBOROUGH. That included pensions, did it not?

Doctor WOLFF. That included pensions.

Not satisfied with that, Doctor Rosa undertook a functional analysis of actual expenditures and receipts of the Government from 1910 to 1920, inclusive, a period of 11 full years. The receipts and expenditures were divided into nine major groups, with altogether 110 subgroups. The results of that study are given in volume 94 of the Annals of the American Academy of Political and Social Science. It is the first and the best analysis of expenditures and receipts that has ever been made for the United States. By the time Doctor Rosa completed this study the little group of us in the bureau that were working with him knew more about Government expenditures and receipts than anyone on Capitol Hill, anyone in the Treasury, or anyone anywhere else, and this is not intended as a boast or a criticism.

In connection with that study I undertook a further analysis of the civil expenditures, using the figures developed by Doctor Rosa, by applying thereto the economic yardstick. I found, for example, that, taking 1914 as the basis, or 100, the net civil expenditures in 1920 had apparently risen to 160½, but when they were equated on the basis of the decreased purchasing power of the dollar the expenditures for civil purposes in 1920 had actually fallen to 81 per cent, for the dollar of 1920 was worth only 50 cents in terms of the 1914 dollar. In other words, instead of an increase, there was an actual net decrease for 1920 as measured in terms of the same yardstick.

Mr. WILLIAMSON. By the yardstick you mean the index number?

Doctor WOLFF. Yes; the index number.

The aggregate decrease for the years 1915 to 1920, expressed in 1914 dollars, figured out nearly $194,000,000, notwithstanding that there was an enormous increase in the number of Government employees. That is the most remarkable thing. So, therefore, it can be said that since the Government had to go out in the open market and buy goods, supplies, etc., this decrease was really due to the fact that the Government employees were not paid in proportion to what they had received in 1914. The amount by which they were flim-

flammed—and I use that word intentionally—was nearly $194,000,000; and those are 1914 dollars. Multiplying by 1.6 to reduce them to the present-day dollars, that would mean over $300,000,000. And that is greatly underestimated, because I could not take into account the large increase in the number of employees.

So you see the application of the index number throws an important light on the question of real Government expenditures and wages.

Mr. WINGO. May I interrupt you to ask you this before I forget it?

Doctor WOLFF. Yes, sir.

Mr. WINGO. I was looking this morning for a tabulation along the same line. I do not recall who got it out, and I do not know whether it was the same group that prepared these papers on Government expenditures. It was a translation into terms of index numbers and relative purchasing power of dollars. There was just such a calculation on the question of wages in the different basic industries of the country. Do you recall that tabulation and who got it up?

Doctor WOLFF. No; I do not.

Mr. WINGO. It was rather interesting, I know. It was a partisan argument with reference to a wage dispute in one of the big groups of employees of the country. They undertook to show, in the different industries, that notwithstanding certain nominal increases that they had had in the standard measure of their daily wages, that by the operation of the inflation of prices, and measured by the purchasing power, their wages were still lower.

The CHAIRMAN. If the gentleman from Arkansas will pardon me, I think I will put into the record at this point a statement issued by the Department of Labor, which was printed in the United States Daily for Saturday, March 27, 1926, showing statistics relative to the purchasing power of the dollar for the past 12 years.

Mr. WINGO. Yes; I think that ought to go in. Does the chairman recall the pamphlet that I referred to? I have not been able to find it in my files. I thought I put it in the railroad file, but I can not find it.

The CHAIRMAN. I recall such a statement being made, but I can not refer you to it.

Mr. WINGO. I was under the impression that the Bureau of Labor, or some one connected with it, had prepared these statistics, and I thought, in view of the study that had been made by the Bureau of Standards, that they possibly ran across the same thing.

The CHAIRMAN. That will be inserted in the record at this point.

(The statement referred to is as follows:)

[From the United States Daily for Saturday, March 27, 1926]

PURCHASING POWER OF DOLLAR SHRINKS 40 PER CENT SINCE 1913, THE DEPARTMENT OF LABOR REPORTS—STATISTICS COMPILED GAUGE PRICE CHANGES—VALUE OF MONEY IN FARM PRODUCTS IN EXCESS OF AVERAGE FOR ALL COMMODITIES—PERIOD OF 12 YEARS TABULARLY SURVEYED—MOVEMENT OF CURRENCY IN TERMS OF VARIOUS PRODUCTS FIGURED AT STATED PERIODS

[Clothing manufactures—Building materials—Metal products—Chemicals—Drugs]

The purchasing power of the dollar, as measured by wholesale prices, has dropped almost 40 per cent since 1923, according to compilations made by the Bureau of Labor Statistics, Department of Labor.

The decrease in the value of money is shown to have been greatest in cloths and clothing, the prices of which have increased almost 50 per cent over the pre-war figure. The value of the dollar on farm products is slightly above the average of all commodities.

The bureau gave the following survey in the changes in the purchasing power of the dollar:

"That the purchasing power of money has greatly diminished since 1913, the year preceding the World War, is well known to the most casual observer. To the average person, however, the extent of such decrease is more or less conjectural, owing to the wide diversity of price fluctuations of individual commodities and the difficulty of reducing them to a common standard for gauging changes in the price level.

"The index numbers of wholesale prices constructed each month by the Bureau of Labor Statistics furnish a reliable barometer of the composite price movements. In the present article the figures have been brought together and monthly changes in the buying power of the dollar, for various groups of commodities, are shown for January and July from 1913 to 1925. The dollar's average buying power in 1913 forms the basis of the comparisons, or 100 cents.

"It will be seen from the foregoing table (see table giving 'changes in buying power of the dollar in specified groups of commodities, 1913 to 1925') that the purchasing power of the 1913 dollar, as applied to farm products, sank below 50 cents in the closing months of 1917 and continued downward until January, 1920, when it equaled only 40.5 cents. Declining prices of farm products, however, brought the dollar's buying power up to 88 cents in June, 1921, the highest point since 1916. In the latter part of 1921 the purchasing power declined again to a point ranging from 80.5 cents to 84 cents. From January, 1924, to the end of 1925 the value of the dollar in the purchase of farm products has fluctuated between 61.2 cents and 74.6 cents. In foodstuffs the low point of 40.3 cents was reached in May, 1920, with rising buying power thereafter, fluctuating between 41.1 cents and 76.6 cents, the latter high point being reached in January, 1922. During 1925 the figures ranged from 65.3 cents in May down to 62.4 cents in September and November.

"As regards cloths and clothing, the dollar would purchase more than a dollar's worth in 1914 and most of 1915, but sank to 28.9 cents in February, 1920, since which time the figures have ranged between 29.1 cents and 58.6.

"In the three groups of fuel and lighting, metals and metal products and building materials, the buying power of the dollar rose above its buying power in other groups in 1914 and the first part of 1915. Advancing prices of metals for war purposes after 1914 brought the dollar's purchasing power rapidly downward.

Changes in buying power of agricultural and nonagricultural commodities

[1913=$1.000]

Year and month	Agricultural	Nonagricultural	Year and month	Agricultural	Nonagricultural
1913—January	$1.025	$0.975	1920—January	$0.416	$0.444
July	.992	1.009	July	.415	.417
1914—January	.984	1.049	1921—January	.658	.533
July	.982	1.085	July	.768	.659
1915—January	.952	1.094	1922—January	.801	.660
July	.951	1.046	July	.710	.592
1916—January	.922	.852	1923—January	.704	.592
July	.859	.769	July	.719	.619
1917—January	.696	.616	1924—January	.689	.639
July	.541	.525	July	.705	.660
1918—January	.502	.591	1925—January	.618	.636
July	.482	.543	July	.618	.637
1919—January	.460	.557	December	.651	.633
July	.437	.513			

And this was followed by similar declines in the other groups. By the middle of 1917 the dollar of 1913 had shrunk to 34.2 cents in the purchase of metals and their products, but expanded quickly as prices again declined.

"In 1920, the year of highest prices, the dollar of 1913 reached a low point, equivalent in its purchasing power to 49.3 cents in the case of metals and metal products, 35.6 cents in the case of fuel and lighting, and 33.4 cents in the

case of building materials. After the dates of these low prices the buying power of the dollar rose again, going to 61.7 cents in October, 1924, in the case of fuel and lighting; to 91.7 in March, 1922, for metals and metal products; and to 64.7 in the same month for building materials. During 1925, the purchasing power of the dollar, in so far as it relates to fuel and lighting, ranged from 59.6 cents in January to 56.3 cents in the following month.

"Measured by its buying power in the purchase of chemicals and drugs in 1913 the dollar was equal to less than 50 cents during the latter half of 1917 and most of 1918 and 1920. Since 1920 the figures have ranged from 65.2 cents in January, 1921, to 82.6 cents in July, 1922. In the case of house-furnishing goods the dollar of 1913 had a value less than 40 cents in the second half of 1920, since which time it has ranged from 46 cents in January, 1921, to 60.3 cents in December, 1925.

"For all commodities combined the dollar of 1913 was equal in purchasing power to more than a dollar in most of 1914 and 1915, but dropped steadily thereafter until May, 1920, when it equaled only 40.5 cents. With a declining general price level it advanced above 70 cents in the second half of 1921, and the first half of 1922, but receded to 64 cents thereafter. From 1923 to 1925 it fluctuated between 62.1 cents and 69.2 cents.

"In view of the importance of building materials the table which follows (see table giving 'Changes in buying power of the dollar in the purchase of specified classes of building materials, 1913 to 1925') affords a comparison of the dollar's purchasing power since 1913 for several classes of such materials. As in the preceding table, the comparison is with the average for the year 1913.

"The figures for lumber in the above table (see table giving 'Changes in buying power of the dollar in the purchase of specified classes of building material, 1913 to 1927') are based on wholesale prices of Douglas fir, gum, hemlock, maple, white oak, white pine, southern yellow pine, poplar, spruce, yellow-pine lath, cypress shingles, and red-cedar shingles, each material having an importance equal to its production in 1919. The figures for brick represent an average for the United States computed from prices in various localities, while the figures for structural steel are for Pittsburgh. Included in 'other building materials' are Portland cement, crushed stone, gravel, hollow tile, lime, sand, slate, plate and window glass, linseed oil, putty, rosin, turpentine, white lead, zinc oxide, cast-iron pipe, copper wire, sheet copper, lead pipe, nails, reinforcing bars, roofing tin, and sheet zinc.

"The table shows that the dollar's purchasing power has fluctuated more widely in the case of structural steel than of other materials. In January, 1914, and again in 1915 the 1913 dollar had a buying power of $1.37, while in June, 1917, it had dwindled to 30.2 cents. With the inauguration of price control later in 1917, as a war measure, the dollar's buying power increased to 50.4 cents and, except for a short period in 1920, has fluctuated above that figure since.

"Early in 1922 it rose above the 1913 level of 100 cents, but soon dropped going as low as 57.5 cents in May, 1923. During the past year it has ranged from 71.9 cents to 78.4 cents. Lumber, also, shows wide fluctuations since 1913 in the dollar's purchasing power. Averaging $1.14 in the first half of 1915, it fell to 26.8 cents early in 1920. From this low point it began to rise again, and since 1920 has fluctuated between 43.6 cents and 66.1 cents. Brick, while relatively more stable than other materials, has shown a range in the purchasing power of the dollar extending from $1.042 in 1915 to 33.9 cents in 1920, advancing to 49 cents in 1925.

"The table which follows (see table giving 'Changes in buying powers of the dollar in purchase of agricultural and nonagricultural commodities, 1913 to 1925') furnishes a comparison of the pre-war dollar's purchasing power since 1913 for agricultural and nonagricultural commodities. The figures for agricultural commodities in this table are based on the wholesale prices of all products of American farms included in the bureau's regular series of weighted index numbers, while those for nonagricultural commodities are based on the prices of all other articles so included.

"In the first half of 1920, the year of high prices, there was little difference in the buying power of the pre-war dollar as between agricultural and nonagricultural commodities, the average being around 42 cents. After the middle of that year, with the slump in prices of farm products, the purchasing power of the 1913 dollar in terms of agricultural commodities rose rapidly, reaching 80.1 cents in January of 1922. At this time the pre-war dollar was equal to only 66 cents in the purchase of nonagricultural commodities.

"In 1923 and 1924 relatively more agricultural than nonagricultural commodities continued to be purchasable by the dollar of 1913, but in 1925, except for the last three months, these conditions were reversed, showing that agricultural products had again slightly exceeded the price level of other commodities."

Changes in buying power of building materials

[1913 equals $1.000]

Year and month	Lumber	Brick, common	Structural steel	Other building materials	All building materials
1913—January	$0.979	$0.994	$0.990	$1.003	$0.989
July	1.010	1.003	1.007	1.008	1.009
1914—January	1.067	1.011	1.374	1.042	1.074
July	1.085	1.013	1.314	1.049	1.083
1915—January	1.144	1.025	1.374	1.095	1.136
July	1.153	.992	1.208	.944	1.064
1916—January	.995	.989	.839	.827	.912
July	1.007	.858	.575	.728	.835
1917—January	.884	.800	.465	.637	.726
July	.699	.749	.336	.559	.595
1918—January	.676	.670	.504	.583	.622
July	.622	.534	.504	.512	.564
1919—January	.630	.496	.504	.516	.568
July	.452	.484	.617	.499	.479
1920—January	.299	.408	.617	.468	.365
July	.323	.342	.487	.451	.372
1921—January	.517	.368	.617	.525	.520
July	.649	.447	.719	.600	.625
1922—January	.602	.490	1.007	.654	.635
July	.535	.497	.915	.646	.590
1923—January	.472	.489	.755	.613	.533
July	.486	.462	.604	.589	.527
1924—January	.521	.465	.604	.602	.552
July	.578	.471	.686	.610	.592
1925—January	.525	.481	.719	.590	.557
July	.561	.487	.755	.612	.588
December	.525	.489	.775	.600	.565

Changes in buying power of various commodities

[1913 equals $1.000]

Year and month	Farm products	Foods	Cloths and clothing	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House-furnishing goods	Miscellaneous	All commodities
1913—January	$1.024	$1.011	$1.007	$0.997	$0.934	$0.989	$0.998	$1.002	$0.943	$0.999
July	1.006	.944	1.002	1.011	1.016	1.009	1.001	1.002	1.004	1.000
1914—January	.973	.991	1.008	1.009	1.134	1.074	1.017	1.000	1.038	1.015
July	.973	1.010	1.007	1.098	1.209	1.083	1.050	.998	1,070	1.031
1915—January	.961	.942	1.065	1.145	1.218	1.136	.928	1.012	1.010	1.017
July	.964	.962	1.037	1.229	.956	1.064	.767	.999	1.067	.996
1916—January	.911	.917	.906	.889	.749	.912	.544	.973	.907	.887
July	.854	.854	.802	.826	.631	.835	.571	.935	.833	.812
1917—January	.657	.715	.635	.583	.505	.726	.579	.844	.673	.654
July	.511	.590	.553	.570	.342	.595	.487	.773	.654	.533
1918—January	.475	.548	.497	.608	.546	.622	.448	.728	.690	.543
July	.461	.541	.421	.572	.529	.564	.479	.630	.628	.510
1919—January	.446	.492	.454	.561	.571	.568	.553	.597	.604	.503
July	.415	.477	.382	.552	.625	.479	.599	.546	.564	.472
1920—January	.405	.433	.295	.514	.571	.365	.528	.418	.516	.429
July	.430	.420	.333	.385	.495	.372	.473	.364	.493	.415
1921—January	.697	.616	.510	.405	.653	.520	.652	.460	.647	.589
July	.840	.711	.583	.538	.808	.625	.775	.556	.816	.709
1922—January	.821	.766	.567	.512	.891	.635	.805	.563	.857	.723
July	.739	.705	.554	.393	.826	.590	.826	.578	.875	.646
1923—January	.702	.712	.510	.458	.750	.533	.764	.543	.806	.642
July	.740	.708	.518	.546	.688	.527	.778	.536	.829	.664
1924—January	.693	.698	.500	.592	.705	.552	.739	.569	.858	.661
July	.710	.721	.533	.577	.767	.592	.791	.585	.890	.680
1925—January	.612	.626	.523	.596	.734	.558	.740	.579	.787	.625
July	.618	.636	.530	.581	.791	.588	.750	.591	.697	.625
December	.657	.637	.534	.572	.772	.565	.743	.603	.724	.640

Doctor WOLFF. We discontinued the analysis of Government expenditures after Doctor Rosa's death, which occurred shortly after his monograph had been published. He dropped dead at his desk. He was an indefatigable worker, and one of the most valuable men in the Government service.

I would also like to state that after Doctor Rosa's death all the material bearing on Government expenditures and receipts was turned over to the Bureau of Efficiency, and the Bureau of Efficiency has since then, at least for a number of years—I do not know whether it has been carried to date—continued the analysis, using the same classification.

With regard to congressional salaries, there seemed to be a hesitancy about increasing the salaries of Members of Congress to $10,000. However, $10,000 that you receive to-day, expressed in 1901 dollars, is equivalent to $4,000. The salary in 1901 was $5,000. So you have not made up by 25 per cent the equivalent of the 1901 salary.

The same question is up now with regard to the adjustment of salaries of the judiciary.

I am mentioning this to influence you in any decision you may be called upon to make. I am merely pointing out that everything is muddled unless you express salaries, income, or whatever it may be, in terms of the same yardstick.

Mr. MACGREGOR. If you raise it all along the line, all over the county, we will be in the same situation again.

Doctor WOLFF. You would get another inflation; yes. But the fact is that in certain lines they do carry out that inflation right straight along. Take, for example, the public utilities. The capital invested in public utilities is estimated at some $40,000,000,000. Every one of them is seeking to have its property revalued on the basis of cost of reproduction as of to-day, less depreciation, involving increases in value of from 25 to 50 per cent. And the commissions, on the basis of court decisions, consider themselves bound thereby so to do.

Now, apply 25 or 50 per cent to forty billions and you get ten or twenty billions, amounts which are respectively equal to one-half or the whole of the present war debt. In other words, we are lessening the war debt by paying it off, at the rate of a billion or less per annum, and at the same time there is being added to the base on which a fair and reasonable return is reckoned for utilities, an amount to from one-half to the whole of the present war debt. You see that goes into staggering figures.

The money question also enters into the retirement legislation which is now under your consideration. I believe the retirement act was passed in 1920, and fixed a maximum of $720 for the annuity. If you reduce that 16 per cent to allow you to obtain the purchasing power of the $720 in those days, or about $605.

Mr. STRONG. What is it now?

Doctor WOLFF. Now, it is $720. The money question also enters into the settlement of foreign debts. At the time the British debt settlement was under consideration in the House, I proposed to Mr. Goldsborough, just to get the stabilization question before the public, to suggest an amendment specifying that the payments should

be made in dollars as of that time. During the year in which the settlement was made there was an increase in the wholesale price level of 13 per cent, and 13 per cent applied to $4,600,000,000, the amount involved, means $600,000,000 in round figures.

Mr. MACGREGOR. Suppose it was the same as the franc and all the money of Europe?

Doctor WOLFF. Do you know that during the period of inflation following the armistice it was even argued that we ought to bring our dollar to a purchasing power in correspondence with that of the money of foreign countries, so they would be more easily able to pay their debts? That was one of the arguments then advanced for further inflation, and I think by administration spokesmen.

Mr. MACGREGOR. There would not be that much money.

Doctor WOLFF. I would like to refer to the statement which I had incorporated in the record of a previous hearing, made back in 1834 by John C. Calhoun, who at that time, I believe, was chairman of this very committee. He said:

> Place the money power in the hands of a combination of a few individuals, and they, by expanding or contracting the currency, may raise or sink prices at pleasure, and by purchasing when at the greatest depression and selling when at the greatest elevation, may command the whole property and industry of the community and control its fiscal operation. The banking system concentrates and places this power in the hands of those who control it. Never was an engine invented better calculated to place the destines of the many in the hands of the few, or less favorable to that equality which lies at the bottom of our free institutions.

That is true to-day.

Mr. STEVENSON. Was that in relation to the contest about the United States bank?

Doctor WOLFF. I think it was. It is not merely a question of controlling money and credit in this country. The gravest question which is raised by the accumulation of gold in the United States is control of the world's credit and American world domination based thereon. Some time ago we saw on the front page of our newspapers a whole lot about world-rubber control in British hands, world-coffee control in Brazilian hands, etc. But, without any question, there is a world-credit control largely in American hands, and that, exercised as it is being exercised, is threatening to combine the countries of the world against the United States. That, I regret to state, is the conclusion forced upon us.

In closing, I desire to express my gratification at the increasing interest which this committee is manifesting in the question of stabilization. There is more interest in each of the successive hearings. I thank you.

Mr. STEVENSON. You referred to the period of inflation, which everybody recognizes began at the beginning of the World War and ran up to the deflation in 1920. Did not the law of supply and demand have quite a lot to do with raising the price level? When the war came on was there not an increasing demand for everything that we manufacture in this country that could possibly be used to maintain war, and was not a good deal of the increase in prices attributable to the enormous demand for goods of every kind?

Doctor WOLFF. It runs back earlier than that, Mr. Stevenson. From 1901 to 1914 there was an increase in the general price level of 50 per cent.

Mr. STEVENSON. Yes. That came about——

Doctor WOLFF. We are not discussing how it came about. There was that increase.

Mr. STEVENSON. Yes.

Doctor WOLFF. I think that represented an inflation. Anything that increases the general price index represents an inflation. In my estimation, that increase in the price level is largely attributable to improved banking methods, making credit more fluid, etc.

Now, from April, 1917, to the close of the war there was inflation which was brought about by war requirements, I do not believe it necessarily had to be carried so far, but as judged by those in power it was decided to conduct the war largely by credit inflation.

The inflation after the armistice I regard as unconscionable. Following the inflation there had to be a deflation, because what goes up must eventually come down.

Mr. STEVENSON. Between 1900 and 1913 you will remember there was a good deal of increase in prices. Things came back to the point where business became profitable. Do you not remember that about the latter nineties the discovery of gold in the Klondike and the application of the cyanide process, which was just then invented, to the South African gold mines, increased the output of gold, which was the basis of money all over the world, very largely? Was that not true?

Doctor WOLFF. It was.

Mr. STEVENSON. Of course, the issuance of national-bank notes was encouraged to the extent of something like $300,000,000 in the United States. Did not those things, the loosening up of capital and the consequent increase of credit, have a good deal to do with that raise in the price level?

Doctor WOLFF. It unquestionably did, but I think it was unwise to expand the credit—and that is really the determining factor—faster than the requirements of business. If that had been kept in control we would have had a uniform price level throughout that period.

Mr. STEVENSON. Are you prepared to say there was an unwise increase in the price level from 1900 to 1913?

Doctor WOLFF. Previous to that period there had been a decrease, and those who had suffered from that decrease naturally wanted to see the price level go up again, but whenever the price level moves either upward or downward it has the effect of taking value out of one set of pockets and transferring it to another set of pockets. There is injustice either way you look at it.

Mr. STEVENSON. Yes; but the debtor class had from about 1881 to 1900, about 20 years, of very hard sledding. Everything they owed was increased by the decrease in the purchasing power of the dollar, and it just simply swung back towards normal until the war began. Was not that pretty well the case?

Doctor WOLFF. During a period of inflation there is manifested what is usually called prosperity. However, such prosperity is based on value taken out of one group and transferred to other groups. You can not escape that.

Mr. WINGO. You contend that was just psychological prosperity, and not one in fact?

Doctor WOLFF. It was one in fact, but it was stimulation of business, etc., by such transfers which were being made—and the measure of prosperity in the minds of business men is profits—and these were derived by taking value from one set of pockets and transferring it to another set.

Mr. WINGO. Somebody had to pay it.

Doctor WOLFF. Somebody always has to pay. Following inflation there is always deflation, with its attending distress and suffering.

Mr. WINGO. That is not theoretical but actual.

Doctor WOLFF. No; take the New York stock market. I think the prices there have been boosted beyond all measure, and then they go down again.

Mr. WINGO. With the gradual increase in value of real estate in New York, is there liable to be inflation?

Doctor WOLFF. I doubt that, if it is not speculative.

Mr. WINGO. Do not overlook the very distinction you directed attention to a while ago between legitimate expansion and inflation. An increase in volume of cash or of credit is just like an increase in the value of property. Whenever that increase goes beyond the actual legitimate use of real estate, instead of being an expansion it became an inflation.

Doctor WOLFF. Exactly.

Mr. WINGO. I use as an illustration New York City real estate. That has not been an inflation as a general proposition, but the increased use and the increased population, the measure of the old basic law of a great demand upon a fixed supply, has naturally brought about an expansion of value, not an inflation of value, and as long as property has the value that represents its useful legitimate return base it is said to be an increase or expansion and not an inflation.

Doctor WOLFF. I agree with you there.

Mr. WINGO. Is there any difference between credit and commodities, measured by the law of supply and demand?

Doctor WOLFF. Yes.

Mr. WINGO. What is the difference?

Doctor WOLFF. With regard to the law of supply and demand, in the past, when things were largely uncontrolled, we might have talked about a natural law of supply and demand. In the same way we might have said that the birth rate was more or less without control. But just as soon as birth control was introduced, things were changed entirely. Now, with regard to the law of supply and demand, just as soon as control is exercised on the supply, then you can no longer speak of the law of supply and demand.

Mr. WINGO. Assuming that all of the other factors are constant, an increased supply will decrease the price.

Doctor WOLFF. It will.

Mr. WINGO. And the reverse is true, that a decrease in supply, even with a fixed content of demand and all other factors, has just the opposite effect.

Doctor WOLFF. Precisely.

Mr. WINGO. The increase in the volume of the gold of the world, brought about by the new discoveries in the period to which you have referred, even in spite of other interferences in the operation of the law of supply and demand, the increase in the birth rate and every other thing, every other factor had an equal relation to the increase in the supply of gold, the basis of money, currency, that caused the rise in the prices of commodities.

Doctor WOLFF. It did, but it was not a necessary consequence.

Mr. WINGO. I am not talking about a necessary consequence, but it did?

Doctor WOLFF. That is exactly what happened. It was assumed that, because there was more gold, you should build up an increased currency and credit corresponding thereto. Professor Fisher the other day said he most feared excess supply of gold we have on hand, excess with respect to meeting the reserve requirements. He fears that this excess may be made the basis of credit expansion which would carry with it inflation.

Mr. WINGO. That is simply an illustration of the application of the age old factor of the operation of the law of supply and demand. The gold in itself does not amount to anything. It is the use to which it is put. To use an old familiar illustration, had all this surplus gold been put in the hands of the Eskimo around the Arctic Circle, it would have practically no real value.

Doctor WOLFF. No.

Mr. WINGO. It is the use to which it is put that gives it the value, and the operation of the law of supply and demand encompasses all of the different factors, one of which is the use of the commodity.

Doctor WOLFF. For the last few years the Federal Reserve Board has intentionally put part of this gold reserve out of use.

Mr. WINGO. Yes.

Doctor WOLFF. That could have been done in the past.

Mr. WINGO. In other words, it was the use to which it was put. There was no evil per se in the gold, but it was the possible use to which it was put.

Doctor WOLFF. Yes.

Mr. WINGO. And they tried to prevent the evil by preventing that use.

Doctor WOLFF. The main purpose of money is to provide legitimate exchange. That is also the purpose of substitutes for money. If they are provided in excess of the requirements, it means inflation.

Mr. WINGO. If it became practical to double the volume of credit that could be created on the same fixed basis of gold, what would be the effect on prices?

Doctor WOLFF. With production the same, it would double prices.

Mr. WINGO. I mean all other factors remaining constant.

Doctor WOLFF. It would double the prices.

Mr. WINGO. Certainly. With improved banking facilities—that is, with an increase in creative volume of credit—the banker is both the credit merchant and credit producer.

Doctor WOLFF. Yes.

Mr. WINGO. For all practical purposes.

Doctor WOLFF. Yes.

Mr. WINGO. Whenever you increase the banking facilities of the nation or of the community, you increase the volume of the credit of that nation or community. Is not that the theory and justification of banks?

Doctor WOLFF. That is what happens. Take, for instance, China. When the foreigners took over the banking system there they worked that scheme of expanding credits, and the result was a general rise in the prices. I do not think that was to the benefit of China at all.

Mr. WINGO. I am not talking about benefit; I am not talking about merit or demerit; I am talking about formulas upon which we can agree. It is true that an increase in the volume of credit, all other factors remaining constant, decreases the purchasing power of that credit just like an increase in the value of gold, all other factors remaining constant, decreases the purchasing power of that gold?

Doctor WOLFF. An increase in the volume of credit will do it.

Mr. WINGO. I am not talking about these other incidental effects; I am talking about the basic effect. An increase in the volume of credit, all other factors remaining constant, enhances prices and decreases the purchasing power of that credit?

Doctor WOLFF. Precisely.

Mr. WINGO. I am now speaking of the use of credit in place of actual gold or currency.

Doctor WOLFF. Yes, sir.

Mr. WINGO. In other words, the same law applies to credit that applies to gold?

Doctor WOLFF. It does.

Mr. WINGO. And the same effect of increasing or decreasing of volume affects prices of commodities and the purchasing power of credit the same as it does of gold?

Doctor WOLFF. It does.

Mr. WINGO. What is the average volume of credit in the Nation to-day? You have a fixed amount of gold. What is the average volume of credit?

Doctor WOLFF. I would estimate it to be around forty or fifty billion dollars.

Mr. WINGO. Is it not more than that?

Doctor WOLFF. At least that.

Mr. WINGO. Are you not figuring on banking credits alone?

Doctor WOLFF. I was multiplying the value of currency by 10, not allowing for any difference in the velocity of circulation.

Mr. WINGO. You think there are forty or fifty billions of credit?

Doctor WOLFF. Yes, sir.

Mr. WINGO. That is what you might call the volume, just like you measure the volume of gold in so many dollars or pounds.

Doctor WOLFF. Yes, sir.

Mr. WINGO. If you were to decrease the volume of that credit, what would be the effect on the commodity price level?

Doctor WOLFF. It would decrease.

Mr. WINGO. In other words, if you decrease the volume of credit, you decrease the price level?

Doctor WOLFF. Yes, sir.

Mr. WINGO. Do you know of anything, outside of a radical change in either the supply or demand, that would affect commodity prices more than the decrease or increase in the fixed volume of credit in existence.

Doctor WOLFF. Prices as a whole are largely controlled, as Professor Fisher said, by the volume and the rate of circulation of the bank credit.

Mr. WINGO. Is it not true that by practical observation and experience we have discovered that more prices are affected by the volume of credit than by even the volume of demand and supply?

Doctor WOLFF. Yes, sir.

Mr. WINGO. That is an accepted theory, is it not?

Doctor WOLFF. Yes, sir.

The CHAIRMAN. In that connection may I ask you a question in regard to this volume of credit? It flows, of course, to and from the demand?

Doctor WOLFF. Yes, sir.

The CHAIRMAN. If there is a demand in one locality for that credit and the interest rates are attractive, that demand, of course, has a tendency to attract the flow into that locality?

Doctor WOLFF. Yes, sir.

Mr. WINGO. I was just coming to that. I want to follow that up. As long as the volume of credit flows in that way, then you have neither deflation nor inflation. When you have credit controlling commodities instead of commodities controlling the volume of credit, then is when you have either inflation or deflation?

Doctor WOLFF. There is a demand for credit facilities on the part of the speculators.

Mr. WINGO. I was going to come to that a little bit later. I want to first take commodities.

Doctor WOLFF. Yes, sir.

Mr. WINGO. As a matter of fact, there is always the temptation to manipulate the credit agency so that the volume of credit will automatically contract or expand to meet the ebb and flow of the demands of business. There is a constant interest in reversing the process and manipulation of credit to affect either the demand or increasing the commodity price level.

Doctor WOLFF. There is a temptation.

Mr. WINGO. Is it not a great temptation?

Doctor WOLFF. It is very great.

Mr. WINGO. Is not that the speculative spirit that is in men? I am not talking about it being immoral. Do you not recognize that, with our sensitive credit changes, and our sensitive operation of prices, our investments as represented by the stock exchange quotations, those prices are affected by the volume of credit used day by day for speculative purposes on the stock market?

Doctor WOLFF. I believe so.

Mr. WINGO. One of the papers yesterday afternoon said the drop on the market was precipitated by the calling of $10,000,000 of loans. This morning's paper says about $20,000,000 were called. Notwithstanding the fact that everybody pointed out that the business of

the country was all right, that there was no change in the volume of production or credit, by the dimunition of the volume of credit available on that particular market it had a depressing effect upon the market prices of property represented by the certificates.

The CHAIRMAN. May I make this observation in connection with the statement this gentleman just made and with reference to the statement he made a moment ago, that one of the powerful factors in stabilization is publicity by the Federal Reserve Board. In this particular instance it is applicable, because about a month ago the Federal Reserve Board called for a list of stock exchange loans, a list of loans that were supposed to be speculative. That statement was filed and brought to the attention of the public. The statement showed that some three and one-half billion dollars of those particular loans had been made in New York by a certain class of banks. The public began to scrutinize those figures and came to the rather definition conclusion that if a correct statement had been made of all loans involved in speculation it would then have been in the neighborhood of five and one-half billion dollars. The publication of those facts aroused the attention of the bankers throughout the country who had bank balances in New York that a speculative situation existed, and it is my observation that large withdrawals of reserves in New York City took place, which has caused this stringency and drop in prices of stocks, which took place. That demonstrates to me the power of publicity.

Doctor WOLFF. Exactly.

Mr. WINGO. You anticipated what I was coming to in respect to that.

Doctor WOLFF. I would like to make one remark.

Mr. WINGO. Very well.

Doctor WOLFF. I think the inferred policy of the Federal Reserve Board and publicity had the greatest effect through this period of about 30 days. However, the Street is very sensitive to rumors and statements made by public officials. The Washington Herald this morning attributed the drop yesterday, in part at least, to statements which Senator Smoot made that money advanced on foreign bonds would not likely be repaid.

Mr. WINGO. I believe if you had been there yesterday you would have found the thing that put the fear of God in the hearts of the speculators was the belief that the ten-million-dollar withdrawal was but the forerunner of a large volume of withdrawals from New York City by the outlying banks of money that had been on the call money market there.

That brings me down to another question. We reached the agreement that the increase in the volume of this credit and the constancy of surplus credit, surplus money, does have a tendency to put fictitious values upon the segregated evidences of property invested in the credit.

Doctor WOLFF. Yes, sir.

Mr. WINGO. If you destroy these little independent country banks scattered over the country—and I include everybody outside of the three major cities.

Mr. STEVENSON. Better name them.

Mr. WINGO. I would say outside of Chicago, New York, Boston, and possibly a few more. I mean by "country banks," banks outside

of New York and a few other large financial centers. I am not attempting to criticize them one way or another for their business. I am trying to get at the actual facts. If you were to destroy these country banks and their control of the credit, and concentrate that control in the very same gentlemen who met in New York City Sunday and said these theories and rumors were unfounded and they could go on paying just the same, and were going to mobilize bank credits for the purpose of maintaining the price level of the stock market, you would probably not have this slump in the market. In other words, if these banks did not withdraw their surplus funds, if this volume of credit and money were controlled centrally, would it not have the same effect as if you had cornered all of the wheat or cotton in the country? Could not this man or this group of men have a very important influence and controlling influence in fixing prices of this commodity?

Doctor WOLFF. I do not consider it is one of the purposes——

Mr. WINGO. I am not talking about purposes.

Doctor WOLFF. Or one of the results of the operation of this plan to increase the power in the hands of the big banks.

Mr. WINGO. I am not talking about that.

Doctor WOLFF. It would put them all on the same basis, and I think it would strengthen the little fellows.

Mr. WINGO. In other words, if you had concentrated control in the hands of men of superior wisdom and high patriotism they would have been able to overcome these theories of people who were very much disturbed by violent fluctuations in the volume of credit outstanding.

I have heard it argued for 14 years that it is possible to have Government agencies so wise that they can buy all the cotton and market it to the advantage of the producer, and buy all the wheat and market it to the advantage of the producer, and now we have a proposition that the only way to prevent deflation and suffering by the producers of all these basic commodities is to place all the credit control in the hands of one group and let them automatically maintain that control, and bring on that blissful heaven of the socialist where there would be no change.

Doctor WOLFF. It would have to be done by the Government, not by a certain group.

Mr. WINGO. The argument of the socialist has been that if you concentrate all power in the hands of the Government, and take away the selfish spirit and natural stupidity of men, you would free all the people from all the ills that flow from the exercise of that selfish spirit, and would have a pure Government. Of course, they overlook the basic fact that it is easier to control 10 men than 50. It is easier to control one centralized banking system than to control 30,000 independent banks in the Nation, each one having the power to withdraw their surplus funds from New York, and the power to say when they will send it back.

Doctor WOLFF. The effect of this bill would be to put the control where it belongs. I can not conceive of the money control—the control over the purchasing power of money—being legitimately lodged anywhere else than in the Government.

Mr. WINGO. The Government can only act as an agency.

Doctor WOLFF. Yes. This measure provides for the very simplest kind of machinery on the part of the Federal Reserve Board, namely, the exercise of its powers to maintain the average price level constant. If average prices were maintained constant and those policies were carried out, then there would not be the wide fluctuations to which Mr. Wingo has been referring. I think that answers most of his objections.

The CHAIRMAN. It is my observation that in a situation like we have been discussing here there are other elements that enter into this, perhaps, that are not controllable by either a group of banks in New York or by groups interested in control of prices of commodities. If I remember correctly, one of the main purposes for the creation of the Federal reserve system was the demobilization of bank reserves.

Mr. WINGO. I agree with you.

The CHAIRMAN. And stop pyramiding of bank balances.

Mr. WINGO. I do recall that.

The CHAIRMAN. The gentleman from Arkansas was on the committee at that time. I am sure he will recall that as one of the features. I want to point out to the committee, and particularly the gentleman from Arkansas, how that has not been accomplished by the Federal reserve system, but that this pyramiding of reserves of idle funds or bank balances make possible the inflation of stock-market prices and the demobilization and withdrawal of those reserves concentrated in New York and is responsible for the very slump in stocks that took place.

By way of illustration, we will take the bank in Blue Rapids, Kans. We will say they have idle funds which they deposit with a bank at Wichita. The Wichita bank pays them interest. They, the Witchita bank, deposit the same funds in Kansas City, the Kansas City bank redeposits them in Chicago, and the Chicago bank deposits them in New York. That is the usual trend of idle money going through banks and centralizing in New York to-day. To my mind that is the cause and the basis of much of the speculation which has occurred.

Notice which the Federal Reserve Board gave to the country, when they called for information in regard to speculative loans, which loans were made through the stock exchange fear, was the very thing that caused the withdrawal of these funds or loans.

This control or centralization of idle credit, flowing to the point where the greatest demand is, is responsible for that, and it is my judgment that we are never going to have stabilization until other methods are found for employment of idle funds by banks than pyramiding of balances in big cities. I do not know whether I make myself clear or not.

Mr. WINGO. In other words, we have sat around this table and thought we had perfected a scheme by which we were going to have a Government agency that would rid the country of all these ills with which it was afflicted, and once more we have had a failure of the idea that we thought we were going to accomplish; once more we have seen a dam put up against the tide or the flow, and we have seen that same currency find other channels. We have seen those

things. I realize that, and have given expression to the impression left on me during recent years, and have done so before.

So that brings home to us sometimes a sense of futility to those of us who are trying by legislative action to so restrain and regulate the activities of the people of this Nation as to protect them against evils. And that brings me to the thought that after all there are certain influences that are more powerful than either the wisdom or stupidity of Congress.

Mr. STEVENSON. I want to get back to something the witness said about what should be done. You said that the publicity by the Federal Reserve Board would be one of the most powerful things; that when we have an undue elevation in the price level, if the board would give notice that there was such an elevation and they proposed to bring it down, that would have a very powerful effect.

Doctor WOLFF. It would stop inflation.

Mr. STEVENSON. Yes. Just how would they bring it down? There is no use in their going out and saying they are going to bring it down without they have some weapon to do it with.

Doctor WOLFF. By the discount rate and by open-market operations.

Mr. STEVENSON. The same thing would arise at the other end of the line. A thing that works up ought to work down.

Doctor WOLFF. It does.

Mr. STEVENSON. I have not yet heard anybody in this whole discussion say anything about when the price level drops too low what they are going to do to put it up, or whether they ought to put it up or not.

Doctor WOLFF. If, in one case, they buy on the open market, in the other case they would sell on the open market, they would increase the discount rate on the one hand and decrease it on the other.

Mr. STEVENSON. Your idea is they ought to do it either way?

Doctor WOLFF. They should. That is the only way to stabilize the average price level.

Mr. STEVENSON. One more question and I am through. The illustration made by the gentleman from Arkansas was that if production were stable, all the commodities were stable, and the volume of credit were doubled, it would very largely elevate the price level.

Doctor WOLFF. It would double the average of prices.

Mr. STEVENSON. That temporarily would be true, but would not the production of all those things immediately so stimulate that as to tend to a certain extent to modify it?

Doctor WOLFF. Yes; it would modify it, but we would still have a big inflation.

Mr. STEVENSON. In other words, that is not a simple problem in algebra, that where a equals b and b equals c, therefore a equals c. When you do something to elevate the price level it does not necessarily return where it was?

Doctor WOLFF. You asked me the question on a certain assumption—that production remained the same.

Mr. STEVENSON. Yes; if production remained the same. You say production would not remain the same if you increased the price level?

Doctor WOLFF. If you increase the price level you stimulate production.

Mr. STEVENSON. Would not that hold it down?

Doctor WOLFF. It would tend to hold it down to some extent. If you continue such a policy, the prices would be going up and up and up, till the smash came.

Mr. STEVENSON. That is all I wanted to know.

The CHAIRMAN. I suggest that the committee recess until 10.30 to-morrow morning.

(Whereupon, at 12.15 p. m., the committee recessed until to-morrow, Wednesday, March 31, 1926, at 10.30 a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Wednesday, March 31, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Doctor Wolff, you were in the midst of your discussion yesterday when we recessed, and we shall be very glad to have you complete your statement this morning.

STATEMENT OF DR. FRANK A. WOLFF—Continued

Doctor WOLFF. Mr. Chairman, if it be proper, I would like to submit a statement (summarizing my replies) in reply to the various questions which were put to me by Mr. Wingo. I am very sorry Mr. Wingo is not here.

Since adjournment yesterday I have been trying to analyze Mr. Wingo's seeming objections to stabilization. They seem to reduce to the following:

First, opposition to Federal control.

The need of a limited control was conceded by the supporters of the Federal reserve act in providing therein for an elastic currency and credit system; the Federal Reserve Board, a governmental board, was created to carry out this plan.

The guiding clause, "and promoting stability price level," contained in the Owen bill, was stricken out. I am told it was stricken out by the House committee. Its retention would have prevented many of the economic ills which we have encountered since.

To adopt the Strong bill, or its equivalent, would furnish a specific automatic guiding principle now lacking.

The CHAIRMAN. Doctor Wolff, you are speaking now of the consideration that was given at the time of the passage of the Federal reserve act?

Doctor WOLFF. At the time of the passage of the Federal reserve act.

The CHAIRMAN. Was that stricken out in committee or on the floor of the House?

Doctor WOLFF. I was told it was stricken out by this committee, and that the action of this committee was supported by the House.

The CHAIRMAN. On whose motion; do you recall?

Mr. GOLDSBOROUGH. I think it was stricken out in conference. The Senate adopted it, and the House struck it out, and it remained out in conference, as I understand it. Who made the motion, I do not know.

Mr. SHIBLEY. The Senate did not adopt it.

The CHAIRMAN. Well, it is immaterial to me. I was simply interested to know just how it occurred.

Doctor WOLFF. I would like to say a few words about stabilization, looked at from the standpoint of physics. I like the word "stabilization." We speak of an equilibrium being unstable in physics when any departure from that state tends automatically to make the departure greater and greater. This pencil [indicating] balanced on its tip, represents the condition of unstable equilibrium. Displaced from that position of unstable equilibrium it falls over, and the motion continues away from the position of equilibrium.

In the case of a sphere resting on a level table, we have the condition of neutral equilibrium. It is in that condition in any position on the table.

The condition of stable equilibrium is illustrated by this ash tray [indicating]. If I displace it from its position of equilibrium by tilting it, it tends automatically to restore itself.

The principle contained in the Strong bill is of that sort. We have to concede that the price level will at best change slightly up and down. The specific direction to the Federal Reserve Board to conduct its actions in such a way as to bring it back to the norm, if carried out, would illustrate the application of this principle of stability.

The next point with regard to Mr. Wingo's view is that he does not seem to believe in restrictions on the use of theoretically available credits. At present we have an anomalous situation resulting from the huge gold supply in the United States. To make this available to the limit of the reserve ratio would spell disaster to the country, and to the banks as well, as deflation would surely follow the resulting inflation.

The third point which Mr. Wingo seemed to make was that the small banker would be placed at a disadvantage with respect to the large banks. I believe he is now at a disadvantage. I believe, however, that with this guiding principle adopted all the banks, large and small, would be on the same basis.

Further, in his questioning Mr. Wingo assumed that conditions such as have existed in the past—that is, violent changes in the price level—would exist after stabilization were applied. That would not be the case, except possibly in the event of a war.

I would like to call the attention of members of the committee to House bill 3895, introduced by Mr. McSwain and referred to the Committee on Military Affairs. That has for its purpose the carrying out of a stabilization plan in the event of a future war. In view of the fact that it has to deal with money and credits, it would seem to me that this committee, as well as the Military Affairs Committee, should give consideration to it.

If there is no objection, I would suggest that this bill be incorporated in the record, as illustrating a plan worked out by the administration for preventing inflation in the event of a future war.

Mr. STEVENSON. That is a plan providing for the drafting of all resources?

Doctor WOLFF. Yes, sir.

Mr. STEVENSON. Every form of man power?

Doctor WOLFF. Man power and resources, including capital.

Mr. MACGREGOR. Who prepared it? Was it prepared by the War Department?

Doctor WOLFF. Yes, sir.

The CHAIRMAN. It is a bill to provide for the national defense, introduced on December 7, 1925.

Without objection, the bill will be inserted in the record at this point.

(The bill referred to is as follows:)

[H. R. 3895, Sixty-ninth Congress, first session]

A BILL Further to provide for the national defense

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That when Congress shall declare war, the President shall have power to draft into the military and naval services and any auxiliary branches thereof all citizens of the United States between the ages of twenty-one years and forty-five years, with the exception of such classes as shall appear to the President to be in the public interest so as to cause the least possible dislocation of then existing conditions, and to draft for the use of said service in carrying on war all such material resources of supplies, manufactories, transportation, finance, and all other property, as the President shall deem necessary to prosecute successfully such war.

SEC. 2. The President shall pay as compensation for all such private property as shall be drafted into the service of the United States to aid in conducting such war only the average and ordinary peace-time price of the material resources above mentioned, and to prevent profiteering the President shall have power to fix by proclamation from time to time the prices at which any or all commodities shall be sold either to the Government or to the civilian population, and if any person shall feel aggrieved at the prices proclaimed by the President, and offered to be paid by him for such property, or for the use thereof, then in such case such person shall have the right to resort to the courts of compensation hereinafter authorized, after due notice in writing to the President and according to the rules to be established and publicly proclaimed by the President.

SEC. 3. In compliance with the Constitution and in order to provide for the payment of just compensation for such property as shall be taken, requisitioned, or commandeered by the Government or any department, committee, board, agency, officer, or employee thereof in time of war, under the powers and provisions of this act, the President is hereby authorized to appoint members of inferior courts of the United States, each to be known and designated as a "court of compensation"; and the personnel of such courts shall be either members of the Military Establishment or civilians, either male or female, and may be partly military and partly civilian, and partly male and partly female; and said court shall have the power and it shall be the duty of said courts to establish rules of procedure and to bear and determine according to said rules of procedure all such questions as shall be brought before said courts by any person, citizen, or subject of the United States or of any other country, whose property shall have been taken, requisitioned, or commandeered in time of war for the uses of the Government; and the measure of such just compensation to be ordered and determined by said courts in any case before them shall be the reasonable and fair market value of the property so taken by and for the Government in time of war, without respect to any inflation of prices in time of war and without including any unreasonable and extraordinary profits to the owner thereof; and the decision of all such courts of compensation upon the question of the amount of compensation for any property so taken shall be final and conclusive upon both the Government

and the citizen whose property shall have been taken, except that the same may be reviewed by a court to be known and designated as the "national court of reviews of compensation cases," to be appointed by the President and to exercise the power of appeal and review according to such rules and regulations as shall be prescribed by the President fixing the procedure and jurisdiction of said court; and the decision of said "national court of reviews of compensation cases" shall be final and conclusive upon all matters both of law and of fact upon both the Government and the citizen, person, or subject whose property shall have been taken by the Government, except by a writ of certiorari issued by the Supreme Court of the United States for the review only of questions of law in any such case.

SEC. 4. No contract for supplies, services, or construction or repair work for the War Department or the Military Establishment of the United States shall be made (a) which provides for payment on the basis of the cost of such supplies, services, or construction or repair work plus a percentage thereof for profit, and (b) which is not made in pursuance of lump-sum or unit bids based upon detailed specifications of the supplies, services, or construction or repair work required, except that when, in the opinion of the President, the public exigency requires the immediate performance of such service or undertaking of such construction or repair work before such bids can be procured, the President may by order direct that the particular services shall be performed or construction or repair work undertaken by the Corps of Engineers of the United States Army, either entirely or until such time as the remainder of such services can be performed or construction or repair work undertaken in accordance with a contract made in pursuance of such lump-sum or unit bids. Any contract made in violation of this section is void.

SEC. 5. Section 3709 of the Revised Statutes as amended is amended to read as follows:

"SEC. 3709. No purchase or contract in any amount in excess of $500 of supplies, services other than personal services, or construction or repair work (1) for any department or other Government establishment in the executive branch of the Government, whether or not located in the District of Columbia, or (2) for the District of Columbia, shall be made unless competitive bids have been procured by advertisement therefor, except that when, in the opinion of the President, the public exigency requires the immediate furnishing of the supplies, performance of the services, or undertaking of the construction or repair work before bids can be so procured, the President may by order direct that the particular purchase or contract may be made in pursuance of competitive bids which have been procured in a manner other than by advertisement."

SEC. 6. During the existence of a state of war between the United States and any government or persons—

(a) No sum, other than pay, if any, due as an officer in the military forces of the United States, shall be paid by the United States, either directly or indirectly, as a fee or other monetary compensation for service in supervising or directing construction or repair work, the production or furnishing of supplies, or the furnishing of facilities for the War Department or the Military Establishment of the United States, to any person rendering such service or to any individual, partnership, corporation, or association of which such person is a member, officer, employee, or agent; and

(b) Any person rendering any such service may, in the discretion of the President, be commissioned as an officer in the military forces of the United States, regardless of any limitations in existing law, for the period of such service and with such grade as the President may determine.

Whenever any contractor, whether person, firm, or corporation, for any material or supplies necessary for the Government in the carrying on of war, shall fraudulently furnish defective supplies or materials or shall render an account and seek to collect for a larger quantity of supplies or material than he shall have actually furnished, or shall conspire with any other person, or employ any device, method, or system whereby there shall be sought to be obtained, or actually obtained, from the Treasury of the United States, a larger sum of money than was actually and honestly due to be paid for supplies and material actually received by thte Government, then every such person, firm, or corporation, and every officer, agent, or employee of any such person, firm, or corporation that shall participate in said fraud or such con-

spiracy, as the case may be, shall be liable to indictment and trial, and upon conviction shall be fined not exceeding $1,000.000, or imprisoned not exceeding 20 years, or both, at the discretion of the court.

SEC. 7. Every person who shall have been in the employ of the Government in time of war, whether as an officer of the Army or Navy, or as an enlisted man in the Army or Navy, or as a civilian officer, agent, or employee, and who shall have used the opportunities, knowledge, and facilities of any such employment or official connection, whether during the period of such service or after the termination thereof, for the purpose of obtaining any advantage and financial benefit by reason of the furnishing, sale, or providing any material or spplies for the Government for the carrying on of war or any financial benefit or advantage in the purchase, acquiring, and disposition of surplus material and supplies of war, shall upon trial and conviction be liable to a fine not exceeding $1,000,000, or to imprisonment not exceeding 20 years, or both, at the discretion of the court.

SEC. 8. It shall be unlawful for any person, firm, or corporation or for any officer, agent, or employee of any person, firm, or corporation, to violate any of the provisions of this act, and every such person, firm, or corporation so violating any of the provisions of this act shall be liable to indictment and trial and shall upon conviction be liable to a fine not exceeding $1,000,000 or to imprisonment not exceeding 20 years, or both, at the discretion of the court.

SEC. 9. If any provision of this act, or the application of such provision to certain circumstances, is held unconstitutional, the remainder of the act, and its application of such provision to circumstances other than those as to which it is held unconstitutional, shall not be affected thereby.

SEC. 10. All acts and parts of acts inconsistent with this act be, and the same are hereby, repealed.

Mr. MACGREGOR. Do you know who specifically drew that bill?

Doctor WOLFF. I believe a board drafted it.

Mr. MACGREGOR. Designated by the Secretary of War?

Doctor WOLFF. Under the Secretary of War; it resulted from a speech made by President Harding, advocating some such scheme as this.

The CHAIRMAN. President Harding?

Doctor WOLFF. President Harding.

Mr. MACGREGOR. Well, that was advocated by a great many people besides President Harding.

Doctor WOLFF. That made it an administration program. It also has been advocated by President Coolidge.

The CHAIRMAN. Mr. McSwain is a member of the Military Affairs Committee, I think; is he not?

Mr. STEVENSON. Yes.

Doctor WOLFF. Another thing I would like to refer to is a matter that is now up before Congress, and that is this retirement legislation.

The cost to the Government of the proposed retirement legislation seems to be one of the obstacles to its consideration at this time.

I would like to submit that the full cost of retirement legislation for 30 years has already been indirectly paid by Government employees through the fact that the shrunken dollars in which they were paid between the years 1914 and 1920 and since have compelled contributions on their part which have more than made up the total amount required for 30 years. Further, reclassification did not begin to make up for the deficiencies in the purchasing power of the dollar, because Congress took the view that the price level would go down again. In other words, they made only a partial adjustment for the change in the purchasing power of the dollar.

With regard to the present situation in France, there has recently been a further drop in the French exchange. It was quoted down as low as 3.4 cents to the franc. That means that its present value is only 17.6 per cent of its pre-war value. By way of illustration, I might take the case of a holder of French Government bonds amounting at their face value to a million francs. On the basis of this depreciation since 1914, these have shrunk in purchasing power, as measured in terms of gold, to 17,600 francs. On top of that there has been the depreciation of gold, in terms of commodities, of 40 per cent. So that would leave a present purchasing power of 10,560 francs. In other words, this 1,000,000 francs francs existing as an investment in 1914 has shrunk in purchasing power to 10,560 francs—a depreciation of almost 90 per cent.

The CHAIRMAN. Doctor Wolff, the question that comes to my mind there is this: This French situation is the result of the war, and of the waste and other situations that have naturally developed from that war.

Doctor WOLFF. It has been a result of inflation.

The CHAIRMAN. I am wondering whether it would be possible, under those conditions, to have stabilization through any effort such as your suggestion here; whether that would be possible by reason of war conditions and conditions created by the war.

Doctor WOLFF. Personally I do not believe that a war can be conducted without some inflation. The question as to the extent of that inflation is another matter. France has undertaken to finance itself largely through inflation—especially postwar inflation.

The result of the depreciation in the currency in France has, of course, been general unrest. While I was over in Europe last summer even the employees of the banks throughout France were on a strike for a salary increase. When bank employees strike, it indicates a rather serious condition.

Further, a few days ago two communists were elected to the Chamber of Deputies from Paris districts. That resulted in riots on the part of certain groups of the right. However, one can say that such results are to be largely explained by the depreciation of the franc.

The CHAIRMAN. What knowledge have you with regard to the inflation in France now? Is it proceeding? Are they continuing the issuance of fiat money?

Doctor WOLFF. It was proceeding a very short time ago, and, in fact, there was almost a scandal about it, the Government having issued paper money in excess of what the law provided. Such increases have to be authorized by the French Chamber of Deputies and the Senate, and the Government exceeded the limit fixed by those authorizations.

The CHAIRMAN. The suggestion was made to me the other day, by one who should know, that it was the deliberate policy which was being pursued by the French now, that they were going through practically the same inflation that Germany did, and that it was only a question of time before the franc would be as worthless as is the mark; that that was their plan for repudiation. Have you any knowledge on that subject?

Doctor WOLFF. I have no knowledge. I imagine that is the viewpoint of some—those representing the extreme left. On the other hand, I can not conceive that it is the viewpoint of the nation; certainly not when it must have knowledge of the experience that Germany and the other countries of Europe went through.

Mr. STEVENSON. Did you see a very interesting statement made by the Bank of France the other day—it was published in something I read the other night—in which they were complaining that the French Government had continued to raise the maximum amount of advances that the banks should make to the country, and therefore requiring additional issues of bank notes until the thing was becoming top-heavy?

Doctor WOLFF. That has been going on right along.

Mr. STEVENSON. They passed a resolution that they were not going to yield to it any more: but they intimate in this statement that the Government may be able to make them yield anyhow. It looks as if the Government has made up its mind to inflate the bank notes of that institution to such an extent that they will be worthless. This was a report to the stockholders. It was published, possibly, in this United States Daily. I know that I read it within the last few days.

Doctor WOLFF. Of course, France is up against a very difficult political situation. If taxes are materially increased, the cabinet will fall and those who advocated such increase in taxation would be defeated at the election which would have to be called.

Mr. STEVENSON. Well, they are up against the proposition that they have either got to tax themselves or issue money that is daily becoming more and more worthless, and they have steadily refused to tax themselves adequately to balance their budget.

Doctor WOLFF. Yes; thus far.

Mr. STEVENSON. It looks to me as though they are heading for the rocks financially, or at least their creditors are.

Doctor WOLFF. In conclusion, I would like to ask permission to insert in the record a table, with explanatory text, explaining the basis of my statement that U. S. Government employees during a certain period lost, through the depreciated dollars in which they were paid, at least 193,000,000 1914 dollars, or over 300,000,000 present-day dollars and also an address that I made on the subject of the budget.

Mr. STEVENSON. It might be helpful if you would put in your table showing how much the Members of Congress lost also. [Laughter.]

Doctor WOLFF. I will be glad to include a statement to that effect also.

Mr. STEVENSON. You made a statement covering that matter yesterday.

The CHAIRMAN. Without objection, the matter referred to by Doctor Wolff will be inserted in the record.

Mr. GOODWIN. Including the speech to which he referred?

The CHAIRMAN. Yes.

(The matter referred to is as follows:)

Quoting from pages 85-87 of the 1922-23 Hearings on the Goldsborough bill:

This is clearly shown if we take as our basis the civil expenses as determined by the late Dr. E. B. Rosa, as given in the table on page 397 of Professor Fisher's testimony at the joint hearing before the House and Senate Committees on Civil Service, May 27, 1921. While the dollar cost which remained practically stationary until 1920, notwithstanding the great decrease in the purchasing power of the dollar, there was a considerable rise in 1920 which was, however, largely explainable by increased civil activity, as for example, the 1920 census, the expansion of the internal revenue, of the State Department, a large postal deficit (resulting from increased pay to the railroads), etc., as fully discussed in Doctor Rosa's monograph.

Expressing the expenditures for each of the years given in commodity dollars, we find that even the expenditures in 1920 on any basis of comparison, whether it be wholesale commodity dollars, retail food dollars, or cost of living dollars, are actually less with the exception of one year than in 1914, taken as a basis of reference, as shown in the following table:

Net civil expenditures 1910–1920 on basis of 1913–14 purchasing power of the dollar

Fiscal year ending June 30—	Net United States civil expenditures				Bureau of Labor Statistics index numbers		
	Amount	Per cent	Per capita	Per cent	Wholesale commodities	Retail foods	Cost of living
1910	$207,125,688	98.6	$2.24	104.2	98.2	90.0	.....
1911	196,640,988	93.6	2.10	97.7	97.2	91.6	.....
1912	202,511,853	96.4	2.13	99.1	97.9	93.9	.....
1913	210,039,082	99.9	2.18	101.4	100.5	97.9	.....
1914	210,162,388	100.0	2.15	100.0	100.0	100.0	100.0
1915	231,288,542	110.0	2.33	108.4	100.3	101.5	101.8
1916	201,427,156	95.8	2.00	93.0	108.5	104.0	104.3
1917	199,860,650	95.1	1.96	91.2	150.4	128.3	118.9
1918	222,458,285	105.8	2.15	100.0	186.3	153.7	142.8
1919	231,858,252	110.3	2.21	102.8	203.8	177.1	169.5
1920	366,550,410	174.4	3.45	160.5	243.1	197.1	196.9

Equivalent net civil expenditures

Fiscal year ending June 30—	On basis of wholesale commodity index				On basis of retail food index				On basis of cost of living index			
	Amount	Per cent	Per capita	Per cent	Amount	Per cent	Per capita	Per cent	Amount	Per cent	Per capita	Per cent
1910	$210,922,000	100.4	$2.28	106.0	$230,140,000	109.5	$2.49	115.8	.....	.....	.....	.....
1911	202,306,000	96.3	2.16	100.5	214,674,000	102.1	2.29	106.5	.....	.....	.....	.....
1912	206,856,000	98.4	2.18	101.4	215,668,000	102.6	2.27	105.6	.....	.....	.....	.....
1913	208,984,000	99.4	2.17	100.9	214,545,000	102.1	2.23	103.7	.....	.....	.....	.....
1914	210,162,000	100.0	2.15	100.0	210,162,000	100.0	2.15	100.0	$210,162,000	100.0	$2.15	100.0
1915	230,597,000	109.7	2.32	107.9	227,870,000	108.4	2.30	107.0	227,199,000	108.1	2.29	106.5
1916	185,647,000	88.3	1.84	85.6	193,680,000	92.2	1.92	89.3	193,123,000	91.9	1.92	89.3
1917	132,886,000	63.2	1.30	60.5	155,776,000	74.1	1.53	71.2	168,091,000	80.0	1.65	76.7
1918	119,409,000	56.8	1.15	53.5	144,735,000	68.9	1.40	65.1	155,783,000	74.1	1.51	70.2
1919	113,768,000	54.1	1.08	50.2	130,919,000	62.2	1.25	58.1	136,790,000	65.1	1.30	60.5
1920	150,782,000	71.7	1.42	66.0	185,972,000	88.5	1.75	81.4	186,161,000	88.6	1.75	81.4

The loudest objections to the "rising" Government expenditures have been voiced by the business interests who directly pay the largest bulk of the taxes. The money for payment of these taxes was derived by them from profits on the manufacture or sale of commodities, and it is interesting to note that as com-

pared with 1914, in 1919 a contribution of only 50 to 60 per cent of the volume of the same commodities would have sufficed for the payment of that part of Government cost chargeable to all civil activities.

Since the cost of the civil government is made up of the cost of commodities and the cost of the services expressed in salaries and wages, and since the commodities purchased by the Government were bought on annual contracts or upon open bids at prevailing market prices, the conclusion is inescapable that the "savings" demonstrated by the tables and curves were made at the expense of employees.

The amounts involved are staggering in the aggregate. No exact calculations can be made on account of the impossibility of segregating expenditures for goods and services without a complete reexamination of every voucher. The following table, however, gives a measure of the injustice wrought by the deceptive dollar, the amount for each year since 1914 being given:

Net decrease in United States civil expenditures adjusted on the basis of depreciated purchasing power of the dollar (1914 taken as normal)

	On basis of wholesale commodity index	On basis of retail food index	On basis of cost of living index
1915	[1] $20,435,000	[1] $17,708,000	[1] $17,037,000
1916	24,515,000	16,482,000	17,039,000
1917	77,276,000	54,386,000	42,071,000
1918	90,753,000	65,427,000	54,379,000
1919	96,394,000	79,243,000	73,372,000
1920	59,380,000	24,190,000	24,001,000
Total	327,883,000	222,02,0000	193,825,000

[1] Increase.

The total of nearly $200,000,000 in the last column represents the most conservative estimate of the loss of the employees in the civil groups up to July 1, 1920. It must, however, be noted that the sum is expressed in terms of 1914 dollars, now worth 1.6 times as much as our present-day dollars. Hence, the total up to July 1, 1920, would amount to at least $300,000,000—1922 dollars. Nor has any allowance been made for the fact that the Government paid for goods at the higher prevailing market or contract prices and that finally the above sum is far too low, as no allowance has been made for the great increase in the number of Federal employees in the civil groups between 1914 and 1920. Nevertheless, the reclassification bills before Congress still hang fire and Government pay still remains on the same basis as decades before the war. As a specific illustration I might take the case of the retiring director of the Bureau of Standards who has held that position ever since its establishment in 1901. His initial salary was $5,000 per annum. His present salary is $6,000 per annum, but that $6,000 is equivalent to only $2,400—1901 dollars. Thus he has been flimflammed out of 50 per cent of the purchasing power of his initial salary, while at the same time the bureau has grown enormously.

Quoting again from the 1922–23 hearings:

It might interest you to know to what extent you have flimflammed yourselves through permitting the value of money, the purchasing power of the dollar, to slip out of your control. Congressmen and Senators get a salary of $7,500. For convenience the cost of living may be taken as 100 per cent in the fiscal year ending June 30, 1914. You have been getting that since 1914 at least, I believe.

Mr. STEVENSON. Since 1902, I think it is.

Doctor WOLFF. As I say, for convenience, the cost of living may be taken as 100 per cent in the fiscal year ending June 30, 1914. In the next year the cost of living rose. This is the best index number—from the standpoint of your salaries, not wholesale prices or retail prices of food. The cost of living in general as shown by retail prices of food, clothing, rent, fuel, etc., went up 1.8

per cent above the fiscal year 1913–14. The next year it went up 4.3 per cent above the same starting point, the next year 18.9 per cent, the next year 42.6 per cent, and the next year 69.5 per cent. In 1920 it went up 96.9 per cent. The dollar shrunk in inverse ratio. Now, if you would go around to the subtreasury and draw out gold, you would get as much now as ever. But I imagine that no Congressman uses his salary in that way. He uses it not for gold, for which he has no use, but for bread and clothing and other necessities. He could not buy as much, but only a little less than half as much, in 1920 as he could in 1913 with his salary. If Uncle Sam would make good to you the loss in the purchasing power of your salaries, he would have had to pay you in 1914–15, the first year, after a slight depression of 1.8 per cent in the purchasing power of the dollar, the sum of $135. The next year he would have paid you, in order to make up your loss, $423.50; the next year it would be $1,417.50 in addition to your regular salary; the next year, 1917–18, $3,210; the next year, $5,212.50; and for 1919–20 he would have had to pay you $7,267.50; making a total supplementary payment that you ought to have had to make good the losses in the purchasing power of your salary of $17,565.

Bringing this record up to date, there are to be added $7,050 and $5,240, respectively, for the fiscal years 1921 and 1922, thus making the total to July 1 of this year $29,955, or an average of approximately $3,750 per year for the past eight years; that is, 50 per cent of your salaries. Moreover, this sum is increasing at the present time at the rate of $4,500 per annum. Expressed in other words, your loss in eight years has been $4 for every dollar in your annual rate of pay. This was because you did not take it upon yourselves to regulate the purchasing power of money under the provision of the Constitution and along the lines set forth in the preamble to the Constitution.

Quoting from pages 74 to 78 of the 1924 hearings on the Goldsborough bill:

After my testimony of last year [1923] in discussing the question of the stabilization of the dollar with the Chief Coordinator of the Bureau of the Budget, I pointed out to him that not only was it basic to a lot of our big national problems but to his own work as well. I prepared a memorandum for him, and then subsequently he had me arrange for an informal conference, which was held on July 19 of last year, to discuss "Fluctuations of values as an impediment to stabilizing the Government's business." I arranged the program, and some 30 Government officials were invited, and at that meeting I brought this out. I would like to introduce this statement into the record, and to save time I will only read the conclusions which I drew. It happens that the supplies and materials purchased by the Government amount to some $250,000,000 a year, according to General Lord's estimate. Besides that, the other outlays are for salaries; and then for interest on the war debt, and such things.

Discussing the whole subject, I arrived at two conclusions which I called self-obvious conclusions. [Reading:]

"During a period of rapidly changing price levels, and therefore of rapidly changing purchasing power of the dollar—

"1. It is impossible to correctly estimate governmental costs, even though the quantity of goods and the size and character of the personnel are correctly estimated.

"2. It is impossible to correctly estimate revenues, since incomes, profits, and other sources of revenue are subject to wide variations throughout the various stages of the business cycle."

This material was prepared early last year [1923], and a little while before that it had been indicated that we would have a deficit of some $700,000,000. We wound up the year with a surplus of over $300,000,000, a difference of $1,000,000,000, largely due to this change in the purchasing power of the dollar, as influencing the volume of business and the aggregate profits and incomes subject to taxation.

The statement to which reference is made follows:

THE UNITED STATES GOVERNMENT AS A PUBLIC UTILITY

A public utility may be defined as a business organization established for rendering to the public any service declared by law to be peculiarly affected

with the public interest and which the individual or individual community can not render for himself or itself at all or only at a cost incommensurate with the value of the service. The services most commonly included under this general description are the furnishing of light, heat, and power, transportation and communication, water, gas, and numerous other services. The same corporation may, of course, furnish more than one kind of service, as, for example, gas and electric service.

On the basis of the foregoing definition the United States Government may be considered as a superutility corporation engaged in the business of furnishing to the public a vast variety of services without which it could not get along at all, or which it could not afford to buy on account of prohibitive cost. Broadly speaking, these include the legislative service, the judicial service, and the executive service.

The executive service comprises the largest bulk of the Government's activities: Foreign Service (Diplomatic, Consular, and commercial), interior or domestic service, Postal Service, commerce and industry service, labor service, defense service (military and naval), veterans' service, fiscal service, public debt service, research service, educational service, development service, public works service.

Just as in the case of a public utility, the Government's field of activity is controlled by a charter. It is directed by a President and executive committee (the Cabinet) and (with a distinct departure) by two coordinate boards of directors, the House of Representatives and the Senate, responsive in the end to the stockholders, composed of the eligible native and naturalized citizens who have attained the age of 21 and who each have one vote.

Just as does a public utility, the Government needs a business organization designed to carry out its functions in the most effective businesslike manner, which calls for an articulated functional organizational plan.

Just like a public utility, the Government must provide its service without discrimination, and in addition the service must be reasonably adequate in quantity and quality to meet the public requirements. However, the aggregate cost as well as unit costs for each service must be brought down to a minimum dictated by the intelligent selection of the best business methods and the intelligent application of the principles of economy and efficiency in every branch of work.

Just like a public utility, the United States Government must have a physical plant consisting of land, buildings, equipment, furniture, etc.

THE NEED OF A BALANCE-SHEET STATEMENT

One of the many functions exercised by the Federal Government is the regulation of privately owned utilities doing an interstate business. For such a utility a rigorous accounting system is prescribed, so that the actual state of its business, its assets, its liabilities, its surplus or deficit, as well as its rate of return on the capital invested, can be ascertained at any time, and so that all the elements entering into the cost of rendering the service and the revenues received therefor can be found and checked, if necessary.

Curiously enough, the greatest utility of them all, the United States Government, which imposes such requirements on the lesser utilities it regulates, has not yet developed an equally satisfactory accounting system for its own business.

Among the advantages offered by such an accounting system which might be cited is the setting up of a fixed capital or property account, consisting of the investment in fixed property devoted to the public use; the setting forth of the amount of investments in loans, such as those made to the railroads or under various congressional acts, or to the foreign governments as a result of the World War, and also miscellaneous investments. Such a balance sheet would show, besides the amount of working assets, including cash and deposits on hand, marketable securities, bills receivable, interest and dividends receivable, and materials and supplies on hand. Among the assets would also be included accrued income not due at the date of the balance-sheet statement.

Similarly all the liabilities would be classified and tabulated, making it possible at any time to strike a balance and find the amount of the surplus or deficit at that time.

In addition, operating accounts properly kept would make it possible to ascertain the aggregate cost as well as unit costs of providing any one of the many services, including in such costs all charges properly assignable to such services. This would furnish a reliable basis for judging whether or not the expenditures for any service meet the test of justification on economic grounds.

THE INSTABILITY OF PURCHASING POWER AS AN IMPEDIMENT TO BUDGET MAKING

The cost of running the Federal Government still exceeds three and one-half billion dollars per annum, and it is estimated that the aggregate cost of Federal, State, and local government approximates $10,000,000,000 per annum. It is further estimated that the amounts spent for materials and supplies in the two cases are approximately two hundred and fifty million and one billion dollars, respectively.

It is slowly but surely being recognized that neglect to take into account the seemingly fortuitous changes in the general price level has given a distorted perspective to the comparison of present-day and pre-war Government expenditures, as well as introducing confusion into our most important national problems pressing for solution, such as the relief of agricultural distress, the development of better relations between labor and capital, the transportation and fuel problems, and public taxation.

One of the greatest difficulties with which the Bureau of the Budget has to contend and over which it has no control is the evil of an unstable price level.

It was therefore the purpose of Colonel Smither in calling this preliminary conference to consider the manner in which, and extent to which, changes in the general price level influence governmental costs, and how such changes in price levels directly affect incomes and profits, and the taxes based thereon, and indirectly affect our imports, and therefore the aggregate customs duties collected. It is the plan of Colonel Smither to direct particular attention at this time to the subject of procurement of supplies, materials, and equipment, and all services generally classified as "other than personal," and to take the first step in an attempt to formulate a businesslike basis for such future policies regarding procurement as would result in the maximum savings in the $250,000,000 or more now annually expended for this purpose and without detriment to the Government service.

Before proceeding to a detailed consideration of this subject, it appears desirable to present a bird's-eye view of the problem from the particular angle of those engaged in budgetary work.

THE PREPARATION OF BUDGET ESTIMATES

Soon after the beginning of a new fiscal year work is begun on the preparation of estimates for the next fiscal year. This is necessary since the Budget law prescribes that the esitmates of the departments and establishments must be in the hands of the Bureau of the Budget by September 15. That allows only two and a half months for the preliminary work, including the preparation of the estimates by the smallest organization units, the consideration and consolidation of the estimates of each group of units by the official directing the work, the consideration and consolidation of such major estimates by the bureau chief, and finally the preparation and consolidation of the departmental estimates with revision at each stage.

The Budget law requires that the Budget be transmitted to Congress on the first day of the regular December session, and this allows but scant time for the bureau to consider, revise, and make final adjustments.

The estimates submitted by the departments and establishments and by Congress and the Supreme Court are based on the anticipated cost of carrying out the various lines of work prescribed by the organic law or by appropriation acts, or by special acts. These costs are largely made up of the cost of things and the cost of services for the items coming under fixed charges, such as interest, pensions, as well as public debt transactions, payments representing obligations assumed, investments and working capital (for the post office and other branches) may be separately considered.

In the first place, while it is possible to make estimates with fair accuracy as to the quantities of materials and supplies and the size and character of

the personnel required to carry out a given line of work, the variable purchasing power of the dollar can not adequately be taken into account.

Estimates are presented in terms of dollars, but it must be recognized that the dollar, while defined as equal in value to 25.8 grams of gold 0.9 fine, fluctuates widely in real value in terms of the quantities of the different kinds of commodities it will buy or the services it will command.

It follows therefore that the estimated cost of goods is low or high according to whether the dollar has depreciated or appreciated in purchasing power. In the former case a larger sum is required to buy the estimated quantities of goods, the difference being made up by spending less for personnel service, or less goods is obtainable for the same number of dollars. In either case the estimate is evidently low or high as compared with the assumed requirements on which it was based.

It therefore follows that the tendency on the part of those responsible for making up the estimates and of defending them will be to submit estimates actually in excess of the amounts required so as to "play safe," especially in view of anticipated pruning in the appropriation bills, and in view of absence of provision for handling situations demanding increased funds which could not possibly have been foreseen.

The magnitude of these differences can be realized when it is found that the wholesale price level increased during the calendar year 1922 by over 13 per cent, though the retail price index and cost of living index lagged behind, as is the usual case.

In the District of Columbia the Government buys its supplies on contract negotiated through the general supply committee, usually for a complete fiscal year, the bids being opened and the contracts awarded several months in advance of July 1. The quantities are not specified, but merely indicated. Deliveries may be required throughout the whole fiscal year, even in amounts far exceeding the estimated requirements, or none at all may be ordered. It provides that supplies may be ordered in small lots by any of the bureaus or minor subdivisions for delivery anywhere.

In the face of such handicaps alone it is no wonder that the bidding has been far from satisfactory, but when it is considered that the prices quoted generally hold for a complete fiscal year, during which price levels may themselves fluctuate by more than 10 per cent, it reduces bidding on Government contracts to a pure gamble, in which the more reliable bidders often decline to participate.

GOVERNMENTAL REVENUES

The principal income of the Government is derived from the following sources: Internal revenue; income and excess profits; cigars and tobacco; transportation and other utilities; autos, candy, furs, jewelry, etc.; beverages; special taxes on capital stock, etc.; estates inheritance; stamps on legal papers, etc.; admissions to amusements, etc.; insurance and miscellaneous; customs.

One of the provisions of the Budget law is to limit the expenditures so as to not exceed the estimated receipts, but it is obvious that no accurate advance estimates of receipts is possible when wide fluctuations are likely to occur in business activity for the amount of income and profits, customs collections, etc., will depend upon what part of the business cycle the period covered by the estimate includes. In a boom period incomes and profits are high, there is little unemployment, and tax collections are correspondingly high, while in the period of depression sure to follow ("what goes up must come down"), incomes and profits decrease, business failures multiply, unemployment becomes acute, all of which is reflected in the amount of the taxes collected

CONCLUSIONS

From the foregoing the following two almost self-obvious conclusions may be drawn:

During a period of rapidly changing price levels, and therefore of rapidly changing purchasing power of the dollar—

1. It is impossible to correctly estimate governmental costs even though the quantity of goods and the size and character of the personnel are correctly estimated.

2. It is impossible to correctly estimate revenues, since incomes, profits, and other sources of revenue are subject to wide variations throughout the various stages of the business cycle.

Until these handicaps are removed, and the only cure seems to be through the stabilization of the purchasing power of the dollar, the necessities of the case often impose upon the Bureau of the Budget the employment of more or less arbitrary methods of revision of the estimate so as to make reasonably sure that their aggregate will not exceed the estimated revenues which may themselves be uncertain to the extent of some hundred millions of dollars. When the dollar is once stabilized, the greatest factor in determining the fluctuation in business will have been removed and the most important step will have been taken in stabilizing the Nation's business—the business of the United States Government.

Mr. CANFIELD. Doctor, I have one question that I would like to ask you. I believe that you said that since 1896 the value of the dollar has gradually gone down. Is that correct?

Doctor WOLFF. It continued to go down until 1920, when it began to rise.

Mr. CANFIELD. I misunderstood you, then. I thought you said the value of the dollar had gradually gone down from 1896.

Doctor WOLFF. From 1896 to 1920.

Mr. CANFIELD. The 1920 was the part I did not get. It has gradually increased since 1920?

Doctor WOLFF. It increased the purchasing power after the break, but it has decreased since.

STATEMENT OF DR. WILLIAM T. FOSTER, DIRECTOR POLLAK FOUNDATION FOR ECONOMIC RESEARCH, NEWTON, MASS.

The CHAIRMAN. Doctor Foster, the committee will hear you now. Will you state for the record your name and address and your connection?

Doctor FOSTER. William T. Foster, Newton, Mass. I am connected with the Pollak Foundation for Economic Research.

Mr. GOLDSBOROUGH. You are director, are you not, Doctor?

Doctor FOSTER. Yes, sir.

Mr. LUCE. Mr. Chairman, before Doctor Foster begins I would like the privilege of saying a few words, not only because he is a constituent and neighbor of mine, but also, and chiefly, because perhaps I have been more familiar with his work than some of the rest of you. Doctor Foster and Mr. Catchings, his associate in writing, have won the respect of the whole economic world by their recent publications. His work, "Money," is, in my judgment, the simplest, clearest, and best statement of the money problem, and I commend him to all men who are interested in the general subject.

Doctor Foster's writings, I think, will attest that he is peculiarly worthy of the attention of the committee.

Doctor FOSTER. I came to this hearing, Mr. Chairman, in response to an invitation, being in Washington on other business; and I brought with me a statement which Mr. Waddill Catchings and I wrote some time ago on the specific question now before this committee, namely, whether the Federal Reserve Board should use its powers for the purpose of attempting to curb fluctuations in the general price level.

This statement contains a good deal of statistical material which you probably would not care to hear, at least at this time; but I will tell you what it is about. It is a study of the movements of the price level in relation to the production of goods, money rates, open-market operations of the Federal reserve system, etc., since the deflation period of 1920–21, with a detailed study of what happened when we had a marked movement toward inflation in the spring of 1923, and precisely what the Federal reserve banks did then in the matter of discount rates and open-market operations, with an account of the results and with graphs which set forth the statistics in question.

(The statement referred to was later directed to be inserted in the record at this point, and is as follows:)

BUSINESS CONDITIONS AND CURRENCY CONTROL BY WILLIAM TRUFANT FOSTER AND WADDILL CATCHINGS

[Reprinted, in part, from the Harvard Business Review, April, 1924]

What is the likelihood that the next upward swing of business will develop into a major movement and culminate in another depression? What is the likelihood, on the other hand, that sufficient forces will be brought to bear as in the spring of 1923, to stop the next upward movement, prevent a general recession and keep business on a fairly even keel? These questions are of dominant interest to business men. We can not answer them; and we shall not hazard guesses. We shall venture no further than to point out some of the experiences of the past that we ought to take into account in considering the prospects of the future.

I

In order to present these recent experiences in bold relief, we must first sketch in, as a background, the previous significant swings of business. Chart I pictures the movement of wholesale commodity prices in the United States and in England from 1800 to 1922. The chart shows that from 1914 to May, 1920, wholesale commodity prices in the United States rose from 100 to 253. During the next 12 months, prices dropped abruptly to 148.[1] For anyone who understands the disastrous effects—economic, social moral—of inflation and deflation, these few statistical items or the lines in chart I are enough to tell the whole story in broad outlines.

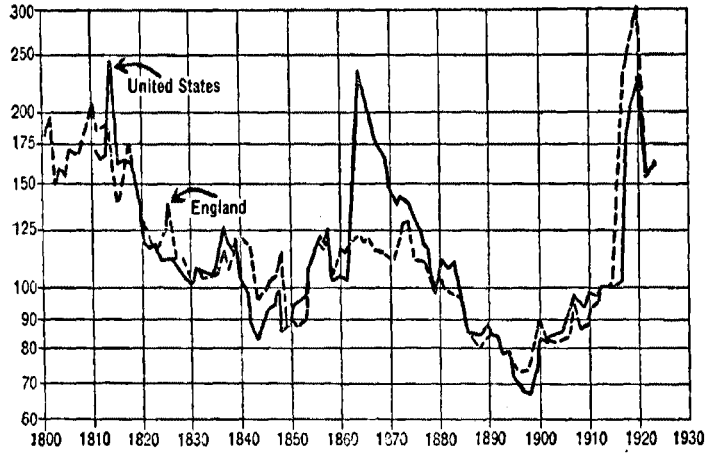
We may next observe that, following the collapse of 1920 and the sharp descent into depression, we had a year of economic stability—extraordinary stability, as a glance at the various charts will show. From April, 1921, to March, 1922, it appears that prices, production, trade, and employment fluctuated less than in any 12 months since the outbreak of the World War. (See Charts III and IV.) During this period, the Harvard price index moved within the comparatively narrow range of 49.8 and 55.9.[2] The Harvard index for business (line B in Chart V) fluctuated much less than in any other 12 months from 1919 to date; wholesale commodity prices did not move above 148 or below 138. Indeed, from June, 1921, to March, 1922, in only one month was there a variation of as much as 1 per cent from 141. Employment, both in the first month of this period and in the last, stood at 81, having been no higher than 85 in any month. These facts are pictured in Chart III. The volume of domestic trade, as indicated by bank clearings outside New York City, was 13.37 billion in April and 14.04 the following March, having in the meantime reached no higher than 14.37 (Chart IV). The volume of manufacture, it is true, ranged from 72 to 92, indicating the possible approach of trouble; but, on the whole, though at a low level throughout the year from April, 1921, to March, 1922, business was remarkably steady.

[1] According to the index of the United States Bureau of Labor Statistics, a weighted average of wholesale prices of over 400 raw and manufactured articles. This is the price index used throughout this paper unless otherwise stated. It is the basis of the commodity price lines in Charts III and V. Both have been computed on a 1919 basis.

[2] The source of statistics in this paper, unless otherwise stated, is the Review of Economic Statistics. See, especially, Supplement 1, June, 1923, and the "Review of the year 1923." Chart III is based upon a subsequent revision of unemployment statistics.

II

During the next 12 months it was not. All the principal indexes of business conditions exhibited marked upward tendencies which early in 1923 went so far that business appeared to be in the first stage of a major boom. The Harvard price index of business cycles, starting at 54.3 in April, 1922, rose to 78.9 in February, a range of 24.6, compared with a range of 6.1 for the previous 12 months. Wholesale prices rose from 143 to 159. Employment moved up rapidly from 78 to 96. More important still, volume of manufactures rose in one month (February to March) from 109 to 117, and thus reached the highest point in three years. The volume of manufacture of consumption goods, which continued above normal through 1922, rose sharply from 101 in January to 115 in March. Production of pig iron, which had mounted from 33 in the summer of 1921 to normal in November, 1922, went abruptly up to 116 the following March. The monthly production of automobiles jumped from 207,300 cars in December to 344,400 cars in April. At the same time volume of building permits reached a high peak. Thus production as a whole was rapidly moving toward the point where the selling of increased stocks to consumers at the higher price level might become impossible. At the same

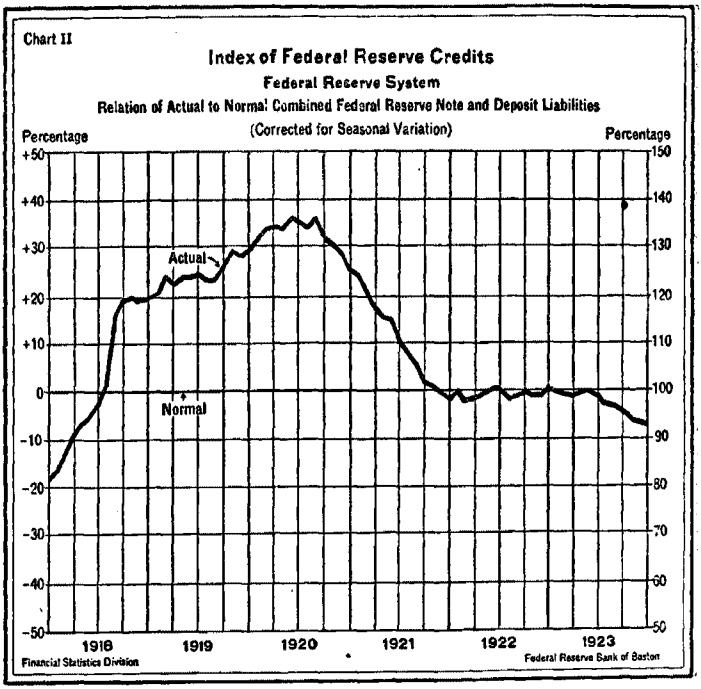


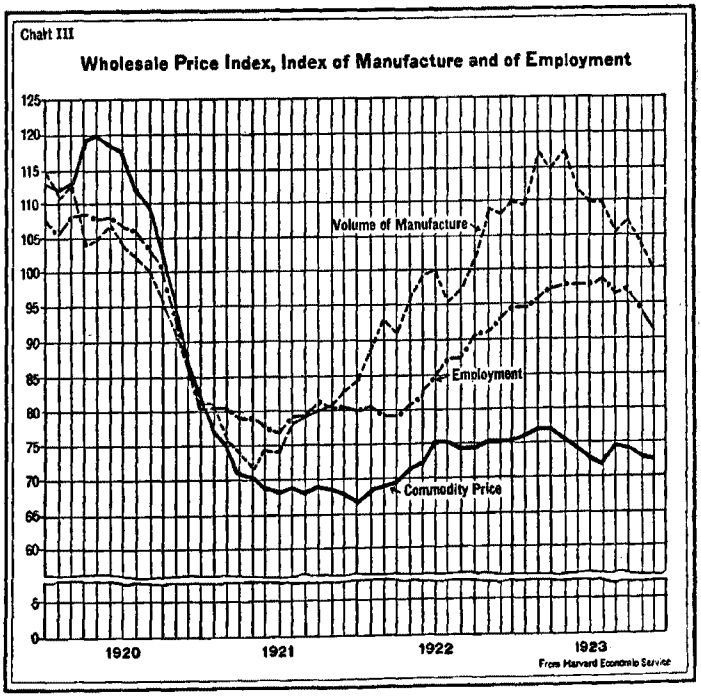
time, however, the volume of domestic trade, which had hovered around 14 during the previous 12 months, increased rapidly. In March, 1923, it rose to 17.58.

This abrupt upward movement of the early months of 1923 is shown in the charts. They depict heights of industrial activity. They mark the rapid progress of business toward conditions in which increased volume of currency and bank credit, under prevailing methods of financing industry, would still be accompanied by higher prices but no longer by increased production. A glance at these charts suggests that if the advance had continued at this rate for another 12 months, we should have had hectic "prosperity," with another period of severe depression just ahead. We should have suffered again the inevitable evils of monetary inflation.

III

But the rise of prices of the early months of 1923 did not continue. Neither was there a general slump in business. There was, indeed, an unfortunate recession—a more than seasonal decline—in the middle of the year; but it was a decline from a high level to a level that was still high, and it did not lead to a depression. The net result of the forces that, somehow or other, were brought to bear at this time was a year of sound economic conditions. The physical volume of trade, all branches included, was 9 per cent above normal; and freight-car loadings, the most comprehensive of indexes, broke all records. Employment, wages, trade, and profits were sustained, in general, on a high level.

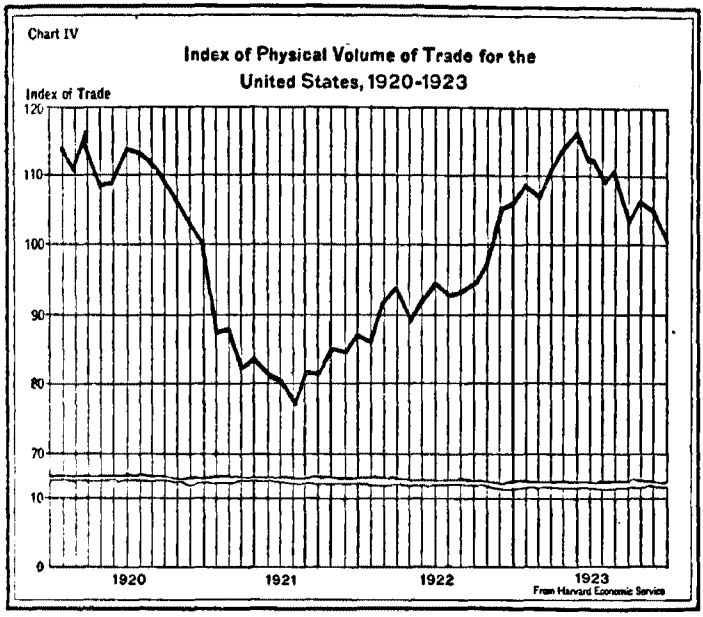

Chart II
Index of Federal Reserve Credits
Federal Reserve System
Relation of Actual to Normal Combined Federal Reserve Note and Deposit Liabilities
(Corrected for Seasonal Variation)
Percentage
Percentage
+50
+40
+30
+20
+10
0
-10
-20
-30
-40
-50
150
140
130
120
110
100
90
80
70
60
50
Actual
Normal
1918
1919
1920
1921
1922
1923
Financial Statistics Division
Federal Reserve Bank of Boston


Chart III
Wholesale Price Index, Index of Manufacture and of Employment
125
120
115
110
105
100
95
90
85
80
75
70
65
60
5
0
Volume of Manufacture
Employment
Commodity Price
1920
1921
1922
1923
From Harvard Economic Service

The stability of industry and finance, as a whole, during the last three-quarters of the year is pictured by various lines in Charts I, III, VI, and VII which move with a horizontal trend through this period. Meantime, the attitude of forecasters, bankers, and business men, generally, toward the prospects of 1924 changed from concern to confidence.

That all this was accomplished without resort to the treacherous stimulus of inflation is shown by the fact that our general price indexes, during the last three-quarters of the year, moved within a narrow range. (See Chart III.) Food prices and the cost of living were a little higher in December than at any other time during the year, but only a little higher. For the cost of living, the range was only 4 per cent. Wholesale prices moved from 159 in April to 151 in December, the range having been only 5 per cent.

At the same time the chief monetary factors showed notable stability. This is evident from a glance at Chart VI. The five lines in the 1923 column—much closer to horizontal than in any year since 1916—represent the statistics (top to bottom) for reserves, Federal reserve notes in actual circulation, deposits,



commodity prices, and loans and investments. Between this picture of stability in the 1923 column and the lines in the other volumns the contrast is striking.

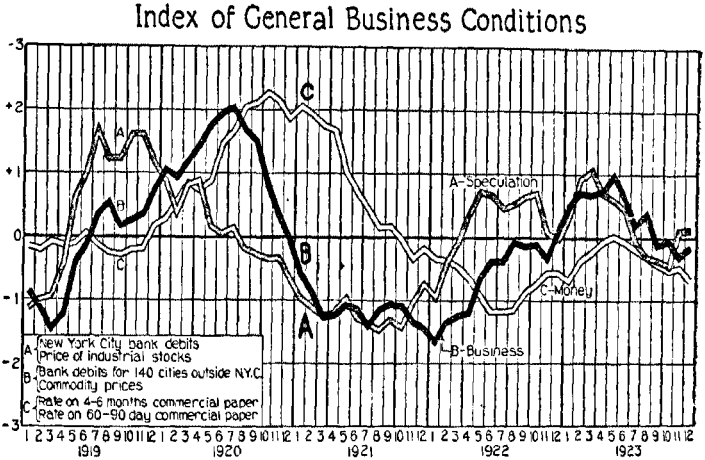
IV

How was this unusual stability achieved? How did it happen that the rise of prices, once well under way early in 1923, did not, like the similar movement a few years before, carry us forward to a boom, a collapse, and a depression?

One thing, at least, is clear. The restraining influence was not the reserve ratio. We had enough gold to form the basis of a larger volume of currency and bank credit than we had ever used before. Within the reserve requirements of the Federal reserve system the price level could have been carried about twice as high as the highest point of 1923. (See Chart VIII.) It is equally clear, from the statistics now available, that the curbing of the inflationary movement was not due chiefly to conditions in Europe, or to foreign trade, or to the automatic operations of business financing, or to a consumers' strike against high prices.

In seeking to explain what happened early in 1923 we must take account of the state of mind of bankers and business men. Their painful memories of the inflation and deflation of a few years before were still vivid. In this early stage of what appeared to be a boom, caution was urged from many influential quarters. The United States Department of Commerce wisely advocated the postponement of construction wherever feasible. Some forecasting agencies and some trade associations advised caution. Various banks, in their monthly letters gave reminders of the disasters of 1920.

At the same time many economists expressed concern over the marked trend toward inflation. On March 1, 1923, the National Monetary Association prepared a statement, significant because it expresses the views which were held at that time by nearly all economists, and which, no doubt, had some influence on the general busi-



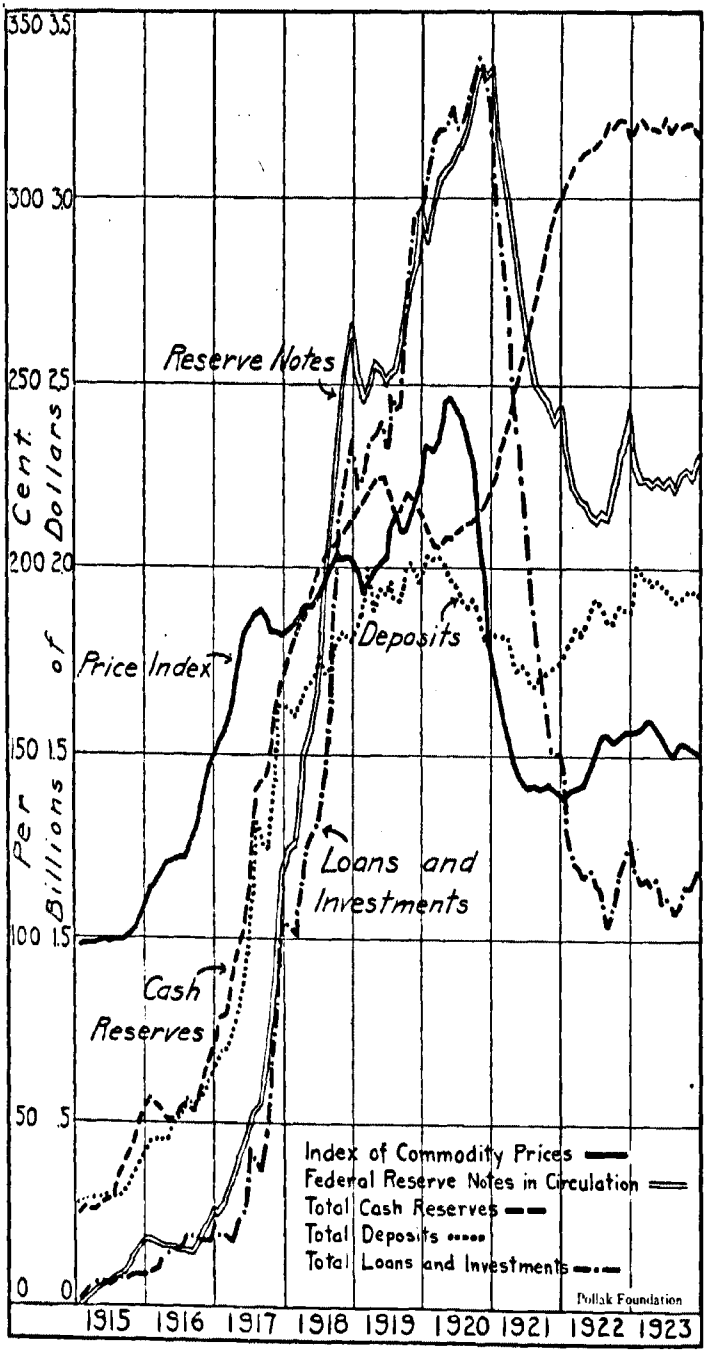
ness situation on the general business situation wherever the views of economists were heard. The statement reads:[8]

We are in an era of sharp price advances, and the National Monetary Association believes that the rapid rise in the price level will continue for some time unless definite steps are taken to keep such a movement in check. Productive activity, according to reliable indexes of production, is rapidly approaching a level as high as the peak attained during the last boom period; and no further advance in prices can be justified on the ground that it is needed to stimulate production. With the experiences of 1919, 1920, and 1921, still fresh in mind, the country is well aware of the vast losses and injustices which arise out of such periods of inflation and deflation. * * *

The association holds that in so far as further advances of the price level are moderated, this accomplishment will tend to (1) mitigate the severity of the next major reaction in business; (2) decrease the length of the ensuing period of depression; (3) lessen industrial unrest and the losses which arise therefrom; and (4) lessen injustice to the great mass of the American people, since their wages and income from savings do not increase as rapidly as prices.

All these facts go to show that the country has a much clearer idea than ever before of the monetary requirements of sustained prosperity. Though

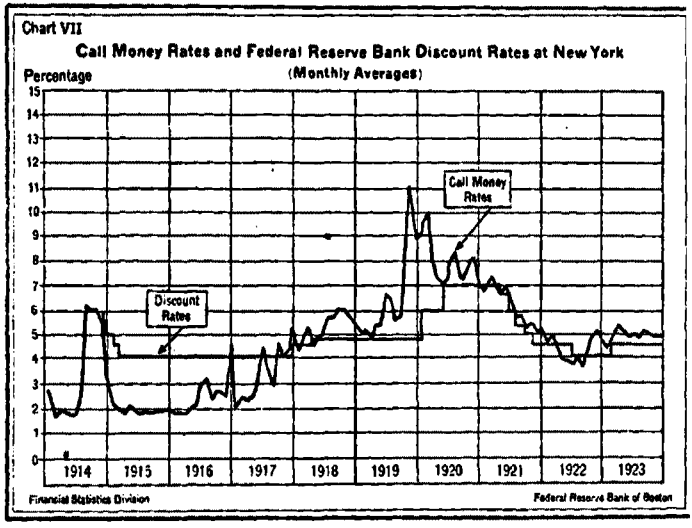
[8] This statement was approved by the research council of the National Monetary Association. The members of the council were: William T. Foster, David Friday, Hudson B. Hastings, E. W. Kemmerer, Wesley C. Mitchell, W. M. Persons, John E. Rovensky, Carl Snyder, and Allyn A. Young.


350 3.5
300 3.0
250 2.5
200 2.0
150 1.5
100 1.5
50 .5
0 0
Per Cent. of Price Index
Billions Dollars
Reserve Notes
Deposits
Loans and Investments
Cash Reserves
Index of Commodity Prices
Federal Reserve Notes in Circulation
Total Cash Reserves
Total Deposits
Total Loans and Investments
Pollak Foundation
1915 1916 1917 1918 1919 1920 1921 1922 1923

there are still many who insist that, regardless of the state of business, th Government can promote the general welfare by printing more money, or th banks by expanding loans, regardless of how the additional currence or credi gets into circulation, their influence was not sufficient in 1923 to induce thi country to emulate the excesses of Central Europe. Our chances of avoidin such excesses are much better than they used to be, partly because of th unhappy results in Central Europe and the effective public education conducte in recent years by banks, Federal agencies, trade associations, and statistician and economists generally.

V

Still more cautious became the business world when the rediscount rate were raised. In February and March, 1923, the reserve banks of New York Boston, and San Francisco raised their rates. (See Chart VII.) Interes rates of commercial banks rose in February and again in March. Rates o call loans, on 60 to 90 days paper and on 4 to 6 month paper, were all higher i March than in any month of the previous year. Chart III shows that th raising of money rates was followed promptly by a curbing of the upwar movement of prices and production.



The nice adjustment of money rates was previously shown during the 12 months of conspicuous business stability which we have described above (April, 1921, to March, 1922), when the average rates charged on bills discounted by Federal reserve banks fell steadily from 6.32 to 4.70. That the changing ratios were important factors, though by no means the only factors, in maintaining the stability of the period is beyond question.

Not so generally understood is the fact that the open-market operations of the Federal reserve banks in the first half of 1923 tended to curb the inflationary movement; and, in the second half of the year, tended to sustain business on its new level. Early in January the Federal reserve banks held open-market acceptances and United States securities to the value of $734,000,000. These they reduced steadily throughout the period of incipient business boom. By July the total holdings were less than $300,000,000. Between October 17 and the end of the year, however, the holdings increased from about $300,000,000 to $473,000,000. Thus the open-market operations took money out of general circulation at a time when, according to all our indexes, money in circulation was increasing faster than the volume of trade; and, later in the year, when these same guides pointed in the other direction, the open-market operations put more money into circulation.

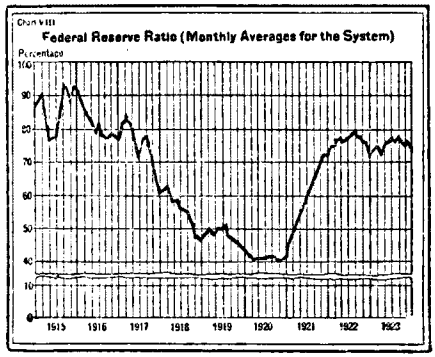
How well these open-market sales and purchases were adjusted in time and volume to the other factors that affected the general price level and the general business situation is shown by the graphic accounts of the year 1923 to which we have called attention. The open-market policy of the board was an effective adjunct to other forces in maintaining the stability of prices, though the policy was adopted, according to the official statement, with primary regard to the accommodation of business and the general credit situation.[4] Apparently, the effect would have been better still had the policy been carried out sooner.

The action of the banks seem to lag several months behind the signals for such action. (See Charts III, IV, V.)

We conclude, then, that the discount rate and open-market policies of the reserve banks had their part in preventing the sharp upward movement of early 1923 from going forward to a boom and a collapse. This conclusion, it would seem, might be admitted by anyone, no matter what theories he may hold concerning the causes of business cycles.

VI

With these experiences in mind we may now return to the question with which we started: What are the chances that another marked movement toward inflation, once under way, will be curbed before it has resulted in "overproduction" that leads to deep depression?



The chances are nil, let us note at once, if we rely on the "gold standard," so called, or on a legal minimum reserve ratio, like the one in the present law, that is arbitrarily fixed without reference to movements of the price level. The gold basis, it is true, prevents such fiascos as the printing-press performances of Russia and Germany, but there never was a time when the gold basis stabilized the purchasing power of money. From 1914 to 1920 the price level in the United States on a gold basis mounted from 100 to 253; then, in less than one year it fell, still on a gold basis, to 150. The disastrous results do not need recounting here. Under the existing law and with the present stock of monetary gold in the United States the fluctuations in the value of the dollar could become still more spasmodic and more disastrous. (See Charts II and VIII.)

Even the approximation to a stable level (shown in Chart I), that at times has been achieved both in England and in the United States by means of gold reserve requirements and the old machinery of currency control, is not likely to be achieved again in either country, under the new conditions, unless a stable price level becomes the avowed object of conscious policy.[5] It is not

[4] The policy of the Federal Reserve Board during 1923 found expression mainly in these open-market operations. That policy was in accord with the following principle, adopted by the board in April, 1923: "That the time, manner, character, and volume of open-market investments purchased by the Federal reserve banks be governed with primary regard to the accommodation of commerce and business and to the effect of such purchases or sales on the general credit situation."—Federal Reserve Bulletin, January, 1924.

[5] The reasons for this statement, as it applies to Great Britain, are set forth by the Right Hon. R. McKenna in his annual address as chairman of the Midland Bank (Ltd.), January 25, 1924.

now the avowed object in this country. The present Federal reserve law is not aimed to prevent sustained departures from the general price level. On the contrary, a provision directing the board to use its powers for this purpose was thrown out before the law was passed. The board and the banks were doing all that the law required during the injurious inflation of 1918–1920 and the even more injurious deflation that followed. Again, in the early months of 1923, they would have been just as true to the law if, instead of putting their rates up, they had put them down.

Then, as at all times, the board was under pressure from the "foes of the money monopoly"—from those whose cure-all for economic ills is always easy money. Then, as now, those who wanted easy money could maintain, with strict adherence to the truth, that neither the reserve ratio nor bank profits justified the banks in keeping up their rates; and that, in pursuing a discount rate and open-market policy that tended to stabilize prices and thus "to put brakes on reviving prosperity," the banks were acting arbitrarily and without the warrant of congressional mandate. That the board and the banks succeeded, under these circumstances, in resisting political pressure and doing their part to safeguard the year 1923 from further inflation and from extreme deflation is highly to their credit.

VII

In view of this measure of success it is easy to understand why some men oppose any change in our official monetary policy. Why not let well enough alone? What could be gained now by congressional action directing the board to use its powers toward preventing sustained departures from the prevailing price level?

There are a number of pertinent answers to this question. First of all, the best time to take action toward preventing violent movements of the price level is when the price level is fairly stable. At such a time the immediate effects of the proposed action are slight and no criticism of existing authorities is implied. At such a time, moreover, the question of the level near which general prices should be stabilized is not a burning public issue. Thus the measure can be considered on its merits, comparatively free from sectional economic and partisan political complications; and the measure can go into effect without disturbance to business.

In the second place, no matter how high our record may be for the present Secretary of the Treasury and the present members of the Federal Reserve Board, we have no guarantees concerning the qualifications of future members. That uncertainty is inherent in our political system.

We can not make sure that future members will understand the relation of movements of the price level to human welfare or the relation of their own policies to either, or that they will resist the pressure to act in what appears to be the special interests of a class or of a political party. But we can make sure that no doubt exists concerning the desirability of a stable price level. We can direct the board to use rediscount rates and open-market purchases and sales for the specific purpose of safeguarding the purchasing power of the dollar. And then, by means of an official index number of prices, published weekly and improved as a result of further statistical research, we can measure with a high degree of accuracy the progress of the country in achieving this purpose.

There is abundant evidence that the present board has promoted the welfare of the country as a whole. But it has pursued no avowed policy that the public can understand; and partly for this reason it has been subjected to much undeserved criticism and to some political pressure that might have been avoided. Its avowed policy of acting "with primary regard to the accommodation of commerce and business" is unobjectionable; but it is too vague. At all times there are many men who are convinced that their business would be greatly "accommodated" by easy money, and they see no reason except a "money monopoly" why the Government should not give them what they want. Their program seems to have been vigorously supported by organized propaganda. These more-money enthusiasts have had their way in Central Europe. They may at any time gain the upper hand in the United States. Before that time comes the country ought to be committed to the principle of preventing by means of currency and bank-credit control such fluctuations as are avoidable—note that we say, such fluctuations as are avoidable.

In estimating the future need for such an avowed policy, we must take account of the fact that in 1923 the board and the banks were aided by a spirit of caution that, as we have shown, ruled the business world. When the next marked movement toward inflation sets in—and it is sure to come sooner or later—the people are not likely to regard it so suspiciously as they did the movement of 1923. This is a third reason for taking definite action now. In 1923 men were cautious because prices were still high compared with 1913, and some thought that there would be a return to pre-war levels. Furthermore, men were cautious because they had not recovered from the disaster of 1920; liquidation in some lines was still under way; a number of the most important industries were still accumulating deficits instead of profits. But every year the memories of the sufferings of 1920 and 1921 become less vivid. The memories of business men are traditionally short. Many men denounced the Federal reserve banks for raising rates in 1923. Instead of giving thanks because these restraining influences had their part in saving us from excesses and consequent reverses, these critics point to the year's record as evidence that such caution was unnecessary. What a pity, they say, that the alarmists set up the bogey of inflation; for there was no inflation! They could as reasonably condemn the flood-prevention measures taken by the people of Dayton on the ground that there has since been no flood at Dayton.

Under present conditions, our vast gold reserves are a menace. There is one way, however, in which they can be made to serve the interests, not only of the United States but of the world; for they are large enough to make a policy of curbing fluctuations immediately practicable, without endangering the gold standard or changing the weight of gold behind the dollar. And that is a fourth reason for acting now. It seems probable that the present reserves would be sufficient to maintain approximately the present purchasing power of the dollar for at least a generation to come. Perhaps by that time the whole country would be convinced that a stable money is a sound money. The country would then be less dependent on gold reserves as safeguards against inflation, and in a better position to adopt additional methods, if necessary—perhaps new legal reserve ratios—for controlling long-time price movements and exchange rates.

Meantime, the world would have at least one dependable uint to tie to. Consequently, any country that was prepared to take the necessary measures could attain the approximate stability of its own currency by means of a gold exchange standard without maintaining huge gold reserves at home. Various writers—J. M. Keynes, for example—have ridiculed the United States for impounding this mass of "useless" gold. As a matter of fact, this gold could do nothing so useful to the world as to play its part in protecting the purchasing power of the dollar from avoidable fluctuations.

The primary monetary need, then, is a stable unit of value; and this does not come by chance. Even if we had no other evidence, the records of the last seven years in the United States should convince us that the country is not safeguarded against inflation by reserve ratios, or merely because bank credit is expanded "in response to the legitimate demands of business," or "in the ordinary course of financing production." We have spoken of the relative stability of the price level since 1921, the uncertainty concerning the future personnel of the Federal Reserve Board, the nearness to the collapse of 1920 and the present large stock of monetary gold. There are, at least, these four compelling reasons for taking measures now to make a dependable dollar the deliberate aim of conscious policy. Returning finally to the question with which we started, we may say with assurance that such measures will do much toward preventing the next upward swing of prices from developing into a major movement and a resultant depression.

Still, it must always be borne in mind that the utmost the Federal Reserve Board could do might be of little effect unless important influences beyond their control worked toward the same end. There are occasions when nothing the board could do would have far-reaching effect. On the other hand, there are times, such as the spring of 1923, when their action might afford the needed leadership or, in view of the attendant circumstances, might be a sufficient contributing cause to accomplish the purpose.

VIII

Is a stable medium of exchange, then, our only monetary need? It would seem so from various current discussions. So calamitous have been the depre-

ciating currencies in Central Europe that it seems to many people as though the monetary needs of the world could be summed up in the word "stability." That, indeed, is the first necessity; but that is not all. It is possible to have a stable price level and a declining standard of living; a stable price level and an inequitable distribution of the products of industry; a stable price level and meager incentives to industrial efficiency; a stable price level and stocks of goods that can not be sold. It is just as possible to have a stable price level in China as in the United States. The price level can be maintained, as we have seen, with the volume of money and production and the standard of living of the year 1922. It can be maintained just as well with a larger volume of money, a larger volume of production, and a higher standard of living. In short, we must seek something more than stability in the general price level if we are to discover all the monetary means of promoting welfare. But the discussion of these means is beyond the scope of this paper.

A policy which takes account only of the gross volume of money in circulation and the general price level is crude. That is one reason why the "quantity theory of money," as usually stated, does not seem very useful to business men. If we are to understand the monetary means of lifting business activity to higher levels and keeping it there, we must consider where money enters the circuit flow, whether it is first used to produce goods or to buy finished goods, and how the various price levels, of which any general price level must be a composite, are affected. In considering crop prospects we take into account not merely total rainfall but also its intensity, its time relation to crop maturities, and how much is used at once in plant growth. Similarly, in considering business prospects, we must take into account not only increases in the total volume of money but also its velocity, its time relation to production maturities, and how much is used at once in producing goods.

To raise the general standard of living substantially requires, among other things, increased per capita production; but it requires also a flow of money to consumers sufficient to enable them to buy this increased output at current prices. As soon as there is much doubt of their ability to do so, production is curtailed. They can do so only if the volume of money in circulation is increased at a sufficient rate; but it is not enough that the total volume be increased. The new money must go into circulation in such a way that the flow into consumers' hands is enough, in addition to individual savings, to enable consumers to buy the additional products of industry. Only in that way can the new money long sustain economic prosperity.

But, in a period of expanding production, industry does not disburse to consumers enough money to enable them to take away the output of industry, without a fall in the price level. And consumers have no other source of income. Moreover, since consumers must save, they can not spend even as much money as they receive. There is not an even flow of money from producer to consumer, and from consumer back to producer. The expansion of the volume of money does not fully make up the deficit, for money is expended mainly to facilitate the production of goods, and the goods must be sold to consumers for more money than the expansion has provided. Furthermore, the savings of corporations and individuals are not used to purchase the goods already in the markets, but to bring about the production of more goods. Under the established system, therefore, we make progress only while we are filling the shelves with goods which must either remain on the shelves as stock in trade or be sold at a loss, and while we are building more industrial equipment than we can use. Inadequacy of consumer income is, therefore, the main reason why we do not long continue to produce the wealth which natural resources, capital facilities, improvements in the arts, and the self-interest of employers and employes would otherwise enable us to produce. Chiefly because of shortage of consumer demand, both capital and labor restrict output, and nations engage in those struggles for outside markets and spheres of commercial influence which are the chief causes of war.

In short, the financial requirements of prosperity can not be wholly satisfied by attempts to regulate the general price level merely through changes in the total volume of the circulating medium, regardless of the effects of such changes on the relation between consumers' income and the production of consumers' goods. However desirable it may be to prevent marked movements of the general price level upward or downward, and to use national financial policies as one means toward that end, there are other fundamental

monetary aspects of the problem of promoting and sustaining economic welfare.*

The CHAIRMAN. I take it, Doctor, that it is your view that the Federal Reserve Board has the power to affect prices?

Doctor FOSTER. Undoubtedly it has the power to affect the general price level, and it has used that power.

The CHAIRMAN. What are those powers, particularly and principally?

Mr. GOLDSBOROUGH. Mr. Chairman, might I suggest that Doctor Foster be allowed, if he prefers, to make his statement and then be questioned afterwards?

Doctor FOSTER. It is immaterial to me, Mr. Chairman. You know what you have done so far and what you want and what I might possibly do for you. I will do anything you please.

The CHAIRMAN. Suppose you follow Mr. Goldsborough's suggestion and proceed?

Doctor FOSTER. The conclusions that we arrive at in our paper on "Business conditions and currency control" are that the board actually has used its powers for helping to stabilize the price level; that in 1923 its open-market operations and its changes in rediscount rates actually did help to curb the inflationary movement and help to bring about a period of relative stability of the price level.

The next point we make is that the powers of the board, although sufficient to help matters, are nevertheless insufficient to control the situation. In other words, the Federal Reserve Board at the present time has not the power to bring about stability of the price level unless the contributing causes are sufficient, as they have been at times in the past few years.

The final statement in our paper is that it is impossible to bring about stability of the price level merely by controlling the gross volume of money in circulation, regardless of how that money is used.

We conclude, therefore, first, that it is highly desirable that the Government should have stability of the price level as an avowed aim; second, that it is highly desirable that the Federal Reserve Board should have that as an avowed aim; but, third, that it would be unfortunate for business in general and for the future of the Federal reserve system, if the idea became widespread that because such a bill as this was passed, therefore the board actually did have the power, under all conditions, to bring about stability in the price level; because the time is sure to come when the board with its present powers could not achieve the end; and if it were then blamed, it would be unjustly blamed, and the result would be unfortunate.

Mr. STRONG. Do you feel that any legislation in addition to this could be enacted that would bring about a condition in which the Federal Reserve Board could maintain the stability of prices? I might say that it has been suggested by men who have come before the committee that with the passage of the Goldsborough bill the Federal Reserve Board could bring about a stability of prices.

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*These aspects of the problem are discussed in money and in profits, two books in the Polak Series, issued by the Polak Foundation for Economic Research, Newton 58, Mass.

That is, they say that this bill might do it temporarily, but that eventually there would have to be a bill passed, such as Mr. Goldsborough's bill, in order to enable the Federal Reserve Board to maintain the stability in the general price level or to prevent inflation or deflation of prices in general.

The CHAIRMAN. Doctor Foster, you are familiar with the Goldsborough bill; that is, the Fisher plan of stabilization?

Doctor FOSTER. I am. My answer to that question is that, regardless of what you do in the future, it is highly desirable to have the Government committed now to stability in the price level as a definite policy; second, that it is impossible for the Federal Reserve Board to achieve that aim permanently with its present powers; third, that therefore some time in the future something more has got to be done.

The CHAIRMAN. When you speak of the Government just which department do you refer to?

Doctor FOSTER. I am referring to no department. Under the present Government the Federal Reserve Board is one agency through which it would seem natural to try to carry out the purpose.

The CHAIRMAN. What influences on the Federal Reserve Board effect that? What governmental influences are brought to bear on the Federal Reserve Board to bring about the carrying out of their suggestion? In other words, who instigates, on the part of the Government, these instructions to the Federal Reserve Board?

Doctor FOSTER. Who actually does that at the present time?

The CHAIRMAN. Yes.

Doctor FOSTER. And has for the last few years?

The CHAIRMAN. Yes.

Doctor FOSTER. I am unable to answer that question. I do not even know what the aims of the board are. All I can do is to observe what the board does and what follows. I know the precise volume of the open-market operations of the banks in each period; I know precisely when each bank has changed its rediscount rate; and I can correlate these acts of the banks with the movements of the general price level. But I do not know why they acted as they did. They do not say why, except in the vague phrase, to accommodate commerce and business.

The CHAIRMAN. I understood you to say that the Federal Reserve Board is the agent of the Government through which these activities proceed. Do they act, in your judgment, on their own initiative as representatives of the Government or is there a suggeston directly from the Government?

Doctor FOSTER. I know nothing about it.

Mr. MACGREGOR. Well, who is the Government? Whom do you refer to when you use the word "Government"?

The CHAIRMAN. That is what I was trying to develop; whether you considered the Federal Reserve Board as the Government or whether there was a higher power that influenced the Federal Reserve Board. Is it the ex-officio members of the board who are officials of the Government? There are those who feel that the Federal reserve system is an independent banking system. Now, if governmental influences control the actions of the board I think that is rather an important thing to understand.

Doctor FOSTER. In the statement I made I meant simply that this country, officially, through whatever agency it may use should endeavor to bring about the stability of the price level.

The CHAIRMAN. Do I understand correctly, then, that the Federal Reserve Board is engaged in this procedure?

Doctor FOSTER. I say again that I have no means of knowing what their motives are. I judge merely by results which are matters of public record, but which the public does not pay much attention to.

Mr. STRONG. Have you in your statement set out what those results have been?

Doctor FOSTER. We have set them out in some detail for the year 1923, which was a conspicuous case—the most conspicuous case since the deflation of 1920–21, because the price level shot upward at a rapid rate in the early spring of 1923, and the upward movement was brought to a sudden stop. At the same time the operations of the Federal reserve banks were such as to help to curb the inflation.

Mr. STRONG. Did it shoot up more rapidly than it did at the beginning of the war?

Doctor FOSTER. For a short period it went up at just about as rapid a rate. But the movement did not continue. Had it continued at that rate, and had we used the gold basis which was available at the time for a continuance of the increase of the volume of money in circulation, we should have had just as serious an inflation as during the war, and, in my judgment, just as serious a deflation following.

The CHAIRMAN. Following up the suggestion that I made a moment ago as to who gives the directions to the Federal Reserve Board, it has been stated to the committee that in 1919 the situation was such that the Secretary of the Treasury influenced the Federal Reserve Board in regard to what they had decided upon as a proper course, namely, to call a halt on the inflation; that that matter was deferred at the suggestion of the Secretary of the Treasury because of what he considered to be the necessities of the Government in the flotation of the Victory loans. If the necessities of the Government are such from time to time that, through their proper representative, the Secretary of the Treasury, who happens to be ex-officio chairman of the Federal Reserve Board, such influence can be exerted, I think it is very pertinent to know whether that influence extends as a continuing thing over the operations of the Federal Reserve Board in regard to the question of stabilization of prices.

Doctor FOSTER. My judgment is that the Secretary of the Treasury at that time, through what I regard as a mistaken policy, insisted upon the Federal Reserve Board and banks acting in such a way that he could float Government bonds at an artificially low rate of interest; that he could not carry out that policy without preventing the Federal reserve banks from using their powers in the interest of a stable price level; and that at any time, if the Treasury Department is to interfere in this way with the Federal reserve bank policies, it necessarily interferes with any efforts that the Federal reserve banks might make toward stabilizing the price level.

Does that cover your question?

The CHAIRMAN. Yes. Then it is a fact that the governmental situation might be such as to defeat, if it were exercised through the proper channels, the very intention of the Federal Reserve Board; and is not that greatly aided through the control of the issuance of temporary certificates of indebtedness to the extent that they are outstanding?

Doctor FOSTER. It seems to me that it may be possible at any time, under present conditions. That is one reason why I believe that there should be an official declaration on the part of Congress in favor of an attempt to stabilize the price level. At the time that the Treasury Department acted as it did act in 1919, there had been no such declaration on the part of Congress; the Federal Reserve Board was not directed to use its powers for that purpose.

The CHAIRMAN. If I recall the situation at that time correctly, there was much discussion on that subject, and members of the Federal Reserve Board appeared before this committee. If I am wrong in that, I hope gentlemen will correct me; but, as I recall, they assumed the position at that time that they were not responsible, and that they did not put in motion the machinery which caused deflation.

Mr. WINGO. What time was that, did you say?

The CHAIRMAN. In 1919 or 1920.

Doctor FOSTER. In my judgment, they were powerless in 1920 to prevent deflation.

Mr. GOLDSBOROUGH. That is very interesting, Doctor. Will you develop that a little? Just why do you think so?

Doctor FOSTER. The volume of money in circulation over which they had control, through open-market operations, was too small for that purpose. Moreover, they could not, by lowering bank rates, force anybody to borrow money and put it into circulation, even if there was plenty of available money.

By buying securities in the open market at the proper time and by selling them at the proper time, the banks can influence the price level, but only to the extent of the volume of those transactions, and that is definitely limited.

Mr. WILLIAMSON. Doctor, how is the price level affected by this process? The Federal reserve banks shot up their discount rates to 6, 7, and at one time nearly 8 per cent. That resulted in their calling in their loans from their correspondents, and they in turn called in their loans from the smaller banks, and that whole situation developed all over the country, with the result that there was a great contraction of currency—not of currency itself, but a great contraction of credits. That is what brought on the deflation to a very great extent. It was a pyramiding of the calling in of loans and credits which to a very great degree brought it on.

Mr. WINGO. It was also contended, was it not, that there was a refusal to make rediscounts for certain types of banks?

Mr. WILLIAMSON. Yes, sir; I think that is true.

Mr. WINGO. On the other hand, it was also contended—and I would like to have Doctor Foster's viewpoint on both contentions—it was also contended, on the other hand, just as he has intimated, that the board was powerless; that the deflation in commodity prices had already set in, and that brought with it the resultant

deflation of credits. I would like to have your viewpoint on both contentions, as to which you think is the correct theory.

Mr. GOLDSBOROUGH. And, Doctor, while you are discussing that, did not that same condition also cause what is known as a freezing of credits?

Doctor FOSTER. May I be permitted to say this, as a basis for my answer to your question: In a period of a rising price level, such as we had from 1914 to the middle of 1920, prices inevitably get to the point sooner or later where the buyers of goods have not enough income, and under the present financial system can not possibly get enough to buy the goods which are produced and thus to sustain the price level. Therefore the price level of 1919 had to go down, regardless of the operations of the Federal reserve banks.

The CHAIRMAN. That period is what might be termed, and has been termed, a "buyers' strike"?

Doctor FOSTER. I object to the term "buyers' strike," at least as applied to consumers, because I think that consumers buy as long as they have the income with which to buy; and all the statistics that I know anything about, as well as my knowledge of my own habits and those of my neighbors, bear me out in saying that in 1920–21 there was no buyers' strike. The reason consumers did not buy was that they did not have the money. People who refuse to buy because they have no money should be compared with the unemployed rather than with strikers. [Laughter.]

Mr. CANFIELD. Doctor, do you not think the agitation that was put out in the newspapers at that time caused the buying public to quit buying?

Doctor FOSTER. I think we should distinguish rather sharply between the consumer-buying public and the wholesale trade. Are you thinking of consumers?

Mr. CANFIELD. When the consuming-buying public stops buying, then the other fellow has got to stop. The consuming public was told to quit buying, and it did quit.

Doctor FOSTER. It is the consumer you are speaking about, then?

Mr. CANFIELD. Yes.

Doctor FOSTER. Well, that is precisely what I am speaking about. My judgment is that consumers do not stop buying because prices are high or because they are urged to stop buying, but because their income is insufficient.

This subject, I may add, is discussed at length in chapter 17 of the book on "Money," to which Congressman Luce referred.

The statistics bear out the conclusion that people curtail their buying because they do not have sufficient income.

Mr. MACGREGOR. You did not answer the question. Is it your view that the raising of the discount rate by the Federal reserve system had nothing at all to do with the deflation?

Doctor FOSTER. The Federal reserve system can at any time bring some influence to bear on the situation by changes in rates. The point I made was that deflation would have come anyway.

Mr. MACGREGOR. To the extent that it did?

Doctor FOSTER. Approximately.

The CHAIRMAN. Mr. Lombard wishes to ask you a question.

Mr. LOMBARD. I want Doctor Foster to develop, by one or two questions, a little further of his thought on the power of the Federal reserve authorities to prevent deflation, particularly the deflation which followed May, 1920. I believe statistics will show there was already a slight drop in the price level, when there was a meeting of the Federal Reserve Board with the members of the advisory council, held in May, 1920, finally published at the request, I believe, of Senator Glass, at which they made the decision to raise the rate to 7 per cent, largely, I believe, at the request of Mr. James S. Alexander, of the National Bank of Commerce of New York. Even at that time prices had started to fall. The country was excited. You will remember in the report of that meeting that they were given telegrams from various people in the West urging that no action be taken to further decrease prices. With foundation in your mind, I want to ask you this question:

If they had not increased the rate at that time to 7 per cent, if on the other hand they had gone into the market and bought United States Government bonds freely, thus putting the amount of their purchase into circulation in the form of bank credit and currency, would not that have had the effect of maintaining the high price level then existing? It is merely a theoretical question, but I wondered if you did not want to take into consideration the possibility of buying capital securities on the open market, in answering the question of the committee as to whether, as a purely academic matter, they could not have prevented deflation in 1920.

Doctor FOSTER. Mr. Chairman, I have already taken that into consideration when I said the Federal reserve banks could at any time affect the situation by their open market operations, to the extent that they used available funds for the purchase of securities on the open market, thus helping to put money into circulation, and thereby helping to sustain the price level.

The CHAIRMAN. By "purchase of securities" do you refer to short-term Government securities, Governments bonds, open-market paper, bank acceptances?

Doctor FOSTER. Paper that they actually do buy. However, the point is that the volume of such purchases is limited by the available funds, and the time came in 1920, as the time is sure to come again, when the possible volume of such operations is not sufficient to prevent a drop in the price level.

Mr. LOMBARD. Do you mean the gold reserve?

Doctor FOSTER. I am not talking about that. I am talking about the funds available for the purchase of these securities.

Mr. LOMBARD. Could they not have bought five hundred million of Government bonds in 1920?

Doctor FOSTER. If they had the money available, they could have brought them, and to that extent they could have helped the situation; but that would not have been enough in 1920 to prevent a slump.

Furthermore, we had approached so closely to the legal reserve ratio that it was impossible for the volume of money in circulation to continue to expand on a gold basis at a sufficient rate to sustain the price level. We had made the mistake of inflating the currency and had to pay the penalty. There was no way out of it. The

board might have modified the course of events in 1920, but they had no power to prevent a slump in the price level.

Mr. LOMBARD. Do you happen to recall what the reserve ratio was in the middle of 1920?

Doctor FOSTER. It is shown in this document. The point is that it was very close to 40 per cent, close to the legal limit.

Mr. GOLDSBOROUGH. Let us assume they had not been restricted in any way, but that there was plenty of leeway for it. You would say the prices should have been kept up in general, but that the reaction had to come, no matter how much gold there was?

Doctor FOSTER. In that particular slump the gold reserve ratio was pretty nearly a controlling factor. Now, your question is, Would it be possible for the Federal Reserve Board, with its present power, to prevent a slump, even though there were plenty of gold? Is that the question?

Mr. GOLDSBOROUGH. Yes. That was not exactly the question; but if you will answer that, you will practically answer my question.

Doctor FOSTER. In my judgment, the time is sure to come, even with plenty of gold, when the Federal Reserve Board can not, with its present power, prevent a recession in the price level.

Mr. GOLDSBOROUGH. Let us assume that they had all the power that could be given them, and that the gold reserve is not limited. Under those conditions is it humanly possible to continue a period of rising prices? Does not the slump have to come after a period of inflation and continued increased production.

Doctor FOSTER. Yes, sir.

Mr. GOLDSBOROUGH. Does not the slump have to come?

Doctor FOSTER. The slump has to come, regardless of the gold reserve available.

Mr. STRONG. Could the Federal Reserve Board be given power that would prevent a rapid increase?

Mr. GOLDSBOROUGH. Let me follow up my question for a moment.

Mr. STRONG. I beg your pardon. I thought you were through.

Mr. GOLDSBOROUGH. Let us assume this condition: That there is a period of rising prices, and it becomes apparent that we are going to have a period of inflation; that the Federal Reserve Board has power to control the price level; that is, to control the credit by open-market operations and by the discount rate. Do you think it is possible to give the Federal Reserve Board, by this bill or by any other legislation, sufficient power to check an apparent oncoming period of inflation to such a point as would measurably control production, and therefore measurably prevent a period of succeeding deflation? That is an important consideration, whether the board can control unhealthy periods of inflation which are bound to be followed by a slump or deflation.

Doctor FOSTER. There are times when nothing the Federal Reserve Board can do, with its present power, will prevent, though it may curb, the kind of inflation of which you speak, because there are times when the member banks, in expanding the volume of money used by business, are not dependent on the Federal reserve banks, and at such times the Federal Reserve Board can do little more than advise.

The CHAIRMAN. In that connection I would like to ask you a little about the distinction between bank credit and money. What I mean by bank credit is the use to which it is put in paying by checks. You have stated that the Federal Reserve Board could not maintain any control because of the limited amount of money in circulation. In that connection there is a vast amount of credit over which the Federal Reserve Board has practically no control, that outside the Federal reserve system.

Doctor FOSTER. I should have said in the first place that I always used the word "money" to cover both currency and bank credit, because all the factors that we are considering are affected quite as much by bank credit in circulation as by currency; that is to say, Federal reserve notes, United States notes, etc.

The CHAIRMAN. What part of bank credit does the Federal Reserve Board have control of?

Doctor FOSTER. When the member banks are not dependent upon the Federal reserve banks, the increase in loans can take place before the Federal Reserve Board is advised of the facts. The board gets the information after the expansion of bank credit has happened.

The CHAIRMAN. You are speaking now of the member banks. There are a number of banks that are not members of the system that are more or less a factor?

Doctor FOSTER. So far as they are not dependent upon the Federal reserve banks for the expansion of credit, the Federal Reserve Board has no direct control over the situation.

Mr. STRONG. You said you thought the board could not prevent inflation or deflation, with the power it now has. Are there any powers that can be given by Congress to the Federal Reserve Board that will enable them to maintain the general price level and prevent inflation or deflation?

Doctor FOSTER. I will say first in answer to that question that there is no possibility of attaining an absolutely stable price level. I suppose everybody agrees to that. There must be some fluctuation. The question is, whether any power could be given the Federal Reserve Board to enable it to prevent excessive inflation or deflation.

Mr. STRONG. That is what I mean.

Doctor FOSTER. There is no way in which the price level can possibly be stabilized permanently simply by controlling the gross volume of money in circulation, regardless of the way in which it gets into circulation. Now, if I am really going to answer your question, according to my view, it will take an analysis which, I dare say, goes beyond anything you have heard at these hearings; because I take issue with all the proponents of stabilization who believe it is possible to stabilize the price level by simply controlling the gross volume of money in circulation. It can not be done, because the time is sure to come in any period of expanding production when the flow of money to consumers is not sufficient to take away the consumers' goods that are ready for market. When that time comes we must either continue to accumulate unsold and unsalable stocks of consumers' goods, or else have a recession in prices.

Under present conditions, the time is sure to come when a fall in the general price level is the only means of distributing the surplus stocks and enabling producers to go ahead producing. You can not control the situation simply by controlling the gross volume of money in circulation, regardless of the way in which the money enters the flow from producer to consumer and consumer back to producer, regardless of the amount of newly created credit which is first used on the production side. The difficulty comes from the fact that our financial system is largely a system of financing production rather than a system of financing consumption.

The CHAIRMAN. You think that has not developed to the extent it should have been, in order to relieve that situation?

Doctor FOSTER. When we expand we expand it on the producer's side. Very little of the expansion is for the purpose of financing consumption. Considerable more has been done for that purpose in the last few years than ever before, because of the unprecedented increase in the sales of goods on instalments, which sales have been financed largely by financing corporations. But this method of expanding sales by expanding consumers' debts is leading to a day of reckoning.

The CHAIRMAN. In that connection, may I just recall to your mind the new development of financing through capital issue rather than through the method to which you refer? Is not that a factor in the situation also? What I mean is that many of the large corporations have segregated large amounts on their own treasuries for the purpose of handling these accounts. Is not that a factor in that control of the money situation, and does not that take away from the producer the amount of money that otherwise would be available? Is it a fact that there is an undue amount of money tied up unnecessarily to-day for capital purposes?

Doctor FOSTER. I think it is always true that our investment in capital facilities is in excess of that which is warranted by the flow of money to consumers. In other words, we are always far ahead in productive capacity of the power of consumers to buy the potential products. But, in the very process of enlarging capital facilities, we have helped the consumers to buy the goods already produced. It is partly because the past 50 years has been a period of expansion of capital facilities unprecedented in history that we have been able to go on as well as we have; because whenever we are rapidly expanding capital facilities and expanding the volume of money in circulation, we are paying money to consumers as wages in the process of producing these capital goods in advance of the goods which are to be produced by these new facilities and which consumers will eventually be asked to pay for. This expansion, however, must go on at an accelerated rate, or else we have a slump. My own judgment is that one reason why business is in such a bad condition in England, compared with the United States, is that England is further along in this period of development and that the time is coming in this country when we shall feel the effect of a declining rate in the production of new capital facilities and consequently a declining flow of money to consumers and increasing difficulty in selling the goods which we produce.

Since business operates at a profit, and corporations save part of their profits, and individuals save part of their incomes, there is a constant tendency toward a deficit of consumer purchasing power. That is offset, in part, by the increase of capital facilities.

Had it not been for the development of the automobile industry in the last 10 years, and the capital facilities created in connection with that industry, the prosperity of this period would have been impossible. The automobile has done for us lately what the railroad once did for us, in inducing a flow of money to consumers in advance of the goods which consumers are asked to pay for.

Mr. WINGO. You used the word "expansion." Does not that also mean inflation?

Doctor FOSTER. That word "inflation" is used in so many different senses that we get into trouble unless we define it carefully. I always use it to mean an increase in the volume of money which is accompanied by a rise in the general price level.

Mr. WINGO. The distinction I have heard heretofore between expansion and inflation is that expansion is that increased volume which keeps pace with actual business and necessities, whereas inflation is an excessive increase in volume.

Doctor FOSTER. The trouble with that definition, sir, from my standpoint, is that the term "necessities" is of necessity an undefined term.

Mr. WINGO. Is not that true of all definitions?

Doctor FOSTER. It is not true in my definition. Its terms are capable of measurement.

Mr. WINGO. Is it not a matter of language, after all?

Doctor FOSTER. By inflation, I mean an increase in the volume of money in circulation which is accompanied by a rise in the price level, and both those factors are very definitely measurable.

Mr. WINGO. Do you think all inflation is harmful?

Doctor FOSTER. All excessive fluctuations are harmful. Nobody objects to an increase in volume of money in circulation, accompanied by an increase in volume of business on a given price level. It is only when that increase leads to a rapidly rising price level that the trouble begins.

The CHAIRMAN. Are we in a period of inflation now?

Doctor FOSTER. No.

Mr. STRONG. Are we in a period of deflation?

Doctor FOSTER. Apparently, we are beginning a period of deflation.

Mr. WINGO. You spoke about capital investments, and you referred to excessive capital investments. I saw in some publication some time ago that the productive capacity of our country was practically 80 per cent of the theoretical capacity; that if our production represented 80 per cent of the theoretical capacity, we would have $15,000,000,000 worth of surplus products. What do you think of that statement? Is that an excessive estimate of our productive capacity?

Doctor FOSTER. I do not understand the "fifteen billion" part of the question; but in answering the first part of it I should say that it is a conservative estimate. Nobody knows what our productive capacity is, but virtually every industry is now unable to operate at

capacity. I should say that we could produce, with our present capital facilities, 50 per cent more than we are producing at the present time, if we had the market.

Mr. WINGO. I am not talking about the market. I am talking about the capacity to produce. No doubt this man took into consideration the fact that he could take a given mill. He knows what the capacity of steel mills are; he knows the capacity of certain acreage of land in wheat, taken over a long terms of years. The same is true of cotton, the same is true of wool, the same is true of woolen goods, and other industries which were running to practical capacity. He possibly had that in mind. That was 15,000,000,000 more than the consumers demand.

Doctor FOSTER. There is no question about the fact that because of a lack of consumer purchasing power we are unable to use our capital facilities at any approach to capacity. For example, there are 100 or more producers of tires, six of whom could produce enough tires to satisfy the entire demand.

Mr. WINGO. What is going to be the effect of that overinvestment in capital requirements which you have referred to? Is it not like having an excessive inventory and high-priced goods on the shelf beyond the wants of the consumer, producing a slump sooner or later?

Doctor FOSTER. It has a tendency to bring about overproduction, because of the natural eagerness of each industry to use its equipment to capacity. As a matter of fact, the country periodically produces goods in excess of the capacity of consumers to buy the goods.

Mr. LUCE. One of the axioms of a well-known economist was that there could be no such thing as general overproduction.

Doctor FOSTER. If he means production beyond the capacity of consumers to buy the goods, he is wrong. If he means production beyond the desire of consumers to consume, he is right.

Mr. LUCE. One man's demand was another man's supply.

Doctor FOSTER. Exactly. One of the traditional economic theories holds that since supply and demand are different aspects of the same thing, supply must equal demand. Therefore, general overproduction is impossible. That theory is fallacious, because it ignores money.

The CHAIRMAN. You raised the question of the rubber industry and said that six concerns could supply the demand for tires in the United States.

Doctor FOSTER. Yes.

The CHAIRMAN. Does not that indicate that there is an undue amount of capital tied up in that particular industry, and is not that an economic waste of capital? For instance, there is pending before Congress a demand from the agrarian group of producers for financial assistance and credit assistance for orderly marketing on the theory that men who desire to market the product of the farms have no facilities nor capital to market them. If that extra capital employed in the rubber industry were diverted to the use of orderly marketing facilities for the farmers would not that be a relief to that situation?

Doctor FOSTER. There is no dearth of capital at the present time. On the contrary, commercial banks are going into the open market and buying securities because their customers are not borrowing enough money.

The CHAIRMAN. These groups are contending now before Congress that credits or capital are not available to them for the creation of facilities for orderly marketing of their products, and they are demanding governmental assistance in the supplying of that capital.

Doctor FOSTER. I am not an expert in that field, but I believe that plenty of money is available for anything which appears to the banks to be a sound business proposition. All they ask is security of principal and interest.

The CHAIRMAN. Is there an undue amount of money tied up in capital in the rubber industry in the United States to-day?

Doctor FOSTER. There is more money invested in capital facilities in the rubber industry, and in nearly all others, than consumer demand warrants. But that does not mean there is no money available for expansion. There is plenty of money for productive purposes and has been for the past four years. The contention has been made that high taxes have caused a dearth of capital, but statistics do not bear out the contention.

Mr. WINGO. Statistics show that in the last five years there has been a greater volume of money flowing into productive capital investment than ever before in the history of the world.

Doctor FOSTER. That is true. During two of the years of our highest taxes, the volume of money invested in new enterprises and in new issues of old enterprises was larger than in four years of the preceding period of low taxes. There is no basis for the contention that high taxes caused a dearth of capital facilities.

Mr. WILLIAMSON. What is the effect of the excessive use of capital in the rubber industry upon the price of the product?

Doctor FOSTER. Very slight.

Mr. WILLIAMSON. In other words, are those products just as cheap as if they were being maufactured by the six concerns that could manufacture them?

Doctor FOSTER. Excessive development of productive facilities in any industry, for instance, in New England textiles, does not necessarily raise the price of the product at all. Producers sell their goods for what they can get, and consumers do not care how much has been invested in capital facilities.

Mr. WILLIAMSON. Does not the effort to earn dividends upon extra capital to a certain extent influence the prices at which goods are sold?

Doctor FOSTER. It influences the prices at which producers would like to sell goods, but they sell them at whatever price then can get, and the buyer is the sole maker of the actual selling price.

Mr. WINGO. I wish you would answer the question that was asked a while ago. You may have answered it, but if you did I did not observe it. If you would do away with the excessive concerns and leave it in the hands of six of them to produce the present consumer demand, would not that cheapen production and the cost to the consumer? Did you answer that?

Doctor FOSTER. It would make possible a lower unit cost.

Mr. WINGO. I was thinking that was the theory.

Doctor FOSTER. It would unquestionably make possible a lower unit cost.

Mr. WINGO. Those in control of the industry might become dictatorial and sell at an undue profit.

Doctor FOSTER. That has been true in some industries in the past.

Mr. WILLIAMSON. Is it not true that the goods are sold by producers at the point where they will produce the maximum profit upon the capital invested in production?

Doctor FOSTER. As a rule, goods are sold at the maximum price consumers will pay for a given output, regardless of the capital investment.

Mr. WILLIAMSON. That does not quite answer my question. Take Henry Ford as an illustration. Whenever his automobiles do not move readily upon the market and he is beginning to pile up a big supply, he cuts the price in order that there may be more rapid sales. He attempts to set a price at that point where they will produce the maximum profit to his factory.

Doctor FOSTER. He does not reduce the price because his investment in capital facilities has been what it has been. Apparently, he reduces the price because he can not sell his output at that price, and for no other reason. Although he is heralded as a great benefactor, and although he is in some ways, he appears to be like most producers in this respect: Judging from results he sells at the highest price consumers will pay for his output, regardless of costs.

Mr. STRONG. Is it your position that the consumer sets the price?

Doctor FOSTER. The consumer sets the price of Ford cars.

Mr. STRONG. Suppose he would attempt to buy at a price where there would be no profit, would he get any cars?

Doctor FOSTER. Consumers are competing with each other for a definite supply of cars. Thus far, in the process of competing, they have made prices that have yielded large profits to Mr. Ford. On every road in the United States somebody is driving a Ford car, who has had something to do with the price at which Mr. Ford can sell his output. If consumers decided that they would not pay enough for Ford cars to yield Mr. Ford a profit, he would seel his surplus at a loss and he would make no more cars. There are scores of producers of automobiles who are no longer making cars, because consumers would not pay enough to yield these producers a profit.

Mr. STRONG. Of course, if the consumers would go on a buyer's strike and conduct it successfully they might set the price, but in our present system of conducting business that is not done, and the producer does set the price the consumer pays. He says, "Here is this automobile at $1,000. Take it or leave it."

Doctor FOSTER. He may say that to-day, but to-morrow he reduces the price, if that is the only way to sell the cars.

Mr. STRONG. He reduces it only because his development has reached the point where he can supply it cheaper. He does not sell it for less than cost.

Doctor FOSTER. He does if he has to. The buyer tells him whether he can sell at a profit or must sell at a loss.

Mr. WINGO. Why are not bankers moved by the same consideration?

Doctor FOSTER. In their interest rates?

Mr. WINGO. Yes.

Doctor FOSTER. They are.

Mr. WINGO. Let us see. I know bankers that have surplus funds out at 4 per cent, and they will not lend me or anybody else for less than 10 per cent. I was wondering about that. I wondered if they gave me the real reason. They are now letting out funds outside of the State for less than half of the lowest rate they would charge anybody in that community, however gilt-edged the security might be. Why does not that theory apply to them like it does to Henry Ford?

Doctor FOSTER. I am not familiar with the bank in question. I have no doubt that in general the banks are governed by the same principle as other sellers. They get as much as they can get for good risks.

Mr. WINGO. I have been accepting that theory on their statement that after all credit is like anything else, if they are short of capital they will charge a higher rate. Now, when I find they have an excessive funds and still keep the rate at 10 per cent, I am wondering if my theory should not be revised.

Mr. STRONG. It is said in Iowa, where they are having a good deal of trouble over financial matters, that the banks have been sending their surplus funds to New York to be loaned to the banks there for 3 per cent, because they are afraid they can not get good security in Iowa; which has affected the stock market, and the withdrawal of that money by the country banks is what is now bringing about a reduction in the price of stocks.

Mr. WILLIAMSON. I would like to make another inquiry somewhat along the line that I did before. There has been a process going on throughout the country in the way of increasing capital investment of our street-car companies, railways, and other facilities of that character, apparently with the view of increasing rates for transportation, freight, and the like. As a matter of fact, does not that affect the situation, very materially affect the price the public must pay for what they get?

Doctor FOSTER. When I say that buyers fix the prices at which goods are actually sold, I naturally have to except prices which are fixed by law. In the case of public service corporations, when the price is fixed, the consumer decides how much he will take at that price. When the price of gas, for example, is established by law buyers do not fix it except through their representatives. They do decide, however, how much gas they will take at the established price, and how much money they will spend for substitutes for gas; and in this way they influence the price of gas.

Mr. WILLIAMSON. Is it not true that in industries like the transportation industry, which is a natural monopoly, as a matter of fact, they control to a great extent the price they charge the public upon the question of supply and demand? In other words, there is the fixed demand which people can not afford to be without and,

consequently, any kind of corporation or institution which supplies that service does not have competition, and it can fix the price.

Doctor FOSTER. Theoretically, in some instances, that is true; but it is not true of street-car companies. If there are any concerns which have suffered under competition in the last 20 years it is street-car companies.

Mr. STRONG. I started to find out a while ago whether or not you thought the power should be given to the Federal Reserve Board that would tend to stabilize prices and prevent inflation and deflation. I take it from your answer that you do not think it should always do it. Do you think it advisable, or do you think that any power could be given them that would be desirable to cause them to attempt to stabilize the price level and prevent inflation and deflation?

Doctor FOSTER. Your question is the most far-reaching one we have had to-day, and if I were going to enter into that discussion it would take a long time.

Mr. STRONG. What I am trying to get at is this: I am frank to admit that all I want is to get some information that will enable us to decide whether or not it is desirable to attempt to regulate the price level through power we might give the Federal Reserve Board that could be used by them in that direction. Do you think anything could be done by way of legislation that would tend toward stabilizing a general price level and preventing inflation and deflation?

Doctor FOSTER. I think, first, that they already have power to help prevent excessive fluctuations in the price level, which power, let me add, they have been using, in my judgment, very intelligently and effectively in the past few years; but they did not use it before that time as effectively as it should have been used.

Second, I think that they should not only do that but that they should do it under the definite direction of Congress to use that power in the interest of stabilization of the price level. In other words, that it should be a conscious and avowed policy, understood by everybody.

The next question is whether it would be possible to devise additional powers, which may be more effective for the purpose. I think so, but it would take a longer time than we have now to expound my ideas on that subject.

Mr. STRONG. Would you have any objection to sending the chairman of the committee your views on that subject, so that they may be incorporated in the record?

Doctor FOSTER. No.

Mr. STRONG. I want to say the purpose of this hearing, as far as I am concerned, is to ascertain information to enable us to take such proper action as may be advisable to take. The bill as presented here simply directs the Federal Reserve Board to use its efforts. We are not giving them any new power. It is rather restrictive. It says they shall use the power they have for the purpose of stabilizing the price level. Do you think it advisable to pass a bill of that kind?

Doctor FOSTER. I do. We said so in this article published two years ago.

Mr. WINGO. I understand the Doctor takes the position that the Federal Reserve Board already has the power to do the things contemplated by this bill, but the value of this bill would be to have the Government, through Congress, announce a positive policy.

Doctor FOSTER. Yes, sir. I have explained at some length that I think there would be an advantage in having an avowed policy, understood by all.

Mr. WINGO. You think that would be of economic value?

Doctor FOSTER. I do; but I want this one point repeated for emphasis: We should always bear in mind that the utmost the Federal Reserve Board could do with its present power might be of little effect unless important influences beyond their control worked toward the same end. There are occasions when nothing the board could do would have far-reaching effect. On the other hand, there are times, such as the spring of 1923, when their actions might afford the needed leadership or, in view of the attendant circumstances, might be a sufficient contributing cause to accomplish the purpose.

Mr. STRONG. A good doctor might be employed to bring relief to an overcrowded stomach, but if you were foolish enough to do those things which again overcrowd that stomach the time would come when the doctor could not serve you.

Doctor FOSTER. Yes; that is true, only I should leave out the word "foolish," because under our present method of financing production and distribution, the overcrowding of the markets will inevitably come again.

Mr. STRONG. Lots of times rather foolish things are done in speculation, such as the application of capital to industry that would not warrant it.

Doctor FOSTER. From the statement which you have decired to incorporate in the records, you will see that I am not disposed to find fault with the Federal Reserve Board. The industrial system in which we live and move and have our being is such that in the ordinary course of increasing production, we come to the point where the income of the consumer is not enough to buy the output, at the prevailing price level. Then the price level drops. The Federal Reserve Board has no power to provide consumers with enough money to prevent that drop.

Mr. BEEDY. I would like to ask a question, Mr. Chairman, if I may.

Doctor FOSTER. I am now about to be catechized by my former student.

Mr. BEEDY. I may say that what little I know on this subject I learned under Professor Foster.

Your remarks here are perhaps to be summarized by saying that capital is and for a long time has been over financed, and that under the present economic system funds are freely available for capital, but that economic crises and incidental social disturbances are the result of a lack of purchasing power lodged with the consumers, the masses.

Doctor FOSTER. Yes.

Mr. BEEDY. So that we may say there is an economic foundation which justifies the argument of the so-called discontented masses

and is evidencing itself in the tremendous growth of Socialism, Communism, and the revolutionary movement in the Old World?

Doctor FOSTER. I think Mr. Beedy, that it is true that our present organization of industry and finance is such that we are constantly making production facilities in excess of that which is warranted by available consumer purchasing power; that if to our extremely efficient system for financing production we could somehow add an equally efficient system for financing consumption, we could make marked and rapid progress toward increased production and consequently toward higher real wages and higher standards of living; that the people generally are pretty well aware of the fact that it is possible to produce more than we do, and that there is some reason which they can not understand why in spite of our vast equipment the marvelous advance in technical knowledge and invention, the discovery of new resources, the reduction of wastes, reduction of unit costs, in spite of all that which apparently ought to result in a rapid increase in real wages and general well-being the people do not find that they can buy very much more with their present income than they used to be able to buy. Consequently, in my judgment there is a real reason for not being entirely satisfied with things as they are and therefore a responsibility upon those members of society who think to see that a remedy is devised which will be sound and constructive which will retain all that is good in our present organization of society and enable us to utilize decade after decade more than we now utilize of the available resources of labor and capital.

Mr. BEEDY. As I do not wish my position to be misunderstood at any future time I want to go on record as saying that I believe the major part of our present policy of economic system is sound and wise, and that the remedy is not to be had through any kind of radical movement which we have seen manifesting itself in recent years.

I want to ask you if in your opinion the relief proposed by the Goldsborough bill is more fundamental and far-reaching than that proposed by the Strong bill?

Doctor FOSTER. May I say Mr. Beedy, that the answer to that question is implied in the statement which I have been asked to give to the chairman of the committee.

Mr. STRONG. Do you think both would be of advantage?

Doctor FOSTER. I can not answer that question except in an extended statement.

The CHAIRMAN. Without objection the statement of Doctor Foster on this and the other matters which he may want to present to the committee will be incorporated in the record.

The CHAIRMAN. In connection with the leadership which you intimated could be exercised by the Federal Reserve Board in the matter of stabilization, what is the most effective way in which that can be done, by publication of their action, calling attention to what they propose to do in the way of changes in rules and regulations, or any decisions they may make in regard to the price level and the money situation? Should it be done by way of public utterances?

Doctor FOSTER. From what I have observed of the actions of the Federal Reserve Board and their published reports in the last few years, I am inclined to think they are very much wiser than I am in that regard. I would not attempt to advise them.

The CHAIRMAN. Their notices to the public are not confined to their annual or monthly reports. For instance, I have in mind an interview the governor of the Federal Reserve Board gave out yesterday in regard to the business situation; no doubt prompted by the slump in the stock market. It was intended, no doubt, to stimulate confidence in the general business and banking situation of the country. What I had in mind particularly was, can they be made more effective by the issuing of periodical statements like that? I am just asking for your opinion.

Doctor FOSTER. I do not think I am competent to discuss that question.

The CHAIRMAN. It is very pertinent to this whole situation, as to how the views of the board are to be made known.

Mr. BEEDY. May I interject a suggestion? You mean would it be helpfully effective, or effective in the right direction?

The CHAIRMAN. Yes.

Doctor FOSTER. Let me show you why I hesitate to answer. I am aware of the fact, as you all are, that there is great confusion in the public mind between the effort to stabilize the general price level and the effort to stabilize individual prices. That is where the trouble comes. I dare say more than half the people of the United States, the moment a statement appears about the effort of the board to stabilize the price level, will at once have in mind fixing the price of wheat, fixing the price of cotton, and what not.

Mr. SALISBURY. That is one of the greatest difficulties that will be encountered.

Doctor FOSTER. I believe that one of the main reasons why the Federal Reserve Board has always been so careful to say that it has nothing to do with stabilizing the price level is that it feared it would be understood by the public as attempting to fix individual prices, which, of course, it ought not to do, and no government ought ever to attempt to do.

The CHAIRMAN. The effect of your statement has been fully demonstrated here quite recently. I have in mind what was suggested in the hearings yesterday, that the possible effect on the stock market of the inquiry which the board made in regard to brokers loans was very far-reaching. No doubt any statement by the board would be misconstrued by these same gentlemen who are watching market prices so closely. For instance, the change in the discount rate has been used as a football in so-called Wall Street. When the change was made by the Boston bank, you recall the attitude of mind of the browers engaged in marketing securities?

Doctor FOSTER. Yes.

The CHAIRMAN. Whether the power of the board ought to be utilized in that way is a problem the committee is very much interested in. It naturally arises in connection with any direction proposed to be made to the board.

Doctor FOSTER. Let me add at this point that one of the chief reasons why the entire business world is so easily upset by any step which the Federal Reserve Board takes is that it never knows whether that step may lead to inflation or deflation. We do know what has happened in the past, and we do know that the board has never indicated an avowed purpose to prevent such things in the future.

The CHAIRMAN. The price level being maintained regularly, should there not be some notice from the Federal Reserve Board? Should the price level go up or down; should not a notice of the board be issued, calling the attention of the public to the fact that they are proposing to take such steps as are within their power to regulate the holding of a normal price level. Might it not be reasonably assumed that that would be the plan that would follow?

Doctor FOSTER. That sounds logical and healthful to me. The very fact that the country was officially committed to a stable price level as an ideal, would in itself discourage some of those activities which have most to do with causing excessive fluctuations of the price level.

Mr. STRONG. If the policy is adopted by the Government to direct the board to maintain a general price level, you have just stated that you think publicity would be healthful, if they would announce to the public that they are going to do so and so. You think it would be healthful and not harmful?

Doctor FOSTER. All publicity of that sort would be of value.

The CHAIRMAN. An overproduction or underproduction would not be affected? Prices might go up or down as a result of overproduction or underproduction?

Mr. STRONG. Individual prices?

The CHAIRMAN. Individual prices. If there should be a shortage of the wheat crop and a demand for wheat throughout the world, that would otherwise put prices up, but the general price level might not be affected seriously by that unless all the commodities that enter into the consideration of that price level were affected?

Doctor FOSTER. Under the proposed plan nothing is suggested that would have any more effect on the price of one commodity than on the price of another commodity. Each individual commodity is left to find its way. The aim is to give each producer as much assurance as possible; that if there is a slump in the price of his product it will not be due to any change in the value of monetary unit.

Mr. WILLIAMSON. I believe you stated this would very largely tend to stabilize prices. Would it also result in stabilizing wages and salaries of that class who receive an income of that sort which would reasonably provide for American conditions of living?

Doctor FOSTER. It would tend to increase the real wages of labor over a period of years, and it would tend toward stabilization of all incomes, and profits, too.

Mr. CANFIELD. Did you say it would decrease or increase wages?

Mr. FENN. You mean the purchasing power of wages, do you not?

Doctor FOSTER. I mean real wages, the things that wages will buy.

Mr. STRONG. I understand your position is that if all interests knew the Federal Reserve Board would direct its power toward stabilization of prices, and that would prevent inflation and deflation, the very fact that that policy is adopted would of itself help all interests to unite and bring about the same end?

Doctor FOSTER. The very fact of the declaration would help to achieve the aim.

Mr. STRONG. Then a bill of this kind could not possibly do any harm?

Doctor FOSTER. I do not see how it could do any harm. The only qualification I would make is the one I made awhile ago. It would be unfortunate if the idea got abroad that the board always had sufficient power to stabilize the price level, so that if the situation got out of their hands it might be said, "The Federal Reserve Board has been directed to stabilize prices, and they have not done it. We will turn them out."

Mr. STRONG. Anybody who believes that legislation can bring about the millennium has to suffer from that kind of belief.

The CHAIRMAN. Have you any further statements you desire to make?

Doctor FOSTER. No, sir. I had no idea when I came of taking even 10 minutes of your time.

The CHAIRMAN. We appreciate your attendance very much.

(Whereupon the committee adjourned until to-morrow, Thursday, April 1, 1926, at 10.30 a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Thursday, April 1, 1926.

A quorum of the committee not being present, a further adjournment was taken until 2 o'clock p. m. of this day.

The committee met at 2 o'clock p. m., Hon. James G. Strong presiding.

Mr. STRONG. The committee will come to order, and we will let Professor Rogers, of the University of Missouri, put his statement in the record.

Professor Rogers, I suggest that you go ahead in your own way and put in your statement, and when you have finished some of the members of the committee may want to ask you some questions; that is, if you prefer it that way, or will it interfere with your line of argument to be interrupted?

Professor ROGERS. Not at all. I am very glad to be interrupted at any time.

Mr. STRONG. Very well.

STATEMENT OF PROF. JAMES HARVEY ROGERS, PROFESSOR OF ECONOMICS, UNIVERSITY OF MISSOURI, COLUMBIA, MO.

Professor ROGERS. Mr. Chairman and gentlemen, since the years 1920 and 1921 have passed so short a time ago the evils of instability should not need much emphasis at this time. I wish to call attention, however, to two or three evils with which I am sure that you are all familiar, but which should be emphasized, I think, on every occasion.

The first is the great redistribution of incomes and of wealth that necessarily comes about with any period of rising or falling prices.

As you well know, all persons with fixed incomes, such as income from bonds, lose very greatly in a period of rising prices; and when you consider who those people are the injustice appears the larger. All people dependent on insurance left to them by ones already dead, such as the widows and the orphans that we know so much about,

lose to the extent, of course, that the value of the dollar shrinks; or, to say it in other terms, they lose to the extent that the prices rise. And the question is, To whom do they lose? They lose largely, of course, in the case of corporation bonds, to the stockholders of the same corporations, made up of a class of people much more wealthy and in many cases speculators.

We find in addition that the labor class suffers to the extent that their wages fail to rise an equal amount with the cost of living.

Mr. STRONG. That applies to all salaried people?

Professor ROGERS. All salaried people and all wage earners. The salaried classes, of course, find that their salaries do not rise to anything like the extent that the cost of living does. Taking even the wage earners, the people working for the corporations that make larger incomes during a period of rising prices than at other times, in general their wages do not rise as fast as the cost of living. It is much more exaggerated with the salaried classes, as I was saying.

Then, in a period of falling prices—I am speaking now of the wage earner—he is very apt to lose his job. In other words, in a period of rising prices we run over him once, and then, as if to make the thing right for him, we turn around and run over him again by having a system that causes him to lose his job when once depression sets in.

Mr. LEATHERWOOD. Is it your contention that wages have not gone up in proportion to the cost of living?

Professor ROGERS. That is, I think, statistically true. Of course, you have exceptions to it. The wages of certain laborers have gone up in certain periods of rising prices more than in proportion to the rise in prices; but the wage earners in general have not received enough more to give them the same real wage that they had prior to the beginning of the period of rising prices.

That has been the subject of very careful investigation. I believe the Bureau of Labor Statistics has made one investigation. It has been investigated likewise by the National Bureau of Economic Research, and both have come to the same conclusion.

We find, then, that this very great redistribution of income occurs with every period of rising prices. I think that I might mention one case which occurs to me now. I happened to be in the city of Buda-Pesth in the summer of 1921, and I was going over the city with a wealthy lady who had established a sort of endowed poorhouse to take care of the poor people that could not take care of themselves any longer. She was showing me the various rooms in which they lived. We came to a small room where the only furniture was an iron bed, with one mattress on it, and a dry-goods box for a washstand, with a tin washpan and a pail of water—a galvanized pail—sitting beside the pan. She said:

In this room are two judges. Before the war they had an ample income to take care of all the necessities of life, and, of course, plenty laid by for a rainy day. The inflation process has reduced them practically to the verge of starvation, and they have applied to me for shelter.

That, of course, is an extreme case, and we have never had anything of that sort in this country.

Mr. LEATHERWOOD. That was a direct result of the World War condition?

Professor ROGERS. A direct result of the inflation of the currency and the consequent rise in prices that came after the war; not during the war. Part of it came during the war in Hungary, but it was a direct result of the great rise in prices, which is the same thing as saying a direct result of the instability of the currency.

Mr. CANFIELD. Did you say these were judges or ex-judges?

Professor ROGERS. These were ex-judges. They had retired about the time the war broke out.

Mr. LEATHERWOOD. Is it your belief, Professor, that there could be any system of stabilization that would overcome the violent fluctuations that are brought about by war conditions such as we experienced during the World War?

Professor ROGERS. Yes, sir; I think it is possible. There is no system that has ever been operated that has done it. But I am quite sure that it is possible. I think, however, that should a war begin under such a system we might, on account of the difficulties of financing the war, with a stable price level abolish whatever provisions had been made for it. The scheme advocated by Mr. Goldsborough in his bill—introduced, I believe, twice before Congress—would prevent prices rising substantially even under war conditions.

I will go ahead to point out what happens to business in a period of rising prices and again in a period of falling prices.

Of course, business is usually prosperous under a period of rising prices, but we find that business develops very unequally. Many branches of business are overstimulated in comparison with other branches, so that we find in these overstimulated businesses an increase, largely on account of the building of new plants.

Take, for example, an industry like the rubber tire industry, or the steel industry, during certain periods of rising prices that we have had. They have increased their output by building large plants and then in the period of depression which followed they have found themselves idle or largely overstocked with goods which were extremely difficult to dispose of. This led to a halting of production like the halting that we found in the years of 1920 and 1921, and to unemployment, with all the resulting evils.

We find, in addition, that the farmers are almost invariably overstimulated; and I call attention to the position of the farmers prevailing in the years 1920, 1921, and 1922, and even into 1923. The high prices which came about partly during the war but largely after the war in this country led the farmers to expand their production, not only by employing new workers and buying additional machinery, but in many cases by buying additional land at the inflated prices that prevailed at that time. In many cases they spent their accumulated savings to make the first payment on the land. In addition, they frequently mortgaged the farms which they already held as well as the farms that they were buying as security for the payment of the balance. You all know what happened in the period of falling prices which came in 1920 and 1921.

Mr. STRONG. May I interrupt you right there? Were they not encouraged to that expansion through governmental agencies that said, "The boys in the field must be fed, and the world must be fed, and we depend upon you farmers to do it"?

Professor ROGERS. That was true during the war, and, of course, the Government lived up to its promises. That continued after the war for about a year, I believe. Yes; that was quite true. But it did not cease with the war.

Mr. STRONG. No. Then the bottom fell out of the demand for the products, and they were practically ruined.

Professor ROGERS. Yes; but the top of prices in cotton, you will remember, Mr. Strong, came in 1920.

Mr. STRONG. Yes.

Professor ROGERS. Early in 1920. The prices of wheat—I believe I am correct—likewise continued to rise for some period after the war ended. I believe that is true.

Mr. STRONG. Yes.

Professor ROGERS. And I maintain that the rise in prices of cotton—and of wheat to the extent that wheat rose—was likewise largely due to the general rise in the price level itself.

Mr. STRONG. The peak of the price level came in about the middle of 1920.

Professor ROGERS. About the middle of 1920. The price level continued to rise until May, 1920, to be exact.

In the inevitable reaction which follows each of these periods of rising prices, we know what happens to the farmer. Having been largely overestimated during this period of rising prices, it is impossible for him, so to speak, to liquidate immediately. Take the case of a manufacturing industry. When their officials find that they have overproduced and can not sell their product any longer at a profit, what they do is to close down if necessary, or at least cut their production. But take the case of the farmer. Finding that he has a big debt for land which he has purchased, and finding that the prices of his product have gone down, the only possible way out for him is to produce all he can, and he sets to work to produce harder than ever before. He borrows money to increase his production. We have had before Congress many measures to give him additional credit. I have maintained all along that such relief was just exactly what he did not need, because it has tended to prolong his difficulties, rather than to improve him.

Mr. LEATHERWOOD. At that point would you mind giving us your view of what caused the violent and sudden decline of prices beginning early in 1920?

Professor ROGERS. That is a very, very long story, and I do not think anyone can tell you clearly all the causes that operated to make prices begin to fall. We do know this: Whenever we have a period of rising prices it has ended finally with a period of falling prices; that is, unless we adopt policies similar to those adopted in Germany during the inflation period, where nothing was done to keep prices from rising, and where everything was done to allow them to continue to rise.

I think, personally, that the credit factor is an extremely important one. In this country the Federal Reserve Board announced that they were raising discount rates, and that they were going to continue to raise discount rates, and that the price level was not to be allowed to continue to rise.

Mr. LEATHERWOOD. Do you not think that the action of the Federal Reserve Board had a good deal to do with it?

Professor ROGERS. I think immediately it had; but the only alternative action, I maintain, was to allow us to continue in a period of rising prices and go on to the ultimate limit which was found in the German inflation. I do not think there is any other way to stop it.

Mr. STRONG. The cause of our disaster came from inflation.

Professor ROGERS. The cause came from inflation, to begin with.

Mr. LEATHERWOOD. Should not deflation, then, have been uniform? If we are going to deflate one class, why not deflate all of them?

Mr. STRONG. You can not do it.

Professor ROGERS. It can not be done, so far as I understand your question. Will you enlarge your question, please?

Mr. LEATHERWOOD. I have in mind this: To refuse to extend credit to certain classes and certain lines of business, and induce other lines to increase.

Professor ROGERS. I personally think that this discrimination as between industries was very unfortunate.

Mr. LEATHERWOOD. Do I make my point clear?

Professor ROGERS. Yes; you do. I think that this discrimination was very unfortunate, and I have the opinion that it was so discovered by the Federal Reserve Board itself, and was soon stopped. I think it was very unfortunate, and that all businesses should have been treated alike.

Mr. STRONG. Is it not practically true that whenever we have a period of inflation at a time of war, the deflation must come; that you can not maintain the inflated value?

Professor ROGERS. There is only one case in which the deflation did not come; possibly two. The one that I have in mind is the German case, where the mark, as you know, was allowed to depreciate to practically nothing—four trillions to the dollar.

There is another case which is a possible illustration of this. That is the case of Austria. The crown was allowed to depreciate to the figure of 83,000 to the dollar. That was the lowest, I believe, that it ever reached. It then rebounded to 70,000 to the dollar, thus becoming more valuable. They stabilized it at 70,000 to the dollar, and it is still stabilized at that figure. Nevertheless, after the stabilization came, there came what appeared very much like a period of deflation in that country. It was a period of a considerable number of failures.

Mr. STRONG. What was the crown normally? What was the ratio?

Professor ROGERS. The crown used to be 20 cents.

Mr. STRONG. Five to the dollar?

Professor ROGERS. It was 20.6; approximately five to the dollar. And it is now, of course, 70,000 to the dollar, where it was stabilized at the end of their inflation period.

They had a depression, which did not last very many months, but a depression it was. Six months later they began to recover considerably, and they have run on practically as stable a price level as we have since that time. It is still stabilized at 70,000 to the dollar.

Mr. STRONG. Instead of depreciating the price level, they depreciated their yardstick in money?

Professor ROGERS. Yes, sir.

Mr. STRONG. They depreciated their dollar?

Professor ROGERS. Yes, sir; the crown.

Mr. STRONG. It has been suggested that I ask you whether that could have been accomplished without external help.

Professor ROGERS. I do not think so. Of course, it was accomplished by securing, through the assistance of the League of Nations, a loan, and the proceeds of this loan were used for the purpose of stabilizing the crown at that figure; that is, this loan was used in certain foreign-exchange centers to buy up the crown whenever it tended to depreciate beyond that figure.

Mr. STRONG. Then, as I understand you, the only way we could have stabilized in this country at current prices after the war would have depreciated our dollar?

Professor ROGERS. Yes; it would have depreciated the dollar. That is the only known way.

Mr. LEATHERWOOD. Is deflation to be desired through governmental instrumentalities rather than economic law, working in the ordinary channels?

Professor ROGERS. It depends on what you mean by governmental interference. The bill, as I understand it, provides that we give the Federal reserve banks and the Federal Reserve Board a mandate to use their powers to stabilize the price level. I should say that that was hardly a governmental interference.

Mr. LEATHERWOOD. What I had in mind was this: I may not have made my point clear. You were discussing a moment ago means by which deflation was brought about, beginning in 1920, and I think we will agree that the action of the Federal Reserve Board brought about a very violent deflation in certain lines of industry.

Professor ROGERS. Yes, sir.

Mr. LEATHERWOOD. And in others it did not operate so violently?

Professor ROGERS. Yes, sir.

Mr. LEATHERWOOD. My question, though—I may have been unfortunate in selecting my language—was whether or not such a deflation as that is to be desired.

Professor ROGERS. I think the deflation should be uniform. I have expressed my opinion that that type of deflation is improper. It is the wrong way to get at the problem or to stop inflation, at any rate.

Mr. STRONG. But the real solution of the problem is to prevent inflation?

Professor ROGERS. Yes; the real solution of the problem is to prevent the inflation, and then you have no problem of deflation at all.

Mr. LEATHERWOOD. But this is what happened in the community in which I happen to live: They wiped the stock industry out of existence, and at the same time encouraged the banks to make loans upon warehouse receipts for automobiles.

Professor ROGERS. I did not know of that at all. I am very much surprised to hear that that was the case in any town in this country.

Mr. LEATHERWOOD. I am stating to you the exact facts.

Mr. STRONG. I want to say, for the benefit of my Federal reserve bank, that they did put a stopper on loaning on automobile paper. They did do that.

Go on, Professor.

Professor ROGERS. Having said a few words with regard to the evils of instability, I think we might look for a moment at the advantages that we could expect from stability in the price level; and I think, since we have had practically a stable price level since 1923, under the régime which has operated since 1923, our discussion of this point need not be altogether theoretical. If you will look at the statistics of business beginning about March or April, 1923, you will find that our volume of production has not only been larger than we have ever had it before but in the years 1924 and 1925 it has surpassed all estimates of what it should normally have been expected to be. We are running at the present time, I believe, about 8 per cent above what was expected if we had continued the same normal rate of increase that had prevailed for the last 30 or 35 years. We have found not only that the production has been great, but that the efficiency of our production probably was never higher than it has been during the last year and the beginning of this year. And not only has the efficiency been very high, but the number of improvements that have been put in in many of our industries has in few years ever been exceeded.

Take, for example, the automobile industry. I think anyone who has been accustomed to driving automobiles for the past five years will recognize the extraordinary improvements that have come in the last three years. Other industries—perhaps to a lesser extent in most of them—have introduced also extremely numerous and important improvements.

Throughout this period, likewise, labor has in general been well employed. The unemployment figures have not been large. Furthermore, the farmers have during this period gradually gotten over their difficulties. They probably will not admit that they have quite gotten over them, but at any rate their condition has improved greatly, and it has improved by the gradual abandonment of some land in certain sections and, of course, by the growth in the needs of the country, with labor well employed and with business generally prosperous. The needs for their products have gradually increased, and we have now grown up to the production of the country, and the farmers are getting along reasonably well again.

I think it is not worth while to talk more about the evils of instability or the benefits of stability; and I raise the question, then, as to whether this bill will provide the stability which we seek.

In my opinion it will, in large measure, provide such stability. I say "in large measure," however. I think there are certain situations under which it would not provide stability. Certainly if a great war similar to the last one broke out, we should not expect a provision of this sort to take care of the rise in prices.

Mr. STRONG. Pardon me. Do you not think that if in the next war instead of drafting just the man power of the country we should draft all the resources of the country—money, railroads, and all industries—we would come out of the war without the damaging results that follow inflation?

Professor ROGERS. Theoretically that seems very hopeful. I have never yet seen a plan, though, for drafting all industry that appealed to me as being a practical, workable plan, Mr. Strong.

Mr. STRONG. Well, it would be fairer to draft the material part of it, it seems to me, or just as fair, as it would to draft human life.

Professor ROGERS. Yes; certainly just as fair; but I am not quite sure that it is just as practicable.

Mr. STRONG. In my first term in Congress I made that statement on the floor of the House and got rather prolonged applause. I see that it has been reiterated recently, and I think there is a good deal of justice and merit to it.

Mr. LEATHERWOOD. It would never be possible to test your theory.

Mr. STRONG. I hope not.

Mr. LEATHERWOOD. We never would get in.

Mr. STRONG. That is true. There would never be any war, as you suggest, if we drafted all industry. I think you are right about that. Excuse me, Professor. I promise I will not interrupt you again.

Professor ROGERS. It is conceivable, likewise, that we might have a period of an extremely reduced cost of getting gold out of the mines. If we had, for example, a continued increase in the production of gold over a long period, so that it was relatively a much cheaper metal than it is at the present time, I do not think that a plan of this sort could keep prices from rising indefinitely. I am quite sure of it. Nevertheless, I do think this: That practically all of the so-called cyclical movements in business which we have had periodically in the past would be almost entirely eliminated by the passage of this bill. I feel quite sure of that.

Mr. STRONG. Professor, I promised that I would not interrupt again, but I think it is fair to you, who have not been here during all the hearings, to state that most of the political economists and financial economists that have come before us have taken the position that while this bill would under ordinary circumstances bring the results that were intended, something added to the plan, such as the Goldsborough bill, would help to do the things you have suggested, and that it would also stabilize the production of gold, or stabilize it in its use as money.

Professor ROGERS. Yes. As to cyclical fluctuations, I am of opinion that we would get practical stability from the passage of your bill; I mean for the periodic fluctuations that have come to us every few years in this country; and it is only for the long-time movements of the price level that we would need to introduce the Goldsborough bill.

I therefore advocate most strongly the immediate passage of this bill of yours, because it is the cyclical fluctuations that bother us most frequently. If we need something else, I should say by all means pass something else in addition; something similar to the Goldsborough bill. But this bill consists of a simple provision which I think can be made with little opposition from anyone, and will nevertheless bring us pretty nearly the stability we need in ordinary times.

I might say that the stability that has come since 1923, I can not help but believe, has been brought about largely by the Federal reserve banks, with the cooperation of the Federal Reserve Board,

bringing it about deliberately, and in this way: They were naturally of the opinion that business should not be allowed to go off into a period of inflation again, and they have therefore raised the discount rates much earlier than they did previously, and I believe they did so with very widespread popular support; and now, until the events of 1920 and 1921 have receded a little bit further into the past, I believe the country would like to guard against this type of happening in the immediate future.

That is all I have to say, Mr. Chairman.

Mr. STRONG. I would like to ask you this question for the record. One thing that I have claimed for this bill, and in which the chairman has supported me, is that the very fact that a governmental authority would direct the Federal Reserve Board to use all of its powers—and by all of its powers I mean not only the powers of rediscount but the open-market purchases and operations—if they would use all the powers that they have for stabilization of the price level, and the whole country at large, including all manner of business, would know that that was the direction of the Government, would not that very thought, published throughout the land, tend of itself to assist in stabilization?

Professor ROGERS. I think that is very important, indeed. I think that that would assist very greatly in the stability. There would no longer be the incentive to speculate on prices rising.

Mr. STRONG. I have read in several of our dailies in the last day or two where great credit was given for the reaction that so promptly came after the violent fall in the stock market, to the Federal Reserve Board for its announced policy. They give the Federal Reserve Board credit for helping the reaction that came after the violent fall in the stock market. Now, if everyone knew that the Federal Reserve Board was going to be permanently directed to take that action—not that they would take it at any specific time, but that that was the direction of the Government—it seems to me it would tend very strongly to emphasize to all business the fact that stability was to be maintained, and that the psychology of that knowledge on the part of the people would bring about stabilization more readily. I may not put it in just the words that you would employ, but that is my thought.

Professor ROGERS. Yes. I think at least many people attribute some of the recent fall in the stock market to the anticipation of a falling price level in the near future. I am not sure how widespread that opinion is; but if there were no great rises and no great falls in the price level to be anticipated, I believe that we should likewise get rid of much of the rise and fall in the stock market itself.

Mr. LOMBARD. Mr. Chairman, might I ask Professor Rogers a question?

Mr. STRONG. If the professor does not object.

Professor ROGERS. Not at all.

Mr. LOMBARD. You come from an agricultural section. I would like to ask what the effect of this bill would be on the farmers, and in that connection I would like to direct to you the question whether inflation and deflation do not, both—each alternately—have bad effects upon farmers, peculiar to the nature of their business; in

other words, whether instability does not work more definitely to the injury of the farmer than almost any other class?

Professor ROGERS. I think that the injury is very great, but largely because the period of readjustment is necessarily longer. During the depreciation period in Europe I took occasion to visit practically every country of inflated currency in which the prices had risen so rapidly and for so long a period; that is, all of the countries of eastern and central Europe, with the one exception of Rumania. In every single case the farmer prospered under inflation—in every single case—and I think it is natural.

Mr. STARR. They paid off their debts?

Mr. LOMBARD. The farmer prospered as much as any other class?

Professor ROGERS. He prospers not quite so much as most of the business classes, but nevertheless he prospers.

Mr. STRONG. But then he loses all of the deflation?

Professor ROGERS. In the period of inflation he is overstimulated in every case that I know anything about. Prices of land invariably go up, and the enterprising farmer, the man that we like most to encourage, is the man who is apt to buy land in larger quantities than anyone else, and he is absolutely sure to get caught in a period of deflation. He will be caught with high-priced land on his hands which it is almost impossible to pay for.

Mr. STRONG. High-priced stock or high-priced implements?

Professor ROGERS. Yes; high-priced stock and high-priced implements.

Mr. STRONG. And high-priced help?

Professor ROGERS. Well, high-priced help is liquidated easier than anything else.

Mr. STRONG. I know; but he has it on his hands?

Professor ROGERS. He has it on his hands temporarily.

Mr. STRONG. And he can very seldom reduce the price upon it?

Professor ROGERS. Yes, sir.

Mr. LOMBARD. Directing your attention, Professor Rogers, to the to the charts, with which you are undoubtedly familiar, showing the situations in different groups of commodities, and taking the fluctuations in farm products as related to the fluctuations in the general commodity scale, is it a fact that the farm products seem to drop further and quicker, and to go back more slowly, under inflation and deflation respectively?

Professor ROGERS. There is no doubt at all of that.

Mr. LOMBARD. So that the farmer is always at a disadvantage under inflation and deflation with respect to the other producers of commodities?

Professor ROGERS. In general. It is not true with certain specific types of producers, but the prices of farm products do tend to go down faster. They are raw materials, and raw materials have a habit of going down first and faster; and the farm products, because they are farm products, stay down longer than do others because the farmer can not shut off production like the industrialists. He can not, like them, close down and quit producing for a while. He continues to produce, and, as I have said before, in larger volume than ever.

Mr. LOMBARD. Then, directing your attention to the agitation for farm relief legislation now under consideration by Congress, would you not say that the policy of stabilization would be, if not the soundest, a very sound and very effective form of farm relief?

Professor ROGERS. I should go further and say it was the soundest plan of relief for the farmer.

Mr. LEATHERWOOD. You mean stabilization?

Professor ROGERS. Stabilization; yes, sir.

Mr. STRONG. I wish the farmers of my district and all other farming districts could hear you say that, Professor; because I am inclined to believe it myself.

Mr. LEATHERWOOD. I wish, Professor, you would give us your view with reference to whether or not cooperation among the farmers would have any tendency to overcome this inability on their part to recover rapidly.

Professor ROGERS. I personally think that cooperation among the farmers is very much to be desired. I think the cooperative marketing organizations for farm products, for example, promise to do something to help the farmer. I think that they sink into insignificance in importance, however, compared with the gains that he would get from stability in price level.

Mr. LEATHERWOOD. But both of these methods would operate to his benefit?

Professor ROGERS. Yes, sir.

Mr. LEATHERWOOD. The stabilization of prices and the perfection of cooperative organizations?

Professor ROGERS. Yes, sir. In my opinion, they are very important in comparison with the increased credit schemes that occupied the attention of Congress for so long.

Mr. CANFIELD. In your opinion, are we beginning a period of inflation or deflation?

Professor ROGERS. It is extremely difficult to say. The indications would lead one rather to expect deflation than inflation, though we have had very little inflation, as you doubtless know. The price level (Bureau of Labor index of wholesale prices) has been between 145 and 160 ever since 1923. I think that the low limit would be 145.

Mr. STARR. What is it now?

Professor ROGERS. It is about 155 now.

Mr. CANFIELD. You think, then, that if this was the law, or if the Federal Reserve Board follows out the suggestions of this law, that any deflation that might be started at this time might be stopped?

Professor ROGERS. Yes, sir. I think we might get a fall of a few points, but if there was a concerted effort on the part of the Federal reserve banks and Federal Reserve Board I believe that they could relieve any tendency in that direction, especially if they announced it immediately.

Mr. STRONG. Gentlemen of the committee, I stated at the beginning of these hearings that I wanted them to be very full and complete, in order that all objections that could possibly offer to the bill might be presented to the committee. I have here a letter from Mr. Paul Warburg, formerly a member of the Federal Reserve Board, of 52 Cedar Street, New York City. I have presented it to

the chairman, and he agrees with me that it should go into the record. It reads as follows:

NEW YORK, *March 22, 1926.*

MY DEAR MR. STRONG: I thank you for your letter of March 19 inclosing a copy of H. R. 7895, introduced by yourself, and a copy of the Congressional Record bearing upon that bill.

While, of course, I share your view that price stability is a thing devoutly to be wished for, I regret to say that I am not in sympathy at all with the amendment that you propose. No banking system, to my mind at least, can undertake to provide a stability of prices, and I believe it would be dangerous to place the Federal reserve system in a position where the responsibility for extreme fluctuations in price levels could be laid at its door. Naturally those in charge of the Federal reserve system should always watch most carefully fluctuations in the price level and fashion the policy of the system as far as it is practicable so as to combat excesses of inflation or deflation; but the powers of the central banking system in this regard are distinctly limited. Interest rates may be a contributing factor in affecting price levels, but to my mind they are only one of the many factors of all the world-wide economic forces at play which in the end determine price levels.

I hope that you will pardon the frankness with which I have expressed my views as above, and with assurances of high esteem, I am,

Very sincerely yours,

PAUL M. WARBURG.

Hon. JAMES G. STRONG,
House of Representatives,
Committee on Banking and Currency, Washington, D. C.

Professor Rogers, would you like to make any comment on that letter?

Professor ROGERS. Yes, sir. I agree with Mr. Warburg to this extent: Of course, there are many factors determining the changes in the price levels. For example, you can not say that the interest factor is entirely responsible for changes in the price level. But I do not think that that means that we can not correct through interest rates many of the changes in prices that are due to other causes.

For example, suppose that prices were rising for any reason whatever. We have had them start rising from time to time, although the rise may have had nothing to do with what the interest rates were at that particular time. If, however, interest rates were raised considerably, it would make it extremely difficult and more expensive for business to expand, and therefore for the boom period to get under way, and consequently I should say that raising of the discount rates by the Federal reserve banks, and the issuance of a statement that that was to be their policy, with the idea of cutting off this rise in prices, would do very much toward cutting off the rise after a very short time.

I think that Mr. Warburg has overemphasized the fact that the other causes are real causes for the rise, and therefore that we can not correct it with a change in the interest rates. I do not accept his conclusion. I think we can correct it very frequently when the causes are different from the means we use for correction. I am very sure that this is true, for example, as to the provisions of the Goldsborough bill. I am sure that in spite of any rise in prices, from any cause whatever, you can correct it if you adopt as drastic provisions as those of the Goldsborough bill; and I maintain that in all ordinary cases the provisions of this bill will do it. You may find a case once in a while when it does not correct it completely, but in all ordinary cases this will do it for the cyclical fluctuations which bother us so much.

Mr. LOMBARD. You mean that this bill will do it?

Professor ROGERS. This bill will do it.

Mr. STRONG. In other words, business will not speculate?

Professor ROGERS. That is true.

Mr. STRONG. If they can not get money, or if the rate at which they get money is almost prohibitive?

Professor ROGERS. Yes.

Mr. STRONG. Another thing I would like to point out. A good many critics of the bill seem to take into consideration the proposition of the regulation of the discount rates, but do not seem to grasp the last two lines of my amendment, which read:

All of the powers of the Federal reserve system shall be used for promoting stability in the price level.

By which I mean to include their open-market purchasing powers and all other powers that they may have, of advice, extending credit, publicity, and so on; that they will not permit the use of the Federal reserve system for the purpose of assisting inflation.

Professor ROGERS. Yes: I think it is very important that these last two lines be left as they are, because I am sure that both publicity and open-market operations of the banks are very important.

Mr. LOMBARD. Professor Rogers, it has been suggested that those two lines be amended to read:

All of the powers of the Federal reserve system shall be used for promoting stability in the price level, so far as may be, by preventing inflation and deflation.

Would you consider the addition of the extra words desirable?

Professor ROGERS. Well, as making the mandate a little bit more specific, perhaps.

Mr. STRONG. And as being a little plainer to the public in general.

Mr. LOMBARD. And by expressing the further purpose to which you have adverted by inserting the words "so far as may be."

Mr. STRONG. I am not claiming any originality of authorship in this matter. I only became very much interested in directing the Federal Reserve Board to use all its powers to maintain stability of prices (or the stability of the purchasing power of our dollar, which is the same thing), according to the language in the bill, in order to go before the country with the very best thing possible, and I am willing to accept all amendments that will work to that end.

Professor ROGERS. If you can get it through Congress, you will have contributed the greatest part of the work.

Mr. STRONG. I appreciate that. It is a little like the proposition in Kansas relative to the prohibition question. We gave the people prohibition, and the next thing is to make them like it. I have introduced this bill, but whether I can persuade this committee and the Congress to vote for it I do not know.

Mr. LEATHERWOOD. With respect to prohibition, we really have not tried it in the United States, have we?

Mr. STRONG. Well, that may be so. On behalf of the committee, I desire to thank you, Professor.

STATEMENT OF WESTERN STARR, REPRESENTING THE NATIONAL COMMITTEE OF THE FARMER-LABOR PARTY

Mr. STARR. I reside in the District of Columbia. I am a retired farmer, and I represent the national committee of the Farmer-Labor Party here to-day.

The subject is big, and it is round, and it is a little difficult to tell just where to take hold of it. But I want to start in by saying that I regard it as a great advantage that I had an opportunity to hear Doctor Foster yesterday. That is one of the compensations that I have for coming in at the tail end of the procession. I was tremendously impressed by two points that he made, and one was that it is within the power of Congress to correct and remedy the situation which periodically oppresses the country by reactions from inflation, and the other thing was that nothing that Congress could do would be a placebo for the situation under the present system of Government finance.

If you had taken Doctor Foster and put a scarecrow suit of clothes on him and let his beard grow for a week and put him on a soap box and station him on the corner of Halsted and Madison Streets in Chicago and let him say what he said here yesterday in a dialect that would be understood in that section of Chicago, he would have been arrested as a Bolshevik. There was never a more revolutionary or dynamic statement than he made here in answer to a question of Mr. Beedy, of Maine. Mr. Beedy sought to draw out the social implications involved in the consideration of this question, and Doctor Foster stated that it was entirely within the power of Congress to remedy the conditions out of which the social discontent was appearing periodically to the people and making trouble all over the country, growing out of the fact we had stimulated and pyramided our productive power at the expense of our consumptive power; that the people did not have money with which to buy until the prices got at a point where they were able to buy.

He also stated that the country had been proceeding—I think he said it and if not I have seen it recently in a reliable publication—that the country had been living from hand to mouth, and that this process of living from hand to mouth had been going on for years, owing to the uncertainty of the future. Nobody can tell what is going to happen.

Right here I want to ask permission to see the reply which may be made to the statements before this committee, by representatives of the Federal Reserve Board when they come in. I was impressed with the letter in which they reserved the right to withhold their statement until after every one else had gotten through; that is, the economists and others who might appear before the committee, and I should like very much to have an opportunity to answer, in case there is anything worthy of answer, that appears in the statements of the representatives of the Federal Reserve Board.

Mr. STRONG. I want to say, in the interest of getting all the facts on this question before this committee, that I have requested the chairman that, after the opponents of the bill had been heard, those who believed in it should have an opportunity to make a reply and he has assured me that that opportunity would be given.

Mr. STARR. Now, on the bill itself, I wish to say that, as a declaration of policy, I and the people whom I represent, most cordially approve of such a declaration of policy, but we feel that the measure as presented here and as now under discussion, is so lamentably short—falls so far short of possible accomplishment, that we insist upon amendments to the bill or abandonment of the bill in favor of an entirely different proposition.

Mr. LEATHERWOOD. I did not understand what farm organizations you represented.

Mr. STARR. The Farmer-Labor Party.

The bill is a matter of advice—a declaration of policy. It offers nothing. It offers nothing that was not promised to us before the Federal reserve bank bill became a law. In the first place, with respect to the Federal reserve act, we were told this was something that would save us from the economic domination that we are confronted with all the time; that it would prevent panics and lockouts and stabilize currency and give us a flexible currency that would meet all the demands of commerce; that it was the one thing that the world had been looking for and we must have it, and they even got William Jennings Bryan, who had been fighting the principle involved in the Federal reserve bank bill all of his life, to go personally and dragoon Members of Congress and the Senate of the United States in his party to support the bill; and if it had not been done it could not have been passed: and he said, before he died, it was the one thing he had done in his public life that he regretted having done.

Mr. LOMBARD. Can you quote us the passage where that can be found?

Mr. STARR. I can not say now.

Mr. STRONG. Will you find that and place it in the record at this point?

Mr. STARR. Yes.

(The matter referred to is as follows:)

[Excerpt from "My Forecast on Next Year's Election, by William Jennings Bryan," Hearst's International Magazine, November, 1923, page 23]

The Federal reserve bank that should have been the farmer's greatest protection has become his greatest foe. The deflation of the farmer was a crime deliberately committed not out of enmity to the farmer but out of indifference to him. Inflation of prices had encouraged him to buy, and then deflatiaon delivered him into the hands of the money lender. The Federal bank can be a blessing or a curse according to its management. If the Wall Street speculators are in control of it they can drain the agricultural districts and keep up a fictitious prosperity among the members of the plunderbund.

While the Federal reserve bank law is the greatest economic reform achieved in the last half-century, if not in our national history, it would be better to repeal it, go back to old conditions, and take our chances with individual financiers than to turn the Federal reserve bank over to Wall Street and allow its tremendous power to be used for the carrying out of the plans of the Money Trust.

As to Mr. Bryan's influence in securing the enactment of the Federal reserve bank bill, see the statement of George Creel in Harpers' Weekly of June 26, 1915.

[Article by George Creel. Page 605, Harper's Weekly, June 26, 1915. On the "Commoner"]

Go to any of the Washington correspondents, regardless of the paper he represents, and ask as to the services of Bryan. There is not one who will

refuse to give him full credit for the legislative achievements that go to make up the administration record. As far as the party was concerned, Woodrow Wilson was without influence, save for the patronage he possessed.

It was Bryan who whipped Congress into line on the tariff bill, on the Panama Canal tolls repeal, and on the currency bill.

The statement by Mr. D. F. Houston appearing in the World's Work of April, 1926, under the title "Girding the Nation for war," to the effect that the Federal reserve bank system was necessary in order to assume control of credit, is in point as to the motives for enactment of the law.

I do not know whether it would be worth while for this committee to get a picture of what is in the minds of the men who are members of the Farmer-Labor Party as to what the Federal Reserve Board is; just what its place is in the scheme of things in this country, but it will take but a minute and I think I had better do it.

They knew of the panic of 1907 and know what made it. They know that out of that hand-picked and hand-made panic, engineered by the House of Morgan for the purpose of giving the United States Steel Co. an absolute monopoly of the production and price of steel in this country, the Pujo committee came into existence. There had been so much noise about the Money Trust, and Woodrow Wilson had received political preference on the scheme of a "new freedom" which would enfranchise America, at least from the domination of the Money Trust, that the Pujo committee was appointed and its express mandate was to investigate whether this country was dominated by a money trust or not.

Mr. STRONG. Will you state at this point who the Pujo committee was appointed by and its composition?

Mr. STARR. I will have that inserted at this point and will cover both the committee and its functions.

(Read from report of the committee.)

That committee sat and deliberated for many months and finally made a report, and it reported that there was an unlawful money trust in operation in the United States. But it did not stop there. It went on and named the men who constituted the Money Trust and said it was J. Pierpont Morgan & Co. for one; the National City Bank for another; Lee Higginson & Co., of Boston and New York, for another; Kidder, Peabody & Co.; and Kuhn, Loeb & Co.

Well, now, as it looks to us, here was a denunciation of criminals, men who had been conducting criminal operations in the fiscal markets of this country for years, and they were denounced as criminals, and that was notice to every district attorney in the United States that they were liable to indictment and punishment.

Mr. STRONG. What year was that report?

Mr. STARR. 1913. The record will show it. I will have it for you.

Then, to go back a little, these men had to quit their criminal operations or else find a sanction in a legislative act that would legalize their unlawful operations. Naturally, they did not want to quit. They had a great deal of money invested in that kind of business and wanted to keep going on with it and wanted to continue to control the power to regulate rates of interest and say who should have credit and who should not have credit and on what terms.

Just one illustration of their power: When Carnegie had gotten tired of running the steel business and wanted to devote his time to philanthropic enterprises, he made up his mind to sell out, and there was another man engaged in the same enterprise who could

use his plant, Mr. Frick. Mr. Frick offered Mr. Carnegie $1,000,000 for an option and Carnegie offered to accept $100,000,000 for his property, and Mr. Frick put up a million dollars as earnest money for a year's option on that proposition.

Well, Mr. Frick felt very large about it and immediately hopped a train and went to New York to see Morgan. He said, "I have a world beater here; come in and put in some money to finance it, and we will divide the world between us." I can not repeat the repartee that crossed the board between them, but this is the substance of just what happened: Morgan said, "Oh, no; you are wild; you are foolish. There is not enough money in it to finance it on a basis of $100,000,000. Talk about $40,000,000, perhaps, but not $100,000,000."

Well, he had agreed to pay $100,000,000, and he did not want to lose out, so he went across to England and talked to the Barings about it and talked to the Bleichrhodens in Berlin and the Rothschilds in Amsterdam and Paris, but nothing doing. At the end of the year the earnest money of $1,000,000 was forfeited. And, by the way, from that day on Mr. Carnegie and Mr. Frick never spoke to one another. I presume they are on speaking terms now.

Mr. STRONG. Let us hope so.

Mr. LEATHERWOOD. That is on the basis they reside in the same place.

Mr. CANFIELD. Do you not think the Federal reserve act has stabilized the banking in this country——

Mr. STARR. No.

Mr. CANFIELD. I judge from your remarks that you figure that the bankers wanted this Federal reserve system.

Mr. STARR. The banks are for it?

Mr. CANFIELD. The men you refer to—the financial interests.

Mr. STARR. Yes, sir.

Mr. CANFIELD. Well, then, why did they fight it so hard?

Mr. STARR. They did not fight it. Paul Warburg was the man who originated the scheme and brought it here from Hamburg for the purpose of putting it over on the American people.

Mr. LOMBARD. Mr. Starr, did not the great majority of the commercial bankers of the United States oppose this act in its inception?

Mr. STARR. Most of them until they had a party—they started it with the Aldrich-Vreeland bill five years before it passed. It took five years of moral suasion to put it across. I was asked by my little banker on the Eastern Shore what I thought about it.

Mr. CANFIELD. The bill they wanted was a different bill from what passed.

Mr. STARR. Paul Warburg said it differed only in one particular; and while it did not contain all they wanted, that could be corrected by "administrative processes."

But to get back to the steel matter. Frick found out he could not finance it for $100,000,000, and only a few weeks after the option was forfeited the commercial world was startled or surprised by the organization of the Steel Trust at $1,100,000,000, and they put in a lot of old shotguns and broken-down buggies and recapitalized it at $1,400,000,000, and they sold the stock. At our time it sold at 10 cents on the dollar, and now it is $120 a share. Those Farmer-Labor people out in Kansas, Nebraska, and Illinois who had to stand an

increase in price from a dollar a keg for nails to $5 saw that, and those who had to buy barbed wire for fences saw those things.

Now, the Federal reserve act was passed, and they put one of the men that had been denounced as a criminal in charge of it. Paul Warburg, a member of the firm of Kuhn, Loeb & Co., was put on the board to run it. That is what the farmers of this country saw and now think about your Federal Reserve Board. They may be away off; they may be very much mistaken. These men may be as patriotic as the Angel Gabriel and all right, but the farmers of this country do not think so, and the labor men of this country who do not stand in and get a slice do not think so. That is the situation with respect to the Federal Reserve Board.

Now, as to the question of raising and lowering of discount rates, I want to make my illustration as clear as I can. Assuming that there is a definite amount of physical commodities in the world—and call that revenue; that which is created from day to day—there is a constant stream of it flowing from production to consumption, matched, or supposed to be balanced by a normal volume of purchasing medium.

Now, if, for any reason, some one has power to inject into the current of purchasing medium a volume just as great as there was before, it means that the purchasing medium is cheapened by one-half. It takes twice as much of it to buy the physical commodities which we consume. We have given the Federal Reserve Board the power to put just as much of the circulating medium into the current as they desire or as their self-interest dictates; and they do it at will and do it all the time unless, for their own purposes, they take it out.

Mr. LEATHERWOOD. What power would the bill, which we have under consideration, confer upon the Federal Reserve Board that it does not have at present?

Mr. STARR. Absolutely none. That is what I am coming to now. These men may be just as patriotic after the passage of the bill, just as public-spirited and honorable after the passage of this bill as they are before, but we can not expect them to be any more so—certainly not from anything which is contained in the bill. There are no mandatory propositions here. It is merely an advisory proposition.

Mr. STRONG. There is this mandatory proposition, that the power of the Federal reserve system shall be used for promoting stability in the price levels.

Mr. STARR. That is what they are supposed to be doing now.

Mr. STRONG. But they have not been directed by that mandatory provision.

Mr. STARR. Of course not, because in so far as they have used their power to prevent inflation they have done it because they know one more example like 1920 will throw them out into the world. It is a case of enlightened self interest going as far as you dare and not getting caught. I do not think there is any question about it.

I want to see this bill modified in such a way that any boy who has gone far enough in school to use quadradic equations or a sliding rule can tell every day in the year just exactly what the course of prices is or ought to be.

Mr. LOMBARD. Would Mr. Starr be willing to insert in the record something in the nature of a bill that will accomplish that purpose?

Mr. STARR. I have not drawn it, but I was going to outline it, and if the chairman desired, to put it in form.

Professor Fisher is entitled to an immense amount of praise for the way in which he has modernized the index number. There is nothing new about the index number and I think Professor Fisher has so stated in some of his public works; but he is applying it to a new and different use. You can take the average price level of to-day, if you want to, and the country will very soon adjust itself to it; but there is another angle that I want to go into a little later on. If you take an average of two or three or four hundred commodities which are standard commodities, most largely dealt in, and cover a period of a week, a month, or a year, or 10 years—and you can take any 10-year period you want—and take the average price level for the 400 commodities for 10 years and establish that as a unit of value—not a unit of weight but a unit of value, as determined after centuries of experience—you will have a fixed fact, as absolute and unchangeable as Gibraltar. It will have all the gravity of natural phenomena.

Mr. STRONG. Suppose during the 10 years we had a period of inflation and deflation.

Mr. STARR. Suppose we had both; suppose we tried to treat every one alike and not get an edge on the fixed-income man and not take it out of the speculative man; let it stand. It will stand, as Professor Rogers stated, it is about 155 now.

Suppose we make whatever the index shows, par—110 or 96. That is our standard. It will be like the meridian of Greenwich that all the world measures from on the question of longitude.

Now, here is this boy with his sliding rule. The market reports are published every day, and it may be in some one given market. Take New York or Chicago—I do not care which you take, as one is just as good as another, providing it covers a range of commodities sufficient to give a fair example of what the price level actually is. Any school boy with a slate and pencil can tell whether the price is going up or below the fixed standard, and he knows what is going to happen.

Suppose we fix the standard at par, 100, and the price level goes 1 per cent up; that means one of two things and only one of two things. It means that there is a general scarcity of commodities being felt, or it means that there is too much circulating medium in existence, and when I say circulating medium, I mean credit as well as actual coin or paper bills, just as Professor Foster made an inclusive use of the term money or currency. But Professor Foster did not go to the point that 98 per cent of all commercial transactions now in the world, and the United States particularly, are done on credit and not with money at all. In 1917, 1918, 1919, and 1920, in the New York City clearing house, for every thousand dollars of clearings that passed in those four years, only $1.87 cash was used.

Now, with 98 per cent liquidated by the use of credit instruments the credit factor is the important factor.

The credit factor is the lash on the dog whip. The money is the handle of the whip, and the credit is the lash. Why, it seems to me perfectly simple that where a man calls himself a banker and accepts $100,000 deposits to safeguard and keep and protect, from his patrons, and he has discovered that this depositor is not going to come in and get all that money in any one day and he can lend five times the amount of his deposits and be safe—and that is the banker's whole business, selling credit, and credit does not rest on money; it rests on goods. Professor Laughlin, who, it will be admitted before this committee, at least, is a competent expert on finance, has stated that credit rests on goods and not on money; a banker is a glorified pawnbroker, and you will not get any credit from the banker unless you put up stuff to cover it.

Emory Stores was a great wit and after-dinner speaker. He had some habits that interfered somewhat with his highest success in the world. But he attended a banquet. Lyman J. Gage was there. Mr. Gage was the president of the First National Bank of Chicago, the Standard Oil Bank in that central part of the country, and while president of that bank, represented Rockefeller, and while Secretary of the Treasury, he sold the subtreasury in New York City to Rockefeller. That is only by the way.

This man Stores was at the banquet and made a speech, and Lyman J. Gage made a speech, patting the country on the back, stating that the country was prosperous and money was easy and interest rates were low and anybody could get money. So Stores went into the bank the next morning and happened to see Mr. Gage, and he said:

"Well, do you still think that times are good and money is easy and anybody can get money?" "Oh, yes," he replied. "Would you lend me some money?" "Yes; certainly." "Well, let me have $10,000." "Yes; $10,000? What do you propose to put up as collateral?" "Collateral? Why I have not said anything about collateral," said Stores. "Oh, it is not money that is scarce; it is collateral that is scarce."

That is the way it is with every banker in this country; unless you have the collateral you can not get the cash.

Now, the injection of credit into the flowing tides of business in 1916, 1917, and 1918 was deliberate and intentional. It was a war measure. It was intended to stimulate production and speed up the wheels of industry and set everybody in a good humor and make everybody believe they were going to cash in, and they succeeded to the extent that little tanneries up in New Jersey bought shiploads of hides to tan on credit. They were doing a guaranteed, cost-plus business. They got them going so hard they could not stop. They could not stop when the war ended and ran on until 1919, and in 1920 there began to be a question of how far they should go. In 1919 and 1920 things got—well, a little jumpy, and here are the minutes of a conference with the Federal Reserve Board of the Federal advisory council and the directors of class A banks of this country, held in Washington, D. C., on May 18, 1920, in which, over the protests of some of their own members, secretly and under orders of secrecy, they decided to deflate. There were reasons,

Some of the great employers of labor felt that they were paying too large a share of their income in the form of wages. They had to reduce wages the first thing.

Now, in order to reduce wages they had to cut the cost of living. They could not reduce wages until they cut the cost of living. That meant they had to hit the farmer first. That was the first step, and God knows they hit him.

One of the directors of the advisory board of the Minneapolis bank told this meeting here:

Our bank is making $10,000 a day, net velvet, and we can not offer these people this rule; we can not knock them in this way and bring ruin and starvation and death to the people who are dependent on us.

But that was only one voice crying in the wilderness.

Mr. LOMBARD. He was a farmer, too?

Mr. STARR. Yes, sir. Here is a member from Texas. He said:

It is reported that we are making 100 per cent per annum on our capital investment, and I can not recommend that we act too savagly here. We ought to proceed more gradually and give people time to settle down gradually. This is monstrous.

I will read you what he said here. I think I can put my finger on it:

We should be careful, however, not to overdo this matter of liquidation, because too drastic a policy of deflation, which might result in crowding to the wall and throwing into bankruptcy legitimate enterprises, however unessential their operations may be, would have a tremendously bad effect and would defeat the purpose of the very policy which we are trying to have established. There must always be a wise and discriminating judgment used.

I will give you the name of the man in a minute. I do not know that it is important, but it is here and I presume you have all seen it. They know perfectly well, as Professor Foster said, they must not allow it to come again.

This is Mr. McDowell, of North Dakota, who says, on page 29 of this report:

It seems to me that now is a poor time to penalize the little fellow, and I am afraid we are just going to create a little more unrest out in the Northwest, where socialism has got such a strong foothold now, if we do not look at this thing not from any other standpoint except that of safety. The Federal Reserve Bank of Minneapolis is making $10,000 a day. Is that profiteering when they have been using our money without any interest ever since it started? Is the Federal Reserve Board going to be put in the same class as the sugar profiteers and the manufacturer who has been making big money?

That is the time when they had sidetracks in Kansas loaded down with sugar they did not dare to bring out on the market for fear it would bring down the price of 24 cents per pound.

Then there is this man from Texas, whose statement I want to read here. This is Mr. Scott, of the Federal Reserve Bank of Dallas, district No. 11, quoted on page 35 of this report:

We can not hope to correct this situation in a day or a month or six months; we have got to go at it in a sensible way to bring it about in a gradual way, rather than to attempt to correct it within a short period of time. The Federal reserve banks have been charged with profiteering by reason of the rates they are now charging. We are making in the neighborhood of 100 per cent on our capital. We know that any increase in the rates is passed on to the consumer and has a great deal to do with adding to the burdens of the high cost of living, so that I say a great deal more good can be accomplished by educating the business man and the people than by simply putting in higher rates.

These are Federal reserve bank officials who make this statement in protest, overridden by the statements, philosophy, and arguments of W. P. G. Harding.

Mr. LEATHERWOOD. Do you think that decision of that famous meeting held in Washington, in which they decided to issue this order, had anything to do with the gathering in, soon thereafter, of millions and hundreds of millions of securities of the little holders?

Mr. STARR. My dear sir, it is only another illustration of the practice that has prevailed for more than 2,000 years. It has been the practice of what you might describe as the moneyed class for more than 2,000 years to create alternate periods of high and low prices, buying when things are low and creating artificially stimulated high prices on which they sell out, only to create another period of deflation on which they buy in. That has been the practice. We have had 16 different periods of that kind in our own history as a Nation of less than 150 years.

Mr. LEATHERWOOD. Could it be possible that the method of financing the war took that into consideration—the method of selling securities in small amounts?

Mr. STARR. What was the bait and stake? I have it stated here in a statement I made before this committee on the 29th day of January, 1923, and I can quote it more quickly and readily than I could describe it. I said, at page 133 of part 2 of the hearings before the Committee on Banking and Currency of the House of Representatives, Sixty-seventh Congress, fourth session, on the bill (H. R. 11788) to stabilize the purchasing power of money——

Mr. STRONG. The Goldsborough bill?

Mr. STARR. Yes, sir. This is what I said on that occasion:

> There is a purpose running through all this. I do not see how a reasonable man can escape the conclusion that the very basis of all responsibility in individual or in social life is the legal and moral principle that a man is supposed to intend the natural consequences of his conduct. There was this to be done: The law of supply and demand had been utterly abolished until the time came to spring the trap and the word was passed. The prize was a 15 to 20 per cent scalp on $26,000,000,000 of Government bonds—the equities in $80,000,000,000 of mortgaged homes and farms, the stocks and bonds of $50,000,000,000 corporate industrial and public utility plants, the daily wages of 40,000,000 industrial workers, and the produce of more than 6,500,000 farms and ranches. It was a matter purely of credit control.

I can remember the financial panic of 1857 and I remember what happened to the people in the town in which I lived out on the Mississippi River. It was a steamboat town, a lumber and saw mill town. The town was, at that time, of perhaps 5,000 or 6,000 people, and the whole town went broke. Every mill shut down and the steamboats quit running. There was absolutely nothing they could do to earn a living. They were down and out.

That was only one of them. But I remember every one since, and I remember that every last one of them has been caused by precisely the same cause, brought about by precisely the same cause—restriction of credit and the cutting down of the ability to utilize opportunities that lie all around us.

It seems to me it is an insane kind of civilization which has developed this phenomena—the scientific capacity to produce, as Professor Foster has said, 50 per cent more than we are now producing;

things that administer to human desires and needs and add to the comforts of life and that everybody wants, but nobody can get, except the favored few—all because there is a power in the land that says:

This mill shall run for this period of time; all mills shall run for so long and then they must stop.

Mr. LEATHERWOOD. Are not the people of all classes in the United States at the present time pretty well fed and clothed?

Mr STARR. Pretty well fed and clothed, did you say?

Mr. LEATHERWOOD. Yes; and housed.

Mr. STARR. I want to answer that by saying yes and no. Most of the clothing that you see is bought on the installment plan right here in Washington. All the automobiles and all of the homes are bought and furnished on partial payments; and the people have mortgaged their future to live in the present.

Even opium would not enable a men to invent a system of that kind.

Now, I have here a statement by a man by the name of Soddy.

Mr. LEATHERWOOD. I take it that what you think we need is to curtail the powers of the Federal Reserve Board rather than expand them?

Mr. STARR. I want to take it out of the discretionary power of anyone. I do not think it is a safe thing for anyone to have discretionary power that he can use to his own advantage at the expense of the general public. We are like a community that has established a settlement in some beautiful and fertile valley, and instead of each family digging their own well we have decided to dig a community well and put in a town pump. Then we have turned the town pump over to a bully who squats on the spout of the pump and says, "Nobody can get any water out of here until I get all I want and can use—I and my friends." We have turned over to private individuals the power to operate the most important function of the Government, outside of the power to make war. We have deliberately handed over to these men the power to tax the people and impose that tax at their own discretion.

It was the Federal reserve system that discriminated between sections and classes and industries and that brought ruin on the whole Northwest. And people do not need to think because the Northwest suffered and they did not happen to feel it for the moment, that they are immune, because you can not take a gallon of water out of a tub and leave a hole there. The water will be distributed levelly all over—not only America, but the whole world. The great losses and destruction of the World War are gradually being leveled out over the whole economic world.

That brings me to what I want to say about the possible effects of this bill. The United States, since the armistice, has loaned and advanced to England, Belgium, Germany, France, and Italy, money—hundreds and thousands of millions of dollars. The private loans now outstanding, of which American financiers are the creditors and the European nations the debtors, amount to about $11,000,000,000, and that is over and above the Government loans which amount of $12,000,000,000 more.

The Dawes plan—they will not say it in those words, but it is a fact and they recognize it now—is a program under which credit

control can be exercised by a combination of English and American bankers over the entire industries of the civilized world—of Europe. It means that if you will be good, if you will come in and join the system and stand for the gold standard and play the game according to the rules we set down, we will take care of you; you shall have advances and loans, but if you do not——

Mr. LEATHERWOOD. I noticed quite recently a distinguished United States Senator announced that these private loans will never be paid.

Mr. STARR. I understood that—except at the cost of a great war in which America would be the loser. I do not hesitate to say this, because I believe it is absolutely true. The nations for whom we have made sacrifices despise us and hate us and abhor us; you can not go to a music hall or read a comic magazine published in any one of those countries in which they do not hold us up as a Shylock and robber. It is because our foreign policy is dictated, not by the people of this country but by the bankers, by the credit monopolists of this country, and if we are ever going to get away from that feeling of detestation and hatred which they feel against us and which, if it is allowed, will grow into a war, compared with which the last war was a Fourth of July picnic, we have got to take our domestic affairs and foreign affairs out of the hands of these old men of the sea——

Mr. LEATHERWOOD. Do you think they are the men who are urging Congress to forgive the foreign debts?

Mr. STARR. Yes, sir; to forgive the first mortgage so that their second mortgage will then become a first mortgage.

Mr. LEATHERWOOD. But they have not got very far with that, have they?

Mr. STARR. I hope they will not get very far. They seem to have unlimited power, however, and I do not know what they will be able to do.

We have $346,000,000 of Uncle Sam's money, but it is not drawing interest from anyone. Every Federal reserve note you have in your pocket draws interest for some one.

This is from the New York Times of January 5, 1925:

> The old "greenbacks" which came out shortly after the Civil War should be retired in advance of the natonal bank notes, according to the American Banker, which states that the $346,681,016 of "greenbacks" now in existence are nothing but pure fiat currency.
>
> As they pass from hand to hand they serve as a constant reminder to economic cranks—

I suppose I am one of those—

> and so-called political progressives that the State can manufacture its money on the printing press, according to the publication.

That is a horrible and ghastly idea that society can print its own money, and they want to get it out of sight and maybe the people will forget it after a while.

> At the feast of sound currency they are a perpetual death's head. If the purging of our currency should begin anywhere it should begin right here.

Now, here is another interesting paragraph:

> The grisly phantom of bimetallism likewise stalks the land in the form of the silver dollar and the silver certificate. Here, again, is another germ of an ancient disease of the currency. The chance to get rid of silver once and for all has come and gone. The Treasury sold most of its silver to Britain for

use in India at a splendid price. The Senators from the silver-mining States, however, were permitted to gain their pound of flesh; the Treasury has been compelled to acquire its archaic store of silver at prices above the market rate. Some day this anomalous situation must be rectified unless the gold standard is to be abandoned.

Mr. LEATHERWOOD. That must be the source of opposition to the Pittman Act.

Mr. STARR. Probably; the American Bankers Association, the currency manufacturers and credit makers. Surely they do not want anything in the shape of money around unless they get a whack out of it.

In speaking about our relations with foreign countries, the world to-day is an economic unit, made so by the fact of credit. In the earliest stages of society, the earlier States were little city States where you could walk to the center carrying produce with which a man paid his taxes, and get back home the same day. That was way back in the old barter period. A little later, when the earliest money was copper and bronze, that extended the realm, because of the facility or ease of making payments. When they got silver, they developed to the point where they could create a kingdom and when they got gold, great values could be conducted in a narrow bulk and they established empires. We have established credit as a means of payment which can be handled by wireless and is handled by wireless and made the whole world one economic unit and my judgment would be—I know this man who writes this pamphlet stands in the scientific world in England exactly where Professor Foster stands in the scientific and economic world here. He is a teacher and lecturer in Oxford University, and he has discussed this subject from the purely scientific point of view.

I should like to see a group of men selected, not for a disarmament conference but for a sound, rational credit-control conference, by the leading scientists of Europe, in cooperation with our scientists, and then I should like to see a policy adopted, under which an international standard of value would be established to be maintained in the markets of the world from a central source of information. This will some day come.

Mr. LEATHERWOOD. Will the features of the proposed act that you intend to submit to the committee, reflect these features?

Mr. STARR. It will reflect my views. I question whether it will be possible, under present conditions, to get the men who have the power to do it, to unite in the enactment of any such provision. I question whether it would be possible to get such a bill through. Congress can enact legislation that will automatically regulate this situation. It will take out of the discretionary control of any individual, or group of individuals, the power to regulate credit.

Mr. LEATHERWOOD. That is the thing that appeals to me as very interesting. I would like to have you, when you come to revise your manuscript, insert the plan by which Congress can do this.

Mr. STARR. I will be very glad to present my ideas on that. But I want to say to you that you can not do it under the present system of national finance. That is what Foster said, and I am in accord with his opinion on that. It will involve a complete reorganization of our financial program.

Mr. LEATHERWOOD. Are you advocating a doctrine which you think is impossible?

Mr. STARR. No, sir; a doctrine we advocated during the Civil War when we made our own money.

Mr. LEATHERWOOD. You said a moment ago Congress could remedy the situation.

Mr. STARR. Yes, sir; by taking over the Government function of coining and issuing money and determining credit control. It will not be necessary for the Government to buy all the banks in the country. If the Government opens just one bank, if it does business in accordance with the laws I laid down, every bank in the country will have to follow suit. The Government is not in the business to make money; the Government does not run the post office to make money, or the Bureau of Standards to make money or run the Astronomical Observatory to make money, or run the Weather Bureau for profit, but it does it for a public service; and here is a public service that is infinitely more important than all the other business that we run, because every man who derives an income from investments and derives an income from his work is dependent on the group of men whose only interest is to manipulate the system in their own interest as they please. When we undertake to change nature's laws we run into trouble.

For instance, we have sheep. Oh, we dehorn sheep and cattle, and take good care of them, and feed them, and get them fat, and kill them, and eat them. We make better mutton, perhaps, but we make poorer sheep, and that is the way it is with our citizens in this country.

Mr. LEATHERWOOD. How do you reach that reasoning? I do not believe I quite follow you. What is your idea?

Mr. STARR. What is the analogy?

Mr. LEATHERWOOD. By producing better mutton we produced poorer sheep?

Mr. STARR. The sheep is not naturally a mutton animal, but a wild animal. We have domesticated and fed him regularly three times a day, and given him plenty of water and sleep. We get our money out of him by shearing the wool from his back, and then we mutton him.

Mr. LOMBARD. You are approaching this matter from the view of the sociologist rather than that of the financier or economist?

Mr. STARR. The sociological matter is the background. I am approaching it not so much from the financier's standpoint as that of the industrialist's standpoint, the human being standpoint.

Mr. LOMBARD. Your idea is the proposed bill would tend toward the remedying of an undesirable social condition?

Mr. STARR. I believe it would.

Mr. STRONG. Under the present system we have in this country, would the enactment of this bill be helpful?

Mr. STARR. It would be helpful simply as a declaration of policy. It would be merely doing just what they did when they enacted the common law or declared the common law to be the law of the State. When this Federal reserve law was passed, it was on the understanding that the Government was a partner in this game and every-

thing above 6 per cent was to be divided between the Government and the bankers. The first thing they did was to set apart $50,000,000 to build bank buildings, and when Congress questioned their power to do this—why, they said, "Take a walk around the block, this is our property, not yours."

Mr. LEATHERWOOD. Have you investigated the salary raises?

Mr. STARR. When they raised salaries from $10,000 to $50,000, I wondered what wonderful additional capacity they had.

Mr. LEATHERWOOD. Would it benefit the people to have that money get into the Treasury of the United States?

Mr. STARR. I know people who pay taxes who have to borrow money to do it.

This is revolutionary, but it is not as revolutionary as what Foster told you. Foster told you what every Bolshevik in the United States has been trying to tell you for years. He tells you this is not fair dealing; that we have not gotten our fair share of the products of labor and something must be done about it, and yet they lock them up for saying so.

Mr. STRONG. There seem to be two thoughts here that have come before this committee as to the policy of the Federal Reserve Board. One was they deliberately used their powers for deflation at one time which was a great injury to the Nation.

Mr. STARR. Nobody could read that [exhibiting a pamphlet] without knowing it.

Mr. STRONG. If that be true, others have come and said recently they are using those same powers in a rightful way. Without discussing that, Brother Starr, my idea was that if this bill would direct them to use it as they say they are now using it, rightfully, for stabilization, would they bring a little more confidence in the country and increase stabilization?

Mr. STARR. That is what Foster said, and along the line of what Rogers said—it might lead to false hopes.

Mr. STRONG. Don't you think that if they were directed by the Government of the United States to use all their powers toward stabilization of price levels and prevent inflation and deflation, that they would use those powers?

Mr. STARR. As it suits them—just as they have in connection with the interstate commerce law or antitrust law—and when it does not suit them, kick it out.

Mr. LOMBARD. Under this bill they could be mandamused, could they not?

Mr. STARR. You can not mandamus a discretionary officer.

Mr. STRONG. If you give him positive orders, do you mean to say——

Mr. STARR. He has discretion under this bill.

Mr. STRONG. You mean the Government of the United States can not order him——

Mr. STARR. Not by this bill. Suppose somebody mandamused you to introduce a bill? What would you say?

Mr. LEATHERWOOD. A good answer would be to call attention to the Pittman act. Congress ordered certain things down and they defied Congress.

Mr. STARR. In the winter of 1924, Sir Montague Cottel Norman came over to New York City and had a little private conversation with Mr. Ben Strong, governor of the Federal Reserve Bank of the city of New York, and those two men made a gentlemen's agreement to the effect that the interest rates in New York were to be kept below the gold import rate.

Mr. LOMBARD. Was that reduced to writing?

Mr. STARR. No; they do not reduce gentlemen's agreements to writing.

Mr. STRONG. What evidence have you of that?

Mr. STARR. The market shows that.

Mr. STRONG. Then, it is your supposition.

Mr. STARR. You may call it what you will, but at any rate the interest rate has been kept below the gold import point, and the inflation that began in the spring of 1924 has been going on ever since. Only last week a prominent business man went to Boston and circulated around in the financial district.

Mr. LOMBARD. Do you want to give his name?

Mr. STARR. No; he would object to it. I can verify it, but I do not care to put his name in the record. The bankers of Boston said, "What in the name of heaven is the matter with the administration, preaching flowers that bloom in the spring, preaching good times and prosperity, when, as a matter of fact, we are on the edge of a volcano," and that was after the smash of the 3d of March, but before the smash that came on the 30th. The whole country is right in that hysterical jumpy condition to-day; it has been brought about by the policy of the Federal Reserve Board so to adjust discount rates as to permit gold to stay in England in order to rehabilitate the pound sterling in the world's markets.

Mr. LOMBARD. Would this bill help to alleviate the affairs of the country in that regard?

Mr. STARR. This bill would have absolutely no consideration of the English interests at all or the claims of American bankers on British mortgages.

Mr. STRONG. Then your remarks are not directed at all to this bill but to your idea of what should be the financial system adopted for this country?

Mr. STARR. I said in the beginning I favored the principle of the bill and thought it was a good thing to have a declaration of policy.

Mr. LOMBARD. Particularly if it would be obeyed.

Mr. STARR. But I do not think it would be obeyed.

Mr. LOMBARD. Do you not think it would be to the advantage of the world and to the United States, as a part of the world, to have England restored to the gold standard?

Mr. STARR. No, sir; I do not believe in the gold standard. I do not believe in a standard that will fluctuate 45 per cent in three months, as I understand it has done. I do not believe in a standard that comes to the Congress of the United States and asks for the passage of a bill that will penalize the use of gold in mechanical arts, in order to pile it up as a basis of credits.

I think I have given you the bulk of what I wanted to say. I know, however, there are many other things I should like to cover,

but the big thing is that there should be absolutely no discretionary power vested anywhere to control the flow of credit.

Mr. STRONG. My idea was that this bill was an attempt to give mandatory directions.

Mr. STARR. You can not do it. You will realize that when you realize the whole purpose of the bill. The ostensible purpose of the bill when it was passed was to do the very thing you are trying to do here.

Mr. STRONG. Was not the purpose of the bill——

Mr. STARR. That was the intention of the bill, but you have seen Paul Walburg's letter about it, addressed to you.

Mr. LOMBARD. You say Paul Walburg had that stricken out?

Mr. STARR. Yes, sir; he was in constant consultation with members of committees of both houses for five years.

Mr. LOMBARD. I understood one of the members of the committee feared it put too much power in the Federal Reserve Board and had it stricken out.

Mr. STRONG. Mr. Wingo, I think, had it stricken out.

Mr. STARR. I know Mr. Wingo pretty well and I would hesitate to believe he would act as an agent for any outside interests.

Mr. STRONG. I am sure he did not.

Mr. LOMBARD. If he was acting in that direction, you think it was a mistake?

Mr. STARR. Yes, sir; a great blunder, but I should like to see a price level index fixed that would be as permanent as the meridian of Greenwich.

Mr. LOMBARD. Have not the financial powers attempted to move the meridian of Greenwich?

Mr. STARR. If anyone attempted to calculate his latitude or longitude by ignoring the meridian of Greenwich he would get pretty thoroughly paid for it before he got through.

Mr. STRONG. The clerk has handed me a letter addressed to Hon. Charles E. Fuller, House of Representatives, Washington, D. C., that I understand has been placed in the basket of the House and referred to this committee, signed by Mr. Lombard, executive director, reading as follows:

MY DEAR CONGRESSMAN FULLER:

I call your attention to the following resolution unanimously adopted by the convention of the Illinois Farmers' Institute at Quincy, Ill., last month:

"We favor the standardization of the dollar in purchasing power and urge our legislative members in Congress to consider what means may best be adopted to bring about such stabilization."

In this connection, I beg to refer you to the hearing now being held on the bill, H. R. 7895, introduced by Congressman James C. Strong, of Kansas.

This organization, as a policy, does not advocate the passage of any specific legislation, but I am sure you will be interested in attending the hearings, which are directly in line with the above resolution.

If there are no other remarks, the committee will adjourn in accordance with the previous action taken by the committee, until Tuesday morning at 10.30.

(Whereupon, at 4.20 o'clock p. m., the committee adjourned until Tuesday, April 6, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Tuesday, April 6, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will come to order.

I desire to make a statement at this time in regard to the program.

Hon. Benjamin Strong, governor of the Federal Reserve Bank of New York, will appear before the committee on Thursday, April 8, at 10.30 a. m.

Hon. George W. Norris, governor of the Federal Reserve Bank of Philadelphia, will speak before the committee on April 9, at 2 p. m.

Mr. Carl Snyder, the economist of the Federal Bank of New York, will appear on Tuesday, April 13, at 10.30 a. m.

Dr. Ethelbert Stewart, of the Department of Labor, who has charge of making up the index numbers there, will appear on Wednesday, April 14, at 10.30 a. m.

I desire also to place in the record a letter from Governor Norris, of the Federal Reserve Bank of Philadelphia; a letter from Governor Strong, of the Federal Reserve Bank of New York; one from Carl Snyder, of the Federal Reserve Bank of New York; and a letter from the Secretary of Labor in regard to the appearance of Doctor Stewart before the committee.

(The correspondence referred to is as follows:)

FEDERAL RESERVE BANK OF PHILADELPHIA,
April 3, 1926.

MY DEAR CONGRESSMAN: I have this morning your favor of March 31, inviting me to appear before the Banking and Currency Committee of the House in connection with hearings on H. R. 7895.

I do not feel that I can contribute anything of value to the discussion of this bill, and would therefore be very glad to be excused from participation in the discussion.

If, however, the committee desires my attendance, I will, of course, comply with the request. Friday next, the 9th instant, would be the day most convenient to me, as I already have engagements for Tuesday, Wednesday, and Thursday. I should also like to be excused from attendance at any hour earlier than 11.30, as the most convenient morning train for me is one due in Washington at 11.05.

With best wishes, I am,

Very truly yours,

GEORGE W. NORRIS, *Governor.*

Hon. LOUIS T. MCFADDEN,
House of Representatives, Washington, D. C.

FEDERAL RESERVE BANK OF NEW YORK.
April 2, 1926.

MY DEAR CONGRESSMAN: Your favor of March 31, inviting me to appear before the Committee on Banking and Currency in connection with the hearings now in progress on H. R. 7895, has just been received, and I shall be very glad to do so at the committee's convenience.

Apparently, the questions which will likely be asked me will cover a very wide field of discussion, and in order to be helpful, as I most desire to be, I should have time for necessary preparation. So I take the liberty of suggesting that the latter part of next week, that is to say, the 8th, 9th, or 10th of April, or the first part of the following week, would suit my convenience a little better.

Aside from those matters mentioned in your letter and, of course, questions having generally to do with the administrative features of the system, could you indicate to me a little more definitely any particular matters which are likely to be inquired into, so that I might assemble any data which would be useful in that connection?

Assuring you of my desire to be of any service possible, I beg to remain,

Very truly yours,

BENJ. STRONG, *Governor.*

Hon. LOUIS T. MCFADDEN,
House of Representatives, Washington, D. C.

NEW YORK, *April 2, 1926.*

MY DEAR MR. MCFADDEN: Thank you very much for the invitation to appear before your committee. It is a question of deep interest, but I do not know that there is much I could add to what you have already had, and what would be given you with much more authority by Governor Strong.

Despite the fact that I have been quoted in favor of stabilization, I am not in sympathy with the spirit of the present proposal. It seems to me that it would meet with insuperable difficulties and be inadequate in the end.

I am at your service if you desire, almost any day, but if I came I should prefer to discuss the economic and technical problems involved rather than questions of Federal reserve policy. And if I came it might be somewhat better if I did not appear on the same day or directly after Governor Strong.

Please accept my appreciation of your courtesy.

Very sincerely yours,

CARL SNYDER.

Hon. LOUIS T. MCFADDEN,
Committee on Banking and Currency,
House of Representatives, Washington, D. C.

DEPARTMENT OF LABOR,
Washington, April 3, 1926.

Hon. L. T. MCFADDEN,
Chairman Committee on Banking and Currency,
House of Representatives, Washington, D. C.

DEAR MR. MCFADDEN: I have your letter of March 31, concerning the Commissioner of Labor Statistics, Ethelbert Stewart, appearing before your committee in regard to H. R. 7895.

Commissioner Stewart will be out of the city during the week of April 5. It is his suggestion that since your committee is scheduled to meet on Wednesdays he would be glad to discuss the construction of the wholesale price index with you Wednesday, April 14. Please let me know if that will be agreeable to you, or you may communicate directly with Commissioner Stewart. His telephone number is Main 8474, Branch 59.

Sincerely yours,

JAMES J. DAVIS, *Secretary.*

The CHAIRMAN. I understood that Mr. Western Starr, who made a statement the other day, desires to have a few minutes to complete his statement this morning. We will hear Mr. Starr at this time.

STATEMENT OF WESTERN STARR—Continued

Mr. STARR. Mr. Chairman, during the course of the statement which I was making the other day I was requested by different members of the committee and others to offer certain authorities for certain statements which I made.

I referred to the Pujo committee and its work as being the basis on which the Federal reserve bank act was afterwards put through; and I was asked to give the names of the people referred to in the report and some of the facts which they had set out in their report.

I had supposed that every member of the committee was possessed of a copy of the Pujo report.

I have here the statement of the committee with reference to the agents of concentration, and the names of the men. Section 4 of the report, page 56, says:

It is a fair deduction from the testimony that the most active agents in forwarding and bringing about the concentration of control of money and credit through one or another of the processes above described have been and are J. P. Morgan & Co.; First National Bank, of New York; National City Bank, of New York; Lee, Higginson & Co., of Boston and New York; Kidder, Peabody & Co., of Boston and New York; Kuhn, Loeb & Co.

Then, on page 130, they define what they call the "money trust," as follows:

If, therefore, by a "money trust" is meant "An established and well-defined identity and community of interest between a few leaders of finance which has been created and is held together through stock holdings, interlocking directorates, and other forms of domination over banks, trust companies, railroads, public-service and industrial corporations, and which has resulted in a vast and growing concentration of control of money and credit in the hands of a comparatively few men," your committee, as before stated, has no hesitation in asserting as the result of its investigation up to this time that the condition thus described exists in this country to-day.

Another matter that I was asked to verify was the statement that I made that it became necessary, in order to put through the Federal reserve bank act, to call upon Mr. William Jennings Bryan, who had been fighting the principle of credit control which is embedded in the Federal reserve bank act all his life. I was asked to verify that statement, and I do so by an excerpt from a statement which he made, published in Hearst's International Magazine for November, 1923, page 23. He said:

The Federal reserve bank that should have been the farmer's greatest protection has become his greatest foe. The deflation of the farmer was a crime deliberately committed, not out of enmity to the farmer but out of indifference to him. Inflation of prices had encouraged him to buy, and then deflation delivered him into the hands of the money lender. The Federal bank can be a blessing or a curse, according to its management. If the Wall Street speculators are in control of it they can drain the agricultural districts and keep up a fictitious prosperity among the members of the Plunderbund.

While the Federal reserve bank law is the greatest economic reform achieved in the last half century, if not in our national history, it would be better to repeal it, go back to old conditions, and take our chances with individual financiers than to turn the Federal reserve bank over to Wall Street and allow its tremendous power to be used for the carrying out of the plans of the Money Trust.

As to the influence of Mr. Bryan in that matter, I want to quote an article by George Creel on page 605 of Harper's Weekly of June 26, 1915, on "The Commoner." He says:

Go to any of the Washington correspondents, regardless of the paper he represents, and ask us to the services of Bryan. There is not one who will refuse to give him full credit for the legislative achievements that go to make up the administration record. As far as the party was concerned, Woodrow Wilson was without influence, save for the patronage he possessed.

It was Bryan who whipped Congress into line on the tariff bill, on the Panama Canal tolls repeal, and on the currency bill.

Mr. WINGO. Do you agree with Mr. Creel, or do you agree with the other school of thought that says that Mr. Bryan was wrong at that time and did not get what he wanted? You are familiar with letters that say that Mr. Bryan was turned down by the President.

Of course you can appreciate that that is of interest to me, because I happened to be on the committee and in touch with Mr. Bryan, and know what the urgings were both ways.

Mr. STARR. Yes.

Mr. WINGO. I am interested as a matter of the psychological study of public history, and the myths that grow out of fights here in Congress; and I am interested to know which one you believe is correct, the Creel contention or the other.

Mr. STARR. My opinion personally would have comparatively little weight. But I want to give a statement made by Mr. Bryan to a man whom I can not name—a man who was for eight years a member of his own State senate, who was for many years the chairman of his own State committee, and who was perhaps as close personally to Mr. Bryan as any man outside of his own family.

Mr. FENN. Do you mean by "State committee" a legislative committee or a political committee?

Mr. STARR. A State political committee.

Mr. FENN. Excuse me for interrupting you.

Mr. STARR. That is all right.

On one of Mr. Bryan's later visits to Washington he met this gentleman, and they got to talking about the Federal reserve situation and the condition of the farmers. Understand, I am not going to give you the name of this man, who refuses to be quoted, but you can take it from me. Mr. Bryan said to him, in substance:

> That is the one thing in my public career that I regret—my work to secure the enactment of the Federal reserve bank law.

Mr. WINGO. Do you know that Mr. Bryan, on one of his last visits to Washington—as a matter of fact, the night of his last birthday—stated to more than one friend in the lobby of the Lafayette Hotel in the city of Washington that such a statement was not authorized?

Mr. STARR. I do not know that Mr. Bryan ever said that. I am quite sure——

Mr. WINGO (interposing). You are familiar with the fact that Mr. Bryan has been quoted pro and con—contrarily by his supposed enemies—just like every other public man in the history of America; and must you not, after all, judge the man by his works and not by what may be said by the hangers-on, who seek to get reflected glory by quoting every public man that they happen to meet casually? Is it not better to leave their reputation undisturbed and judge them by their works and by their own utterances, and not by what other men say that they said?

Mr. STARR. If you would like my opinion on a question of ethics of that kind, I would say that no man could do Mr. Bryan a greater service than to show him exactly as he was, and as he stated himself to be. I do not care to discuss the ethics of a proposition of that kind.

Mr. WINGO. I will ask you this: Do you think Mr. Bryan was a man who was capable of double-dealing with the members of this committee that was then framing this act? Do you think Mr. Bryan, even for political purposes, would mislead me, for instance, a member of the committee, who talked to him about the matter?

Mr. STARR. Certainly not. But I do believe that Mr. Bryan could change his mind when he saw the way the thing worked. I do

believe that Mr. Bryan was honest enough and courageous enough to say that he had been misled and that he had made a mistake.

Mr. WINGO. Did Mr. Bryan have a peculiar habit of throwing political expediency to the wind and saying just what he thought publicly, and not running around under cover, whispering to his friends, "I made a mistake here," or "My friend over here made a mistake?" Was he not brutally frank and candid, even about his own mistakes?

Mr. STARR. I campaigned the United States two different times under the auspices of the national committee for Mr. Bryan. I want to say that at the high point of my regard for Mr. Bryan there were some things which he stood for that I could not stand for, and which I did not stand for. I accepted him as a candidate as the least of evils, and I did all that I could sincerely to aid him.

Mr. WINGO. Do not misunderstand me. I am not imputing any bad motives to Mr. Bryan.

Mr. STARR. You are imputing motives to Mr. Bryan that I would not submit to.

Mr. WINGO. No; I am not imputing motives to him. I am asking you whether it is wise to leave a public record here that would look as though a bad motive were imputed to him. I know that is not your idea about it. In framing my question my meaning was that I had no doubt that Mr. Bryan was always candid, and that he did not deal in these subterranean switchings, telling one man one thing and another man another.

Mr. STARR. With all the things I have found that I could not agree with in Mr. Bryan, there never was a moment in all my personal intercourse with him, and all that I ever saw or read of him, in which I did not give him credit for the highest integrity, the purest motives and the strongest honesty. He was so honest that he was bigger than most men; but this proposition is infinitely bigger than Mr. Bryan or Mr. Bryan's party.

Mr. WINGO. On this particular question, what difference does it make now, Mr. Starr, whether Mr. Bryan regretted or did not regret the influence that he may have used 13 years ago? What effect does that have upon the merit and whether or not this committee at this time should enact legislation of the character that is proposed by this bill? How will that help us to arrive at a just conclusion? I ask you that in all kindness, Mr. Starr, and not in a critical spirit.

Mr. STARR. That is all right.

Mr. WINGO. What is your object?

Mr. STARR. I was requested to bring this in for the purpose of verifying the statement which I made to the effect that Mr. Bryan regretted having had anything to do with putting the Federal reserve bank act into force. I was asked to verify it, and I have done so in this way.

Then, I was asked to do something else. During the course of the colloquy Mr. Leatherwood asked me if I had any concrete suggestions and any formal idea to present. I had stated, in answer to Mr. Strong and others, that I could not see any harm in the enactment of this bill, but that I could not see any good in it, except as a declaration of policy. It is like telling a little boy, "Now, Johnny, you go and be good." The first thing he does is to knock

the cat's eye out and tie a can on the dog's tail, and he thinks he is being very good. I was asked if I had a concrete suggestion to make, and I have done so in this form.

I want this committee, if it recommends any bill in connection with this idea, to recommend a bill which will have teeth in it; which will compel and force certain things automatically, just exactly as the world has come to accept the meridian of Greenwich as a standard. They derive that standard from some source. It is only an imaginary line.

Mr. WINGO. If you were the legislative dentist sitting here, what would be the first tooth you would put in the jaw of this Federal reserve system?

Mr. STARR. This is going to be just as revolutionary as the thing that Mr. Foster said here the other day. It is going to be just as dynamic. It will probably be just as difficult to get into action. I think that no one could surpass me in respect for the cold, precise, scientific way in which Mr. Foster told certain vital truths here, when he told you that Congress had the power to help the situation, but that it had not helped the situation by anything that had heretofore been done, and that this bill would not help it; and he further said that there was no way of helping it under the present financial system.

This is what I am going to suggest. It is crude, boyish, perhaps, and utterly futile, but this is what I want to offer:

A BILL To establish a Federal board for the stabilization of the national currency and the control of credit

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That there is hereby established a Federal board, hereinafter referred to as the board, for the purpose of stabilizing the monetary value of the national currency, maintain the uniform general price level of market commodities and control the general level of interest rates and discounts that may be charged by the Federal reserve banks and other banks that are members of the Federal reserve bank system for the use of credit in commercial transactions.

SEC. 2. The board hereby established shall consist of five members to be appointed by the President by and with the advice and consent of the Senate, no more than three of which shall be at any time members of the same political party, and who shall hold their offices for a term of ten years, unless removed by physical or other disability in accordance with law, provided, that the President may direct or designate that the terms of certain members of the board shall terminate at the end of two, four, six, and eight years from the date of the original appointment of members at the inauguration of the board. The members shall be eligible to reappointment on the expiration of their terms.

The compensation of the members shall be at the rate of $10,000 per annum, payable monthly, and they shall be entitled to reinbursement for all costs and expenditures necessarily incurred in the performance of the duties and services herein specified.

The board shall be provided with quarters for the necessary offices, together with such physical and mechanical equipment as the services the board is hereby required to perform may make necessary; together with such clerical and office help as may be required for the full performance of the duties of the board.

The compensation of the office assistants employed by the board shall be at the same rates as is paid for the performance of similar services in the other offices and departments of the Government.

Here are the powers and duties:

It shall be the duty of the board to ascertain at the earliest possible date the average index of the market buying power of the dollar, as shown by an

index taken from the market records for a period of not less than five nor more than 10 consecutive years subsequent to the year 1910, in the wholesale markets of the United States; and embracing not less than 300, nor more than 400 staple commodities; due weight being given to quantities and qualities of all such commodities. The general price index so determined shall be the permanent standard unit of value of the American dollar. It shall be the duty of the board to make daily computations of the market fluctuations in the prices of all the commodities from which the index price level has been derived and publish daily the movements of all prices, if any, and of the general price level so found.

In case at any time the daily report of the general price level as shown by the index number indicates a general rise or fall in commodity prices of exceeding 1 per cent, it shall be the duty of the board to publish notices thereof, and of the amount and direction of such variation through the daily press, and also to notify the Secretary of the Treasury thereof.

Upon receipt of such notice from the board it shall be the immediate duty of the Secretary of the Treasury to inaugurate open market operations, by the sale or purchase of obligations of the Government to the extent necessary to restore the index number to the level established by the board as par. All sales of Government obligations or purchase thereof by the Secretary of the Treasury for the purposes indicated in this act shall be for actual currency, without delay, deflation or sets off; nor shall there be any exchange of Government obligations or securities except for actual currency or coin issued by the Government, in the execution of operations designed to maintain the stability of the price level.

The CHAIRMAN. You have made an interesting suggestion about authorizing the Secretary of the Treasury to sell Government securities for the purpose of stabilizing prices. Is it your contention that the sale of Government bonds or short-time notes by the Secretary of the Treasury has the same effect that open-market transactions do on stabilization of prices and money rates?

Mr. STARR. They do. Undoubtedly they do; that is to say, if they are actual sales for currency.

Now, let me make this statement: If I go to my friend, or to the bank, and borrow $100, or $500, or $5,000, or $1,000,000, and take it in cash, there has been no reduction or change in the volume of the purchasing power of the country.

Mr. WINGO. You are proposing practically the same thing that you have now, are you not? You propose to let the Secretary of the Treasury take the place of the open-market committee?

Mr. STARR. I do not. Well, I do not know about your open-market committee. You may have an open-market committee that says when bonds shall be bought and when bonds shall be sold. The object of buying and selling in these times and in this way is for the purpose of withdrawing currency from the open market or of injecting currency into the open market.

The CHAIRMAN. There is a provision in the Federal reserve law that permits the loaning of funds on Government securities. Might that also imply an issuance of Federal reserve notes?

Mr. STARR. Yes, sir. That would have an effect on the price level.

The CHAIRMAN. That might be in the control of the Secretary of the Treasury or it might be controlled by banks that hold Government securities?

Mr. STARR. The point that I make is that where there is a daily publication of the drift and movement of price levels, every school boy knows, if he thinks about it, just exactly what the influence is going to be on prices, and any country school teacher who can do

quadratics in algebra, or who can handle the slide rule, can figure the price index for himself, having command of the market quotations.

Mr. WINGO. Even though he could not make out his own income-tax return?

Mr. STARR. Very probably.

Mr. WINGO. From your viewpoint, it looks to me as if you are proposing to trade off the devil for the witch; that instead of the devil we ought to substitute a witch.

Mr. STARR. All right. As the thing stands to-day, the banker can not create a stock of gold; he can not go out and create a mass of commodities; but with a stroke of the pen he can throw a million dollars into the circulating medium in the form of a bank credit, and they do it whenever they want to do it.

The CHAIRMAN. Who can do it?

Mr. STARR. A banker. Some can not command that much money, but a banker that can does.

Mr. WINGO. Now, just assuming that that is true, what power has Congress got, either to do it directly or to get a board that would take that posibility away from a banker or from a merchant or from an individual? You can create credit yourself, can you not?

Mr. STARR. No, sir.

Mr. WINGO. You can not?

Mr. STARR. No; I can not create credit. I can take $10,000 worth of securities over to the bank and borrow money on them. Sometimes I can not. I once tried to do it, in May, 1920, and they told me to take them back and hide them.

Mr. WINGO. When you go to a bank, do you not simply put in your credit and get the bank to let you have its own, because it will get commodities more quickly than your credit? I always had the delusion that the bank's credit was better than mine, and that is the reason why I substituted it and paid for the privilege. I traded my horse for theirs, and got a better one, and paid something to boot.

Mr. STARR. All I do is to go to my bank and get my chicken feed every week so as to pay my bills.

Mr. WINGO. Assume that we put your plan in operation. Would not all the influences that produce the evils of which you now complain, and which flow from selfishness—not necessarily criminal selfishness, but the natural selfishness of men—would not those same influences operate under your plan as they do under the present system?

Mr. STARR. I have not a practicle of idea that we can change human nature by the establishment of a stabilization board; but we can make the thing automatic. The Government of the United States, in establishing the Naval Observatory over here, does not tell the scientists there what they are to discover or what they are to do.

Mr. WINGO. You mean to make it automatic just as a government issuing fiat money makes its value automatic?

Mr. STARR. There was never a particle of money on earth that was not fiat money.

Mr. WINGO. I say, is it your thought that a government board can automatically fix values, regardless of the value that exists?

Mr. STARR. No; you are mistaken about that. I do not want to have the Government make money. I want to have the Government regulate the value of credit, which determines the value of commodities in the open market, and which prevents selfish men from influencing the price level to their own advantage and at their own discretion. I want to make it so automatic that no banker or group of bankers can bring upon the world again such a thing as they did in May, 1920.

The whole story, to a man that can read between the lines, is told here in this report.

The next thing that I am going to speak of is this, and this will make a great deal more disturbance than anything else.

For the purpose of facilitating the operations which I have described, I go on to say:

SEC. 3. The Secretary of the Treasury is hereby authorized and directed to establish, equip and operate a bank to be known as the Bank of the United States, for the service of all operations conducted by him under the authority of, and which are designed to carry out the purposes of this act; and the Secretary of the Treasury shall have power in the operation of such bank to do and perform all the services lawfully rendered by National Banks under authority of the laws of the United States; to issue Government notes, loan money and discount bills, buy and sell foreign exchange and the obligations of the Government of the United States, to the end of stabilizing currency of the United States and maintaining the general price level in the markets of the United States.

Here is another thought which I was asked by Mr. Leatherwood to elaborate upon:

SEC. 4. And the Secretary of the Treasury is hereby authorized and directed to open negotiations with the financial secretaries or representatives of the treasuries of foreign governments for the purpose of bringing about an international conference of the important commercial and industrial nations of the world, with a view to establishing a general standard of price levels adapted to the stabilizing of a monetary standard to serve the purposes of international trade and commerce of the world.

Those are the suggestions.

I think this committee has got hold of the biggest bear by the tail that ever was caught, and it is up to this committee to make the recommendations. I do not want to disparage my own efforts in this matter, but I have a very strong feeling that the world perhaps is not yet ripe to put into concrete form and concrete fact the suggestions that have been made here. But some day it will be. Some day it will have sense enough to know that it is unwise to turn over the administration of the most important functions of government to private individuals to use their own discretion in the operation of those functions.

The CHAIRMAN. You are speaking now of the Federal reserve system?

Mr. STARR. I am speaking now of the Federal reserve bank act.

I thank the committee for its courtesy and for the opportunity of appearing.

The CHAIRMAN. We will now hear Mr. Lee.

STATEMENT OF WILLIAM CANFIELD LEE, WASHINGTON, D. C.

The CHAIRMAN. What is your connection, Mr. Lee?

Mr. LEE. I am a member of two societies that are deeply interested in this subject, but I am not officially delegated to speak for

them, so I am speaking simply as a citizen and a representative of a class.

The CHAIRMAN. What are these two societies that you refer to?

Mr. LEE. The National Monetary Association; and the Federation of Federal Employees.

I am speaking as a citizen and as a member of a large class who are deeply interested in this subject. I am not a banker nor a manufacturer nor a merchant, but I belong to that very large class who earn salaries and wages, and who, as such, feel deeply the effect of variation in the value of money.

I do not have statistical facts to present, such as the various experts have given, but I would like to call attention to certain aspects of the situation that might not be brought out by others, and one of these is the importance of this bill as compared with various others coming before Congress. This bill, in its subject matter, is the most important, probably, that has been or will be handled by the present Congress—at least in relation to domestic affairs.

It is far more important than tax reduction. For what do taxes amount to? A few dollars on the average from each family, and for all we pay in taxes we get our money's worth. We get more for our money that we pay out as taxes than for what we pay out for anything else. The saving from reduction of taxes will for most people be but slight; and if it were not saved, it would not be lost. But everybody loses by the depreciation of money, and this is wholly loss. Even if it went to enrich someone else at the loser's expense, that would not be right; but it is largely destruction; it is like what is washed away in a flood.

Suppose that high water carries away one man's farm and deposits the soil on the other side of the river, as sometimes happens. Then some other man gains, perhaps; but more often the flood simply washes away and destroys land, or spoils it. I knew a man in Kansas, a friend of mine, who had half his farm washed away, or rather it was covered over by gravel and rendered uncultivatable. Thus he lost his property. That is, he lost its value. What good did it do him that his land remained, if it no longer was a farm? Now, this happened through the activity of nature, and man could not prevent it. If, however, it were a result of human activity, as is money fluctuation, it could be prevented; and to prevent destruction of property rights through human activity is one of the first functions and duties of government.

Of what government, it may be asked? It is the duty of the States to protect against thieves; and it is just as much the duty of the United States Government to protect citizens against unintentional robbery by unknown persons, through the impairment of our money, as it is the duty of the States to protect against deliberate criminal robbery by thieves.

It is the duty of all government, of course, to preserve property rights. We hear sometimes a comparison of the value of personal rights and property rights. It may be that property rights are less important than personal rights; yet it is universally admitted that they are very important, and their preservation is one of the very first duties of government.

Mr. WINGO. Do you make no distinction between protection and preservation? You said it was the duty of government to preserve

property rights. I was under the impression that it was only the duty of government to protect a man in the exercise of his property rights and the maintenance of them.

Mr. LEE. Well, protection involves prevention of destruction or impairment that can be prevented.

Mr. WINGO. And that is what you mean by preservation?

Mr. LEE. Yes, sir.

Mr. WINGO. All right.

Mr. LEE. A man is not protected in the exercise of his rights to the property called money if through government action, or through anything which government could prevent, that property which we call money is made to lose its value. His right to his property is not maintained under those conditions. Neither are his rights in other property maintained, if money is allowed to appreciate so that his other property loses its effectiveness for service and he is compelled to part with it to satisfy debts which he never agreed to. By that I mean, if he agreed to pay 1,000 one-hundred cent dollars, and is obliged to part with his other property in order to pay his $1,000 debt in two-hundred cent dollars.

Property does not have to be taken away in order to be spoiled, as in the case of that Kansas man's farm. Or, suppose a horse is hamstrung. The criminal may leave the horse in the pasture, but the owner loses the value of it.

Mr. WINGO. In other words, the real value of the commodity is its usable value, is it not? Not its intrinsic value?

Mr. LEE. That is it; and since there is no form of property that is more widely distributed, and in which more people are interested, than money, certainly they ought to be protected in the use of that. Protection of property rights, therefore, in the case of money, necessitates preservation of its value. If this could not be done by government, it would not be a duty of the Government; but it can be done by the Government, hence it is a duty.

It is pointed out that this bill lays on the Federal Reserve Board the duty of maintaining stable values of money. It has been said that the Federal Reserve Board can do this now; and we may say further that it is right now the moral duty of the board to do so. Yet since it is obvious that not every one appreciates the importance of this principle of keeping the price level stationary, and since many influences may distract the attention of the board from this aspect of its work, it would be in the highest degree helpful to lay this upon them as a definite duty under the law. Lest they may not think of it as their duty, tell them. Make it their bounden duty to use all the powers of the Federal reserve system, which we know are great, for this purpose.

The CHAIRMAN. Mr. Lee, you believe in legislation such as is proposed here, do you?

Mr. LEE. I do.

The CHAIRMAN. Supposing that we had had in operation such a plan during the period from 1914 to 1921, do you think that it would have remedied the situation that did occur in the absence of that law?

Mr. LEE. I should think it would. I think so, decidedly.

The CHAIRMAN. In other words, do you think that the needs of the Government, as shown during that period, would have been surmounted by the operation of such a law as this?

Mr. LEE. Yes, sir.

UNEQUAL CONTRIBUTIONS TOWARD THE WAR

The CHAIRMAN. It has been stated that the needs of the Government were so great that the Government acquiesced in or permitted inflation in order to take care of the demands for money and credit incident to carrying on the war and the sale of its own securities. Do you think that such a law as this would have prevented any such inflation and increase in the price level as occurred during that period?

Mr. LEE. It would seem so. I think so. The Government had to get material things to use in military operations; and it could have gotten those with money raised by taxation, without inflating the money supply of the country. As it was, the inflation of money was simply a form of taxation which was borne unequally by different classes. For instance, the Federal employees paid toward the expenses of the war far more than their proportion, because all their pay was reduced.

The CHAIRMAN. It was reduced because of the smaller purchasing power of the dollar?

Mr. LEE. Yes, sir. People talk sometimes as though the Government employees were always wanting more. In fact, they do not have what they had before the war. I do not see how that can be questioned. Congress has raised the pay of Federal employees repeatedly, but this has been only a nominal raise, because it has been merely an increase in the number of dollars paid by the Government to its employees, while at the same time the Government was reducing the value of those dollars by conducting or permitting the policy of inflation.

The difference in the real value received by the Government employees before and after the war was their forced and heavy contribution toward the expenses of the war. It amounted to millions of dollars. And they still continue to pay, in that manner; though the war is now in the past.

Yet people talk as though Government employees were unreasonable in asking for enhanced pay. They are only asking for what they had before; and if it is given to them in the future, they will not be recouped for the loss they have sustained year by year in the meantime. How would Members of Congress like to be made personally to pay one-third of their salaries as a contribution toward the war, in addition to what they pay in the regular methods of taxation? They would not like it. And they did not like it. Members of Congress did suffer this excessive and unjust levy during the war, along with other Government employees; but they did not like it at all; hence Congress raised the pay of its Members from the $5,000 which they used to receive to the $10,000 which they are paid now. As a matter of justice, the same thing ought to be done for all Government employees.

Instead, however, the way is open, and unless this bill is passed it will still be left open, for further stripping of public employees, not only Federal, but State, county, and city employees, through further inflation, if conditions happen to favor inflation in future.

The CHAIRMAN. You suggest, then, that the alternative might have been to raise more money by taxation?

Mr. LEE. That is it.

The CHAIRMAN. You do not think that would have been confiscation, because of the very great demands of the Government?

Mr. LEE. Why, no; certainly not. Taxation by legal process is not confiscation, whereas you might say that inflation is. Inflation has resulted in the confiscation of a portion of the property of everybody who had to use money; and especially of all those who were depending upon money to be received, such as bond holders, savings-bank depositors, and insurance beneficiaries.

The CHAIRMAN. In other words, it was a deferring of the demand on the public for the necessary money to carry on the war? Instead of taking the money all at once, they let the public come along and pay it over a period of time?

Mr. LEE. Yes, sir. That is, they fixed it so that a fraction of the Nation would have to keep on paying forever. But it was not a deferring of the payment. All that the Government gained by inflation it took out of the public at once; but the people with fixed incomes have to keep paying it over and over, year after year, in the reduced worth of their earnings and interest receipts. It is a very different thing from paying off bonds.

Mr. WINGO. The favorite method seems to be the financial style, the passing style, of installment payments—a dollar down and a dollar a week for the rest of your life. That is what the chairman refers to. That is the present method of the Government.

Mr. LEE. Well, the objection to this inflation method is that it took a terrifically large assessment, 40 per cent of their entire property, from all who had fixed incomes—not only from Government employees, but from all sorts of people who had fixed incomes, including bond investors. If the policy of the Government had been to raise war funds by taxation, and the purchasing power of money had remained stable, every one would have contributed according to his ability, in accordance with whatever method of assessment the Government would have deemed equitable and expressed in tax laws. But the policy of inflation simply stripped those whose resources, whether invested wealth or current earnings, were in the form of fixed sums of money.

Part of the Government's war revenue was obtained by borrowing on bonds. This was a legitimate form of deferred payments. At least it was if the contract of borrowing is fulfilled by the Government paying back as much value as it borrowed. Those who lent money to the Government expected to get it back, but they will not get it back if they are paid in money that is inflated.

Our Government is not the only one that has raised money by this method. The German Government has paid off its war debt completely within a few years by excessive inflation—and ruined millions of its citizens.

Mr. WINGO. Will you answer me this? As I understand, you are in favor of this bill. You say that the Federal Reserve Board now has the power to centralize and control the volume of credit. Is that your position?

Mr. LEE. Yes, sir.

Mr. WINGO. Do you think the command to serve is synonymous with the command to control?

Mr. LEE. The command to serve is vague. They can serve in whatever way they see fit. They can serve whatever interests they see fit. It is left purely to their discretion. But this proposed command is to serve in such a way that the value of this property—money—will remain stable.

Mr. WINGO. For example, I have someone who is under my control, and I say to him, "Here, you accommodate Mr. Lee." Does that mean that he is to control your actions?

Mr. LEE. It depends on what the nature of the accommodation is. It may amount to that.

Mr. WINGO. We will get down to a concrete proposition and say that this control will be through the centralization and control of the supply of credit. Is that your idea?

Mr. LEE. Yes.

Mr. WINGO. In other words, if they think things are running away with the prices—there is a rapid rise in prices—your theory would be to call in credits?

Mr. LEE. Yes, sir.

Mr. WINGO. And the reverse would be true; if there was a depression of prices, the idea would be to put in circulation additional credits?

Mr. LEE. Yes, sir.

Mr. WINGO. And you think that would be very effective?

Mr. LEE. I do.

Mr. WINGO. Now, let us see. They have the power now, and it is just a question of whether they will do their duty—the power is there, and we will take the present situation—what is the possible volume of additional credits that the Federal Reserve Board would create at the present time? Have you figured on that?

Mr. LEE. No; I have not. I can not quote the figures.

Mr. WINGO. Now, we will take this situation, and we will get at the same point. I want to get at the relative powers. What power has the board got now to prevent a bank of which I might be, but am not, the president—take a hypothetical bank—what power has the board got over me, even though I am a member bank, either to compel me to make loans to these gentlemen in this room who are my customers, or compel me to refuse to make loans to them?

Mr. LEE. The banks will be unable to make loans except to the extent of the funds that they have at their disposal.

Mr. WINGO. You do not understand me. Of course that is understood, that the funds at their disposal are the limit of their power, just as the funds at the disposal of the reserve banks are the limit of their power, but I am talking about relative powers now. Is the volume of money that individual banks control and the volume of credits that they might create, on the basis of the reserves that they may hold in their own vaults—is that greater or smaller than the actual volume that the Federal reserve banks hold and can control?

Mr. LEE. The funds which they can loan out would depend on the reserves they have to start with. It depends on what they can get from the reserve banks——

Mr. WINGO. You do not mean that. I know banks that never have called on the Federal reserve banks for funds. They claim and complain that they have to keep reserves up there and do not borrow from them at all. Yet those banks are powerful. They can create,

and do set in circulation, great volumes of credit. They can contract that credit by recalling those loans. Here is my point: Take this question of controlling the speculative stock market in New York, whether it be true or not—and I am not going into that, nor going to attempt to prove anything that is or is not going on, and I am not arguing the merits of it, but I am talking about the actual operations and powers of the Federal reserve member banks of the Federal Reserve Bank of New York—their loans that they put out on stock market collateral are very small compared with what the outlying banks have put out on stock market loans in New York City. Now suppose that overnight the outlying banks should do the unexpected and all of them withdraw all the funds amounting to something less than $2,000,000,000——

Mr. LEE. Withdraw from what?

Mr. WINGO. These loans that I am discussing; these stock-market loans in New York City. I think it is something like $1,400,000,000, judging from the last statement. Suppose, overnight, they should say, "We will withdraw those funds," and they do do it. That means a number of loans called. What power is in the Federal Reserve Board or in the Federal reserve bank to substitute $1,400,000,000 of additional credits for those that have just been taken out?

Mr. LEE. Those men who could not get the money from those banks would go to other banks.

Mr. WINGO. Suppose that all the banks—the Federal reserve banks and the great national banks disagree and say, "We will not let you control us." That may be far-fetched, but suppose they say, "We will not lend the funds out," and suppose an appreciable number of them will say, "We will withdraw everything we have on deposit with the Federal reserve bank except the cold-blooded, naked legal reserve we are required to keep there." Where would the Federal Reserve Board and the Federal reserve bank be then?

Mr. LEE. That is far-fetched.

Mr. WINGO. Do you think they could control prices?

Mr. LEE. That is far-fetched. That assumes that the banks will work together, where the tendency is, as is well known, they will make loans if they have the funds.

How do they happen to have the reserves? It is because we have a large volume of currency. It is not all gold or gold certificates. It is due to the gradual development of a large volume of bank credit throughout the country, which has resulted from the operation of the Federal reserve system. The volume of bank credit has become unduly large, when it might have been restricted.

Mr. WINGO. I am not talking about how it is; I am talking about the use of things you say are already in existence. In other words, the only way you can do what you suggest is to centralize all the power in one group. Is not that the ideal you are striving for, to prevent this uncertain and erratic situation? Here is one banker who says, for instance, "I am worried, and I will withdraw." Are you proposing to take away that discretion from him and make him submit to the judgment of a board here?

Mr. LEE. Certainly not.

Mr. WINGO. Unless you centralize the controlling volume of possible bank credits in the hands of the board—and you say they have it

now—unless you centralize it there, how can you control the fluctuations in the volume of credits?

Mr. LEE. That is a question of fact that I am not prepared to prove to you.

Mr. WINGO. That is the very thing I want to get you to do. We can sit here and other men can sit here and hear a beautiful theory discussed, but what we want to know is your mechanism for doing this thing. How are you going to do it?

Mr. LEE. The underlying fact is that the volume of bank funds comes from their ability to utilize the Federal reserve notes.

Mr. WINGO. You think so? You are not an expert on that, are you?

Mr. LEE. No; but is not that the fact?

Mr. WINGO. I think not.

Mr. LEE. A large share, anyway.

Mr. WINGO. Of course a large share, and of course the question is debatable as to how much a share constitutes a control. I will admit it will have to be a majority, but that is the thought. All agree with you about the evil effects that flow from violent fluctuations. We all agree that this inflation and subsequent deflation have had a bad effect upon Government employees and salaried people and wage earners—and everybody, as far as that is concerned. You may be possibly interested in one particular group, but we see a survey of all groups. Somewhere in this vicious circle, all classes are affected. At one time one group loses and at another time another group loses. The question is not, is it evil; but the question is now, how it is proposed actually to correct it, because I understand the proposed machinery is to make a stump speech to the board—"Be good and exercise the machinery you have; do not gouge out any cat's eyes." How can you correct this evil by simply making a declaration to a board, "Go on and do what you ought to do under the law and what you are supposed to do now?" I want a more practical plan. If you can convince me this is a practical plan, I should like to have you do it. It may be my dullness, but somehow I can not see it. I have been in Congress long enough to know—and this may not be so complimentary to us—that most people of the country seem to resent a declaration by Congress, and seem to think it is an effort to impinge on their liberties. What good would a stump speech by Congress in a resolution do, that a stump speech on the floor would not do?

Mr. LEE. Your contention is the Federal Reserve Board has not the power——

Mr. WINGO. You might give them that power, and the Lord, out of pity, might endow them with superwisdom and remove all elements of selfishness, etc., but it would be a physical impossibility for one board to sit in Washington and determine each night or each week or each month what are the needs of the industries of this country and what would be the effect. Some of the wisest financiers in this Nation will admit that in every crisis, the leading financiers have been mistaken as to the effect of passing movements on finance and credits. You might give this board superwisdom, but I do not believe any group of men have the physical endurance to take up all the industries and different factors that enter into the credit necessities of the continental United States, ignoring the effect on outside trade—I do

not comprehend how you can have one board with that super-wisdom and capacity.

Mr. LEE. Your theory is that the board has not such power.

Mr. WINGO. I am still laboring under the delusion that when I voted for the original Federal reserve act, the Federal Reserve Board was to be the servant or agent of the people and not a dictator to our industries.

Mr. LEE. Then, perhaps I am mistaken, but my assumption is that they do have the power and all I have to say is based on that assumption. They have the power to enlarge or diminish the volume of bank credit that is based on the Federal reserve system, and that obviously is very large. If it is not large enough to affect seriously the money supply of the country, why all this talk about the great importance and usefulness of the Federal reserve system?

Where do we get money from? Where do the banks get it? All the money we have is either coin or bank credit. (In coin, when thus speaking, I include greenbacks, which are paper coin, and bullion deposits circulating by means of certificates.) Now we have much more coin than we used to have; yet we do not have near so much additional coin, I suppose, as would account for the greater volume of money we now have, compared with what we had formerly. The rest is bank credits, and if all the inflation of that nature were removed, very likely it would be enough to correct the difficulty.

An objection has been made in the past to the proposition to stabilize money by regulating the weight of the gold dollar in accordance with the price index, the objection being that this remedy would not reach the trouble, for the reason that so much of our real circulating medium is not gold, but bank credits. The object of the present bill is to regulate bank credits, so that that part of the circulating medium will be stabilized in value.

Mr. WINGO. How will the bill regulate these bank credits?

The CHAIRMAN. Have you completed your general statement?

Mr. LEE. No, sir.

Mr. WINGO. I beg your pardon. I thought you had finished.

Mr. LEE. On the assumption that the Federal Reserve Board could regulate the volume of bank credits to a sufficient extent so that it would have an important influence on prices—in fact, a controlling influence on prices—I urge that this duty be laid upon the Federal Reserve Board, for those reasons that have been stated; and I urge that it be done now, before prices go higher. They have been up, as you know, to a very high level and now they are down lower. They may go up again. We want to fix it so the price level will never go any higher than it is at present.

It would be highly desirable, in some aspects, if it were possible, to restore the former price level, but, of course, there would be difficulty in doing that.

Mr. FENN. Where would you start your price level? I am asking that for information. Would you start it at a period say 5 or 10 years back? Would you start it at 1914, or what year? I do not know what year you would fix. I simply ask this in order to get it into the record.

Mr. LEE. I would ask to have it fixed where it is now.

Mr. FENN. You would make the present price level par—to use that term?

Mr. LEE. Yes. That is the proposition, and I join in it. But this is only because of the practical difficulty of establishing a price level arbitrarily even on the basis of sound reason. It is necessary, practically speaking, to take it right where it is now, and try to prevent further fluctuation. That is the most hopeful way of preventing further injustice of the kind that has been so terrible in the past.

SCALING DOWN OF EXPRESSION OF INDEBTEDNESS, TO PROTECT CREDITOR AND DEBTOR

If it were possible to do the best way—the way that would do the most good—that way would be to reestablish the price level where it was before the war, or even earlier, with the provision that all debts contracted at a higher price level than that would automatically be scaled down according to the price index of the date at which they were contracted. Such scaling down would not be a scaling down of the real indebtedness; it would be simply a scaling down of the figures used to express the indebtedness in order to express the real value of the indebtedness more truthfully, and bring about the just payment of such indebtedness.

In this way all creditors would receive full value. The creditors of more recent date would get, for instance, 1,000 one-hundred-cent dollars instead of 2,000 fifty-cent dollars. At the same time the creditors of longer standing, those whose claims date back to the date of the price level selected, would receive what is justly coming to them, but which they never can receive if a later and higher price level is permanently established; namely, they will receive the 1,000 one-hundred-cent dollars they originally contracted for, instead of having to take 1,000 fifty-cent dollars which a later price level would give them.

The advantage of this course would be that it would restore and preserve the true worth of the savings that were made before 1914, and the life insurance that was paid for up to that time, and the endowments of colleges and benevolent institutions, built up by the generosity and sacrifice of the people of bygone years, and all the private investments in bonds—Federal, State, municipal, and corporation bonds. All these savings and investments in the aggregate are very important interests, and they ought to be protected—if it is possible to do so.

Therefore it would be only justice to go back to the time before the war and use the price level then existing; provided—and only with this proviso—provided that all debts contracted since that time would be scaled down by law so as to express their true value.

Mr. FENN. Go back to 1914 and scale down to that point?

Mr. LEE. Yes, sir. And this would mean absolute justice to recent creditors as well as to old-time creditors. Every creditor would receive full value, without making any debtor pay more than the value that he really owed.

Mr. FENN. A creditor, then, would receive full value. If he had a debt of $2,000 and that were scaled to $1,000——

Mr. SHIBLEY. As gold has an international value, it would be impossible to scale down the price of gold for the rest of the world.

That is an impossible proposition, gold being an international monetary standard.

Mr. LEE. We have the gold in this country and can not get it out again very readily; but if prices were to come down, and all debts were scaled down in accordance with the price index in the manner that I have indicated, every creditor would receive full value.

It is an indispensable element of this proposition, however, that the scaling down principle be established by law without any possibility of waiver. It would have to be recognized that the scaling down is not a remission of part of the debt, but a restatement of the whole debt to make the statement agree with facts.

To deflate without this scaling down provision would simply mean new injustice, and plenty of it. Business disaster would follow, as a matter of course; and social disturbances.

If the just and rational course which I have suggested is impracticable, then by all means the price index should be fastened where it is now, instead of leaving such legislation until a time when the price index is higher, and instead of permitting deflation without scaling down.

The scaling-down provision would mean absolute justice, and I respectfully urge attention to this principle, which has not, so far as I am aware, been discussed or proposed previously.

FLUCTUATION DISCOURAGES SAVING

Think what a discouragement to saving we have in this uncertain value of money. Take life insurance, for example. Life insurance is constantly pointed to as a splendid means of thrift and cooperation, and so it is. Here is a card on which the Metropolitan Life Insurance Co. quotes from President Coolidge:

> Considering all the elements of security which it represents, I am convinced that no other mode of investment can provide so much of assured and available indemnity as good life insurance.

But the indemnity it provides now, at the present value of money paid to beneficiaries, is so small compared with previous standards of value that it seems to have lost much of the element of security after all.

Everybody, we are told, ought to carry life insurance; but those who denied themselves to keep up their premiums years ago are now (in this present decade) getting only two-thirds, one-half, or one-third of what they contracted for; that is, they or their widows are getting only that much in effect. The life insurance companies are not to blame; they are paying in dollars, and that is the best they can do. It is up to the United States Government to keep the dollars right, and the Government is delinquent in a most important duty if it fails to keep the dollars right.

The banks keep hammering it into us, Save! It is generally considered good for social welfare if people will save. Many people, however, think—

> What is the use of saving? If we invest in business the business may go wrong. If we leave our money in the bank the bank may break. If we buy bonds, even United States bonds, we do not get back what we put in. It is all very well to

talk about the credit of the Government, but if money is inflated then the Government does not really pay back what it borrows. We might as well spend our money while we have it, and get the good of it while we can.

I ran across a little verse that I will read, as it seems to apply to this situation.

Dollar, dollar, gleaming bright,
Can I keep you overnight?
Ah, your beauty fades so soon;
Your life is but from morn till noon.
Why so quickly get you hence?
I see; you're worth but 30 cents.

That was true in 1920; and the dollar now is worth about 60 cents compared with pre-war values, instead of 30 cents. But it may get down to 30 cents again. In justice to existing interests, I think it should be fixed now instead of at a still smaller purchasing power.

Gentlemen, it is no light matter to have your dollars become worth only 30 cents, when you have but a limited number of them, and the number is fixed. Those people who are in active business and whose receipts rise as their expenses rise, do not feel it the same way. But think of the thousands and millions of people whose receipts do not rise, but consist always of the same number of dollars. When their dollars are worth but 30 cents it is terrible.

A sound money system would do much for thrift.

STABILIZATION WOULD STOP LABOR TROUBLES

Then again, it would abolish labor troubles, in large part.

It was in 1920 that we had this high price level. It was in 1918, I think, that the anthracite coal miners submitted to arbitration; and they afterwards considered that they were stung, because their agreement lasted over 1920 and there was an immense depreciation of money, so that although they were satisfied at the start, their satisfaction was rendered quite empty. The justice that was done to the miners in 1918 was neutralized in 1920; and that, as we are informed, was the reason why they were afraid to accept arbitration in 1925–26. They were not demanding more wages so much as they were demanding safety.

This inflation of money has been the cause of a large share of our labor troubles. I want to urge this point. Labor troubles could be avoided, to a great extent, by stabilizing money. Wages become adjusted to a certain level; but if inflation follows, further demands for more wages must necessarily follow; and granting increased wages at the inflated prices amounts to giving the workers, after all, simply what they had before. This happens over and over.

If industrial peace is desirable (and we are always hearing about that), why not take this step, which would do more for industrial peace than all the conciliation boards and court injunctions in the world can accomplish without it.

RANGE OF SUPPLY AND DEMAND—THE ARM AND THE HAND

Before closing, may I say a word about the matter of supply and demand. The objection is constantly made against stabilization of

money, that supply and demand are what determine prices, and hence it is not a money question at all. But we know that the separate fluctuation of each separate commodity is a different thing altogether, from the universal rise or fall in all commodities, which takes place without reference to changes in supply and demand for all the material means of civilized living.

I have sometimes used this illustration, that a man's extended arm may represent the general price level, and his fingers at the end of his arm may represent the prices of particular commodities. See, I extend my arm. I can move each finger separately up or down—but only within a narrow range. My whole arm, however, I can move up or down over a wide range. The arm carries the fingers with it; and whatever the height of the arm may be, the fingers still have their own little ups and downs.

Most of us ate potatoes for breakfast this morning—they are a universal breakfast food. Potatoes now are selling at 10 cents a pound retail. If they were scarcer they might be 15 cents; if more abundant, they might be only 5 cents. If all prices, of all commodities, were doubled, potatoes would be 20 cents, with exactly the same supply and demand for potatoes that there is right now. Potatoes vary in price on their own account, but the range of their variation is limited by the general price level—just exactly as my middle finger may rise or fall 2 inches while the other fingers stand still, but whether that 2-inch range of one finger is at a height of 3 feet or 5 feet from the floor is determined by the position of the arm, and the separate activity of the finger has nothing at all to do with it.

Now, the fingers must be left free to move; but the arm should not be allowed to move—in this metaphor. In other words, the prices of separate commodities are to take their own course, and that board of superhuman wisdom, which Mr. Wingo referred to, does not have to consider the conditions of any separate commodity or the needs of any separate business; but only to keep the average price of all commodities (in their totality) at the same level. The board is not asked to hold the fingers still, nor to provide the right amount of leeway for each finger; it need pay no attention at all to the fingers. What the board is asked to do, under this bill, is to decide whether the arm should be stretched out at a level of 3, 4, or 5 feet from the floor, and then hold the arm steady at that level.

It seems to me it is an imperative duty of the Government to fix the price level so it will not go higher or lower. That is the object of this bill. Mr. Wingo holds that it would not attain that object; but there is reason to believe that it would. I am assuming that it would, and on that basis I urge that the action be taken now instead of five or ten years hence.

I think that is all I have to say.

The CHAIRMAN. The committee will adjourn until Thursday morning at 10.30.

(Whereupon, at 12.10 o'clock p. m., the committee adjourned until Thursday, April 8, 1926, at 10.30 o'clock a. m.)

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HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Thursday, April 8, 1926.

The committee met at 10.30 o'clock a. m., Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. Before Governor Strong proceeds I would like to call the attention of the committee to the hearings we held in connection with the Federal Reserve Bank building at Baltimore and the statement by Governor Seay of the Federal Reserve Bank of Richmond and Mr. James of the Federal Reserve Board, and without objection I would like to lift from those hearings those portions of their testimony which is pertinent to this subject and insert them at the opening of this hearing this morning. There appears to be no objection, and I will do that.

(The portions of the previous hearing referred to by the chairman are as follows:)

(The following taken from the hearings before the committee on Banking and Currency, March 16, 1926, on the joint resolution (H. J. Res. 191) authorizing the Federal Reserve Bank of Richmond to contract for and erect a building for its Baltimore branch—Mr. George Seay, governor, Federal Reserve Bank of Richmond, Va.:)

The CHAIRMAN. Are you willing to say that the surplus of the Federal Reserve Bank belongs to the Government?

Mr. SEAY. No, sir; I would not be willing to go that far. But as the act now stands, it reads that way.

Mr. LINTHICUM. If you will allow me, I would like to ask the governor in connection with Mr. Black's inquiry: You will remember that the banks took over the subtreasury system?

Mr. SEAY. Yes, sir.

Mr. LINTHICUM. And that subtreasury system for salaries amounted to $463,740, besides all the other expenses. This system is saving the Government that much, is it not?

Mr. SEAY. Yes; and you must not forget it is saving them a great deal more than that, because it would probably be impossible for the Government to conduct its financial arrangements at the present time for securities and bonds but for the Federal reserve system. Take it the other day, the Government floated a half billion of securities, $500,000,000. It had redeemed about $715,000,000. There is a total of $1,215,000,000 both ways. All those things are done through the Treasury Department.

Mr. BLACK. No one would dispute the value of the Federal reserve system. On the other hand, they have the power to issue currency, which is a governmental function; and the Government is supposed to get a franchise tax, and while it is true that these bank buildings come out of the capital stock of the bank, but the depreciation charges come from the expense account, and by reason of their being so heavy it amounts to the condition that the Government is getting no franchise tax.

Mr. SEAY. Don't you think it is fair to take this into account? You are describing a condition which I believe and I know is a temporary condition, charging off by some of these banks due to construction and due to extreme cost of construction, a certain percentage to reduce it to a level. When you allude to the Government

being deprived of the franchise tax, don't you think you ought to go back and see how much?

Mr. BLACK. During the war the operations of the bank were abnormal, and I recall we had Governor Harding of the Federal Reserve Board before the committee, in which he pointed out very clearly that a very large part of the earnings were due to the expansion of the currency.

Mr. SEAY. Yes, sir.

Mr. BLACK. Which was a governmental function?

Mr. SEAY. That is right. Another thing I want to call attention to, and that is that the earnings of the Federal reserve banks can not be large unless they employ the resources in the market in some way. So that earnings depend to a very great extent to the use of reserves.

You know there is considerable controversy and difference of opinion as to whether or not the reserve banks haven't used reserves too freely, in that it tends to expansion of credit and some believe inflation.

There can be no earnings unless they use Federal reserve bank reserves. At the same time, we know it is not intended to be a money making proposition; yet they can not pay franchise tax unless they use reserves, and I never regarded it as sound finance to use reserves except when called for by the safety of the country and relief.

The CHAIRMAN. In this flush time referred to why should you have Federal reserve notes of $400,000,000 outstanding?

Mr. SEAY. Not for the currency of the people. You can not keep any more of those notes out than used to save your life, the provision for redemption is such.

The CHAIRMAN. It is a fact, is it not, that the Federal reserve notes have supplanted to a certain extent other forms of circulating medium?

Mr. SEAY. I do not see how this country could have had adequate currency but for some such arrangement of the Federal reserve system, with between one billion six hundred million and one billion seven hundred million outstanding, and with that there is in the hands of the banks of the country between $700,000,000 and $800,000,000 of currency of all kinds, where before the system was established they were accustomed to hold about twice that amount or about $1,400,000,000.

The CHAIRMAN. What effect does the fact that we have $1,750,000,000 of circulating notes out more than we had when the Federal reserve was organized have on prices?

Mr. SEAY. Have on prices?

The CHAIRMAN. Yes; is it inflation or is it not inflation?

Mr. SEAY. My own argument is that there is no inflation; that if you didn't have those notes out you would have to have the gold out; that those notes about take the place of an equivalent amount of gold.

The CHAIRMAN. You do not think there would be any difference in the situation, whether the gold was out or whether the notes were out?

Mr. SEAY. There is none at all; one is equivalent to the other, and equal things to the same thing are equal to each other.

The CHAIRMAN. Is there any difference between Federal reserve notes and the gold certificates?

Mr. SEAY. Practically none.

The CHAIRMAN. What is the difference?

Mr. SEAY. Some technical arrangement. The Federal reserve notes outstanding are redeemable by the Treasury in gold, and are redeemable by the Federal reserve bank in gold, or lawful money, which means gold, because lawful money bears a very small proportion to gold.

The CHAIRMAN. You do not feel, then, that there is any obligation on the part of the banks to return the franchise tax to the Government on outstanding Federal reserve notes?

Mr. SEAY. I don't think so sir.

The CHAIRMAN. In other words, you consider it is perfectly right and proper that the Federal reserve system should absorb all of its net profits, whether derived from the loaning of reserve funds or from the issuance of Federal reserve notes?

Mr. SEAY. I think so, since they pay the entire expense of the production of those notes and of the upkeep of those notes—everything; that is one thing to bear in mind. The cost of that operation of clearance is borne entirely by the Federal reserve banks. If they did not do it, the Treasury Department would have to do it; and, as was mentioned a while ago, the cost of subtreasury is a very substantial franchise tax, and bearing all expenses of the issuance of Federal reserve notes except the small expenses incident to these periodical issues.

The CHAIRMAN. What proportion of the expenses of your Richmond bank is the cost of the transit department—the collection of checks and other items?

Mr. SEAY. We have in the transit department, I think, sir, about 110 people. We have altogether in our employ 371 employees, so that it requires a little more than one-third.

We do issue an annual report, in which we divide the operations of the Federal Reserve Bank in Richmond into functions, and we do estimate in that report the cost of performing the collection function, and of the money functions, and of the other functions of the bank. I can not speak definitely, but my recollection is that it is somewhere between $300,000 and $400,000 a year.

Mr. WINGO. Are you right there?

The CHAIRMAN. Is that one-third of your gross expenses? You say about one-third of your employees are engaged?

Mr. SEAY. I should say that is about one-fourth of the gross expenses. I think that bears out the statement I made that the transit department is the costliest department in a bank.

Mr. WINGO. In figuring on that do you also include gold transfers and money transfers, as a part of that expense?

Mr. SEAY. That is in a separate department. I find that the cost of transit and collections, which is not the entire cost of the transit department, is $289,000.

You can not separate the bank into separate and distinct functions except in a general way. The total operating expenses last

year were $1,458,000. So that I think I am right in saying that the cost of conducting the transit department is about $300,000. So that it is almost 25 or 30 per cent.

Mr. WINGO. Is that currency allocation, if you will permit me, and rediscount?

Mr. SEAY. That is not currency.

Mr. WINGO. Cost of rediscount and your currency, isn't it very small compared to other operations?

Mr. SEAY. The cost of receiving and handling so many pieces of currency and so many pieces of coin, the shipment charges, expense by the Treasury Department covering cost of printing and maintenance, $321,000. That is what it would cost the Government in our bank if they were performing the services.

Mr. WINGO. Your bank is now performing functions with reference to sorting currency and sending in currency of the Federal reserve bank which the member bank would have to perform?

Mr. SEAY. The shipments between the member banks and correspondents; and we are now paying the cost of the currency both ways.

Mr. WINGO. I was proceeding on the idea that member banks own the Federal reserve system and get the benefits out of it.

Mr. SEAY. So they do. They are not prepared to admit it——

Mr. WINGO. You do not contemplate doing away with the profits to the Government, whenever there are any, and asking the Government to make a contribution?

Mr. SEAY. What kind of a contribution?

Mr. WINGO. A contribution to charitable operations and serving those member banks.

Mr. SEAY. What kind of a contribution are they making?

Mr. WINGO. I got the impression from your suggestions that possibly you thought you were rendering an extraordinary favor to the Government for which you might possibly feel like being compensated instead of giving some.

Mr. SEAY. We should be compensated and the Treasury Department held we were entitled to compensation, but Congress didn't make any provision for it.

Mr. WINGO. That is the point I am getting at: Is it your position that this system renders such great benefits, which any man who goes into the infinite details of the wonderful service that you and every other Federal reserve bank renders its stockholders and its members, that you can contemplate and justify the theory that possibly the Government ought to compensate you for something?

Mr. SEAY. I think so, but it is as broad as it is long.

The CHAIRMAN. What is that service in your bank, for instance, that you have rendered the Government?

Mr. SEAY. The cost of the transit department amounts to $321,000, but the cost of shipping charges which the Federal reserve banks pay into the member banks is about $93,000 of that $321,000.

The CHAIRMAN. That is in addition to the cost of the transit department?

Mr. SEAY. Oh, yes; in addition to the cost of the transit department. The position that I took just now was that perhaps the Treasury Department ought to pay the expense of performing the

services of subtreasury which they formerly did pay and which the Treasury Department took the position it was called upon to pay, but there happened to be no appropriation by Congress, or Congress took a different view.

The CHAIRMAN. In other words, the Government is getting in the way of services from you an amount which might be construed as being in lieu of the franchise tax.

Mr. SEAY. Undoubtedly. I do not think that any fair consideration could result otherwise.

Mr. WINGO. I am talking about this: Bankers, like wholesale grocers, where there is no profit, will liquidate. I think one of the evils of the Federal reserve bank system is the national banks crying about being imposed upon and doing it out of a sense of public duty. I think that is unfortunate.

Mr. SEAY. You haven't gathered that impression from anything I said, have you?

Mr. WINGO. I thought you covered that matter that the Government was imposing upon a charitable institution known as the Federal reserve system?

Mr. SEAY. When you come to consider getting a franchise tax I think we can make a showing that the Government is getting it either directly or indirectly. Certainly we are performing services which it would cost the Government a great deal to perform.

Mr. WINGO. And the Government, having set up your system and maintaining it, is giving the bankers of the country—I am not complaining of it; I was for it—an inestimable benefit, which they seem to overlook every time when they are looking at what the Government is getting.

Mr. SEAY. Unfortunately they overlook it, and that is that they do not properly appreciate the benefits of the system.

The CHAIRMAN. I understood you to say a few moments ago that the surplus of the Federal reserve system belongs to the Government?

Mr. SEAY. Their accumulated earnings, and I think if you will turn to the act you will find that in case of liquidation of the Federal reserve banks that after the repayment of the reserve deposits and after the repayment of the capital subscribed by the member banks, that whatever remains is the property of the Government; that is all.

There are two sources of profit in the Federal reserve system: One arises from the employment of the reserves of the member banks, which are $2,200,000,000, whatever proportion of those reserves is loaned out and income is derived from. Then there is the partnership of the profit arising from the issue of Federal reserve notes. Federal reserve notes can be issued against gold and, as you know, can be issued against discounted paper, provided a reserve of 40 per cent is maintained. So there are two sources of profits—from the issue of Federal reserve notes and from the employment of reserves of member banks; of those two sources of profit $2,200,000,000 is reserve deposits and about $1,600,000,000 Federal reserve notes outstanding. My recollection is that those notes are all covered by gold at the present time. They are in our bank, so that they are the equivalent of gold.

Those two sources of profit, one arising, as you have heard, from the power to issue currency, the cost of which I only insisted was borne by the system itself; the cost of furnishing the rest of the currency of the country is borne by the Treasury Department.

The CHAIRMAN. Just before you go, Governor, pertinent to this question is the volume of business that you are doing in the Federal Reserve Bank of Richmond. You have stated here that practically 50 per cent of the cost of operation of the Richmond bank is work done for the Government and in the transit department. You have also stated that 50 per cent of the cost of operation——

Mr. SEAY. Not quite 50 per cent.

The CHAIRMAN. I understood you to say $350,000, approximately, was the cost of the transit department.

Mr. SEAY. Yes, sir.

The CHAIRMAN. And $350,000 the cost of the work done for the Government.

Mr. SEAY. Pretty nearly.

The CHAIRMAN. In addition to that, you have the transmittal of currency and coin, which is an additional expense?

Mr. SEAY. Yes; that is right.

The CHAIRMAN. Your earnings are derived, of course, from the amount of rediscounted paper and interest on other moneys invested?

Mr. SEAY. Yes, sir.

The CHAIRMAN. What per cent of your earnings is derived from discounted paper; in other words, how are you investing your funds at this time of the Federal reserve system? How are the earnings derived—what per cent of rediscounts of member banks' paper and what per cent is derived from investments of bonds, securities, and other investments?

Mr. SEAY. We have invested in short-time Government securities, as I recall, about $8,000,000; we have invested in discounted paper about $50,000,000.

I do not know whether all these gentlemen recall the outlines of the district. It is the Maryland district, Virginia, West Virginia, and all except about six or five counties in the panhandle of North Carolina, composing about 10,000,000 inhabitants.

The CHAIRMAN. In your statement, of course, those are called earning assets?

Mr. SEAY. Yes, sir.

The CHAIRMAN. What percentage of total reserves is invested in earning assets?

Mr. SEAY. Total deposits, about $65,000,000—just about total deposits. Suppose we had 35 per cent reserve against them, that would be deposits $65,000,000 against the required capital permanent reserve of 35 per cent.

Mr. WINGO. Suppose the members and chairman of the committee recognize it is very essential to have commodious quarters in Baltimore. That branch is in the heart of the most rapidly growing part of the United States, as we all recognize, since it covers the Carolinas, the District of Columbia, and Maryland.

The CHAIRMAN. The point I was getting at, from what the governor has stated, which has a bearing upon the whole point at issue, but more particularly upon the operation of the Federal reserve

system, is the fact that over 50 per cent of their expenses is devoted to the transit department and the work being done for the Government. It is clear, I think, to all of us, from the statement the governor has made here this morning, that the Federal reserve system is assuming many burdens, such as maintenance of the circulating medium, which heretofore has been done at the expense of the United States Government and many other services. I am speaking of the time prior to the establishment of the Federal reserve system.

The question naturally arises to my mind here whether or not the Federal reserve system itself is not assuming an undue portion of the burden of these expenses and cost of buildings and whether perhaps a portion of the cost of these buildings should not be properly paid by the United States Government.

As I understand you, an amount in excess of the deposits of member banks is invested in earning assets?

Mr. SEAY. No; just about the same. In other words, the total deposits are going down. Ours is a borrowing district, and ordinarily the income is derived from discounting operations.

The CHAIRMAN. What proportion of the earning assets of your bank is the proposed loan of $200,000,000 which was arranged for Great Britain? What is your share of this established credit?

Mr. SEAY. I think perhaps if they were called upon to make the loan that our proportion would be between 4 and 5 per cent, that being about the proportion our capital and surplus bears to the entire capital and surplus of the Federal reserve system.

The CHAIRMAN. How is the Federal Reserve Bank of Richmond obligated under that agreement?

Mr. SEAY. It is obligated only to this extent, that the Federal reserve bank will participate in any advances which may be made.

The CHAIRMAN. Is that a liability to the Federal Reserve Bank of Richmond?

Mr. SEAY. I should think it would be.

The CHAIRMAN. How do you report that liability in your statements?

Mr. SEAY. There has been nothing to report, because no loan has been made; it is only contingent.

The CHAIRMAN. An obligation to loan if called upon?

Mr. SEAY. Could not be put in.

The CHAIRMAN. There has never been any information furnished this committee on that obligation, and there are apparently several versions as to the obligation of the Federal reserve system outstanding; just what is the obligation of the Federal reserve system?

Mr. SEAY. I know I have seen in print everything I have told you, that there was an agreement upon the part of the system, sanctioned by the Federal Reserve Board, and has been so published.

The CHAIRMAN. Is there an agreement of participation in that between the Federal Reserve Bank of Richmond and the Federal Reserve Bank of New York, or some committee, which authorized that loan to Great Britain?

Mr. SEAY. Nothing but a verbal understanding, which has been confirmed by correspondence, that if and when advances were to be

made on adequate surplus that the Federal Reserve Bank of Richmond would be willing to participate upon the customary basis, based upon its proportion of capital and surplus to the proportion of capital and surplus of the entire system. Nothing more definitely than that, and I have certainly seen that in print.

Mr. STEAGALL. Who commits for you?

Mr. SEAY. The directors of our bank.

Mr. STEAGALL. Nobody else could commit you?

Mr. SEAY. No.

Mr. STEAGALL. But at whose instance do you take that stand?

Mr. SEAY. I do not take it at the instance—certain of the Federal reserve officials who are responsible for the administration of certain banks stated that this kind of an arrangement might eventuate, and if it did would our banking institution be willing to participate.

Mr. STEAGALL. You think this suggestion came from the certain bank? We just want to know who this is. We want to know the source. I am not complaining; I just want to know.

Mr. SEAY. I do not know that I can say definitely about all the banks, but I think all the larger Federal reserve banks were associated together.

Mr. STEAGALL. You know who took it up with your bank and made the suggestion?

Mr. SEAY. The direct intimation we got came through the New York bank, but I am quite sure that all the larger Federal reserve banks, by understanding and by conversation, were likewise concerned. As far as we were concerned, the tentative arrangement came through the New York bank.

The CHAIRMAN. Governor, to whom does your commitment run—to the Federal Reserve Bank of New York or to the Bank of England?

Mr. SEAY. It does not run to the Bank of England. The commitment, as far as it stands with our bank, is that our bank by direction of the directors is willing to pay to any advances that may be made to the Bank of England in the purchase of bills or advances against gold.

The CHAIRMAN. I wanted to ask under what authority of the law have you the right to make such a commitment?

Mr. SEAY. The purchase of bills at home or abroad.

The CHAIRMAN. What section of the Federal reserve act?

Mr. SEAY. Section 4.

The CHAIRMAN. Do you think the framers of section 4 of the Federal reserve act had in contemplation the loaning of $200,000,000 to Great Britain?

Mr. SEAY. It is not to Great Britain; it may be any kind of bills of exchange.

The CHAIRMAN. To whom, then does the commitment run?

Mr. SEAY. As far as our bank is concerned?

The CHAIRMAN. Yes.

Mr. SEAY. It is nothing more than the expression of a willingness to participate in the advancement of such-and-such sum, equivalent to 4 or 5 per cent of the sum, in advances to be made, or advances of other nature, I think specified in section 4 of the bank act.

Mr. BEEDY. To whom was that expression made?

Mr. SEAY. I have answered.

Mr. BEEDY. To the New York bank?

Mr. SEAY. The correspondence came to us from the New York bank—not to us only, but as one of four or five of the larger banks of the country.

The Federal reserve banks, through their own banks, had expressed a willingness to participate in this business, and some of the larger ones got together and agreed they would participate. The New York correspondent took it up with this bank, asked as to the willingness, and our bank answered in the affirmative.

The CHAIRMAN. Have you on file in your bank any statement or agreement of committal?

Mr. SEAY. To whom?

The CHAIRMAN. To the Federal reserve bank or anyone else?

Mr. SEAY. Yes, I have a copy of a letter in answer to the proposal to the Federal Reserve Bank of New York, stating our directors would participate.

The CHAIRMAN. Is it your understanding that the Federal Reserve Bank of New York negotiated directly with the Bank of England or with the Government of Great Britain?

Mr. SEAY. It is my understanding that the negotiation was entirely with the Bank of England, a banking transaction.

The CHAIRMAN. What kind of bills is in contemplation of purchase?

Mr. SEAY. The usual bills we are authorized to purchase—bills of exchange—you know England is the great open market handling continental bills of exchange from all over the world, and there might be bills made in this country.

The CHAIRMAN. Was the rate of discount fixed in this agreement or understanding?

Mr. SEAY. No, I don't think so.

Mr. WINGO. Do not the bills of exchange in England circulate very much like currency?

Mr. SEAY. Not exactly like currency.

Mr. BEEDY. Not exactly; but they are used as a medium of exchange in different countries, and in England particularly.

Mr. SEAY. The banks there having excess reserves invest those excess reserves in these bills of exchange in the English open market or sell bills of exchange in the open market, and do not discount them in the Bank of England—they sell these bills, for which there is always a market, and thus supply themselves with funds.

The CHAIRMAN. Did you answer as to who negotiated this arrangement? Did the Federal Reserve Bank of New York negotiate this?

Mr. SEAY. I do not think they did, in and of themselves. I can only say that the proposal came to us from the Federal Reserve Bank of New York, and it is pretty well known there is what is called the "investment committee" of the Federal reserve banks. You know that, do you not?

The CHAIRMAN. Yes; made up from the officers of the 12 Federal reserve banks?

Mr. SEAY. Yes; and this came to us from the chairman of the investment committee.

The CHAIRMAN. Who is chairman of that committee?

Mr. SEAY. Governor Strong of the Federal Reserve Bank of New York.

Mr. FENN. From the chairman of the committee and not directly from the New York bank?

Mr. SEAY. Oh, no.

Mr. WINGO. Governor Strong wrote you as chairman of that committee?

Mr. SEAY. That is the light upon which we looked upon it; yes, sir. I might say that that is nothing unusual; there are other instances in which we agree to participate in the purchase of bills in this country.

Mr. STEAGALL. Would there be any objections to submitting that correspondence to the chairman of this committee?

Mr. SEAY. So far as I am concerned, I do not think there would be any. But there is not anything in it which I have not repeated, so far as I can recall. I would rather you would not ask me for it, in the nature of the correspondence, but at the same time there is not anything in it I would not be willing to read to you. I told you the exact substance, and so far as I can understand there is nothing to it at all.

Mr. WINGO. So far as you can understand, what was the benefit to flow to the Bank of England or necessity to the Bank of England?

Mr. SEAY. It was entered into as an aid to the Bank of England in placing the banking business of England upon the gold basis.

Mr. WINGO. Here is what I would like to get at, Governor: The agreement you talked about is the agreement that was made that the Federal reserve system would furnish to the Bank of England $200,000,000 gold?

Mr. SEAY. No; the Federal Reserve Bank of Richmond would participate.

Mr. WINGO. I am talking about the agreement; not who would make it.

Mr. SEAY. Mind you, it was conducted on the basis of the individual banks.

Mr. WINGO. The Federal reserve system includes all banks?

Mr. SEAY. We had better say Federal reserve banks.

Mr. WINGO. I am cutting out the detail. The outstanding, substantive proposition was that the Bank of England thought possibly it would need $200,000,000 of our gold to maintain the gold standard which it was resuming, and our system or some of our system or parts of our system agreed that if it became necessary we would let them have that $200,000,000. Of course, you can not pay for gold with gold, and the Bank of England said, "We will pay you in prime bills that you have already been in the habit, especially the New York Bank, of going into the open market and buying;" and in order to keep that practically going continuously until it can be whittled down, these bills as they matured were replaced by other bills to mature in the future?

Mr. SEAY. That is all there is to it.

Mr. WINGO. Had not the Federal reserve system prior to that agreement, for more than two years, maintained on an average more than $200,000,000 invested in that very same kind of bills?

Mr. SEAY. Oh, yes.

Mr. WINGO. So practically all you agreed to do was that you have continued the policy of the last two years for about three years more or less; in other words, you gave the Bank of England the definite assurance, pending operations, that we would continue for the period of that agreement to invest wherever necessary and pay gold therefor to the amount of $200,000,000 at least, which was about the average amount we had been carrying?

Mr. SEAY. About the average amount.

Mr. WINGO. That is what you were talking about when you were talking about this agreement?

Mr. SEAY. Nothing more nor less.

The CHAIRMAN. Governor, in that connection, supposing this whole $200,000,000 should be drawn on, what would be your proportion?

Mr. SEAY. As I think, between 4½ and 5 per cent. The Federal reserve system, about 1919 or 1920, had about $600,000,000 invested in acceptances in this country. I think at the present time they have something around $250,000,000.

The CHAIRMAN. Governor, the total capital of the entire Federal reserve system at the present time is around $200,000,000?

Mr. SEAY. Our capital is $120,000,000 and the surplus at the present time is nearly twice that, or $220,000,000.

The CHAIRMAN. Entire capital of Federal reserve banks of the whole Federal reserve system?

Mr. SEAY. That is right.

The CHAIRMAN. That surplus, in case of liquidation, would belong to the United States Government?

Mr. SEAY. Yes; after payment of reserve deposits and the return of capital, with accrued dividends.

The CHAIRMAN. The only funds you have outside of capital and surplus in the Federal reserve system are the deposits of member banks or the legal reserves of the member banks in the Federal reserve?

Mr. SEAY. Capital of banks and the reserve of the member banks.

The CHAIRMAN. Are you of the opinion that it is a good plan to loan to a foreign government reserves or make commitments which might absorb the legal reserves of the Federal reserve system?

Mr. SEAY. I do not think we are loaning to a foreign government.

The CHAIRMAN. You are buying notes or bills?

Mr. SEAY. Yes; but we are not buying from any foreign government.

The CHAIRMAN. You are buying then how?

Mr. SEAY. That would be such bills as we might deal in with the Bank of England.

The CHAIRMAN. Are they obligations which would be readily marketable in case of a sudden outbreak of war?

Mr. SEAY. I should think so, sir. You know how the bills flow in the open market of London, which amounted to, I think, about

a billion and a half when the war broke out. The English treasury undertook the guaranty of those bills—about a billion and a half to-day—but so far as those bills are concerned they might be bills in this country which we are authorized to purchase.

The CHAIRMAN. Are you of the opinion that it is the spirit of the Federal reserve act that there might be invested these legal reserve deposits or the capital of the Federal reserve system to the extent of $200,000,000 in foreign securities such as is provided in this agreement?

Mr. SEAY. Beyond any question; we have that right to deal at home or abroad.

The CHAIRMAN. Under section 4?

Mr. SEAY. Yes, sir; at home or abroad in foreign exchange, and no limit is placed on that.

The CHAIRMAN. The newspaper reports of this loan indicate that when this credit was granted the Federal Reserve Banks participated to the extent of $200,000,000 to either the Bank of England or Great Britain, and it indicated at the same time there was a credit of similar nature granted by J. P. Morgan & Co. The newspapers also reported that J. P. Morgan & Co. was getting a commission on that transaction, so far as their loan is concerned, but that the Federal reserve system was getting no profit from the transaction; and I have here a newspaper clipping from a recent issue of the New York Times which I want to read to the committee [reading]:

MORGAN SILENT ON FEE—REFUSE TO TALK ON $1,125,000 CHARGE FOR $100,000,000 CREDIT TO BRITAIN

Officials of J. P. Morgan & Co. refused to comment yesterday on the statement of Winston Churchill, British Chancellor of the Exchequer, that the cost of the $100,000,000 credit which Great Britain obtained from the Morgan firm at the time of the return to the gold standard, was $1,125,000 to the end of the first year.

The interest charge in connection with the credit never has been announced here, but it was said yesterday that it was a matter of public record in London and was published there when the credit was obtained last April. The Bank of England obtained a $200,000,000 credit from the New York Federal Reserve Bank at the same time the British Government arranged the Morgan credit. Neither credit has been drawn upon. Both were obtained as a precaution against exchange pressure when Great Britain resumed gold payments.

That naturally raises the question as to who negotiated this $200,000,000 credit; whether J. P. Morgan & Co. or whether it was arranged jointly with the Federal Reserve Bank of New York; and if the Federal Reserve Bank of New York arranged their part of it why didn't they make a charge for this service, the same as J. P. Morgan & Co.? Is there any agreement as regards payment for this service?

Mr. STRONG. Because J. P. Morgan & Co. got all the traffic would bear; there would be nothing left.

Mr. WINGO. I want this in the record: The agreement contemplates that the $200,000,000 of paper that shall be purchased with gold under this agreement; that those bills will have to be created so as to give the Federal reserve banks 1 per cent more than the current rate. I think that is the current rate of discount in the United States, isn't it? In other words, it would be 1 per cent premium going to the Federal reserve bank on that $200,000,000; isn't that true, Governor?

Mr. SEAY. I can not recall definitely.

Mr. STEAGALL. That statement was made; I remember that.

Mr. SEAY. There is a difference, you know, between discount rates in this country and what is called the open-market rate for acceptance there.

Mr. WINGO. One per cent premium over some basic rate, whether the current basic rate of exchange or the open-market rate in the United States?

Mr. SEAY. The open-market rate.

Mr. WINGO. Or rediscount rate. I have an idea it is the open-market rate.

Mr. SEAY. At the open-market rate; yes, sir.

The CHAIRMAN. I am not saying that that is not a perfectly legitimate and proper thing to do. I am not unsympathetic with the United States rendering such assistance as they can to Great Britain.

Mr. SEAY. I understand.

The CHAIRMAN. But the question has been raised in the minds of a good many people as to the participation of the Federal reserve system in a loan of this character and as to the authority and as to the terms and the reasons for and as to just what the commitment was; in other words, if this Federal reserve system is the sacred reservoir for the maintenance of the liquid reserves of the banks of this country for use in emergency, is it proper that those reserves shall be invested in a foreign credit of this kind?

Mr. SEAY. As the question——

The CHAIRMAN (continuing). Is it proper and good for the Federal reserve system? I do not ask you to answer that one way or the other, but I wanted to make that statement, in view of the questions that have been put to you here.

Mr. SEAY. In the first place, I want to say that there is not anything wrong about this transaction to which you are not perfectly welcome, and I am not withholding anything whatever.

The CHAIRMAN. And I will say that there is no intention to embarrass you. But you are the first governor of any Federal reserve bank that has been before this committee since this matter happened. It is a matter in which the committee is extremely interested, and they will in all probability want additional information.

Mr. SEAY. There is not anything to which you are not perfectly welcome or to which I feel I have any hesitancy in saying. If I have appeared reluctant, it was because I was searching my mind for the exact terms of the agreement. There always is a difference of opinion on large subjects. There might be some question about the propriety of doing this thing. Some people might hold one thing and some people might hold another. But upon the right and authority of the Federal reserve banks to do this, according to the counsel of our bank and according to our opinion and the opinion of the Federal Reserve Board, there is no question whatever about it; and, moreover, as the gentleman (Mr. Wingo) has just said here, it is to extend the operations we are constantly conducting.

Mr. WINGO. In other words, your defense against the restraint of the law is this: that the spirit of the law—I can understand that there might be some doubt whether or not the letter of the law

permitted what you have done—the answer to that from your viewpoint is that you were called upon to make the commitment in the regular line of open-market purchases; you had ample funds and you were in the habit of investing surplus funds in bills in the open market, and it was nothing unusual, especially for the New York bank, to buy in the open market these foreign bills that are used to finance our exports and imports. For illustration, if my friend Strong, of Kansas, took in a million dollars' worth of his wheat at that time and exported it to Europe, it has to be settled mostly by those bills of exchange. There is nothing, you think, that bars you under the law, the Federal reserve bank or your bank, from buying that $1,000,000 exchange to finance the export of that wheat, buying in the open market? You feel like that is perfectly legitimate and one of the functions for which your institution was created?

Mr. SEAY. According to my own judgment and the act, according to the advice of our own counsel, and the combined advice of the Federal reserve banks, there is nothing unusual about it contemplated by the bank. It is a little larger transaction than we are accustomed to. We haven't been called upon to advance anything and we might not be called upon to advance anything; but if we were, we would do it in the regular way.

Mr. STEAGALL. You may have gotten the benefit of it by the agreement.

Mr. SEAY. Certainly; and as a leavening influence, I think that the benefit of it has been world-wide.

Mr. STEAGALL. It is sort of like the fellow who owes you something and he comes and wants to pay it and you say "All right. I will just carry it a little longer, if you like."

Mr. SEAY. And perhaps those who have been benefitted most by it have been the people of this country. But that is a collateral thought in view of the suggestion.

Mr. BEEDY. Governor, it is doubtful that all your surplus is invested, and that if you were suddenly called upon to fulfill the terms of your agreement you would be obliged to draw upon your reserves up to this commitment?

Mr. SEAY. More than our surplus is invested, and our capital, too.

Mr. BEEDY. Then, as to the wisdom of allowing the Federal reserve banks to participate in purchases in the open market of foreign securities when to do so means to draw upon their liquid reserves, what do you say about that?

Mr. SEAY. We are drawing upon our liquid reserves all the time.

Mr. BEEDY. Ought there not in your opinion be some amendment or some restriction in that regard?

Mr. SEAY. There is. The act says we must maintain 40 per cent against Federal reserve notes and 35 per cent against deposits. There is that restriction now.

Mr. BEEDY. You are drawing upon those reserves.

Mr. SEAY. Not the 40 per cent and 35 per cent.

Mr. BEEDY. What reserve are you drawing on?

Mr. SEAY. The reserve deposits. The capital of the Federal reserve banks consists not only of the capital subscribed by member

banks and their accumulated surplus, but consists of reserve deposits. Those are the reserves of the country.

Mr. BLACK. There is kept on hand at least 40 per cent?

Mr. SEAY. There is kept on hand at least 40 per cent and also 35 per cent; in other words, if our reserves get low we can sell some of our discounted paper or bills purchased in the open market to the other Federal reserve banks.

(Continuation of excerpts from hearings before the Committee on Banking and Currency March 16 and 17, 1926, on the bill House Joint Resolution 191, authorizing the Federal Reserve Bank of Richmond to contract for and erect a building for its Baltimore branch—Hon. George R. James, member Federal Reserve Board—March 17):

The CHAIRMAN. In the discussion before the committee yesterday, the governor of the Federal Reserve Bank of Richmond stated to us that the cost of this fiscal work which the Federal Reserve Bank of Richmond was doing was about one-fourth of their total expense, and that that was paid for out of the earnings of the Federal Reserve Bank of Richmond, and that if it was not for that work that this money could be otherwise paid back to the Treasury of the United States in the form of a franchise tax.

I raise this question now to get your opinion, or the opinion of the board, for the committee, as to whether or not the Federal reserve system is doing an unusual amount of work for the Government of the United States for which they should be recompensed.

In addition to that, there is a collateral issue also as to whether or not the Federal reserve system is not carrying an undue amount of burden and expense incident to the furnishing of the circulating medium which did not exist prior to the passage of the Federal reserve act; in other words, whether or not the Federal reserve system is being charged with the responsibility of furnishing a circulating medium in the form of Federal reserve notes, the burden of which charge heretofore has been borne by the Treasury of the United States——

Mr. JAMES. Well——

The CHAIRMAN. There are other functions like the transfer of funds and other incidental services that the Federal reserve system is performing, which might be construed properly as a part of the Government's expense. The question was raised here before the committee as to whether or not the Federal reserve system was or was not returning as much franchise tax, or earnings in the form of franchise tax, to the Government that it should and whether the Government was not getting compensation in the form of services in lieu of franchise tax.

Mr. JAMES. There can be no question but what that is so.

The CHAIRMAN. What is the view of the board on those points?

Mr. JAMES. It is a matter I have not heard discussed in the board as a whole, and therefore I should be reluctant to talk as speaking for the board. But in my judgment, there is no doubt but what the Federal reserve banks are performing functions and services for the Government that bear tremendously in the aggregate of expenses. Many of those expenditures are of such a nature that I should say they would vary in the different banks. Offhand, without having

any figures before me to corroborate my statement, I should say that the Federal Reserve Bank of New York performs more services for the Treasury Department than any other bank in proportion.

The CHAIRMAN. I will say to you, Mr. James, that when Governor Seay yesterday stated that the expense of these fiscal operations is costing the Federal Reserve Bank of Richmond in the neighborhood of $350,000, I was surprised, and I wondered if that was a fair comparison of the expenses of the other banks; and, as you say, probably the New York bank's expenses are much greater, because a lot of those transactions are centralized there?

Mr. JAMES. Yes, sir.

The CHAIRMAN. Offhand, could you give the committee any idea of what these fiscal expenses are in the Federal reserve system throughout the 12 banks?

Mr. JAMES. I would rather not attempt to give that opinion offhand, because they run into such an enormous amount that it might be misleading.

Mr. WINGO. Would it not be well, Mr. Chairman, for him to call on his banks to estimate the cost of these services, and to segregate it and the character of services; in other words, to enumerate them and the estimated costs?

The CHAIRMAN. I have no doubt that probably that is available.

Mr. JAMES. It is right here.

The CHAIRMAN. I would suggest that for the year 1925 those figures be made available.

Mr. JAMES. I think right in our own Division of Bank Operations here in Washington we can get that information, perhaps during the day.

Mr. WINGO. I think you might have it in the aggregate, but I had this idea: Taking into consideration the transfer of funds for the Government and other things, undertaking to give a general statement—in other words, you have an idea of what we want, so that we could study that?

Mr. JAMES. Yes.

Mr. WINGO. Because there might be some dispute whether or not the one character of service would be such a service as was contemplated in the original requirements that they should act as fiscal agents.

Mr. JAMES. No.

Mr. WINGO. The service might be one the Government could not really compel under the law that the banks render, but that the banks are voluntarily rendering it. You get the idea?

Mr. JAMES. Yes.

Mr. WINGO. We want it segregated so that we can determine the real services that the banks are rendering, which cost them dollars and cents and which save the Government comparatively the same amount.

Mr. JAMES. Of course, you understand that there would be a considerable difference in the figures for the various banks.

Mr. WINGO. I understand that. Certain banks in certain sections have very much heavier volume in the handling of bonds, coupons, and things of that sort.

The CHAIRMAN. That brings up an interesting question which I would like to ask you: In its dealings with the Treasury in these fiscal operations, do they deal with each one of the 12 banks separately, or does this committee in New York speak for each of the 12 banks; for instance in the distribution and issuance of Treasury certificates or bonds?

Mr. JAMES. Well, I should say where assisting the Treasury in the distribution of an issue of bonds of debentures?

The CHAIRMAN. Yes; is that handled separately by each one of the banks, or does this committee act for them?

Mr. JAMES. The committee acts for them.

The CHAIRMAN. Does the committee of which Benjamin Strong acts as chairman handle those fiscal operations and make distributions to the banks?

Mr. JAMES. In that particular case, yes. The committee operates with the Treasury, in order that the point of contact may be more direct; and then the distribution is made by agreement throughout the other banks.

The CHAIRMAN. The fiscal expenses would, because of the very fact of that concentration, be heavier on the New York bank than any others?

Mr. JAMES. Greater in proportion than to any others.

The CHAIRMAN. Have you any idea whether they distribute those expenses to the other banks?

Mr. JAMES. I think not. I think the New York bank absorbs the major portion of it. There may be some expenses in detail that they prorate to the various banks in accordance with the volume of business in the transaction.

Doctor Miller has just called attention to the fact that schedule E of the Federal reserve records shows that about 25 per cent of the expenditures of the banks of the system is incurred through the service rendered to the Government.

The CHAIRMAN. Twenty-five per cent of the total expenses of the Federal reserve system is for fiscal operations for the Treasury Department?

Mr. JAMES. For the Treasury Department.

The CHAIRMAN. I understood from the Governor of the Richmond Bank yesterday that about one-third of the expenses of the system is account of the work carried on by the transit department. Is that approximately correct?

Mr. JAMES. I think that is approximately right; yes.

The CHAIRMAN. So that approximately 33⅓ per cent of the expenses of the Federal reserve system is occasioned by those two services which they are rendering?

Mr. JAMES. Yes.

Mr. WINGO. The transit part of the expense would include not only currency items, checks, et cetera, but also the transfer of funds?

Mr. JAMES. Yes.

The CHAIRMAN. I understood the Governor of the Richmond Bank to say that the transfer of funds by telegraphic advice, et cetera, was an additional expense.

Mr. JAMES. Yes; from the transit.

The CHAIRMAN. From the transit department?

Mr. JAMES. Yes.

Mr. WINGO. I had the impression that they were separate and that is the reason I raised the question. So that, in other words, the transit department refers to the services of the banks clearing checks, that is the major item?

Mr. JAMES. Yes.

Mr. WINGO. Now, the transfer of funds by telegraph is not included in the so-called expense of the transit department?

Mr. JAMES. No.

Mr. WINGO. Which is estimated at 33⅓ per cent—the two items would run more than 33⅓ per cent in your estimation?

Mr. JAMES. Yes; it would.

Mr. WINGO. It would run to more than 40 per cent.

The CHAIRMAN. Would it be possible, Mr. James, for you to give us the total figures of the cost of the transit department and the cost of transfer of funds and the cost of these fiscal operations?

Mr. JAMES. It is possible.

The CHAIRMAN. Give us those three designations.

Mr. BEEDY. And the percentages?

The CHAIRMAN. The total expenses of these operations.

Mr. JAMES. I think we could give you that without very much difficulty—a more or less detailed statement of the total expenses of the system.

The CHAIRMAN. I think it is important in this connection, because many people have the feeling that the entire net earnings of the Federal reserve system are going back to the Federal Treasury. By your statement you have shown that only $59,000 have gone back last year. But, on the other hand, the charge of depreciation, and the amount in these buildings, et cetera, and in services to the Government, indicate an amount of value that has gone back to the Government, which otherwise would have gone to the Government in the form of a franchise tax, or added to the surplus of the banks.

That is very pertinent to the situation, and the committee are desirous of getting that as accurately as they can.

Mr. JAMES. I am sure we would be very glad to give you any information of that kind you want.

Mr. WINGO. Would it be possible, Mr. Chairman, in that statement to segregate the expenses that are incident to another character of operation about which there has been some inquiry?

I am not undertaking to pass upon the merits of it—the cost of the so-called foreign operations of member banks, especially New York banks, in the matter of foreign finances, foreign agreements, and the revenues derived from that same source, if that is the idea you have in mind? Do I make it clear? You understand what I am driving at, Mr. James?

Mr. JAMES. Yes. I am not prepared, though, to say that we have that detail here.

Mr. WINGO. You might get it, because there was some inquiry. Don't understand we are taking the stand that they are doing something they should not do?

Mr. JAMES. I understand.

Mr. WINGO. There are some persons raising the inquiry that it might be important from one standpoint to know what the cost is

and what revenue the banks are getting out of it, whether or not it is a gratuitous load beyond the scope of the contemplated authority of the banks, or whether it is really within the contemplated authority—whether or not it is a public benefit or, as a matter of fact, a very profitable thing from the standpoint of the bank.

The CHAIRMAN. In other words, Mr. James, the committee would like to have the full information in regard to the contracts that have been entered into in establishing a credit of $200,000,000 through the Federal Reserve Bank of New York or through this investment committee, either to Great Britain or the Bank of England, by the 12 banks composing the Federal reserve system, and we would like to see the papers in connection with that, and know what obligations and contracts have been entered into. There is more or less confusion as to just what has taken place.

There are some conflicting statements in the public press in regard to the matter. Some indicate that a loan of $200,000,000 in gold has been made by the Federal reserve banks; another indicates that they have entered into an agreement for the purchase of $200,000,000 worth of bills. And the committee would like to have the facts.

Mr. JAMES. I do not know just——

The CHAIRMAN. The opinion has been expressed indicating some doubt as to whether the original intent of the Federal reserve act was to permit a loan of $200,000,000, either in the form of credit or gold or otherwise, to a foreign country out of the legal reserves or capital and surplus of the Federal reserve system.

Mr. JAMES. I hardly feel qualified to answer in detail.

The CHAIRMAN. We are not asking you to do that now, but that you furnish that information to the committee later.

Mr. JAMES. If you will have a little transcript made of the inquiry as you made it there, and let me have it, I will attempt to develop the information for you and have it back here at the earliest possible moment.

The CHAIRMAN. I think, Mr. Wingo, that covers what you had in mind.

Mr. WINGO. Possibly he might know of some questions that came up yesterday and some inquiries, and, of course, if he does not feel like he knows enough about the details to feel free to say so. We are endeavoring to get information and not trying to criticize.

Mr. JAMES. I understand.

Mr. WINGO. The suggestion came I believe, at that time, as I understood it, that this loan of gold was a rather contemplated transaction, in case of necessity, in order to enable the Bank of England and the British Empire to go back to the gold standard—that we stood ready during this period of time—I forget when it expired, some time in 1927, I believe—to let them have $200,000,000 in gold; and as you can not pay for gold with gold, the question of how the system or New York bank would be reimbursed for discounting the transaction: that the bank, in payment for that gold, would take the bills which it ordinarily purchases in the open market operations to the extent of $200,000,000, and keep practically invested for that period of time that given amount of $200,000,000; in other words, as bills matured they would have the right to substitute other

bills for purchase under the open market operations; is that a correct statement of it, or do you understand there is some other arrangement?

Mr. JAMES. It is practically correct statement, up to this point: That this was not a loan made, but an arrangement whereby, if the necessity arose, they could avail themselves of this privilege.

Mr. WINGO. That was my contention—instead of being a loan, it was a sale of gold.

Mr. JAMES. Put it on this basis, Mr. Wingo: Perhaps I would understand it a little better if translated into transactions.

Mr. WINGO. I sympathize with your difficulty. I have the same difficulty translating some of these financial questions.

Mr. JAMES. I am looking ahead in my business, being desirous of doing certain things, and before I undertake to do them I go over to my banking connections and say, "I want to arrange for a line of credit and, tentatively, the terms." The first important question is if I can get it if I need it, and if so, then on what terms.

That being arranged, then I feel free to go on and transact my business as I have planned; and I think that is very comparable to what happened in this case, that prior to the announcement of the return to the gold standard the Bank of England desired to know definitely whether or not they could count on obtaining $200,000,000 of gold and on what terms they could obtain it.

Now, under the provisions of the law, as interpreted by the banks and the board, it was a perfectly proper transaction for them to buy these bills in the open market, if they chose to do so, and they would be very glad to go along with that sort of an arrangement, with the further understanding that no definite arrangement is made as to the rate, but that the rate would be approximately 1 per cent above whatever the New York bank rate would be when and as the credit was used. Now, as a matter of fact, they have not used any of it.

So, if we were to undertake to develop what it cost, I don't know just how we would go about it, or whether the New York bank has any detailed record to show that, because it is a matter of exchanged cablegrams and Governor Norman's visit over here, which may have been charged to the Bank of England.

Mr. WINGO. Of course we did not have in mind those little incidental expenses.

Mr. JAMES. So far as I know there have been none.

Mr. WINGO. So far as I know on this particular transaction there had been none. Let me see if I understand it. Even if they didn't meet the $200,000,000 call, that is, the New York bank acting for the system in allocating among the different banks by agreement, and they were to pay for the $200,000,000 gold in eligible bills purchasable under market operations?

Mr. JAMES. That is true.

Mr. WINGO. That, as a further consideration, that these bills should be loaded with a 1 per cent premium on the current open-market rate prevailing in the New York bank?

Mr. JAMES. That is substantially as I understand it.

The CHAIRMAN. Right on that point: Simultaneously with this granting of $200,000,000 credit, through the Federal reserve system,

J. P. Morgan & Co. granted a credit of $100,000,000. The newspaper accounts stated that the Federal reserve banks were to get no compensation whatever. The newspaper accounts indicate that J. P. Morgan & Co. are to get $1,250,000 commission.

Now, do I understand from Mr. Wingo's question there that the compensation which the Federal reserve banks will get out of that will be the 1 per cent extra in discount?

Mr. JAMES. That would be my understanding, yes.

The CHAIRMAN. So that the Federal reserve system is to get payment for that credit?

Mr. JAMES. If it is used.

The CHAIRMAN. If it is used and, of course, the condition of the contract is if they should call to-day for the $200,000,000 they could take the $200,000,000 in gold and we would purchase then acceptances from them at 1 per cent premium? Above the prevailing rate for this class of paper?

Mr. JAMES. Yes.

Mr. WINGO. If I might interrupt right there——

The CHAIRMAN. And the compensation on that transaction would be $2,000,000?

Mr. JAMES. It would be more than that. You see, they would not only earn this premium, but the discount on the bills themselves, which would be a very satisfactory and very profitable bit of business at the present time.

Mr. WINGO. As a concrete illustration, if we are doing it at 4 per cent, then these bills would have to be 5. So you would get 1 per cent additional loading, or the regular compensation that the ordinary transactions in the market would bring?

Mr. JAMES. Yes. If it were an American bank that came in to sell its bills, then the earnings of the bank would be 4, but if it comes in this other way, then the earning is 5.

Mr. WINGO. Governor, are you sure about that? That has been challenged. That has been my understanding, but I have been told that it is not true. Are you pretty sure that that is the understanding? I wish you would look into that.

Mr. JAMES. I am reasonably sure, I think.

Mr. WINGO. I also understand this, that for the two-year period prior to the time of making this agreement, that the Federal reserve bank, or, possibly it may have been the whole system, the Federal reserve bank acting for them—had invested over $200,000,000 in the same character of bills or acceptances under the open-market operations; at one time I think it ran from $100,000,000 to $300,000,000.

Mr. JAMES. That has varied from time to time, and there is no question but what the open-market operations are conducted along in varying amounts, and it usually happens that when loans from member banks go up the others go down.

Mr. STEAGALL. Let me ask you a question right there, Governor.

Mr. JAMES. Yes, sir.

Mr. STEAGALL. How long is this agreement to run?

Mr. JAMES. I should say approximately 18 months or 2 years.

Mr. STEAGALL. Does it cost the Federal reserve bank anything to hold that sum of gold in readiness?

Mr. JAMES. Not at all; not a bit.

Mr. STEAGALL. That amount held in anticipation of that obligation would not increase their idle holdinngs nor involve them in any responsibility whatever?

Mr. JAMES. Not at all, because, if it is, there is a very large amount of idle gold at the present time—far more than is needed.

The CHAIRMAN. Who is that held by?

Mr. JAMES. By the Federal reserve banks.

The CHAIRMAN. That is the surplus reserve over the legal requirements?

Mr. JAMES. Over the legal requirements.

The CHAIRMAN. If the occasion should arise——

Mr. STEAGALL (interposing). What I had in mind was, if they are not required under their obligations or agreement to hold this money when, in the absence of that agreement, they would naturally be seeking investments for it elsewhere.

Mr. JAMES. Yes; but you see there is a limitation to possible investments of the Federal reserve bank. The system has got to depend on the demand of its member banks; they can not go out and urge a bank to borrow money, but whenever the bank comes in to borrow, the Federal reserve bank is very glad to let it have it; and the reason why the franchise tax of 1925 was so low was because of a lack of demand on the part of the member banks for credit.

The CHAIRMAN. This $200,000,000, if it should be called for, would be supplied out of the loanable funds of the Federal reserve system?

Mr. JAMES. Why, certainly.

The CHAIRMAN. And those funds are the legal reserve deposits of member banks, are they not?

Mr. JAMES. Plus capital and surplus; yes.

Mr. WINGO. Let me see if I understand. My understanding of this gold transaction is that we agree to give them a book credit by which they could take the $200,000,000 in gold if they needed it; is that true, Mr. James?

Mr. JAMES. I should say perfectly true, but it would not make any difference, Mr. Wingo; whatever credit was extended by the Federal reserve bank; as a matter of fact, in whatever form it would be, it would be just the same as gold.

Mr. WINGO. Of course, it may be gold exchange?

Mr. JAMES. If it were gold exchange, they never would hold a pound of gold, you understand.

Mr. WINGO. The language of us both a while ago may have been susceptible of misunderstanding in our interpretation of it, that the 1 per cent consideration was in return for the agreement by which we would let them have $200,000,000 in gold in whatever form that gold—exchange or actual bullion?

Mr. JAMES. Yes.

Mr. WINGO. And they credit us with sterling bills to that amount?

Mr. JAMES. If we take the bills in current rate, New York.

Mr. WINGO. And in addition to that, we have an agreement for that advance of $200,000,000 gold, we get 1 per cent.

Mr. JAMES. Yes.

Mr. WINGO. I think that explanation ought to be made, Mr. Chairman, as being part of it.

The CHAIRMAN. Suppose, Mr. James, that England should call for this $200,000,000. Of course, the Federal reserve banks would supply the $200,000,000. Would they also supply the $100,000,000 for the Morgan loan? As a matter of fact, they would, would they not?

Mr. JAMES. Yes. Our counsel just called attention to a very important point in that whole transaction. The transaction, in so far as the Federal reserve system is concerned, would be with the Bank of England; and our understanding is that the transaction to which you refer—the Morgan & Co. loan—would be with the British Government—a very different transaction entirely.

Mr. WINGO. In other words, the Federal reserve system has not made any loans to the British Empire?

Mr. JAMES. Absolutely not.

Mr. WINGO. They have entered into nothing there but market operations; whether the form was proper or not, the spirit was that they entered into a contract for the transfer of gold and the sterling bills of credit, and that meant with the 1 per cent premium for the transaction on the current rate which the bills bear.

Mr. JAMES. Between the two banking institutions.

The CHAIRMAN. As I understood Governor Seay yesterday to say, this loan was negotiated by the chairman of this investment committee of the Federal reserve system, directly with the Bank of England?

Mr. JAMES. Yes; I should say that is true.

The CHAIRMAN. And it met with the approval of the Federal Reserve Board?

Mr. JAMES. In addition to that, the proposition was put upon not the individual responsibility of the chairman of the open market committee. but was very frankly discussed with the Federal Reserve Board.

Is not that true, Doctor Miller; don't you think that is a fair statement?

Mr. MILLER. I think that is substantially correct.

Mr. JAMES. Yes; the Federal Reserve Board was advised at all times as to what was going on.

The CHAIRMAN. And they gave formal approval of the consummation of the entire loan?

Mr. JAMES. Certainly; they could not have made it without it.

Mr. MILLER. The transaction was not undertaken originally as a system transaction, but was undertaken by the Federal Reserve Bank of New York and the board approved the terms of the new account, and the other banks were given opportunity to participate in it, and I think all have participated.

Mr. JAMES. And that participation, I might say, is entirely a matter of voluntary action on the part of any one of the 12 banks. If any of them, or all of them, want to enter, they pro rate; if any one bank feels that its funds are in use to an extent that it does not

care to participate, why, it does not enter into that transaction at all.

Mr. FENN. As a matter of fact, did not all of the 12 banks enter into it?

Mr. JAMES. They did; yes.

Mr. WINGO. You mentioned the open market committee; is that the open market committee of the system or of the board?

Mr. JAMES. It is the open market committee of the system, operating in connection with the board.

Mr. WINGO. In reference to the personnel is it identical with the so-called investment committee, of which Benjamin Strong is chairman?

The CHAIRMAN. It is the same committee.

Mr. JAMES. The same thing—open market investment committee.

Mr. WINGO. In other words, you speak of the same committee when you use the words "investment committee" one time and the "open market committee" the other—it means the committee handles investments, including all of the market operations?

Mr. JAMES. Yes.

The CHAIRMAN. Mr. James, Mr. Wingo asked a question a few minutes ago which I interpreted to mean that this investment committee of the open market transactions, it is the common practice with them to buy these foreign bills, such as proposed here, and which at one time they had purchased as much as $283,000,000, which was held by the 12 Federal reserve banks.

Mr. WINGO. Since talking with Doctor Miller I understand that was an error.

Mr. JAMES. It never reached that figure.

Mr. MILLER. These are domestic bills.

The CHAIRMAN. The point I was getting at is: Is it not the practice of the system to invest in foreign bills, the reserve banks?

Mr. JAMES. Oh, no. It is a matter of facilitating largely our export and import transactions, and when these bills come over they are offered on the open market and, in most instances, I should say the majority of instances, they come to the Federal reserve banks through the offerings largely of the American banks; is not that true, Doctor Miller?

Mr. MILLER. Yes; but I think, Mr. James, perhaps there is confusion here as to what is meant by "foreign bills"; as we use the term we mean bills drawn payable at some foreign point, in terms of foreign guaranty—for instance, sterling bills drawn on London payable at a certain date.

The great bulk of the bills we buy are spoken of as "foreign bills" in the American market; they are simply bills drawn against import or against export transactions, but payable in New York, Chicago, or whatever point the accepting bank is located, and those are the bills that the Federal reserve system has purchased in these volumes of $200,000,000 or $300,000,000.

The foreign bills properly payable in foreign currency at foreign points have never been dealt in by the Federal reserve banks to anything more than a slight extent. I think a half million dollars

was what was purchased as somewhat of an experimental purchase a year ago in the London market.

Mr. WINGO. May I just remark that when I spoke of foreign bills, here is what I had in mind: The bills that finance our foreign transactions, exports and imports—that is what I meant—our foreign-trade bills. I did not mean bills of foreign countries that didn't have anything to do with domestic trade; I meant those bills which grew out of foreign trade.

Mr. MILLER. Yes; by American banks.

The CHAIRMAN. Doctor Miller, how would you construe a transaction of this sort; as a foreign bill or domestic bill. An American merchant has made a shipment of cotton to Germany, which has been sold to a German house, and the papers go along with it, acceptance or otherwise; some one in New York has accepted for the German house. That kind of a transaction comes into the open market in New York, does it not? Would that be domestic or foreign, if it had been accepted by the New York bank representing the German purchaser?

Mr. MILLER. It would be an American bill.

The CHAIRMAN. Although it represented goods which were sold to a customer in a foreign country?

Mr. MILLER. But the credit is in an American bank in terms of dollars.

The CHAIRMAN. And that would be readily and legally acceptable by the Federal reserve system?

Mr. JAMES. It would be very desirable.

The CHAIRMAN. And it would be an American bill?

Mr. MILLER. Absolutely.

Mr. WINGO. It would be for the purpose of facilitating that trade.

The CHAIRMAN. If that bill were payable in London or Berlin it would be considered a foreign bill, would it not?

Mr. MILLER. Unless it were payable at an American branch bank in London. If the terms of the transaction contemplated the payment of bills to an American bank in London, to the correspondent of an American bank in London, it would be tantamount to an American bill, payable in dollars.

Mr. FENN. The same as in any country?

Mr. MILLER. Yes; it depends really upon the nationality of the bank that arranges acceptance of credit.

The CHAIRMAN. I would also like to put in the record at this point the statement appearing in the Commercial and Financial Chronicle of March 13, 1926, page 1378, being an article by Hartley Withers, formerly editor of The Economist, of London, on "The powers of central banks—Effectiveness of control by means of changes in discount rates," an article very pertinent to this subject, and I think it would add very much to the value of the record of the hearings; and I would also like to insert in the record an editorial in the same paper appearing in the edition of March 27, 1926, on page 1678, headed "Speculation in stocks and credit inflation"; and, without objection, these articles will be here inserted.

(The two articles referred to are as follows:)

The Powers of Central Banks—Effectiveness of Control by Means of Changes in Discount Rates

By Hartley Withers, formerly editor of The Economist, of London

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From an interesting paper by Dr. Henry Chandler in a recent number of Commerce Monthly, published by the National Bank of Commerce in New York, it appears that there has been a good deal of discussion in America concerning the control exercised over credit in the United States by the Federal reserve system. Some maintain that the control has been powerful and beneficial, others have denied the stabilizing character of the system's recent actions and have attributed to it an inflationary policy. A control, the results of which are open to such a wide difference of opinion, is evidently an influence which has not yet been measured with any approach to accuracy.

The question is by no means one of merely academic interest, but is of very practical moment to all who are engaged in any kind of business, to all who hold investments and to all who buy and sell goods—that is to say, to every man, woman, and child of us. Because it is through the power of the central banks to control credit that the stabilization of prices is expected, with more or less confidence, according to the view that one holds on this subject, to be secured. If they are now doubting in America as to whether the policy of the central banks has been effective in stabilizing, or has produced inflation, it is clear that a great deal has yet to be done before we can look forward to the day when the index number of commodity prices will run in a straight line across our charts.

Many people seem to think that now that England has gone back to the gold standard this question of stabilization by credit control has been abandoned there and that prices will be left to the influence of the automatic action of the gold standard. But this is by no means so. In the first place the gold standard was not nearly such an automatic machine as its critics seem to think. In pre-war days the state of the Bank of England's gold stock was a highly important item which the directors had to consider; when deciding to make, or refrain from, movements in their rate of discount, they exercised a wide latitude of discretion in the matter, as is shown by the fact that the city was often in doubt as to what their action would be. Moreover, the world has suffered so acutely in recent years from the effects of fluctuations in prices that efforts toward stability are now recognized as part of the duty of the central banks of all countries; and a conference of central banks has been proposed to discuss the question of keeping gold prices steady. In America the gold standard has long been effective, though complicated by the possession of an abnormal mass of gold; nevertheless, controversy rages as to the stabilization policy of the Federal reserve system, showing that a gold standard by no means ends the question.

With all deference to the distinguished authority of those who hold that trade and prices can be contracted and expanded like a concertina through movements in the rates of central banks, there is surely good ground for the view that in normal times the influence of credit manipulation may be greatly exaggerated. Even in abnormal times it is not all-powerful. The after-war boom and collapse are often attributed to the fact that the central banks, in London and New York, first delayed much too long in raising their rates and then raised them too quickly. But it is at least possible that the boom happened because everybody thought that a boom was bound to follow war, and that as long as prices were rising, as they rose in those hectic days, no raising of the rate for money—short of a rise that would have produced immediate panic—would have stopped it; and that the collapse came because the public refused to buy at the prices asked, and as soon as it was discovered that rising prices were not part of the scheme of the commercial universe, the bottom fell out of the commodity markets.

In normal times, when business is proceeding on a more or less even keel, it is by no means certain that trade does not influence money at least as much as money influences trade. As far as actual producers are concerned, the price that is paid for overdrafts and advances from banks, or for discounting bills is an almost negligible item in the cost of production; as long as manufacturers can, or think they can, see their way to a ready market for their

goods, they will continue to turn them out. To merchants, and wholesale dealers, who carry big stocks of goods on credit, the price of money is a much more serious consideration, but even they are probably influenced more by the probability of a free offtake by the retailers, than by any normal movement in rates for money.

Believers in the almighty power to swing trade and prices of the discount rates of central banks lay great stress on the psychological effect produced by their movements. They argue that when a rate is raised, with the object of making prices lower, all the business world knows that the authorities are working for lower prices, and accordingly reduce their commitments, stop their demand for materials and finished goods, and so produce the result aimed at by the central bank. But this contention leaves out the fact that prices do not all move in unison. A fall in the general average is quite compatible with a rise in several particular commodities. And it is the particular commodity that he produces or deals in that exercises the minds of the manufacturer or merchant. The tea merchant is not anxious about the index number of general prices, but about the price of tea. If, from his knowledge of the statistical position, he foresees scarcity, and consumption running ahead of production, he is not going to be frightened out of his holding by a rise in price of bank credit.

As to the effectiveness of falls in central bank rates in promoting a rise in prices and a recovery in trade, it must surely be evident that in certain moods of the business world, when every one is taking a gloomy view concerning the probable demand for goods, it would be impossible to stimulate optimism even by bringing down the money rate to nothing—in fact, such a movement would only be marked as one more symptom of the hopelessness of the situation.

The price of money is a factor, undoubtedly, but it is not the only factor in the trade position, as seems to be believed by those enthusiasts who credit the central bank with overwhelming power over prices.

SPECULATION IN STOCKS AND CREDIT INFLATION

No hard-and-fast line is to be drawn between investment and speculation. One may buy to hold for earnings, or to sell for profit, or combine both motives in one act. In fact, the last is often done. And one may buy for cash, or on credit, or combine the two. And this, also, is often done. But buying and selling on margins has come to be a recognized means of speculation. Though even here, as in the case of real-estate options, the size of the deferred payments do not always mean that the full purchase price will not be paid and the transaction completed by transfer of ownership. Selling short—selling what is not owned, selling with a view to future buying at a lower price—is another thing. Consequently there is a legitimacy attaches to a bull movement which does not attach to a bear movement. It is for this reason that the public is inevitably drawn into the former, buying upon rising prices, but not in anything like the same degree selling on falling prices. The raids of the "bulls" and the "bears" are never the same thing to outsiders. In the former, they do not have to remargin, save for temporary fluctuations, and in the latter, unless they do remargin, they are peremptorily closed out. Contrary to some opinions recently expressed, it takes longer for a "bull" movement to establish itself than a "bear" movement. One inspires confidence; the other excites fear. Confidence begets increased buying; fear produces desire for quick selling and final disposal. Confidence gives strength; fear induces panic. The outsider, the public, should carefully consider these truths before dealing in the stock market.

To some extent "professional" dealers can protect themselves against the short, sharp fluctuations in prices by rapid buying and selling not possible in equal degree to those far away from the scene of action. But so many are the "issues" dealt in, so complicated the incidence of "pressure" by "pools," that the most powerful and experienced "traders" are often caught unawares and suffer heavy losses. And, over a period of years, instances are rare where professionals retire with a large fortune directly made by pure speculation. Few men fully and finally "beat the game," as few ever break the "bank" at Monte Carlo. And while it is inadequate to say that speculation in stocks is pure gambling there remains an element of luck, chance, uncertainty, call it what you will, in "speculation" which renders it a hazardous undertaking for the best equipped of traders. And it follows that the speculat-

ing public had better stay out of the market even when the conditions appear the most favorable in a long continued rise in prices. For, as the movement gains headway the volume of shares dealt in increases, professionals organize pools, extraneous circumstances come to have undue influence, and the difference between values based on earnings and values based on prices becomes greater until finally there is no end but a "smash."

The toppling of prices of stocks the present month does not indicate the beginning of a period of "depression" in business, as has been pointed out by Secretaries Mellon and Hoover. But it must be said that it is not a salutary thing for the country. For months, with only a few reverses, quotations of stocks had been continuously rising. Prices in many cases had come to bear no relation to intrinsic values and current earnings. Factors, such as "mergers" and splitting of shares, and combines, have shown very large paper values. And upon a continuation of these factors prices have been enhanced by trading on the exchanges. Their worth was not allowed to prove itself, but was discounted in advance. As a consequence, under the influence of easy money and the liberal use of reserve credit, the whole market became speculative. Now, when through some unforeseen element (the shout of a human voice has been known to start an avalanche), prices fall suddenly, it must be true that tens of thousands of "outsiders" are caught in the slump and lose their all. For this desire to speculate seems to be innate in human nature. Most persons like to "make money" fast, and seeing others "make," albeit the profits are on paper, are induced to buy at the then "top." And these losses bode no good to business, though they do not necessarily mean "depression."

The inestimable benefit of a "market" for the buying and selling of stocks is not to be denied. But it is equally true that money and credit policies which enable a wave of speculation to engulf the country are not desirable. The joint action of the stock exchange and the Federal Reserve Board in giving out statistics regarding brokers' loans has served to reveal in a startling way the extent to which bank credit was being used in aid of stock exchange speculation. Rediscounts of commercial loans with the Federal reserve banks have been consistently low for a year. Federal reserve note currency during the entire "boom" has been excessively large. The influence of the Federal reserve note element must be viewed upon the broad base of the best interest of business as a whole and if the collapse of the boom is not to cause depression we must try to understand why. This much is certain in any event, namely that as a result of the gigantic stock speculation of the last two or three years a vast deal of financial energy has been absorbed in nonproductive uses. And it follows that a redundant money supply has been a sustaining element to the detriment of legitimate business. In this view the consequences of a "smash" provided producing business is not disastrously affected, may augur good to the country at large. And this effect, if indeed it eventuate, will be widespread. How much good money, credit, and property transformed has been drawn into this maelstrom of "speculation" from the "provinces" and their crossroads divisions it would be impossible to estimate, but in proportion to the loss of opportunity in "stock dealing" in the future it will remain at home and engage in productive enterprise. This amount is undoubtedly large. Country brokers in not a few localities have complained of withdrawals to "deal" in Florida real estate, withdrawals that seldom come home again. How much has in like manner gone into stocks, to be lost on margins, it is more difficult to determine. But it is not to be doubted that the total is large. Will another "boom" quickly succeed this one when it shall have run its course? Time only can tell, but so long as easy recourse to Federal reserve credits exists, and such credit remains available to an unlimited extent, fertile ground for a repetition of the orgy will remain. Here, therefore, the remedy will have to be applied.

There is a valuable lesson in the present experience to the people and to the Government. In the midst of continued attempts to enact blue-sky laws to protect uneducated investors, there might well be a study of law making with reference to its influence upon the condition of investment versus speculation. The individual who has been "sold out" now has the experience of the child with the fire—but is it not probable that one hidden cause of excessive speculation is to be found in the constant interferences of law and government with legitimate industry and enterprise? "Idle money" is never satisfied. If it can not find its way into productive uses it will engage in nonproductive or the hazard of a quick profit.

We have been attempting to differentiate between the means of excessive stock speculation and its cause. The former is in our immediate power to cure. We have but to cut off the "inflation" and the means is extinguished. But the cure for the speculative mania or disease—that is another matter. The disposition to "try your luck," to challenge fate, seems innate in human nature. Sociologically it received a tremendous impetus by the Great War. One fell, one was untouched by the flying bullet. And yet, when the trading in securities, a valuable and highly important legitimate field of finance, is turned into a prolonged orgy of speculation it is time to think and act. At least the means ("inflation" in large part) can be controlled, and this must be done.

The CHAIRMAN. I have to announce to the committee that Governor Strong, of the Federal Reserve Bank of New York, is here this morning, in connection with the consideration which the committee is giving to the Strong bill on stabilization, as well as the general subject of stabilization.

STATEMENT OF HON. BENJAMIN STRONG, GOVERNOR OF THE FEDERAL RESERVE BANK OF NEW YORK

The CHAIRMAN. I will say to you, Governor Strong, that the committee are and have been for some two weeks considering this question of stabilization, and along with it, because of the fact that there is pending before Congress, and particularly the Senate, a proposal to extend for an indefinite period the charter of the Federal reserve system, the committee is evidencing interest in the various phases of the operations of the Federal reserve system. I may say to you that the committee deems itself fortunate to have you here to give us some information pertaining to the operations of the Federal reserve system. Not only does the committee recognize the importance of the Federal Reserve Bank of New York to the Federal reserve system, but they recognize you, not only as being the governor of that bank, but as chairman of the open market committee, as having a particularly important position in connection with the entire operations of the Federal reserve system.

I think it is fair to state also, in that connection, that we recognize that perhaps you might be a little modest about assuming to speak on a number of things pertaining to the Federal reserve system because you are not a member of the Federal Reserve Board. I might say to you, however, that the committee is hoping that you will be frank and open, and, so far as the committee is concerned, we are not going to hold you responsible to criticism from any source whatsoever. It is information that the committee is seeking in regard to the operations of the Federal reserve system.

Particularly, I might point out to you, interest is being manifested in regard to the effect, now that the war is over, of the repeal or continuance of the war amendments which called into the Federal reserve system a large amount of gold and provided for the operations of the open market transactions. The committee is interested in information as to whether or not it might be advisable, now that the war has closed, to go back to the old plan in that respect, and, if not, what reasons are advanced as to why that should not be done.

In connection with stabilization, the committee is interested in the amount of Federal reserve notes outstanding; why there should be that amount of $1,635,000,000 in times of apparently ample credit

facilities, and we are also interested in the effect of the open market transactions on credits, prices, stabilization, etc.

It has been stated before the committee by some economists who have appeared that the open-market transactions and the operations in connection with the Treasury are considerable factors in regard to stabilization of prices, money rates, etc. The committee will be particularly interested to know how the Federal reserve banks, particularly through you as chairman of the open market committee, cooperate with the Treasury in these fiscal operations which have an effect on prices and rates of interest.

The committee is also interested in the question of the conduct and the detailed operations, to quite some extent, of the Federal reserve system. They are interested to know what part of the system's expenses are in connection with the carrying out of the fiscal operations of the Treasury, and they are interested also in the collection and transit operations, and particularly the transfer of moneys and credits through the wire system.

A question has also been raised in connection with the granting of a loan to the Bank of England of $200,000,000; that question being raised at a meeting here when Governor Seay, of the Federal Reserve Bank of Richmond, was present. As I recall, the governor said that that was negotiated by you on behalf of the Federal Reserve Bank of New York and distributed pro rata among the Federal reserve banks at their option. The committee would like to know, particularly, the negotiations that entered into that; the reasons why, and under what authority of the Federal reserve act such an arrangement was entered into, and how this loan differs from a simultaneous loan of $100,000,000 which was granted by J. P. Morgan & Co., and matters pertaining to that.

I am endeavoring to give you a brief outline of some of the problems. The committee will be very glad to hear you in connection with any or all of these matters. While I have not attempted to cover the entire scope, as the hearings develop I am sure many angles will present themselves which you will be glad to discuss with the committee.

So I am going to suggest, if you will do so, that you proceed in your own way to treat these subjects which are under discussion. Because of the fact that there is pending this proposal to renew the charter rights of the banks for an indefinite period, a general discussion of the Federal reserve system is quite important to this committee at this time.

I might say to you here that in connection with any of the questions that may be raised, if there are any embarrassing questions raised which, because of the public interest, should not be stated in open meeting, the committee can arrange to hear you privately in regard to those matters. But, so far as possible, I think it is not only to the best interests of the committee in considering this matter, but of the Federal reserve system and of the country to have these hearings conducted in open session.

We are very glad to hear you, Governor Strong.

Governor STRONG. Mr. Chairman, your letter of invitation to me to appear before the committee named a few of the subjects which the committee desired to have me discuss. You have added quite a few.

I would like to say, generally, that I welcome the opportunity to appear before the committee, and if there is any information that I have or can get that will be of any assistance to the committee it will be gladly furnished.

To cover all of the ground that you have mentioned will involve my taxing my memory quite a bit as to past occurrences, Mr. Chairman, and I hope it will be possible for me to go over the record and make any corrections that may be due to failure of memory, and possibly fill in some gaps in my statement.

The CHAIRMAN. That right is granted to you, of course.

Governor STRONG. Of course you understand that I can not speak for the Federal Reserve Board, and in what I say to the committee, when it involves an expression of views, I hope you will understand that they are my own views and possibly those which fairly represent the views of the Federal Reserve Bank of New York.

To cover everything that you have mentioned will take a great deal of time. I am quite able and willing to give the committee all of the time that it is willing to give to me, and I think it is fair to say that I am always willing to talk about the Federal reserve system as long as I can get people to listen.

First, Mr. Chairman, about the bill that is the immediate subject of consideration. I shall possibly express some views about it that differ from the views of those who have preceded me before the committee, and possibly differ from the views of some of the members of the committee; and I would not have the members of the committee feel that that is due to the slightest hostility to the purpose of this bill.

The CHAIRMAN. I can say to you in that connection, Governor Strong, that I believe the minds of the committee are open on the subject. We are seeking light on this important subject.

Governor STRONG. I say that because, without differing with the gentlemen who have preceded me as to the desirability of reasonably stable price levels and the avoidance of what we call inflation and deflation, I have considerable doubt as to whether the method proposed by this bill will accomplish what is claimed for it.

The CHAIRMAN. I might say in that connection that there is pending before the committee a bill proposing, in a little different manner, the same principle, introduced by Representative Goldsborough, a member of this committee, which is generally known as the Fisher plan. I am assuming that you are familiar with that proposal, as well as with the Strong proposal.

Governor STRONG. Yes, sir; I am. The last sentence of House bill 7895 is in this language:

> All of the powers of the Federal reserve system shall be used for promoting stability in the price level.

I assume that that means stability in what is commonly called the general price level of all commodities, and I will make this one general comment about the theory of that language as it strikes me.

If this means a recognition by law that some power exists to bring about stability of prices, and that it is to be exercised by some group of men, or some man, it seems to me that the public might easily interpret this amendment to the Federal reserve act as intending that Congress has issued a mandate to those men or to some man to fix prices.

Now, I can not believe that any such power to fix prices would prove acceptable to the people of this country or to the people of any democracy—if that is what it means. In fact, personally—I am speaking dogmatically, I know—I do not think that any such power exists or can be created to fix prices.

What disturbs me about this proposal—not the purpose of the proposal, but the way in which it is attempted—is this: Much of the discussion of prices recently has arisen from the great misfortune which the farmers of the country have suffered, which we all recognize and deplore. If the Federal reserve act is amended in these words, is it possible that the farmers of the country will be advised, or will be led to believe upon reading it, that a mandate has been handed to the Federal reserve system to fix up this matter of farm prices?

Mr. SHIBLEY. Mr. Chairman, the wording of the bill is "price level," not prices in general.

Governor STRONG. I am assuming, if you please, what interpretation may be put upon it, and especially by the farmers. Is it possible that the farmers of the country will interpret this as an effort by Congress to place the responsibility upon the Federal reserve system for attending to the particular problem of prices in which they are interested?

Mr. GOLDSBOROUGH. Would that not be simply a temporary interpretation, if they did place that interpretation on the language of the act? I do not see how any very responsible mind could place that interpretation on it; do you?

Governor STRONG. Well, frankly, Mr. Goldsborough, I have been a little disturbed by having had the opportunity to read the discussion which has already taken place before the committee. One can only gather by inference what is in the minds of men, sometimes, by their statements. But it seems to me it expects too much of the Federal reserve system, if I am to be guided by the statements that have already been made.

Mr. WINGO. Governor Strong, that rule, which very naturally you would use in arriving at a conclusion, applies to ordinary sensible human beings; but I thought your experience with this committee had demonstrated to you clearly that you could not always judge this committee by it.

Governor STRONG. No; I am endeavoring, if you please, to express some doubts about the effect of the bill on the minds of people who are not economists, and who really can not distinguish between individual prices and general prices.

Mr. WINGO. Mr. Luce, of Massachusetts, is quite an economist. Have you read his suggestions about what had happened to him?

Governor STRONG. Yes.

Mr. WINGO. That is the viewpoint expressed in this bill; not the farmer's.

Governor STRONG. Well, of course, the reaction upon different classes of changes in prices varies. He described a class of sufferer that in some respects paid a worse penalty from the inflation period than the farmer did.

Mr. WINGO. Now, the farmer already thinks that you have that power and already thinks you are exercising it. If you will just

reflect for a moment upon what their chief spokesman or body says, the farmer has already voted on that question. He thinks that you already have that power and are exercising it.

Governor STRONG. Yes. Well, can we not disabuse his mind of that?

Mr. WINGO. I doubt it very seriously; although Mr. Strong, the author of the bill, is quite a farmer himself.

Governor STRONG. Mr. Wingo, is it not a fact that a large part of the farming community of the United States has a feeling that there is some method possible, by the employment or management or regulation of credit, to deal with their price problem?

Mr. WINGO. Oh, yes; it is. They are led to believe by a great many of their leaders that it is possible for legislative resolution either to make or to unmake. They are led to believe that their evils can be traced directly to evils of government, and that those evils can be corrected by governmental action. There are a great many of them who believe that.

Governor STRONG. Yes. Well, if this language is employed in an amendment to the Federal reserve act, may not that somewhat intensify that belief by the farmers that the Federal reserve system can exercise some power over the prices of a particular commodity?

Mr. WINGO. Of course some of them would think that.

Governor STRONG. This proposed amendment to the law creates no new powers for the Federal reserve system.

Mr. WINGO. I have been under the impression, and have so expressed it, as you have found if you have read the record, that the bill is nothing but a stump speech.

Governor STRONG. It seems to me that it is a declaration of a purpose which would be expressed in some policy which is neither defined in the amendment nor any method set out for accomplishing it.

Mr. WINGO. That is what I mean. It is merely a declaration of of an abstract opinion that the Board ought to do something. How, when, where and for whom, is left to the sweet pleasure and ingenuity of the board to fathom.

Governor STRONG. Yes.

Now, Mr. Chairman, even if the danger could be escaped of a general assumption that this power, resting in the Federal reserve system under this mandate as expressed in the amendment, can be exercised to influence individual prices, as distinguished from the general price level, I would like to suggest a few difficulties that would arise in any recognition that the Federal reserve system has the power alone to deal with this price problem.

The CHAIRMAN. In that connection, Governor, can you outline what the elements are now that are under the control of the Federal reserve system tending to stabilization?

Governor STRONG. Yes; I think I can do so very briefly.

The power of the Federal reserve system so far as credit is concerned can be exercised within certain limits in two ways, or at least in two directions. One is to regulate or to influence the amount of credit that is being employed in the country, and the other is to regulate or influence the cost of that credit; and within certain limitations I think it is possible to do that. But there are conditions which I can easily describe to you where I think even that would not be possible.

Of course, the assumption that the Federal reserve system has powers of great magnitude in the control of prices ought to be considered not alone from the standpoint of economics, but from the standpoint of human nature to some extent. If it is assumed that the Federal reserve system has the power to raise or lower the price level by some automatic method, by some magic mathematical formula, what safeguards are we going to introduce in regard to ignorance, stupidity, and bad judgment in the exercise of this power? How are we to deal with the problem of divided counsels in the system, where no action is possible because of differences of opinion? Is it possible to guard the misuse of these powers for selfish or even improper purposes, or even political objects, if you please?

Then there is another possibility that has always struck me as inherent in any recognition of a power resting anywhere to regulate prices, and that is in the everlasting contest that takes place with all humanity between the producer and the consumer. For instance, take the laboring man. When he is working in the factory during the day, he is a believer in advancing prices. He thinks that will aid him in giving him constant employment at good wages. He goes home, however, and then his character changes. He is a consumer then, and he is liable to complain about the amount of rent that he has to pay, or his wife is complaining about the cost of sugar, and his whole attitude toward the regulation of prices changes. It seems to me that if the Federal reserve system is recognized as a price regulator it is going to be somewhat in the position of the poor man who tried to stop a row between an Irishman and his wife. They both turned in and beat him.

So both the producer and the consumer would complain.

Mr. Chairman, I want to suggest some of the difficulties that are bound to arise in accepting the theory that the general price level can be controlled entirely by credit, by the employment of credit, or by the regulation of credit.

The CHAIRMAN. Before you get to that, Governor, I do not think you have quite fully covered the elements of control of credit, etc. Perhaps I misunderstood you. This question has been discussed somewhat before the committee. There are some 30,000 banks in the United States. Some 10,000 of them are members of the Federal reserve system. To what extent can the Federal reserve system control the credit of nonmember banks? Or is that one of the elements that you were referring to?

Governor STRONG. Yes; I think the Federal reserve system does exercise some control, at times, over the total volume of credit that is employed in the country. I can explain readily later how that is done.

I also think that the Federal reserve system exercises some influence upon the cost of that credit, by its discount rate and its open-market operations. Beyond that, the Federal reserve system has no power to direct or control how the credit is used. We deal with it quantitatively; the member banks deal with it qualitatively, as to its particular application, and if member banks or nonmember banks find it more profitable to lend money in one direction than in another we have no power, of course, to control that.

The CHAIRMAN. Of course, I think we all recognize the important part that the Treasury operations from time to time play in the whole credit situation.

Governor STRONG. Yes, sir.

The CHAIRMAN. Is it your observation that the fact that the Secretary of the Treasury is ex officio a member of the Federal Reserve Board causes Government situations to enter into the credit situation at times, which the Federal reserve system must either work in unison with or combat?

Governor STRONG. At the present time?

The CHAIRMAN. No; at different times.

Governor STRONG. I think the situation now, Mr. Chairman, has practically eliminated the Treasury as being a possible disturbing influence on credit operations of the Federal reserve system.

The CHAIRMAN. In other words, the Treasury operations are so well in hand at this time that they do not affect the credit situation?

Governor STRONG. Yes, sir. Experience in handling the Treasury accounts, in the collection of taxes, and in making new issues through the Federal reserve system, has very much reduced the possibility of disturbance caused by the large operations of the Treasury.

The CHAIRMAN. And the committee understands correctly when it believes that the open market transactions are a factor in this question that we are now discussing?

Governor STRONG. Yes, sir.

The CHAIRMAN. But when you deal with that, I suppose you will deal with it separately?

Governor STRONG. Yes, sir.

The CHAIRMAN. So we will not go into that at this moment.

Are there any other factors that enter into this question, over which the Federal Reserve Board has control, that you have not stated?

Governor STRONG. I think the fundamental thing about the Federal reserve system is that, holding the reserves of so many banks, the gold reserve of the country, and being the source of supply of additional credit when it is required by business, and the means, if you please, of retiring that credit when it is no longer needed by business, the Federal reserve system, through changes in the rate of discount and preliminary purchases or sales of securities in the market, has the power to influence to some extent, at times, the total volume of credit in the country and its cost.

The CHAIRMAN. Do you consider publicity, or the utterances of the Federal Reserve Board in regard to proposed operations or changes in the discount rate, a factor in stabilization?

Governor STRONG. At times; yes. It is a pretty dangerous thing to rely upon advising the people of the country what they ought to do. It is liable to misinterpretation.

The CHAIRMAN. It has been suggested here that publicity in connection with the operations of the Federal reserve system might be quite a factor in connection with the stabilization of the price level.

Governor STRONG. I think the Federal reserve system probably publishes more data about the operations of the system than any other similar banking system of the world. Whether it could be supplemented by enlightening discussion or not is a question of policy, largely, and of personal opinion.

May I return to one point about this question of price stabilization, Mr. Chairman?

It seems as though the language used in the discussion of this bill assumed that the management of credit by the Federal reserve system had a greater influence upon prices than sometimes it is possible for it to have, and I would like to point out a few cases where, despite anything the Federal reserve system might do, we could have an inflation in this country which the Federal reserve system could not necessarily control, or even a decline in prices that the Federal reserve system could not control by inflationary or deflationary moves, if you please; that is, by enlarging or reducing the volume of credit that was in their control.

Every member of the committee recognizes that the amount of gold produced in the world has an effect upon prices. So far no method has been devised to prevent an increase in monetary gold drifting into the banks from having an effect upon the volume of credit. Changes in the reserve laws are specific examples of the possibility of occurrences quite beyond the control of the Federal reserve system. As you know, a suit was brought by a group of banks against one of the Federal reserve banks, one of the prayers of which was to require that reserve banks give immediate credit on checks deposited with the reserve banks in course of collection. The suit applied only to checks payable within that Federal reserve district, but the principle would apply to the whole country, and might be extended readily.

Now, we have calculated that if that theory should be sustained by the courts—it has not been—it might add from six to eight hundred million dollars to the reserves of the banks of this country over night. It would be the equivalent of an importation in one lump sum of six or eight hundred million dollars of gold. The effect of that would be to place at the disposal of member banks a sum of reserves sufficient to pay off all the discounts of the reserve banks for their members, and if that should be done—it would be quite possible—we would have no loans on which our discount rate would operate. For a time at least, until a period of inflation had again built up a discount account in the Federal reserve banks, we would be helpless to arrest it.

Here is another possibility: There was a bill pending before the last Congress to repeal, in effect, the amendments to the Federal reserve act which were passed by Congress in June, 1917. That bill sought, among other things, to bring about the return to the member banks or their city correspondents of the reserves transferred at that date to the Federal reserve banks, but it failed to increase the reserve requirements of member banks to the amount of 18, 15, and 12 per cent, which had been the reserve percentages in the act before it was amended. Now, we have calculated that the provisions of that bill would free some $400,000,000 of the reserves of member banks of the country, which would be capable of supporting a very large inflation of credit, possibly eight or ten times that amount, and any such influence as that upon the operations of the Federal reserve system might tie our hands. We would have no influence at all until the inflation had run its course.

The CHAIRMAN. That would be brought about by releasing those reserves from the Federal reserve banks and placing them at the disposal of the member banks wherever they should choose to put them, in their own vaults or with their city correspondent banks?

Governor STRONG. Yes; that would be due to this fact, in part: That all banks carry cash in their vaults which does not count as reserve. At the time this calculation was made the member banks had something over $500,000,000 of cash in their vaults which did not count as reserve. As soon as the return of this reserve is made, that cash would immediately count as reserve.

The CHAIRMAN. Suppose the law was repealed on the old basis, which you have just referred to——

Governor STRONG. Increasing the reserves?

The CHAIRMAN. Increasing the reserves.

Governor STRONG. I think the effect then would be possibly the reverse. I do not know of any calculation that has been made as to the effect upon the reserve position of the banks; but if the reserves which we now hold under the provisions of that amendment were all returned to the member banks and the reserve requirements were increased to the old requirements of the act, it would probably reduce the reserves of the reserve banks from their present level, around 75 per cent or above, to under 60, possibly to 55 per cent. The danger of doing that just now would lie in the possibility of the time coming when we may lose a lot of our gold reserves to the rest of the world; and we need this margin of reserve in the reserve system now to meet that possible demand.

The CHAIRMAN. A moment ago you suggested the effect of the decision as liquidating all of the rediscounts of the system.

Governor STRONG. Yes.

The CHAIRMAN. And the only way that the system then would be able to rediscount would be through inflation. Does the releasing of credits to that extent tend to encourage inflation?

Governor STRONG. I should say that if the member banks had five or six or eight hundred millions of reserve placed at their disposal inflation would be inevitable. It could not be escaped.

The CHAIRMAN. Then, on the other hand, if the old rates were renewed—that is, if we should go back to the old basis, before June, 1917, of 12, 15, and 18 per cent—would the opposite be true? Would that tend to lower the price level?

Governor STRONG. I can not say as to that.

The CHAIRMAN. By tying up that amount of available credit in reserves?

Governor STRONG. I think it might result in some reduction of credit, but it would have to be calculated, Mr. Chairman.

The CHAIRMAN. It would not be in the same proportion that prices might be inflated by putting that amount of credit into the open market?

Governor STRONG. Well, what would happen if the reserves were returned to the basis of the act before it was amended in June, 1917, would probably be an increase in the reserve requirement to-day; but that is guessing. I would have to have it calculated.

The CHAIRMAN. As I recall, one of the purposes of the amendment of 1917 was to call in from the country a certain amount of

gold which the system apparently needed at that time to take care of the demands occasioned by war and the Government's financing.

Governor STRONG. Yes.

Mr. MACGREGOR. I think it might be interesting, to cover the subject, if Governor Strong would tell us what governs particular prices and what governs general price levels.

Governor STRONG. I should correct my answer first to your statement about that amendment. I do not think the war was necessarily the occasion for the amendment, entirely. That amendment had been recommended by the Federal Reserve Board before the beginning of the war, Mr. Chairman; and I do not think it can be considered simply as a war measure. It did greatly strengthen the Federal reserve system for war purposes; that is, for the purpose of war finance.

Mr. WINGO. It was simply an advance along the lines of the original Federal Reserve Act, was it not?

Governor STRONG. Quite so.

Mr. GOLDSBOROUGH. Governor Strong, I doubt if any member of the committee has it in mind that the Federal reserve system could control credits, or could by its open-market operations serve at all times adequately to control the price level. But one question that I am sure the committee is interested in is this: You have said that the Federal reserve system, by its open-market operations and by changes in the discount rate, would influence the supply of credit, which, of course, influences the price level. Now, that being so, what is the objection to a general direction to the Federal reserve system to use such powers as it has for the purpose of stabilizing the general price level? That is certainly one question in which the committee is deeply interested.

Governor STRONG. It might be possible, Mr. Goldsborough, to frame some language, as an amendment to the act—which might more properly go into the declaration of purpose of the act rather than in the text of the act—that would safeguard the system against misinterpretation of the intention of that declaration. I have not tried to frame such language, but if it were attempted it certainly would need to contain the limitation, or the recognition of the fact that credit alone does not control prices.

Mr. GOLDSBOROUGH. Is not that generally understood? Do you not think that is generally understood?

Governor STRONG. I am afraid not.

Mr. GOLDSBOROUGH. You think not?

Governor STRONG. No. If I felt so, I would not feel as strongly as I do about this amendment, which I would fear on that account principally.

Mr. GOLDSBOROUGH. You do not think that if the act were passed, in a very short time the general public would come to understand its purpose? Now, as bearing that out, I get from time to time Wallace's Farmer, a farmers' publication which is edited in Des Moines, Iowa. There have been some very striking editorials in that publication from time to time in connection with the Goldsborough bill and in connection with the Strong bill, and the bills and the purposes of them are very clearly analyzed and discussed in a very philosophical manner. Now, that paper has a very wide circulation; it goes to all those farmers out there, and it is incon-

ceivable, it seems to me, that they would get from that paper, which they take and use, any misinterpretation of the purposes and the legitimate scope of the act.

Governor STRONG. Mr. Goldsborough, it is a fact, is it not, that the farmers of the country were led to believe that the Federal reserve system put them in their difficulties in 1920 and 1921? Has there not been a great deal of feeling of that sort among the farmers?

Mr. GOLDSBOROUGH. Yes; I think there has.

Governor STRONG. Would it not be natural—I hope I am observing the proprieties in asking you these questions—would it not be natural, if this amendment should pass, for them to say, "This is to correct the evil that was done to us before?"

Mr. GOLDSBOROUGH. It seems to me—I am not here as a witness; you are the witness—but it seems to me that the answer to that is this: The public always expects too much from any sort of legislation. It expected too much from the Federal reserve system. Now, if it is good legislation, it occurs to me that any misapprehension of the scope of the legislation or the possibilities of it would in time be corrected; and if it is a good thing, that we ought not to defer the legislation because the purposes of it might be misapprehended.

Governor STRONG. I would like to set up a hypothetical situation as to farm prices—not that it is liable to occur, but it might well occur—to see whether in the event of that occurrence, and this amendment being made to the Federal reserve act, the farmer might not feel that again we were to blame for his troubles.

In the year 1294 we harvested an exceptionally good crop of small grains in this country and it happened that the rest of the world was not so fortunate. We had enormous exports of wheat and flour at good prices and the rest of our surplus farm production was moved to foreign markets at satisfactory prices. Last year we had somewhat the same situation. Our foreign markets were fortunately able to take the surplus agricultural production of the country. Now, I have not seen very much comment upon the very interesting problem involved in that operation, as to how it was paid for. The fact is that in 1924 the investors of this country, after allowing for refundings, and not taking into account short-time bank credit, furnished to the rest of the world a billion dollars of capital, and in 1925 another billion dollars, after allowing for refundings of maturing loans and not taking into account bank credit.

Now, it is my belief, although this can not be proved, that if for any reason these American investors had buttoned up their pocketbooks and said, "We don't care to take these foreign loans; they don't interest us," there would have been great difficulty in the rest of the world in paying for the exportation of our surplus crop production. It is that marginal surplus which we do not consume that makes the price of the whole crop.

Now, let us suppose that any occurrence abroad that might disturb American investors should result in a sharp closing of our investment markets. Europe is still in need of financial assistance. They are still in a period of recuperation and reconstruction. How would these crops be paid for? No amount of credit that we could introduce into the market would have any effect upon the prices of the production of the farms that are fixed by world prices. The only

result of efforts to raise the price level by an enlargement of the volume of credit would be to raise the prices of all the domestic goods which the farmer consumes, and his fix would be worse than ever.

Mr. GOLDSBOROUGH. Your view, then, as I understand it, is this: That legislation of this kind, whether it is good or not, would probably result in unfair criticism on the part of the public of the Federal reserve system, and therefore undermine the influence of the Federal reserve system as a permanent Government structure. Is that something like what you have in mind?

Governor STRONG. Well, I have in mind the possibility especially that the farming community of the country might be led to believe—they might assume at once—that this would provide a remedy for their difficulties, and if they were disappointed and disillusioned later, and a sharp revulsion of feeling took place as to the position of the Federal reserve system in the matter and what it could accomplish, it might do us very great injury. It might do the system great injury, and I think it would do the country injury.

Mr. GOLDSBOROUGH. Now, Governor, there are pending before the Agricultural Committee various bills providing for farm relief. Some of them are obviously unsound; and some of them a great many Members of Congress think are sound. I recall the Curtis-Aswell bill, which a great many Members of Congress think is sound. It occurs to me that the farmers of the country, in so far as their present emergencies are concerned, and in so far as any ultimate specific help to their specific crops is concerned, are looking to other legislation and not to this. They are not pushing this legislation; they are pushing other legislation, which is before other committees.

Governor STRONG. Mr. Goldsborough, I think in a quiet way—possibly there is not enough advertising about it—the Federal reserve system in the last two or three years has done more for the farmer than he has yet begun to realize, and more than could have been done by any other agency.

Mr. GOLDSBOROUGH. I do not know that that will be disputed.

Governor STRONG. I shall be glad later, when we come to the operations of the open-market committee, to describe that in detail.

My principal fear, as I have expressed it—very inadequately, I am afraid—is the misinterpretation of the possibilities of control of prices resting in the Federal reserve system, both specific prices, that is, prices for specific things, and the general price level as well.

Mr. GOLDSBOROUGH. And you do not feel that that misunderstanding would be gradually and normally eliminated by education as the workings of the system progressed?

Governor STRONG. I think it would be eliminated in the course of years; but probably as the result of the restoration in time of a more normal operation of the gold standard throughout the world, which is more or less under way, as you know.

Mr. WINGO. You have in mind to cover the open-market operations and all these other things?

Governor STRONG. Yes, sir.

Mr. WINGO. Pardon me for interrupting you again, but I want to be able to follow you. You have a fear, as I understand, that

your capacity to render this service will be misinterpreted by the country. You realize that this bill gives you no power that you do not already possess?

Governor STRONG. That is correct.

Mr. WINGO. And you are afraid that without giving you any power that you do not already possess, or without making it possible for you to have any greater desire or ability to serve the common good, the country will be led to believe that by mere legislative declaration the capacity to remove all the economic evils incident to control and fluctuation of credit will be lodged in this superwise board?

Governor STRONG. Thank you, Mr. Wingo. You express it better than I could.

Mr. WINGO. I think I begin to see where your fears are, and you demonstrate your usual sagacity.

Governor STRONG. If I felt that a declaration of this sort in the Federal reserve act would accomplish that, I should be delighted to see it go in.

Mr. WINGO. I have seen wonderful political effects attained by declaration, and especially by declamation; but after all, as a practical man occasionally, and a politician frequently, when it comes down to framing legislative acts, not declarations, I want to know what is going to be the practical effect. Will it bring about any public good? I do not object to declarations or declamations if they will serve any public good; but, as you say, if they will cause misunderstanding and only increase the political confusion, I am a little bit afraid of them. I might not have been so afraid of them 10 years ago.

Governor STRONG. Well, there is no magic formula that can be introduced into the Federal reserve act to control prices. You can not eliminate human judgment in the adminstration of these matters. I think possibly, Mr. Chairman, I might express this as I did to you in your office a few minutes ago. I have discussed these matters with many economists and students of prices, and purposely have always carried the discussion through the same course. We have agreed on the record of the past in the Federal reserve system pretty generally, as to what has been done and the effect of what has been done. We have generally agreed as to the conditions at the present moment, when we have been discussing these problems. But when I ask them, "Now, we have got to decide something to-day; you are in the position of running the Federal reserve system; what are you going to do to-day that will have an influence upon the future?" the answer is always the same: "Well, you are the practical fellows who are running this; you have got to decide that." And that is the difficulty. Our examination of the past produces the most accurate knowledge of past action and reaction, but when it comes to a decision as to what we are going to do for the future, then just human judgment has got to govern. There is no mathematical formula for the administration of the Federal reserve system or the regulation of prices.

The CHAIRMAN. Governor, in that connection, and referring to your statement that you fear the effect that the passage of such a bill as this might have on the public mind, and particularly the

farming element of the country, supposing such a law as this had been in effect during the period from 1913 to 1921, do you think it would have tended to stabilize those conditions?

Governor STRONG. I do not think any declaration of this character in the act, Mr. Chairman, could have overcome the influence upon prices of the war and war finance and the distortions that were caused. If we had had more experience and more intelligence—everybody having to do with these questions—it might be that the extent of the price distortion would have been modified somewhat. The energies of the Federal reserve system during the war were devoted to one thing—everything else had to be laid aside—and that was raising the money with which to finance the war and win it, and it did not exercise very much control over these matters during that period. I do not think it could have done so.

The CHAIRMAN. Might it not occur, if a bill of this kind were in operation, and under the administration of the Federal Reserve Board, that the price of wheat might be soaring because of a world scarcity, which you referred to as occurring in 1924? The fortunate position of the farmers was reflected in better prices because of that world-wide shortage. Suppose a shortage like that should occur again, and the price of wheat should be gradually going up, and should attract the attention of the Federal Reserve Board in the operation of this proposed law or a similar law, what might be the effect on the farmers' minds if they understood that the Federal Reserve Board was stabilizing and possibly reducing or holding level the price of wheat, which otherwise might double in price?

Governor STRONG. Well, that could, of course, only result from a complete misunderstanding of what the Federal reserve system is capable of doing; and what applies to wheat applies to stocks, real estate, and everything else.

Mr. MACGREGOR. Well, there would be an awful howl going up from the farmers.

Governor STRONG. I should think so.

The CHAIRMAN. Not only from the farmers, but from everybody who is affected by what they would consider control of prices.

Governor STRONG. If any important group of commodities enters a period of decline or advance of such magnitude that it affects the index number of the general price level, we will say, then the question before the management of the control of prices, if such existed, would be whether to influence the general price level to counteract that particular movement of some one set of prices, which might be an unfortunate thing to attempt.

Take the situation at the present time and for quite a period past. We have had a remarkably stable level of prices for general commodities, with the exception in the last few months of a decline in grain and cotton prices. Prices of cattle and hogs have remained pretty steady, but there has been a decline in agricultural prices sufficient to bring about a gradual reduction in the index number of general prices.

Now, take the problem of to-day. Is the Federal reserve system to step in and attempt to regulate this movement which seems to have started, and if so, how? That is the practical thing that the price regulator would face from time to time.

The CHAIRMAN. I was not suggesting that the Federal Reserve Board should pick out a certain item that enters into the fixing of the price index to stabilize it, but in their general activities in the administration of some 400 different items that enter into the price index. If, under the administration of those items in the usual way, the farmer should, in connection with his observation of a world-wide shortage—in the wheat crop, we will say—conclude that the Federal Reserve Board was interfering with the ordinary normal price increase because of supply and demand, would he not be greatly disturbed?

Governor STRONG. Certainly.

The CHAIRMAN. In that connection, I recall that during the war, when the price of wheat was fixed by law, there was considerable of a feeling among the producers of wheat that had that restriction not been placed on the price of wheat they would have procured a larger price, and therefore when the deflation started they would have been in better position to have withstood it, as compared with the predicament that the manufacturers were in. In other words, the prices of their commodities were not fixed, and they were therefore enabled to go ahead and receive the unusual profit brought about by war conditions, and therefore better able to withstand the deflation when it did occur.

Governor STRONG. Mr. Chairman, I do not understand that anybody claims—that is, intelligent people—that the Federal reserve system can, by some manipulation of credit, deal with the price of wheat or any other particular commodity, or even 404 commodities appearing in the index number of the Department of Labor.

The CHAIRMAN. I quite agree with you in that. It was a hypothetical situation that I was creating here for the purpose of bringing out the viewpoint in case a stabilization law was passed similar to this.

Governor STRONG. I think the farmer would complain. I think he would have a right to complain.

Mr. WINGO. Would not this always obtain, if you tell the public that this board can exercise a mastery over the operation of the law of supply and demand? Taking the usual illustration, when there is a shortage of wheat, of course the farmer would very sincerely believe that the public welfare required that the law of supply and demand be permitted to operate. When there is a surplus of wheat, the consumer would become suddenly aware of the sacredness of the law of supply and demand, and it would be a question of "be damned if you do and be damned if you don't." You would get caught both ways.

Governor STRONG. Yes.

Mr. GOLDSBOROUGH. Governor Strong, is it your idea that this proposed legislation is intended as a legislative direction to the Federal Reserve Board to control the normal operations of the law of supply and demand as it affects any particular commodity?

Governor STRONG. By implication I think it would be so interpreted.

Mr. GOLDSBOROUGH. You do think so?

Governor STRONG. Yes.

Mr. GOLDSBOROUGH. I can not conceive of that, Governor.

Governor STRONG. Some of the gentlemen who have appeared before the committee—I can find their statements—have spoken of this as a mandate by Congress to the Federal reserve system. Now, such a mandate is not going to do a bit of good. Mr. Goldsborough.

Mr. GOLDSBOROUGH. That may be. I am not directing my question now as to whether or not it is wise legislation or otherwise, but as to whether or not it amounts to a legislative command to undertake to control the normal operation of the law of supply and demand.

Governor STRONG. I do not think that would necessarily be read into the act; no. In a general way, I think the possible interpretation of the amendment would be by farmers who are not students of economics, that this is a way of fixing up their troubles, and that now this matter of price readjustment is in the hands of the Federal reserve system.

Mr. CANFIELD. Governor, do you think it would be only the farmer? Do you not think that that would apply to all classes who are suffering from a depressed condition?

Governor STRONG. Yes; in time, as different classes were affected by price movements; but at the present moment we think of the farmer, because undoubtedly he has not been restored to the relative position that he occupied just before the war, as to the value of what he produces as against the cost of what he consumes.

Mr. CANFIELD. That is not only true of the farmer; there are other classes that are suffering, too; but the farmer is the one that is talked about most.

Governor STRONG. Yes; and it is a very large class.

Mr. ALLEN. Governor Strong, I was interested in what you were saying about the foreign market, the purchaser of our surplus, and this list of items that have been maintained on a fairly even keel except the grain; cattle and hogs holding up at a fair price. Cattle and hogs are affected by the purchasing power of the foreign market as well, are they not?

Governor STRONG. Yes, sir; but I think not to the same extent as some of the others.

Mr. ALLEN. You think that the depression in the grain price to the farmer is largely on account of the inability of the foreign market to purchase?

Governor STRONG. Well, this is partly surmise. It is not the result of any study, nor would any study be capable of covering this ground. I think what has happened as to the prices of wheat, to some extent, may be this:

During the war the Governments of Europe fed their armies and their civilian population pretty well—they had to; and there was a very considerable expansion in the consumption of white or wheat flour. Now that the readjustments of the postwar period have had the effect of reducing living standards very considerably in some parts of the world, it may be that the use of substitutes for wheat—rye, barley, and even kaffir corn—the inclusion of cheaper grains, may to an extent have affected what would otherwise be the present consumption of wheat.

Before the war we had not been very large exporters of wheat, and at times we imported; and we import a great deal from Canada

to make a mixture for our flour, as you know. But wheat is not a very good example of the effect of a restriction or enlargement of foreign markets. Cotton is the best example, and the influence of the foreign market on the consumption of our cotton would be widespread. Incidentally, as you realize, we export about half of our cotton crop, and that is about equal to the value of all other agricultural exports. So that in referring to that as simply one of the influences upon prices, it would be wholly beyond control of the Federal reserve system. I use cotton as the outstanding example, because that is the crop in which, more than any other, our farmer depends upon his foreign market.

Mr. WILLIAMSON. Governor, would you intend to say that the matter of high money rates or low money rates has any influence upon marketing conditions at all? In other words, at a time when we have plenty of money the rates are low. Does not that have a tendency to inflate prices as a whole?

Governor STRONG. Yes; if credit is furnished beyond the reasonably exact amount required it would, of course, affect the price level.

Mr. WILLIAMSON. And is not the converse true when unreasonably high prices fall?

Governor STRONG. In time it would have that effect, undoubtedly. But we all recognize that other very important influences are also affecting it.

Mr. WILLIAMSON. But could not the Federal Reserve Board to some extent, at least, have some considerable influence in stabilizing the price levels by the inflation or deflation of credits, if I may use those terms?

Governor STRONG. I should say that strictly within the limits of influence which volume and cost of credit exert upon prices, it is one of many influences.

Mr. MACGREGOR. That power you say they have now?

Governor STRONG. All the powers we have now are probably adequate. Mr. Chairman, I am trying to say that if declarations are to be introduced into the Federal reserve act for the purpose of promoting stability of prices generally, there is a declaration which could be made which I believe would be more effective than the one which is proposed, and that is a declaration, within reasonable limits, for a return to the gold standard by former gold standard countries. In the course of time, when the effect of the gold standard, which we recognize and have always recognized, begins to be felt upon prices throughout the world and the readjustment of bank reserves resulting from that, then, I think a very important step toward stabilization of prices will have been taken.

Mr. WILLIAMSON. I think that theory underlying the Strong bill is substantially this: That the Federal Reserve Board in the past has not exercised its power in the extension and restriction of credit to the extent that it ought to have done to stabilize the general price level, and if a bill should be passed declaring to be the policy of Congress that the board should exercise that power to a larger extent than in the past, if it means anything that is what it means, and I say the committee is entirely open minded upon the matter.

Governor STRONG. I am not differing with the purpose at all, Mr. Congressman.

Mr. WILLIAMSON. Do you think that the Federal Reserve Board could, as a matter of fact, stabilize price level to a greater extent than they have in the past by giving greater expansion to market operations and restriction or extension of credit facilities?

Governor STRONG. I personally think that the administration of the Federal reserve system since the reaction of 1921 has been just as nearly directed as reasonably human wisdom could direct it toward that very object.

Mr. WILLIAMSON. Of course, there has always been a very material stabilization of price level since that time, and you think the Federal Reserve Board has been a considerable factor in accomplishing that end?

Governor STRONG. I think they have made their contribution in the administration of credit with some success.

Mr. WILLIAMSON. And how has that been done—in lowering of rates in open market operations?

Governor STRONG. Well, it is a combination of the two. The operations in the open market are designed, I should say, to prepare the way for a change of rates. Unfortunately, it has always seemed to me that the country has given exaggerated importance to change of the discount rate, sentimentally. The danger is that an advance of rate will operate as a sort of sledge hammer blow to the feeling of confidence and security of the country as to credit, and that reaction has been somewhat modified by these open-market operations. The effect of rate changes by the Federal reserve system sentimentally upon the country would, in my opinion, be very much less if the changes were more the result of international movements of gold, which the world has come to understand pretty well—that is, reserves going up or down. When we have had a period of some speculation, and prices showing a tendency to advance, and the world selling us goods at advancing prices—those are the normal conditions that justify an advance in the discount rate, which is thoroughly understood abroad and has been practiced there for many years. I think the people of this country have a better understanding of what is the traditional orthodox practice of the bank rate as a result of gold movements than they have of changes made as a result of these more obscure open-market operations.

Mr. WILLIAMSON. Was there ever an advance of rates from 3 per cent to around 7½ per cent? Was that a mere coincidence, the collapse of prices at that time, or did the Federal reserve system have something to do with the collapse of prices then?

Governor STRONG. Well, Congressman, I would like to say two things about that: In the first place, it just happened I was away during the entire year 1920 and was not here in the midst of the discussion and living in the atmosphere of that period. So far, however, as I had anything clearly in my mind I think you will find that expressed very fully in the hearings before the agricultural commission in 1921, and those hearings took place so soon after the occurrence that I think my ideas were probably better expressed there than I can give them now.

Mr. WILLIAMSON. I read those; I know what those are. When the Federal discount rate went up the member banks complained because the rates were so high they could not afford to carry the loan. Your

member bank, in turn, began to call in on their correspondents, with the result that all along the line a considerable restriction of credit took place, at least in my section of the country, the Northwest, so that by March 4 no man was able to borrow five cents, no matter how much security he had. I am wondering how much the system has to do with that.

Governor STRONG. Oh, it has had something to do with it; but the rate did not get as high as you state.

Mr. WILLIAMSON. It got beyond 7 per cent, did it not?

Governor STRONG. No Federal reserve bank had a rate above 6 per cent for loans on Government bonds, and the country had an ample supply of Government bonds, and the banks could get practically all the money they needed from the Federal reserve banks at 6 per cent.

Mr. WILLIAMSON. They could not afford to borrow money at 6 and 6½ per cent, and so in place of borrowing money for the purpose of saving their own credit they sought to pay up what they owed and called in their own loans.

Governor STRONG. Now, Congressman, that collapse of prices was bound to come.

Mr. WILLIAMSON. I realize that, but I have always felt, myself, that if they had not shoved up the discount rate that the collapse would not have come as rapidly as it did.

Governor STRONG. Of course, if I may digress just a moment, that seemed a very cruel thing to many people, and yet in some respects it had compensating features, and I would like to mention to the committee something that I have never seen discussed very generally about the policy of the Federal reserve system just during that period:

When we declared war on Germany, Congress immediately passed an act permitting the Secretary of the Treasury to borrow money, and the first money that he borrowed was $50,000,000, which he borrowed from the Federal reserve banks. Except for those loans which are made to finance the turnover on the quarter days, when these immense tax payments and security issues are made, when we make the large redemptions for the Treasury—except for those temporary loans which are cleaned up in a week, the Federal reserve banks have never loaned money direct to the Treasury aside from that $50,000,000.

Generally speaking, therefore, at the peak of advances of credit by the Federal reserve system, when we advanced $3,400,000,000 to the member banks and others, the reserve banks had in their portfolio a private obligation of some borrower, with the indorsement of a bank, for every dollar they loaned. Later, when the deflation took place (which I believe was inevitable) it resulted in the liquidation of a mass of reserve-bank credit which otherwise, had we pursued the policy that other governments pursued of borrowing from the bank of issue, would have remained as static Government debts to reserve banks to the extent possibly of $3,000,000,000, and it would have bothered us for a generation to get rid of it. Can you imagine the people in this country or the Congress being willing to have the Treasury appropriate $3,000,000,000 out of revenues or out of other bond issues made to the public, in order to repay to the Federal reserve banks, say $3,000,000,000—I use that figure arbitrarily—the result of which would have been to bring about a deflation of credit? I can not believe it would have been possible.

The deflation which took place in the United States following the collapse in prices resulted in extricating the reserve system—the whole monetary system of the country—from a position of permanent entanglement, if you please, such as was witnessed in greater or less degree abroad; and I think that was one of the fortunate results of the policy very wisely pursued by the Secretary of the Treasury of never borrowing directly from the reserve banks.

One of the results of this liquidation in that fashion has been to put this country on as sound or a sounder monetary basis than any other country in the world, without the introduction of a lot of money or credit into circulation, based solely upon the Government debt to the bank of issue. I mean to explain that there have been offsetting advantages to that deflation, for which I think we are entitled partly to take credit in the reserve system, but mainly in the administration of finances by the Treasury.

Now, Mr. Chairman, that I have made my little plea for the gold standard, I would like, as it seems to come along in natural order, to take up the subject of operations in the open market.

The CHAIRMAN. Might I suggest, Governor Strong, that the committee are not at all familiar with the machinery that is set up in connection with open-market transactions, and that you explain to the committee at the outset, if it is not contrary to the plan of your statement, the organization of the open-market committee, so that this committee may have full knowledge of that?

Governor STRONG. I have that in front of me. In the latter part of 1921 and early in 1922, the member banks had liquidated so large a portion of their discounts at the reserve banks that there was some concern felt by some of the Federal reserve banks as to their earnings.

I would like to explain that with so little experience in banking of this character, it is quite impossible to ask nine active, intelligent, progressive business men, three of them bankers, to serve as directors of a reserve bank, and at once, before they learn a little of the philosophy of reserve banking, not to assume that one of their responsibilities is to earn enough money to pay dividends on the stock; and I think I should state very frankly to the committee that many directors, or many of the reserve banks, strongly held the feeling that a part of their duty was to earn enough to pay expenses. Any business man of experience would feel that way, not possibly realizing, as was the fact, that there were times when it would not be desirable to earn the expenses and dividends.

So that in that period the reserve banks, being autonomous and having the power to invest money, were making considerable investments in the market, buying bills and buying Government securities. It was found that in the actual execution of the orders, and in the effect upon the price of Government securities in the market, there seemed to be some cause for complaint in the Treasury; that sometimes we were treading on the toes of the Treasury, so to speak, and as the reserve banks are the fiscal agents of the Treasury, it was highly important that they should not be in that position. So, in May of 1922, at a meeting of the governors of the reserve banks, it was decided to get some sort of supervision of the way this was done, so as to satisfy the Treasury and equally so as to have a more orderly procedure. A small committee was appointed to deal with

the matter. The first committee consisted of the governors of the Boston, New York, Philadelphia, and Chicago reserve banks. A few weeks later that committee met and laid out a program of how the matter should be handled. I will not give that in detail, as it is not really material; it was a matter of administration. It is important to know, however, that the supervision of these purchases and sales by the committee was not intended and never has been intended to extend into any interference with the local autonomy of any reserve bank, or its relations with its member banks, or its dealing in Government securities with its member banks. It simply had to do, in the first instance, with the execution of orders in an orderly way in the open market.

In September of 1922 the Federal Advisory Council reviewed this procedure and expressed its approval of it. In October of 1922 the committee rather extended its duties, by agreement among the governors of the Federal reserve banks, undertaking to make recommendations to the reserve banks in regard to purchases and sales of Government securities; and this plan for a recommendation by the committee was approved at a conference of governors of reserve banks held in October. That committee executed no orders, purchased or sold no securities for system account, but simply supervised the execution of orders for the individual reserve banks.

In 1923, in the spring of that year, the Federal Reserve Board decided that it was wise to reorganize the committee procedure. The original committee was discharged, a new committee was appointed, consisting of the same men; and commencing in 1923 purchases of Government securities and sales of Government securities were actually made for the account of the system as a whole; and those purchases and sales are generally executed through New York but they are also made in other Federal reserve districts where markets exist and where we can effect purchases and sales satisfactorily. But, of course, the principal market is in New York.

The CHAIRMAN. You speak of rendering that service to Federal reserve banks?

Governor STRONG. Rendering it to Federal reserve banks.

The CHAIRMAN. Did they render the same service to the Treasury in any instance?

Governor STRONG. The committee acts as the instrument for harmonizing the execution of orders for the Treasury, the issue of Treasury securities, and the execution of orders for the Federal reserve banks for their own account.

The CHAIRMAN. The same committee that you refer to as having been appointed in 1923 are now the committee acting?

Governor STRONG. They are the same committee, except that the governor of the Federal Reserve Bank of Cleveland has been added; it is now a committee of five.

The CHAIRMAN. It is made up of the governors of the reserve banks?

Governor STRONG. Yes.

The CHAIRMAN. And you are acting chairman of the committee?

Governor STRONG. I am acting as chairman of the committee. The market for Government securities centers so largely in New York, that, of course, it is necessary that the transactions be largely conducted there.

The Federal Reserve Board in 1923 considered questions of system policy in the execution of these orders, buying and selling Government securities and set out certain principles which should apply, which I think have been scrupulously observed. The principles have been published in the board's annual report, and you may or may not care to have me read them.

The CHAIRMAN. I think you might place them in the record, if that is agreeable.

Governor STRONG. I can just give the reporter this marked copy.

The CHAIRMAN. Let me ask you this, Governor——

Mr. GOLDSBOROUGH. In order not to break the continuity of your statement, I will suggest that Governor Strong be asked to read those principles, and then go on. I see they are not very long.

Governor STRONG. They are not very long [reading]:

That the time, manner, character and volume of open market investments purchased by Federal reserve banks be governed with primary regard to the accommodation of commerce and business, and to the effect of such purchases or sales on the general credit situation.

That in making the selection of open market purchases, careful regard be always given to the bearing of purchases of United States Government securities, especially the short-dated issues, upon the market for such securities, and that open market purchases be primarily commercial investments, except that Treasury certificates be dealt in, as at present, under so-called "repurchase" agreement.

In order to provide for the proper administration of the policy defined above, the board rules that on and after April 1, 1923, the present committee of governors on centralized execution of purchases and sales of Government securities be discontinued, and be superseded by a new committee known as the open market investment committee for the Federal reserve system, said committee to consist of five representatives from the Federal reserve banks and to be under the general supervision of the Federal Reserve Board; and that it be the duty of this committee to devise and recommend plans for the purchase, sale and distribution of the open market purchases of the Federal reserve banks in accordance with the above principles and such regulations as may from time to time be laid down by the Federal Reserve Board.

The CHAIRMAN. Governor, in connection with the operation that is outlined in there, by giving you the authority to buy and sell temporary certificates of indebtedness of the Treasury, does not that have an effect upon the money rate; might it not make money easier or tighter?

Governor STRONG. Oh, yes; undoubtedly.

The CHAIRMAN. Will you explain to the committee also the repurchase agreement referred to? What is the nature of that repurchase agreement?

Governor STRONG. May I come to that a little later?

The CHAIRMAN. Yes.

Governor STRONG. I have that all in here.

The CHAIRMAN. All right.

Governor STRONG. The committee, as I have said, carefully avoids any intrusion into local or district matters which would be disturbing or in any way unsettling to the local management of any reserve bank in its autonomy and in the local responsibility of each reserve bank. The committee meets frequently, usually at Washington, and at times at other reserve banks, with their officers and directors. Its supervision comprehends the following: Purchases and sales of Government securities which are for the system account, but not local transactions with member banks; purchase of bills in the central

markets, but not local purchases by other reserve banks from their members.

The CHAIRMAN. What kind of bills?

Governor STRONG. Bankers' acceptances.

The CHAIRMAN. It is confined entirely to bankers' acceptances?

Governor STRONG. Yes, entirely.

Mr. BLACK. Do those bankers' acceptances cover various commodities, such as manufactured goods, agricultural products, and so on?

Governor STRONG. Yes.

The CHAIRMAN. Exports?

Governor STRONG. Yes, exports and imports. I think much the largest amount of them, as a matter of fact, is drawn to finance our exports and imports. The largest individual item, again, is cotton. The committee arranges periodically for a division of the purchases between the reserve banks; it also supervises such foreign business as we do, and one of its principal functions is to make recommendations as to policies in making purchases and sales which are submitted to the Federal Reserve Board.

The CHAIRMAN. Purchases and sales in the open market?

Governor STRONG. Yes; in the open market—all action by the committee is subject to ratification by the directors of each Federal reserve bank before it is effective as to that bank.

The CHAIRMAN. Just right there. In that connection, is there any notice to other bankers of the beginning of the open-market transactions from time to time, or the purchases in the open market?

Governor STRONG. No.

The CHAIRMAN. That is kept entirely within the knowledge of your committee?

Governor STRONG. Yes. Of course, careful scrutiny of the statement of the reserve banks of the changes taking place in investment account——

Mr. GOLDSBOROUGH. But that is after the investment has been made?

Governor STRONG. Yes.

The CHAIRMAN. There is no announcement made of the policy that is adopted by the committee as to purchases or sales?

Governor STRONG. No. And possibly you prefer to discuss that later, where it would naturally come. But I think there is great doubt about the wisdom of publishing it in advance. All of the actions of the committee and its recommendations are submitted to the reserve board when their approval is legally necessary.

But as to the foreign accounts, I would like to deal with those—they are much less important—first; and take up the question of purchase and sale of Government securities later, if I may.

The CHAIRMAN. Suit your own pleasure.

Governor STRONG. The Federal reserve act provides that the Federal reserve banks may open accounts with foreign banks and that foreign banks may open similar accounts with the Federal reserve banks. It also provides that one Federal reserve bank may act for the whole system in handling these accounts. Such foreign business as we do is of that character.

All of the accounts are carried in New York by the Federal Reserve Bank of New York, and are divided up among the other reserve banks—that is, most of them are; there are one or two that are not.

The CHAIRMAN. The securities are held at the New York bank?

Governor STRONG. The securities are held there, but the balances are divided among the other reserve banks. You will observe an item in the statement of the Federal reserve system showing how they are divided among the various reserve banks.

The business that is done in New York by our foreign correspondents consists in carrying these deposit balances with us. We buy bankers' acceptances for them; that is, invest some of their balances. We also purchase short-dated Treasury issues. When earmarked gold is piling up here and they ask us to do so we ship the gold to them abroad.

The accounts are confined strictly to banks of issue, that is, to banks of the same character and rank as the Federal reserve banks.

The CHAIRMAN. This "ear-marked" gold is not held as a part of the reserve in the Federal reserve system, but is kept entirely segregated?

Governor STRONG. No; it is segregated in separate vaults.

We do no business at all with commercial banks abroad, but simply with the State banks of issue.

This business has grown, and represents, at least in my opinion, a natural development in the transition period between the abandonment of the gold standard and the resumption of the gold standard, which you would generally describe as the period of operation of the gold exchange standard, where banks of issue of various countries maintain accounts with the State banks or the banks of issue in countries which have free gold markets.

That, in a general way, describes what is happening in this foreign business that we do. Of course, if not conducted under the supervision of a committee of this kind—because New York is the market that has contact with foreign money markets—all the accounts would necessarily have to be conducted solely by the New York bank for its own account, which our directors and, I think, all directors in the Federal reserve system would consider to be undesirable.

The handling of these matters is a system responsibility and the submission of the management of the foreign business to system supervision and control rather than leaving it to one reserve bank alone, is desirable.

Are there further questions about this? I am coming to the Bank of England matter later.

The CHAIRMAN. Suppose you proceed in your own way.

Governor STRONG. New York is the main market where bills are dealt in, and it is the principal market on which bills are drawn in foreign countries and in this country. Boston is the next important point. So that the operations of the committee are largely conducted in New York and somewhat in a few other cities.

The CHAIRMAN. Who decides, Governor, as to when you shall buy paper, and as to when you shall sell paper?

Governor STRONG. All of that I have laid out to describe, and I will come to it later.

The CHAIRMAN. All right.

Governor STRONG. This method of handling what we call the purchase of bills in the open market—really discount of paper—is necessary because it results in an orderly market and, more important, it affords protection to the banks that are extending these drawing credits to the rest of the world, and to the New York dealers who deal in the bills and the banks which buy them. The development of the bill market in New York is the outgrowth of the need of the rest of the world to draw on the surplus credit of this country to finance the movement of goods, and especially of trade taking place between this country and foreign countries. It is highly important, when an exporter in some other part of the world is making a shipment of goods to America and drawing time bills representing the sale price of those goods, that he know with certainty upon that bill's arriving in America in New York that it will be promptly accepted, have a certain market at a pretty certain rate; that is the foundation of a bill market.

The foreign banks also must know that when that bill is discounted and they get bank balances in that market that they shall be able to get the equivalent in gold, if they want it; otherwise they may suffer a loss by the depreciation of the exchange.

So, in a word, we are engaged in endeavoring to develop a market in New York where definite, certain, and dependable facilities will be created for financing our trade with the rest of the world; and the war has resulted in a development that has come much faster than would otherwise have been the case; and on the whole it has been exceedingly satisfactory.

The freedom with which the reserve banks stand ready to buy bills is one of the most important factors in developing that market.

Are there any questions on that subject, because I just propose to touch on it very briefly?

The CHAIRMAN. In that connection, my understanding is that only such bills as are indorsed by American institutions and as are rediscountable in the Federal reserve system are bought?

Governor STRONG. We require the indorsement of a banker on every bill.

The CHAIRMAN. American bankers or foreign bankers?

Governor STRONG. There are some exceptions where indorsements of foreign banks are accepted. We do accept the indorsements of certain foreign banks which have agencies in this country, which were established here under the law of the State of New York and which carry assets here and furnish us with satisfactory statements. There is a very good reason for that, Mr. Chairman. The facilities afforded by American banks in foreign countries to accumulate these bills and pour them into our market are as yet rather slight. We have not yet developed our foreign banking agencies very widely, and there are many thoroughly responsible foreign banks with branches in New York or offices there——

The CHAIRMAN. For instance, the International Acceptance Bank?

Governor STRONG. It is more banks like the Hongkong and Shanghai Banking Corporation or the American bank named the Interna-

tional Banking Corporation, which have branches throughout the world, through which the bills come to the New York market, and we do accept indorsements from some such foreign banks. These bills are not purchased in the market in the same way that Government securities are. The purchase takes more of the nature of a discount of commercial paper; that is to say, we have fixed rates at which we take paper that is offered to us, almost exactly like the rate of discount, and we do not go out and bid for bills and buy them as we would Government securities. In fact, it is not a "voluntary" purchase of securities in the sense that the reserve banks purchase Government securities upon their own initiative. These bills are offered every day, but if our rate is above the market rate they do not come to us except when money is tight; if our rate proves attractive they do come to us. There is an important distinction there, because it might otherwise appear that the $225,000,000 of bills of this kind held by the system were acquired by our initiating purchases in the same way that we do Government securities. That is hardly true. With some few exceptions, they simply come to us for discount, just as commercial paper does from member banks, and we purchase the great majority of all the bills from the member banks the same as we discount commercial paper for them.

The CHAIRMAN. Suppose your committee should decide they wanted to buy $100,000,000 of open-market bills. You have a daily knowledge of the bills that are available?

Governor STRONG. Oh, yes; pretty closely.

The CHAIRMAN. So that you always know beforehand what there is available for purchase?

Governor STRONG. Pretty well.

The CHAIRMAN. And the rates?

Governor STRONG. Yes.

The CHAIRMAN. I suppose the fact that you are in the open market determines largely what will be the rate?

Governor STRONG. At times.

The CHAIRMAN. Your operations determine the rate to a great extent?

Governor STRONG. At times our operations determine the rate to a great extent; at other times the rate gets below us and the bills go out of our hands. And the movement to the Federal reserve banks is very considerably seasonable. When the cotton crop is moving to Europe in the fall, the amount of bills made increases rapidly and more bills come to the reserve banks.

The CHAIRMAN. May I make the suggestion that it is now 12.30 and that we take a recess until 2.30, when we will resume with Governor Strong?

(Therefore, at 12.35 o'clock p. m., the committee took a recess until 2.30 o'clock this afternoon.)

AFTER RECESS

The hearing was resumed at 2.30 o'clock p. m., at the conclusion of the noon recess.

The CHAIRMAN. The committee will resume its hearings.

STATEMENT OF BENJAMIN STRONG, GOVERNOR FEDERAL RESERVE BANK OF NEW YORK AND CHAIRMAN OF THE OPEN MARKET COMMITTEE OF THE FEDERAL RESERVE SYSTEM—Continued

Governor STRONG. Mr. Chairman, there were one or two questions asked this morning where possibly my answers have been a little misleading. May I refer to them again?

The CHAIRMAN. Yes.

Governor STRONG. One was the question asked as to a decision which might be made by the open market committee to purchase, say, $100,000,000 of bills. My answer might have led to the conclusion that such a decision was made at times. That is not the way bills are purchased for the system. We do not go into the market and buy them, making a decision on our own initiative to buy a certain quantity of bills. There is a rate established, at which we are known always to be willing to take bills from the market and they just come in to us at that rate as the banks offer them, and rapidly as they do come in they are divided up by the committee, partly to fill orders received from foreign banks which have balances with us for investment and partly divided among the other reserve banks in certain proportions which are fixed from time to time by the committee with the approval of each participating bank. So, the possible inference from my answer that, in the purchase of bills—that is, acceptances—we take that affirmative initiative, is not accurate. We simply buy bills which are offered to us in the usual course of business, mainly by the member banks in New York.

There are dealers in bills in New York and in some of the other reserve bank cities who, at times, come to us when a temporary sharp advance in money rates occurs and make temporary sales of their bills to us in order that they may not be driven to dump their bills on the market and sustain heavy losses, and while that is not a very active function of the reserve bank in New York City, it nevertheless has a degree of importance in insuring that there will always be a stable market for bills at a fixed rate at the reserve bank. The maintenance of that is important in all parts of the world where cables are sent to buyers of bills at points of origin, so that buyers may know that they can be discounted at a certain rate. In fact, most bills drawn in foreign countries, on New York, with documents attached, representing shipments of goods, are sold with forward rates of discount already fixed by cable, so that the holder may know that when the bill reaches New York and is accepted and the documents are detached, he will realize a given amount for his bills.

Mr. BLACK. All of those bills have a maturity of not more than 90 days, do they not?

Governor STRONG. Except bills drawn in trade where credit terms are four to six months.

Mr. BLACK. They may have a maturity of as much as six months?

Governor STRONG. Yes, sir.

The CHAIRMAN. From what you say, there is not much active competition on this paper; that is, the Federal reserve bank is not in active competition with other banks? In other words, is there

a keen market developed in competition when the Federal reserve banks are in the market for that paper?

Governor STRONG. It would depend entirely on the rate fixed. Sometimes the rate we fix is such that we will get a large amount of bills. Then it may be said we are in competition with the general market for bills. At other times—for instance, a period in 1924 when interest rates were very low—most of the bills find other buyers because our rate may be a little higher than others will buy at.

Mr. WINGO. Who fixes the rate?

Governor STRONG. At which we buy?

Mr. WINGO. Yes.

Governor STRONG. That is fixed by each bank, by the directors of the bank, subject to a minimum rate approved by the Federal Reserve Board.

Mr. WINGO. Here is what I have in mind, that your committee handles the buying for what you call the joint account.

Governor STRONG. For the system.

Mr. WINGO. And that, of course, does not cover the direct purchases that are made locally by each Federal reserve bank?

Governor STRONG. Not at all.

Mr. WINGO. In addition to the buying done by your committee, will there be, theoretically—and I guess actually—buying of local bills on the local market?

Governor STRONG. Yes, from their own members.

Mr. WINGO. Now, what I had in mind is, who fixes the rate for the joint purchase—your committee?

Governor STRONG. The purchases made in New York, where most are made, of course, are made at the rate established by the directors of the Federal reserve bank in New York. That is, at the market rate in that market.

Mr. WINGO. I see the point. In other words, your committee supervises the purchases for the joint account, and if it is in New York, of course you purchase at the rate fixed by the bank in New York.

Governor STRONG. Exactly, and if purchased in Boston, the rate is fixed by the Boston bank.

Mr. WINGO. How frequently are changes made in that rate? Is it more frequently changed than the rediscount rate?

Governor STRONG. Yes, sir.

Mr. WINGO. I assumed it was, but I never inquired into it. What considerations, if you do not mind—it might interest the committee—what considerations, or rather what elements, enter into the determination of that open market rate by your bank and, necessarily, by other banks when they fix the rate?

Governor STRONG. I think I ought to begin by a description of what these rates mean, Congressman.

Mr. WINGO. I think that is a good idea. And assume we do not know anything about it. What elements control the fixing of the rate which necessarily will have a major effect on the volume of business you do?

Governor STRONG. May I begin by endeavoring to overcome a misapprehension which is very widespread about the discount rate—a

misapprehension which has grown from the close study people have made of the British system of rate making. The discount rate of the Federal Reserve Bank of New York, using that as an example, is sometimes criticized for being below the market rate for "money." To-day, our discount rate on commercial paper is 4 per cent and the governing rate among the commercial paper brokers will be from 4¼ to 4½ per cent. The suggestion is made that the proper rate for the Federal reserve bank would be somewhat above the rate at which commercial paper sells.

That grows out of the knowledge we have of the Bank of England's rate, I believe, but the facts in the two markets differ materially. There is no commercial paper in England, as we know it here. The loans made by the big commercial banks of England to their customers are not made by taking a note from the customer, as a rule, but by an over-draft arrangement which does not produce a negotiable instrument at all. The rates charged by them for the over-drafts or advances, are fixed somewhat above the rate of the bank of England. When the Bank of England advances its discount rate, generally the rates charged by the joint stock banks to their customers on their advance accounts also advance. So, the rate for the type of loan made to commercial borrowers by British banks which corresponds to our commercial paper is generally above the rate made by the Bank of England, just as our commercial paper rate is somewhat above our Federal reserve discount rate. The difference is that our business loans produce commercial paper eligible to be brought to our bank. The British system does not. The Bank of England minimum rate is the rate at which they will discount the same kind of bills (acceptances) referred to as being purchased by us under section 14 in the open market. The proper way to show the relation of rates would be to compare our purchasing rate for bills (acceptance) with what is known as the minimum discount rate in England. The rate at which we discount commercial paper and make loans to our member banks which is somewhat higher corresponds more to the rate for what in Europe they call Lombard loans or collateral loans such as are made by the banks of issue to their customers, secured by various types of collateral. In the course of evolution of the Federal reserve system, as our money market develops and changes its character somewhat under the influence of the Federal reserve system, it may be that the real discount rate will be the rate which now applies simply to accepted bills and the rates at which we make loans to our member banks will correspond, in the course of time, to the so-called "Lombard" rates for loans to the customers of foreign banks of issue which are usually secured by collateral and which rate is usually about 1 per cent above their discount rate.

The reasons for the difference of rates for bills and for commercial paper are various. The commission charged by a bank for accepting a bill of exchange will run, on the average, at a rate of about one-quarter of 1 per cent for a 90-day bill. That is 1 per cent per annum. So, the cost of credit to the borrower, who is financing a commercial transaction by a bankers' acceptance instead of a note of hand, is partly made up of the commission, which is at the rate of 1 per cent per annum. That is the value of the bank obligation

on the face of the paper and corresponds to the indorsement which we get on commercial paper when it is brought to us for discount at the reserve bank.

There is possibly a reasonable allowance which should be made for the very narrow shave that is made by dealers in turning the bills over, of say an eighth or a sixteenth of 1 per cent. But the difference between that rate and the rate at which commercial paper sells in the market, 4½ per cent, and acceptances, 3½ per cent, fundamentally represents the value of the acceptance of the bank on the face of the draft, which does not appear on the face of commercial paper, and that is the compensation that the accepting bank gets for lending its credit to a customer—for extending credit in that form.

The CHAIRMAN. And that ratio is usually in the quotation?

Governor STRONG. Yes, sir.

The CHAIRMAN. Do you find, in your operations in the open market purchases and sales, you sell in competition with the Bank of England or any other foreign bank at times?

Governor STRONG. That is not individual competition. It is competition of markets, very largely. If the rate at which bills can be discounted at New York is somewhat below the rate at which they can be discounted at London, the tendency of drawers of bills, with facilities for financing the drawing of bills either on New York or on London, would be to draw on New York. If the London rate is below our rate, the tendency would be to draw on London, and the initial competition does not arise in the market where the bill is accepted, but in various markets, all over the world, at the point of origin of this paper, where drawn, in connection with the shipment of goods. I have no doubt if you were on the Malay Peninsula, talking with a producer of rubber who had a large shipment to make to New York or possibly to London, and he had banking facilities in both centers, he would go to the agency of some bank there and say, "Now, what can I get for a bill in dollars or in sterling," and he would get a quotation from the bank which would be largely fixed by the knowledge that the bank manager had of the rate at which he could get discount for that bill either in the London market or the New York market.

The real difference, or the main difference, between the rate for commercial paper on the one hand and for a bill accepted by a good bank on the other hand is due to the fact that one has the obligation of the bank on it and the other has not, and the compensation of the bank that accepts the bill runs, roughly, at 1 per cent per annum.

The CHAIRMAN. Many of these bills are the result of the shipment of cotton abroad, as I gathered from what you said this morning.

Governor STRONG. Yes.

The CHAIRMAN. That might mean the origination of paper in England, Manchester, or Germany, or perhaps in Russia.

Governor STRONG. It would be drawn by an exporter in this country.

The CHAIRMAN. If it was drawn by the exporter in this country, how would it become a banker's acceptance?

Governor STRONG. Of course, the usual route that a bill follows is the same route that the goods follow, and it is a little unusual in fairly recent practice for bills to be accepted in New York when represent-

ing the financing of shipments of cotton to Europe. They would generally be drawn on the point of destination of the cotton. Before the war almost all bills that were drawn to finance our export of cotton were drawn on London or Liverpool, or on Havre or Milan or other centers.

The CHAIRMAN. I understand a great deal of the cotton has gone to Russia, through the All-Russian Textile Syndicate, which has its offices in New York, for instance. How is that settlement made? Take a bill of cotton sold to the All-Russian Textile Syndicate as an example.

Governor STRONG. I can get you the particulars of that, but I have not got them at hand. The bills drawn in connection with that particular cotton movement, as far as I understand, have not come in to us at New York up to now.

The CHAIRMAN. They have not been a matter of rediscount generally yet?

Governor STRONG. No, sir.

Mr. WINGO. For the purpose of the record, assume that the committee, as well as those who read the record, have never heard of bankers' acceptances and bills of exchange. Take a shipment of $100,000 of cotton to be exported. Will you, for the purposes of the record, give the A, B, C's of that, the kindergarten operations, and how it would get into the Federal reserve bank?

Governor STRONG. It takes a great many forms, Congressman. May I give the simplest form?

Mr. WINGO. You get what I am driving at?

Governor STRONG. Yes.

Mr. WINGO. For instance, there may be a great deal of confusion even in the committee, but for the benefit of the record take cotton as an exported article.

(Discussion off the record.)

The CHAIRMAN. The committee will stand in recess for 10 minutes.

(The committee thereupon took a recess for 10 minutes, at the conclusion of which the following occurred:)

The CHAIRMAN. The committee will resume the hearings.

Governor STRONG. Mr. Chairman, I was asked to give a description of a transaction involving the origin of a bill drawn to finance a shipment of cotton.

The CHAIRMAN. In that connection, Governor, I think it would be well for you to distinguish between the two classes of paper.

Governor STRONG. The bill that is dealt in in the open market in New York is identical with the bill that is dealt in in the market in London and practically all the banking markets of the world. It is a bill drawn upon an acceptor, usually a bank, representing a shipment, and usually a sale of goods, and I understand you wish me to describe that type of bill as applied to a cotton transaction.

Mr. WINGO. Take that as a key; in other words, any commodity imported or exported. Just go into a kindergarten explanation of the transaction in connection with that.

Governor STRONG. I shall describe the case of a shipment of cotton, purchased in Texas by or for account of a firm of Liverpool cotton dealers, shipped from the port of Galveston and financed in New York City. The buyer of the cotton assembles it at some cotton

assembling point on a railroad, usually where there are some facilities for storing the cotton temporarily pending shipment, and frequently where there is a cotton gin. The cotton is carefully examined, weighed, and graded. Each bale bears a number or identification mark. When it is actually shipped to Galveston and has been loaded on the steamer there will have been produced and delivered to the representative of the buyer of the cotton a bill of lading and grading certificates. He will also hold an insurance certificate representing the insurance on the cotton during shipment and possibly other papers not material to this description. The local shipper of the cotton has probably drawn checks on his account in the local bank to various farmers or dealers from whom the cotton has been purchased, and he must provide funds in his bank balance for the amount so paid. In order that he may be able to do this the Liverpool firm of cotton dealers, for whose account the cotton is purchased, has opened a commercial credit through, say, the Bank of Liverpool with a New York bank which we will call the National City Bank. The buyer of the cotton in Texas, therefore, draws a draft upon the National City Bank in New York, which is made payable, say, at 90 days sight. He attaches the bill of lading, insurance and grade certificates, and other papers to this draft and deposits it in the local bank where he keeps his account and upon which he must draw checks to pay for the cotton.

The local bank may give him the cash at once for the full amount of the draft less a discount at an agreed rate, representing the interest for which the cash is advanced until the bank gets reimbursement in New York. It is by this method that the local buyer of the cotton for Liverpool account is able instantly to make payment to the farmers or cotton dealers from whom he purchases the cotton. The Texas bank, in order to get reimbursement for what it has paid for the draft, sends it at once to its New York correspondent, which we will call the Hanover National Bank, with which it has some regular arrangement for handling such documentary drafts. When the draft and papers reach the Hanover National Bank they at once present them to the National City Bank which affixes a stamped indorsement on the face of the draft stating that the draft is accepted on the date presented. It detaches the documents and returns the draft itself to the representative of the Hanover National Bank. The disposition of that draft by the Hanover National Bank will depend somewhat upon its arrangements with its correspondent in Texas and somewhat upon whether it has funds of its own to invest in bills or not. It may at once discount the draft at some rate agreed upon with the Texas bank and credit the proceeds to the account of its Texas correspondent, thereby reimbursing it for the advance it has made to the local cotton buyer, or it may call in a dealer in bills, which we will call in this instance the discount corporation, and if satisfied with the rate quoted by the discount corporation, will sell it the bill and credit the proceeds in the same fashion to its Texas correspondent. Up to this point it will be seen that the Texas bank has been reimbursed for its advance, the local cotton buyer who represents the Liverpool firm has been reimbursed for the amount which he paid for the cotton and the farmers and cotton dealers have received payment for their crop.

The course of the bill thereafter in the New York market is a matter of concern to the Federal reserve bank. Buyers of bills who are conducting a regular business in dealing in bills, such as the discount corporation, handle very large amounts, far in excess of the amount of their capital. They carry a large portfolio of bills on which they must borrow money at banks, and the business is conducted on such a narrow margin of profit that if any sudden advance in interest rates should occur, causing the banks which carry the bills for them to charge much above the rate at which they bought the bills, it would impose many losses. It might so disorganize and discourage the dealers that it would be impossible to develop a well-organized market for a type of paper upon which a considerable part of the business community depends for the financing and marketing of what they produce. To meet the situation the Federal Reserve Bank of New York has developed a practice with the dealers in bills of making temporary purchases of their bills for 15 days or less under resale contracts so that they have a place of refuge in the event of a little money pinch. These dealers, whom we are seeking to protect, are engaged constantly in selling bills to banks and others having funds to invest in them and many member banks are regular purchasers of bills from these dealers. These banks frequently, in fact almost as a matter of constant practice when for one or another cause their reserves become impaired, bring the bills to us and discount them with their indorsement at the regular fixed rates which we quote from time to time, the present rates running from 3½ per cent for bills of short maturity to 3⅝ per cent for bills of 90-day maturity.

It is now necessary to trace the course of the documents which have been detached from the bill by the National City Bank. They are, of course, needed in Liverpool to release the cotton when the steamer arrives. And the National City Bank under some arrangement with its Liverpool correspondent, the Bank of Liverpool, will probably mail the documents at once to them where they are dealt with in accordance with the usual practice of the Liverpool market. These bills representing cotton and a great variety of commodities, as was recounted earlier in my statement, plus many bills drawn on New York representing imports of goods into the United States which go through a somewhat similar course, aggregate at times from six to seven or even eight hundred million dollars. It is the best type of paper created in connection with the country's commerce. It is more distinctly self-liquidating than any other and the great bulk of it, as is shown by the amounts which we buy, is the vehicle now being largely employed to finance the export of cotton and other farm produce. One of the objections to the bill proposing to repeal the so-called war amendments of the Federal reserve act passed in June, 1917, is that it would tend to operate as a distinct discrimination against the best type of paper in our banking system and the most liquid type of paper which comes to the Federal reserve bank, and that type which is especially designed for the economical financing of agricultural produce as well, of course, as many other kinds of goods.

The difference between the practice described above and that which prevailed before the war can be briefly described as follows:

When the cotton buyer in Texas had assembled the cotton and had possession of all the shipping documents he drew a bill, not in dollars on a New York bank, but in sterling, francs, marks, or other foreign currency on a bank in the country to which the cotton was to be shipped. That draft, under a system of telegraphic exchange rate quotations, was promptly sold in Texas to a bank which made a specialty of handling documentary bills payable abroad at rates which were quoted by telegraph every day, usually by New York City banks. The Texas bank would attach to the sterling or other foreign currency draft a separate draft for the dollar equivalent at which it had been sold to the New York City bank, and this draft went through to a New York correspondent exactly as the dollar draft was described as being handled. Upon its arrival in New York the dollar draft was paid and the proceeds credited to the Texas bank and then the New York City bank remitted the bill and documents to its correspondent in the foreign capital where it was to be accepted and made payable, and there it went through somewhat the same course as I have described to be the course of the dollar draft under present practices in New York City.

Please bear in mind that I have described above one of the simplest types of transactions of this character, eliminating quite a few details of technique which might serve to confuse the description. Drafts representing our exports are drawn in conformity with certain customs which have grown up around different trades, those representing shipments of grain being quite different in technique, although the same in principle, as those representing shipments of cotton, but the cotton draft being the largest in volume is possibly more typical in form and serves best to describe the principles.

Broadly speaking, the result of the development of this market in New York is to transfer the financing of a considerable part of our foreign commerce from foreign markets to the New York market where it otherwise would not have been financed. In essence it is in the nature in the aggregate of a temporary loan but more or less constant in total volume; varying between a minimum of five or six hundred millions to a maximum of eight hundred millions or more, whose function it is to move goods. It has, of course, the effect of relieving European markets of the burden of that amount of financing; but, on the other hand, it does produce some profit to the American banking system and does produce other advantages which do not bear upon this description.

Mr. BEEDY. For how long a period are these bills drawn?

Governor STRONG. Many bills are drawn for a longer maturity than 90 days, which are then carried until they reach 90 days' maturity, whereupon they may be brought to us for rediscount.

Mr. WILLIAMSON. You only take those that constitute bankers' acceptances?

Governor STRONG. Yes, sir; except that we sometimes take trade acceptances with a bank indorsement.

Mr. WILLIAMSON. If it is drawn on an individual and an individual accepts it, before you take it, it would have to be indorsed by a bank?

Governor STRONG. Yes; and those are mostly trade acceptances.

Mr. WINGO. That is the reason I asked for a distinction between the two. You would be surprised how many business men and local country bankers confuse that and think you can buy every conceivable kind of bill, whether a bank acceptance or a bill of exchange created through the indorsements of the banks.

Governor STRONG. That is a very different type of paper from the ordinary commercial paper.

Mr. WINGO. I think it might be well to assume we never heard of it, for the benefit of the record.

Governor STRONG. The other type of paper, which is simply a promissory note made by the customer of the bank for the borrowing of money, we never buy in the open market and have no authority to do so under the law. We get it from the member banks after they have indorsed it.

Mr. WINGO. Whenever you go into the open market, you buy something that really represents a transaction?

Governor STRONG. Yes; a sale of goods.

Mr. WINGO. While a member bank may loan on a straight loan, and it may be a credit that has goods or commodities back of it or merely a promise to pay——

Governor STRONG. You can not tell what is behind it.

Mr. WINGO. You are limited by law to what is really commercial paper?

Governor STRONG. Yes; in open market purchases to bills which identify themselves.

Mr. WINGO. And grow out of commercial transactions?

Governor STRONG. Yes, sir.

Mr. WINGO. No fictitious artificial credit created by an individual asking the bank to lend money on his name?

Governor STRONG. If you went through our portfolio in New York and examined them, with a little practice you would be able to tell very promptly what the evidence of genuineness is. Frequently you will find the name of the commodity to which the bill applies, and you would be amazed at the commodities—cotton, hides, human hair from China, hair nets, coffee, jute, rubber, and every conceivable commodity.

The CHAIRMAN. Do you make any distinction between such basic commodities as wheat, cotton, and copper and manufactured commodities—that is, prime raw materials that are world products and fabricated materials in this country?

Governor STRONG. The great bulk relates to primary commodities. May I give you a list of bills covering two months' purchases by the reserve banks in their operations in the spring of the year, to indicate what a variety of commodities is financed?

The CHAIRMAN. Certainly.

Governor STRONG. $75,000,000 cotton; $27,000,000 grain; $20,000,000 sugar; $18,000,000 coffee; $15,000,000 silk, largely imported from Japan; $11,000,000 wool; $7,000,000 hides and skins; $7,000,000 copper; $5,000,000 lard and meats; $5,000,000 flour; $4,000,000 tobacco; $3,000,000 rubber; $2,000,000 cotton manufactures; $2,000,000 woodpulp; $2,000,000 lumber; $2,000,000 furs; $1,000,000 farm implements, and all others $41,000,000, making a total of $247,000,000 of bills of that character purchased in 60 days, representing the flow of goods in the commerce of the country, mainly with foreign countries.

The CHAIRMAN. In making up these price indexes do you understand that it is perfectly right and proper to include the staple articles, like wheat, copper, and cotton and fabricted or manufactured goods in this country?

Governor STRONG. Mr. Chairman, I do not pretend to be an expert on these index figures, there is such a variety of them and such a variety of theories. I can show you here, in one chart, an exposition of the variety of types of index figures that are prepared and what results you can get from them.

Mr. WINGO. Before he does that, may I offer this suggestion to the Governor with reference to that detailed information he is showing as to what his bills amounted to over a period of time, as to cotton, wheat, silk, etc? It is obvious from that that the volume of actual transactions of commodities that are shipped, bought, and sold in the ordinary business of the country is the major factor in determining the volume of paper that is handled by you.

Governor STRONG. Oh, yes; I think so.

Mr. WINGO. The popular idea that you create something to suit your idea of what the market should be, to the contrary notwithstanding? In other words, you are meeting the demands of exchange for the country?

Governor STRONG. Quite so.

Mr. WINGO. Instead of creating these things, you take them as offered?

Governor STRONG. That is shown by the seasonal change in the bill holdings.

Mr. WINGO. I just want those who read this to understand the real effect of your transactions.

Governor STRONG. What happens to the Federal Reserve Bank of New York applies to the system as a whole. In the fall, when cotton and other things begin to move, our bill holdings go right up. Practically all the credits required to finance the increased movement of goods automatically find their way into the Federal Reserve Banks.

Mr. WINGO. While that is true with the commercial transactions, of course you can, in the open market, buy bonds—Government bonds—and of course you could automatically increase or decrease the supply of money because there is such a large amount outstanding of Government bonds. You could arbitrarily increase or decrease the volume of credit that is available, but as far as the commercial bills are concerned, the financing of cotton and silk and other things imported and exported, and making up the great mass of the trade of the country, you are more nearly the servant than the master in that transaction?

Governor STRONG. Yes; we respond to the natural demands of the country.

Mr. BEEDY. I would be anxious to have you finish that sentence you were on—takes the peak off the——

Governor STRONG. By furnishing the amount of credit that the peak demand calls for in the fall. Following immediately upon this demand for credit in the movement of commodities comes the demand for currency for the holiday trade. It amounts to no less a sum than $400,000,000, and that results in the bankers coming to us to borrow very heavily. The currency flows out to the retail trade of the country, and, commencing about the last two days of Decem-

ber, it commences to come back, and at once we see the total go down.

Mr. WILLIAMSON. As to the discount rate on these bills of exchange when these bills of exchange are sold—they are sold at about what rate of discount, on the average?

Governor STRONG. It depends on the maturity. Our rates are fixed with regard to the length of time the bill has to run. At present the minimum rate is 3½ per cent.

Mr. WILLIAMSON. If it goes through an intermediate bank, do they also discount the exchange so that each bank it goes through takes off a discount?

Governor STRONG. Yes; the member banks in New York get about ⅛ per cent per annum for their indorsement that is all; that is, the quotation on bills in the market, without the indorsement we get when they come to us, is, to-day, about 3¾ per cent. To any bank coming to us and putting its name on the back of the paper and giving that additional security, we discount at the rate of 3⅝ per cent, for 90-day maturities.

The CHAIRMAN. If the Federal reserve banks were not now in the open market buying, it would be bought by other banks, and, in the fall, for instance, that demand would be satisfied by rediscounts by the member banks and the money they would get out of the Federal reserve by rediscount rather than on the paper.

Governor STRONG. Yes, sir; but this is a lower rate and the banks take advantage of it.

The CHAIRMAN. I rather got the impression this morning, when you referred to repurchase agreements on the purchase of Government bonds, that it was the practice of the Federal reserve banks to take the securities from the member banks in times of stress, and when that time expired they would be repurchased from the Federal reserve banks?

Governor STRONG. Yes, sir; but that applies to dealers, not members.

The CHAIRMAN. That is what is embodied in the repurchase agreement?

Governor STRONG. Yes, sir.

The CHAIRMAN. That is operated to a great extent by member banks in getting credit with the Federal reserve banks?

Governor STRONG. By the dealers.

The CHAIRMAN. By the dealers?

Governor STRONG. Yes, sir.

The CHAIRMAN. How many dealers are there in the open market paper—is it confined to a few houses?

Governor STRONG. Possibly a dozen in New York.

Mr. WILLIAMSON. Just how does the dealer get his profits out of the bill of exchange?

Governor STRONG. By the shave in the discount rate, (he buys and sells at a small fraction's profit), and in a difference in interest in carrying bills.

Mr. WILLIAMSON. About what is his fractional percentage?

Governor STRONG. I think it is rarely more than an eighth—sometimes a quarter, if the bill is not as well known. All these inequalities of rates are ironed out before they reach us by the system of in-

dorsement, because when the bills reach us the value of the indorsements on them makes them of about the same value.

Mr. BLACK. Suppose a cotton firm, like Anderson, Clayton & Hill, of Houston, should sell $100,000 of cotton and draw an acceptance with maturity more than 90 days; would that be such paper as, under the Federal reserve law, could be handled by the Federal reserve banks for a longer maturity than 90 days; or would that be one of the transactions where the maturity would have to be within 90 days?

Governor STRONG. Within 90 days.

Mr. WINGO. Is that such paper as would be eligible at a Federal reserve bank for purchase or eligible paper to be rediscounted through the Federal reserve banks?

Governor STRONG. It would become eligible as soon as it reached within 90 days of maturity.

Mr. WINGO. I think I remember something with respect to that 90 days. Tramp steamers carrying cotton in export, take considerable time to make the trip. I was under the impression that that could be handled within six months.

Governor STRONG. Is that so now? I have forgotten. I think that is so.

Mr. WINGO. I know in the original writing of the act that was pointed out, that cotton and heavy commodities are carried in tramp steamers, and it would take six months to clear itself.

Governor STRONG. Yes; it takes a long time on some voyages. To cross the Pacific and the continent requires so long a time that that period is too short.

Mr. BLACK. You could handle that paper when the maturity may be as long as six months?

Governor STRONG. Yes, sir. These refinements sometimes escape me.

May I also correct another misunderstanding I am afraid has arisen in reference to a question that was asked this morning?

The CHAIRMAN. Yes.

Governor STRONG. The chairman inquired whether when we decided to make some purchases of Government securities, say, in the open market, we notified the banks in advance. I understood the question to refer to banks generally—whether we gave notice generally—but I since learn that he wanted to know whether we notified the other reserve banks not represented on the committee. We do not give any public notice or notify the member banks that we intend to buy certificates, but we give notice to all reserve banks and no reserve bank is obligated to participate in the purchase until it has been submitted to and approved by that bank. So, if the committee were deciding, with the Federal Reserve Board's approval, to make purchases of securities and one of the reserve banks is possibly discounting heavily for its members and did not care to take its share, it would not be obliged to. They pass on that, entirely.

Mr. GOLDSBOROUGH. The New York bank would take them all? Some one has to?

Governor STRONG. As far as the money market is concerned, so much centers in New York that these are operations which the New York bank would naturally conduct itself, except that this is a banking system and not one bank, and, as other reserve banks participate,

it is much better to have the operations conducted and supervised by the system as a whole.

The CHAIRMAN. You referred to the fact that one of the controlling elements in the purchase of paper in the open market was to have sufficient assets to cover the operations. There are other times when you buy paper for other purposes in the open market? Do you not buy paper to supplement the earnings of the Federal reserve banks?

Governor STRONG. I think that motive has disappeared with a better knowledge of the responsibilities of the system. The subject of earnings as a motive in buying has not arisen for quite a while.

The CHAIRMAN. In the original instance, I understood you this morning to say that was one of the features.

Governor STRONG. Yes; but, of course, it was desirable that that motive should be eliminated as soon as possible, and it has been.

The CHAIRMAN. I am sure the committee would be interested to know about that. Perhaps you did cover it, but if you did, I missed it. What are the elements that enter into that decision to go into the open market?

Governor STRONG. I would like to answer that question a little later, if I might, Mr. Chairman, by reading a memorandum.

The CHAIRMAN. Very well.

Governor STRONG. I have attempted to emphasize the fact we do not on our own initiative go into the market to buy bills, but that the purchase of short-time Government certificates or of any Government securities is in the nature of a voluntary act by the reserve banks, usually upon the initiative of the committee, undertaken upon our own initiative, as distinguished from responding to the demands that come by way of applications for discount or for sale of bills automatically from the market, so that the affirmative policy of the system—that is, the influence or control that it exerts in an affirmative way—is undertaken by two methods.

First, is changes in the discount rate because, after all, it is by what we charge for the credit that we extend to the member banks or the public through the discount of bills or commerial paper, that we control the volume. If we are discounting too heavily, or if other considerations make it necessary, we advance the discount rate.

The other affirmative position that we take in exercising this control or influence is when we decide, upon our own initiative, to buy or sell some Government securities, because those are not presented to us for discount. They would never come into the reserve bank (except as collateral to loans) unless we decided to buy them, and of course they go out when we decide to sell them.

In a general way, you may understand that all the credit which we furnish to member banks, either through sales of bills or discounts, is furnished to them for the purpose of maintaining reserve balances which they carry with us, which, for one or another reason, become impaired; that is to say, a loss of deposits by member banks or loans or investments in excess of repayments or sales of investments results in impairment of reserves, and they come to us to borrow money in order to make good the impairment of their reserves.

Those three methods—discounts, the purchase of bills, and the small amount of transactions we have with dealers in purchase and resale

contracts—are the three channels through which our credit actually works into the market, more or less without our initiative, but at the rates we fix. The voluntary purchase of Government securities, however, naturally arises from other motives, and as the transactions have been very extensive at times, I think I would like to ask the privilege, Mr. Chairman, of reading a memorandum that I prepared over a year ago and which will describe exactly what transpired in 1924 and the motives that led to our buying a large amount of securities. I prefer to read this, if you please, because it was prepared in December, 1924, without any thought that I would be here to-day explaining these matters, and it is free from any possibility that my present opinions or statements are influenced by events that have occurred since the memorandum was prepared. It is more current with the events of those days than anything I can say now.

Mr. WILLIAMSON. Before you proceed to do that, I should like to ask a question. What is the underlying basis on which you fix discount rates? They are fixed more or less arbitrarily, I take it, by the board.

Governor STRONG. There are so many considerations that enter into it that it is difficult to answer the question. The rates of discount are fixed after considering almost every element that enters into the credit situation, including consideration of the rates of interest in the market, the course of prices, if you please, to some extent, whether there is much speculation or inventories are piling up or not, whether the flow of business is uniform, and even somewhat with relation to the foreign movement of gold. I think you will find that set out again in the record of the hearings before the Agricultural Committee very fully.

Mr. GOLDSBOROUGH. In answer to a question of Mr. Wingo's a few minutes ago I gathered that you did not accent or the Federal reserve system did not accent the conditions or the price level particularly in deciding on what their open-market operations should be.

Governor STRONG. I think we take that very carefully into consideration.

Mr. GOLDSBOROUGH. With your permission and the committee's permission, I am going to read a sentence or two from a speech that I made before the Maryland Bankers' Association on June 2, 1924, and get your comment upon the statement I there made.

These warnings are typical of the state of mind of bankers in the early months of 1923. In February and March, 1923, the reserve banks of New York, Boston, and San Francisco raised their rediscount rates. Due in part to this action, interest rates of commercial banks rose in February and again in March, rates on call loans on 60 to 90 day paper and on 4 to 6 months paper being all higher in March than in any month of the previous year. Raising of money rates was followed promptly by curbing of the upward movement of prices and overproduction. Not so generally understood is the fact that the open market operations of the Federal reserve banks in the first half of 1923 tended to curb the involuntary movement and in the second half of the year tended to sustain business on its new level. Early in January the Federal reserve banks held open-market acceptances and United States securities to the value of $734,000,000. These they reduced steadily throughout the period of incipient business boom. By July the total holdings were less than $300,000,000. Between October 17 and the end of the year, however, the holdings increased from about three hundred million to four hundred and seventy-three million dollars. Thus the open-market operations took money out of general circulation at a time when, according to our

indices, money in circulation was increasing faster than the volume of trade, and later in the year, when these same guides began to point in the other direction the open-market operations put more money into circulation.

That statement was intended to be wholly complimentary to the action of the Federal Reserve Board and Federal reserve banks. I would like to have your comment upon the validity of the statement and the conclusions drawn.

Governor STRONG. Congressman, I can only differ in one particular of any importance with that statement, and that is the suggestion that those transactions put additional money into the market or took it out of the market. That is not quite what happens, for this reason: I remember the occurrences that you refer to very well indeed. The reserve banks had accumulated a total—at high-water mark—of $629,000,000 of Government securities by their separate and independent purchases before there was any committee. There was what appeared to be a speculative or unhealthy development under way in 1922 and 1923. The reserve banks then sold all of their Government securities down to only $73,000,000, as I recall, and the result of those sales was not to reduce the volume of credit materially, but it drove the member banks to borrow from the reserve banks and what had been an investment account was converted into a borrowing account. As rapidly as those sales were made, you will find the borrowings increased. I have the figures here and the charts. The only way the market could pay for those securities we were selling was by borrowing just as much from us. As they got heavier in our debt the rate was advanced to 4½ per cent, in February. The pressure of our rate became increasingly effective, because 4½ per cent was then a high rate for any bank to pay in the money centers. The only material difference in the way I would express what you have stated is that the influence exerted by the reserve system upon credit as a result of sales was really to make the increases of the discount rate more effective. You will be surprised when I get to the figures how almost exactly you find that purchases of securities and sales of securities by reserve banks are offset by corresponding decreases and increases in borrowing.

Take this chart [exhibiting]: There is the period you refer to [indicating], and you see the holdings of Government securities went down constantly. From here [indicating] to the end of 1923 you see the way the discounts went right up. The total amount of credit extended by reserve banks remained almost unchanged. Here [indicating] you have a big dip and you will find that dip was caused by two things: one, we had very heavy imports of gold and those imports of gold filled up the reserves and reduced the borrowings, and, in addition to that, throughout the period of 1924 there was a definite movement of liquidation in the country, and we might have had an uncomfortable consequence if it had not stopped. The import of gold had a large share in stopping it.

You will find right here [indicating] that we bought over $500,000,000 of securities again. (See Chart A, p. 331.)

The CHAIRMAN. To what extent did the influx of gold into the country, from the period April, 1920, to December, 1921, influence the price level; in other words, did this flood of gold tend to lessen the control of the prices the Federal reserve system had? Was the effect of this to unsettle prices?

Governor STRONG. It would have been more than it was—it is impossible to attribute to that particular movement any exact reflection on prices—it would have been a disorganizing influence possibly if it had not been for the fact that the reserve banks had sufficient earning assets so that the gold which came in to us simply caused a reduction in our earning assets which offset what otherwise would have been a large increase in bank reserves. These charts show how those compensations took place [exhibiting]. (See Chart B, p. 332.)

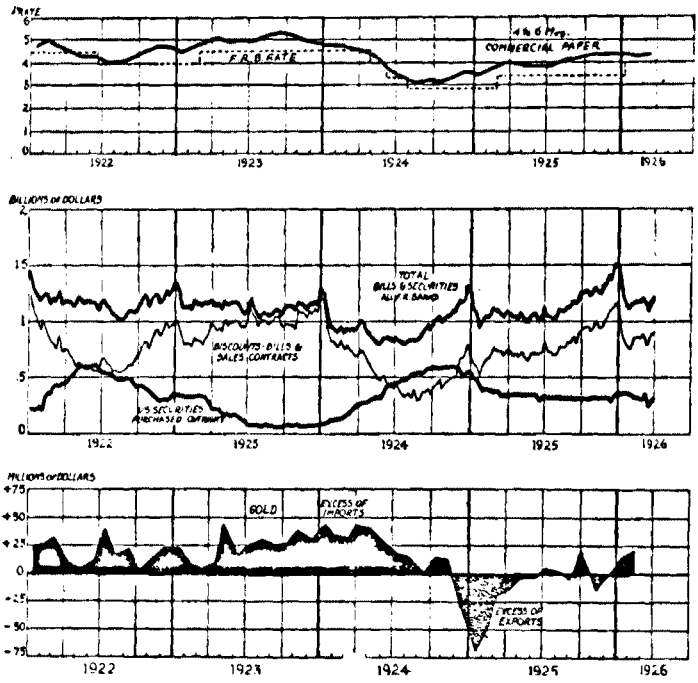


CHART A

Open market rate for commercial paper and Federal Reserve Bank of New York rediscount rate; holdings of bills and securities of all Federal reserve banks; and net imports or net exports of gold

Sources: Commercial paper rate—Secured direct from dealers by Federal Reserve Bank of New York.
Holdings of bills and securities—Federal Reserve Board.
Gold imports and exports—Department of Commerce Reports.

The CHAIRMAN. I am going to suggest that these charts, with your permission, be placed in the record at this point.

Governor STRONG. I think those two [exhibiting] would be illuminating.

Referring to this compensating effect of discounts versus the sale and purchase of Government securities, let me give you the changes that took place. Between January, 1922, and May, 1922, our holdings of Government securities increased $400,000,000. All of our other earning assets decreased $430,000,000; in other words, there was a net change of only $30,000,000, and that was a decrease.

Between June, 1922, and December, 1922, the next period, we reduced our holdings of Government securities by $330,000,000 and

all our other earning assets increased exactly $330,000,000. One offset the other.

In the period March, 1923, to July, 1923, we further reduced our Government securities holdings $260,000,000, and in that period all other earning assets went up $160,000,000. That is in the period of the year when there is always liquidation of assets.

Between December, 1923, and September, 1924, we increased our Government security holdings by $510,000,000. In that period our discounts went off $750,000,000, and, roughly, the difference, that is, the reduction of earning assets which exceeded the amount of increase of Government securities (nearly $200,000,000), was almost wholly caused by imports of gold.

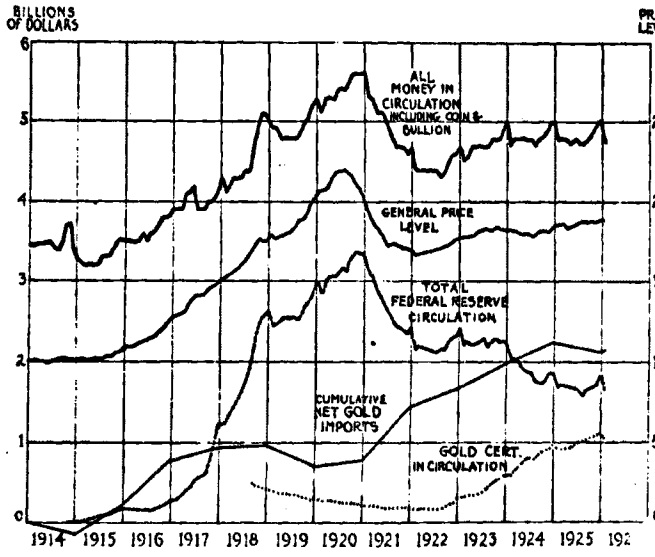


CHART B

Money in circulation in the United States, cumulative net gold imports, and the general price level, including wholesale and retail prices, rents, and wages

Sources: General price level—Computed by the Federal Reserve Bank of New York.
Money in circulation—Circulation statement of the United States Treasury.
Federal reserve note circulation—Federal Reserve Board.
Cumulative net gold imports—Compiled from reports issued by the Department of Commerce.

Between November, 1924, and March, 1925, we had a reduction of our Government securities of $260,000,000 and an increase of other earning assets of exactly $260,000,000.

The influence that the reserve system exercises in the money market may be described, therefore, in this way: If speculation arises, prices are rising, and possibly other considerations move the reserve banks to tighten up a bit on the use of their credit, and we own a large amount of Government securities, it is a more effective program, we find by actual experience, to begin to sell our Government securities. It lays a foundation for an advance in our discount rate.

If the reverse conditions appear, as I shall describe, and as we thought were developing late in 1923, then the purchase of securi-

ties eases the money market and permits the reduction of our discount rate. But we still have much to learn. This is a big country and a vast organization to deal with, a vast credit organization, and I feel we have still much to learn about how these things should be done. So far as we have gone in our experience and under world conditions as they are, it seems to me that the foundation for rate changes can be more safely and better laid by these preliminary operations in the open market than would be possible otherwise, and the effect is less dramatic and less alarming to the country if it is done in that way than if we just make advances and reductions in our discount rate. For instance, a reduction in the discount rate, under conditions which may seem to justify it, establishes a pretty wide spread between our rate and market rates, and that is not always a wholesome thing, especially in a big money market like New York. It is better, possibly, to let our credit filter out first through these purchases, have our discounts decrease, have the rates in the market come down gradually, and then we can reduce more in line with the existing rates in the market. At any rate, it seems to have worked pretty well that way in the past.

Now, I would like to call attention, Mr. Chairman, to another characteristic of the discount rate under our banking system that is not always understood. The great volume of credit in this country is like an inverted pyramid, resting on a base of gold; that is, it rests on the gold reserve. But the reserves of the member banks now consist of a credit on our books which in turn rests on a lower base of gold, being our reserve; so that any contraction of that base of credit in the reserve banks naturally affects, in a considerable ratio, a very much larger volume of credit that rests upon this reserve. I think a graphic picture of that could be drawn which would be most illuminating.

The CHAIRMAN. Have you that here?

Governor STRONG. We have drawn one for another purpose, which I have here. (See Chart C, p. 334.)

The CHAIRMAN. It is evident there will be several charts and I suggest you supplement what you have said by giving the committee the fullest information on the subject, whether in response to our questions or not, so that the record will have the whole story.

Governor STRONG. Now, about this pyramid, which is important. If we are charging all member banks, say, 4½ per cent or even more on the amount of their discounts by which they build up the reserve they carry with us, that rate is a penalty to them and they generally want to get out of debt. They do not get out of debt by picking reserve funds out of the air. Unless gold comes in from abroad, the only way they can reduce that credit is in the ratio (which varies somewhat according to the demand for currency) which roughly, at times, will run as high as 10 to 1.

The CHAIRMAN. In other words, they call loans?

Governor STRONG. The only way they can get out of debt, unless gold comes into the country, is by liquidating loans and other assets and so causing a reduction of the amount of deposit liabilities by an amount which may run as high as $10 for every $1 required to pay us off. It is a reduction in the reserve requirements which gets the banks out of debt with us, when our rate is operating s as to reduce the whole volume of bank deposits.

The operation of our discount rates, at times, is a fairly severe restraint on credit expansion, and there is, therefore, very good reason, at times, for modifying the effect of the reduction or advance of rates by these open-market operations.

The CHAIRMAN. There is a general feeling that a gold dollar in the Federal reserve system means an extension of credit of two and one-half times. My understanding is that depends on conditions; that there are times when it would extend to ten times.

Governor STRONG. Yes; that gold dollar in the reserve bank forms a basis for the issue of two and a half dollars of Federal reserve

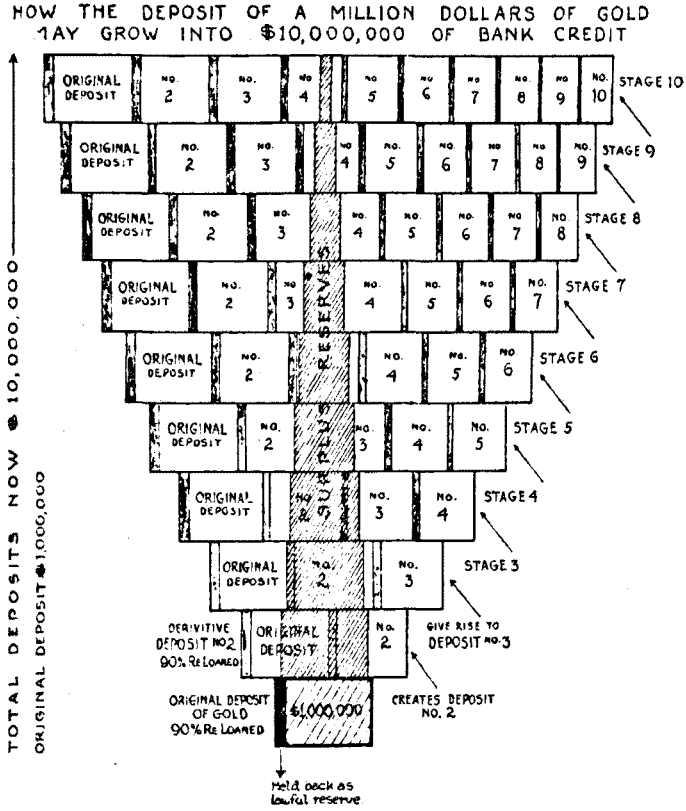


CHART C

notes, but when a gold dollar is put in the reserve bank it creates a dollar of reserve balance for the member bank depositing with us. Now, leaving out altogether the question of the requirements of the country for currency, the average reserve of all the banks of the country works out roughly at one dollar of reserve to ten dollars of deposits. If the demand for currency does not increase, theoretically, the amount of gold deposited in the banking system will expand the credit volume generally to ten times the amount of reserves created by imports of gold which is deposited with us.

It does not work out always that way, because, after an expansion of loans if some business activity arises, and prices are rising, the need of the country for currency increases, and when the banks come to us for currency as distinguished from balances, they take the entire 100 per cent of what they borrow in currency. That does not increase their reserve with us at all. So, the result of borrowing to meet a currency demand does not necessarily mean an increase of 10 to 1 in the credit volume. So also, the amount of increase in the credit structure resulting from an import of gold is necessarily affected by the currency requirements.

Before reading this memorandum to which I have referred, relating to our open-market operations in 1924, I may mention that the open-market committee came into existence in the early spring of 1923. Prior to that time all transactions by reserve banks in Government securities were conducted quite independently of any general system policy. There were discussions, of course, and we had meetings and much correspondence on the subject, but operations had not been organized then in the way they are now. Several reserve banks had been selling securities down to sometime in 1922. I do not recall just when, but I think pretty much through the year 1922. It was late in 1922 and early in 1923.

In the spring of 1923 the Open Market Committee was organized and began to coordinate those matters. In the fall of that year, conditions had changed a great deal and at a meeting held in Washington that fall it was decided to repurchase some Government securities.

Now, to reconstruct all the atmosphere and conditions of that time would require a lot of study and reading, but it just happens that at the end of 1924 I prepared a memorandum covering the policies of that year and put it in the files. I have it here, and if you have patience with me I will read it. It recounts the situation at that time better than it is now possible to reconstruct it. It was written on December 25 and typewritten on December 26, 1924. [Reading:]

By the fall of 1923 the bulk of the short-time Government security holdings of the Federal reserve banks had been liquidated. The sales made throughout the previous year had forced member banks to borrow considerable sums from the Federal reserve banks in order to replace the reserves which they lost when payment for the securities was made to the Federal reserve banks. The fall of 1923 saw the members borrowing about $835,000,000 on direct discounts from the reserve banks, of which over $200,000,000 was in New York. At that time considerable importations of gold were being received from Europe. There was developing some recession in business; the New England textile manufacturers had suffered a severe slump; the same being to some extent true of rubber, some branches of the steel and of other trades. But the most serious difficulty which had developed in any part of the country was the banking situation in the West, especially in the Northwest and Southwest. Banks were failing almost every day.

Notwithstanding imports of gold, there was continued pressure by member banks to liquidate their indebtedness to the reserve banks, causing, in turn, pressure by member banks upon their borrowers to repay loans. The commercial paper rate was 5 per cent; rates for 90-day bankers' acceptances 4⅛ per cent; customers' loan rates at New York about 5¼ per cent; time loans upon securities 5¼ per cent; stock exchange call money 4¾ per cent; the discount rate of the Federal reserve bank of New York was 4½ per cent, where it had been maintained since February 23, 1923.

The condition of the farming community, including the cattle industry, was coming perilously near a national disaster, and feeling became so strong throughout the West that all sorts of radical proposals for legislation and other Government relief were being urged.

I have not changed a word of this since I wrote it.

Sterling had declined in November to $4.26 under the influence of a general flight of capital from Europe to this country. Interest rates in London were lower than in New York. "Money" (three-months bank bills) was quoted from 3 to 3⅜ per cent; tap rate on Treasury bills was 2¾ to 3 per cent, and the official rate of the bank was 4 per cent.

It was under these conditions that the Federal reserve banks undertook the gradual repurchase of short time Government obligations. The following definite objects were in mind, at least so far as the writer was concerned:

(1) To accelerate the process of debt repayment to the Federal reserve banks by the member banks, so as to relieve this weakening pressure for loan liquidation.

(2) To give the Federal reserve banks an asset which would not be automatically liquidated as the result of gold imports so that later, if inflation developed from excessive gold imports, it might at least be checked in part by selling these securities, thus forcing member banks again into debt to the reserve banks and making the reserve bank discount rate effective.

(3) To facilitate a change in the interest relation between the New York and London markets, without inviting inflation, by establishing a somewhat lower level of interest rates in this country at a time when prices were falling generally and when the danger of a disorganizing price advance in commodities was at a minimum and remote.

(4) By directing foreign borrowings to this market to create the credits which would be necessary to facilitate the export of commodities, especially farm produce.

(5) To render what assistance was possible by our market policy toward the recovery of sterling and the resumption of gold payment by Great Britain.

(6) To check the pressure on the banking situation in the West and Northwest and the resulting failures and disasters.

The writer had roughly estimated that it might be possible for Europe to ship us still some $400,000,000, which I thought would likely be distributed over a period of, say, two years, but that, notwithstanding these gold shipments, pressure for liquidation of bank loans would not be reduced promptly enough except it was accelerated through purchases of securities by the reserve banks.

In pursuance of this policy the Federal reserve banks gradually purchased over the following eight or nine months a total of $500,000,000 of short-time Government securities, and throughout that period gradually reduced discount rates until the rate of the New York bank was 3 per cent, whereas the Bank of England on July 5, 1923, had raised its rate of discount to 4 per cent and exercised its influence to maintain open market rates in London at a somewhat higher level than during the previous year.

There has been criticism of that very period. We continued to buy securities until August, 1924. I think myself, if it were to be done over again, we might have stopped a month earlier or even 60 days earlier. We might have bought $50,000,000 or even $100,000,000 less, but there is no mathematical formula that will tell you where to stop or to begin. It is a matter of judgment. I think the guide, looking back now, was whether the New York banks were completely out of debt or not, or whether they still owed us a small amount as a regulator. We continued to buy after the New York banks had completely liquidated their borrowings from us. It may have been an error in carrying it as far as we did. Some seem to think it was and some do not, but whether we did commit an error or not is an open question. [Resuming reading:]

In reviewing what has happened during the past year, the outstanding event, of course, has been a crop of unusual size and, as to all but corn, of good quality, produced at a time when there was a crop shortage in the rest of the world; that, itself, gave the country a fortunate recovery from some part of the depression which was growing. If, as indeed was the case, however, the Federal reserve policy hastened the establishment of cheaper money, then the

developments directly attributable to cheap money must be considered as in part the outgrowth of that policy. These may be enumerated as follows:

(1) The pressure for liquidation of bank loans was gradually relaxed and in the summer of 1924 bank borrowing from the Federal Reserve Bank of New York and the other large reserve banks had practically all been liquidated; and somewhat similar conditions developed throughout the Middle West, the evidences of credit pressure and of disorganizing liquidation gradually disappearing. The banks of the State of Iowa, as an example, had reduced their debt to the Federal Reserve Bank of Chicago from $98,000,000 to about $12,000,000, due largely to the willingness of the member banks to lend money more freely in that State where credit disasters had developed and as a result of which banking conditions were stabilized. And the same seems to have been true in the Minneapolis, Kansas City, and Dallas districts.

I made that statement as a result of my talks with the governors of those reserve banks. [Resuming reading:]

(2) The outcome of the crops made it necessary for Europe to make unprecedented purchases of our small grains at very high prices compared to recent years. But the coincidence of low rates for money in this market and higher rates in London enabled foreign governments and foreign corporation borrowers to place a total of a billion and a quarter of loans in this market, which provided the credit to be used in paying for the crops. Had these foreign loans not been placed in this market, it is quite certain that foreign purchasers of our farm produce would have found difficulty in financing these purchases, which could only have been made by short-time credits; the extensive use of our banking system for financing of that sort would not only have been at high rates, but might have been an influence for the creation and maintenance generally of much higher rates than have prevailed during the crop-moving season. Our crop sales to Europe might have been much restricted.

(3) For a period of at least 12 years, as I recall—that is, since about two or three years before the outbreak of the war—there had been no such market for investment securities as would enable our railroads, public utility, and industrial corporations to make capital issues on reasonable terms, so as to refund short-time loans and provide the money for needed extensions and betterments. The past six months or so has enabled them to do so. There has rarely been a period of easy money in this country where sound financing has been so evident as in this period, and where the absence of promotion and other security issues of doubtful character has been so marked.

(4) One of the greatest menaces to our ultimate security against inflation has been the uncontrollable stream of gold coming to this country to make needed payments for which credit was not available. Had our credit not been available to pay for this year's crop exports, the amount of gold coming would undoubtedly have been much larger, or, at least the gold movement would have continued longer. Our loans to Europe and the rest of the world because of lower interest rates in this country than in England, have been an important influence in increasing the value of sterling in terms of dollars to a point where the gold premium in London was constantly reduced and ultimately the bazaar premium in India being finally above the premium in London caused the diversion of the stream of gold from South Africa to Europe or India instead of to this country. A favorable monsoon and a high value for the rupee in terms of sterling assisted in this result, but a lower interest level in America than in England and on the Continent was a further influence in turning the tide of gold away from the United States.

(5) The recovery of sterling has now reached a point where it is reasonably possible for the British Government and the Bank of England to consider the resumption of gold payment.

This was before they did so.

Whether they do so or not depends upon their own sense of security for the long future. But this country is still in position to give them needed assurances of credit for a long period if they require it. We have seen the Swedish, Dutch, and Swiss exchanges return to par or above; the Austrian and Hungarian currencies remain stabilized; and finally the loan to Germany under the Dawes plan readily absorbed and a long stride toward currency stabilization taken by Germany. At least in part these results are to be attributed to the free use of our credit markets by Europe, much facilitated by easier rates than for some years past in this country.

(6) It is difficult to state to what extent gradual recovery of confidence and of business in this country can be attributed to ease of credit conditions. It can, however, be definitely stated that if some $500,000,000 of credit had not been furnished the market by the purchases of the Federal reserve banks, the liquidation which was proceeding for the purpose of repaying loans from the reserve banks would have continued for a much longer period——

The CHAIRMAN. What were the purchases?

Governor STRONG. Of short Government securities—

and, instead of having some expansion of bank credit such as has taken place, we would have had some further contraction and probably a definite further slackening of business and lowering of prices.

Now, this sounds as though this amendment of Congressman Strong's applying in this way would do the whole trick. But my belief is that this particular period which this memorandum attempts to describe, 15 or 20 months ago, contained many elements beyond the control of the Federal reserve system which gave us a very brief opportunity to be successful—I mean the coincidence of the big wheat crop in this country which would be sold to the rest of the world at very good prices was no very small factor in bringing about what did happen. [Resuming reading:]

On the other hand, there has been no very general advance in the prices of commodities, outside of agricultural produce, and certainly as to those commodities higher prices were imperative. The foreign buying caused the advance, and that was certainly facilitated by cheap money. It was mainly due to crop shortage throughout the world, and it was cheaper credit which aided the distribution. The only definite price advance which can be attributed to cheap money is in the security market. While this has attracted widespread comment and may have been facilitated by easy money, nevertheless, it can largely be attributed to favorable political developments throughout the world.

Mr. WINGO. You say that the foreign buying of these surplus crops was facilitated by cheap money. Does that include the increased volume of credit that you made available for Europe—a billion dollars of credit?

Governor STRONG. I believed that would happen, as I have attempted to describe here, so that when the member banks got out of debt to us what had been a lender's market became more a borrower's market than it had been.

Mr. WINGO. I see what you have reference to.

Mr. BLACK. Governor, why is it that a purchase of Government securities would lessen the borrowing from the banks and a sale of the Government securities would increase the borrowing?

Governor STRONG. Well, it happens in this way: If we sell $1,000,000 of securities in New York to anybody, it does not make any difference who buys them, they must be paid for by drawing a check on a bank. Somebody draws on a bank. That check comes through the exchanges and is charged to the reserve account of that bank with us. That bank has thereby impaired its reserve balance and it must at once come to borrow from us.

Mr. WINGO. I see it has an effect in that way.

Governor STRONG. And the more we sell the more the borrowing increases. There is no escape from that. The banks are not always conscious of why they have to borrow more, or why their reserves become impaired. It may be principally because we are selling securities, and driving them to borrow from us.

To repeat a few words [reading]:

While this has attracted widespread comment and may have been facilitated by easy money, nevertheless, it can largely be attributed to favorable political developments throughout the world, which had a profound effect upon the psychology of people generally. And in any event the readjustment of values which has taken place is probably not greatly out of line, if at all, with the intrinsic value and earning powers of our industries.

(7.) Finally, it must not be overlooked that one of the developments of the past year, which may in part be attributed to the policy of the Federal reserve system, but also quite largely to favorable crop developments, and to political developments, has been a greater feeling of tranquility and contentment throughout the country than we have experienced at any time since the war. Employment conditions are improving, industry and transportation in a general way are sound and successful and the relief of the strain on the banking situation throughout the West has done much to arrest the growth of unsound and radical and extreme ideas which might, indeed, have been a menace to both Government finance and a sound monetary and credit policy.

Now, as I have read this, it may appear to you, as it does to me, possibly to somewhat exaggerate or lean toward an exaggeration of the effect of a policy which was undertaken for reasons which we thought at the time were perfectly sound. I thought it was best to read it exactly as it was prepared, to give you just the impressions I had in the year 1924.

Mr. WINGO. Had this bill been the law at that time, would it have affected the situation at all?

Governor STRONG. It was not the law. I do not think the law would have had any particular influence, Congressman.

I would like also to ask your attention to another thing in connection with this memorandum: Can anything be substituted for the best judgment you can get in deciding what to do about these matters?

Mr. WINGO. The best statements we can afford, the safe and sound operation of all transactions, credit and commodity along sound proven economic lines?

Governor STRONG. Yes, sir. How can you be sure to get that done always, though——

Mr. WINGO. I am wondering if it can be done by legislative declaration.

Governor STRONG. Well, that is the great question. The feeling I have about it is that much will be done by promoting and creating incentives for responsible and able people to run this Federal reserve system.

Mr. WINGO. The administration of the wisest law under the sun poorly administered may prove a curse and a poor law with wisdom exercised in its administration, its evils may be overcome.

Mr. STRONG of Kansas. Is there anything in this policy—if the public generally knows of a certain policy—if the policy that you have described is to be carried out, would that be preferable to the public hoping it was going to be carried out?

Governor STRONG. One of the difficulties is, Congressman, illustrated by this: With a great mass of credit being employed in stock speculation people ask, "Why doesn't the Federal reserve system do something? Why doesn't it shut down on those speculators? Why can't we get more money loaned out in the agricultural sections where they are crying for it, at lower rates?"

I hope this discussion has some sympathetic reception by the members of the committee from this point of view—that the most that the system can do is to exercise influences as to the quantity of the whole volume of credit, what the total sum of it shall be, and what it shall cost. That is the influence we exert.

Now, when it comes to how it shall be employed by the member banks, see what an increasingly difficult problem that becomes; if we attempt to say to a member bank, "We are not going to lend you money if you are going to do so and so with your funds," how can we reach the next bank which gets the benefit of the loan?

Let me illustrate by a very simple case: A rich man owes a mortgage at a trust company, of a couple of million dollars. He accumulates gradually a balance of $2,000,000 in his deposit bank, and when the mortgage comes due he draws a check on that bank, takes the money over to the trust company and pays off the mortgage. The bank where he had his account suffers a loss of $2,000,000 of reserve. It has no loans on the stock exchange that it can call in order to get the reserve back by throwing the burden on some other lender. So it comes over to the reserve bank and borrows $2,000,000.

On the other hand, this trust company, which had a mortgage of $2,000,000 repaid is not only borrowing nothing at the reserve bank, but has money loaned on the stock exchange to the "speculators." Having no particular use for the proceeds of the repaid mortgage it loans $2,000,000 more on the stock exchange.

You may say that is $2,000,000 of Federal reserve funds gone into the speculative market. As a matter of fact, that is what will happen despite anything that we may do. If we create an addition to the volume of credit by our open-market operations or by our discounts the banks which get it pass it along through all the channels through which credit circulates in our banking system—and we can not control what happens to it. Some of it will go in one direction and some of it will go in another, and the nature of the use of our funds is perfectly impossible to control.

Mr. BLACK. Let me ask this question: Suppose a borrower goes to the National City Bank in New York and borrows $100,000 to buy, we will say, Pennsylvania Railroad stock on the stock exchange and puts up that stock as collateral with the bank during 90 days. Is that piece of paper eligible for rediscount with the Federal reserve bank?

Governor STRONG. Oh, no.

Mr. BLACK. That is my impression, that it was not. It would not be a commercial transaction.

Governor STRONG. No.

Mr. BLACK. You do not handle paper of that kind?

Governor STRONG. No.

Mr. BLACK. But the bank may bring eligible paper and rediscount it with your bank and get the funds with which to make those loans, but you have no control over them, if the paper is eligible, except to advance or lower your discount as the case may be?

Governor STRONG. To carry your question a little further, suppose this bank "A" on a certain day makes a loan of $100,000 on Pennsylvania Railroad stock, also buys $100,000 of foreign exchange, also buys $100,000 of banker's bills representing a movement of commodi-

ties, and buys $100,000 of Government bonds, and sustains net loss of $100,000 of deposits. There is $500,000 of funds that it has paid out. It has $300,000 of its loans repaid. That leaves it still $200,000 short in its reserve, and it must borrow it from us.

Mr. BLACK. By borrowing, you mean rediscounting?

Governor STRONG. Rediscounting an eligible piece of paper. Shall we say that the $200,000 borrowed from us was used for buying Pennsylvania Railroad stock or buying Government bonds or buying foreign exchange or buying banker's bill representing movement of commodities or to make good a loss of $100,000 of deposits. There is no way of telling. It is all in the way you look at it.

Mr. WINGO. In other words, you can control the volume and price of credit, but you can not control the purpose for which the persons getting that credit use it?

Governor STRONG. It can not be done.

The CHAIRMAN. In that connection it occurs to me that this bill we are considering here directs the Federal Reserve Board. It is perfectly plain to me as the proceedings go on that that attempt should be directed at the Federal reserve system rather than the Federal Reserve Board, because I think I can discern here what a small part the Federal Reserve Board has in the operations which enter into the question of stabilization.

Governor STRONG. These operations are all conducted in cooperation with the board and subject to their review, but the board is not an operating body; it is a supervisory body. It makes regulations in accordance with the law. It does not loan any money; the reserve bank does the loaning. Quite largely a policy in these matters results from discussion and recommendations that are made by the operating officials of the banks; that would necessarily be so.

Mr. WINGO. It has to be so; you could not have a board for supervision if it was not, that is, if it were to undertake to manage all the details of affairs. They make general policies and make general reservations within which you describe what you ought to have, the right that every credit merchant or any other institution has to handle its own business within certain clearly defined lines?

Governor STRONG. Those lines are pretty well defined in the act. Of course, I am talking very frankly with the committee, as I always do and intend to continue to do. I fear a little bit that the discussion as I am making it, without weighing every word I use, might give the committee the impression that there is a tendency towards centralization in the Federal reserve system that might be unwholesome. There is not anything of that sort.

I believe in this regional system. Frankly, I did not, before the Federal reserve system was established—before I had anything to do with it. Textbook knowledge had always led me to believe that a central bank was the proper thing. This system suits the needs and feelings of this country much better socially, politically, and in every way. The danger in a regional system might be that if each reserve bank goes its own way, the system as a system would have no policy.

Now, the methods that are being employed to bring about an orderly system and policy, with supervision by the board, are a perfectly natural development, fitting the needs of the occasion as they

arise; and I think it is a very wholesome, hopeful development of the system.

The CHAIRMAN. In other words, if I understand you correctly, this open-market committee tends to check centralization of the operations?

Governor STRONG. In New York?

The CHAIRMAN. In New York.

Governor STRONG. Quite so. New York is the money market for which the New York Reserve Bank is responsible, and it has got to be an orderly market; otherwise the Federal reserve system will fail in performing one of its great functions. Rather than have the New York bank attempt to exercise all of the influences that are necessary in this market, with disregard of the other elements in the reserve system, it is much better for the committee to bring harmony in these matters. We have no trouble between the banks themselves at all.

Mr. GOLDSBOROUGH. Have you concluded?

Governor STRONG. May I look at a few notes?

Mr. GOLDSBOROUGH. I think the committee is especially anxious that, as the chairman suggested this morning, to come to the real trouble in regard to the $200,000,000 loaned to Great Britain.

The CHAIRMAN. If you will pardon me——

Mr. BEEDY. A short while ago you made some reference to a chart which showed the variety of index figures which could be arrived at by the use of prices of different products. I am interested in pursuing that.

Governor STRONG. We have divided certain charts into their elements. To bring out the point, on this chart is shown a line exhibiting the course of agricultural prices as computed by the Department of Agriculture index for the period from 1919 to 1925, inclusive. Then there is another line which shows the course of wholesale prices for that period; another line which shows the course of prices of nonagricultural commodities included in the index of the Department of Labor. Then there is shown the Department of Labor's cost of living index.

Now, we have combined these elements plus a labor wage index number into a general price level index figure for that period. The line at the top indicates the course of wages in the country by a very wide sampling process. It takes the figures from various sources, and I wish you would look at the result on that chart. (The chart referred to is on p. 351.)

Mr. LOMBARD. Mr. Chairman, when was the immigration restriction law passed? Would not that account for the disparity between wages and the other figures?

The CHAIRMAN. I do not just recall, Mr. Lombard.

Mr. BLACK. In 1924 the quota law was passed.

Governor STRONG. I think the disparity in the wage level is probably the result of another influence. It may be in part due to the passage of that law. The curve does not indicate that. It probably is due to the fact that the developments of the war and period of inflation, when there was a great shortage of labor, resulted in advancing the wage level rather high in its relation to general prices. Wages do not come down as easily as some other costs do, and they have remained relatively high.

Mr. GOLDSBOROUGH. They go up more slowly?

Governor STRONG. They go up more slowly; there is a lag; and they come down more slowly.

Mr. WINGO. I notice according to this chart that wages reached their peak, that is, the line showing wages reached its highest mark of a little over 220, measured by 100 per cent for 1913—that it reached the highest point the latter part of 1920. Then I notice that by the latter part of 1921 it has got down to about 180; and then there was another climb, commencing in 1922, which shot up by the middle of 1923 to about 200.

That is an abnormal change there that I was not aware took place. How was that level arrived at?

Mr. GOLDSBOROUGH. Take the term of unemployment in this block.

Governor STRONG. That is the unemployment period.

Mr. GOLDSBOROUGH. And the unemployed are added to those employed to make the price level, as I understand it?

Governor STRONG. I would like to give you a more accurate answer to that than I can offhand, Congressman.

Mr. WINGO. I wish you would, because that is rather significant.

Governor STRONG. The significant thing to me in this chart is in showing the relations of the curves even if there is a considerable inaccuracy in that level of wages—the important thing as we now look at conditions in this country appears to be this—if those figures are correct: That that is the most magnificent gift to labor that any Nation has ever made, I mean, in the real wages of labor which are probably 20 or 30 per cent higher than they ever have been.

Mr. BEEDY. Away above the general price level?

Governor STRONG. Yes.

Mr. WILLIAMSON. Rate of wages or the amount of wages paid?

Governor STRONG. I believe that is the earnings of workers—what they earn.

Mr. WILLIAMSON. As distinguished from the rate of pay?

Governor STRONG. I believe so.

Mr. GOLDSBOROUGH. There would not be that difference.

Mr. BEEDY. It would be misleading for me to say that the wage level is far above the general price level, for I meant that in the sense that their rate of wages was higher than the average rate of prices. That is not true. The volume of wages paid was higher.

Governor STRONG. I will get the exact formula.

Mr. BEEDY. In the morning I hope you will continue this discussion, with further reference to this chart.

Governor STRONG. I will put this chart in at this point.

(The chart referred to will be found on p. 351.)

Governor STRONG. Of course, Mr. Chairman, the outstanding thing about the curve, if that chart means anything, is that labor to-day is now given a greater reward for its work than it has enjoyed heretofore; and the fact that we have maintained our industrial profits and our export markets would indicate that the efficiency of labor and of our industrial organization has compensated to some extent the increased cost of labor; and it means a happier and better country for us.

The CHAIRMAN. In that connection, it seems to me that some economists before our committee have suggested that this volume is

only on a 60-cent dollar in purchasing power, and therefore a perfectly natural increase in volume would be necessary for them to have the same purchasing power that they had previously?

Governor STRONG. Yes; but the wage line has stayed on a higher level than the cost of living.

Mr. WINGO. The other levels are figured on the same dollar, are they not, as the wage level?

Governor STRONG. Quite.

Mr. BLACK. I do not have the figures here, but Governor Strong will have them. There is no question but what the wages of union labor have increased more than the increased cost of living, when we use 1913 as the basis. I know that you will find that the figures are that way; that the wages have made a larger increase than the cost of living has increased. But I do not have the figures to support that.

Mr. WINGO. Do you mean daily wage or the volume of wages divided by the total number of wage earners?

Mr. BLACK. No, the hourly wages and the daily wages. Sometimes they compute it on the hourly basis and sometimes on the daily basis. But you will find that to be true.

Mr. WINGO. But, evidently, this chart in arriving at this line indicates that the only way you can get this extraordinary dip would be to say that you took the total number of possible wage earners and ran it through your total volume of wages paid; and that dip was caused then by unemployment of the possible wage earner?

Governor STRONG. I shall give you a statement as to that. (See detailed description on p. 351.)

Mr. WINGO. It could not have been any other way; it could not have been the scale of wages; it was the total volume of wages.

Governor STRONG. If you divide those index numbers by 190 or 180, whatever you assume to be the general average of prices to-day, the proportions will remain substantially the same. It will show labor, even with the 1926 dollar, getting a very much larger real earning.

Mr. BLACK. It does seem to be so according to the figures; there is no doubt about that.

Mr. WINGO. His chart shows the general price level is about 180, just below the 190 line, whereas the line that represents the wage level, I suppose you would call it, is just below the 220 line.

Mr. BLACK. I think that is somewhat higher.

Governor STRONG. I think that is so. The chances are that it is somewhat higher.

Mr. BLACK. My recollection now is that the wholesale price index as compared to 1913 is about 151; the general wage increase is about 173, and the scale of union labor I think is about 190.

Mr. LOMBARD. For Governor Strong's information, I would like to ask that he trace through a country bank much the same transaction as he traced through Bank A on Wall Street, showing the control of the reserve authorities over the volume of credit, but not over the use of their credit by the smaller rural banks.

Governor STRONG. I do not think there is any control over any of them.

Mr. LOMBARD. I think that would be helpful in removing some of the doubt some members have expressed in previous hearings as to the effect of either this policy or the legislation here proposed upon the use of the local bank of these credit facilities. Do I make myself plain?

Governor STRONG. Do you mean the application of the proceeds of borrowings—what the country bank does with the money?

Mr. LOMBARD. Yes; and whether or not there is any control of that use by any central authority.

Governor STRONG. No. When the country banks borrow of the reserve banks and continue to borrow for a long period, we generally try to find out what the occasion of the borrowing is. It may be that they are borrowing from us just to buy securities. If all the country banks should borrow from us, say, at 4 per cent and invest the money at 6 per cent, and we did not watch it, of course it might have some effect on the credit situation. Country banks having surplus funds, like to invest them in that way. Sometimes they would like also to invest our money, for which they pay 3½ to 4 per cent, and get a margin of profit. I know many of them do it, but there is a certain amount of direct inquiry made by the reserve banks to see that the facilities of the bank are not abused.

The CHAIRMAN. You are speaking of the country bank?

Governor STRONG. I am speaking of conditions in our district particularly.

The CHAIRMAN. That might apply to city banks as well, might it not? For instance, if the call-money market ran 5½ per cent, and any member bank can borrow from you at 4 per cent, they are quite apt, are they not, to use the facilities of the Federal reserve and make 1 per cent?

Governor STRONG. It is a very difficult thing to deal with, Congressman, to know to what extent you ought to go in telling a bank how to run its business.

The CHAIRMAN. I am speaking of the fact that in actual practice it does occur?

Governor STRONG. It frequently occurs that member banks who have stock exchange loans have to borrow from us for at least one day, because if they call their loans they do not get Federal reserve funds; they get a check which does not count as reserve funds until the following day. They frequently borrow for longer periods before calling their stock exchange loans.

The CHAIRMAN. Is it not a fact that the possible demands coming from all over the country—for instance, country banks loaning in the call-money market in New York and demands coming in from all sources—that the large member bank in the city of New York must keep on hand at all times a large amount of eligible paper or Government securities that they can utilize in securing credit at the Federal reserve bank?

Governor STRONG. To meet withdrawals?

The CHAIRMAN. To meet withdrawals.

Governor STRONG. And you must realize how very actively funds under the present system—as we have now developed our transfer system—flow in and out of New York in immense volumes on very short notice.

The CHAIRMAN. It is exceedingly pertinent at a time like the present, the last few months, when attention has been attracted to the large volume of so-called "brokers' loans"?

Governor STRONG. Yes.

The CHAIRMAN. And it has attracted the attention of the committee to an extent as to whether or not there should not be some reserves maintained under the law to protect those average amounts of call loans of money from the outside. In other words, is there any difference in the liability on call loans on the banks in New York and a deposit liability?

Governor STRONG. Well, mighty little, in a sense—somebody has to put the money up if the country banks withdraw their New York loans——

The CHAIRMAN. What I mean is, we have legal requirements so far as reserves of banks are concerned, on their deposits; they must keep a certain legal reserve to meet any unusual demands. Here is a deposit in the form of loans. The responsibility of liquidation is always upon the big banks or the Federal reserve banks?

Governor STRONG. Ultimately on us.

The CHAIRMAN. Why should there not be a reserve requirement on reserve city banks covering those loans? As a matter of fact, voluntarily the big banks provide for that, but I can see a peculiar situation like we have now, in my mild way of looking at it, where the volume of that class of loans might be terribly reduced through fear of ability to liquidate, if it were not for the fact that the services of the Federal reserve system and the Federal Reserve Bank of New York's ability to discharge the demands or the liquidation of those loans when they are called unexpectedly.

Governor STRONG. It has been rather accentuated recently, because, first, the amount was large; also because the figures have been published, and again because during the past year, that is, during 1925, New York banks did not increase their loans to the brokers. There was a little increase at the end of the year, due to withdrawals of out-of-town funds, but there was a remarkably stable amount of stock exchange money furnished by New York banks. The increase took place largely from out-of-town and by lenders other than banks. And I have no uneasiness, Mr. Chairman, about that occurrence taking place under our present banking system.

The CHAIRMAN. You hear a common expression at times like this, that the Federal reserve system is loaning money for speculative purposes by granting to member banks accommodations to permit loans to stock brokers. Is it your observation that any present condition as then exists?

Governor STRONG. Well, some of our funds undoubtedly do get into the speculative market, so long as any money is borrowed from us, by banks which have loans on the stock exchange, or by banks which make payments to other banks which have loans on the stock exchange.

Mr. WINGO. But you do not make it on stock exchange basis; you make it on eligible paper?

Governor STRONG. Only.

Mr. WINGO. And they may bring up eligible paper to-morrow and discount it, and then they can take the proceeds and loan out on the stock exchange collateral, and you can not control it?

Governor STRONG. No; though at times we talk to the banks about their policy.

Mr. BEEDY. Do you think there should be a law requiring a reserve to back up these loans?

Governor STRONG. When we come to consider changing reserve requirements, I first want to get careful statistics for the reserve system and see where it lands us before saying yes or no. It is a very important move to make any change in the reserve requirements.

Now, so far as I have an opinion, without having made any study of that, I think the effect would be this: The New York City banks instead of carrying 13 per cent reserve with us might be required to carry 15, 18, or 20 per cent, any figure that you might assume. The effect of that would be at once to put a strain on the situation, because they would have to borrow from us in order to get the added reserve. I am not sure that it would correct anything. The bulk of these funds that are loaned from out of town in New York is so great that in the last analysis the reliance is going to be upon the reserve bank, and an added reserve is just an added margin. It would not accomplish much. I do not know but I rather doubt it. I would like to know where we would arrive first.

Mr. BEEDY. Before you go, I would like to ask you this question: Do you not think that all such data as are contained in this chart, which I am unable to identify any further than to say that it is that which indicates general price movements and that values of staple products and the wages, etc., all such charts and all data such as you are able to bring before this committee, are of very little assistance to us in arriving at any clear conclusion on which we may base a legislative policy until we have in the balance a fixed value rather than fixed weight?

Governor STRONG. Now we are coming to a new subject.

Mr. BEEDY. What can we do with that? What does it mean in connection with these data?

The CHAIRMAN. Might I, before he answers that, inject something on another subject?

Mr. BEEDY. Certainly.

The CHAIRMAN. My attention is directed to a statement concerning a bank with $500,000,000 assets, which on December 31, 1925, showed demand loans of $170,000,000; it shows bills payable of $110,000,000. In connection with the question of loaning of funds for speculative purposes, it is presumed in as much as this bank is a member of the Federal reserve system, a large part of its borrowings are from the Federal reserve system. Might that be presumed?

Governor STRONG. I think it is a fair presumption, yes, Mr. Chairman.

Mr. BEEDY. Leave the answer to my question until to-morrow morning, and then follow that up, please.

Governor STRONG. All right.

Mr. WINGO. You are going to put this chart in the record?

Governor STRONG. I understand it has been put in the record. It was prepared very hurriedly. (The chart referred to will be found on p. 351.)

Mr. WINGO. These gentlemen tell us their scheme does not contemplate control or maintaining of the level of any article of the some four hundred and some odd, but just the general level. So I was wondering whether this chart might not encourage the wage earner to be for this bill. And it might encourage poor farmers like Brother Strong to be for it, because the farm prices are away down low.

Mr. STRONG of Kansas. That is the reason we are for it, because we are the low groups.

Governor STRONG. Suppose we get a committee of wage earners on one side and a committee of farmers on the other side of the table, and let them fight it out.

Mr. STRONG of Kansas. That is what we are doing in Kansas all the time. There is a conflict between the producer and consumer which flows across our committee table all the time.

Mr. BEEDY. Would there be any such conflict if we could have a standard of value rather than a standard of weight?

Governor STRONG. I can answer that to this extent: I strongly suspect that if the dollar fluctuated and not prices, that is to say, if you readjust the number of grains of gold in the dollar from time to time according to some agreed index number, as Professor Fisher has suggested, the effect of it would be this: As the number of grains of gold in the dollar were increased, the number of dollars of gold in the reserve bank reserve would decrease, would it not? And the time would come when that tendency would need to be corrected, and you might have to use just the same methods with the fluctuating dollar that we have to use with the fluctuating price levels, so far as volume of credit has anything to do with it. You see what I mean?

Does it not come back ultimately to a consideration of what policies, so far as credit is an influence at all, are to be applied to an increasing or diminishing reserve behind the credit structure? I do not know. I can not pretend to qualify here to debate that question. It is a very abstruse one, and quite theoretical, so far.

The CHAIRMAN. I suggest now that it is after 5 o'clock, and we have taxed the patience and strength of the Governor quite a little, and members of the committee have other work to do, and perhaps it would be well that we recess until to-morrow morning until 10.30. Without objection, we stand adjourned until that hour.

(Thereupon, at 5.10 o'clock p. m., the committee adjourned to meet to-morrow, Friday, April 9, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Friday, April 9, 1926.

The committee met at 10.30 o'clock, a. m., pursuant to adjournment Hon. Louis T. McFadden (chairman) presiding.

STATEMENT OF HON. BENJAMIN STRONG—Continued

The CHAIRMAN. The committee will come to order.

Governor STRONG. I want to put in the record at this time a statement appearing in the February, 1926, circular of the National City Bank, quoting a statement by Sir Josiah Stamp, with other comments pertaining to the subject that is under discussion here, of the Federal reserve system and its powers in open market transactions, etc.

(The statement referred to is as follows:)

AUTHORITY OF THE FEDERAL RESERVE BOARD

Sir Josiah Stamp is an economist whose abilities are very highly respected in this country and whom we have found frequent occasion to quote, but unless we have confused his utterances with those of another eminent economist with whom he has seemed to be in accord, even he has thought it appropriate to refer to the "golden chariot of America," and is reported in a recent interview in the New York Evening Post as commenting upon the Federal Reserve Board as follows:

"The two dangerous or uncertain factors in the world to-day, I should say, are the French monetary position and the American Federal Reserve Board policy.

"Never in the history of the world has so much power been vested in a small body of men as in the Federal Reserve Board. These men have the welfare of the world in their hands and they could upset the rest of us, either deliberately or by some unconscious action.

"Mind you, I am not criticizing them. But it is precarious to have such concentrated power vested in such a body."

Is it possible that Sir Josiah Stamp thinks the banking system of the United States would be less of a menace to the world if without the Federal reserve system, as in 1907, when cash payments were suspended throughout this country, and heavy importations of gold from Europe sent the discount rate of the Bank of England to 7 per cent?

The Federal reserve banks are a relatively small factor in the credit situation under ordinary conditions, and their function is mainly that of exerting a stabilizing influence upon the policies of the member banks. Of approximately $47,000,000,000 of bank credit outstanding in the United States at this time, about $1,100,000,000 of it is supplied by the reserve banks, and only about $450,000,000 represents rediscounts by the member banks. Of the remainder, about $675,000,000 is represented by reserve holdings of United States Government securities, which might be sold at any time as a means of checking an inflationary movement, or of bills purchased in the open market, which might be allowed to run off rapidly for the same purpose. With these holdings for use against inflationary tendencies, and the power of currency issue as a means of dealing with money panics, the reserve banks possess stabilizing powers which did not exist in 1907.

THE ALTERNATIVE POLICY

This question as to the policy of entrusting power to the reserve authorities necessarily includes the alternative policy of having the credit situation in the hands of 28,000 independent banking institutions, organized under the national banking act and the laws of 48 States, without any coordinating authority or stabilizing influence. The results of such a situation have been experienced in the past. The membership of the local banks in the reserve system gives a leadership and cohesion to the banking organization which it did not have before.

The initiative as to reserve bank policies, including the determination of discount rates and open-market operations, does not rest with the Federal Reserve Board, but with the officials of 12 reserve banks, covering the continent from the Atlantic to the Pacific. The very reason for creating 12 reserve banks instead of but 1 was to avoid the concentration of authority

which Sir Josiah imagines. The Federal Reserve Board possesses certain authority, in that the discount rates named by the several banks must have its approval before being put into effect. It is a check upon them, and intended to give a degree of coherence and consistency to the operations of the system, but there is no such concentration of authority as the eminent gentleman fears.

The greatest danger of unwise administration of the reserve system is not from power vested in the Federal Reserve Board, but from the pressure of public sentiment in favor of a "liberal" policy of expansion, and from political and popular pressure in that behalf throughout the country. Such pressure is not wholly unknown in other countries, including Great Britain. Moreover, 28,000 independent local banks engaged in a competitive struggle for business, most of them oblivious to credit conditions outside of their own localities, are under greater pressure to keep expanded to the limit than the reserve institutions, which at least are free from the pressure to make earnings.

A WELCOME TO SIR JOSIAH'S VIEWS

Although Sir Josiah has explicitly stated that his comment was directed to the power vested in the Federal Reserve Board, and was not intended as criticism upon its policies, his language has been promptly seized upon by critics of the reserve system in this country, who have persistently held that the reserve banks had the power to maintain the price level of May, 1920, and that the subsequent decline was due to an intentional and deliberate policy on their part. Doubtless he is aware that no such policy was followed. The reserve banks no more than the other banks desired the fall of prices, which involved them all in heavy losses, but they were aware that the continued expansion of credit would lead inevitably to general disaster, and they sought to stop it. Unfortunately, a long-continued course of inflation can not be stopped without serious effects. It is among the penalties of inflation that if you stop it you cause a crisis and if you let it run it will lead into a worse one. The experience of every country in Europe has shown that when inflation has been stopped prices have fallen of their own weight, because the credit structure was top-heavy. Such restrictions as were placed upon credit by the banks of this country in 1920–21 were necessary to avoid further inflation and protect their own solvency.

The CHAIRMAN. Governor Strong, I believe you desire to add something to your statement of yesterday.

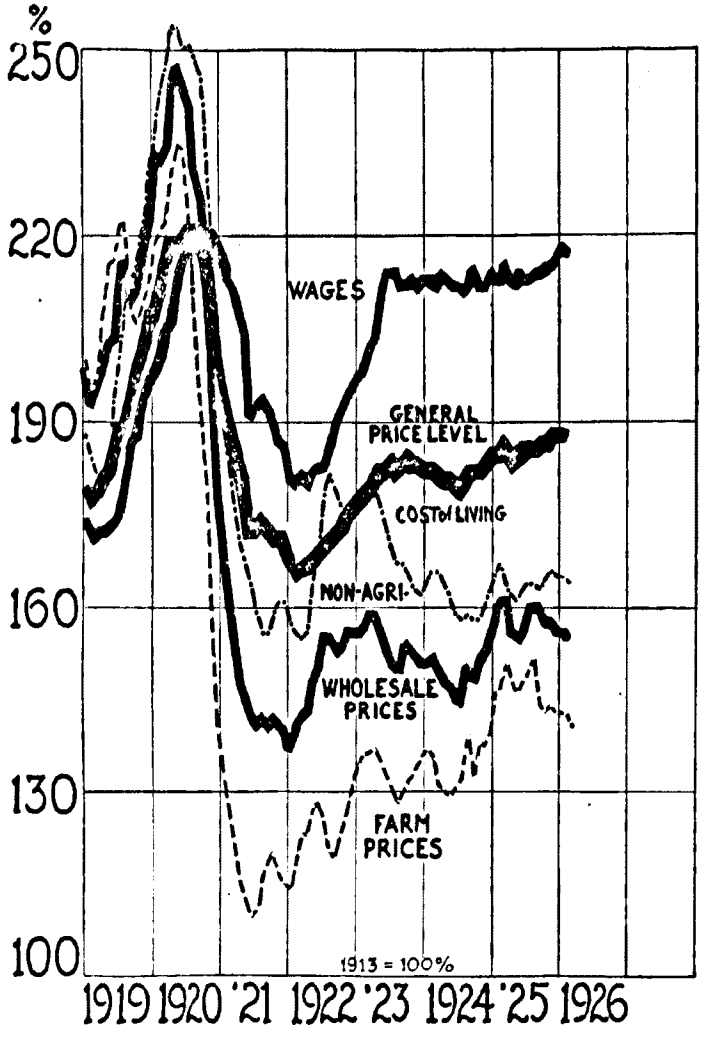
Governor STRONG. Mr. Chairman, there were a number of charts referred to in the course of my statement yesterday; and if it is proper to do so I shall ask one of our men, who is thoroughly familiar with these matters, to go over the charts with the clerk of the committee and see that they are put in the record in the right places, and that with them is given an explanation of the basis of the computations, the formulas used in preparing the charts, the sources of the information, and so on. That will make the information of greater value than if it goes in in the course of my discussion without explanation.

The CHAIRMAN. I think that will be very helpful, and that opportunity will be given you.

Governor STRONG. I also have the chart which we were discussing at the close of the hearing yesterday afternoon, which contained the line indicating the wage level, with an explanation of it that I would like to offer for the record now, with certain reservations. I think it may need a little elaboration, Mr. Chairman.

The CHAIRMAN. Without objection, it will be inserted in the record at this point.

(The chart and explanation referred to are as follows:)



PRICE MOVEMENTS SINCE THE WAR.

CHART D

WAGES

On the chart showing price movements since the war the line for wages is made up from four different series of figures.

(1) Average weekly earnings of factory workers in New York State as reported by the New York State Department of Labor. These wages reached the high point of $29 a week in 1920 and declined to $24 a week early in 1922. They have since increased to $29 a week. These changes reflect slightly changes in the number of hours' work per week, but also reflect mainly changes in wage rates. They are computed from the wages of about 600,000 workers, and show the amounts earned each week by the workers actually employed. In computing the index of wages these figures are given a weight of 1. These figures are reported each month.

(2) The average weekly hiring rate of wages for male unskilled labor reported to the Federal Reserve Bank of New York by about 20 large industrial establishments in the second Federal reserve district. This hiring rate reflects promptly any changes in the labor market. It reached a high point in 1920 at $25 a week and declined to $18 a week about the end of 1921, and has since risen to $23 a week. These figures are collected about four times a year. In computing the index of wages, these figures have been given a weight of 1.

(3) The third element in the wage index is the average weekly earnings of clerks working in the factories of New York State, and reported once a year by the New York State Department of Labor. These figures have increased steadily since the beginning of the war and are now higher than in 1920. In computing the index this element is given a weight of one-quarter.

(4) The fourth element in the wage index is the average annual salary of school-teachers in the United States as reported by the National Educational Association in an annual survey which they make, using figures which are reported to them directly by about 1,500 cities, and salaries of rural teachers reported by the United States Bureau of Education. These figures have shown a steady increase since before the war and are now higher than in 1920. In computing the index they are given a weight of one-quarter.

The wage index thus does not include any figures for union labor, except in so far as some groups of factory workers are unionized. It shows largely the movement of wages of unskilled labor, which reflects promptly changes in labor conditions, and for that reason the index fluctuates more widely than a more general index of wages would.

GENERAL PRICE LEVEL

The line showing the general price level is composed of four different elements.

(1) *Wages.*—The wage figures used are the same as those just described and wages are given a weight of 3.5.

(2) *Wholesale prices.*—The second element in the index is the wholesale price index prepared by the United States Bureau of Labor Statistics from the prices of 404 commodities at wholesale. The index is a weighted aggregative index, and is described in the publications of the Bureau of Labor Statistics. It is the commonly used index for wholesale prices in the United States. In computing the index of the general price level, wholesale prices are given a weight of 2.

(3) The third element is the cost of living, and the index used for this purpose is the index published by the United States Bureau of Labor Statistics for 32 cities. It represents the cost of living of a wage earner's family. In preparing the general price level index, the cost of living is given a weight of 3.5.

(4) The fourth element in the index is rent. The rent index is computed by the Bureau of Labor Statistics for 32 cities, and is one of the elements entering the cost-of-living index. In computing the general price level, this index of rent is given a weight of 1.

COST OF LIVING

The cost-of-living line shown on the chart is that already referred to prepared by the United States Bureau of Labor Statistics for 32 cities. The data are collected by special agents of the Bureau of Labor Statistics, and include the following elements:

	Per cent		Per cent
Food	38	Fuel and light	5
Clothing	17	Furniture and furnishings	5
Housing	13	Miscellaneous	21

The percentages given are the weights assigned to the different elements. This index is computed as a weighted average of relatives.

NON-AGRICULTURAL

The line labeled non-agricultural is an index of the prices of non-agricultural commodities which are included in the Department of Labor index of wholesale prices. The segregation of these elements from the whole number of commodities entering into the wholesale price index was begun by the Bureau

of Agricultural Economics of the Department of Agriculture. The index merely represents the prices of all those elements in the Department of Labor Index which are not agricultural in nature. The method of computation is the same as for the wholesale price index of the Department of Labor; that is, the index figures are weighted aggregates.

WHOLESALE PRICES

The line shown on the chart for wholesale prices is the wholesale price index of the Department of Labor, which has already been mentioned as one of the components of the index for the general price level.

FARM PRICES

The index for farm prices represents the prices paid for agricultural products at the farm; that is, the prices paid directly to the farmer. It is an index of 30 different agricultural products and is computed by the Bureau of Agricultural Economics of the Department of Agriculture. It is a weighted aggregative index.

Mr. STRONG of Kansas. I suppose that when Mr. Strong corrects his testimony he will probably want to rearrange the charts, and I suppose there will be no objection to his rearranging his charts and his remarks in connection therewith as he thinks best.

The CHAIRMAN. There is no objection at all.

Governor STRONG. I would like to have them appear at the right places, so that the record will not be confusing.

The CHAIRMAN. That opportunity will be extended to you.

Governor STRONG. I was asked a question yesterday by Congressman Williamson as to what considerations were taken into account when changes of discount rates were made in the Federal Reserve Bank of New York, and my answer was rather inadequate, I am afraid. I would like to elaborate it a little, if I may.

We have a department in the bank which is engaged in furnishing the management—that is, the directors and officers—with the most reliable information on matters bearing on the bank's policies that is capable of being produced, I believe. The information which we consult in the bank, and sometimes elsewhere, consists of many things, and I would like to name some as an indication of the variety of information that has to pass over the desk of the management of the bank.

The CHAIRMAN. In connection with that answer, would you also explain this situation which has developed since the Federal reserve was established? There used to be in the so-called street loan committee which fixed daily the rates of interest. Since the beginning of operations of the Federal reserve system that committee, I understand, has been dispersed, or is not so active, and the rates of interest are attended to by the Federal Reserve Bank of New York. Would you explain to the committee just how the Federal reserve operations have affected that fixing of the daily rate?

Governor STRONG. You mean the daily rate established for stock exchange call loans?

The CHAIRMAN. Yes. How is that handled now?

Governor STRONG. There has been some change, but I think probably the change may be exaggerated in people's minds.

The CHAIRMAN. The general impression is that since the Federal reserve operations started those rates are fixed by the Federal Reserve Bank of New York.

Governor STRONG. Oh, no.

The CHAIRMAN. Or a committee within the bank.

Governor STRONG. No. What happened before the war, before the reserve system was established, was about like this: After the daily exchanges of the clearing house banks were completed, each bank knew how much excess reserve it had as the result of the day's payments and receipts, or how much it was short. The reserve position of each bank was then adjusted either by calling stock exchange loans, if reserves were short, or by putting out money on the exchange if the bank had money over. That related simply to that surplus or shortage of funds which arose from the day's operations, net, after allowing for all of the transactions of the bank. At half past 11 or 12 o'clock money was offered on the stock exchange by banks which had balances over. By custom those banks that were short and had to call loans generally sent the calls to the brokers to repay early enough so that inconvenience would not result by their getting word to pay off a loan late in the day. So the large money transactions on the stock exchange at what they call the "money post," where the loans are arranged, generally took place around the noon hour, and as a result of the amount of money offered or the amount of loans called, some effect was felt at once in the rate at which money was lending. If more money was wanted on the board than was offered, the rates naturally went up; brokers bid for money; and the reverse was true.

After the great bulk of the day's transactions in money had taken place on the board, each lending bank fixed its own renewal rate for the day. That resulted, when the money market was active, in a great variety of rates, and frequently complaint by the brokers that some bank charged too much for the renewal of existing call loans. It was not a very orderly affair. Sometimes when a bank fixed the renewal rate above what a borrower felt was fair judging by the rates at which money had loaned on the board that day, the broker would voluntarily pay off and borrow from some other bank; but it also resulted, when money was not very active, and the rate was changing rapidly, in the establishment of a fairly uniform rate for the renewal of money from day to day.

Since the war—not so much, possibly, because of the influence of the reserve bank; certainly not any more than because of the development of a much better technique on the stock exchange through the development of the loan clearing arrangement that they now have—the renewal rate is fixed on the stock exchange, as I understand it, by a comparatively small group of men, including some who are particularly familiar with the money market on the board, and that renewal rate for the day is reported back to the banks from the stock exchange. It is one of those arrangements that work out by mutual consent and accommodation. We have nothing to do with it at all. The reserve bank has nothing to do with it.

The CHAIRMAN. Well, to a certain extent do not the operations of the Federal reserve bank facilitate that situation, inasmuch as the legal reserve requirements are now all with the Federal reserve bank and the member banks? If they find at the close of the day that they are short in their reserves, I suppose loans are arranged with the Federal reserve, and it has affected those former methods of

settlement; in other words, it has been absorbed largely by the Federal reserve operations; is not that true?

Governor STRONG. The mechanism has been very greatly perfected in this respect; before there was any reserve bank, all the adjustment of the reserve position of each bank each day had to be made in the "money crowd" on the board, so to speak. Now, if a bank makes a miscalculation, or has unexpected demands late in the day, or for any other reason its reserve becomes impaired too late to effect an adjustment on the stock exchange, it can come to us and borrow to make good its reserve; and many of the banks borrow from us very late in the day.

That development of late borrowing is the result of a number of changes that have taken place in bank operations, one of the most important being the operation of the wire transfer system of the Federal reserve banks.

The CHAIRMAN. A little later on I would like to have you explain that to the committee.

Governor STRONG. I have all of that in my memorandum, and possibly it would come in better at that time.

The CHAIRMAN. The committee, I know, will be very much interested in that development.

I did not mean to interrupt so long your answer to Mr. Williamson's question. I thought, however, that this was a collateral issue to that.

Mr. STRONG of Kansas. Governor, you spoke of brokers bidding for money, but I did not exactly understand to whom they bid. Is there a committee appointed from the banks?

Governor STRONG. No; there are certain brokers on the board who make a specialty to represent banks in arranging loans on the board. A given bank may have one broker or one board member, who is possibly a depositor to whom they will communicate each day how much they have to lend on the board; and that board member, a member of the stock exchange, goes to the money post and makes the best arrangement he can to loan the money for the bank he represents, and when he loans it he telephones to the bank and reports.

Mr. STRONG of Kansas. And other banks have other members who may also go in the same manner to the money post and offer their money?

Governor STRONG. Yes: but there are certain brokers who specialize in the handling of such loans.

Mr. STRONG of Kansas. And those brokers get together, I suppose, and consult, and the other brokers who bid for money go to them at the money post?

Governor STRONG. They go to them at the money post.

Mr. STRONG of Kansas. And there they practically establish the rate for the day?

Governor STRONG. Yes, sir. It is established, I believe, in consultation with some of the officers of the exchange.

Mr. STRONG of Kansas. Is the rate changed very often?

Governor STRONG. Oh, yes; it is changed a good deal.

Mr. STRONG of Kansas. I see in the market reports occasionally that they say call money was raised or lowered. That is a mutual arrangement?

Governor STRONG. It is a mutual arrangement.

Mr. STRONG of Kansas. Your policy as to open market operations and rates of rediscount, though, would in a way tend to control those offerings and acceptances of money, would it not?

Governor STRONG. It undoubtedly has an influence upon it. I think, if you look at well-constructed charts showing the relations of the money markets, and the relation of the call loan market and of the time loan market—that is, collateral time loans—and trace the relationship of those rates to rates for commercial paper, that you will find that the result has been to gradually reduce the rate on commercial borrowings relative to the rate charged on the stock exchange for call and for time loans; and the reason for it is perfectly obvious. The member banks always want a large portfolio of paper that they can bring to the Federal reserve bank to rediscount under any conditions that may arise. They can not bring stock exchange loans to us, and it has created a preference in favor of the type of paper that "goes at the bank," so to speak.

Mr. STRONG of Kansas. Have you a chart that will show that relationship?

Governor STRONG. I think we have.

Mr. STRONG of Kansas. Would you have any objection to putting the charts in the record when you revise your remarks?

Governor STRONG. I would be very glad to do so.

Mr. STRONG of Kansas. I think it would be helpful to us. (See Charts E-1, E-2, pp. 357 and 358.)

The CHAIRMAN. You made a particularly interesting suggestion about the large banks, particularly New York, that are keeping themselves in a liquid position. I have noted in the last few years, particularly since the Federal reserve operations have been proceeding, that many of the larger banks, I suppose in response to the necessities of the situation, keeping in a position of liquidity when they might be called upon at a moment's notice from so many different angles, that they feel they must keep themselves to a very large extent liquid. In other words, they must keep eligible paper or Government bonds on hand to the extent of their ability to rediscount or secure other relief of the Federal reserve bank——

Governor STRONG (interposing). Or bankers' acceptances.

The CHAIRMAN. Or bankers' acceptances, available at all times. In fact, I think I have noticed that some of the larger banks in New York confine their investments largely to bankers' acceptances, call loans, and Government securities.

Governor STRONG. Yes, sir; very largely. We have had a good deal of correspondence and discussion with member banks about that. The comptroller now asks each bank to report, in the regular reports that the national banks submit, a statement of the amount of paper that is eligible which each bank has; and in the early days of the Federal reserve system there was a good deal of lack of knowledge among the member banks as to what was and what was not eligible.

We have a number of men in the bank who spend their entire time traveling among the member banks and instructing them as to just what these matters mean; how they can determine whether a piece of paper is eligible or not, and the advisability of keeping a large portfolio of paper. That applies particularly to country banks. We have had good cooperation in New York by the Clearing House

Association, which has its own system of examination. The clearing house committee watches that. It is an all-important element in keeping the credit situation secure.

Shall I proceed with my answer?

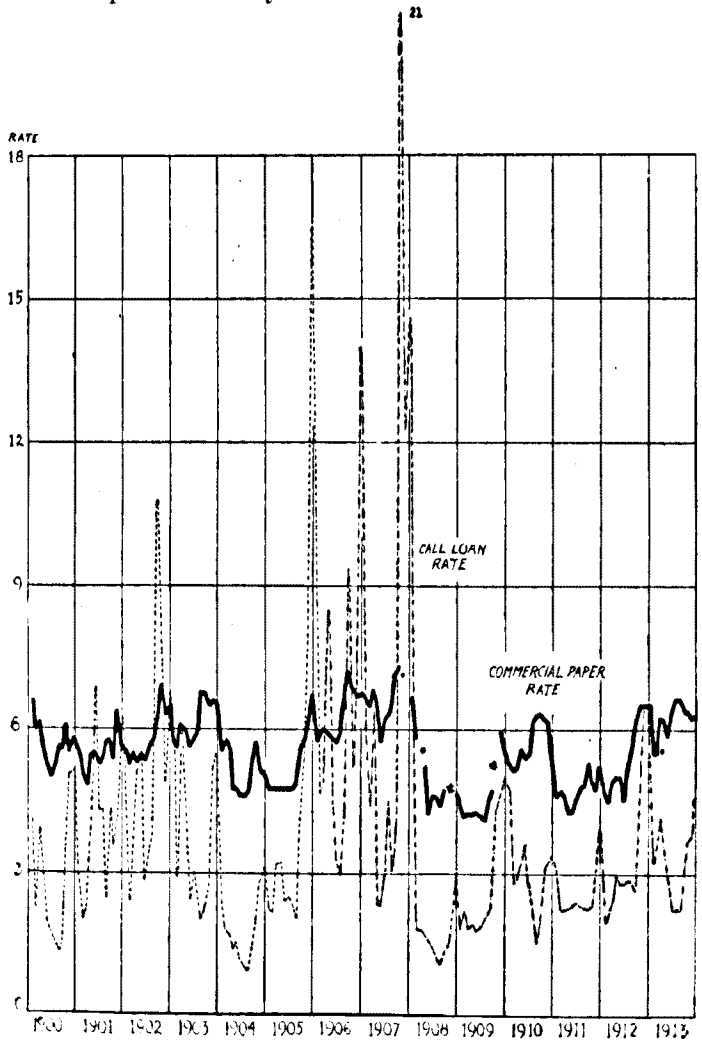


CHART E-1

Average monthly market rate on four-six months commercial paper and call loan rate

* Rate not available.

Source: Harvard Review of Economic Statistics

The CHAIRMAN. Yes. You were answering Mr. Williamson, I believe. I do not know whether you had completed that or not.

Governor STRONG. I had not, Mr. Chairman.

Just to give the committee an idea of the great variety of factors that are considered as bearing upon changes in discount rates, I have

made a list of some of the current information that is being studied at the bank, much of which is submitted to our directors in chart form. These charts hang in the directors' room.

They are, first, the indices of money rates: employment, production, and prices—quite a variety of them.

Then statistical information in regard to the sales of retail stores, which includes department stores, chain stores, and the 5-and-10-cent stores. We get reports from about 125 separate establishments in our district every month.

Sales and stocks of wholesale dealers.

Savings bank deposits.

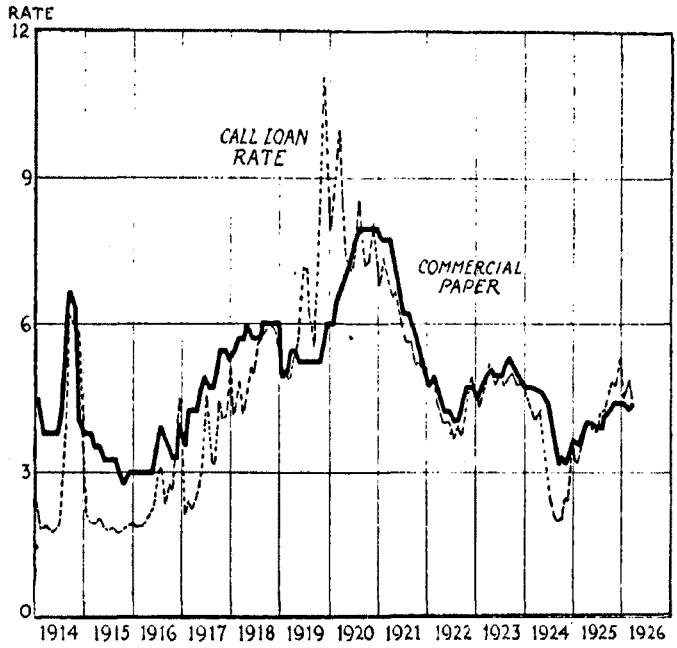


CHART E-2

Average monthly market rate on four-six months commercial paper and call loan rate

Sources: Call loan rate—Average monthly rates computed from figures published by Commercial and Financial Chronicle.
Commercial paper rate—Direct from dealers to Federal Reserve Bank of New York.

Changes in rents.

Changes in wages.

Movements of funds about the country.

Foreign exchange rates.

Business profits.

Volume of building.

Failure statistics.

The reports of car loadings.

The consumption of electrical energy.

All the crop statistics.

All the foreign trade reports.

Such information as we can get on stocks of goods on hand—inventories.

Speculation.

Bank clearings.

What the bank reports show as to changes in the deposit and loan account.

I have not by any means listed them all.

Mr. WILLIAMSON. What do you do with these reports? Do you have them analyzed and put in the form of charts?

Governor STRONG. Some of them; it is the current information that passes over the desks of the officers of the bank to keep them informed. The object of it, in its bearing upon changes in the discount rate, is to give the directors and officers of the bank some indication as to the soundness of credit conditions. These charts are not prepared with the object of adopting some policy in discount rates to affect some particular prices, and I have tried to distinguish in the statements that I have made between, if you please, a policy that is directly addressed to moving prices up and down and one which is directly addressed to the credit problem with which we deal: that is, the volume of credit and its cost.

Now, I believe there is a tendency, possibly a very natural tendency, on account of the possibly exaggerated consideration of the "money" influence in everything that we do, to look at this price level as though it operated up and down against a counterweight of credit, and as though you could open a spigot when prices are declining and put a little more credit in the counterweight and raise prices, and if prices are going up you could drain a little credit out of the counterweight and let prices go down. But I am afraid the price problem is much more complicated than that.

Mr. WILLIAMSON. What I was trying to get at, Governor, was partly this: Is your credit gauged by business conditions and demand, or do you make an effort to fix your discount rate so as in a measure to stabilize prices, or do you work from the reverse end of it and gauge your credit structure or your discount rate with a view to the market demand for credit?

Governor STRONG. I should say that the price structure and the movements of prices are one of the great influences reacting upon the soundness of the credit structure.

Mr. WILLIAMSON. That is undoubtedly true; but what I am trying to get at is whether or not you use that as a basis for determining a sound basis of the discount rate, or whether you try to fix a discount rate which will have the effect of stabilizing the price structure itself. I do not mean individual prices, of course, but the general price structure.

Governor STRONG. The movement of prices is, of course, one of the influences or one of the factors taken into account; but it can not be the only factor.

Mr. WILLIAMSON. I understand. I think we all understand that.

Governor STRONG. I would like to describe a situation to you which is very recent, to show how the relation of a price movement to other elements that we take into consideration presents a real, practical puzzle of management.

Two months ago, say, or quite recently, there was some concern felt in the country as to the extent of speculation in stocks and the

amount of credit which was being employed in support of that speculation. At the same time our studies of the price structure showed very clearly that there was taking place, and had for some little time taken place, a decline in the wholesale price level, and when we came to analyze that decline we found that it was almost entirely due to a decline in the prices of cotton and grains. Cattle and hogs had remained pretty stable. The general level in merchandise prices had remained pretty stable.

Now, leave all other considerations out of account. Assume that we here are the directors of the Federal reserve bank, trying to determine what to do about the discount rate. We have this feeling that there is a growth of speculation; possibly a feeling that it ought to be curbed by the Federal reserve system in some way. On the other hand we are faced with a clear indication of some decline in the price of farm commodities.

Now, if the regulation of prices can be accurately and exactly managed by the Federal reserve system, we would have the task, possibly, of withdrawing funds from speculation and checking a speculative development in the stock market, but of carefully avoiding the withdrawing of any funds from the credit market which might have an effect upon agricultural prices; in other words, rather direct funds into agricultural employment.

These are practical difficulties that the management of the reserve bank has got to face.

Now, translating that into a policy by the bank, at the given level of interest rates at that time, two months ago, if very great concern had been felt about the price of farm commodities, and we felt that the introduction of credit into the market or lowering interest rates, might correct the prices of those individual commodities, what might the consequence be in speculation? There you are, between the devil and the deep sea.

Mr. WILLIAMSON. You are not in the position of directing how your credit shall be used?

Governor STRONG. We have no power to do that.

The CHAIRMAN. Governor, this anxiety that was felt 60 days ago, that you refer to, resulted in a demand from the Federal Reserve Board for the information in regard to brokers' loans; what was the purpose of that call?

Governor STRONG. I can not speak for the board, Mr. Chairman.

The CHAIRMAN. We understand that.

Governor STRONG. I will state my understanding of it.

There had been a feeling expressed to me by members of the board for some time that the information in regard to the volume of credit employed in speculative loans was inadequate. Now, it is a matter on which views may differ as to the degree of our responsibility in that matter. I had felt, myself, that it would be desirable to enlighten the country on that subject, but not in such a way that it would appear to be an assumption of direct responsibility by the Federal reserve system. So my attitude was to try to get the members of the stock exchange to do this themselves. And when we were advised by the Federal Reserve Board that they were going to ask for this information from the banks, I took it up with the officers of the exchange. They have always been most cooperative. I have not a word of complaint in that regard; and after the nec-

essary preliminary discussion by the management of the exchange, they said right away, "Of course we will get it and publish it;" and they have. And my opinion is—others may differ from me—that that is the best way to get the information, directly from the borrowers, and have it published as it is. It is more accurate.

The CHAIRMAN. The statement was made, I believe, that the Federal reserve report showed about three billions and a half——

Governor STRONG (interposing). No; the stock exchange report.

The CHAIRMAN. The stock exchange statement was three billions and a half, and the Federal reserve statement was three billion one hundred millions, or somewhat less?

Governor STRONG. I think I have those figures here. It was over three billions; it was about three billion one hundred millions.

The CHAIRMAN. From your knowledge of those loans in a general way, is that an excessive amount over previous periods? There has been no information published as to the segregation of credits in that particular class of loans?

Governor STRONG. No; there has not; and that is entirely a matter of opinion, Mr. Chairman. The history of our relation to the matter goes away back to the war, when it was necessary, really, for the protection of the Treasury's operations in their loans that we should do what we did.

The CHAIRMAN. There are no comparative figures available showing those over a period of say five years past?

Governor STRONG. None that would make a fair comparison; no, sir. The figures that we have had at the bank regularly ever since 1917 are figures reported by a number of New York City banks. Between September, 1918, and November, 1922, we did get actual reports from the members of the exchange. In 1922 these reports were abandoned, and the reports from that date on, simply from a group of New York banks, would be so inadequate for purposes of comparison that I am afraid they would be distinctly misleading; I would not like to see them published for the purpose of comparison when they might lead to wrong conclusions about the account. If we are a little patient, at the end of the year, or two years, we will have figures that are comparable that would be of real value, because they will be much more accurate.

The CHAIRMAN. Of course, such a compilation should also include figures of other large cities where loans are made to brokers?

Governor STRONG. Yes; and it should include, of course, the borrowings of the branch offices of New York brokerage firms in various cities of the country where they borrow directly from the banks in those cities.

The CHAIRMAN. Yes.

Now, it has been suggested that this segregation of this large amount of available credit for speculative purposes was made possible because of the expansion of credit facilities afforded by the Federal reserve system. In that connection we had some discussion yesterday showing what a small part the Federal reserve system had in the control of loans of this character. I would like to direct your attention to one phase of that which I think will be helpful in connection with this discussion, which shows that the bank balances of all banks in the United States on June 30, 1923, amounted to $3,610,211,000, and up to October 10, 1924, the last report that

I have available of the comptroller's office, shows that 30,178 banks had bank balances of $5,400,000,000. Now, those are balances over which the Federal reserve system, as I understand it, does not have any particular control except in an indirect way, and the pyramiding of those balances would lend a greater amount of assistance to a speculative condition, such as has been discussed here, in connection with these recent brokers' loans.

Governor STRONG. Well, there are 18,000 State banks in the United States that are required to carry reserves with other banks—more or less, I mean. That is the general practice, and in many cases it is the law.

The CHAIRMAN. I am of the opinion that this large amount of bank balances in times of easy money flows to the spot where there is the greatest demand. Now, if there is a speculative situation in the city of New York, where things are bound to centralize anyway, it is perfectly natural to suppose that a large amount of those funds would flow into New York, is it not?

Governor STRONG. I think it is always likely to do so.

The CHAIRMAN. And it is likely to be the basis of the granting of these brokers' loans, or a large amount of those bankers' balances would be available for that purpose, to say the least?

Governor STRONG. I think possibly, Mr. Chairman, it would throw some light, or at least it would give a different picture of the relation of the Federal reserve system to this problem of the loan account, if we looked at it more from the standpoint of quantity rather than the particular use of the credit.

For instance, to-day the Federal reserve banks have furnished to the banking system of the United States, in round figures, $1,150,000,000 of credit. Those are the figures, I think, of a recent statement. In other words, the conduct of all the business of the country, no matter whether it is speculation in stocks, real estate, trade in goods, manufacturing, transportation, or whatever the business may be, the conduct of that business at its present volume and at the present level of prices calls for the employment of a certain amount of currency and credit. Now, that amount of currency and credit is supported by bank reserves, and those bank reserves are made up in part of $1,150,000,000 of credit furnished by the Federal reserve system; and looking at it from the standpoint of quantity, the banking and business structure of the country requires, for the conduct of this business, $1,150,000,000 of reserve credit which is furnished by us. We make it, so to speak, by buying securities and making loans to our members.

If we should have an inflow of gold to the United States it would likely be applied at once to a reduction in the amount of credit that we furnish, because that would serve as reserve money, and would obviate the need for our extending that amount of credit. But if we should lose a large amount of gold, that would take so much out of the reserve balance of the members and would necessitate their borrowing from us and increasing the amount of reserve which is based upon our loans. This credit is needed and is extended by the reserve system in support of the whole business structure of the country; we have no power to say how it shall be used, once it comes into existence. It helps to support this great inverted pyra-

mid of credit, and the member banks in detail direct its application to real estate, speculation, grain, cattle, trade, and so forth.

The CHAIRMAN. And the other banks as well?

Governor STRONG. The 18,000 State banks and 10,000 member banks.

Mr. WINGO. Not only should those who charge the Federal reserve system with being responsible for overfinancing these speculative stock market operations recognize that you have no control over this $1,150,000,000 of credit, but also that the statistics show that the outlying banks, outside of Wall Street, furnish a greater amount for stock market loans than New York banks.

Governor STRONG. Mr. Wingo, the record of the New York City banks in the year 1925, as I recall it—and I have the figures here, which can be put into the record—shows that there was almost no change of importance in the amount that they were lending on the stock exchange throughout the entire year 1925. Total loans to brokers by a group of New York City banks, for which figures are available, were in the neighborhood of $1,100,000,000 during the year.

Mr. WINGO. My recollection is—and I want to know if I am right about it—that at one time, when it was pretty high, I think along in November, 1925, the total stock market loans of the banks of New York City that were included in the report were only about $600,000,000, whereas the outlying banks, I think, had pretty close to $2,000,000,000.

Mr. WILLIAMSON. After all, does speculation in stocks and bonds have anything to do with the prices of farm products or other commodities?

Governor STRONG. I can not answer that, Mr. Williamson. It is a speculative sort of inquiry. It is a pretty difficult question to answer. It is one that I would like to ponder over a little bit.

Mr. WILLIAMSON. Well, taking the general price level as indicated by the figures given by the Department of Labor, it does not seem to indicate that your speculation in stocks and bonds has had very much to do with the general price level.

Governor STRONG. I think it has some influence on the state of mind of the people.

Mr. WILLIAMSON. Yes; it undoubtedly has a psychological effect.

The CHAIRMAN. Governor, what was the effect of the publication of this information in regard to the stock exchange loans, so far as you have observed?

Governor STRONG. I should say, Mr. Chairman, that the immediate effect upon the publication of the figures—first upon the announcement that they would be published, and then upon their publication—was to give a little check to speculation.

The CHAIRMAN. I notice that there was a considerable reduction in bankers' loans after the figures were published. Is that reduction due to natural causes, or is it due to the fact that this information became public and caused some tightening of the situation because of possible alarm of the volume of these brokers' loans?

Governor STRONG. These answers are hardly more than guesses; answers to such questions as that. I do not want to guess any more than I have to in answering. I will make an attempt at it, if you would like to have me.

The CHAIRMAN. I would be very glad to have it.

Governor STRONG. I think many influences have had a bearing upon the course of stock prices in recent months. One of them originally, possibly, was the evident intention of the Federal reserve system, which became apparent last October, to somewhat increase discount rates. Now, the effect upon the mood or temper of the public about these things is cumulative. It is not due to one thing, but influences grow, and finally cause a change of attitude about speculation. That was probably one influence.

I think another influence has been, to some extent, that we have had a course of rising interest rates over quite a period now. If you look over the chart of rates you will find that money was pretty cheap in 1924. It got a little dearer, and in February, 1925, it advanced a little more. We advanced our discount rate from 3 to 3½ per cent then. In November there was an advance in Boston, and further advances later in other reserve banks, accompanied by rising market rates for money. It was not necessarily the advance in our discount rate that caused it, because, as you will see from some figures that I am going to introduce into the record, over that period we sold $290,000,000 of the system holdings of Government securities that had been purchased through the open market committee. I think that had an influence on money rates.

Then I also feel that the speculation in stocks went through a course which is common enough, where it reached a natural crisis. It got over-extended, possibly; and one or two developments that were not quite to the appetite of the speculative community also had a further influence upon the sentiment. You will remember that when the Interstate Commerce Commisison decided to disapprove of the railroad merger that they were passing upon, there was a decline in the stock market. I think the publication of these figures showing the size of the loan account had some influence.

Technically, possibly, the speculator would say that the sale of speculative stocks that had been accumulated at lower prices depended for its success upon the appetite of the public to take them off the hands of the speculator, and if the public quit buying them they could not be as easily sold; and speculation like that, depending as it does upon the mood of the public, is very easy to turn in the other direction. At any rate, prices of stocks have declined for all these various reasons, and maybe others, and it has resulted in a liquidation of the stock market loan account—a reduction of it—which can probably be estimated at somewhere around $600,000,000. The effect of that upon the reserve position of the Federal reserve system is not so very great, after all. I doubt if it has effected a reduction in the reserve requirements of the member banks of an amount that would be sufficient to liquidate, at the outside, more than $50,000,000 of their borrowings from the Federal reserve banks.

The CHAIRMAN. If this tightening of money rates during the last six months has been effected by a decline in active business, is it not rather an odd occurrence? Because during this period, if I understand the figures correctly, and particularly in the last three months, there has been a slight letting up of business activities generally, which would seem to indicate that money would be released and that money would be cheaper.

Governor STRONG. Well, that depends upon a good many things, Mr. Chairman. When one speaks of a slackening of business and its effect upon credit, it depends a good deal as to whether that slackening of business takes place at the point of final consumption or not. You can readily visualize a situation like this:

Suppose the merchants who run the retail stores had said six months ago, when they were buying their goods for the spring trade, and under the influence of a feeling of optimism about the business outlook: "We are going to have 10 or 15 or 20 per cent increase in business next spring," and they went to the manufacturers and bought 10 or 15 or 20 per cent more goods than they had sold the year before in the spring season, and then when this year came around, either because of bad weather or one cause or another, instead of selling 10 or 15 or 20 per cent more goods that they had anticipated being able to sell, they possibly sold 1 or 2 or 3 per cent more or less than they did last year. They would have to borrow more money, would they not, to carry their stock?

The CHAIRMAN. Yes.

Governor STRONG. You might indeed have a situation where commercial buying was actually increasing, and all the indices of production, transportation, and trade appeared to be quite favorable, and yet contracts might have been made that resulted in the production of goods that had to be carried, that were not being consumed.

The CHAIRMAN. Have you any knowledge as to the total amount of these brokers' loans, say as of October 1, 1925, which would show whether during this period of the last six months, while the price of money was rising?

Governor STRONG. No; I do not think it would be possible for me to give you that.

The CHAIRMAN. Do you think there was any other absorption through financing outside during that period, that could have absorbed the funds to the extent of making that tightening of money possible?

Governor STRONG. I think probably there have been some other influences upon the employment of credit that have been greater than the speculation in stocks. The enormous building construction in the United States undoubtedly has had a great effect upon the employment of credit.

The CHAIRMAN. I suppose this wild speculation in Florida has had its effect as well.

Governor STRONG. Undoubtedly it has. There has been quite a little speculative advance in real estate and activity in real estate dealing. I have no doubt that the very great production of automobiles in the United States has had an effect upon credit. Probably the large amount of foreign loans placed in the country has had an effect. In 1924 particularly there was a very considerable advance in the value of agricultural commodities—all the agricultural production of the country—which doubtless had an effect upon credit.

Mr. WINGO. I think you have got this also in connection with the 1924 proposition: I believe there was about a billion dollars of foreign loans in that year, as estimated; was there not?

Governor STRONG. In 1924, after allowing for refunding of loans that were maturing, roughly a billion dollars.

Mr. WINGO. Now, what would have happened to the value of farm products if you had not done that?

Governor STRONG. I would not venture to say. It would not have been nice.

Mr. WINGO. There would be a very strong probability in your mind, would there not, that the prices that the producer got would have been a good deal lower?

Governor STRONG. It is the marketing of that marginal production of 5, 10, or 20 per cent that fixes the prices of the whole production.

Mr. WINGO. In other words, whatever may have been the cause, the effect would have been a failure to fully market our surplus?

Governor STRONG. Yes.

Mr. WINGO. And that, of course, has a depressing effect upon the price that the producer gets?

Governor STRONG. Right.

Mr. WINGO. So, instead of the farmer being hurt by these foreign loans in 1924, he was helped, whether he criticizes it or not?

Governor STRONG. I should say he was more than helped; he was almost saved.

The CHAIRMAN. If they could establish proper credits here now, what do you think as to the possible ability of the world to consume our surplus production, particularly from the farms?

Governor STRONG. Well, how about the whole subject of standards of living throughout the world? That is what is going to determine the consumption of our surplus agricultural production; whether people are able to spend money on good food and clothes and other things, or whether they have got to economize and buy one shirt and one pair of shoes where they used to buy two or three. That is what is going to tell in our prosperity in this world.

The CHAIRMAN. I want to refer again to these bankers' balances, that are not legal reserves of the system but which, of course, are considerable of a factor in making loans to brokers. I presume it is reasonable to suppose, although I have not the figures, that a large percentage of these bankers' balances, through the system of pyramiding, which is still continuing, gets into New York and Chicago, and to a lesser degree in others of the larger cities.

When the Federal reserve act was passed, one of the claims of the proponents of the system was that it would demobilize and stop pyramiding of bankers' balances; and I want to call your attention to that, and to ask you whether in your judgment this pyramiding is a good thing. What I mean by that, for instance, is this: A bank in some small town in Minnesota will deposit a balance in a Minneapolis bank; the Minneapolis bank will probably pay them 2 per cent interest. The Minneapolis bank may not have use for that money. It sends it to Chicago. The Chicago bank will pay the Minneapolis bank 2 per cent interest. The Chicago bank, perhaps, not having use for it, will send it to a correspondent bank in New York, which will pay 2 per cent interest. So these bank balances are being pyramided. I would like to have your judgment as to whether that is an economically sound proposition, or whether some steps should not be taken to overcome it, and whether you have any suggestion to offer in that connection. It seems to me uneconomic, and perhaps tends to the forcing of that money, when it finally reaches the market, into the speculation market, where the

interest that is paid on those balances by the different banks forces it out, and it will seek whatever opportunity there is for it to make the return which is necessary. That might indicate that that money would be readily loaned to stock brokers for speculative purposes. Of course I realize, in that connection, with a central bank, that all of that pyramiding would be overcome.

Governor STRONG. Not by a central bank alone.

The CHAIRMAN. Not by a central bank alone?

Governor STRONG. No. Whether our banking system in this country is perfect or not, taking it as it is, that is a situation that will always exist in this country—such a large country geographically as it is—with a system of independent unit banking. The reason why it does not exist in other countries, where they have highly developed systems of branch banking, is that the natural concentration of the money market through the head office in a central market, like London, takes place in a wholly different way, without any redeposit, as you describe it, and without any pyramiding. It is the fund of the central money market. It is naturally there. It belongs to the head office reserve, so to speak. All that is required throughout the country by the branches of the commercial banks is just till money; the till money which is required to supply the currency locally. The reserves are held in the central money market, that is, on deposit in the central bank.

The CHAIRMAN. Of course I recognize that with the piling up of these bank reserves in a city like New York, the banks there, finding use for this money, will not go to the Federal reserve and pay 4 per cent for rediscounts when the country banks send balances in to them for a 2 per cent interest rate. I also recognize the difference between the big banks in London and the big banks in New York City. The big banks in London, as I understand, never borrow directly from the Bank of England, as do the New York banks from the Federal reserve bank.

Governor STRONG. No; they go to the money market.

The CHAIRMAN. But when they are in need of funds they call their commercial paper, and the note brokers borrow from the Bank of England whenever their needs require.

Governor STRONG. Yes.

The CHAIRMAN. So that we have quite a difference between the two operations. Bank of England and Federal reserve banks.

Mr. FENN. Excuse me; do I understand that the Bank of England itself calls the loans?

Governor STRONG. No, sir; the big joint stock banks.

Mr. FENN. The joint stock banks call their loans; yes.

Governor STRONG. The London joint stock banks carry these loans on what they call "floaters." That is a sort of security that "goes" at the Bank of England, and when they are short they call those loans, and the broker, the dealer who is borrowing, has to go to the bank and discount there.

The CHAIRMAN. It works both ways in that respect, then?

Governor STRONG. Yes.

The CHAIRMAN. The point of my question was whether there was not an uneconomic situation here that might be remedied in some way.

Governor STRONG. Mr. Chairman, may I put it this way: Here we have a large group of country banks which, for one or another reason, have funds that they can not use locally or are unwilling to use locally. What are they going to do with them? They will not lock them up in cash in their vaults. They send them somewhere for employment, in order to earn money on them. Also, when they are not members of the Federal reserve system especially, they require balances in money centers in order to meet the requirements of their customers who make payments there, and the amount of that fund in the money center—in the central exchange market—fluctuates according to changes in rates reflecting changes in demand and supply, and according to the local needs of the customers of the country bank. I do not see how it is going to be possible, by some mandate of law, to regulate that. In a way, it regulates itself. It is an inherent characteristic of our type of banking in this country.

Theoretically, if it were possible to have every bank of any consequence—all the State banks—members of the Federal reserve system, and to extend the branches of the Federal reserve system throughout all parts of the country by a very carefully designed system of branches, it might reduce that somewhat. It might lead to a readier transfer of the surpluses of one section of the country to take care of the deficiencies in another section. But it is a speculation as to how it would work out. I do not know.

The CHAIRMAN. I am simply giving expression to a view that is frequently expressed in regard to the operations of the Federal reserve system, in order to bring out the information, to the effect that the exact operations of the system indicate that the greater use of the system is in assistance rendered to the big banks in the large centers, and because of the very character of the transactions in large cities, particularly in New York, for instance, the big banks lend their money to whatever channel seems best to them and which will pay them the greatest returns. In other words, it is suggested that the big New York banks and Chicago banks, and the Philadelphia and Boston banks, etc., can go on a spree, letting their money go out into any channel that will pay the largest profits, and the morning after they wake up in the arms of the Federal reserve system, and they have made their killing and are protected and can get any relief which is needed through the Federal reserve bank.

Governor STRONG. I do not believe there is any statistical support for that statement, Mr. Chairman. So far as the speculative employment of funds in the New York market is concerned, the records show that the New York banks, notwithstanding the temptation which may be present all the time of rather higher rates for stock exchange loans than for commercial paper, they have not increased their loans in New York on the stock exchange while interest rates have been rising. It shows rather the reverse. The enlargement of the speculative loan account has come from all over the United States, just as the speculators are scattered all over the United States. New York happens geographically to be the place where the trading takes place, both in the funds and in the securities. It is the market; and New York gets the devil a good deal because it happens to be in New York.

Mr. STRONG of Kansas. Is it not true, Governor, that the commercial bankers in that territory of the United States that seems

most distressed at this time have been sending their surplus accounts to their New York correspondents and taking a rather low rate of interest, seeking safety at a low rate of interest rather than risk their investment in their communities, which want and insist upon a larger amount of money in circulation?

Governor STRONG. Yes; but, Mr. Strong, how are you to control the action of that very important member of every country community, the cashier of the bank there, who decides how the money will be loaned by that bank, and at what rate?

Mr. STRONG of Kansas. That is a suggestion. I do not know whether there is any way to control it. But I was at a corn conference in Iowa, and in talking with a rather prominent banker there I was rather astonished to have him admit that he and a lot of his fellow bankers were sending their surplus funds to their New York correspondents, where they got a rather low rate of interest, because they thought that was a safe place to have their funds until the storm center in Iowa blew over—which tended rather to increase their difficulties there than to diminish them. And yet I could hardly offer any complaint of his action. It was his money, or his bank's money.

The CHAIRMAN. Governor, you referred to that cashier over which no one has any control. Do you not think that the action of that cashier is somewhat affected when demands come or the opportunity is presented for loaning his funds where he realizes that around the corner there is a Federal reserve bank to which he can go, and that he will extend credit to a greater extent than he might otherwise? Do you not think that has an influence on that bank officer who has the opportunity to loan his money and make money out of it?

Governor STRONG. I think the average cashier of a bank is influenced by the two influences that always operate in every business transaction, a nice balance between risk and profit. He is always figuring on his profit, and against that he is figuring the risk.

Bankers are more inclined to be governed by their fears than almost any other class of people, because, not like a merchant, 80 per cent—75 per cent of all the "borrowing" by a bank, so to speak, is in the form of its deposits that may be withdrawn at any instant. He knows that. He likes to keep his resources well in hand, for, when bad times come, he has a bitter experience for not doing it.

But, on the whole, considering the difficulties of lack of experience and so on in the small country banks, I think our banking system is pretty well run. I know that the inquiry that we made in 1921 for the agricultural commission showed that over that period of strain the entire increase in credit that was extended in the United States was extended in the agricultural counties, and in the semiagricultural counties the volume remained stationary. In the distinctly industrial counties, it went down. That is where the liquidation occurs. We analyzed the characteristics of every county in the country.

Mr. WINGO. What year was that?

Governor STRONG. I will have to refresh my memory from Part 13 of that inquiry. It is given there in detail, in charts and tables.

The CHAIRMAN. Governor, when the Federal reserve act was created, the terms of that act set up an arbitrary legal reserve requirement, which was since modified to some extent, so that we now have

an arbitrary amount and there has been much discussion as to whether that legal reserve requirement is too large or too small and whether or not, because of the easy accessibility to the system and its benefits to what we might designate for the purpose here as reserve city bankers, that they should maintain a larger proportion of the legal requirement than they do now and there should be a corresponding reduction of those reserves in the case of the far-distant member banks, known as country banks.

What is your own thought on that? Is the present total amount of reserves, which yesterday, I understand, were $2,191,635,000——

Governor STRONG (interposing). In the reserve banks?

The CHAIRMAN. In the reserve banks. Is that too large or too small? My understanding is to the effect that practically $1,000,000,000 worth of earning assets are required in order to produce sufficient revenue to pay the expenses of the Federal reserve system.

Is the tying up of that amount of reserves essential or nonessential? Is it an arbitrary amount, or is there some reason why it should be maintained at that figure?

Governor STRONG. At this two billion odd?

The CHAIRMAN. Yes.

Governor STRONG. I think one very good reason for retaining it at that figure is that any change in our reserve requirements is very largely experimental in its effect. You can make the closest calculation of the supposed effect of a reserve change and find you are wrong, and, frankly, I do not believe in monkeying with the reserves. They are now fixed, and when you come to make changes in the required reserves you are making a very important change in the base on which that inverted pyramid rests. It ought not to be done without the utmost study.

Let me illustrate, Mr. Chairman, by calling your attention to something that has passed without much comment, but which I think is important. When the Federal reserve act was passed, the reserve requirements were reduced from the old rates of a maximum of 25 per cent in the central reserve cities of New York, Chicago, and St. Louis, to 18 per cent in those cities, and to 15 per cent in the reserve cities, and from 15 per cent to 12 per cent for the country banks, apportioned between cash in the vaults of the member banks and balances deposited with the reserve banks, but with this further important change, that for so-called time or savings deposits there would be only a 5 per cent reserve.

That was an important change in the reserve requirements in many banks.

The CHAIRMAN. That was the provision in the Federal reserve act, at the beginning?

Governor STRONG. Yes. When the act was changed in 1917, the reserve on time deposits or savings accounts, so called, was reduced from 5 to 3 per cent. That is the amount that the member bank is required to maintain on deposit as a reserve for the amount of its savings accounts.

I am speaking wholly from memory and I would like to have these figures checked and, if necessary, corrected in the record, but I think an inquiry made at the reserve bank in New York discloses the fact that about 55 per cent of all the increase in deposits that has taken place in the last 9 years is represented by the increase in those

time or savings deposits which carry only 3 per cent reserve. Nobody can tell to what extent, because of the inducement of larger profit to the member bank in getting accounts transferred from a regular checking account to some form of time deposit requiring but 3 per cent reserve, how much of the really check deposit balances of the banks of the country are in fact being carried on a 3 per cent reserve. That is a material reduction in the reserve of the banking structure. It would require a very careful analysis of just how each bank classifies these accounts and what kind of contracts it makes with its depositors to get a correct understanding of this, but there is a subtle and very important change that has taken place in the banking structure.

The CHAIRMAN. As I recall, also, that June, 1917, amendment provided that all legal reserves should be kept with the Federal reserve system and took the legal requirements off of till money or vault cash.

Governor STRONG. Yes.

The CHAIRMAN. Now, in that connection, I have been wondering whether those changes in the reserves did not release an undue amount of credit which might be responsible to a certain degree for a lot of speculation that is taking place these days.

Governor STRONG. If it did—and it probably did release some reserves—it occurred just as we were embarking upon that great program of war finance, and the amount of expansion that resulted from the change in reserve requirements was not a very material factor in the whole sum total of expansion caused by the war.

The CHAIRMAN. In other words, is it your thought that if there was expansion through that channel, it has been absorbed by the increase in the price level and the demand for credit and currency since that period?

Governor STRONG. I think you can say, Mr. Chairman, that in the period of nine years, or nearly that, which has elapsed since that change in the reserve requirements was made, whatever influence it may have had upon our banking structure, upon the credit situation and everything else has all taken place. The country is adjusted to it, and personally I think it is better to leave it alone. If any change is to be made in reserve requirements, I think it should be made only after the most careful study.

The tendency in changes that are made in reserve requirements, both by law and as a result of rulings by the comptroller and by the Federal Reserve Board, in every instance has been in the direction of reducing reserve requirements, and all the various projects that come before the Federal Reserve Board for dealing with this matter by rulings are all in the direction of a reduction of reserves. That feeling possibly is because the officers of reserve banks are naturally pretty careful about these reserve requirements and the whole reserve project.

I am rather inclined to the view that it is better not to let down the bars any further as to the reserve requirements of the banks of the country. I think we have a fixed position now; we are adjusted to it. All of the readjustments growing out of these reserve changes have pretty generally taken place, and why not leave it there? Will we do any good by making any change?

The CHAIRMAN. One question that comes before the committee frequently is as to why we should have outstanding, in these normal times, of plenty of credit, $1,652,872,000, as we did yesterday, of Federal reserve notes, and what effect that may have on our credit situation. Does that mean that we have provided further expansion facilities, or does it not affect that situation, and, in addition, is that a burden which is rightfully falling upon the Federal reserve system, to furnish a circulating medium which before the organization of the system was largely furnished and supported by the Government?

Governor STRONG. Do you mean the expense of doing it?

The CHAIRMAN. The expense, and the amount and effect on the economic situation.

Governor STRONG. None of these questions of expense, it seems to me, are important in considering policies of the Federal reserve system.

Dealing with that aspect of it, Mr. Chairman, you spoke of a need of $1,000,000,000 of earning assets in order to pay all these expenses, including a sum which, as I recall, is about $1,350,000 a year, the expense of printing Federal reserve notes that might be avoided if we threw the whole burden of expense on the Treasury by paying out gold certificates.

The Federal reserve system is not run to-day—that is, credit extended and investments made by the system—with a view to earning money to pay expenses and to earn dividends. I admitted yesterday that before we had gotten our experience the directors of the reserve banks felt that that was an important obligation resting upon them. I think that influence has quite disappeared. The Federal reserve banks to-day have a capital of $120,000,000 and a surplus of $220,000,000. They have $340,000,000 of capital and surplus. The welfare of this country would be very much better served under certain conditions which we can easily imagine, if we went through a period of possibly a year or two or more without earning our dividends or even our expenses and just meeting the deficit out of this great accumulated surplus—very much better. You will find a strong spirit of resistance on the part of the managers of the reserve banks—and on the part of the Federal Reserve Board, too, I think—to any thought that the earning of the expenses and dividends of the reserve banks is permitted to be of any influence in its investment and credit policy. It would be a bad thing.

I think we have learned enough to know that that should not be, and if in your mind, Mr. Chairman, it is an important consideration that we should save out of our present expense of printing the cost of these notes, $1,350,000 a year, by putting the gold reserves of the Federal reserve system into circulation and not printing these notes——

The CHAIRMAN (interposing). That was not my thought at all. It was whether or not the Federal reserve system was to be responsible for the furnishing of a circulating medium as we proceed from this time on.

Governor STRONG. That is not needed?

The CHAIRMAN. That is not needed or is needed. In that connection, we started out at zero, when the Federal reserve system was

started, with no notes outstanding. We had other mediums, such as national bank notes, gold certificates, silver certificates, etc., most of which are still in circulation. Now, we find, 12 years after the system has been in operation, after that period of time, that the needs of the country are to require $1,650,000,000 of Federal reserve notes. I am wondering whether another like period of 12 years will mean that we will have $3,200,000,000 of Federal reserve notes outstanding.

Governor STRONG. Not necessarily. I think possibly, Mr. Chairman, that the real significance of that $1,650,000,000 of Federal reserve notes is not clear in the minds of everybody.

May I explain it in my own way?

The CHAIRMAN. I would be glad to have you do so.

Governor STRONG. Before the war we had in bank reserves and in the Treasury and in circulation a total of about $1,800,000,000 in gold in the United States. Since the war, because of developments over which we had no control and principally because the world bought goods from us which they could not pay for otherwise than by sending us gold to pay for them, we have taken from the rest of the world some two billion five or six hundred million dollars of gold additional, so that to-day we have, roughly, $4,400,000,000 of monetary gold in the United States, some in the Treasury, some in the reserve banks, and some in general circulation in the form of gold certificates, which are simply receipts for the gold.

These Federal reserve notes in circulation simply stand for an equivalent amount of this gold, and they have not increased the circulation in the United States by one dollar.

Let me express it differently. If I go to the teller's window in the Federal Reserve Bank of New York with $1,000 in gold coin or with a $1,000 gold certificate and ask him for a Federal reserve note in exchange for it, he will give me a piece of paper that is printed with a little different design and of a little different color than the piece of paper which I gave him. It does not alter the amount of money in circulation one penny.

The CHAIRMAN. But he gives you a Federal reserve note.

Governor STRONG. Yes, and I put $1,000 in gold in the Federal reserve bank, and the only alterations that take place are two: There is a different kind of piece of paper money in circulation and there is a change in the total amount of the gold reserve in the reserve bank and a difference in its reserve percentage. The same principle applies to $1,650,000,000 of gold.

If we imported $1,650,000,000 of gold in one shipment and put it into general circulation, it would simply be in addition to the circulating medium of the country. If we had no power of contraction, and nothing would come in to us to reduce the circulation, we would have a great expansion in the circulation of the country, not in one day but over a period of time.

So, when we took in $1,650,000,000 of gold and it was deposited in the reserve banks and an equal sum put into circulation in the form of Federal reserve notes instead of gold certificates, it did not alter the circulation of the country at all.

Now, to-day, looking at it in the other way around, if we paid out $1,650,000,000 of gold reserves held by the Federal reserve system,

and it were physically and mechanically possible at the same instant to take back $1,650,000,000 of Federal reserve notes now in circulation, it would not alter the amount of circulation by one dollar, would it?

The only alteration that would be effected would be in the total amount of gold reserves in the reserve banks and the percentage that that reserve bears to our deposits and liabilities.

The wisdom of doing that depends, I think, on two things, principally. The first is whether you are going to trust us in the reserve banks; whether you do or do not fear that we want to plunge the country into an orgy of inflation by an unwise use of this larger power of lending which we have because of a larger reserve. The Federal reserve system has been running along for some years with a reserve precentage of from 70 to 80 per cent of our liabilities, with this gold that we referred to. We have not been indulging in an orgy of expansion and inflation.

The CHAIRMAN. You do not consider that we have any inflation at the present time?

Governor STRONG. It depends on what inflation is. We have a certain price level; we have a certain volume of credit; we have a certain amount of hand money in circulation. All these have been brought to their present levels as the result of all the occurrences of the war and the credit operations of the reserve system, partly, and the situation is now pretty well stabilized, is it not? There is not much complaint.

The CHAIRMAN. My attention was directed yesterday to an item appearing in one of the papers to the effect that Brazil is deflating by decreasing the amount of circulating medium.

Governor STRONG. May I complete my answer?

The CHAIRMAN. Yes.

Governor STRONG. The other effect upon policy and the general economic situation in the country of paying out that $1,650,000,000 of gold and retiring our notes would be simply this: It would reduce the reserve percentage of the Federal reserve system possibly to 55 per cent of their liabilities from where it is now, at 75 or 76—something like that. If we then sustained a large loss of gold as monetary systems are reconstructed abroad, it would have to come out of our reserves, because we furnish the gold for export, all of it; and, as our reserve went down, the member banks would have to borrow more from us, and as they continued to go down we might get down to our legal minimum and then we would be faced with a choice of either restraining borrowing at a time when we were losing gold to Europe, putting our discount rates up, or else issuing Federal reserve notes and taking this gold out of circulation again. Tweedle-dee and Tweedle-dum, take your choice.

All that it does is to change the size of this show-piece which we hold and call the reserve percentage of the Federal reserve system. It won't alter the situation in the country a bit unless the alteration is brought about by the policies of the Federal reserve system in their handling of credit transactions.

Mr. GOLDSBOROUGH. You were speaking a moment ago about the necessity of defining the term "inflation" in order to be able to answer the question of the Chairman as to whether we had inflation,

and I do not believe you completed your answer, possibly because of interruptions.

In your judgment, can it not be reasonably said that in a country where the index number has remained fairly stable for four years, there is neither inflation nor deflation under any fair definition of either term?

Governor STRONG. Looking at the problem of inflation as applied directly to the price level of commodities, if you have a very stable level of prices in the country for that length of time, I should say, so far as the price level is concerned, there is no evidence of inflation.

Mr. GOLDSBOROUGH. Yes, but——

Governor STRONG (interposing). May I carry that answer a bit further?

One definition of inflation that is common enough as applied to credit is an amount of credit furnished to the country in excess of what the country needs for conducting a given volume of business at a given level of prices; and that, if you please, relates directly to the volume of credit rather than to the level of prices; but even as to credit it is capable of a great deal of misunderstanding as to what real inflation may be.

Mr. GOLDSBOROUGH. Before you finish your answer, would not a reasonably stable price level for four years be a very strong indication that there was neither serious inflation or deflation of any kind?

Governor STRONG. That is, of commodity prices?

Mr. GOLDSBOROUGH. Either commodity prices or credit or anything else. Would not that be a very strong indication of it?

Governor STRONG. It would be as to commodity prices, but you might not be able to say that there has been no inflation whatever if you had a big real estate speculation and a building speculation and possibly a stock speculation at the same time.

Mr. GOLDSBOROUGH. Well, but do those occur at the same time? For instance, there is a real estate speculation in Florida, we will say, or in Camden, N. J., or in southern California, but has it ever happened that there is a real estate speculation which extends sufficiently over the country to influence seriously the price level?

Governor STRONG. Well, you know, I would rather doubt it, but I would like to know more about it before I say that more definitely. I rather doubt that this real estate speculation that people have been talking about has had much effect on prices. It has a considerable effect on the state of mind of people about speculation generally, I think, and there is another very important thing about that, Congressman. There is no doubt but that the suspension of building operations during the war period had produced a situation in this country that was not physically or morally good for the people. Part of the process of correcting that is a speculative building period. I do not know whether you are familiar with what has taken place around New York, but we have had a tremendous growth of building there, and, whereas a few years ago the difficulties of housing the growing population in New York were very serious and the matter was causing grave concern, gradually that worry is disappearing.

Now, it may be that this speculative building period has resulted in set-backs. There are speculators and builders who lost money, but

the buildings are there, the homes have been built, and while it may be that we pay an undue price for building in that disorderly way, with great demand for labor and material over what can be supplied in a short period, yet the net of it all is that the building is done and the building speculation has not been without good results.

The CHAIRMAN. Do you not think that speculation might occur in real estate and stocks without affecting the price level, that they are not tied to each other?

Governor STRONG. Well, it seems to.

Now, in the old days, when you asked most people what the course of a speculative movement or a rising price movement was, they would say that after a liquidation money gets cheap and prices decline. The next thing that happens is activity in good investment bonds. People begin to buy good bonds, and then they buy preferred stock, and then begin to speculate in common stocks, and then it "flops" over into real estate, and commodity prices begin to rise, and then along comes the promoter of fake enterprises and then it collapses again. In former days it seemed as though it had a regular progression, finally reaching commodities and real estate and generally wound up with the real estate speculation.

Now, the unusual character of the last few years is in the fact that there had been some real estate and building speculation in quite a number of the sections of the country, some stock speculation, but stable commodity prices.

The CHAIRMAN. Modern methods of financing have greatly accelerated that, have they not?

Governor STRONG. Yes; and then there has certainly been some stock speculation, but it does not appear to have extended into commodities. We have not had a great commodity speculation, and a great rise in prices such as was likely to happen—I do not pretend to be able to explain this, but there certainly has been a more stable level of prices for commodities than there has been for either securities or real estate.

I think students of these matters—and I do not pretend to be one—may have an explanation of that phenomenon. I shall not attempt to explain it.

The CHAIRMAN. It has been suggested that you bring up this other interesting subject of the method of settlement which has developed in the last few years of paying a dollar down and a dollar a month as long as you live. It has been suggested that we have anticipated perhaps five years in that method of payment and that a great deal of that kind of paper is getting into the Federal reserve system through member banks and otherwise.

Do you see any source whereby that class of paper can be gotten into the Federal reserve system and cause inflation?

Governor STRONG. No. I think there are some acceptances or bills drawn in connection with some of these operations that might have got in.

The CHAIRMAN. I can see where some of that paper could get into the member banks and other banks through discount corporations and the other facilities that have been organized to handle that class of paper.

Governor STRONG. Oh, yes.

The CHAIRMAN. But there is not any possible way by which that can get directly into the Federal reserve channels, is there?

Governor STRONG. No.

Mr. BEEDY. Before I come to the question that I have in my own mind, I was interested in a question propounded by the chairman a few moments ago which I think you did not fully answer, in which you referred to the $2,190,000,000 of reserve funds at the present time. He asked you the question as to whether or not that was a sum arbitrarily arrived at. Is it or is it not?

Governor STRONG. Well, the member banks, by this week's statement, I believe, have reserve balances with us of $2,192,000,000. Those are the reserves required to be carried by the member banks, a fixed percentage of their deposit liabilities as calculated upon the basis of 13 per cent of demand deposits for central reserve cities, 10 per cent for the reserve cities, 7 per cent for all other banks, and 3 per cent of time deposits for all banks.

Mr. BEEDY. That is a fund arbitrarily fixed?

Governor STRONG. Yes; it is always somewhat in excess of the requirements.

The CHAIRMAN. Generally speaking, however, the banks simply maintain their legal reserve requirements?

Governor STRONG. Yes; no unnecessary excess, because we pay no interest, of course.

Mr. BEEDY. Unfortunately, I missed your testimony yesterday morning, Governor, because I was out of the city, but I understand that some question was asked as to what the Federal Reserve Board considered in determination of its discount rates and rediscount rates, and you suggested no doubt that various things must be considered. Is it a correct statement to say that the Federal Reserve Board, in fixing that rediscount rate, never considers the price level?

Governor STRONG. Oh, no.

Mr. BEEDY. They do consider it?

Governor STRONG. The rates of discount of the reserve banks are established by the directors of those banks, subject to review and determination by the Federal Reserve Board. The Federal Reserve Board has it staff of people keeping the board fully advised of conditions, and the reserve banks have theirs. The directors of the reserve bank of New York take into consideration all of the things that we submit. We submit various charts to them, we make reports to them, sometimes orally and sometimes in writing, and it is after considering a great many factors, one of which is the price level, that they make their decisions.

Mr. BEEDY. In your opinion, is there one determinant that stands out above others in arriving at that discount rate?

Governor STRONG. The one determinant is possibly the result of considering a great many factors.

Mr. BEEDY. There is no one controlling factor?

Governor STRONG. No. I said in my statement, before you came in, I think, that it is the conclusion that the directors and officers of the bank arrive at as to the security of the credit position of the country.

Mr. BEEDY. You referred a moment ago to the fact that you find a resistance among the directors of the Federal Reserve Board and

the directors of the regional banks to the idea of profit, investment for profit, for your system, and your first consideration would be meeting the needs of business and a sound credit policy. What do you consider the main function of the Federal reserve system, beyond the fact that it provides an elastic currency and a method of meeting the needs of business?

Governor STRONG. Well, it holds the banking reserves of the country, and, as you say, it furnishes the country's currency supply; that is, the portion of it which expands and contracts.

Mr. BEEDY. Coming down to fundamentals, beyond the mere——

Governor STRONG (interposing). Those are pretty fundamental.

Mr. BEEDY. Yes; that is the machinery. What is that machinery designed to accomplish?

Governor STRONG. I think it is designed to protect and stabilize the credit position for the benefit of the country.

Mr. BEEDY. I notice that the Cunliffe committee, in its report, said that the Bank of England's function should be, and its machinery should be constantly adapted, to accomplish the purpose of stabilizing prices and preventing inflation or deflation.

Governor STRONG. Yes.

Mr. BEEDY. Is not that one of the fundamental purposes of our Federal Reserve System? Should that not be its aim?

Governor STRONG. I think you have to read that whole report to get the spirit of it, and have in mind that it was written by men brought up under the influence of over two hundred years of tradition under a bank where it has long been believed that the gold standard and its operation in international exchange is the main influence upon prices. I know some of the gentlemen who wrote that famous report.

Mr. MACGREGOR. That is, gold as against paper.

Mr. BEEDY. There, again, we can not consider the gold reserves as a determinant, can we?

Governor STRONG. You can not have a banking system conducted under conditions such as have existed since the war where there is not a free movement of gold between the nations and expect to bring about that more or less automatic stability which comes by readjustments of domestic and world prices. Until we get back to the automatic flow of gold which affects bank reserves and brings into play the automatic reactions from loss of reserves, until that time comes I do not believe we are going to have all the satisfaction in the Federal reserve system that we will have after that time comes.

Mr. BEEDY. And, notwithstanding the fact that we have a great surplus of gold, there is always in the background the possibility of demands for that gold as there is reconstruction in Europe?

Governor STRONG. The "hope," say.

Mr. BEEDY. The possibility, is it not?

Governor STRONG. I think we could afford to let some of it go without harming ourselves any.

Mr. BEEDY. Exactly, but there is always the possibility of that demand, and, because that possibility exists, do you not give less and less consideration in the determination of your rediscount rates to the amount of gold reserves you have?

Governor STRONG. Well, when a bank like the Federal Reserve Bank of New York, where the drain of gold is first felt, is running along comfortably with an 80 per cent reserve, the reserve percentage does not mean very much, and it won't mean very much to us until this readjustment or redistribution of the world's monetary gold has been some day completed. I hope that will be soon.

Mr. BEEDY. That is exactly what I meant.

Governor STRONG. And then the significance of the reserve and of the loss of gold will be clear, and its reaction on the management of the reserve banks in changes of rate and so on will be a more orderly and better understood procedure.

The CHAIRMAN. In that connection, I have heard the argument put forward that if the United States could proceed to its full ability to produce, the amount of gold that we have here now might not be in excess of our requirements for expansion and that we might be considerably embarrassed if we let any of this gold which is here now out of our country.

Governor STRONG. I do not think that is sound.

The CHAIRMAN. You do not agree with that idea?

Governor STRONG. No.

The CHAIRMAN. Well, now, in connection with the statement Mr. Beedy has just made here, I was rather under the impression that the Bank of England exerts its influence toward stabilization of prices and the price level to a greater extent than it is possible for the Federal reserve system to do here. Is that in your judgment a fact?

Governor STRONG. You might call it the gold standard, Mr. Chairman, because, after all, when the Bank of England was operating before the war, on a reserve of 40 or 50 per cent, and when in 1907 we had a panic over here, it became necessary for the bank to take action to protect its position, and so to increase its rate. It was automatic, almost.

I keep getting back to the subject of the gold standard, Mr. Chairman, because I have great confidence that when the time comes to conduct these things as they were in former years, a lot of the need for the type of management which has to be applied in the present situation will be eliminated. It will be more automatic. We won't have to depend so much on judgment, and we can rely more upon the play of natural forces and their reaction on prices, such as I very roughly and inadequately described.

The CHAIRMAN. Without objection, we will now recess until 2 o'clock. At 2 o'clock we will hear Governor Norris, of the Federal Reserve Bank of Philadelphia.

(Whereupon, at 12.28 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS

The hearings were resumed at 2 o'clock p. m., at the conclusion of the noon recess.

The CHAIRMAN. The committee will resume its hearings. Governor Norris, of the Federal Reserve Bank of Philadelphia, is present.

STATEMENT OF GEORGE W. NORRIS, GOVERNOR FEDERAL RESERVE BANK OF PHILADELPHIA, PA.

The CHAIRMAN. Governor, this committee is considering the Strong bill proposing directions to the Federal Reserve Board on stabilization. You are more or less familiar with the subject. The committee is interested in an expression which it was understood was made by you some little while ago, I believe at a meeting of the Bond Club of Philadelphia, in which you expressed the view that there were no powers in the Federal reserve system that had particular reference to stabilization. I may not have stated that accurately, but it will give you a line as to what the committee is interested in and we will be very glad o hear any statement you desire to make on that subject.

Mr. NORRIS. Perhaps it would be well in that case if I start by putting in the record what I did say on that subject.

The CHAIRMAN. I think, without objection, that should be inserted at this point. I will say to you also, Governor, that we hope you will be perfectly frank with the committee and feel no embarrassment in speaking as the Governor of the Federal Reserve Bank of Philadelphia. The Federal Reserve Board will be heard later on and if you should step beyond the proprieties, I feel sure the committee will stand by you.

Mr. WINGO. I did not understand the subject had any proprieties. If he is going to put the speech in the record, had he not better give us the high lights of it so we will understand it?

Mr. NORRIS. I am not going to put a speech in the record.

Mr. WINGO. We make a difference in Congress between a speech and remarks. Yours is going to be remarks?

Mr. NORRIS. An extract of three or four sentences. I presume this is the expression the committee had called to its attention:

> It is not one of the functions of a Federal reserve bank to determine whether prices of either stocks or commodities are too high or too low or to make any effort to raise or lower such prices. It was never the intention of Congress to give any such power to the system. It would be a very dangerous power to place in the hands of any man or group of men, no matter how wise or altruistic they may be. It is a power the American people would never be willing to trust to any board or commission, and it is safe to say that it is a power that the Federal reserve banks will never attempt to exercise.

Mr. WINGO. I have always had great respect for your wisdom and that simply confirms my judgment.

Mr. STRONG of Kansas. Suppose the Government did decide to give the power to the Federal Reserve Board?

Mr. NORRIS. If you will allow me, I have sketched out a few notes that seemed to me to be logical and time saving and perhaps they cover the subject.

The CHAIRMAN. Suppose you proceed, then, without interruption.

Mr. WINGO. I suggest that he be allowed to proceed with his statement and then we question him afterwards. Is that agreeable to you, Governor?

Mr. NORRIS. Whatever the committee prefers is agreeable to me. In what I say, Mr. Chairman, I am going to avoid, as far as possible, any purely economic discussion and I am going also to avoid,

as far as possible, treating of the powers or policies of the Federal Reserve Board or of other Federal reserve banks, because you have already had Governor Strong before you and possibly also officers of other banks, and also one or more members of the Federal Reserve Board, and I prefer that they should speak for themselves, and with that preamble, that I am speaking for the Federal Reserve Bank of Philadelphia and that I am not an economist, I will be very glad to contribute any little scrap of information that I can that may be helpful to you.

Now, it seems to me that the first question involved in this bill is whether it is desirable that the Federal reserve system, let us say, or any other agency, should undertake the task of stabilizing prices, and by prices I presume that it is meant not the price of any particular commodity, but the general price level.

We frequently say that prices are made by the law of supply and demand, and we know, of course, that that is too narrow a statement. Prices, be they either of particular commodities or even the price level, are the result, in the first instance, of the constant struggle between the producer for high prices and the consumer for low prices. In that continuing struggle there are ebbs and flows as various cross currents intervene. For example, in the morning papers, coming down on the train, I notice there has been quite a sharp drop in the price of sugar yesterday, and that was ascribed to the fact that the French Parliament had recently increased the import duty on sugar. So, there, we have the price of Cuban sugar to the American consumer influenced by French legislation.

Therefore, all prices, either of a particular commodity, or of commodities in general, are affected by these various influences, and while I would not undertake to say—and I do not suppose anyone would—that the price level is not influenced somewhat at times by the cost of credit, it nevertheless is true that the cost of credit is a very small item in the cost of production or distribution of goods, and if you refine that still further to the difference in the cost of credit between borrowing money at 4 per cent and borrowing at 5 or 6, that difference becomes almost negligible.

When the movement of prices is under way, it seems to me that it is always a doubtful and generally a dangerous thing for any outside agency to interfere with and attempt to alter that current. It is, to my mind, very much like erecting a dam to stop the flow of the natural current. To give a homely illustration of that, several years ago, when the price of wool was dropping almost out of sight, the largest wool merchant in Philadelphia came into my office and said, in the course of the conversation, that he made his money when wool was going up and when wool was going down he was pretty nearly sure to lose money. "But," he said, "I would not give anybody 5 cents to try to stop this downward movement in the price of wool. I would much rather have it go down as low as it wants to go, because if it does that, then I know that I can start in to buy and do business with perfect confidence, whereas, if anybody attempts to put a peg in it, I do not know whether the peg will hold or not and I can not deal with the same confidence."

Another point along that same line that I want to call attention to is the fact that there never is a price level that is fairly equal for

the various commodities that make it up. I do not want to be accused or suspected of taking particular commodities that might present an extreme view of it, so I have calculated here the percentage of the change from pre-war prices on the 13 commodities, the prices of which are quoted by our statistical department to the board of directors of the Reserve Bank of Philadelphia every week and have been for years.

Now, looking at that, I find that at the present time—at least last week—pig iron was 58 per cent above the pre-war level; steel billets, 84 per cent above; copper 4 per cent; cotton 46 per cent; wool, 158 per cent; silk, 50 per cent; hides, 41 per cent below; rubber, 23 per cent below; corn, 16 per cent above; wheat, 111 per cent above; petroleum, 109 per cent above; and bituminous coal, 62 per cent.

So that in those 13 commodities, not selected for the purpose of strengthening any argument that I have to make, but just selected because they compose this list that is before me every week, we find that the present level of prices on those commodities ranges from 41 per cent below the pre-war level to 158 per cent above it.

Mr. WILLIAMSON. By pre-war level, you mean the price of 1913?

Mr. NORRIS. Yes, sir.

Mr. STRONG of Kansas. Is rubber lower now that it was then?

Mr. NORRIS. Yes. If the committee generally is interested in that, as I thought you might possibly be owing to the extended discussion on the subject of rubber recently, I had a chart prepared showing that in the early part of 1920 rubber declined steadily, reaching in 1922 the low point of 13¾ cents per pound at the New York market. In 1920 the average quotation for smoked sheets dropped to 36 cents a pound, and in 1921 to 16.3 cents per pound, the lowest in the history of the crude-rubber industry. From that there was a rise to $1.05. It is now at 53 as against the pre-war level of 69.

The CHAIRMAN. Indicating that there is plenty of elasticity in rubber?

Mr. NORRIS. The curious thing I think about that is that that decline has taken place in the face of an almost incredible increase in consumption. I presume there is no commodity in which recently the increase in consumption has been greater than it has been in rubber. Moreover, in speaking of a price index, I think it has to be borne in mind that it is composed not only of a large number of individual commodities, but that it is a combination of various groups of commodities, agricultural commodities, products of industry, divided again into what are called producers' goods and consumers' goods, and along another line, divided into goods in which the market price is controlled by domestic conditions and goods in which the market price is controlled by world conditions.

I am personally prepared to agree that stabilization of the price level is a desirable thing; that it is possible for business to proceed more smoothly and profitably and with more comfort to those engaged in it if prices are reasonably level than wildly fluctuating, but when we consider the enormous number of elements that enter into either the price of a single commodity or the price index, is it wise, is it safe to undertake to stabilize an existing price level? Suppose, for example, that we were to undertake to stabilize the price level at the present figure? Suppose the tendency that seems to be in

progress in England and Germany now toward getting lower costs were to continue and the price level in England and Germany were to decline so far below our price level that we would be completely excluded from competition in competitive markets and our exports to all such markets would be cut off? Under those circumstances, would the producers of surplus products thank anyone who had stabilized the price level in this country at a figure that prevented their doing any export business?

Then we have also what I alluded to before, the perpetual conflict between the buyer and seller. The cotton planter probably thinks that the price of cotton to-day ought to be higher. The New England spinner thinks that it should be lower and would like to see it lower. The wheat raiser wants a higher price for his wheat. The baker and the average housewife would like to see the price of wheat lower in order that the price of flour might be lower. The copper producer wants the price of copper higher and the great electrical-apparatus producers of this country want it lower, and so it goes through the whole range of commodities.

Mr. STRONG of Kansas. Governor, if the price of any commodity does not bring the price of production, it means disaster sooner or later, does it not?

Mr. NORRIS. Undoubtedly. It means that the price must rise to a point that will enable the producer to produce.

Mr. STRONG of Kansas. That is the situation with respect to agriculture, is it not?

Mr. NORRIS. The chairman can assure you that I have a warm sympathy with the farmer.

Mr. WINGO. You understand this is Mr. Strong's agricultural relief bill, do you not?

Mr. NORRIS. I had not heard.

Mr. STRONG of Kansas. I would like to have you keep it in mind, so as to distinguish it from the one the gentleman from Arkansas has introduced.

Mr. WINGO. I have not introduced any.

Mr. WILLIAMSON. I do not understand by the stabilization of prices that we mean to fix the present level of prices at a point where it is now. By stabilization of prices, I think it is generally understood to mean to prevent the violent fluctuations up and down. If there was a gradual reduction of the price level, there would be a gradual reduction of other things that go into that price level. The point is to establish a price level that will give you approximately the same value for your dollar next year as you have now. That does not mean prices shall stay at the same level. It means that they will be stabilized and there will not be the violent fluctuations up and down.

Mr. NORRIS. May I ask you what you mean by establishing a price level?

Mr. WILLIAMSON. I understood you to say that it would not be desirable to establish a price level or to stabilize prices because it was desirable to have the prices fluctuate up or down as to individual commodities.

Mr. NORRIS. I was referring not to individual commodities, but to what we call the index or general average of prices.

Mr. WILLIAMSON. What I understand by the stabilization of the price level is that we shall not establish the price level at what it is

now indicated, but establish it at a level where the dollar shall have the approximate purchasing value it now has.

Mr. NORRIS. But you have to have a starting point. You have to say, "We will start at the present price level or wait until there is some other price level that suits us," or establish an arbitrary price level of your own.

Mr. WINGO. This proposition is to have the gyrations of the see-saw gradual and not violent. They do not propose to establish the present price level, but want it to be a gradual decline or incline.

Mr. NORRIS. I am discussing this bill as drawn——

Mr. WINGO. That has been abandoned.

Mr. NORRIS (continuing). Stabilizing the price level. I will discuss that other feature a little later along and I will discuss more sympathetically, I think, in connection with the proposition to stabilize prices——

Mr. STRONG of Kansas. I am glad to know you are going to have some sympathy for the proposition at all.

Mr. NORRIS. The second question that it seems to me arises in this, Mr. Chairman, is, suppose we assume that an attempt to stabilize or to minimize fluctuations is desirable: by whom shall the attempt be made, and how? This bill says it shall be made by the Federal reserve system and by the use of its power. Why the Federal reserve system? The Federal reserve system is a system that deals primarily with currency and credit. It has not the close, intimate knowledge of business conditions and of the influences that are in operation, the current, the immediate knowledge of the influences that are in operation to make prices that it seems to me any body or organization ought to have that is going to undertake that task of stabilization.

I was going to refer to a statement made by Governor Strong before the Commission of Agricultural Inquiry which was put very much better than I could put it as to the functions of the Federal reserve system. I had a memorandum of two statements. Here, I find one, which is a statement very much on the same point.

He called attention in his testimony there to the fact that in the distribution of credit a reserve bank simply responds to a need. "It can not anticipate it. It can not be set in motion in making credit for the relief of the situation except in response to a demand which originates with the member bank and results from a loaning condition which requires the employment of the reserve bank's credit in order to meet that demand. It sometimes seems as if people felt that when credit was urgently needed in a section of the country the reserve bank could go out there and dispense it. It is helpless to do so. Its only control is that which it exercises by its general influence upon its members in urging them, as it frequently does, to adopt a policy, and the influence which it exerts by its rate."

That was a statement made by Governor Strong in 1921, which he doubtless made in the light of the trying experiences he had been through during the period of war finance immediately preceding that, and if he were making the same statement to-day—and perhaps he did yesterday—I imagine that he would say that the only control of a Federal reserve bank consists of three elements—that which it exercises by its general influence on its members in urging them to

adopt a policy; second, the influence it exercises by its rate; and, third, the influence which it might exert by its so-called open-market operations under section 14 of the act.

Those are the three instrumentalities, and the only three, by which a Federal reserve bank, the board, or system can operate.

Mr. WILLIAMSON. In that connection I was informed during the noon hour—I do not know whether correctly or not—that along in 1921, I think it was, instructions were sent out, or at least the suggestion was made by the Federal Reserve Board to the member banks, that they reduce their loans approximately 20 per cent. Was such an instruction sent out?

Mr. NORRIS. None reached the Federal Reserve Bank of Philadelphia—nothing that could possibly be construed that way.

Mr. WILLIAMSON. Were instructions sent out at that time to have member banks reduce their loans with the system?

Mr. NORRIS. In 1921?

Mr. WILLIAMSON. In 1921 or 1922, or about that time?

Mr. NORRIS. I do not recall any instructions that were sent out. In the extended condition that the reserve banks found themselves in 1920, particularly at the close of 1920, when they were within a fraction of their minimum reserves, there was, of course, a strong recommendation or feeling from top to bottom that credit was overextended; that we were all in a very much extended condition, and that everybody should do what they could to get back to a more normal basis and a sounder and safer condition.

Mr. WILLIAMSON. You think that suggestion which went out at that time had anything to do with the violent restriction of credits throughout the Middle West?

Mr. NORRIS. Of course, I have no knowledge as to what restriction of credits in the Middle West there was, but I cannot imagine anything that was done by the Federal Reserve Board or any policy or consensus of opinion or agreement or anything of that kind reached between any Federal reserve banks, that should have had any such effect.

Mr. WILLIAMSON. If the Federal reserve system called in their loans from the correspondent banks and those correspondent banks in turn were compelled to call in their loans from their correspondents, with the result that the local banks would be compelled to call in their loans from their borrowers——

Mr. NORRIS. Yes, but I can only speak for the third district. Of course, no reserve bank ever calls a loan in the sense in which a bank calls on a broker to pay off the so-called street account. A Federal reserve bank might say to a member bank, "Your loans with us are too large; you must reduce them." We never, in the third district, in the six years that I have been there—and I am quite sure the same has been true before—we have never said that to a bank, except when the bank was in such an extended condition that the advice was very valuable to them, and then we have made the amount of the liquidation so small and the period of liquidation so extended that if the bank were in any sort of condition it should be very easy for them to comply with what we asked them to do. We have never made any drastic or arbitrary demand upon any bank to pay off its loans or any particular proportion of them. We

have never taken any action which could possibly cripple a member bank or work injury to its community.

Mr. WILLIAMSON. In the light of what occurred, do you think it was a wise policy in 1921 to shove up your discount rate to a point where it was beyond 6 per cent?

Mr. NORRIS. Beyond 6 per cent?

Mr. WILLIAMSON. Yes.

Mr. NORRIS. There were only a few districts in which it was put above 6 per cent. It never went above 6 per cent in our district. I would not want to criticize or discuss the policies of other banks in making any rate above 6 per cent. We never had the necessity for doing it in the third district. Whether that necessity existed in the other districts or not I have no personal knowledge.

Mr. WINGO. Do you not know, as a matter of common knowledge, Governor, in your bank, that everyone else entered into a general campaign at that time in which the battle cry was, "Get back to normalcy"?

Mr. NORRIS. Yes.

Mr. WINGO. The cry was to get back to normalcy?

Mr. NORRIS. Yes.

Mr. WINGO. And in getting back to normalcy the poor old farmer got skinned.

Mr. NORRIS. And so did a lot of other people.

Mr. WINGO. That is what my friend is getting at.

Mr. NORRIS. Well, war has been defined as hell, and deflation has been too. I do not see how inflation can be deflated without some people getting hurt.

Mr. WINGO. What do you mean by "inflation," so we can follow you, Governor?

Mr. NORRIS. I do not think any two men have been able to agree on a definition of deflation or inflation.

Mr. WINGO. You gave me a definition several years ago and I sprang it on two or three experts last week, and they gave me a supercilious look and seemed to think I did not know what I was talking about. I therefore am asking you with the idea of discovering whether or not you want to revise the standard you gave me.

Mr. NORRIS. You made a great mistake in quoting me. You should not do that again.

Mr. WINGO. Until you read your excerpt from your speech the other night, I was thinking of cabbaging that bodily and using it without any quotation marks.

Mr. NORRIS. Did I give you a definition of inflation?

Mr. WINGO. Yes; you gave me a definition of inflation and expansion that I have been using glibly for several years up until the time of this hearing, when they told me I was all wrong.

Mr. NORRIS. The definition of inflation that I like best of the hundreds I have seen is an extension of credit or currency or both beyond the legitimate needs of business. That is not a very inclusive definition. That leaves it open to the general opinion as to what legitimate needs are.

Mr. WILLIAMSON. Just a question in connection with a matter you covered a moment ago: do you think that the rapid increase of the discount rate for the Federal reserve system along in the early part

of 1921 had a tendency to bring on the deflation at a more rapid pace than it otherwise would normally have taken, or was that without influence in causing the severe collapse in prices that occurred throughout the country?

Mr. NORRIS. I honestly do not believe—and I do not say this because I have been connected with the system—but I do not think those increases in the discount rates had any perceptible effect upon the deflation. The deflation was just as certain to come as it is certain that the stick of a rocket will drop.

Mr. WILLIAMSON. You think it will come with the same degree of rapidity, without any restriction of credits?

Mr. NORRIS. I do not think that there was any material restriction of credits. The price of credit was raised.

Mr. WILLIAMSON. In our section of the country, by March 1, 1921, you could not borrow a dollar in the Dakotas, Minnesota, Iowa, Nebraska, or anywhere in that section, I do not care what your securities were, from any bank in that region, with perhaps a few exceptions. Do you not think that situation had something to do with the collapse of the farm prices?

Mr. NORRIS. If that condition existed, I think it did.

Mr. WILLIAMSON. That can be easily verified.

Mr. NORRIS. I say "if," because I have no personal knowledge of it. The people who produce goods or market goods or carry goods are generally willing to pay any reasonable rate for the money to do it. If they can not borrow money at any rate, they, of course, have nothing to do but sell at any price they can get, and if you get to a condition of that sort, that immediately forces liquidation. That is like a sheriff's sale, and it is a disastrous thing and ought not to occur. There never has been a condition of that sort in the East since 1907. In the fall of 1907, when I was in the investment banking business, I saw days when we could not borrow $25,000 on a million dollars worth of collateral.

Mr. WILLIAMSON. You could not borrow on your own deposits in the banks in those days.

Mr. NORRIS. There never has been a time in the East, since the creation of the Federal reserve system, when money could not be borrowed at a reasonable rate. It is not because I want to evade your question, but only because I do not want to talk of things that may have been done or not done by officers of other reserve banks of which I have no personal knowledge, that I can not answer your question more fully and explicitly.

Mr. WILLIAMSON. Well, do you think that the Federal reserve system then, is practically without influence with its open market operations and in the handling of discount rates so far as stabilization of prices is concerned?

Mr. NORRIS. No; I do not think that.

Mr. WILLIAMSON. What influence could it exert?

Mr. NORRIS. I think that in the next two or three minutes, I will answer that question.

Mr. STRONG of Kansas. If your definition of "inflation" is the correct one, does not the conclusion follow that the governing interests of the people ought to regulate and control inflation and contraction of credits?

Mr. NORRIS. You can only do that by taking over the management of 30,000 banks.

Mr. STRONG of Kansas. If it has a board to control and manage a great system, the greatest system in all the financial systems of the world, would it not seem that the natural conclusion would be for the Government to take over and regulate the expansion and contraction of credit in order to prevent the inflation that you described by your definition?

Mr. NORRIS. That is not made by the 12 Federal reserve banks. It is made by the 10,000 banks that are members of the system and the 20,000 banks not even members of the system.

Mr. STRONG of Kansas. Does not the Federal reserve system set the pace and take the lead?

Mr. NORRIS. No; it follows—it responds.

Mr. STRONG of Kansas. It is practically the only system that issues currency, now, is it not?

Mr. NORRIS. About one-third of the currency in circulation is Federal reserve currency. Two-thirds of it is other kinds of currency.

Mr. STRONG of Kansas. It is about the only system that is issuing very much now?

Mr. NORRIS. Yes; the rest of the currency is pretty nearly standing still except the substitution of gold certificates for Federal reserve notes.

Mr. STRONG of Kansas. If that is a definition of inflation the Government could, through the control by that system, accomplish what it is sought to accomplish?

Mr. NORRIS. No; you could, of course, restrict the amount of Federal reserve currency that is issued. The board has that power now.

Mr. STRONG of Kansas. And its discount rates and open-market operations all would tend to restrict and extend credit?

Mr. NORRIS. Yes; but on an upward movement, the harm is done before the Federal reserve comes into it. The member banks have extended credit to their customers to an undue extent and after they have done it they come into the Federal reserve bank.

Mr. STRONG of Kansas. Your idea is that the Federal Reserve Board would not know the inflation was going on until it got to the peak. I admit that happened a few years ago, but need it always happen?

Mr. NORRIS. Of course anyone interested in finance or the Federal Reserve Board, can see the reports of the banks—many of them weekly, and all of them at intervals—and can see the increase in loans and discounts, but they can not stop what any one particular individual bank is doing, as long as it is proceeding within its bounds.

Mr. STRONG of Kansas. You think the credit given in the papers or public press generally to the Federal reserve system in checking the recent deflation in the market, is not due it?

Mr. NORRIS. You mean this recent deflation in the stock market?

Mr. STRONG of Kansas. Yes.

Mr. NORRIS. I did not know they had been given any credit for that.

Mr. STRONG of Kansas. Well, of course, I do not know what papers you read. I have seen it in several papers.

Mr. NORRIS. I only see the Philadelphia papers.

Mr. STRONG of Kansas. I excuse you, then.

The CHAIRMAN. You should read Capper's Weekly.

Mr. STRONG of Kansas. You will see it in those papers.

Mr. WILLIAMSON. I should like to have you discuss the question I asked you about a moment ago.

Mr. NORRIS. I was going to discuss the means or tools or weapons which a Federal reserve bank has to check or moderate movements either in credit or in prices, as far as prices are affected by credits. First, they have their rate—their discount rate.

As I was saying, in answer to Congressman Strong, that is usually too late to check an inflation, because inflation has occurred before the effect of the inflation brings the banks that have caused it into the Federal reserve bank as borrowers.

Mr. WINGO. In other words, the great volume of credit is created by the member banks themselves?

Mr. NORRIS. Undoubtedly. We create no credit at all except in response to the demands of member banks.

Mr. WINGO. The great bulk of credits that constitute the base of this inflation in an inflationary period is created by the member banks, in the beginning?

Mr. NORRIS. Necessarily.

Mr. WINGO. And the credits you create are credits more on the initiative of the member banks than yours—without their initiative you can not create anything?

Mr. NORRIS. Without the initiative of the member banks; no, with the exception of our open-market operations.

Mr. WINGO. You were discussing the rediscount rates. That volume of credit is created upon the intiative of member banks that come to you for it?

Mr. NORRIS. We never offer to lend money to member banks. We do not say to member banks, "Don't you want to borrow money from us," and where they have borrowed, we never, except in extreme cases, say to them, "You must pay off." They choose their own time, in ninety-nine cases out of a hundred, for borrowing and paying.

The CHAIRMAN. In that connection, the 15-day limit on borrowing is not really effective?

Mr. NORRIS. No. Then, to follow on the question of rates, I said that it was, as a rule, too late to check an inflation. At a time when the member banks are not generally borrowing from the reserve bank, of course, the rate has no effect upon them whatever. If a bank is not borrowing from us they do not care whether the discount rate is 4 or 6 per cent. It is a matter of indifference to them.

Mr. WILLIAMSON. But the member banks were heavy borrowers in 1920 and 1921, at the time the discount rates were shoved up.

Mr. NORRIS. Yes.

Mr. WINGO. Do you remember the peak of the discounts?

Mr. NORRIS. November, 1920.

Mr. WINGO. And the commodity price peak was reached in May, 1920?

Mr. NORRIS. Yes, sir.

Mr. WINGO. In other words, the decline in your discounts started in November after the commodity decline had started in May?

Mr. NORRIS. Yes.

Mr. WINGO. In other words, your decline in discounts followed and did not precede the commodity decline?

Mr. NORRIS. Our discounts expanded for six months after the prices of commodities commenced to go down.

Now, in the third place, on the question of the effectiveness of the discount rates, may I read a very short and very sensible editorial from the New York Journal of Commerce that appeared a few days ago, headed "Cherished illusions"?

Another economist speaking before the Stable Money Association has told that body that long-time or cyclical fluctuations in prices can be controlled by the Federal reserve authorities through raising or lowering rediscount rates. The persistence of this notion that rediscount rates are a direct determinant of price movements is an amazing phenomenon in the light of the actually existent relationship between the reserve banks and the other lending agencies of the country.

To be sure, if the reserve banks could, by varying their rate charges, actually control the amount of their credit advances to member banks and thus indirectly encourage or check the credit advances of the latter to the borrowing public, a connection of a sort, although uncertain at best, could be established between prices and the discount rate. But experience has shown that rediscount rates under present conditions are utterly ineffective weapons of credit control. They seldom offer resistance to credit demands in periods of rising prices when the reserve banks are being drawn upon, while in periods of slack business they have no perceptible connection of any sort with outside market rates.

The discount rate, as I say, is one of the three powers which the Federal reserve system might bring to bear on this matter. Their open-market operations are a second. I think it will be conceded their open-market operations are too small to affect perceptibly the price level.

Mr. WINGO. I do not think everybody does concede that.

Mr. NORRIS. Well, when you consider that the banking credits of this country run something like twenty-five or thirty billion dollars and that the total open-market holdings of the Federal reserve system at the present time are about half a billion dollars—and I think that figure is approximately accurate——

Mr. BEEDY. How much?

Mr. NORRIS. Half a billion. In other words, one-fiftieth or one-sixtieth of the total, I think it is obvious that a change of a few hundred millions one way or another in these open-market operations could have little effect on the credit situation and the burden of my argument, if it can be called an argument, is that the credit situation has only a very limited reflection on the price situation, because the cost of credit is such a small item in the cost of marketing or distribution of goods.

Mr. WINGO. You are confusing cost with volume, are you not? The volume of credit does affect the situation, does it not?

Mr. NORRIS. Yes.

Mr. WINGO. There is a distinction between the cost of credit and the volume of credit.

Mr. NORRIS. Obviously, but I was using that phrase because of the assumption that I suppose we all agree to, that the price of credit is more or less determined by the volume of credit. Credit is like other things, controlled more than any other one element by supply and demand, and if you increase the volume of credit, you tend to decrease the cost of it.

Mr. WINGO. You think the old illustration of a barrel being brim-full of water and putting another gallon in it, that the additional gallon did not cause the overflow?

Mr. NORRIS. I am not familiar with that illustration.

Mr. WINGO. That is one of the things I learned at school that I had to unlearn.

The CHAIRMAN. In speaking of open-market transactions, you are speaking of the purchase of bills and not Government securities?

Mr. NORRIS. Both.

Mr. BEEDY. You would not deny that the purchase of Government securities, or the refraining from the purchase of both, by the Federal reserve system, would either accelerate or retard the tendency?

Mr. NORRIS. It has an immediate effect on the volume and, therefore, to a certain extent, on the price.

Mr. BEEDY. It has a consequent proportional effect on the price?

Mr. NORRIS. I think before you translate those operations into their effect on credit and further dilute it by considering the effect of the cost of credit upon the cost of goods, it is very much like the homeopathic prescription of putting a drop of medicine in the Mediterranean and then a drop of that mixture in the Atlantic Ocean.

Mr. GOLDSBOROUGH. Assuming that the Federal reserve banks purchased $500,000,000 of securities in their open market operations, they would be releasing, would they not, a corresponding amount of gold for reserves?

Mr. NORRIS. Yes.

Mr. GOLDSBOROUGH. Well, now, under the operations of the reserve system, would not that credit be expanded about ten times $500,000 or about $5,000,000,000?

Mr. NORRIS. It is capable of being.

Mr. GOLDSBOROUGH. You were not exactly correct, then, in your statement of the relative effect when you said it was only one-sixtieth?

Mr. NORRIS. It would only be one-sixtieth in itself. It would be capable of further expansion, but of course that further expansion could not occur except in its use to the extreme limits by the commercial banks to whom it came. It is capable of being expanded in that way, but it is not necessarily expanded.

Mr. GOLDSBOROUGH. As a matter of fact, the open-market operations of the Federal reserve system have a very significant effect, do they not, on the potential supply of credit?

Mr. NORRIS. They are capable of having it. I would not say that within such limits as they are carrying them on, that they did have a very great effect. Those open-market operations, as possibly Governor Strong has already told you, are intended and used to take care of more or less temporary or local conditions that seem to call for some action or remedy, but do not justify a change in the discount rate.

The CHAIRMAN. What kind of conditions do you refer to, Governor?

Mr. NORRIS. A temporary stringency or plethora of money in money centers, principally.

Mr. BEEDY. From your experience and observation, is it not true that when the Federal reserve system itself engages in the sale or purchase of open-market securities, there is a following, by member banks and other banks in the country, of a similar course of action?

Mr. NORRIS. I have never seen any evidence of it—no.

Mr. BEEDY. You think that the action by the Federal Reserve Board is not heeded at all by the other Federal reserve banks in the country?

Mr. NORRIS. I think the other banks realize that if the Federal reserve banks do it, they do it for a purpose that is totally different from any purpose that the commercial banks could have in view. The commercial banks do not buy short-time Government securities or bankers' acceptances unless they have money over that they can not lend to their own customers or employ in some profitable way, and therefore, although the Federal reserve bank might be buying them, that would not be any incentive or inducement to them to buy them. They would not buy them unless they had to. And, correspondingly, if the Federal reserve banks were selling, if they had any, they would only have them because they had no other possible employment of money and they would not sell them and have the money lying perfectly idle just because the Federal reserve banks were selling them. Of course, after the bitter experiences that the business public had in 1920 and 1921, I think they have been ever since, very sensitive to changes in the Federal reserve discount rate and are disposed to attach great importance to that, and possibly too much importance, but I do not think there is any disposition on their part to follow or be guided by the local market transactions of the system.

Mr. WILLIAMSON. Is it your idea that the open-market operations are more for the purpose of stabilizing credit conditions than they are for the purpose of stabilizing the general index price level?

Mr. NORRIS. Yes—that is, they have been.

The CHAIRMAN. Do these open-market transactions take place except in an emergency? Is it common practice to go into the open market and buy or sell paper except to meet some unusual condition such as you referred to?

Mr. NORRIS. Would you have any objection and not think it discourteous, if I asked you to have Governor Strong answer that, because he is chairman of the open-market committee.

Mr. WILLIAMSON. I think he has answered it.

Mr. NORRIS. Oh, you want to see how my answer compares with his?

The CHAIRMAN. I do not think that question, in all fairness, has been put to Governor Strong, but I think as far as the committee is concerned, we would be glad to hear it answered by either one of you.

Mr. NORRIS. In parliamentary language, I will yield to Governor Strong.

Governor STRONG. It is very kind of you, Governor Norris, and I appreciate it.

Mr. WINGO. We understand that. Buck passing is not an unusual thing to Congressmen. [Laughter.]

Mr. NORRIS. I thought I would smoke a cigarette while he was answering it. However, I understand you are going to have him on the stand in that matter, and I think he will answer it more satisfactorily than I could.

That brings me to the third and last of the possible means that the Federal reserve system has—first, the rate, second, the open-market operations, and, third, what Governor Strong alluded to as the influence they might exert by recommending a policy to the member banks.

Mr. REED. I think it would be well to suggest, as they sometimes do when excusing a jury, that prior to the answer there be no conference held on that matter.

Mr. NORRIS. No conference would be necessary, because I have not answered it and I could not contribute any information to him [Mr. Strong].

Now, the influence that a Federal reserve bank can exercise by recommending a policy to a member bank is a very delicate and difficult subject on which I would like to speak very plainly and frankly.

I have always assumed, in the third district—and I think it has been probably the general practice among the governors of all Federal reserve banks, to assume—that the officers of a member bank know more about the management of their bank and the needs of their bank and about their business generally than I do, and that advice from me or any other officer of the bank to them is gratuitous advice which they are not likely to thank me for. Therefore I have always hesitated to give them advice except in cases where it seemed to be a very clear duty, owing to their condition, to do it. I speak, or course, of conditions of overextension, and even where I have done that I have always put it in the form of calling their attention to the figures that have led me to seek a conference with them and calling their attention to the things that are not in accord with sound banking practice. When I do that, the next remark is generally a question by them, "What do you want us to do?" and my reply to that always is that it is not for me to tell them how to manage their own business; that I have called their attention to the situation that they are in; that I have called attention to the difficulties or faults and it is up to them to correct those things in their own time and in their own way.

Suppose that you thought that prices were rising and that we were drifting into a period of inflation, and you were to issue a circular letter to your member banks stating views of that kind and recommending that they curtail the extension of credits: that would be a very dangerous thing to do. I do not suppose that anybody would recommend that any reserve bank should do such a thing. The only other thing in that line that you could do would be to talk individually to such officers of member banks as might come in to visit you. We have, I suppose, from three or four to half a dozen different banks whose officers each day will come in, and that is out of over 750 member banks in the district. You can see that if I felt there was occasion to talk to them along those lines and talked

to every one every time he came in, I would only cover a small proportion of the banks in the district in a year, and those I speak of are not different banks each day. On the contrary, the officers of some banks come in frequently and the officers of other banks scarcely ever come in and some may not come in in a year or two years, and the ones who usually do come in are the ones who least need talking to. The ones who need talking to are very apt to keep away, and therefore I can not see that anything could be done along those lines that would not in nine cases out of ten be more harmful than helpful.

Mr. WILLIAMSON. In that connection, do you not think that the Federal Reserve Board which, of course, has a much better opportunity for keeping in touch with the situation as to possible inflation or deflation or an unhealthy tendency in business, was in a position to advise member banks from time to time of a tendency which is developing, with a view to correcting that tendency? Not with a view, of course, of dictating to banks what they shall or shall not do, but it seems to me a timely warning might be helpful in stabilizing a situation or preventing a situation which might otherwise develop. They could not, of course, make it public, because that would probably cause a panic, but private consultation by letter or otherwise, it seems to me, might be helpful.

Mr. NORRIS. I think a certain amount can be done along those lines. I think the banks individually can do something along that line.

Mr. WILLIAMSON. Is any effort being made along those lines at the present time by the Federal Reserve Board?

Mr. NORRIS. I do not recall anything of that kind that has been published lately.

Mr. WILLIAMSON. I do not mean published, but does the Federal Reserve Board privately advise the member banks of those tendencies which might develop a very unhealthy situation in a business way with a view to trying to correct it?

Mr. NORRIS. I do not think they have done it in several years. I do not think there has been any occasion. I do not think there has been any unhealthy situation in this country in the last few years with the possible exception that in the summer of 1924 business was at a rather low ebb. The tides were running very sluggishly and there did not seem to be any particular reason for it, and at that time the Federal reserve banks all reduced their rates to very low figures, partly with the thought that an assurance or a prospect of easy money for some time to come might give business perhaps just the stimulus that it needed.

Mr. WILLIAMSON. As a matter of fact, did it not give it the stimulus?

Mr. NORRIS. It did. I have brought with me a chart—perhaps a similar one has already been put in evidence—showing the course of the wholesale prices in the last five years, from which you will see, at the extreme left——

Mr. WILLIAMSON. I think that is covered by a chart put into the record yesterday by Governor Strong.

Mr. NORRIS. You will notice that from the time in 1923, I think possibly, or 1922——

Mr. WILLIAMSON. 1924?

Mr. NORRIS. No; in the summer of 1922—the price level got to 150. With the exception of that dip in the summer of 1924, the price level has kept between 150 and 160 or 161 ever since, and is 152 now; in other words, for the last four years I think we have had a pretty stable price level.

The CHAIRMAN. For the information of the committee, Governor Strong has suggested that he can stay here over Sunday, and I suggest, in view of that fact, that we do not hold a session to-morrow, because of its inconvenience to everyone, and when Governor Norris finishes we will hear Professor Sprague to-day and meet Monday morning at 10.30 and finish with Governor Strong.

Mr. BEEDY. I think the committee appreciates Governor Strong's staying over.

The CHAIRMAN. It is perfectly agreeable with him to meet with us Monday morning.

Mr. NORRIS. I have talked longer than I expected already and I would just conclude by summarizing my views about as follows—that the stabilization or attempted stabilization of prices is a doubtful, not to say dangerous, experiment; second, if the experiment is to be made, that the process of stabilization or action to bring about stabilization should be either by or upon directions from the Department of Commerce or the Bureau of Labor Statistics or some similar body and not by a body whose primary duty is related to credit and currency which has not enough information to act on and is not in a position to determine just what the effects of its action might be; third, that it should not be done by that board, which by reason of having such power would almost inevitably be subjected to political and sectional influences; and, finally, it should be done by a board whose powers are greater and more constantly effective than those of the Federal reserve system can possibly be.

In stating those conclusions I do not mean to say that the Federal reserve system can not or that it ought not—I do not say it ought not to give any consideration to the price level nor do I mean to say it is powerless to affect the price level. If stabilization is limited to what I would rather call mitigating or minimizing price movements, so as to make the movements slower and to cut off the peaks and smooth out the extreme hollows, then I will go along with the proponents of this or any other bill and say that I think that not only can be done, but it has been done for the last three years.

Mr. BEEDY. As I understand it, Governor, that is all anybody here thought this proposed legislation could accomplish, and the purpose behind it was that it had never been accepted as a policy of the Federal reserve system by the country to lend its efforts to any such accomplishment, and that it might be wholesome, psychologically, to adopt such a purpose, an avowed purpose, in the form of a law; not that the law would itself accomplish it, but the psychological effect would be most wholesome.

Mr. NORRIS. Of course, that involves the point that where you give authority you impose responsibilities.

Mr. BEEDY. True.

Mr. NORRIS. If you make it, by whatever form of words, the duty of the Federal reserve system, or indicate that you are looking to the Federal reserve system to do anything of that sort, then you put them in a position where, if the end is not accomplished, the criti-

cism or the resentment of the country or the people injured is going to center on them, and I do not think that it is fair to put them in that position, with the comparatively limited powers that they have to accomplish the object.

Mr. BEEDY. Then you actually have a fear that because the public would expect so much more than it was in the power of the system to accomplish perhaps more harm would be worked by the enactment of any such law that is before us than otherwise?

Mr. NORRIS. That is exactly it. While there is no responsibility of that sort imposed on us at the present time, and while, on the contrary, the striking out of that provision in the original Federal reserve act of 1913 has expressly relieved us of the responsibility, we have, as a matter of fact—and I suppose there are a great many people in the country who can not believe it—but we have acted conscientiously and done the best we knew how in our respective districts. We have realized the bad effect of extreme price fluctuations, and as far as it has been within our power to do it, without doing it for a definite purpose or acknowledging it as our primary purpose or object, we have worked in that direction.

Mr. WILLIAMSON. You think, then, that the Federal reserve system as a body have followed the policy as far as it lay within their power under the existing law, of stabilizing credits to the extent that stabilization of credits might have influenced prices—they have made an effort to stabilize the price level?

Mr. NORRIS. As you put it, I agree exactly with you; yes. I say yes, unreservedly.

Mr. WINGO. In other words, you think a declaration of this kind, which would add nothing to your powers and with the knowledge of the limitation of possible power that banks might exert, if this declaration were made, the country would conclude that you had the absolute power to automatically control the price level, and if the price level should ascend, and the producers get a better price, the consumers would shoot at you, and when the reverse was true, the producers would be shooting at you, and the result would be an open season as far as the Federal reserve system was concerned?

Mr. NORRIS. We would never have more than half of the country with us at any time and most of the time all of the country against us.

The CHAIRMAN. Have you concluded?

Mr. NORRIS. Yes, sir.

Mr. FENN. Do I understand you to tie yourself up to that proposition in reference to the Department of Commerce or was that just a tentative proposition, that if anything should be done, it should be done in that way?

Mr. NORRIS. Entirely so. Please do not think it is a definite recommendation. I say if that responsibility is to be imposed, it should be done in a way similar to that.

Mr. WINGO. You still adhere to the theory that the whole encompasses all the parts?

Mr. NORRIS. I am with you on that.

Mr. WINGO. And if you undertook to make any price level, meaning the level of the whole, the only way you can do that is to act on the parts? That is a sound, logical formula, is it not?

Mr. NORRIS. I do not know that I agree with you there. If you should say to-morrow there should be no more credit extended and that every loan should be paid and no new loans should be made, you affect the price level without affecting any particular commodity. You affect everything at once.

Mr. WINGO. In other words, the forces that would be precipitated would be unequal in playing upon different commodities?

Mr. NORRIS. Well——

Mr. WINGO. You would bring about a greater confusion and you would not have a level there—in other words, if you maintain a level and have an extraordinary depression in one group and if there was an extraordinary increase, corresponding to that, in another group of commodities, you would have a stable level and yet you might have a depressed condition growing out of both of those conditions, would you not?

Mr. NORRIS. Yes: and take another possible working of it: Suppose that the general level of prices went up, but that, as a result of a bountiful harvest in Europe or the poverty of the people there, and consequent inability to import, wheat went down. The rise in the general price level would compel us to take action to reduce the general price level, and suppose wheat was selling at 80 cents a bushel and we had to reduce the general price level?

Mr. WINGO. If we give you power—you think it wise for Congress to give you power to pull down the price of wheat where the law of supply and demand has a tendency to bring it up; do you think you should be given power to club the farmer over the head?

Mr. NORRIS. No, sir.

Mr. WINGO. What do you think would happen if you used that power?

Mr. NORRIS. I would have to keep away from Kansas.

Mr. BEEDY. You do not think any effort to stabilize prices in the way you illustrated would affect wheat or any particular commodity, do you?

Mr. NORRIS. If we adopted means to reduce the whole price level, the presumption is that it would affect—if it had any effect at all—everything in the price index.

Mr. BEEDY. It is almost futile to discuss it unless we agree on the means we want to adopt. I do not myself quite understand this discussion about price levels, but I do understand that no one who would be empowered to accomplish such a result would be interested in affecting the price of any individual commodity.

Mr. NORRIS. Of course that is unthinkable.

Mr. WINGO. If you are going to maintain a level, that is maintaining a tranquil, placid surface, is it not?

Mr. NORRIS. Yes.

Mr. WINGO. If a disturbance arises anywhere, how can you restore the level without putting down the disturbance?

Mr. NORRIS. Of course if any index were established, I presume it would be the average of 100 or 150 commodities, and nothing but an extraordinary rise in any one, two, or three of them would materially affect the average of the whole 100.

Mr. WINGO. I think they are supposed to include 404 commodities. I believe that is what they are using. Now, they want to remove violent fluctuations. If everything remained constant except wheat

in Kansas and it started up, who will decide whether that is an abnormal or violent rise—who is the supreme board of superior wisdom that will determine that under this bill?

Mr. NORRIS. You are arguing my side of the case, and, in the absence of Congressman Strong, I might say a word on his side, that I presume he would not expect any action to be taken there, because the change in the price of wheat would not appreciably affect the average of the 400 commodities.

Mr. WINGO. You say it would not?

Mr. NORRIS. No.

Mr. WINGO. Suppose it jumped in seven months' time to a 100 per cent rise; would your board feel that was an abnormal rise? When will you reach a point where you think it will disturb the level? Where does the twilight zone end between what is a legitimate, healthy rise and what is an abnormal, unhealthy inflation that threatens the stability of the economic fabric? Whose wisdom is going to be so supreme and infallible as to determine that?

Mr. NORRIS. I do not think there is wisdom enough in the world to do that.

Mr. WINGO. With all respect to the Federal Reserve Board, do you think they have that wisdom?

Mr. NORRIS. I hate to say no, with Mr. Platt here.

Mr. WINGO. If it got noised around that they have that power, would you want to be on that board?

Mr. NORRIS. No, sir.

Mr. WINGO. Take the case of the seesaw; if one end flies up suddenly, the other end has to go down. The horse, or whatever the plank is placed on, however, remains at a constant level. The average is all right, and yet you might have just as much disturbance, with wheat going sky-high and other things coming down, or, on the other hand, wheat going to the bottom and shoes, hats, and clothing going sky-high; do you think that would be considered a stable, good condition? The level is there, of course. You can appreciate the difficulties of the board, in a simple illustration like that, can you not?

Mr. NORRIS. Yes; or take another illustration: Suppose the price of agricultural products went down and the price of manufactured products went up; what would you do under those circumstances?

Mr. WINGO. That is comparable. I was using a homely expression that the farmers in Arkansas and Kansas could understand. The fellow in the air does not want to go down, and the fellow down wants to be lifted up, and that would cause constant friction, and yet you would have still, this pretty level, that looks beautiful in the show window, but the farmers would still be complaining.

Mr. LOMBARD. May I suggest that Congressman Wingo is assuming a condition that never has occurred and never will occur? As a matter of actual statistical fact, when one commodity tends to rise, all tend to rise, and the same is true when one tends to drop. Wheat rises with equal consistency with corn and other agricultural commodities. There is no disparity in the different commodities in the matter of rises. Governor Strong's charts show that all commodities seem to rise with considerable synchronism.

Mr. WINGO. Taking 1914 down to 1922, I commend your attention to your comparative tables on cotton and wheat.

STATEMENT OF PROF. OLIVER W. SPRAGUE, PROFESSOR OF BANKING AND FINANCE, HARVARD UNIVERSITY

The CHAIRMAN. You are familiar with the subject under consideration and the committee will be glad to hear you on this subject in your own way.

Professor SPRAGUE. I have no prolonged statement and am quite ready to be asked questions as I go along, although in a few instances I may find it desirable to defer the answer if it relates to something that I intended to take up later; otherwise, I would be glad to have questions asked while I am talking.

Mr. WILLIAMSON. I should like to have the record show who this gentleman is.

Professor SPRAGUE. Oliver W. Sprague, professor of banking and finance, Harvard University.

Whenever prices advance considerably there is always an increase in the amount of credit and currency; also, when there is a considerable decline of prices, you will find that the volume of credit and currency shrinks. But it does not follow that you can not, by injecting a certain amount of additional credit into the situation, bring about any particular increase in prices.

Credit is not like a reservoir of water into which, if a certain amount of additional water flows, the level rises, and if an additional amount flows in, still further rises in the level take place. Credit is applied by different individuals conducting business activities and a given increase in credit at one time will be applied in one way or one set of ways. At another time a given increase may—a similar increase will be applied to different industries and have different results upon prices. The net result may not be the same and the particular results upon particular commodities are certain to be very different on successive occasions.

I simply wish to impress the point that credit does not work in any automatic fashion.

Now, coming directly to the Federal reserve system and Federal reserve credit, it will perhaps be useful to point out that the Federal reserve act applies three varieties of limitations upon the Federal reserve banks with respect to credit. In the first place, there are provisions in the act which limit the total amount of credit which the Federal reserve banks can extend. Such are the limitations of reserve requirements. Other limitations might be applied to the Federal reserve note issue. If, for example, the Federal reserve banks were unable to issue notes except in the way they are issued by the Bank of England, then gold would be the ear-mark for every Federal reserve note outstanding and the bank reserve ratio of the reserve banks would be lower than it is now. Instead of 75 per cent it would be 60 per cent.

If anyone supposing that the loaning policies of the reserve banks will be less conservative because their ratio is at 75 than at 60, such a person would favor placing restrictions on Federal reserve notes. The result would simply be to reduce the reserve ratio somewhat.

If I accepted the views set forth by Mr. Norris a few moments ago in regard to the relation of reserve banks to member banks, I would be inclined to think that the reserve ratio should be sharply reduced,

because he seemed to indicate that the reserve banks were very nearly passive in the matter; that if the member banks came to them for accommodation with suitable paper, the reserve banks automatically granted the loans, and he further implied that even advancing the discount rate would exert very little restraint upon the demand upon the part of member banks for accommodation. I do not believe that Mr. Norris's statement tallies with the policy which, in fact, he follows, and I am very certain that is the case, taking the reserve system as a whole. I see no evidence that they have loaned very freely because their reserve ratio has been in the neighborhood of 75 per cent in the last three or four years, than they would had their reserve ratio been in the neighborhood of 55 or 60 per cent, and I should hope they would continue that policy in the future. The reserve ratio should be of no significance in the determination of policy so long as the reserves are as abnormally high as they are at the present time.

In the second place, the Federal reserve act contains limitations upon the lending operations of the Federal reserve banks by defining the class of paper that is eligible for rediscount. The framers of the Federal reserve act attach an enormous amount of importance to these restrictions, because the paper eligible for rediscount other than that secured by United States Government bonds was to consist of commercial loans. They seemed to suppose that that would impose a limit upon the volume of credit extended by the Federal reserve banks and confine the use of that credit to commercial uses. That is by no means the case.

A bank borrows because it is, generally speaking, below the reserve requirements as the result of all the operations in which it is engaged. It takes commercial paper to the reserve banks for rediscount, because that is the only kind it can rediscount. This provision only interests the member bank indirectly. It gives a slight preference to commercial loans that give a well-managed bank an opportunity to meet any requirements it may have for borrowing at the reserve bank. But in the case of a poorly-managed bank we will find in many cases they have exhausted their commercial paper by rediscount, having used the proceeds before or after borrowing in other loans. They may be stock exchange loans, or farm mortgages, or what not. The restriction upon the kind of paper that is eligible is of the slightest value either as a general limitation upon credit or in the determination of the character of business of the particular member bank.

Mr. WILLIAMSON. Will you permit of an interruption, or do you prefer to make your statement first?

Professor SPRAGUE. I will be glad to have you interrupt me.

Mr. WILLIAMSON. I do not understand Mr. Norris to state exactly that the reserve banks did not exercise any control of the amount which member banks could loan. As a matter of fact, do they not exercise or limit the loans which member banks shall make by reason of the discount rates so as to make it unprofitable for member banks to loan?

Professor SPRAGUE. Yes, but Mr. Norris told us in the case of active business, and a general demand on the part of business for accommodation, the discount rate exerts no great restraining influ-

ence. I am inclined to question that somewhat, and I will come to that in a moment. I am inclined to agree there are certain situations of exceedingly active business and widespread demand for accommodation, in which any ordinary advance in the discount rate at the reserve bank will prove not very effective; in fact, the advance of the discount rate in 1920 to 6 per cent in most banks and to 7 per cent in a few banks, was effective not so much in my judgment because of the amount of the advance, but it synchronized very much with the fact that the reserve banks had very little more to lend. It was the fact they had reached about the limit of their resources that impressed the community rather than the 6 or 7 per cent rate.

Mr. WILLIAMSON. I am not so certain about that, because most banks can not earn 6 or 7 per cent on the amount they lend, and they will certainly have to curtail loans——

Professor SPRAGUE. Most of the banks will come forward and meet a customer's demands for loans in a situation like that without looking for profit; in other words, the rates were generally above the rates charged by member banks. The average rate on new loans made by banks borrowing from the reserve banks in 1920 was not under, but above the rates charged by the reserve banks, if we except the few cases where the so-called progressive rate was applied. I will come back to that in a moment.

Now, the third, possibility of the use of the Federal reserve bank under the Federal reserve act, is found in the definition of the purpose in the act saying that the Federal reserve bank shall grant loans to accommodate commerce, industry, and agriculture. This is a very vague indication of what the reserve banks should do. In fact, I am inclined to think it has been taken to mean, in a manner rather dangerous than otherwise—it seems to me to have been interpreted to mean, at least to some extent, that every member bank should receive accommodation if it has eligible paper. The act says nothing about considering the depositor when a Federal reserve bank grants loans to member banks. They are not instructed to decide whether the rediscount of large amounts of commercial paper for member banks will jeopardize the interests of a depositor. They are not instructed to decide whether additional accommodations will be of advantage to the community as a whole, taking into account the entire situation. The word "accommodate" seems to mean simply to extend credit if the security is good, meeting the eligibility requirements and if the particular borrowing bank is not borrowing so much that it may be unduly intrenching upon the available supply to the detriment of other possible borrowing member banks.

Mr. WILLIAMSON. Perhaps I should have asked this question of Mr. Norris or Governor Strong, but does not the Federal reserve bank—a branch bank, for instance—make a practice of getting a statement from their member banks and keep them on file for the purpose of considering their statements in connection with the application for loans on eligible paper?

Professor SPRAGUE. Yes, you have the statement of the bank, the report of the examination, whether by a national bank examiner or by a State examiner; the reserve bank also has other data avail-

able for credit purposes regarding the institution, but if a paper offered by the institution is itself fairly good, that is the main consideration and if it is not quite as good as might be desired and the bank itself is perhaps not as strong as one could wish, then additional collateral may be taken in order to safeguard or provide the reserve bank with somewhat greater safeguards.

Mr. WILLIAMSON. What I have in mind, Professor, is the question whether or not the fact that a member bank whose statement shows it was overextended the Federal reserve bank would ordinarily extend credit to such a bank.

Professor SPRAGUE. Not so much now as formerly. In the period of the war, when loans were being made freely in order to finance the Liberty bonds and also war production, rather loose practices, I believe, were adopted in this matter. There was a general feeling that additional credit would encourage production and facilitate the financing of the war, and in those circumstances far too many banks reached an over-extended condition, a sort of thing that would apply to a large number of banks which subsequently failed in such a State, as I may say, North Dakota. The examination of the reports of the Comptroller of the Currency would show these banks had put all their money into the local situation, entirely depending on cattle loans or whatever happened to be the major agricultural interests of the locality; that these banks in addition had made large loans to farmers whose land was already mortgaged, the bank taking second mortgages. Now, if a bank in such a condition, while the sky is blue, borrows from the reserve bank on the best of its assets, in order to make additional commitments in that locality, when the change comes it is in a most unsatisfactory situation. That is the situation. A great many banks that failed were in agricultural localities. They had mortgaged their best assets to use the proceeds while prices were going up. The Federal reserve banks stayed with those institutions manfully, I will say, through 1920, 1921, and 1922, and the failures did not come until 1924 and 1925, and in the case of large numbers of banks they were so hopelessly involved, filled up with second and third mortgages, where they were paying taxes on the land and interest on the first and second mortgages, they could not pull themselves out.

The CHAIRMAN. You mean the announcement of the failure was delayed two years?

Professor SPRAGUE. The time to liquidate the bank was prolonged, hoping to pull through. It was unsafe from the point of view of the depositors of banks in North Dakota for the reserve banks or any other banks to lend to them while prices were going up. That would have held down land values just a little, and that is a part of the question of extension that I want to present in a moment.

The CHAIRMAN. You were speaking a few moments ago in regard to the limitations on the system with reference particularly to eligible paper. I want to ask you whether it is not a fact that the practice of using Government bonds and certificates of indebtedness by member banks either as security or under repurchase agreements with the system is not proceeding at a greater rate than was originally intended?

Professor SPRAGUE. That is unquestionably true.

The CHAIRMAN. In this supposedly elastic system, does not this practice tend to defeat elasticity in the system and permit a use of the system that was never intended?

Professor SPRAGUE. It is certainly a use of the system that was not intended because the governments were not in existence. Whether it has any effect on the elasticity I should question and for this reason, a bank does not borrow merely because it has governments but it borrows with Government notes, because it is more convenient than commercial paper. So the volume of loans of the Federal reserve banks, to a considerable part, consists of loans on Government securities. In practically all the cases, the banks could put up commercial paper, but it is more convenient to put up 50,000 of governments than 45 or 50 separate notes amounting to 50,000. I should say it was purely a convenience.

The CHAIRMAN. It was one of the main purposes of the system to take care of commerce and industry and it was supposed by making commercial paper eligible that the rediscount facilities of the system then would be in response to the demands of trade through the rediscount of eligible paper.

Professor SPRAGUE. It has not worked out that way—that is, in response to needs of banks using commercial paper because it is eligible. It would have that effect if the total amount of eligible commercial paper were far more limited than it is. If the total amount of commercial paper were a billion and a half rather than perhaps six to eight billions, I think it would have somewhat the effect expected or anticipated by the authors of the act. But you have it now widespread throughout the country in the operations of almost any bank and, what is more, increasing in face amount with prices. If prices go up 50 per cent in the case of wool, you have 50 per cent more value of commercial paper arising out of transactions in wool than before. There is no safeguard on the question of eligibility, taken by itself, and the reason I mentioned these three limitations, all of which I have said amount to very little, is to emphasize the point with which I merely started, that you are bound to rely primarily upon management for the sound conduct of the Federal reserve system. You are bound to give them large power to extend credit, limit them though you may here and there, because they have situations to meet which require a large extension of credit and if you narrow down the total volume of credit that they may extend, you are going to make it impossible for them to meet certain situations or at least incur hazards.

The CHAIRMAN. In the example given of the use of Government bonds, I wonder whether we are not using the system in a different way than originally intended.

Professor SPRAGUE. I think if you eliminated Government bonds from eligibility, it would inconvenience a few banks, but that the bulk of banks would not be inconvenienced at all; that doubtless it would make for high rates on future Liberty Bonds and drop the price of those outstanding, but I do not believe that the total volume of reserve bank credits outstanding would have been appreciably other than it is if you, two years ago, had passed a law eliminating Government bonds from rediscount.

Professor SPRAGUE. No, sir. I do not test it at all by the nature of the assets they have bought. I test it entirely by the volume and I think that would simply have resulted in a change in the kind of assets rather than the amount.

The CHAIRMAN. You do not think it would be more easy to divert credit and funds to a speculative market through the use of Government certificates than through the use of commercial eligible paper?

Professor SPRAGUE. No. Let me take one bank I have in mind; I happen to know, as a matter of policy this bank has about $40,000,000 of eligible stuff on hand right along. I do not think it has borrowed over $5,000,000 at any time during the last five years and it does not anticipate that it will. The bulk of its holdings, I believe, are in or consist of commercial paper and if you eliminate governments, I suppose they might be inclined perhaps to relieve themselves of their governments or possibly shift from something else that is not eligible, into eligible paper. That is the method which they use and I think it is common. It has simply influenced the investments of banks a little in one direction more than in another.

Mr. BEEDY. May I have in the record, for the benefit of those who may perhaps read it and for the benefit of some of them who may perhaps be like that class who are inclined to dub college professors as theorists and impractical, that it is a satisfaction to some of us on the committee to find that the majority of witnesses here and who are authorities on questions of economics have agreed in all fundamentals with our practical bankers.

Professor SPRAGUE. I had anticipated disagreeing with some of my professional colleagues before I finished, sir.

Mr. BEEDY. I have no doubt of it, but I say the bulk of them, on the fundamentals, seem to be in perfect accord with the majority of our bankers who have testified here.

Professor SPRAGUE. Now I come to the particular proposal of this bill which would be an addition to the third step of provisions as I have outlined them found in the reserve act, to add as a further indication of proper use of the resources of the Federal reserve act, that that should be used in such a way as to stabilize prices to avoid inflation and deflation.

I have no doubt I shall be asked my definition of "inflation." So I hasten to say what I have in my mind on that point. I regard inflation as a condition—a condition marked in its development, among other things, by a rapid rise in prices, continued for a number of years, which manifests itself in the business world by the appearance and development of a sellers' market, extending over the entire range of commodities, a condition in which business concerns enlarge their capital in the endeavor to produce additional quantities of goods in anticipation of an increased demand for such products at rising prices, and, consequently, increase their capital equipment without regard to the fact that it is increasing rather than reducing their unit costs of production.

It manifests itself in a particularly serious form in connection with agriculture, because it results in the transfer of land at increased prices, with a growing burden of mortgage indebtedness.

We have, as a result, a gradual deterioration in the quality of the assets of the banks; you have people more and more making commitments which depend for success upon a still further increase

in prices and in these circumstances the demand for credit becomes more and more insistent, and if supplied it affects prices of all sorts. There is a general increase in these circumstances of prices all around; it does have very much the effect of an additional quantity of water pouring into a reservoir.

Now a condition of that sort comes to a head finally. It may be deferred a bit by loose grants of credit on a liberal scale; it can not be deferred indefinitely, and I know of no instance in which a wild period of inflation has ever corrected itself without a collapse; and, consequently, this seems to me to have been strikingly the case in 1919 and 1920. I would not want to say that the period of advance could not have been continued another year if the reserve banks had had additional resources, but I am confident that the condition in 1921, had that advance been continued, would have been worse in its consequences than it was in 1920.

Mr. WILLIAMSON. In that connection, may I ask, Do you think that the Federal reserve system at that time could have prevented prices descending as abruptly as they did, by a different policy of handling credits; in other words, could it have extended over a greater period of time?

Professor SPRAGUE. As far as agriculture is concerned, I doubt whether it would have been possible, since a large quantity of additional credit was extended in agricultural regions in the latter part of 1920 and the first part of 1921. I think that the situation had become so very unsound as regards the quality of the assets of the farming population that the difficulty was mainly after the prices began to decline, so that the quality of the assets had become for the time being inferior.

When you have reached the trough, or approached the trough, of the period of deflation, after inflation, I have no doubt that a bit of stimulation will hasten the recovery, but I think that hastening of the recovery will come far more largely in the case of industry than it will in the case of agriculture. Inflation and its consequences are far more serious in agriculture than they are in industry, for the reason that the farmer's home is tied up with his productive activities, and it is far more difficult for him to shift to some other occupation. It means leaving his locality.

Inflation can be endured by industry, but it is the most horrible calamity in the case of agriculture; and if by any means it can be obviated it certainly should be done.

I take the view that the Federal reserve bank can influence and restrain a first-class inflationary movement of the type which I have mentioned.

Mr. STRONG of Kansas. That is what I wanted to ask you, after my friend's question. Could they not have tended to stop the inflation?

Professor SPRAGUE. They could not do it in 1919 because the policies of the Federal reserve banks were absolutely controlled by the United States Treasury.

Mr. STRONG of Kansas. But after the war, how was it?

Professor SPRAGUE. After the war they were absolutely controlled by the United States Treasury.

Mr. STRONG of Kansas. Up to the peak?

Professor SPRAGUE. Up to the peak. Mr. Leffingwell, who was handling the loans for the United States Government, insisted that rates be low until after he had floated the Victory loan and for a period of years thereafter.

Mr. WILLIAMSON. Let me make this inquiry in that connection: If my recollection serves me right, the Federal reserve discount rates began to rise very rapidly in the fall and winter of 1919, and continued over into 1921?

Professor SPRAGUE. There was a very slight advance in the autumn of 1919, and they reached considerable heights at the end of May, 1920.

Mr. WILLIAMSON. We reestablished the War Finance Corporation along in May, 1921, for the purpose of taking care of the agricultural situation?

Professor SPRAGUE. Yes.

Mr. WILLIAMSON. Could not the Federal reserve system have held up agriculture by a liberal policy of credit extension during that period when the War Finance Corporation was out of commission, having expired as a matter of law, until the War Finance Corporation got into operation again?

Professor SPRAGUE. It involved making a class of loans which the reserve banks were partly organized to take care of; and I think we may further say that the reserve banks in numbers of the agricultural districts were already very badly overextended and were borrowing from other reserve banks.

Mr. WILLIAMSON. I think that is correct.

Professor SPRAGUE. And I might say that I do not think we can get very far in remedial legislation by considering just what method might best be adopted, after we have had another period of inflation analogous to that in 1919–20.

That seems to me to be rather "threshing over old straw." What I am interested in is to determine whether it is possible by means of the reserve banks to prevent the development of any period at all analogous to that which collapsed in 1920, and I think that that is possible, for this reason, as Mr. Norris has pointed out at the outset, the Federal reserve banks of a period of rising prices may not be in a position to exercise very much control over the situation, but they are pretty certain to be able to exercise a great deal of control long before prices have advanced far.

If we start with a price level now of 150, I think it is quite possible that prices might go to 160 without very much resort to Federal reserve banks for accommodation.

I am not certain of that, but I think it is at least possible, but I am very certain that prices could not go to 190 or 200 without large drafts upon the resources of the Federal reserve banks by the member banks in the form of rediscounts, or enormously large operations of open-market descriptions initiated by the Federal reserve banks.

There, it seems to me, is bound the responsibility of the Federal reserve system in case of the development of another inflationary situation, and I think one can say that they are bound to act in such a situation, even if you assume that they are narrowly to confine themselves to a concern with the soundness of the credit

situation. The credit situation is not sound when a widespread sellers' market has developed, when all classes of business men are stocking up—dealers with raw materials and merchants with finished goods; and when they are making commitments for future delivery of commodities on a much larger scale than their previous requirements, because of the fear that they will not receive full deliveries on their orders.

When such a situation has developed and member banks all over the country are presenting commercial paper to the Federal reserve banks for discount, on pure credit basis, the situation is one which requires discrimination on the part of the Federal reserve banks, in granting credit to the member banks. And that can take a variety of forms: It can take to some extent the direction of an increase in the discount rate, which may exert some restraint—one can not tell how much, and it will doubtless vary in different situations. One can apply it to the various banks that are becoming continuous borrowers at the Federal reserve banks. I think one may lay it down as a general principle of sound application that no member bank should be a constant borrower at the Federal reserve bank.

Now, if that is the understanding of member banks, if they recognize that they are expected to borrow only to meet temporary drafts upon their resources, or seasonal requirements; that it is only in highly exceptional situations that they will be allowed to borrow permanently—there you have a decided check upon the member bank, if every member bank must clean up every year. Where there is a crop failure or something of the sort that needs nursing, you have got a situation which will prevent that kind of extraordinary expansion of reserve bank credit which is required to develop an inflationary condition of the first order.

The CHAIRMAN. I want to refer to my last question to you: I rather infer from what you have just said that in response to a legitimate demand for credit it does not matter how the credit gets out of the Federal reserve system, either on commercial paper or through loans to banks, or through repurchase agreements of Government bonds, so long as the credit is extended legitimately. Am I right in inferring that?

Professor SPRAGUE. No; I said, if I get your point, that the main thing is the volume, the aggregate amount of reserve bank credit.

In the process of dispensing reserve bank credit to the individual bank, this is one way of affecting the volume, that you do not sit back and simply say "If a bank comes in here with eligible paper, we will take it, and that we will take some more when that matures": and the bank can operate on the view that it can loan indefinitely as long as it has eligible paper to carry these borrowings at the reserve bank. The idea of seasonal clean-up is one restraint that could be desirably felt by the reserve bank. Another one is, of course, the discount rate.

These are direct means of affecting the volume by affecting the demand for accommodation at the reserve bank, in periods when we have a runaway market and a general upward swing of prices, if such a thing develops.

I do not very much care whether the bank borrows temporarily on Governments or whether a bank borrows temporarily on commercial paper; what I am interested in is that it should not be a permanent borrower on anything, and I am most interested that not very many banks shall be permanent borrowers on anything, whatever it may be.

The CHAIRMAN. I infer from Governor Norris that while loans were made to member banks by the Federal reserve banks on 15-day periods, that those notes were periodically renewed and continued from time to time. Is that the class of a loan that you have reference to that should not exist in the system?

Professor SPRAGUE. Why, no; I should think it might exist, and if a bank, for example, in Arkansas is assisting customers in their cotton crop, I think it is perfectly proper that that bank should come into the reserve bank, if it is a well-managed institution, and borrow from the reserve bank of St. Louis all through the summer, spring, and autumn and a reasonable time to clean up and market that cotton in the autumn. But I do not want to see that bank, perhaps a poorly-managed bank, carrying over those loans into February and March for the entire twelve months; and then the next year wanting a little bit more to help market that cotton crop and then the next year a little bit more and thus steadily increasing, and so on, swelling and swelling.

The CHAIRMAN. Now that those banks are given the right under the law to discount, under certain limitations, so long as they do not exceed that amount, you would by administrative act of the officers of the Federal reserve banks limit them, would you?

Professor SPRAGUE. I certainly would. It is a different proposition that in the interest of the depositors of the bank no bank ought to be allowed to come into the Federal reserve bank and to rely upon it—it is a bad influence upon the bank. Before we had the reserve system we had a limitation that no bank should borrow at any time more than its capital and surplus. That limit is absolutely removed by the Federal reserve act so far as the Federal reserve bank borrowing is concerned, only being limited by the amount of commercial paper that that bank may have. But it is unsound credit practice that a bank should be a constant borrower or should suppose that it might be a constant borrower.

That covers only a particular situation—that with reference to an exceptional inflationary period, one which presumably will hardly develop more than once or twice in a generation, and does not cover the sort of a case represented by most of the situations, which apparently will be covered under this proposed act.

I confess that I am unable to decide in my own mind what the advantage or result of inserting this provision in the reserve act would be. I am very certain in my own mind that it is not possible to handle the ordinary oscillations of prices effectively by means of the reserve bank operations. Taking it at the present time, for example: We have a decline of seven points in prices in the last few months. What would be the process by which additional credit might be injected into the situation? Presumably by open-market operations. Now, open-market operations in the United States are almost exclusively operations in the New York money market. If you look at the statement of the reserve banks you will observe that

every one of them holds a quantity of government securities and also a quantity of bank acceptances purchased in the open market. But they did not purchase those in their own markets. The Dallas bank does not purchase bank acceptances in Dallas or Governments in Dallas, they are bought for the Dallas bank in the New York market. The same is true of the other Reserve Banks, with the exceptions in the case of Philadelphia, Boston and Chicago. Practically you can only inject credit into the situation in volume by purchasing Government securities or bank acceptances in the New York money market or from the New York market, and it is true that the credit you let out there may gradually seep into the entire situation throughout the country.

What, then, may be supposed to be the result of, say, an additional amount of credit injected into the situation now? And how much must we inject to accomplish a particular result, and what will those results be? The present decline in prices, to my way of thinking, is merely a desirable testing-out of the situation in a good many directions. I believe that a steadiness in business operations is far more likely, if from time to time there is a slight decline in prices, leading to some little further discrimination on the part of member banks and the granting of loans for particular operations. But, aside from that, what are the prices that would advance if some further credit were injected into the situation? I do not know. I can only say that I suppose that prices would advance for which there now happens to be, relatively speaking, a stronger tone in the market. If the tone in the cotton market is not strong, then it will not be cotton, presumably, that will advance in price. What it may be, I do not know. But this advance in the price level now from this moderate decline, would affect particular commodities; it would not be that kind of an advance in prices that I characterized as coming when you are well along in a period of inflation, when practically all prices are bounding up, even though somewhat unevenly.

You might get as a result further credit in the situation to meet the average price brought back to 160, but whether agricultural prices would advance the necessary 10 points or only part of it, and whether certain industrial prices would advance the 10 points or more than 10 points to bring up the average, I am entirely unable to say, and I do not believe that the price situation can be directly attacked then under conditions of moderate variations such as we find at the present time. There may be grounds for believing that it would be advantangeous at the present time to inject some credit into the situation by buying some securities or acceptances by reserve banks in the New York market. I should be inclined to think so if I were of the opinion that we had about reached the term of the present decline in prices, that things were about ready to move upward and that perhaps the injection of a couple hundred millions of credit would hasten the upward movement a little.

But I certainly should not want to have that done in February or January, on the first sign of a slight decline in prices, for I should have felt that it would probably have tended to continue to render a bit more serious certain unhealthy conditions in the situation—not seriously unhealthy now, but which would have become a bit more so had the credit been injected in the situation in January.

I should not suppose that the reserve bank people would be compelled to give any more attention to price changes in the determination of their discount policy if this provision were inserted in the act. I am sort of fearful that it might give rise to misunderstandings as to what they are expected to accomplish.

I much prefer the simple statute, so far as these matters go, to that under which the Bank of England operates. I feel that you are bound to rely primarily on management in the conduct of this reserve system; that you can not expect to accomplish any one thing surely by its operation and, therefore, I am inclined to feel that it would be better to leave the system alone, so far as this particular legislation is concerned.

I might add that no central bank, so far as I know, has ever assumed the responsibility for the stabilization of prices; certainly the Bank of England has not. The Bank of England's credit policy in the past has been primarily determined, so far as external indications go, by gold movements and foreign exchange rates.

The CHAIRMAN. Professor Sprague, you mentioned a moment ago some direction to the Bank of England. Is that some specific direction?

Professor SPRAGUE. No; there is practically no direction. They have a free hand so far as their policy is concerned.

The CHAIRMAN. It is an administrative matter entirely, is it?

Professor SPRAGUE. Absolutely; and until the war period I do not think that it probably ever occurred to the management of the Bank of England to determine their discount policy by the course of prices directly, although naturally the course of prices must have had some influence upon foreign exchange rates and the gold outflow and the gold inflow. But the Bank of England had so narrow a margin of reserve, its reserve ratio fluctuated within such narrow limits that they could not go very far in either direction. Prices could not go very far upward in England except in times when there was a world movement. Prices could go up in England from 1904 to 1907 because prices were going up elsewhere. It did not involve the outflow of gold, and the Bank of England, one may say, was quiescent in the situation.

I believe that the management of all central banks is giving far more attention to price movements and other indications of business conditions than was formerly the case, and I fancy that it will be in the next 20 years a very much more considered factor in central bank policy than it has been.

The CHAIRMAN. I was not speaking of central banks. You are speaking of central banks in other countries than the United States?

Professor SPRAGUE. Yes.

The CHAIRMAN. Under this regional plan of 12 banks here, are those same rules applicable, and do they apply to our system here?

Professor SPRAGUE. In this connection, I should say the Bank of New York was the only primary bank of any consequence—I will develop that if you like.

The CHAIRMAN (interposing). Governor Norris of the Philadelphia bank is here and he might have some ideas about that.

Professor SPRAGUE. That is true. But unless there is expansion of credit in the New York Reserve Bank, which controls 40 per cent of the resources of the reserve system, there will not be any pro-

nounced and can not be any pronounced expansion in other parts of the country. There would be too great an adverse balance of payments against the other districts to permit them to go very far.

It is exactly the same situation in this respect that applies as between the different European central banks, that you could not have in Brussels, Amsterdam and Geneva a first-class credit-expansion movement unaccompanied by one in Berlin and Paris. I refer now to the pre-war period and as the situation will be when they all get on a stable basis.

Any degree of prosperity and of price advance and all the rest of it associated with inflation, will appear in the New York market probably long before it is spread throughout the entire country, although it might begin in some one section; and if credit is held down in New York you need not fear that the other districts will be able to develop a runaway market.

On the other hand, if they all adopted the reverse policy of sitting tight, probably New York would not go very far. But the situation is further different in this respect, that in other districts local conditions mainly count in the determination of the demand for credit. In the New York market you have conditions reflecting the situation throughout the entire country and, indeed, in other parts of the world. It is the pulse or heart of the system, and no amount of modification of district lines or anything of that sort could change the situation.

I am inclined to think that about as much weight is now or is likely to be attached to the matter of price movements as we are warranted in attaching to that factor in the present state of our knowledge and our experience. I believe that the movement of prices means such different things in different situations that it would be unfortunate to adopt in legislation a provision which would seem to compel action in a particular way because of any given amount of change in the level of prices.

If, however, this were a factor that was not likely to be considered in the determination of credit policy, in the absence of its insertion in the Federal reserve act, I certainly should be in favor of putting it in. But there are a great many things that I might like to see and I think are considered and will be more considered in the management of the Federal reserve system. I might like to see a provision inserted that the banks should take into account the depositor—safety of the deposits of a bank in extending accommodation to it, but although I would hope that something that will be considered more and more in the future in granting loans to member banks, I do not want to see it put into the statute.

Mr. BEEDY. May I say right here that I do not state that I have been impatiently listening, but I have been interestedly listening. Do you differ from some of these practical bankers? The only difference I discern between you and your views and theirs is that you boldly assert that the Federal reserve system does have the ability in some measure to control the price situation, for instance, to some inflationary point, or the opposite?

Professor SPRAGUE. Yes.

Mr. BEEDY. While they timidly admit it. [Laughter.]

Professor SPRAGUE. Perhaps it is because they were considering mainly these moderate oscillations of prices.

Now, I would like to take up one more point: I think that the statements have been made here to the effect that it is largely due to the Federal reserve banks and their wise credit policies that we have had such a degree of price stability as we have enjoyed during the last four years. I do not believe that that degree of stability is to be in the main attributed to the wisdom of the managers of the Federal reserve banks. I consider it primarily due to the attitude of the business community which continues to recall the losses which it had experienced in 1920–21. The business community has been in a state of mind ready to take in aid at very short notice indeed.

Most emphasis has been placed upon the upward movement of prices which culminated in the spring of 1923, when many people were of the opinion that we were in for another period of general inflation unless something were done. I am utterly unable to agree with that view, and for this reason: Agricultural prices were at that time out of line with industrial prices, and I know of no instance of a decided inflationary condition developing which did not start with a fairly sound situation as regards prices between agriculture and industry, and a fairly complete liquidation in agricultural regions of the wreckage from the previous period of inflation. I do not believe, in other words, that any sort of loose credit policy by the Federal reserve banks of 1923, if it had been adopted, would have initiated a boom; it might have led to a bit further advance in price levels for two or three months, but then I believe things would have sagged off just as they did in 1924, in 1925 and again in the present year, 1926.

I think it is highly dangerous to assume post hoc, ergo propter hoc fashion, that because certain things were done by the reserve banks in a certain year that certain other things that happened were the consequence of those policies. We certainly do not know —we haven't yet been tested in the degree of control that can be exercised at excessive stages in the period of advance, the degree of control that can be exercised by the reserve bank by slight changes in its discount rate and by its open-market operations. I should prefer to see this matter tested out in that freedom from direct responsibility which would follow from merely leaving the matter to the government of those intrusted with the management of reserve banks and to the Federal Reserve Board.

The CHAIRMAN. You have emphasized that which, of course, many of us recognize is a fact—the important part the Federal Reserve Bank of New York plays to the whole Federal reserve system.

In that connection, this inquiry comes to my mind, as to whether or not the system is not perhaps suffering to some extent by having the Federal Reserve Board located in Washington rather than in New York—which is away, really, from the head of the whole system—where they would have prompt and accurate knowledge of transactions.

Professor SPRAGUE. I do not think so.

The CHAIRMAN. I do not mean that as an attempt to deplore the very able management of the New York bank in any sense. But these days we hear a good deal about political control of the Federal reserve system. I was just wondering whether perhaps the fact

that the Federal Reserve Board was located in Washington, which is the political center of the country, that change might not obviate the possibilities of political control being exercised here on the board, their being located in a political boiling pot, so to speak.

Professor SPRAGUE. I do not think that the Reserve Board in any event should be located in New York, even if I took the view that it might better be somewhere other than Washington; and my reason is this: Most of the problems which confront the New York bank are problems of mass credit influence; they can be studied to a very considerable extent from the outside. A person familiar with central bank problems can go into the Bank of New York and readily follow the course of that bank and learn its policies and understand them readily.

When, however, you come to the Reserve Bank of St. Louis, or Minneapolis, you have a very different set of problems, They are not mass credit problems at all; they are mainly problems of a bank which is a loaner to a group of banks, most of which do not ordinarily have a sufficient volume of resources to meet the local demand for accommodation. They consequently tend to become overextended and are comparatively little influenced by the discount rates. I feel that the problems of these inferior banks are of the utmost importance for the satisfactory functioning of our banking system. The number of bank failures in those sections of the country has been enormously large. All of the bank failures that were failures of member banks were institutions that were heavily indebted to the Federal reserve banks. The borrowing of most of the failed banks and of a good many others were not of advantage to the communities served by those member banks—simply enabled borrowers to secure loans that would have been better if they had never secured them.

These seem to me to be matters of the utmost importance in the conduct of the Federal reserve system. They are rather obscure from one's vision, if one is dwelling in New York and concerned with the operations primarily of the New York bank; and if I would say anything as regards the relative attention given here in Washington to the functioning of the reserve system, I should be inclined to say that relatively too much attention has been given to the operations of the New York bank and relatively too little to the operations of the other banks which are perhaps less conspicuous. But I consider that it is in some ways easier to run the New York bank well than it is to run the St. Louis bank well, just as I think it is very much easier to run a bank in New Jersey than it is to manage a bank in North Dakota.

Your bank can hardly fail if you are running it in New Jersey, unless you are dishonest; whereas it requires a great deal of ability, a great deal of strength of mind and conservatism of temper to run a bank successfully and be of service to a community in North Dakota: and the same difference presents itself as between these different reserve banks.

The CHAIRMAN. From that statement, Professor Sprague, I would assume that you would attribute the bad banking situation in the Northwest to lack of proper administrative officers to cope with the situation such as they have had during that period of adjustment.

Professor SPRAGUE. It is a more difficult region in which to operate a bank successfully than a region in which there is a variety of industry and an accumulation of capital in excess of the local requirements. Practically no New Jersey bank will be found investing all of its funds in the local situation; it will have outside paper and bonds, and so on; consequently, if it borrows it can liquidate by merely liquidating some of its outside investments. The bank in Oklahoma will usually be found to have put all of its funds of its depositors into the local situation. If it secures local government deposits from highway bond issues or something of that sort, it will promptly put them into the local situation, and it is likely to go to the reserve bank as a borrower in order to further announce in that situation, and it will have almost all of its loans in a single basket—one particular kind of industry.

Mr. WILLIAMSON. I am not from North Dakota, but I do not want to let the chairman's suggestion here go unchallenged, which would indicate that the North Dakota bank fails because of bad management. I do not think that is the situation. We have some as able bankers in the Northwest as anywhere in this country and just as conservative bankers as anywhere in this country. But the situation that confronted them was this: They were mostly loans upon cattle, hogs, wheat, corn—mostly upon cattle and hogs. But it must be remembered that the deflation which occurred in 1920–21 on the farm products were such that the cattle, for instance, which were worth in the neighborhood of 18 or 19 cents, and in the fall of 1919 hogs got as high as 20 and 21 cents; cattle were only worth about 7 or 8 cents in the fall of 1921, and hogs had fallen to about 9 or 10 cents a pound. No reasonable amount of foresight could have foreseen the situation where the drop would be as much as two-thirds of the value.

Professor SPRAGUE. I quite agree, and I simply said it was more difficult on the whole to operate a bank; that the conditions are more difficult that you will have to encounter than is the case with banks in New Jersey.

Mr. WILLIAMSON. And we had this additional difficulty, and it was that the loans of our local banks, both in North and South Dakota were called by the banks from whom they had discounted paper; they were compelled to meet those loans, and they had no way of liquidating the loans which they themselves had made to their customers.

Professor SPRAGUE. All of their money was engaged in the local situation.

Mr. WILLIAMSON. Exactly so—engaged in the local situation and secured by property which had fallen in price from half to two-thirds.

Mr. BEEDY. I did not understand, Mr. Chairman, that the professor meant any reflection on the bankers of North Dakota, but rather was reflecting on the bankers of New Jersey who were considered simply dishonest when failure comes.

Professor SPRAGUE. Well, to avoid failure; and I think that is shown by bank failures, if you will look over the list nearly all of which in the northeastern United States were caused by the dishonesty, embezzlement, and that sort of thing—undue loans to officers, which comes very close to dishonesty.

The CHAIRMAN. Are there an other questions to be asked Professor Sprague (after a pause)? Have you anything further to add, Professor?

Professor SPRAGUE. I think not; it is rather late in the afternoon.

Mr. WILLIAMSON. There is one question I would like to have the professor answer, and that is in what manner can the Federal reserve system stabilize credits and to what extent can they stabilize the price levels?

Professor SPRAGUE. I think they can prevent extreme advances in prices, and thereby avoid sharp, sudden declines. I do not think that they can serviceably attempt to meet sliding oscillations in credit, whether in an upward or downward direction; and I am not certain as to just when they should endeavor to apply the brakes. I do not think that the price index furnishes a definite enough guide—it is one of the factors in the situation which may lead to an endeavor to influence the situation a little by early action, such as the sale of a certain amount of securities that they may hold, or an advance in the discount rate. There is not any rule or any formula that is, by the hastily putting any practical suggestion into the statute.

The CHAIRMAN. What part would notice to the public by the Federal Reserve Board or Federal reserve banks have on the situation, Professor?

Professor SPRAGUE. I think that that would lead to an attempt to establish a formula, that is to say, suppose that a public pronouncement is made explaining why a reserve bank advanced its rate, and "put on the screws," or otherwise, and the statement was made as part of that explanation that the price index had gone up six points. Well, thereafter everyone would begin to watch that index to see whether it had gone up six points or was about to go up six points, and it might be well to advance the rate when it had gone to only five or four, or perhaps not until it had gone up seven or eight.

The CHAIRMAN. I was prompted to present that question to you because of the widespread discussion we have had after the meeting of May, 1920, of the Federal Advisory Council here, in which they have been accused of having caused all of the deflation—the subsequent drastic deflation of that period.

Professor SPRAGUE. Well, I feel about that just as I do about the stabilization process credited to the Reserve Board in 1923. I do not believe that in 1920 the reserve system was responsible for very much of the decline in prices, and I do not believe in 1923 they were responsible very much for stabilization; and, as I said before, I think it is far more important to consider methods, if there are such, through the reserve system, of preventing a wild inflationary movement.

Mr. CANFIELD. You spoke of the present period awhile ago, Professor, as to what would enter into it. Do you consider we are going into a period of deflation at the present time or inflation?

Professor SPRAGUE. I do not. I rather anticipate that this is a movement, not very different from that which we have had during the last two or three years, an oscillation in prices.

Mr. CANFIELD. Stable prices?

Professor SPRAGUE. Yes.

Mr. CANFIELD. What we have had the last two or three years has been stable prices; there has not been much fluctuation?

Professor SPRAGUE. But I think we have not had anything which demanded control. You are never going to have a decided decline, I take it, from the existing level, which has not been preceded by a sharp advance from this level; that is, I can not imagine that our price levels should drop down, let us say, to 125 from the present level. There is nothing in the situation in the way of over-extension of business enterprises, stocks of goods, and so on, which could possibly, as I say, bring about a sudden collapse of values so that the price level would have been down to 125. It may go off slowly, and I do not know how far it will go. But the decline will be slow, will be gradual, because we have been on about this level for so long.

If we went into a period of extension and prices went up to 175 or 200, then the situation would be one of those delicate situations which might culminate in a sharp decline in prices as of 25 or more points. But you must have an over-extended condition, a bad adjustment of the industrial forces of the community, a large volume of outstanding values maturing, and so on, to bring about a sudden deflationary movement; and whether you can moderate that movement and so go down from 200 to 150 a little more slowly by a slightly different policy on the part of Federal reserve banks, I do not know. All that I say is operate the Federal reserve banks so that we do not go up to 200.

Mr. WILLIAMSON. There is only one more question I desire to ask in this connection: Assume that the wages of labor and the prices of manufactured goods and farm products, etc., had come to an approximate fair stabilization in relation to each other in 1913, do you think the time is going to come again when these different price levels, different kinds of commodities and wages will again stabilize themselves to a point where you have an approximate stimulation as in 1913 of farm products and manufactured products and the cost of labor—will there be a tendency to come back to the same situation, or will the tendency be to an entirely higher level?

Professor SPRAGUE. A higher level, but perhaps the same relationship as between the different groups in the community.

Mr. WILLIAMSON. Then, it will mean that so far as the dollar is concerned, it will never have the purchasing value again that it had in 1913.

Professor SPRAGUE. That would be my guess; and I think it most undesirable to attempt to bring that about, and I do not think it will be brought about of itself, for I think we have been sufficiently long upon this level to give one reason to presume that it is more or less permanent, unless conscious efforts in the way of credit contraction are adopted to reduce prices.

Mr. WILLIAMSON. Is there a sound basis for believing that the price of farm products will gradually come up to a point where they will occupy about the same relationship to prices as in 1915?

Professor SPRAGUE. I think so, but it will involve either a lowering of the unit cost of production or a contraction of production. I do not know enough about agriculture to say. But mere increase in agricultural production, without a reduction in unit costs could get the farmer nowhere, I suppose, because it would devolve in further

decline in prices; and that is one thing I had in mind in my earlier statement, that readjustment involving a contraction of the farm area is peculiarly painful and slow, because the farmer's home is tied up with his productive operations, and that was the most damaging results, I think, following the inflation of 1919, that land values had not gone up portentously until about the last 12 months before the break. A great deal of the financial trouble in agriculture seems to me to have been due to the developments of the 12 months just preceding the general decline.

Mr. BEEDY. Referring to your answer to Congressman Canfield, you suggested that there might be a gradual recession in prices from the present level, and how great a recession you were unable to say; though you suggested that might be so?

Professor SPRAGUE. Yes.

Mr. BEEDY. Is there anything in the present situation that would lead you to expect any marked recession in prices from the present level?

Professor SPRAGUE. No.

Mr. CANFIELD. Is there anything that would suggest that there would be a gradual increase in price levels at the present time?

Professor SPRAGUE. Why, I do not anticipate it until you get a satisfactory situation in agriculture. I think that will always hold down any decided general advance in prices.

Mr. WILLIAMSON. Because of the lack of purchasing ability on the part of the farmer?

Professor SPRAGUE. Yes; which, of course, becomes more extreme as your industrial prices go up.

Mr. CANFIELD. How are the agricultural prices going up when manufacturers are receiving Federal aid, labor has received Federal aid, and the farmer has been given no consideration? (No response.)

Mr. LUCE. It might not be useless at this point for the record to show that reports printed within a day or two indicate that the farm population of the country diminished last year by 479,000, that being the number of persons who were transferred from the farms to industry.

But, returning to the problem directly before us, may I ask one question? From what I have heard of the testimony, it seems to be agreed that in the last three years the Federal Reserve Board has taken an affirmative and positive attitude in the matter of its relationship to industry and business and prices. Prior to that time, for 10 or 11 years of the life of the board, there is no considerable proof of activity in that direction. I take it that we are concerned here primarily with what attitude we should assume for these last three years. If I understood your idea, you hold that authority carried with it responsibility. We must assume, of course, that this authority exercised in the last three years has been legitimate; otherwise, of course, it would be desirable to recognize that it was illegitimate—but assume that the authority has been legitimately exercised from the broad point of view of governmental procedure, should not the responsibility also be recognized? Is it, on the whole, a prudent thing in the long run for governmental agencies to exercise authority which is not specifically defined in the law?

Professor SPRAGUE. I am not sure that the course of prices has been consciously and definitely the primarily determining factor in the policies which the reserve banks have adopted during the last three years.

Mr. LUCE. I did not imply that in my question. I had in mind the discussions that have gone on in some of the leading financial papers, particularly as to the activities of the board in the open market by buying acceptances, and dealing particularly in foreign bills—I am broadening out my question to its widest aspect: Should any governmental agency primarily exercise authority without the responsibility being solicited upon it by definite recognition in law?

Professor SPRAGUE. I think that if you were to adopt in legislation something like the blanket list of factors for determination of valuation that the Supreme Court laid down in the Smythe *v.* Haynes many years ago, that it would do no harm; that is, you might enumerate in the statute all of the factors that you or any member of the reserve system could think of as remotely bearing upon the determination of discount policy, and put them all into the statute, saying that the reserve banks are authorized to consider all these factors; and it would do no harm.

If, however, you concentrate upon a single one, you are doing something more than saying that "This is a factor which any reasonable man might bear in mind and give varying degrees of importance to at different times; you are saying that they are to direct their policies so as to accomplish a certain result. I am not certain that they have directed their policy with the purpose of accomplishing that result in the past, and I consider that it happens that prices have been fairly stable in the last few years, and I think they would have been stable if a somewhat different policy had been adopted by the Federal reserve banks within any limits which the general situation would have warranted them to take. They could not conceivably have had a discount rate of 6 per cent at any time these last three years and could have hardly had a discount policy with a rate of 2 per cent. But within the range of reasonableness, taking all factors into account, they might have had a rate of 3½ in New York rather than 3 at certain times, and perhaps a rate of 3 at Boston rather than at any time 3½; and they might have bought a hundred millions more or less of Government securities at one time rather than another, and I do not believe the price level would have been appreciably different from what it has been; possibly it would have been a little different, but just how much I am unable to say. And that is why I am unable to assent to the view that because in a particular period of three years the conservatism of the business community prices have been fairly stable, that it has been due to particular policies that the Reserve Board happens to have adopted; and if they have adopted the particular policies they did adopt with the purpose of maintaining stability in prices, it does follow that the stability actually achieved was due to those policies. They may very well be mistaken and attribute more importance to what they have done than properly attaches to it.

So that for the immediate future and until perhaps there has been more discussion of this problem by the public, I should be disinclined to see this measure put upon the statute books. However, I think

it is discussion all to the good, because it gets us away from the view that the reserve banks are automatically to grant credit to any member bank that comes along with some eligible paper.

Mr. LUCE. But, returning to the matter of purchasing foreign bills, to which the strictures have been particularly aimed, the board either had or had not the authority to transact that class of business. Assuming that it had the authority, is it wise to make that definite thing law or to leave it to the good judgment of the board?

Professor SPRAGUE. Again, that is one of those powers that seem to me naturally to arise out of the nature of the business of a central bank. A central bank, especially in this country, the one operating in New York, is naturally concerned with the gold movement, with foreign exchange rates; and in these particular circumstances of the present time, not merely that bank but the community at large, is desirous that stable exchange should be established in other countries, and this seems to me just an ordinary method of facilitating that very desirable consummation. It is something that central banks have done in relation to each other in the past, and it is something that some central banks of the second group—the smaller size—have regularly done; that is, invested in bills drawn upon the greater money markets.

Mr. LUCE. With the desirability of it no doubt most of us agree. That is not in issue. We are asked here to decide whether we shall put it down in black and white that they shall do that sort of thing.

Professor SPRAGUE. If there was any doubt about the power of the reserve banks to engage in the transaction of that sort, I say unquestionably they should be granted that power. But it seems to me to rise so much out of the nature of the functions of a central banking institution that it may be assumed.

Mr. STRONG of Kansas. As I understand you, you think a proper way is for the Federal reserve banks to so conduct their operations that there will not be any inflation. You think it is not necessary to instruct them to do it by a law, but that they ought to do it by common sense? Suppose you would have a set of officers 50 years from now that did not have that discretion and common sense?

Professor SPRAGUE. I should be prepared to go as far now with some such phrase; that is, extending credit due consideration should be given to the avoidance of a considerable advance in the general level of prices—I dislike the word "stabilization"—because attempting to accomplish more than can be accomplished; at least, I am not certain that it can be accomplished.

The CHAIRMAN. Governor Strong, you have been an interested listener here this afternoon. I am wondering if you want to add to what you have said or say anything in elucidation of that which has been said before we adjourn.

Governor STRONG. I would like to say just one word touching on Congressman Luce's inquiry, lest it might appear in the record that possibly being here I had assented by my presence. It is simply this: So far as I am aware, no one has ever disputed or doubted the very explicit authority of the reserve banks to make investments in the open market, which they do make. Those powers to buy and sell Government securities and to purchase bills are explicitly set out in section 14 of the act among the powers of reserve banks.

The only discussion that I know of is as to the wisdom with which those powers have been exercised.

Mr. LUCE. That is all I did imply.

Governor STRONG. And if I might say so, Congressman, although I do not want to go into the transaction with the Bank of England now (to which I gather you refer as to buying foreign bills), I do not think that the slightest question can be raised about our legal powers in that respect, either.

Mr. LUCE. I did not raise that.

Governor STRONG. Whether the purpose to be accomplished was one that was possible, within the scope of the Federal reserve act——

Mr. LUCE. And whether that purpose is within the scope, the act would better clearly recognize it?

Governor STRONG. I am proposing, if you please, to go into this rather fully on Monday, Congressman. But may I make this passing suggestion about the particular terms of the Federal reserve act itself in some of these matters—I may have to repeat this Monday: The Federal reserve act was drafted, I think, with a rare ability and foresight by the men who drafted the act, without any thought of the circumstances that would attend the greatest war the world has ever known.

It seems to me quite impossible that men could have had all the vision and foresight required to put in the reserve act all the particular language, powers, and provisions that would be applicable to a situation which has been so extraordinary, beyond anything we have known in the history of the world in finance and monetary matters—that would exactly cover every situation that arose. But it is my belief that providentially the terms of this act in principle have permitted us to and specifically authorized us to do all the things we have done and give us all the powers to do the things we probably will need to do in dealing with this most extraordinary situation. Among others, I think this particular transaction with the Bank of England, which is the first, as we all realize, is a very important step toward the restoration of the world to reasonably normal conditions, where trade and commerce can proceed by the instruments and methods that we had all been accustomed to for years before the war.

I make that general statement because it is a fact that due to possibly some obscure language in the act, but due more particularly to ignorance as to what some of these transactions really mean, there has been some criticism that I do not think is at all justified, I am hoping on Monday to make some statements on these matters that may, I hope, clarify the minds of the committee about it.

Mr. LUCE. I did not mean to intimate anything in the way of disapproval or approval of the course you pursued. But I am bearing in mind that when the committee gets into executive session, in spite of all the very great value of what we have heard, the thing we are going to vote on is the definite proposition, Is it desirable to specify in words more distinctly the powers, duties, and responsibilities of the Federal Reserve Board?

Governor STRONG. I would be very interested in discussing any particular point such as you have in mind, where it may be thought that an extension or restriction of the powers as they are now set out in the act might be desirable, because, after all, Congressman, the

great principles of central banking, which are pretty well known abroad, are not understood in this country very well. We have not had a bank of issue in the United States for over 80 years. The men who are engaged in running the Federal reserve system were handed this act as a printed document 11½ years ago and told to open Federal reserve banks in 16 days; and from that time on, with a great war raging, we were expected to construct out of thin air something that had not existed here for over 80 years. And I am frank to say we knew mighty little about it. We have been engaged in going to school since then. All things considered, the system has been fortunate not to have had great responsibility put upon it in connection with the work of reconstruction immediately following the period of war finance. It did not become necessary for us to exercise a sound discretion until we had gained some little knowledge by a few years' experience. This intervening period of four or five years has enabled many men in the system to perfect their knowledge by study, travel abroad, and a real determined effort to know more about this problem; and I feel we are getting better equipped every day to exercise the very responsibility that you have in mind.

So if there are doubts in the minds of the committee about this at all, let us talk about them and see where we stand. I think that is the value of these meetings. Nothing would certainly please me more than to be able to do that.

The CHAIRMAN. Without objection, the hour being late, we will adjourn until Monday morning next at 10.30, when Governor Strong will continue his statement.

(Thereupon, at 5.30 o'clock p. m., the committee adjourned to meet Monday, April 12, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Monday, April 12, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will resume its hearings. Governor Strong, we will be glad to hear further from you this morning.

STATEMENT OF HON. BENJAMIN STRONG, GOVERNOR OF THE FEDERAL RESERVE BANK OF NEW YORK—Continued

Governor STRONG. Mr. Chairman, I have here quite a number of charts relating to matters that we have been discussing, and which I do not wish to insert in the record without the committee's knowing what they are and deciding whether they want to ask questions about them or not.

The CHAIRMAN. Suppose you describe the charts to us, and if there are any questions we will ask them.

Mr. WINGO. I thought we already had an understanding by which the Governor could insert the charts at such places as he sees fit. Why not just let him identify the charts, and if he thinks they need some explanation that has not been covered by what has already been stated, let him make that explanation?

Governor STRONG. I will just mention what they are.

First, there is a set of two charts which graphically explains how inflation occurs. (See Chart C on p. 334, and Chart F below.)

Another is a chart, and one of the most interesting that we have, which compares the seasonal swing of business, money rates as influenced by that swing prior to the establishment of the Federal reserve system, and rates of interest as they have been since the establishment of the system, showing the way in which the former wide fluctuation of interest rates has been ironed out. (See Chart G, p. 423.)

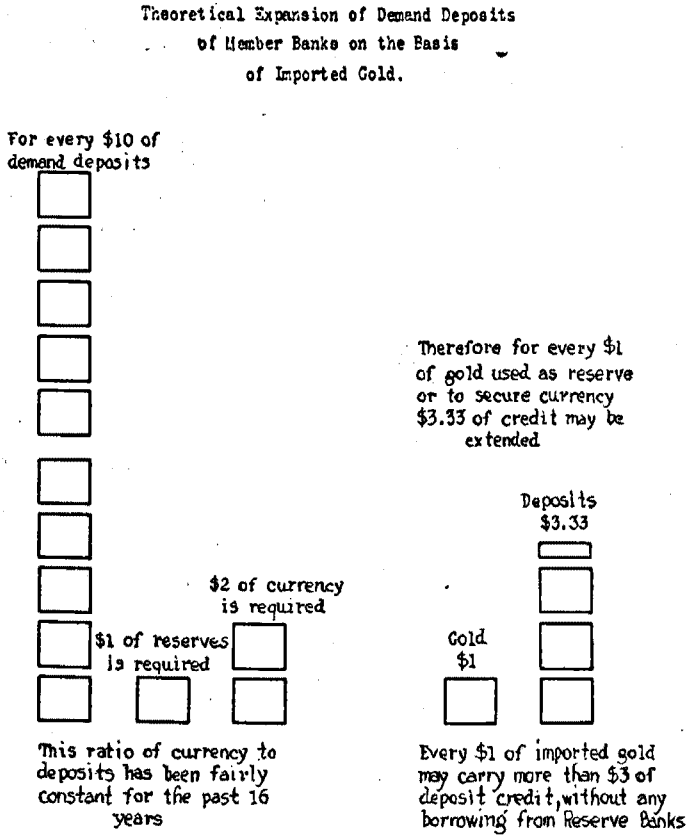


CHART F

Mr. WINGO. In other words, you show that the Federal reserve system itself is a stabilizing force?

Governor STRONG. Yes.

There is another chart showing how since the establishment of the Federal reserve system the differential in the rates for different maturities of commercial paper in the open market has been reduced. (See Chart H, p. 424.)

Another chart shows the wide fluctuation in the differential between interest rates in Chicago and New York before the establishment of the system and how closely they come together under the operation of the system. (See Chart I, p. 424.)

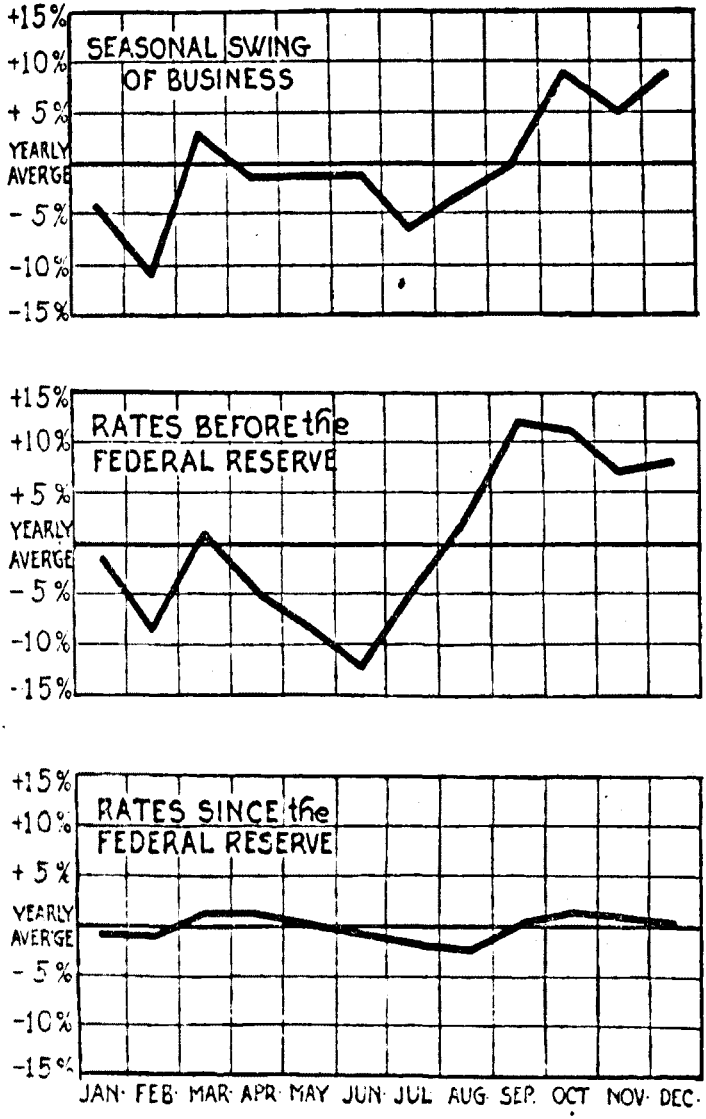


CHART G

Before the reserve system was established, the usual seasonal swing of business resulted in a seasonal swing in interest rates because credit was not elastic. Now the seasonal changes in business have little effect on interest rates, because credit is elastic

Sources: Weighted average of seasonal indexes of all series composing volume of trade index of Federal Reserve Bank of New York.
Rates before and since the Federal reserve system 60-90-day commercial paper, published by Commercial and Financial Chronicle.
Seasonal indexes—Computed by Federal Reserve Bank of New York.

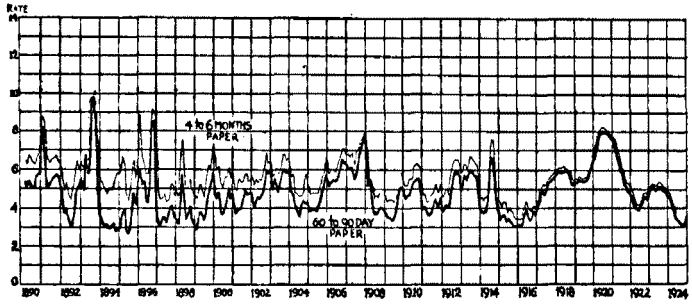


CHART H

Since the establishment of the Federal reserve system the spread between rates for different maturities of open market commercial paper has been much reduced and rates fluctuate less

Sources: 60–90-day prime commercial paper—
1890 to 1911—Taken from a study of F. R. Macaulay.
1912 to January, 1924—Compiled by Federal Reserve Bank of New York from data published by Commercial and Financial Chronicle.
4–6 months good commercial paper—
1890 to 1917—Harvard Economic Review.
1918 and 1919—Computed from rates published by Commercial and Financial Chronicle.
1920 to 1925—Harvard Economic Review.

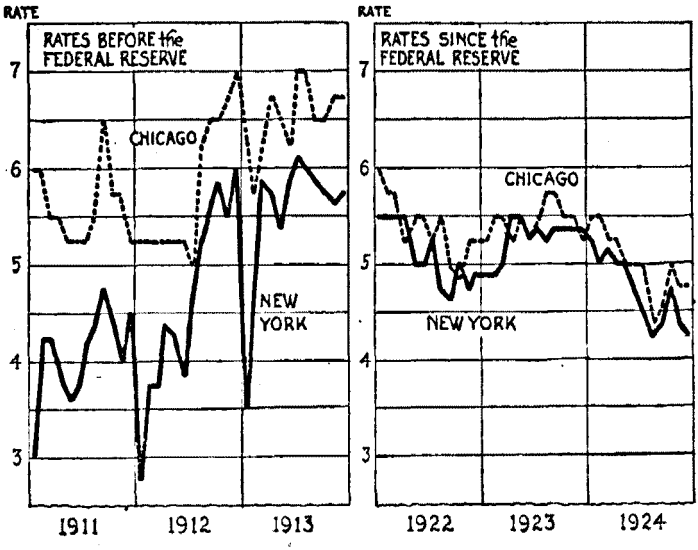


CHART I

In recent years the difference between the interest rates Chicago banks charge their customers and the rates New York banks charge has been much reduced

Sources: Before Federal reserve system—Commercial discount rate from Annalist.
Since Federal reserve system—Customers prime commercial paper rate reported to Federal Reserve Board by selected member banks.

Another chart shows how gradually the wide swing between the high and low averages of interest on commercial paper from 1831 to 1924 has been reduced in recent years. (See Chart J below.)

Then there are two charts, which I mentioned before, showing how prior to the establishment of the Federal reserve system the rate for call loans on the New York Stock Exchange was almost uniformly below the rate for commercial paper, and how since the Federal reserve system has gotten its position in the money market since the war the rates for commercial paper have come down to a substantial parity with the stock exchange call rates.

The CHAIRMAN. I want to call the attention of the committee to the twelfth annual report of the Federal Reserve Board, covering

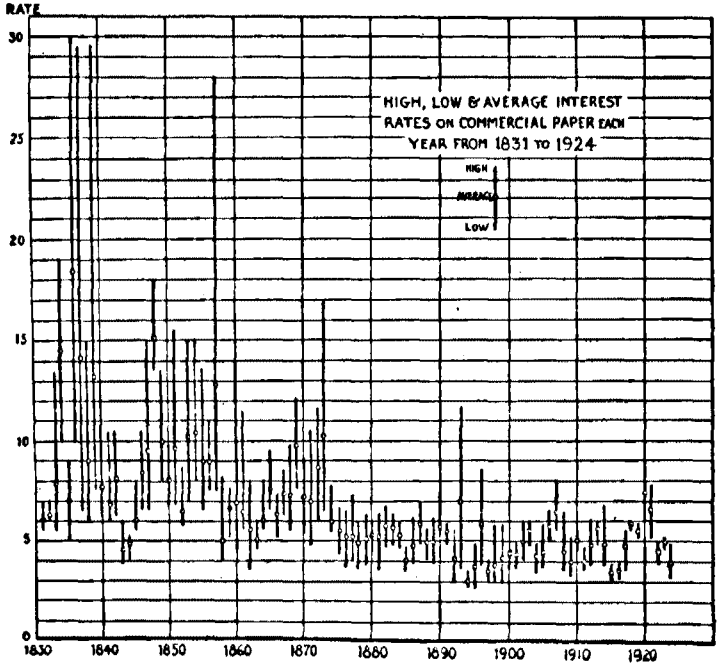


CHART J

Interest rates on 60–90-day commercial paper in the open market. Small circles show average rates each year; tops of lines show highest and bottoms of lines lowest rates

Sources: Prior to 1912—Taken from a study of F. R. Macaulay.
1912–1924—Compiled by Federal Reserve Bank of New York from data published by Commercial and Financial Chronicle.

operations for the year 1925, which is for the first time available before the committee this morning. Practically the whole report bears in a very particular measure on subjects under discussion in these hearings and the subjects that are being covered in this inquiry. I do not know that I want to put the whole report into the record, but so that the record will show it I want it to appear that the committee's attention has been called to this report, so that anyone who may be reading this record should also consult the annual report just referred to.

Mr. WINGO. May I suggest this, Mr. Chairman: I have run over the report hurriedly, and it occurred to me that before the hearing is closed we might call a member of the board and discuss with him certain portions of this report and put the major part of it in this hearing.

The CHAIRMAN. There are many items in this report which will be a matter of discussion when the members of the board come before the committee, and I suggest that such portions as are desired can be inserted in the record at that time.

Mr. WINGO. I suggest that you go through the report and mark those portions which are pertinent to this subject and incorporate them in the record.

The CHAIRMAN. I will do so.

Governor STRONG. Mr. Chairman, I have had a chance to look over some of the stenographic record. I find that the description that I gave, without preliminary preparation, of the course of a cotton bill from Texas to New York was inadequate and rather badly expressed, and furthermore, due to my bad habit of dropping my voice, I am afraid the reporter did not get it all. I have taken the liberty of writing the whole statement over again for the record, and it is in much clearer form. Do you care to have it reread, or shall I simply substitute it in the record?

The CHAIRMAN. I think the committee had a clear understanding of it. You can just substitute it in the record.

(The statement referred to was substituted in the record in place of the original statement.)

Governor STRONG. I would also like to put in the record, if agreeable, a statement that shows all purchases and sales of Government securities conducted for system account under the direction of the open-market committee since the committee actually started to conduct those operations as distinguished from supervising them.

The CHAIRMAN. That applies to Government securities entirely?

Governor STRONG. Yes, sir; and it covers the period from January, 1924, to April 5, 1926.

(The statement referred to is as follows:)

TABLE I.—*Statement showing purchases, sales, and total holdings monthly of Government securities in system special account under control of open market committee since its organization*

Date	Purchases	Sales	Net change (+) increase (−) decrease	Total holdings end of month
January, 1924	$51,275,000		+$51,275,000	$51,275,000
February, 1924	41,017,000		+41,017,000	92,292,000
March, 1924	91,001,100		+91,001,100	183,293,100
Mar. 15, 1924	[1] 10,303,000	[2] $10,303,000		183,293,100
April, 1924	47,193,500	6,000,000	+41,193,500	224,486,600
May, 1924	53,606,700		+53,606,700	278,093,300
June, 1924	111,593,000	26,855,200	+84,737,800	362,831,100
June 16, 1924	[1] 59,912,500	[2] 59,912,500		362,831,100
July, 1924	93,423,900		+93,423,900	456,255,000
August, 1924	41,850,000	25,000,000	+16,850,000	473,105,000
September, 1924	58,345,000	31,450,000	+26,895,000	500,000,000
Sept. 15, 1924	[1] 7,911,000	[2] 7,911,000		500,000,000
Sept. 15, 1924	[1] 4,849,500	[2] 4,849,500		500,000,000
October, 1924	5,000,000	5,000,000		500,000,000
November, 1924	20,000,000	30,000,000	−10,000,000	490,000,000
December, 1924	118,029,000	124,050,000	−6,021,000	483,979,000

[1] New issue. [2] Maturity. [3] Purchased market.

TABLE I.—*Statement showing purchases, sales, and total holdings monthly of Government securities in system special account under control of open market committee since its organization*—Continued

Date	Purchases	Sales	Net change (+) increase (−) decrease	Total holdings end of month
Dec. 15, 1924		[2] $34,944,000	−$34,944,000	$440,035,090
January, 1925	$9,400,000	158,435,000	−149,035,000	300,000,000
February, 1925		30,000,000	−30,000,000	270,000,000
March, 1925	6,568,500		+6,568,500	276,568,500
Mar. 15, 1925		[2] 31,365,000	−31,365,000	245,203,500
April, 1925	10,956,500	6,118,500	+4,838,000	250,041,500
May, 1925	20,000,000	20,000,000		250,041,500
June, 1925	14,500,000	17,000,000	−2,500,000	247,541,500
June 15, 1925		[2] 31,132,700	−31,132,700	216,408,800
July, 1925	2,000,000	2,000,000		216,408,800
August, 1925	725,500	2,000,000	−1,274,500	215,134,300
September, 1925	11,965,700	17,100,000	−5,134,300	210,000,000
October, 1925				210,000,000
November, 1925				210,000,000
December, 1925	60,000,100	10,000,100	+50,000,000	260,000,000
Dec. 15, 1925	[1] 38,160,000	[2] 38,160,000		260,000,000
January, 1926		18,150,000	−18,150,000	241,850,000
February, 1926		31,850,000	−31,850,000	210,000,000
March, 1926	133,916,700	61,000,000	+72,916,700	282,916,700
Mar. 15, 1926		[2] 65,766,700	−65,766,700	217,150,000
Apr. 5, 1926	12,850,000		+12,850,000	230,000,000
Total	1,136,353,200	906,353,200	+230,000,000	

[1] New issue. [2] Maturity.

"New issue" and "Maturity" refer to the purchase of new issues from Treasury and the redemption of maturing obligations.

Governor STRONG. Also tables showing the various rates from 1918 to date on various classes of paper that we buy at the Federal Reserve Bank of New York.

(The tables referred to are as follows:)

TABLE II.—*Minimum effective rates of Federal Reserve Bank of New York on open-market purchases of bankers' acceptances*

Year	30 days	60 days	90 days	120 days	180 days	Year	30 days	60 days	90 days	120 days	180 days
1919	Per cent	Per cent	Per cent	Per cent	Per cent	1921	Per cent	Per cent	Per cent	Per cent	Per cent
Jan. 2	4	4⅛	4¼	.....	.....	Nov. 3	4½	4½	4½	4½	4½
Nov. 5	4¼	4⅜	4½	.....	.....	16	4⅜	4½	4½	4½	4½
26	4⅜	4½	4¾	.....	.....	28	4¼	4⅜	4⅜	4½	4½
Dec. 4	4½	4⅝	4¾	.....	.....	Dec. 8	4⅜	4⅜	4¼	4¼	4¼
23	4⅝	4¾	4⅞	.....	.....	27	4⅜	4¼	4¼	4¼	4¼
30	4¾	4¾	5	.....	.....						
						1922					
1920						Feb. 6	4	4⅛	4⅛	4¼	4¼
Jan. 2	4¾	4¾	5	.....	.....	16	4	4	4⅛	4⅛	4⅛
6	4¾	4⅞	4⅞	.....	.....	Mar. 6	4	4	4	4	4⅛
20	4⅞	4⅞	5	.....	.....	13	3⅞	4	4	4	4⅛
23	5¼	5¼	5¼	.....	.....	21	3⅝	3¾	3¾	3¾	4
27	5¼	5⅜	5⅜	.....	.....	27	3½	3½	3½	3⅝	4
Feb. 27	5½	5⅝	5¾	.....	.....	Apr. 10	3⅜	3⅜	3⅜	3½	3½
May 5	5½	5¾	5⅞	.....	.....	14	3¼	3⅜	3⅜	3½	3½
13	5¾	5¾	5⅞	.....	.....	May 5	3¼	3⅜	3¼	3⅜	3½
June 1	5¾	5⅞	5⅞	.....	.....	18	3⅛	3⅛	3¼	3⅜	3½
Sept. 1	5¾	5⅞	6	.....	.....	June 2	3⅛	3⅛	3¼	3¼	3¾
						19	3⅛	3⅛	3⅛	3¼	3¼
1921						26	3½	3⅛	3⅛	3⅛	3¼
Jan. 3	5¾	5⅞	6	6	6	July 5	3	3⅛	3⅛	3⅛	3¼
June 15	5½	5⅝	5¾	6	6	July 15	3	3	3⅛	3⅛	3¼
July 21	5	5¼	5½	6	6	July 25	3	3	3	3⅛	3¼
Aug. 5	5	5¼	5½	5½	5½	Sept. 21	3	3	3⅛	3¼	3¼
Sept. 26	5	5	5⅛	5½	5½	Sept. 25	3	3⅛	3⅛	3¼	3¼
Oct. 4	4½	4¼	4¼	4¼	4¾	Sept. 27	3⅛	3⅛	3⅛	3¼	3¼
13	4½	4¾	4¾	4¾	4¾	Oct. 2	3⅛	3⅛	3⅛	3⅛	3⅛

TABLE II.—*Minimum effective rates of Federal Reserve Bank of New York on open-market purchases of bankers' acceptances*—Continued

Year	30 days	60 days	90 days	120 days	180 days	Year	30 days	60 days	90 days	120 days	180 days
1922	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	1924	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*
Oct. 6	3¼	3¼	3⅜	3½	3½	June 26	2¼	2¼	2¼	2¼	2¼
Oct. 13	3¼	3⅜	3½	3½	3⅝	Aug. 8	2	2⅛	2¼	2¼	2¼
Oct. 18	3⅜	3⅜	3⅜	3⅞	3⅞	Nov. 17	2⅛	2¼	2⅜	2⅜	2¾
Oct. 19	3¾	3¾	3¾	3⅞	3⅞	Nov. 28	2¼	2⅜	2⅛	2⅜	3
Oct. 24	3¾	3¾	3⅞	4	4	Dec. 3	2⅜	2½	2⅜	2¼	3
Oct. 27	3⅞	4	4	4⅛	4¼	Dec. 5	2½	2¾	2¾	2⅞	3
1923						Dec. 8	2¾	2¾	2¾	2⅞	3
Apr. 17	4	4	4⅛	4⅛	4⅛	Dec. 22	2¾	2⅞	3	3¼	3½
May 23	4	4⅛	4⅛	4⅛	4⅛	1925					
July 7	4	4⅛	4⅛	4¼	4⅛	Feb. 6	3	3	3	3¼	3¼
1924						Feb. 27	3	3⅛	3⅛	3¼	3½
Apr. 24	3⅞	4	4	4⅛	4¼	June 12	3	3⅛	3¼	3¼	3½
May 1	3¾	3¾	3¾	3¾	3¾	Aug. 31	3⅛	[1] 3¼	[2] 3⅜	3½	3¼
May 16	3½	3⅝	3⅝	3⅝	3⅝	Sept. 22	[3] 3¼	[4] 3⅜	[5] 3½	[6] 3¾	3¾
May 22	3⅜	3¼	3¼	3¼	3¼	1926					
June 2	3	3⅛	3⅛	3⅛	3⅛	Jan. 8	[3] 3½	[4] 3⅝	[5] 3¾	[6] 4	4
June 17	2½	2½	2½	2⅝	2¾						

[1] 31 to 44 days. [2] 45 to 90 days. [3] Within 45 days. [4] 46 to 90 days. [5] 120 days. [6] 150 days.

Acceptances purchased under sales contract agreement

	Per cent
Aug. 16, 1918	4¼
Nov. 28, 1919	4½
Dec. 29, 1919	4¾
Jan. 23, 1920	5¼
June 28, 1920	5¾
Aug. 2, 1921	5¼
Sept. 26, 1921	5
Oct. 4, 1921	4¾
Nov. 3, 1921	4½
Mar. 6, 1922	4
Mar. 22, 1922	3½
July 5, 1922	3¼
Oct. 17, 1922	3½
Oct. 23, 1922	3¾
Oct. 27, 1922	4
1923	4
May 26, 1924	3⅛
June 17, 1924	2½
Sept. 3, 1924	2
Nov. 17, 1924	2¼
Nov. 28, 1924	2½
Dec. 5, 1924	2¾
Dec. 22, 1924	3
Aug. 28, 1925	3¼
Jan. 8, 1926	3½

United States Government securities purchased from dealers under sales contract agreement

Previous to April 1, 1921, average rates on securities purchased under sales contract agreement from banks were as follows:

	Per cent
Jan. 2, 1920	5⅛
May 1, 1920	5¾
To Mar. 31, 1921	5¾
Apr. 1, 1921	5¾
Aug. 2, 1921	5¼
Oct. 31, 1921	4½
Mar. 23, 1922	4

Previous to April 1, 1921, average rates on securities purchased under sales contract agreement from banks were as follows:

	Per cent
Apr. 10, 1923	4½
May 1, 1924	4
Nov. 6, 1924	2½
Nov. 28, 1924	3
Apr. 9, 1925	3½
Jan. 8, 1926	4

TABLE III.—*Gold settlement fund: Summary of transactions through the fund*

[In thousands of dollars]

Federal reserve bank	Balance Jan. 1	Withdrawals	Deposits	Transfers to agent's fund	Transfers from agent's fund	Interbank transfers		Settlements from Jan. 1, 1925, to Dec. 31, 1925, inclusive				Balance in fund at close of business Dec. 31	Net changes in ownership of gold through interbank transfers and settlements	
						Debits	Credits	Net debits	Total debits	Total credits	Net credits		Loss	Gain
1925														
Boston	32,276		44,700	65,000	75,000	151,500	5,400		9,857,902	9,949,835	91,933	32,809	54,167	
New York	280,476	521,877	220,500	265,000	315,000	91,151	629,800	319,521	33,075,793	32,756,272		254,227		219,128
Philadelphia	31,137	299	139,180	138,000	8,000	84,800	18,500		9,118,096	9,193,262	75,166	48,884		8,866
Cleveland	40,158	65,000	32,500	35,000	10,000	87,000	12,500		8,229,788	8,384,546	154,758	62,916		80,258
Richmond	18,723		64,753	65,500	34,500	57,500	41,500	12,524	6,790,893	6,778,369		23,952	28,524	
Atlanta	12,904		34,348	119,500	123,600	78,000	13,500		4,296,340	4,299,668	33,328	20,240	31,172	
Chicago	110,989	56,000	67,500	20,000	70,000	226,000	25,000		15,218,254	15,375,734	157,480	128,969	43,520	
St. Louis	23,834	4,800	28,500	17,200	37,000	32,500	45,651	60,087	6,964,664	6,904,577		20,398	46,936	
Minneapolis	19,569	9,000	7,600	26,000	35,000	19,500	9,900		2,206,666	2,207,857	1,191	18,760	8,409	
Kansas City	40,919		57,500	32,000	17,000	8,500	48,500	90,690	5,161,981	5,071,291		32,729	50,690	
Dallas	18,033	13,000	25,000	25,500	20,500	14,500	16,200	14,632	3,470,609	3,455,977		12,101	12,932	
San Francisco	44,387	47,282	91,000	253,000	229,967	58,000	42,500	16,402	3,928,480	3,912,078		33,170	31,902	
Year: 1925	679,465	717,258	813,081	1,061,700	975,567	908,951	908,951	513,856	108,289,466	108,289,466	513,856	689,155	308,252	308,252
1924	571,088	763,532	1,007,409	1,158,250	1,022,750	919,570	919,570	506,468	97,698,325	97,698,325	506,468	679,465		
1923	554,362	624,344	1,215,366	1,140,000	565,704	1,039,150	1,039,150	389,239	89,614,733	89,614,733	389,239	571,088		
1922	522,063	466,218	1,215,831	1,326,816	609,502	1,153,975	1,153,975	748,639	75,335,987	75,335,987	748,639	554,362		
1921	357,278	662,011	1,880,634	1,651,210	587,372	3,289,081	3,289,081	1,150,002	84,934,801	84,934,801	1,150,002	522,063		
1920	329,737	539,084	1,186,940	1,118,300	498,585	7,551,585	7,551,585	1,565,839	85,074,220	85,074,220	1,565,839	357,278		
1919	401,926	392,293	1,124,304	1,479,640	675,440	7,930,859	7,930,859	3,526,274	66,053,393	66,053,393	3,526,274	329,737		
1918	311,644	102,433	693,181	1,512,297	1,011,831	4,812,105	4,812,105	2,670,339	45,439,487	45,439,487	2,670,339	401,926		
1917	169,740	382,858	966,556	852,881	411,087	2,643,846	2,643,846	2,154,721	24,319,060	24,319,060	2,154,721	311,644		
1916	77,760	136,550	301,570	94,520	21,480	(2)	(2)	223,870	5,533,966	5,533,966	223,870	169,740		
1915	(1)	25,580	155,800	52,460		(2)	(2)	85,697	1,052,649	1,052,649	85,697	77,760		

[1] Established May 20, 1915.

[2] Included in settlements.

Clearings and transfers through the gold settlement fund, by weeks

[In thousands of dollars]

Week ending—	Total clearings	Total transfers	Total clearings and transfers
1925			
Jan. 7	2,063,131	16,500	2,079,631
14	2,111,581	4,500	2,116,081
21	2,221,424	16,000	2,237,424
28	1,957,093	3,000	1,960,093
Feb. 4	2,008,923		2,008,923
11	1,916,993	4,000	1,920,993
18	1,943,253	1,500	1,944,753
25	1,858,192	3,000	1,861,192
Mar. 4	2,176,900	3,500	2,180,400
11	2,008,686	6,500	2,015,186
18	2,329,157	67,100	2,396,257
25	2,124,882	68,200	2,193,082
Apr. 1	1,981,253	7,000	1,988,253
8	1,980,610	12,500	1,993,110
15	1,902,648	28,000	1,930,648
22	2,151,692	6,000	2,157,692
29	1,955,386		1,955,386
May 6	2,077,702	7,000	2,084,702
13	1,840,008	4,000	1,844,008
20	2,128,633	15,000	2,143,633
27	2,010,155		2,010,155
June 3	1,818,585	13,000	1,831,585
10	1,914,944	7,000	1,921,944
14	2,270,978	113,900	2,384,878
24	2,123,442	47,000	2,170,442
July 1	2,120,374	15,500	2,135,874
8	1,843,863	22,000	1,865,863
15	2,054,808	15,300	2,070,108
22	2,173,675	9,500	2,183,175
29	1,896,672	11,000	1,907,672
Aug. 5	1,975,344	7,000	1,982,344
12	1,764,089	11,000	1,755,089
19	1,982,227	4,000	1,986,227
26	1,850,684	5,000	1,855,684
Sept. 2	1,806,527	3,000	1,809,527
9	1,520,659	10,500	1,531,159
16	2,131,407	28,600	2,160,007
23	2,349,240	91,900	2,441,140
30	2,192,830	4,000	2,196,830
Oct. 7	2,198,885	4,000	2,202,885
14	1,882,241	3,000	1,885,241
21	2,619,923	36,500	2,656,423
28	2,293,310	3,000	2,296,310
Nov. 4	2,116,647		2,116,647
11	1,858,342	6,500	1,864,842
18	2,638,994	16,000	2,654,994
25	2,358,789	3,000	2,361,789
Dec. 2	2,070,625	4,000	2,074,625
9	2,221,784	7,000	2,228,784
16	2,510,977	30,200	2,541,177
23	2,493,465	92,251	2,585,716
30	2,004,729	10,500	2,015,229
31 (1 day)	482,105	500	482,605
Total: 1925	108,289,466	908,951	109,198,417
1924	97,698,325	919,570	98,617,896
1923	89,614,733	1,039,150	90,653,883
1922	75,335,987	1,153,975	76,489,962
1921	64,934,801	3,289,081	68,223,882
1920	85,074,220	7,551,585	92,625,805
1919	66,053,393	7,930,959	73,984,252
1918	45,439,487	4,812,105	50,251,592
1917	24,319,060	2,643,846	26,962,906
1916			5,553,966
1915 (from May 20)			1,052,645

Mr. WINGO. I notice that the last statement is headed:

Government securities purchased from dealers under sales contract agreement.

Do you not think it might be well, in this connection, to be a little more specific about the nature of those sales contract agreements? As I understand it, those are where you purchase from dealers with a contract of repurchase upon their part.

Governor STRONG. Yes, sir.

Mr. WINGO. I do not know very much about that, myself, and I do not know that it is very important; but do you not think it might be a good idea to give the general description of those agreements; what the terms are and what the reasons for them are; in other words, why it is done?

Governor STRONG. Yes, sir. It is a comparatively unimportant part of our operations. I could have a written statement carefully prepared to insert with that table, if you prefer.

Mr. WINGO. All right; if you will.

The statement relative to the practice of the Federal reserve bank in purchasing Government securities from dealers under sales contract agreements is covered by a memorandum prepared as the result of a subsequent request of the committee covering the somewhat similar agreements relative to bankers' acceptances. For convenience the two matters have been discussed together in the one statement.

MEMORANDUM CONCERNING SALES CONTRACTS COVERING OPEN-MARKET OPERATIONS IN GOVERNMENT SECURITIES AND BANKERS' ACCEPTANCES

Before the enactment of the Federal reserve act, national banks were not authorized to accept time drafts drawn upon them for the purposes of financing the exportation, importation, or domestic shipment of goods, and American bankers' acceptances were not made by other institutions in any considerable volume. As a result, America's overseas trade was financed largely under credits granted by foreign banks and bankers in foreign currencies. The acceptances created under such foreign credits were discounted in London and other foreign financial centers where open discount markets existed. We had no such open discount marekt in the United States. This was such a serious defect in our banking system that when the Federal reserve act was passed, member banks were given the right to create bankers' acceptances; that is, to accept time bills of exchange arising out of transactions involving the importation or exportation of goods. Later the act was amended so as to permit of making these accpetances in order to finance the domestic shipment of goods and the warehousing of readily marketable staples. But to give to member banks the power to make these acceptances would not of iteself have permitted a comprehensive or contructive development of the acceptance business unless the act also contemplated the establishment of an open discount market in the United States. To accomplish this, Federal reserve banks were specifically authorized under section 14 of the Federal reserve act to buy and sell bankers' acceptances and bills of exchange in the open market at home or abroad either from or to domestic or foreign banks, firms or corporations or individuals. Indeed, the only limitation on these powers was that the bills of exchange so purchased or sold must be of the kinds made eligible for rediscount under the terms of the law.

The importance of the bankers' acceptance as an instrument to finance America's trade has been elaborated in some detail in the testimony already given before this committee as well as in the Annual Report of the Federal Reserve Board for the year 1925 (see pages 7–10). It has also been pointed out before the committee that the dollar acceptance as a credit instrument in the world's market is dependent largely upon an open and active discount market where such acceptances can always be sold and that the ready marketability of

the short dated obligations of the United States Government, that is, certificates of indebtedness and Treasury notes, depends to a large extent upon an open and active discount market where they can always be sold.

The essential requirements for an open discount market for either bankers' acceptances or short dated Government securities include (1) a sufficient number of strong financial institutions and houses acting as discount houses and dealers who will always buy at stable rates related to current money rates, prime bills, that is, bankers' acceptances and short dated Government securities, which are offered for sale in that market, (2) an assured and sufficient supply of money at economic rates to enable much houses to carry on, and (3) an assured place of rediscount.

Private banking firms and discount corporations already established in New York and certain other Federal reserve bank cities provide for the first of these requirements. The money market ordinarily provides a large proportion of the funds required by the discount houses at rates somewhat below the current call loan rates paid by stock exchange houses. This, in a measure, answers the second requirement. But in times of money stringency, when rates are advanced in the money market, it becomes essential to the maintenance of the discount market that discount houses have recourse to the Federal reserve banks for a portion of their current requirements for money with which to carry the bills and Government obligations which constitute their portfolio, and also to enable them to buy new offerings of bills and Government obligations at times when the supply of such bills and securities measurably exceeds the demand from investors. These discount houses act as wholesalers and also retailers in the securities with which they deal. A bank or a corporation can always sell to one of these dealers, at a price, practically an unlimited amount of bankers' acceptances or Treasury certificates. The dealer making the purchase ordinarily resells all or a substantial portion of them to other investing clients. These buyers may be local banks, corporations, or individuals, or similar persons located in other parts of the country or abroad. The constant demand from such investors makes it necessary for the discount houses and dealers to carry at all times an adequate stock of paper assorted as to maturities, size of pieces, etc., required by the particular and diversified needs of their clients. As the gross profit of discount houses consists of but a very small fraction of 1 per cent per annum, usually at the rate of one-eighth to one-fourth per cent per annum on the value of their purchases, it is impracticable for them to carry their wares wholly on their own capital. The margin of profit on their business being so small, unless they have recourse to the Federal reserve banks at relatively stable rates in times of need, they would not be able to continue in business.

At such times of need, when it is impossible for the dealers to procure funds in the market either at all or at rates economically possible for them, assistance must be given to them by the Federal reserve banks by means of spot purchases of a portion of their supply of bankers' acceptances or Government securities. But as they are retailers of these goods and must have them available for sale in the future, the Federal reserve banks have made arrangements with them so that they may repurchase such acceptances or securities at some time in the future. This future sale is provided for under arrangements which are ordinarily referred to as "sales contracts." These so-called sales contracts are instruments executed by recognized dealers who are banking firms and corporations specializing in making and maintaining the market for bankers' acceptances and short-time Government obligations. They are written undertakings on the part of such firms or corporations agreeing to purchase from the Federal reserve bank within a short period, not to exceed 15 days, the identical bills or securities which they had previously sold. The repurchase price is agreed upon at the time of the original sale. The copies of the agreements referred to are attached hereto. (Exhibit A.)

The committee has evidenced some interest in the legal authority on which these agreements are based. Section 4 of the Federal reserve act expressly authorizes Federal reserve banks "to make contracts." Section 14, as previously stated, authorizes any Federal reserve bank to "purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, * * * bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount, with or without the indorsement of a member bank." In view of this language and of the discussions of the legal aspects of the matter, it has been conceded that if these so-called sales contracts are in substance of such

character as to constitute sales in legal contemplation, then they are within the lawful authority of the Federal reserve banks. The suggestion has been made, however, that the manner of conducting these transactions establishes their character as loans rather than sales and that if they are being conducted as loans instead of sales, they are unauthorized by the Federal reserve act. But some of those who have questioned the character of these transactions on this basis have stated that only certain changes in the manner of conducting them would be necessary to constitute them sales in legal contemplation, and therefore, in their opinion, strictly within the authority conveyed by section 14. Some of the doubt that has been expressed as to the legality of these sales contracts appears to be based on the fact that the Federal reserve banks have in some cases required collateral agreements, and that the dealer or discount house has obligated itself to buy back the acceptances or securities sold, at the expiration of a specified period.

Some explanation of these collateral agreements might serve to explain their real purpose and their proper relation to the transaction. If a discount house comes to the Federal reserve bank at a time when rates in the money market, for one reason or another, are unusually tight, they are apt to offer for sale not one bill of a round amount, but a great many bills of varying amounts representing all sorts of transactions in goods being exported or moved about the country. But as has been explained they are retailers in these bills who make the market which makes it possible for American exporters or importers to finance their goods by means of acceptances, and naturally do not want permanently to dispose of them but merely to dispose of them during a period of stringency and to get them back again when the market is able to absorb them. Consequently, our agreements provide for a resale at any time within 15 days. The Federal reserve bank takes them at a specified rate of discount for 15 days on the aggregate amount of all the bills sold, and if they are taken up within 15 days discount is adjusted accordingly.

The collateral agreement to which reference has been made is an agreement providing collateral to protect the Federal reserve bank against loss which might result if the discount house should fail to comply with its contract to repurchase at the end of 15 days. The measure of loss to the Federal reserve bank for such a failure would not be the face amount of the bill, but rather the amount of discount still to run on each individual bill after the elapse of the 15-day period. As a result the amount of collateral given is approximately only 1 per cent of the aggregate face amount of bills bought and is not in fact or in intention collateral for a loan of the face amount of the bills. As previously stated, it simply protects the Federal reserve banks against the loss of discount in the unlikely event that the discount house fails to repurchase in accordance with its agreement.

Because Government securities are bought on an interest basis rather than a discount basis there is no need for a collateral agreement in the case of such securities. For this reason, and also for the further reason that the amount of sales contracts covering securities is relatively so much less than in the case of acceptances, this discussion has been directed almost entirely to their relation to acceptances.

As previously stated, this collateral agreement was not originally required, but later, in the fall of 1921, it was thought to be advisable merely as a matter of abundance of precaution on the part of the Federal reserve bank. In December, 1921, when the present procedure involving the use of the collateral agreement was first inaugurated, the whole matter was referred to the Federal Reserve Board and expressly approved as a matter of law and principle both by the Federal Reserve Board and its counsel. However, in view of the questions which had been raised since that time the matter was again considered by the Federal Reserve Board in March, 1925, when the board, after further consideration, passed the following resolution:

"The Federal Reserve Board reaffirms previous decisions authorizing the practice, long continued, of purchase and sale in the open market of bankers' acceptances and Government securities by Federal reserve banks from and to banks and qualified dealers, under 15-day 'repurchase agreements,' it being understood that such transactions shall be open, under similar facts and conditions, to all Federal reserve banks with relation to banks and similarly qualified dealers in their respective districts."

It appears, therefore, that the practice in question has been in effect now for about four and a half years. It has been developed after the most careful consideration of the needs of the open market for acceptances and short-time

Government securities and at the same time with a view to affording every reasonable protection to the Federal reserve banks in performing their part in making that market possible. The entire procedure has been twice passed upon and approved by the Federal Reserve Board, and their approval, which appears clearly to be designed to give effect to the true intent of the statute, has been regarded as a settlement of the question from the point of view of the Federal reserve banks.

But if there is still any doubt as to the legality of these arrangements, then the law might well be amended specifically and expressly to authorize them. The important point is that they are a very essential part of the maintenance of the discount market, which makes possible the dollar acceptance now financing such a large part of our foreign trade, as well as an important part of our domestic staple agricultural products while they are in warehouses pending sale or shipment. The aggregate amount of acceptances outstanding in the market at any one time usually averages about $700,000,000 or $800,000,000. These represent the consignment or sale of practically all of the different kinds of commodities that go to make up a part of our trade. Largely, they represent, as previously pointed out in the testimony before your committee, the shipment of surplus agricultural products, particularly cotton, to foreign markets.

In conclusion, therefore, it is believed that the transaction in substance is not only legal but is clearly and directly designed to facilitate the very important purposes intended by Congress when it authorized member banks to create acceptances, and when it provided that the Federal reserve banks should be authorized to deal effectively in the open market, which supports those acceptances. While the amounts involved are relatively insignificant in the case of short-time Government securities, the ability to make the so-called sales contracts relating to them is of almost equal importance in the maintenance of a sound and ready market for short Treasury obligations.

Attached hereto are tables of statistics for the years 1924 and 1925 showing the volume of these transactions in acceptances at the Federal Reserve Bank of New York, showing the relation to the varying volumes of bills held by the discount houses and by the Federal reserve banks, the discount rate, and the stock exchange call-money rates, etc. (Exhibit B.) A separate table shows the average volume of Government securities held under sales contract and the high and low rates during the same two years. (Exhibit C.)

EXHIBIT A

SALES CONTRACT

FEDERAL RESERVE BANK OF NEW YORK,
New York, N. Y.

GENTLEMEN: We hand you herewith United States Government ———— amounting to $———— par value, listed below, which we have to-day sold to you for the sum of $————, and which we hereby agree to repurchase from you on or before ————, for the sum of $————, and interest thereon at the rate of ——— per cent per annum for the number of days that the said securities are held by you.

We are delivering as collateral security for the performance of this contract ————, of a par value of $————, to be held by you subject to the terms and conditions of our general collateral agreement with you.

Very truly yours,

———— ————

Schedule of securities offered under above sales contract

Description of issue	Maturity	Amount (par value)

FEBRUARY 6, 1925.

FEDERAL RESERVE BANK OF NEW YORK,
New York, N. Y.

DEAR SIR: We have sent you this day, under separate cover, eligible bankers' acceptances to the amount of $————, sold to you at ——— per cent discount, which we hereby agree to repurchase at the same rate on or before ————, with agreed right, to be exercised at our option, to repurchase these bills, either in whole or in part, prior to ————, to which date discount on to-day's sale has been calculated. As per detailed memorandum therewith and in accordance with our general agreement, we are delivering as collateral ———— of a face value of $————.

Yours very truly,

——— ———.

Know all men by these presents, that in consideration of purchases and sales of bills, securties and/or other property effected between the Federal Reserve Bank of New York and the undersigned by virtue of agreements from time to time entered into between the parties, it is hereby agreed that as collateral security for any and all liability of the undersigned to the said Federal reserve bank now or hereafter existing, matured or not matured, absolute or contingent, and whenever payable, including items held by said Federal reserve bank as security for any obligations of any sort whatever, said Federal reserve bank shall hold, retain, and have a lien upon all moneys, negotiable instruments, bonds, stocks, commercial paper, credits, choses in action, claims and demands of every kind at any time in possession or control of said Federal reserve bank, or any of its agents or correspondents, or in transit to it by mail or carrier, belonging to, for account of, or subject to the order of the undersigned; and said Federal reserve bank shall have the following rights in powers in respect to such collaterals and every part thereof (in addition to any other rights which it may have): Said Federal reserve bank may at any time or times collect any of such collaterals, and it may indorse any thereof in behalf and in the name of the undersigned; and in case of failure of the undersigned to pay or discharge when due any such liability, or in case of failure of the undersigned to furnish additional collateral as hereinafter provided, or in case of the insolvency, general assignment, receivership, bankruptcy, or failure in business of the undersigned, said Federal reserve bank may sell without notice any of said collaterals at private or public sale, or at broker's board (being at liberty to become the purchaser if the sale is public or at broker's board) and may apply any and all money or credits, including the proceeds of any such sale, to the payment of expense of any such sale or sales, or of the realization or collection of any of said collaterals or of any of said liability of the undersigned, whether due or not due, and any and all liability of the undersigned shall in any of the cases above stated become due at the option of said Federal reserve bank, if the collateral securing liability of the undersigned to said Federal reserve bank shall at any time be unsatisfactory in amount or otherwise to said Federal reserve bank, or to any of its officers, the undersigned will immediately furnish such further security as will be satisfactory to said Federal reserve bank. Said Federal reserve bank may assign or transfer the whole or any part of any obligation or liability of the undersigned, and may transfer herewith as collateral security therefor the whole or any part of the collateral above referred to, and the transferee shall have the same rights and powers with reference to the obligation or liability transferred and the collaterals transferred therewith, as are hereby given to said Federal reserve bank. It is also agreed that this instrument constitutes a continuing agreement between the undersigned and the said Federal reserve bank applying to all future, as well as existing, transactions between the said parties, and also that the force and effect hereof shall not be terminated by the closing at any time of all transactions between the said parties, but that the same shall apply thereafter to any new transactions and shall continue in full force until notice is received in writing by either party from the other of the intention to terminate it, whereupon, it shall be of no effect for any indebtedness subsequently created.

In witness whereof ——— ——— has caused these presents to be signed this — day of ————, 192—.

——— ———

By ——— ———

STATE OF NEW YORK,
County of New York, ss:

Before me, a notary public in and for the county of ————, came ——— ———, to me known and known to me to be the person who executed the within agreement, and who, being duly sworn by me, did depose and say that he is a partner of ————, and as such is duly authorized to execute the within agreement in behalf of said partnership, and that he so executed it for the uses and purposes therein expressed.

STATE OF NEW YORK,
County of New York, ss:

On the ——— day of ———, in the year nineteen hundred and twenty ———, before me personally came ——— ———, to me known, who, being by me duly sworn, did depose and say that he resides ————, that he is a ——— of the corporation described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

Federal Reserve Bank of New York, average daily holdings of acceptances

[In millions]

	Total holdings of bills purchased in system		Federal Reserve Bank of New York, average daily holdings of—		New York dealers portfolios, average	Rates on sales contracts		Rediscount rate	Minimum purchase rate on bills		Call money on stock exchange renewal	
	High	Low	Bills purchased	Bills held under sales contract		High	Low		15 days	90 days	High	Low
1924												
January	347	271	32.7	19.5	63	4	4	4½	4	4	5¾	4
February	283	253	14.3	46.0	79	4	4	4½	4	4⅛	4¾	4
March	259	194	14.1	24.7	61	4	4	4½	4	4⅛	5	3
April	213	124	14.6	24.6	61	4	4	4½	4	4⅛	5	3¾
									3⅞	4⅛		
May	87	55	8.8	5.9	60	4	3⅞	4	3¾	3	[1] 4¼	3
									3⅞	3¾		
June	57	44	11.2	1.9	58	3½	2½	[1] 3½	2¾	2¾	3	2
									3	3⅛		
July	58	24	11.2	6.7	51	2½	2½	3½	2	2⅛	2½	2
August	49	18	14.9	0.0	52	2½	2½	[2] 3	2	2¼	2	2
September	99	69	41.8	2.8	37	[3] 2	2	3	2	2¼	2½	2
									2	2¼		
October	215	169	51.9	27.6	69	2	2	3	2	2¼	2½	2
									2	2¼		
November	281	234	69.3	15.3	68	[4] 2½	2	3	2	2¼	3	2
									2¾	2½		
December	389	336	80.1	17.7	56	3	2½	[5] 3	2¾	2½	5	2½
									2¾	3		
Average for year			30.4	16.0								
1925												
January	341	306	62	9.0	45.4	3		3	2¾	3	5	2½
February	324	308	54	14.0	46.9	3		[6] 3½	[6] 3	[7] 3½	4¼	4
March	304	277	52	9.8	38.0	3		3½	3	3½	4⅜	3½
April	316	274	46	22.3	52.7	3		3½	3	3½	4⅜	3½
May	282	276	44	30.7	62.2	3		3½	3	3½	4	3½
June	285	241	30	19.4	39.2	3		3½	3	[1] 3¼	5	3¾
July	239	210	19	18.0	35.8	3		3½	3	3¼	5	3¾
August	212	195	14	9.0	32.7	3¼	3	3½	[8] 3½	[8] 3¾	4½	4
September	208	212	8	10.6	30.0	3¼		3½	[9] 3¼	3¾	5½	4
October	329	284	6	23.5	50.5	3¼		3½	3¼	3¾	5½	4¼
November	355	342	5	24.4	52.5	3¼		3½	3¼	3¾	5	4½
December	370	352	8	29.7	62.4	3¼		3½	3¼	3¾	6	4¾

[1] June 12. [2] Aug. 8. [3] Sept. 3. [4] Nov. 28. [5] Feb. 26. [6] Feb. 6. [7] Feb. 27. [8] Aug. 28. [9] Sept. 22.

Federal Reserve Bank of New York, average daily holdings of short United States Government securities held under sales contracts

	1924			1925		
	Average holdings	Rate		Average holdings	Rate	
		Low	High		Low	High
		Per cent	Per cent		Per cent	Per cent
January	$4,653,000	4½	4½	$3,869,000	3	3
February	331,000	4½	4½	2,471,000	3	3
March	366,000	4½	4½	7,393,000	3	3
April	1,021,000	4½	4½	8,822,000	3	3½
May	39,000	4	4	11,788,000	3½	3½
June	0	4	4	9,155,000	3½	3½
July	0	4	4	14,688,000	3½	3½
August	0	4	4	4,928,000	3½	3½
September	0	4	4	4,800,000	3½	3½
October	1,548,000	2½	2½	7,636,000	3½	3½
November	2,459,000	2½	3	8,907,000	3½	3½
December	11,416,000	3	3	18,165,000	3½	3½
Average for year	1,835,000	2½	4½	8,609,000	3	3½

Governor STRONG. Referring to the discussion of the proportion of credit extended in the different sections of the country—that is, divided between agricultural counties, semiagricultural counties, and nonagricultural counties—I have here photostatic copies of the chart which appeared in the record of the hearing before the joint agricultural commission. This was called for, I believe.

The CHAIRMAN. It will also be included in the record.

(See Chart L, p. 439.)

Governor STRONG. I have here also a comparison of the rate of discount of the Federal Reserve Bank of New York, with the rates for bankers' acceptances, commercial paper, and call loans, from 1914 to date, in the New York market.

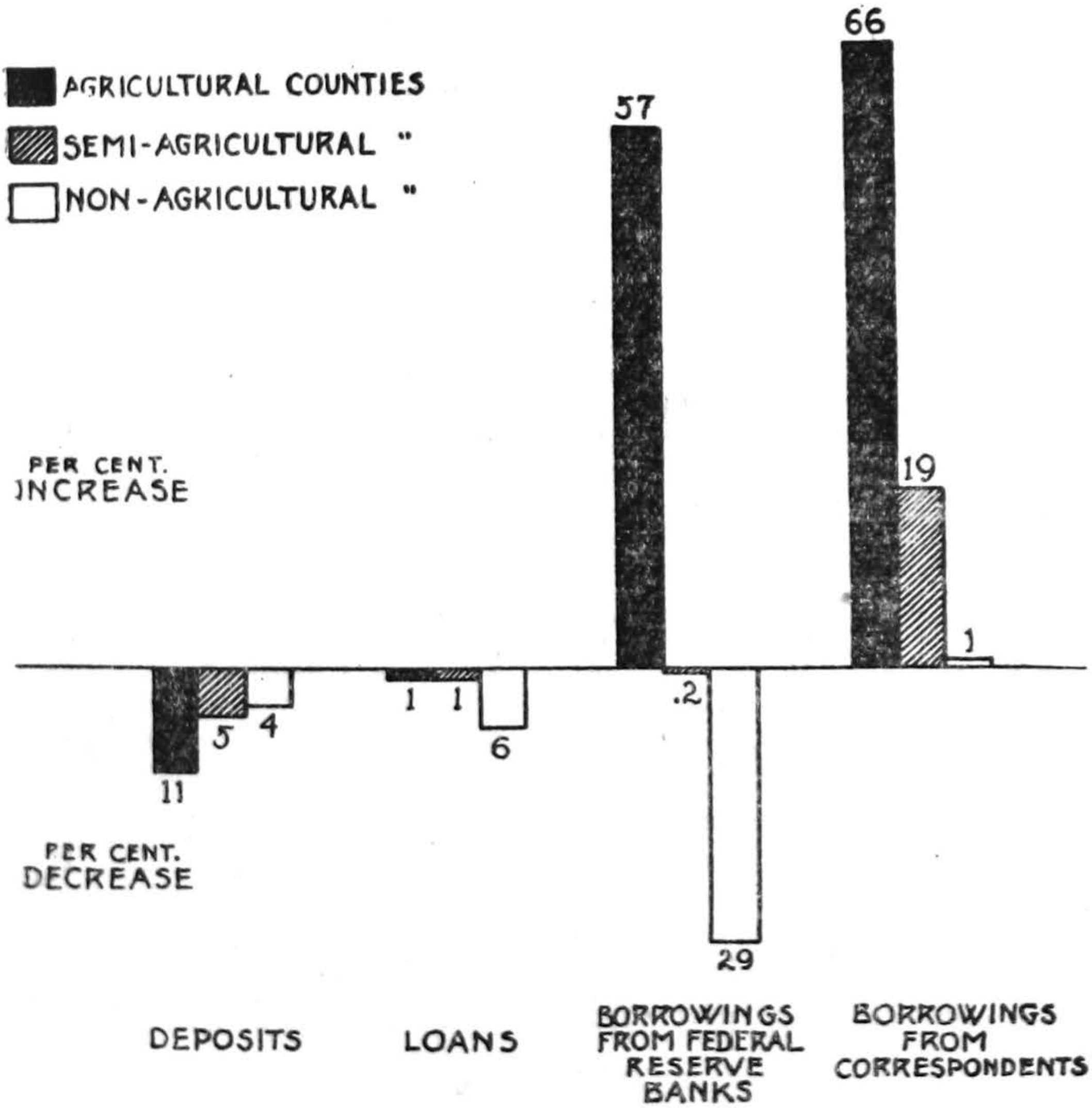
(See Chart M, p. 440.)

Governor STRONG. Mr. Chairman, there were one or two omissions on my part, due to oversight, in the discussion of various matters last week, which it seems to me ought to be referred to in order to complete that discussion. Would you prefer to have me take up those omissions now?

The CHAIRMAN. Yes; we would be glad to have you complete that.

Governor STRONG. Referring again to the fact that the Federal reserve banks deal specifically with the total quantity of credit and its cost, as distinguished from the particular application made of the credit by the member banks, the experience of the past few years seems to indicate that the conduct of the normal volume of business now being transacted in this country, at the present level of prices, requires the use of about a minimum of a billion dollars of Federal reserve credit in order to provide the reserve, if you please, for the amount of credit and currency required by the banking system to conduct that business. In other words, if there is a sharp decline in the total volume of business or the price level, or both, it necessarily involves a contraction of the total amount of currency and credit, and as the total volume of currency and credit declines it has the effect of canceling, so to speak, the amount of credit which is extended by the Federal reserve banks.

That is important in connection with the earlier discussion for this reason: One of the influences which affects repayment of credit extended by the Federal reserve banks, more than any other, directly, is of course importations of gold; and an influence, and a direct influence, upon the volume of that credit extended by the reserve banks is likewise an export movement of gold. I am sorry to say that in the discussions before the agricultural commission in 1921, due wholly to an oversight on my part, the record is quite



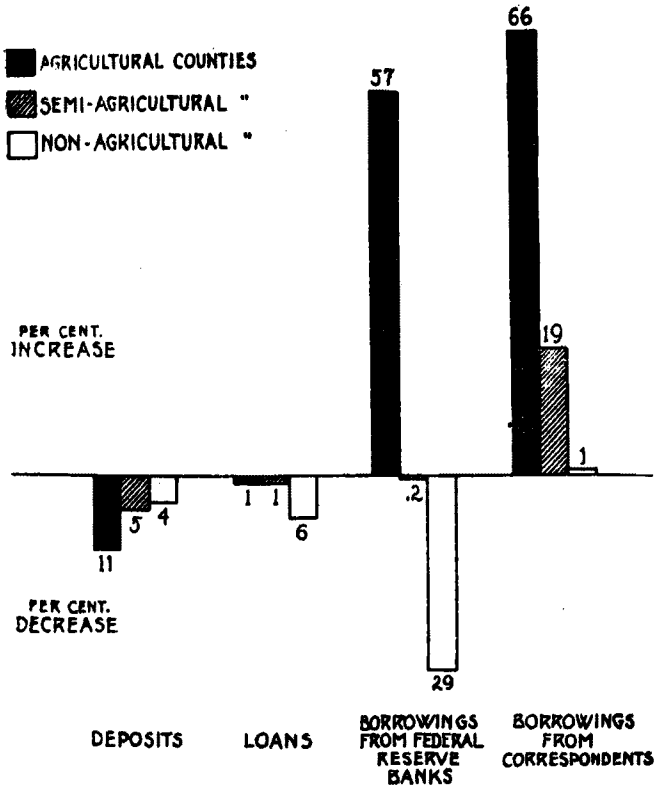
PER CENT CHANGE BETWEEN MAY 4, 1920, AND APRIL 28, 1921, IN LOANS AND DISCOUNTS, TOTAL DEPOSITS, AND BORROWINGS OF MEMBER BANKS IN AGRICULTURAL, SEMIAGRICULTURAL, AND NONAGRICULTURAL COUNTIES.

Columns above the line show increases and columns below the line decreases.
Source of information: Reports of condition of national banks to the Comptroller of the Currency, and reports of member State banks and trust companies to the Federal Reserve Board.

CHART L

incomplete, in that I did not call the commission's attention to this important fact: When the embargo on gold exports was removed by the President in 1919, at a time when the reserves of the Federal reserve banks had been reduced to a very low level, almost to the legal minimum, through a portion of 1919 and into 1920, we actually sustained a loss of $400,000,000 of gold from the country. That was roughly the net amount exported; and for all of that gold, which involved a reduction of the reserves of the banking

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Columns above the line show increases and columns below the line decreases.
Source of information: Reports of condition of national banks to the Comptroller of the Currency, and reports of member State banks and trust companies to the Federal Reserve Board.

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system generally, the Federal reserve system had to stand in the gap and make loans to the member banks to make good the reserves which became impaired by the gold exports.

That was one very important influence upon the impairment of the reserves which took place at that time, influencing the reserve banks naturally to protect their reserves by advances of discount rates. It was not the only influence, but it was one of the many influences that operated upon the discount rate of the reserve banks.

This statement, in this particular form, should have been made before the agricultural commission, and I want to insert it in the record here.

The CHAIRMAN. Let me see if I understand you correctly. What you have just stated indicates to me that the Federal reserve system

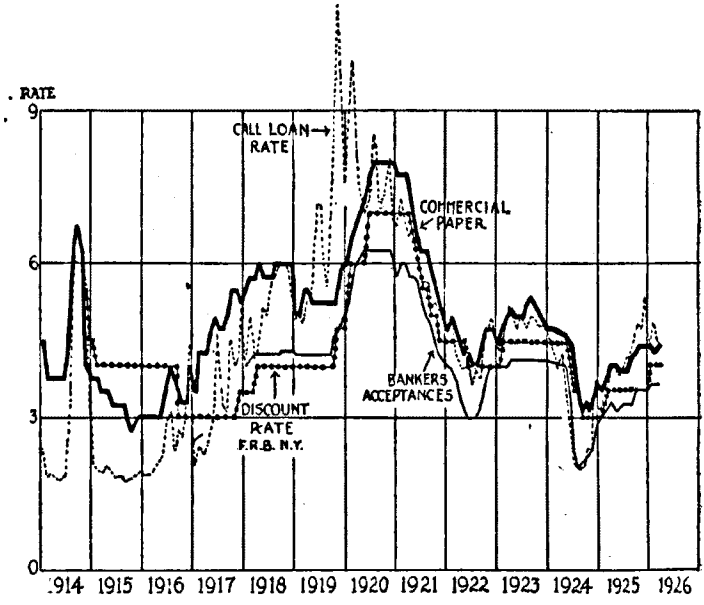


CHART M

Average monthly open-market rates for prime commercial paper and bankers' acceptances, call loan rate, and the discount rate of the Federal Reserve Bank of New York

Sources: Call loans—Commercial and Financial Chronicle.
Commercial paper and bankers' acceptance rates—Secured directly from dealers by the Federal Reserve Bank of New York.

has furnished and is furnishing a $1,000,000,000 more credit than was furnished in 1913, figuring that 1913 was zero or 100.

Mr. WINGO. And providing that the member banks' credit was the same as at that time.

The CHAIRMAN. Yes.

Governor STRONG. Prior to the establishment of the Federal reserve system the reserves of each bank, State or national, consisted of gold or other reserve money—that is, United States notes or silver certificates—held in its own vault or a balance carried in another commercial bank; and the fluctuations in the reserve—not in the

total volume of credit supported by that reserve, but in the actual reserve fund itself—that is, the total amount of the reserve—was affected by any import or export movement of gold. There was no means then existing, before the reserve system was established, of making good an impairment of reserves sustained by the member banks as a result of a great export movement of gold. At the time of the difficulties with both the Treasury's reserves and banking reserves in the nineties, when we sustained a very heavy loss of gold, much of the difficulty caused at that time was due to the fact that we had no reserve bank, no bank of issue which could make good the reserves of the member banks by converting their commercial paper, if you please, into reserve balances. So in 1919 and 1920, when $400,000,000 of gold left the country, and impaired the reserves of member banks and other banks, we, of course, had to step in and discount their paper and make good that reserve loss.

Mr. WILLIAMSON. What was the occasion for the withdrawal of that large amount of gold at that particular time?

Governor STRONG. The export of gold had been embargoed by the President, under the authority of an act of Congress, in order to protect the country's gold reserve. All nations, pretty nearly, did the same thing. I think, almost without exception, every nation imposed some greater or less restriction upon the export of gold. Business concerns and banks of various countries piled up balances in America which they could not realize without loss. The minute the embargo was lifted they largely withdrew those balances. We shipped immense amounts of gold from New York to all parts of the world—Spain, Switzerland, Japan, Argentina, etc. I remember seeing hundreds of kegs go out of New York carrying this gold all over the world.

The CHAIRMAN. Recognizing, of course, the important part which these international movements of gold have, I want to call your attention to this part of the annual report of the Federal Reserve Board, in which it says:

> The reserve bank credit outstanding increased in 1925 to meet an export demand for gold amounting to $135,000,000, a growth in the domestic currency requirements, and an increase in the reserve requirements of member banks.

Now, why should the exporting of $135,000,000 of gold during 1925 require an expansion of bank credit here, when I understand that we have a great surplus of gold, beyond what we really should have?

Governor STRONG. Mr. Chairman, I have not read the language of that report, but possibly it might be expressed in this way:

The loss of gold caused no reduction of bank credit generally in the banking system, but it did necessitate an expansion of the amount of bank credit furnished by the Federal reserve banks to the banking system. The amount of gold exported was offset by the amount of credit which we furnished to make good those reserves which were so reduced by the gold export. Possibly I should describe just how that process takes place.

If a foreign bank has a balance in a New York City bank, and, because it is more profitable to do so than it is to conduct an exchange operation, it decides to take gold for that balance, it asks

its New York bank to ship, say, a million dollars of gold. The New York bank will come to us with a check on its reserve balance, ask us to pack a million dollars of gold in kegs, and ship it by a certain steamer. The shipping of that gold takes a million dollars out of the reserve that that bank was carrying. Now, it has got to make it good, and there are two ways of doing it—either by contracting loans or borrowing from us. When a large movement takes place, if they do not have the facilities of the reserve system to borrow money, borrow credit, and make good their reserves, it would impose a large contraction of credit on the country, and that is one of the principal functions of the reserve system—to take care of just such gold movements and avoid the contraction which they otherwise would cause.

The CHAIRMAN. How would a similar transaction be treated in England?

Governor STRONG. It is substantially the same in all countries.

Mr. WINGO. It might be well in this connection, Governor, to call attention to the reverse of that. Take that same bank that received the $1,000,000 shipment. If that bank in Europe desires to send over gold, instead of making an exchange deposit when they send over that gold their bank immediately would bring that gold to the Federal reserve bank and deposit it with you, and that would increase its reserve balance immediately.

Governor STRONG. By that amount.

Mr. WINGO. And while it might not automatically decrease the rediscounts that it might have with you, it would mean that in the current transactions it would have a slack there of $1,000,000 that it would not have to take up by rediscounts to substitute for those that were maturing. The reverse of the transaction is just the same. The gold coming in automatically adds to the reserves that that bank would have, and decreases its rediscount operations if it were meeting its reserve demands, as they usually do, in that way.

Governor STRONG. That is exactly the point I made last week, Mr. Wingo; that if the banks of the country owe the reserve banks nothing, and we have a large import movement of gold, the increase in the reserves of the member banks caused by that import movement of gold becomes the basis of inflation. If they have discounts with us, they pay them off. If we have Government securities or other securities which we own, and the banks do not owe us anything, we can sell those securities and offset the effect of the gold import.

Quite in addition to any policies which the Federal reserve banks might adopt to deal with unusual importations of gold, there are other steps which might be taken which would be effective for a long time to offset the inflationary effect of very large amounts of gold imports. The details of these possible measures are not material to this discussion, but it may be roughly stated that without any legislation whatever, certain changes in our present practice could be made effective to deal with an importation of possibly as much as $500,000,000 or more. Other measures rather more unusual and in some instances requiring legislation could also be undertaken to offset the influence of a further and still larger amount. In fact, while it might involve some expense, I do not apprehend that there is any possibility of a movement of gold to this country

of such magnitude as could not be dealt with, so far as the direct inflationary effects in this country are concerned, but the indirect effects; that is, the the reaction on conditions in this country brought about by the disturbance which would result in Europe from a further vast loss of gold would in any event be unsatisfactory, unfavorable, and possibly do considerable harm. Properly speaking, such a gold movement would do no one good. It would injure the rest of the world and react unsatisfactorily here.

The CHAIRMAN. On the opposite side, then, deflation might occur by the withdrawal of those funds?

Governor STRONG. Quite so. In 1907, when we had a panic in New York and money rates got up to extraordinary levels, bank reserves became seriously impaired. Not only did the clearing house banks issue loan certificates in order to protect their reserves, but we imported something like $70,000,000 of gold from England, and the Bank of England put its bank rate up to 7 per cent, as I recall, to protect its reserve. Our panic in New York was reflected at once in London because of the loss of their reserves.

The CHAIRMAN. You referred the other day to the part which the Federal reserve system was playing in absorbing what might be a very severe shock at the quarterly tax periods of the Treasury. There are times when, as I recall those quarterly periods, when they run to five or six hundred million dollars.

Governor STRONG. That is the next item on my list, Mr. Chairman.

The CHAIRMAN. All right.

Governor STRONG. I realized that that question was held over for discussion.

The CHAIRMAN. Suppose you proceed, then, in your own way, and I will withdraw that question for the moment.

Governor STRONG. We have three types of short-time adjustments to make in New York City to compensate for unusual or seasonal transactions. Those are (1) what we call "window dressing," (2) in connection with the quarter-day operations of the Treasury Department, when taxes are collected and new securities are issued and the old issues are paid off, and (3) the seasonal movements which occur because of the seasonal operations of business. Are those the particular matters that you want described, Mr. Chairman?

The CHAIRMAN. Yes. What I have in mind is what would occur if the Federal reserve system did not, so to speak, absorb the shock during those periods. It is indicated to me in that connection that the Treasury quarterly tax operations are a factor in the money market, and the extent to which the tenseness of that situation is relieved by the Federal reserve banks is an important matter in connection with the whole situation.

Governor STRONG. Yes, sir; it is.

I can describe what happens on the quarter-day, Mr. Chairman.

Four times a year the Treasury takes in from the public the proportion of the income taxes payable at that date—March 15, June 15, September 15, and December 15—and on those same dates the maturities of the short-time borrowings of the Treasury are all fixed so as to coincide with the receipts of taxes, and, of course, on those dates new issues must be made in case the taxes are not sufficient to meet the maturities. I have some data here that I would like to refer to in that connection.

I want to use a more specific illustration of what occurred on the 15th of this March, Mr. Chairman.

These transactions, which are of immense volume, would be a disturbing influence in the money market if there were not compensating transactions conducted by the reserve bank to offset them, and they occur in this way.

The income taxes are paid by check, and it takes about three or four days to collect those checks. They are paid in to the income tax collectors in all parts of the United States and deposited with Federal reserve banks. It takes a few days to collect the checks and make the transfers to New York from the other districts, because most of the payments of maturing securities concentrate in New York. A large proportion of the securities come to New York for payment, and these funds have to be transferred to New York in time to meet the payments.

Now, maturing issues come in for payment at once on the 15th of the month. The proceeds of the tax checks can not be made available for some days. The reserve bank of New York (and sometimes other reserve banks for smaller amounts), advances to the Treasury a sufficient amount to make good the shortage, and sometimes that runs as high as $250,000,000 or $300,000,000.

The CHAIRMAN. What kind of an instrument is executed to cover that?

Governor STRONG. The officers of the Treasury issue a certificate of indebtedness which is delivered to the Federal Reserve Board and held in Washington for our account, and every day, as the amount of this advance is reduced by repayments to us, the certificate is surrendered and a new one is issued for the balance unpaid.

The CHAIRMAN. Interest is paid on the amount?

Governor STRONG. Interest is paid on the amount for that time by the Treasury.

The other offsetting influence which has to be applied at once is this: These checks that are in the mails for collection do not impair the reserves of the member banks until they are presented for payment at the banks on which they are drawn. So the effect of this advance which we make to the Treasury in order to pay off at once the certificates that are presented at the bank is to put that amount of new Federal reserve credit into the market—a very large amount at times; and that would flood the market with money and cause very easy rates.

The CHAIRMAN. The amount of that credit would be the amount of the advance?

Governor STRONG. Roughly; yes. The advance is really to cover the period while the checks are being collected.

The CHAIRMAN. Well, the exact amount of the credit would be just to the extent of the advance to the Government?

Governor STRONG. Within a few million dollars.

The CHAIRMAN. For instance, then, if you granted credit to the Government of $300,000,000, you would release $300,000,000 worth of credit?

Governor STRONG. And we would add something like $300,000,000 to the reserves of the member banks of New York by that transaction.

Now, that is not a good thing to have happening. It largely takes care of itself if the New York banks owe us enough to repay loans or discounts right away.

The CHAIRMAN. Now, what does the Federal reserve bank do to absorb the effect of such transactions?

Governor STRONG. We make temporary sales of Government securities out of our portfolio in the market and take the funds right back again.

The CHAIRMAN. Suppose you did not have in your portfolio the Government securities?

Governor STRONG. Then we would have a flood of money in the market, which would be undesirable. We use this portfolio of "committee" securities, so to speak, to take up that superabundance of funds in the market on the quarter days.

The CHAIRMAN. It is essential, then, to the Federal reserve bank to keep a certain amount of Government securities in there for that purpose?

Governor STRONG. That is a matter of policy which depends on more considerations than quarter days alone. I believe that it is desirable that we should always have a portfolio of Government securities to offset this gold movement and to deal with the quarter-day periods. But having a reserve of Government securities is like the old municipal regulation in Berlin that you have heard quoted—that there must always be one cab at the cab stand—the effect would be simply to reduce the number of cabs in service, as one at each stand would never be used. It is a matter of judgment whether we should retain a greater or less minimum of Government securities for making these adjustments, and the amount at times might be very small.

Mr. WINGO. Is there anything in this thought: That there might be other emergencies arising that would need similar treatment, which would make it desirable for you to have available these securities to sell?

Governor STRONG. Well, those are the two principal short-time situations that arise. In my description of open-market operation I attempted to explain the other and major purpose in relation to changes in the discount rate of the bank.

Mr. WINGO. But the last eight or ten years have been full of rapidly changing conditions at times, which, although they might be minor, might in their ramifications become major in their effect.

Governor STRONG. Oh, yes.

Mr. WINGO. The thought just flashed through my mind that not only to handle these quarterly payments, but as a reserve to meet a certain emergency where you would want a certain balancing of the credit situation, it might be attractive from that standpoint.

Governor STRONG. Well, there is another reason. There are many ramifications of it, Mr. Wingo, and I will describe one type.

If for any reason the foreign banks of issue which carry balances in the New York reserve bank should suddenly pile up those balances with us, or should earmark a large amount of gold in New York, the purchase of Government securities would be a very convenient and possibly a necessary way of offsetting that temporary contraction of credit in the market.

Mr. WINGO. One of the things that flashed through my mind was that it is possible, with our credit situation necessarily interwoven with the world credit situation—because the credit follows the world transactions in commodities—the changing conditions might be beyond our control as a nation, and beyond anybody's control, and it might be a good idea to reserve a power there which could be used.

The CHAIRMAN. What effect on the Government bond market does the release of three to five hundred million dollars of Government securities by the Federal reserve bank have?

Governor STRONG. To the extent that purchases or sales of large amounts of these securities by the reserve banks have any effect upon the general level of interest rates, necessarily it must have some effect upon the rates which the Government pays for its borrowings. Of course, as the fiscal agents of the United States, it is necessary that the reserve banks maintain a very close contact with the Secretary and the Undersecretary of the Treasury in all of these matters, and we always have done so. In fact, the appointment of the original open-market committee, back in 1922, was very much at the instance of the Treasury Department in an effort to develop a better organized procedure in all these matters; and I can assure you it has developed a very much better organized procedure.

The CHAIRMAN. Realizing, of course, how sensitive the New York Federal Reserve Bank is to the heart throbs, so to speak, of the requirements for credit and contraction and expansion, what would be the effect of the release of half a billion dollars' worth of credit on the money market in New York by the Federal reserve bank?

Governor STRONG. You mean an uncontrolled release, such as might arise from Treasury transactions?

The CHAIRMAN. Yes.

Governor STRONG. If it could not be offset and become a permanent increase, it naturally would affect the whole rate and credit structure of the country in time. It would result instantly in a drop in interest rates to a very low level. Nothing of that sort has occurred since the operations of the Treasury and the transactions of the reserve bank and the various matters conducted under the supervision of this committee have all been brought into harmony. I think it has been successful in every respect in avoiding these great swings that are undesirable.

The CHAIRMAN. Would the release of $500,000,000 worth of credit through the Federal reserve bank have any different effect than the sending into the New York market of bankers' balances to that same extent?

Governor STRONG. Oh, yes. That is a wholly different matter. The release of $500,000,000 of reserve bank credit, such as you describe, would be similar to the importation of $500,000,000 of gold. The transfer of balances around the country does not so much affect the volume of credit. Those offset each other. When a balance is withdrawn from one place, say the interior, and goes to another, say, New York, it reduces the available reserves in the interior and increases them in New York, and vice versa.

Mr. STRONG of Kansas. You see in the papers now, in commenting upon the recent flurry in the stock markets, the statement that the country banks withdrew their balances, and now they are expecting

to come back, indicating that they believe that they have an influence on the amount of speculation.

Governor STRONG. Well, that is a big subject. May I finish this first?

Mr. STRONG of Kansas. Certainly.

The CHAIRMAN. To follow up the line that I was pursuing the Federal reserve report states that the increase in the total volume of reserve bank credit between mid-summer and the end of the year 1925 amounted to about $500,000,000. Now, during that same period of time we exported $135,000,000 worth of gold. How much of that expansion was incident, in your judgment, to the export of $135,000,000 of gold?

Governor STRONG. Broadly speaking, I should say that the expansion of our loans offset all of that; that the export of $135,000,000 of gold, net, brought into existence a corresponding amount of our credit to make up the shortage of bank reserves. Of course, there is a seasonal movement at that time, Mr. Chairman, which confuses the picture a little. The holiday season at the end of the year generally requires an increase of our loans by about $400,000,000. That is the amount of currency that is required to do all the holiday shopping, and so on. That is very promptly retired after the 1st of January.

The CHAIRMAN. Would I be correct in inferring, then, that if during the present year we should have an export of three times the amount of $135,000,000 which occurred last year, we would have an expansion of credit to the extent of a billion and a half, or three times $500,000,000, which was the expansion last year?

Governor STRONG. Oh, no.

The CHAIRMAN. Would it be influenced by the other seasonal conditions?

Governor STRONG. My answer was intended to convey this, Mr. Chairman: That of the increase in Federal reserve bank credit which took place during the latter part of last year, $135,000,000 can be attributed to that loss of gold and reduction of bank reserves. The balance is accounted for in other ways, and doubtless is described in that report. I have not read it.

The CHAIRMAN. Yes; I think it is, to a certain extent.

Mr. WINGO. That means, does it not, Governor, that the banks carry practically all of their gold in the Federal reserve system now?

Governor STRONG. Practically; yes.

Mr. WINGO. There is very little gold carried in the bank vaults?

Governor STRONG. The State banks, of course, still have to carry cash reserves in their own vaults, and they have quite a large amount of cash; those that are not members of the Federal reserve system.

The CHAIRMAN. Of course, I think we all realize the important part that these balances of foreign banks in New York play in your situation; that an element of uncertainty exists as to what may be done with that gold at all times. Are you able to gauge to a practical certainty the amount of those balances in the banks of this country which might be withdrawn at a moment's notice? Of course, I recognize that you know how much of that is in the Federal reserve banks.

Governor STRONG. Yes.

The CHAIRMAN. But there is much in banks other than Federal reserve banks?

Governor STRONG. There are very large balances now; yes, sir.

Before leaving the subject of the Treasury's operations I would like to complete the picture about the quarter-day transactions by giving you a transcript from our books of the payments and receipts for account of the Treasury for the month of March.

The CHAIRMAN. Do you want to state that or enter it in the record?

Governor STRONG. It might give rise to some questions.

The CHAIRMAN. Very well; suppose you read it, and it will be inserted in the record as a whole at this point.

Governor STRONG. We paid checks and warrants amounting to $124,777,000; we paid $38,000,000 of coupons; we paid Treasury notes and certificates of indebtedness that matured on the 15th of March to the amount of $390,000,000; we made transfers of funds for the Treasury out of New York of $53,000,000; we purchased for account of the Treasury and various of the funds that they manage $110,000,000 of securities; miscellaneous items, $1,510,000, and the special one-day certificates of indebtedness that I referred to, to take care of the period while the checks were uncollected, amounted to $478,000,000.

The CHAIRMAN. How long do those temporary certificates for that purpose usually run?

Governor STRONG. They are just from day to day, and are usually fully repaid in less than a week.

On the credit side we received $160,772,000 of income taxes; there was transferred to New York from the rest of the country $372,000,000; miscellaneous internal-revenue receipts, $44,500,000; withdrawals from the Government depositaries—those are the depositary accounts that we have with the member banks for account of the Treasury—$85,000,000; other miscellaneous receipts, $39,425,000; sales for account of various bureaus of the Treasury, $4,000,000; interest paid on railroad loans $4,000,000; repayment of the one-day certificates, $478,000,000; and cash sales of the new issue, $5,000,000.

In other words, in the month of March, mostly in the last two weeks of March, we received, in round figures, $1,200,000,000 of Treasury funds, and paid out a like amount.

(The statement submitted by Governor Strong is as follows:)

Treasurer's account second Federal reserve district, month of March, 1926

RECAPITULATION

Debits:		
Checks and warrants	$124,777,000	
Coupons paid	38,156,000	
Treasury notes and C/I redeemed	390,786,000	
Funds transferred from New York	53,040,000	
Purchases account Treasury, various bureaus	110,011,000	
Miscellaneous items	1,510,000	
Special 1 day C/I	478,000,000	
Total debits		$1,196,280,000

Credits:		
Income taxes	$160,772,000	
Funds transferred to New York	372,009,000	
Miscellaneous internal revenue receipts	44,574,000	
Withdrawals from Government depositaries	85,183,000	
Other miscellaneous receipts	39,425,000	
Sold account Treasury, various bureaus	4,256,000	
Interest paid on railroad loans	4,345,000	
Special 1 day C/I	478,000,000	
Cash sales, new issue	5,105,000	
Total credits		$1,193,669,000
Excess of debits over credits		2,611,000

Mr. STEAGALL. Governor, in handling those transactions for the Treasury, what rate of interest do you charge the Treasury?

Governor STRONG. I think the arrangement is 1 per cent below the rate at which the new issue of short securities is made, or if no new issues of short securities are made, 1 per cent below the rate at which a short security of the Treasury is selling in the market. It is a very low rate. The charge on this issue was 2 per cent, which is the minimum agreed upon.

The CHAIRMAN. Governor, realizing, of course, what a close relationship necessarily has to exist between the operations of the Federal Reserve Bank of New York and the Treasury, and the fact that there is $2,000,000,000 worth of temporary certificates of indebtedness outstanding, which, of course, is a part of the Government's method of financing, there are a good many people who feel that in a flush money market like the present those temporary certificates of indebtedness ought to be retired and funded over a long period of time, and that that amount of short term temporary certificates of indebtedness should be taken out of the so-called liquid credit channels and placed in the pockets of permanent investors. I was just wondering, in that connection, whether or not it was one of the necessary things in handling these fiscal operations back and forth with the Treasury that that much of the total indebtedness of the United States be carried in that temporary form rather than in a long time funded form, and what part that temporary certificate of indebtedness played in assisting the Federal reserve banks to maintain this shock-absorbing operation between the Government and these other situations which might arise, like the gold export or seasonal movements of crops.

Governor STRONG. Of course, Mr. Chairman, the determination of what the Treasury does in these matters rests with them and not with us, and I hesitate to discuss any question of Treasury Department policy. But from the standpoint of the reserve banks and the money market——

The CHAIRMAN. That was the particular point I had in mind.

Governor STRONG. I think it would be a great misfortune if the temporary borrowings of the Treasury—the short borrowings—should be materially reduced beyond what they now are until we have a larger volume of bills in the New York market which might serve to perform the same function that these short Treasury certificates do.

The CHAIRMAN. In other words, then, your operations are expedited by having available these Treasury short-term certificates

of indebtedness, in the absence of a proper amount of eligible bills which could be used in a similar manner?

Governor STRONG. Very greatly so.

Mr. WINGO. You think the present volume is necessary?

Governor STRONG. Well, there are times when they are almost unobtainable in New York. There is never a time when they are unsalable. They are very greatly in demand. In fact, it is the kind of security of which we can sell an almost unlimited amount in case of need, and we can buy very large amounts, but it is very much more difficult to buy them than it is to sell them.

I think the present volume of about $2,000,000,000 is no burden upon the country at all. It certainly does no harm in the credit structure of the country and it does perform a very important stabilizing influence through our transactions.

Mr. WINGO. That amount is practically a permanent debt; as much so as the issue of 20-year bonds?

Governor STRONG. Yes, sir; it is an economy for the time being, at present interest levels, because the rate that the Treasury pays on these short loans is very low.

Mr. WINGO. The thought that flashes over my mind is that so far as the debt is concerned there is no difference in the terms of it. It is a debt. Then the question would be as to the difference in the effect upon the credit situation between having these temporary certificates and having a long-term bond issue.

Governor STRONG. Long-time bonds would not serve our purpose as these do. You can not sell hundreds of millions of them and buy hundreds of millions of them with the facility that you can a Treasury certificate that matures at three or six months. I should regret very much to see the volume reduced very much below what it is now. It automatically reduces itself, of course, as the certificates mature, and surplus revenues are available to pay them off.

Mr. STRONG of Kansas. Mr. Strong, because it is an advantage to the Federal reserve bank to have this short-time paper of the Government, if this policy of short-time paper is continued, does your board encourage the Government to maintain the policy of purchasing and carrying the short-time paper?

Governor STRONG. My experience, Mr. Strong, in dealing with the Treasury is that they have a very complete comprehension of this matter and work in great harmony with the reserve banks, and there is an interdependence there which really promotes the idea of cooperation without argument.

Mr. STRONG of Kansas. What I wondered was whether they were doing it to help the Federal reserve banks in their operations or whether it was solely for their own interest.

Governor STRONG. I could not answer that question off hand. I would like to talk with them about it first.

The CHAIRMAN. You do not think that the leaving of $2,000,000,000 worth of these temporary certificates in the liquid credit structure has any material effect, then?

Governor STRONG. I do not think it has a particle of effect. You mean an inflationary effect?

The CHAIRMAN. Yes.

Governor STRONG. Not a bit; not a particle.

The CHAIRMAN. You do not think that if they were taken out of there and placed in the investment structure, rather than in the current liquid credit structure, it would have any appreciable effect in releasing credits for other purposes?

Governor STRONG. I suppose to the extent that these securities are owned by banks and could be converted by some refunding operation—and I am speaking academically; it is not a matter that I would attempt to describe from the Treasury standpoint—but speaking academically, if they were all refunded, and the refunding operation resulted in the issue of bonds to private investors, and repaying the banks, it might have something of a deflationary effect on the volume of bank credit.

The CHAIRMAN. Supposing the law should be amended to forbid the rediscounting for member banks on Government securities, what effect would that have on the operation?

Governor STRONG. Much inconvenience; but that is not all. I think it would be a blow to the Treasury to do that. It would be quite unnecessary, Mr. Chairman. The facility with which our operations and the operations of the Treasury are conducted under the present plan is very much promoted by the ability of the banks to bring these securities to us, and aside from that, there is a very strong sentimental reason.

The Federal Reserve Bank of New York—I speak of New York merely because I am familiar with the figures—since 1917, that is, since we began to finance the war, has borrowed for the Treasury on long-time bonds, the Liberty, Victory, and Treasury loans, and on certificates of indebtedness, a total of $24,500,000,000. The cost of that to the Treasury, and all other costs involved to the Treasury for all operations connected with handling their securities during this period has been $15,000,000. Now, it has been possible to conduct that business in that way because of the cooperation and friendship and patriotism of the banks of the country. They charge no commissions. If the Treasury had been obliged to pay a moderate charge of one-fourth of 1 per cent to the bankers of the country for doing this business, they would have paid $60,000,000 of commissions on what the New York reserve bank alone has done for the Treasury. The member and nonmember banks have done it for nothing. They get the benefit of a little deposit account for a time, and they know that the securities which they hold themselves can be converted into a reserve balance at the reserve bank if they need to make good an impairment of the reserve; and any restriction on the freedom with which this business is conducted with the Treasury would have an adverse effect upon the Treasury's operations and on our relations with the member banks, and generally would be bad.

Mr. WINGO. It would probably raise the rate of interest, too, would it not, if we take away the rediscount?

Governor STRONG. Oh, it would undoubtedly increase the interest cost to the Government. It is not working so badly. I would like to see it left quite alone, as it is.

The CHAIRMAN. Governor, I have before me this statement of the resources and liabilities of the 12 Federal reserve banks as of

April 9, 1926. I notice at the bottom of that statement, under "Liabilities," the following:

Contingent liabilities on bills purchased for foreign correspondents.

You stated the other day that it was the practice of the Federal reserve banks to buy and hold for foreign banks certain of these bills purchased. I was wondering what the contingent liability is on those. It is stated here as $68,172,000 for the 12 banks. Do the banks guarantee those bills?

Governor STRONG. Yes, sir. It is this way, Mr. Chairman: These foreign banks carry with us balances which are substantially the same in fundamental character as the reserve balance of an American member bank with us. It is the gold exchange balance that is carried in this country, because this is a gold standard country. It would be highly undesirable if they piled up those balances in the reserve banks and did not invest a large part of them. It would be just a withdrawal of funds from our money market. And, again, they want to invest that fund here so as to earn some income. If they withdrew the funds from the market by deposits with us, and did not invest them—for instance, if we allowed interest on balances, which we do not do—then we would have to buy those bills just the same ourselves; and we prefer to have them buy bills through us, to keep their balances invested, and then if they need money on short notice they cable us and we discount them.

The CHAIRMAN. Bankers in New York who indorse bills make a commission charge. Is it customary for the Federal reserve bank to make a charge for that?

Governor STRONG. Yes, sir; we charge them a small percentage for that.

The CHAIRMAN. For that and the work incident to it?

Governor STRONG. Yes, sir.

Mr. Chairman, I have not finished the discussion of these short-time operations in the money market.

The CHAIRMAN. There are just two more questions collateral to this. Of course the Federal reserve banks are holding earmarked gold for these foreign correspondent banks?

Governor STRONG. Yes.

The CHAIRMAN. And they are also holding deposits?

Governor STRONG. Yes.

The CHAIRMAN. I notice in the liabilities here that there are deposits of foreign banks, $7,954,000 on April 7, 1926. Was that the total amount of foreign bank deposits in the Federal reserve system on that date?

Governor STRONG. That happened to be the total amount on that date of deposits in current account, in their checking accounts with us.

The CHAIRMAN. You have a special account for their deposits, have you, that is not figured in your reserve deposit assets? How is that carried? Are those balances carried in the same category as reserve member bank balances are carried?

Governor STRONG. Yes; they are just the balances on our deposit ledger of the foreign accounts.

The CHAIRMAN. This account in this statement, then, of foreign bank balances is supposed to cover the total amount of those deposits?

Governor STRONG. Yes, sir. It happened to be low at that time, as I recall, because we had been buying bills, as appears there.

The CHAIRMAN. That is all.

Governor STRONG. I have described something of what happens on the quarter days.

Then there is what is commonly described as the window dressing of bank balances—something that can hardly be escaped, and which is the practice more or less in all countries. We calculate the reserves of our member banks on a weekly average in the big cities, and for the country banks a fortnightly average. It is impossible for a large bank in New York with a large swing of deposits and transactions to maintain its reserve accurately every day at the legal minimum. They want to use any surplus, of course, over the minimum required, and there is a tendency among banks generally to adjust the average of their reserves by heavier borrowings at the end of the week than in the early part of the week.

If they are short during the early part of the week, they will borrow toward the end of the week. If any unusual transaction causes them to be over in the early part of the week, such as on a quarter day, when this big fund comes into the market, then they will run down the latter part of the week to make their average right. That occurs weekly in New York, and was quite a problem for a time, until we devised the plan of changing the periods throughout the reserve districts somewhat, so that they are staggered. Chicago, Boston, Philadelphia, and other cities use a different period from New York, and it equalizes the necessity for the New York banks to borrow from us at times to adjust their own reserves in that way, and at times to meet demands of out-of-town banks which are adjusting their reserves. When Chicago and New York used the same period, at the end of the week the Chicago banks had balances transferred from New York to Chicago by telegraph to adjust their reserves, and that added to the difficulty in New York. But the Chicago Reserve Bank was able to arrange to change the period of the average in their reserve in making up their figures, and now it is pretty well smoothed out.

That caused a weekly fluctuation in borrowings. Sometimes they got large enough, when withdrawals were heavy, to necessitate our buying and again selling some securities in the market. But that has all been pretty well worked out now.

The other window-dressing period is just before the semiannual bank statements are made, and especially at the end of December. The banks do not like to show borrowed money, and there is a good deal of shifting of borrowing so as to avoid it. That is also done for window-dressing purposes, and sometimes it is a little difficult to manage. At the end of last year we saw that there was going to be a development of that sort, and bought $50,000,000 of Government securities to relieve the situation a little bit; at times we have to do that.

The CHAIRMAN. Governor, I recall in connection with the subject of reserves that a few months ago there were representatives of banks before this committee from New England, who were discussing the operations of the Federal reserve banks, more particularly the outlying banks not being able to get quite the service out of the Federal

reserve banks that those banks in Boston, which were in close proximity to the Federal reserve bank, were getting. It was stated to the committee that it was the practice among the Boston banks, when it came to closing time and they found themselves short of the legal reserve requirement, that they took a broom and swept up the till money and deposited it overnight with the Federal reserve bank to make good their shortage of reserves, and in the morning recouped themselves after their mail and clearings were ready by taking over the lot of checks and clearing items and getting the till money back, so that the Federal reserve was furnishing even their till money.

That is not the practice of the New York banks?

Governor STRONG. No.

The CHAIRMAN. In other words, you expect legal reserves to be legal reserves, and do not permit a practice like that to prevail?

Governor STRONG. I think our banks generally do pretty well about that. I do not know the details, but I have no doubt there is some exaggeration of the extent of that practice in Boston. Banks do not like to cart all that money around the streets, Mr. Chairman. We have an immense inflow and outflow of cash in New York every day. I wish you could see it. It comes in by wagonloads. But it is the natural flow of money in and out of the reserve bank that results from the accumulations in some banks in excess of what they require for till money, and the shortages of other banks when they get low in till money.

Mr. Harrison is here, understands all that, and he can tell you in detail better than I can.

Mr. WINGO. I understand the so-called "wheelbarrow" practice of the reserve bank has been eliminated to a large extent in Boston.

Governor STRONG. Returning now to these short-time adjustments in the money market, there is, of course, the seasonal flow of credit in and out of New York. I do not know that it is necessary to go into that very extensively, but there are periods of the year, such for instance, as when the farms are being prepared for planting, and again in the fall when the harvests are being made, when the interior banks withdraw from New York and when, in consequence, our banks there are lending more heavily than at other seasons.

Those movements can be and to some extent are compensated by these open-market transactions. So long as we have no large account of discounts in New York, the seasonal demand largely takes care of itself; if, on the other hand, we have a large discount account and a fairly high bank rate, the reluctance of banks to borrow at that rate might make it quite desirable that we should intervene voluntarily upon our own initiative, and actually put some funds in the market by buying Government securities.

These open-market transactions give a certain flexibility in managing these short swings that we would not have unless we conducted them and had the materials with which to conduct them in the form of short-time Government securities.

The CHAIRMAN. Supposing that other large banks in New York, outside of the Federal reserve, should conclude that the release of $250,000,000 credit some day might be to their particular advantage in making money. That would be possible by the fact that they held large amounts of Government securities, short-term notes, eligible paper, etc., for them to do that. Suppose the Federal reserve

bank would regard that very much as an unusual transaction, similar to that which the Treasury has at the time of these quarterly periods, and that they might put their influences to work to overcome any influence which such an operation might have, might they not?

Governor STRONG. The New York banks could not do it without borrowing from us; they would have to come to us.

The CHAIRMAN. They might be able to borrow from you to that extent, because of the fact that they have eligible paper and Government securities.

Governor STRONG. When they borrow too much we put the rate up, and that checks it.

The operation of the New York bank in these respects, that is, looking at the problem of the whole volume of credit, has to be conducted with a close eye to our own position in our local market and equally with consideration to the position of the whole system. We could not tell, because of this vast flow of credit that takes place throughout the country, what to do in New York unless we knew what was happening in every other district.

The CHAIRMAN. I was prompted somewhat in asking that question by the fact that the other day my attention was called during the hearings to the fact that one bank borrowed from the Federal reserve bank to the extent of over a hundred million dollars. I do not know whether that was before or after the interest rate was raised.

Governor STRONG. That was entirely to take care of the withdrawals from New York, and window dressing, which happens to coincide with the heavy holiday demand.

The CHAIRMAN. Withdrawals?

Governor STRONG. Of interior banks that wanted to get out of debt before they made their statement at the end of the year and also withdrawals to take care of the usual Christmas demand for currency.

The CHAIRMAN. I suppose that might also have been for the purpose of withdrawal of funds for the purpose of investing in stock exchange loans?

Governor STRONG. No, sir; I do not think so.

The CHAIRMAN. It would have the same effect, would it not?

Governor STRONG. If there was an increase in the loan account for that reason or any other reason it may have had that effect. But such sudden borrowing does not arise in that way. I will be very glad to describe in detail just what the occurrences were at the end of the year, Mr. Chairman.

The CHAIRMAN. I think it might be interesting to the committee.

Governor STRONG. We had three influences at work: one was the seasonal demand for currency which always induces heavier borrowing; the seasonal demand upon the system runs up to as high as $400,000,000. The second influence was the withdrawal of funds from New York by interior banks who desired to get out of debt to the reserve bank in order to publish their statements at the first of the year showing no borrowed money; and the third influence, which was local in New York, and one rather difficult to define, was due to the following facts. We have a system of daily reports in New York from each of the important banks, showing what their call loans are. We know what they are borrowing; we know what their reserve

position is; that is, we actually know the required reserve of each of these banks every day as well as how much they will be over or short at the end of the week. So, we can tell before the bank statement comes out at the end of the week, about what the bank statement is going to look like.

We do not attempt and do not desire to manage the business of the member banks. We do not want to assume the responsibility of telling them how they shall use their money. But we do at times when they borrow from us or continue to borrow from us, if they have other means of adjusting their reserve position without becoming more or less continuous borrowers, have a talk with them. We do not tell them, "You must do this and you must not do that"; that is not our function. But, using reasonably good judgment, we endeavor to influence them not to be continuous borrowers from us when they have call loans on the exchange.

If we talked with 10 or 12 or 15 of the large banks about the matter—and they do not desire to borrow from us continuously anyway—we could easily create a situation where there was a heavy demand for money in New York and no one willing to loan; we might have quite a little difficulty; and that is exactly the situation that developed at the end of the year. We knew it was going to happen; it was in the air; we could feel that there was developing a difficulty in the money market, due to the shortage caused by these withdrawals—we do not want to have a breakdown in the money market that can be avoided; one large bank, realizing this situation, made very heavy loans to relieve it; two or three other banks put some money out, which under the circumstances we were glad to have them do; and that is the way the situation was taken care of, beyond the special purchase of $50,000,000 of Government securities, already mentioned, which we sold again after the year end.

The CHAIRMAN. I notice, Governor Strong, in this morning's paper a financial writer refers to the reduction in the amount of brokers' loans within the last 10 days of something over $100,000,000; he cites that to indicate that money is plentiful because of the surplus of loanable funds, indicates that the speculative stock market is not quite as active, which throws more money into the bond market.

Governor STRONG. Well——

The CHAIRMAN. What control would Federal reserve operations have over a situation like that?

Governor STRONG. I think, Mr. Chairman, I have described pretty fully the extent of our influence. Our influence is exerted upon the total volume of credit, and the effect is given by these operations in the open market and by the discount rate. The "easy" money that we speak of is more apparent than real as yet. The last statement I saw at the end of last week—or, I guess, even later than that—showed that the New York City clearing house banks—that is, the banks in the financial district—were borrowing a hundred millions from us. The up-town banks borrowing $18,000,000, and all the other banks, principally out in the country, were borrowing sixty millions. There is $178,000,000 of credit which they are borrowing from us at 4 per cent; we can not have very easy money as long as that loan account exists in the New York bank. I saw that money loaned on the stock exchange at 4 per cent at the end of last week, and there has been some easing, but not very much yet.

The CHAIRMAN. I think you have something more you wanted to add?

Governor STRONG. In our discussion of the proposed amendment to the Federal reserve act in relation to issue of Federal reserve notes against gold, I failed to refer to one important object of that amendment, which was to deny to the reserve banks the right to put bankers' acceptances with the Federal reserve agent as security for Federal reserve notes. Now, that strikes me as an unfortunate thing to propose. I have described what function those bills perform with our commerce. They are the most liquid form of paper in the banking system. They principally serve to finance the movement of goods actually going to market—principally goods that have been sold. They very largely finance the shipment of our agricultural production; they are exactly the type of paper which exists in the other central money markets of the world; it is the most orthodox paper that exists in banking, and if any paper justifies being used as collateral to Federal reserve notes it is the type of paper that performs that function, which has not only the obligation of a borrower on it but the obligation of the bank which accepts and the obligation of the drawer who may have sold the goods, as well as the indorsement of another bank on the back—maybe two or three other banks. And to permit the pledge of a single-named note with the indorsement of a bank, which can not be identified necessarily with a specific sale of goods, as collateral for Federal reserve notes and deny this bill that function seems to me quite the wrong way around. This is the type of paper, of all others, which should serve as security for what you might call an asset currency.

The CHAIRMAN. You do not think there is any difference in the effect of the purchase of open-market paper being brought into the system and used by the Federal reserve agent for part security with free gold for the issuance of Federal reserve notes than to let that paper come in through member banks in the form of rediscount, and then proceed to the Federal reserve agent as part security for their notes. Is there any difference there?

Governor STRONG. Well, there is a great misapprehension about how that paper gets to us; and my statement last week must have been quite inadequate, Mr. Chairman. This paper, a large part of it, comes to us from other banks. It is described in the statute as "open-market purchases" under section 14, but it is discounted with us by member banks exactly as commercial paper is, only our rate for this type of paper is lower than the rate for commercial paper. This is better paper; it is, as I say, the orthodox paper of commerce.

The CHAIRMAN. As we understand, then, the open-market paper that comes into the Federal reserve system comes in very largely from the member banks?

Governor STRONG. The member banks, and they prefer to sell us a banker's acceptance at 3½ per cent rather than discount a piece of commercial paper at 4, or borrow on Government bonds at 4; and we prefer to have them, because it is a very much better type of paper for us to have.

The difference between a piece of commercial paper which we get from a member bank and this paper lies in the fact that a bank

discounting commercial paper with us has a customer relationship with the maker of that paper, as a rule; a bill is accepted and payable by some other bank and is paid automatically. There is no question of renewal of it; it is held by one bank, but payable by another bank; and there are no questions of renewal paper arising with the banker's acceptance as there are with commercial paper.

Mr. LUCE. It seems to me, Mr. Chairman, that we should get a clear understanding of this matter. Our recollection of the strictures passed upon the system by the writer in the Commercial and Financial Chronicle a year and a half ago gave very clearly the impression that in order to bolster up the earnings of the Federal reserve system you went directly into the market and bought these acceptances. Do I understand that those strictures were, in your judgment, based upon misapprehension of fact?

Governor STRONG. Quite so. I do not think they understood the subject when they wrote that article, Congressman.

Mr. LUCE. It is perhaps the most severe criticism that has appeared upon the system since it started.

Governor STRONG. When we first endeavored to develop this practice in New York and the practice of drawing bills, there were no dealers at all; there was no machinery for the conduct of business, and we had to deal with the situation as it existed. One of the things that we had to do was to encourage and support these dealers in making a market for bills—for the bills that came into the market—not by the banks that accepted them, but by brokers who bought them; and for some years after the organization of the Federal reserve system our principal purchases of bills were directly from the dealers in bills.

But the custom is now developing, and very much under the influence of our own practice in the reserve bank, of having these bills sell in the market like investment securities, if you please. Banks buy them in order to use their funds, to keep them employed. They buy them because they know they can get funds on them at a favorable rate at the reserve bank instantly, and our former practice of dealing directly with the brokers is gradually being reduced in extent.

I think to-day, if we excluded purchases which we make for account of foreign banks, where we have an actual order to invest some money for them, that possibly 85 to 90 per cent of all bills which we hold comes from the member banks.

Mr. LUCE. Is there any way in which you could, if you wanted to, incite the member banks to go into the market and buy?

Governor STRONG. I think they are gradually doing it for their own welfare and security. It is the most liquid paper they have in their portfolios; they are beginning to realize that now, and many banks are trying to keep a portfolio of these bills.

Mr. LUCE. Then, you hold there is no ground for the surmise that the "guardian is competing with his ward" in the market?

Governor STRONG. As for the surmise that we are competing with the member banks, I should say, Congressman, that practically every power conferred upon the Federal reserve banks by Congress under this act involves a certain amount of competition with our own members. The transfer of the reserves took business away from the banks; we took over all of the Government business of the

Treasury. The collection of checks was a form of competition with the member banks; giving us authority, if you please, to discount this paper is a form of competition, but it is a necessary change in our banking system for the benefit of the banks themselves.

Mr. LUCE. But, as you explain the process, I do not see how the member bank is, in this particular line of transaction, losing any money.

Governor STRONG. They have an opportunity to make a profit on each transaction before it comes to us.

Mr. LUCE. That is what I was driving at.

Governor STRONG. Exactly. I was very sorry that the criticism arose. Of course, we were perfectly aware of it in New York. But, Congressman, it is not going to be possible to regulate the Federal reserve system and have it perform the functions that it was designed to perform and not in some directions give the member banks the impression that we are competing with them. It is unfortunate that it should be so. They enjoy benefits under the Federal reserve system far offsetting any losses that they think may occur by these so-called competitions.

The CHAIRMAN. In connection with this, Governor Strong, in the March issue of the Commercial and Financial Chronicle, under date of March 20, in the first article, which is an editorial on "The financial situation," they said this [reading]:

THE FINANCIAL SITUATION

The action of the Senate Committee on Banking and Currency in attaching a rider, at the instance of Senator Carter Glass, to the McFadden branch banking bill, as it came from the House, with a view to providing perpetual charters for the Federal reserve banks is unworthy of the name and fame of Mr. Glass. Mr. Glass played an important part in securing the enactment of the Federal reserve law and it is natural that he should take a deep interest in anything affecting the welfare and existence of these institutions. But the charters of the Federal reserve banks still have eight and one-half years to run and there is no need of haste in extending their life far in advance of its expiration. Moreover, before steps are taken to grant charters in perpetuity, action should first be taken to deprive the Federal reserve banks of their war-time powers, under the exercise of which in peace times grave abuses have grown up and the further continuance of which may mean serious menace to the country.

Because of the imperative necessity of abolishing these war-time powers, so as to restore the Federal reserve banks to their original scope, any device or scheme intended to extend the charters in advance of the passage of these repeal provisions is to be deprecated and should be vigorously opposed. If the life of the banks has once been extended it may prove difficult, if not impossible, to get a repeal provision through the two Houses of Congress, since obstructive measures against legislation of any kind are always easy on the part of even a very small minority. Besides, the matter ought to be broadly and deliberately considered on its own merits and not disposed of by means of a rider to a bill of any other kind. Some see a plot in the rider to defeat the McFadden branch banking bill, which has many opponents in the Senate, but, of course, Mr. Glass is above anything of the kind. Yet everyone must regret that he should have allowed the use of his name and prestige in having this particular rider incorporated in the bill.

If the Federal reserve banks existed to-day according to their original design we doubt that any serious opposition to the extension of their charters could be found. But through the war-time amendments their character and purposes have been entirely changed. It is incumbent, therefore, for the reasons already stated, that repeal should first be carried out and then legislation enacted to give the banks perpetual life. The Federal reserve banks should be restricted, as repeatedly pointed out by us, in their power

to issue reserve notes, the same as before the war, so that notes can be put out only against mercantile paper and not used in addition to corral all the gold in the country, thereby furnishing the basis for promoting speculation of every conceivable type. Then, also, the reserve banks should not have the custody of the entire reserves of the member banks, but only a part thereof, and the member banks should be obliged to carry the remainder of such reserves in their own vaults in actual gold. Their open-market operations should in like manner be restricted. Finally, the reserve banks should be required to charge for their services instead of giving them gratuitously.

No such gigantic speculation in stocks as has been witnessed in this country during the last two years would have been possible except for the operation and existence of the reserve banks with their unlimited powers in the acquisition of gold and the emission of reserve notes. We like to credit men with good motives, and we do not, of course, mean to assert that the managers of the reserve banks have a purpose to design to promote speculation. But nevertheless, the free-handed way in which the unlimited powers at their command are used in itself tends to promote speculative frenzy with all the evils attaching to it.

The havoc caused by the rampant speculation to which we refer is now in evidence on every side, further sharp collapses in stock exchange values having occurred the present week. The magnitude of the loans to brokers and dealers on the Stock Exchange tell their own story of the extent to which credit has been extended in carrying on stock exchange speculation. It will be remembered that in its first statement the Federal Reserve Board reported that as of February 3 the total of loans to brokers and dealers (secured by stocks and bonds) made by 61 member banks stood at $3,091,997,000; in addition it appeared there were $999,634,000 of other loans secured by stocks and bonds, but not to be classed as brokers' loans, making altogether $4,091,631,000 of loans secured by stock and bond collateral. Just think of a total exceeding $4,000,000,000. Of course, these are loans by the member banks and not by the reserve banks, but they would not have been possible except for the use of the credit of the reserve banks granted in such unstinted fashion.

Remember, too, that the figures given cover merely the reporting member banks in the New York Federal Reserve District. How much additional money has been employed elsewhere in aiding stock speculation in Boston, Philadelphia, Chicago, and the various other stock exchanges which have had a similar rampant speculation on their own exchanges? Observe, also, that the reporting member banks in the New York district, while showing loans on stock and bond collateral running in excess of over $4,000,000,000, showed only $2,234,922,000 of "all other loans and discounts," or mercantile loans.

Since the collapse on the stock exchange the brokers' loans have been rapidly reduced, the decline in the statement the present week (for the week ending March 10) being no less than $162,783,000. This followed a decline of $60,939,000 the previous week and of $29,393,000 the week before, making altogether no less than $253,115,000 for the three weeks combined. The contraction will no doubt be referred to as an illustration of the beneficent way in which the Federal reserve banking system functions in providing both expansion and contraction. As a matter of fact, the liquidation now being enforced furnishes the strongest evidence going to show that the accommodation originally extended and now being withdrawn should never have been granted in the first instance. We therefore urge with great strenuousness that the charters of the Federal reserve banks should not be extended until the law has first been changed so as to make it impossible in the future to use the credit of the reserve banks in the way indicated.

Of course the war-time amendments they refer to there are the authorizations for open-market transactions and pertaining to the change in legal reserve requirements.

Governor STRONG. The war-time amendments, Congressman, did not affect our powers in the open-market as to these bills of exchange—bankers' acceptances—but simply authorized the Federal reserve agent to receive them as collateral for the Federal reserve note issues. We already had the power to buy them.

The CHAIRMAN. Yes; the discretion rests entirely where it was placed, in the hands of the bank, does it not?

Governor STRONG. I am just reminded, too, of the fact that that amendment was suggested before the war, although it was not enacted until June, 1917.

Mr. WINGO. The net effect of that amendment you have already covered?

Governor STRONG. Yes.

Mr. WINGO. That it was really a more liquid asset or paper back of the Federal reserve notes than the ordinary commercial paper, and that we did not put back of the reserve notes as you have represented to us; that you did not have the renewal possibilities that you have in ordinary commercial paper that you frequently rediscount and use as the basis of Federal reserve notes. Were there any other possible effects of that amendment? I do not see how it would increase the volume of Federal reserve notes. It just changed the nature of the paper that might be back of them.

The CHAIRMAN. It left the discretion in the matter of Federal reserve notes that would be issued with the Federal reserve banks, as I recall it, rather than with the member banks. Am I right or wrong in that regard?

Governor STRONG. I do not think it effected any change in the operation of the act in that respect at all. It did, as I recall, give the Federal reserve agent power to issue Federal reserve notes against the notes of member banks secured by Government securities, which is still in the act, but we never issue any currency, by whatever collateral it is secured, except when one of our depositors decides to withdraw it. To that extent the discretion is with them, not with us.

The CHAIRMAN. In connection with the editorial I have read from the Commercial and Financial Chronicle and the statement you have made in regard to these foreign credits, I want to include in the record at this point an editorial from the same paper under date of May 23, 1925, entitled "A credit granted by the Federal reserve banks to the Bank of England," which is also rather a criticism of the loan and some of the issues involved in the other editorial, with the thought that it would be well to have the whole subject answered together.

Governor STRONG. Do you think it has been answered, Mr. Chairman, by my statement?

The CHAIRMAN. I think it has; yes. But I think it is as well to have it all in, because it is one of the prominent critics of the loan. We will let it go in at this point.

(The article referred to is as follows:)

THE CREDIT GRANTED BY THE FEDERAL RESERVE BANK TO THE BANK OF ENGLAND

The arrangement by which the Federal Reserve Bank of New York has agreed to place $200,000,000 gold at the disposal of the Bank of England in order to assist that institution in the maintenance of the gold standard in Great Britain is a legitimate subject for discussion. More than that, now that enough time has elapsed to permit consideration of the matter in a calm and dispassionate way, it ought most seriously to be discussed—not, of course, from the standpoint of the merit of the undertaking, as to which there is no question, but as to whether the Federal reserve bank has any right or power to enter into any such transaction.

We observe that at the annual meeting of the United States Chamber of Commerce this week at Washington, Pierre Jay, chairman of the Federal Reserve Bank of New York, is quoted as having said, in an address before the

finance group, that one of the greatest services rendered American business, and in fact the entire world (we are using the report of the speech published in the New York Tribune), was in the action of the bank in making the $200,000,000 gold available to the Bank of England. No one questions the advantages to result from the arrangement. The whole community is of one mind in that respect. Nor, on the other hand, does anyone doubt that J. P. Morgan & Co., who have simultaneously arranged to extend a credit of $100,000,000 to the British Government, and who have won eminence and distinction in that line of undertaking, could in conjunction with other bankers have made full provision for the additional $200,000,000, without any intervention on the part of the Federal reserve bank, and thereby achieved the same happy result. The question of services rendered, therefore, may well be left out of the account and it is certainly entirely apart from the question as to the authority of the reserve bank to act at all in the premises.

The most serious criticism of the action of the reserve bank has come from Oscar T. Crosby, Assistant Secretary of the Treasury in the Wilson administration and one of the American financial advisers abroad during the war. Mr. Crosby challenges the authority of the reserve bank to act as it has. He does not question the purpose in view, and he takes it for granted that everyone is in hearty sympathy with the move by which Great Britain returns to the gold standard, and also with the determination of all parties to extend assistance to the fullest extent possible and permissible. He commends J. P. Morgan & Co. for their part in the transaction, but well says that governmental agencies engaged in the financial field can scarcely be left that perfect freedom which should be enjoyed by private capitalists. And he adds that "it remains for the American people to consider how far, and under what conditions, they desire that their public resources should be placed, for any period of time, at the disposal of foreign governments, without resort to the illuminating, though vexatious, processes of discussion as over a treaty."

To us these strictures seem to rest on a sound basis. In fact, we would go much further than Mr. Crosby appears inclined to go. We can not persuade ourselves that the Federal reserve bank possesses any authority at all to engage in an undertaking to place $200,000,000 gold at the disposal of the Bank of England, however meritorious such a proposition may be. In a matter of that kind the editor, if he followed his inclinations, would preferably remain silent, keeping in mind merely the wonderful good to be accomplished and overlooking the method by which the end is to be achieved. It is for that reason that we have withheld comment for the last three weeks. But it seems to us that we would be recreant to our duty if we closed our eyes to doings and performances on the part of those high in authority for which no adequate sanction can be found in law and fraught with such serious consequences should they become a precedent.

If the arrangement should by any possibility fall strictly within legal technicalities, it would yet have to be held as being utterly out of accord with the spirit of the law. It is certainly alien to the purpose of the reserve act. No one would have fancied at the time of the enactment of the Federal reserve law that it contained any power or authority on the part of anyone connected with the Federal reserve system to use $200,000,000 of its gold holdings for the benefit of a foreign bank or a foreign government, no matter what advantages there might be in such a course.

The Federal Reserve Bank of New York in explaining in its Monthly Review for May 1 what had been done, said that "under the arrangement between the reserve bank and the Bank of England the credit could be made operative in the various ways provided by section 14 of the Federal reserve act. Sterling bills could be purchased by the reserve banks, a deposit balance could be created and maintained with the Bank of England, or gold could be earmarked or exported. The precise form of use, if any, would depend upon the needs of the situation." But these are simply incidental powers, necessary to the conduct of any great central bank. The reserve banks could not function without them. What is there in the granting of these indispensable functions to warrant the assumption that resources of the reserve banks, whether in gold or in some other form, can be set aside, in whole or in part, for the benefit of another institution or another country?

It is not the existence of these incidental powers that is in question, but the way it is proposed to use them. And where is authority to be found for such use? Remember, that the reserve banks are not engaged in operations for their own benefit but for the benefit of another party. The character of

the transaction is not in dispute. It is not an ordinary, every-day banking transaction. Nor can it be said to grow, even remotely, out of the daily business of the reserve institutions. It is in every way distinctive and exceptional. It is in fact sui generis. The power to do such an unusual, such an extraordinary thing, is not to be implied or inferred. There must be a specific grant of authority for it. Where is such specific grant to be found?

The matter becomes of especial importance when we consider how the reserve banks come into possession of their gold holdings. The gold comes to them in one of two ways. Either it constitutes the reserve of the member banks, in which case the reserve banks are supposed to hold it intact as far as possible, putting out reserve notes rather than the gold itself, when the member banks want to borrow back any of their reserves, or the gold is obtained directly by the issuance of reserve notes, the gold in that case constituting the collateral behind the notes. Now, consider the character and attributes of Federal reserve note issues. These are defined in section 16 of the reserve act. This says: "The said notes shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve banks, and for all taxes, customs, and other public dues." Bear well in mind the fact that the Federal reserve banks when they put out Federal reserve notes are putting out "obligations of the United States," and that the notes carry such legal tender qualities that everyone is obligated to accept them.

Is it to be supposed that Congress in passing the reserve act intended to endow the reserve bank with authority to acquire gold in this country, to be placed at the disposal of an outside nation, and simultaneously flood this country with reserve notes in order to acquire the gold? Have we not here the reductio ad absurdum?

And if now $200,000,000 gold may be placed at the disposal of Great Britain, the latter paying for it with some of her bills, what is there to prevent the same thing being done next week or next month for Germany, and the following week or month for France, or for some of the numerous other foreign countries? And none of these suggestions can be regarded untenable when it is recalled that a year ago the Federal Reserve Board gave its sanction to open-market operations in German bills on the part of the Federal reserve banks. And to the full extent that such foreign assistance should be granted, Federal reserve notes, "obligations of the United States," would be put afloat in increasing amounts. The idea that the framers of the reserve act intended anything of the kind is too preposterous to believe. It will be said that we must credit the reserve authorities with the possession of ordinary prudence, but the very fact that such perversion of power would be possible, if the power existed, shows that it was not intended to be conveyed at all; hence can not by any inference be supposed to exist.

It is to be noted, furthermore, that in the explanations of the arrangement given in the House of Commons it was stated that the arrangement is a "revolving" credit and that it is to continue for two years. This means, as we understand it, that the $200,000,000 would have to be kept continuously good; that is, if any of it was used, further amounts of gold would have to be set aside to keep the $200,000,000 intact. Our own belief is that only very limited drafts, if any at all, will have to be made upon this $200,000,000 gold credit. We are lost in admiration of the comprehensive way in which Great Britain has dealt with this subject of the resumption of gold payments. It is characteristic of the thoroughness with which such matters are always dealt with in Great Britain. The dollars needed to pay the next two installments on Great Britain's indebtedness to the United States have been accumulated in advance, and every precaution has been taken against weakness or attack from any direction and from every source.

Therefore it seems unlikely that the Bank of England will have to avail to any appreciable extent of the revolving gold fund which the Federal reserve banks are putting at its command. But that has nothing to do with the question whether Congress intended to clothe the reserve banks with any such authority. If the authority exists, it must be deemed to have been conferred by inadvertence and we, for one, believe it ought to be speedily taken away. The power to flood domestic circulation with "obligations of the United States" for the purpose of extending aid abroad, ought not to be vested in any body of men, even though they be gifted with omniscience and possess the virtue of saints.

Mr. Crosby, in his remarks, to which we referred above, expressed the opinion that the Federal Reserve Board should be required to pass upon such

transactions. That would not change the situation in the slightest degree. Neither the Federal reserve banks alone, nor the reserve banks in conjunction with the Reserve Board, should be vested with such extraordinary powers. We would even go further. Not even the Government itself, that is the President and the administration, should be vested with such huge and prodigious attributes of authority—to exercise unchecked control in the putting out of "obligations of the United States"—to be used willy or nilly and at blind discretion.

The affair goes to furnish one more reason why the reserve banks should be deprived of their authority to issue reserve notes against the acquisition of gold, instead of merely upon the deposit of commercial paper, and why they should be deprived of their other war amendments. Only moderate gold holdings are needed for their proper functioning, while the right to acquire all the gold in the country is a menace and certain to lead to abuse. There are over a billion reserve notes in circulation to-day which would not be out if the reserve banks functioned as they should, since the notes are not needed by trade. As a consequence, another rampant speculation has broken out on the stock exchange which will be attended by the same disastrous results as before. At such a time the prospect of a further saturation of note issues through the entry of the reserve banks into the foreign field can not be viewed with unconcern.

Governor STRONG. Mr. Chairman, you have been very patient in hearing me, and I do not want to impose upon your good nature. But I would like an opportunity to read the article you refer to and make a statement about it; and I am loath to leave these hearings without telling the committee a little bit—I do not want to take more time than you feel quite glad to give to it——

The CHAIRMAN. What I was going to suggest now is that to-morrow morning, after you have further read the articles from the Commercial and Financial Chronicle, that you can then make a further statement in regard to them and such other matters as occur to you.

We will now take a recess until 2 o'clock this afternoon.

(Thereupon, at 12:15 o'clock p. m., the committee took a recess until 2 o'clock this afternoon.)

AFTER RECESS

The hearing was resumed at 2 o'clock p. m., at the conclusion of the noon recess.

The CHAIRMAN. The committee will resume its hearings.

As I remember, when we closed, Governor, you were discussing the open market transactions and the viewpoint presented in an editorial in the Commercial Chronicle of New York in regard to the so-called war amendments proposing to limit the Federal reserve system in its operations in the open market as permitting a tendency toward inflation by the exchange of gold for the issue of Federal reserve notes. In that connection I think it was assumed that the Federal reserve banks might have the determination in the issuance of Federal reserve notes rather than that the control of the issuance of Federal reserve notes should come about to meet the demands for circulating medium of commerce and industry coming through the member banks. Is that correct?

STATEMENT OF BENJAMIN STRONG—Continued

Governor STRONG. Yes, as to the kind of currency we pay out; you had just read, as I recall, certain rather dogmatic statements in the Chronicle on that subject.

Mr. Chairman, it is not an easy thing, without some preparation, to cover all of the statements made in the Chronicle article, and I have not read it. I would like to do it completely, and if you will permit deferring consideration of that article, I would like to read it and study it and present something more considered to the committee than I can extemporaneously.

The CHAIRMAN. I think it is important, because I think the general inference is that the outstanding Federal reserve issues are put out in response to the demands of trade and that the Federal Reserve Board or the twelve banks have no control over the issue; the amount of outstanding Federal reserve notes is a matter of trade and commercial demands. The question raised by this article indicates that, through the open market purchases with free gold, that Federal reserve notes can be issued at the instance of the Federal reserve banks at their pleasure.

Governor STRONG. Would you like to have me prepare a considered statement on that matter?

The CHAIRMAN Yes. It is important to know whether or not the Federal reserve banks take that position or do not.

Governor STRONG. Very well, I will prepare something.

(The statement referred to is as follows:

MEMORANDUM CONCERNING CRITICISMS OF THE FEDERAL RESERVE SYSTEM BY THE COMMERCIAL AND FINANCIAL CHRONICLE

STATUS OF THE COMMERCIAL AND FINANCIAL CHRONICLE

The Commercial and Financial Chronicle is a weekly periodical publication, published in New York by the William B. Dana Co. It was founded in 1865 and has maintained a generally conservative policy. It contains one of the best available compendiums of reports of corporations, industrial and financial statistics, and current commercial and financial news; it has a wide circulation among banks, investment houses, and large business concerns in different parts of the country; and because of its long-established position and conservative character its editorial comments carry considerable weight.

The more recent criticism by the Chronicle of the Federal reserve system began in the issue of June 21, 1924, but in the discussion which preceded the establishment of the Federal reserve system in 1911 to 1913 the Chronicle was opposed to the form of organization which was finally adopted; in 1915 it was opposed to the practice of issuing notes against gold; and in 1916 and 1917 was opposed to the amendments to the Federal reserve act adopted in 1917.

NATURE OF CRITICISM

The major criticism of the Federal reserve system, made by the Chronicle recently, is that it has become an "engine of inflation"; that it has increased the volume of credit unduly; that it has made money too easy; and thus has encouraged speculation and inflation. The editor directs his criticism particularly to the transactions of the past three or four years. He believes that the faults of the system arise mainly from the "changes grafted upon it during the war," and specifically he asserts that what he regards as the recent inflation is the result of open-market operations, which he believes have been made possible by the issuance of Federal reserve notes against gold. He fears inflation in future because of the large gold reserves of the system and its power of note issue.

As remedies the Chronicle proposes:

(1) That the reserve banks should no longer have the power to issue Federal reserve notes against gold as collateral.

(2) That the reserve banks "should not have the custody of the entire reserves of the member banks, but only a part thereof."

(3) That the reserve banks be required to charge for their services in order to pay their expenses.

(4) That the Federal reserve discount rate should be maintained at a much higher level and should never be below 5 or 6 per cent.

The editor appears to believe that if these recommendations were followed the amount of credit extended by the reserve banks would be reduced by about 1,000,000,000 and the amount of Federal reserve notes in circulation would be reduced a like amount.

A public institution like the Federal reserve system is properly the subject of constant public scrutiny. It is normal and right that its policy should be publicly discussed and publicly criticized. Banks of issue always have been and always should be under scrutiny with regard to the effects of their policy on money conditions: whether their influence on money conditions is beneficial in view of all the circumstances. The major question which the Chronicle raises is an important and fundamental one, whether the reserve system has in recent years exerted its influence toward easier or toward firmer money, and whether its influence in this regard has been beneficial.

In dealing with the Chronicle criticism it therefore seems important not only to deal with the specific suggestions made by the Chronicle, but to discuss the larger problem of the influence of the reserve system in the past few years on credit and business conditions.

With reference to the specific points raised by the Chronicle it should be indicated at once that the Chronicle has been in error in a number of matters of fact. These errors are basic to the argument made by the magazine.

ERRORS OF FACT IN DISCUSSIONS BY THE CHRONICLE

(1) *Relation of note issues to open market operations.*—The principal method by which the Chronicle asserts that the reserve banks have created inflation has been by pushing out Federal Reserve notes or gold into circulation, largely through open-market operations. The Chronicle states:

"When the Federal reserve banks buy $500,000,000 of Government securities * * * the reserve notes which they pay out for the purchase, or the gold which they previously acquired by the issuance of notes, goes into circulation, and adds to its volume, and it stays out until the reserve banks again sell these securities and get the reserve notes or the gold back again." (From Chronicle, May 9, 1926.)

This statement appears to be based upon a misunderstanding of the operation which takes place when securities are purchased by the reserve banks. What actually occurs is that when a reserve bank buys securities it pays for them with a check drawn on the reserve bank, and not with Federal reserve notes or gold. The seller of the securities who receives the check deposits it in his bank. His bank in turn deposits the check at the Federal reserve bank, and by that means increases by so much its deposit with the reserve bank. The bank may then utilize this balance, as any other balance, to pay off any indebtedness to the reserve bank or for other purposes, possibly including the withdrawal of currency for its normal current needs. But in practice the balances which member banks have obtained at the reserve banks in this particular way have been used almost wholly in paying off indebtedness to the reserve banks. The operation of buying securities does not itself involve in any of its steps the use of currency or the need for more currency and does not, therefore, increase the amount of currency in circulation.

The only means by which additional currency is drawn into circulation is by a business man or other depositor going to his bank and drawing money to pay wages or buy goods, etc. The bank in turn obtains the currency it requires from a Federal reserve bank in the same way as the individual obtains money from his bank. The amount of currency in circulation is in direct response to the needs of trade and the reserve banks have no direct means such as the Chronicle states of forcing money into or out of circulation. The influence of the reserve banks on the amount of money in circulation is indirect, through their influence on the price of credit.

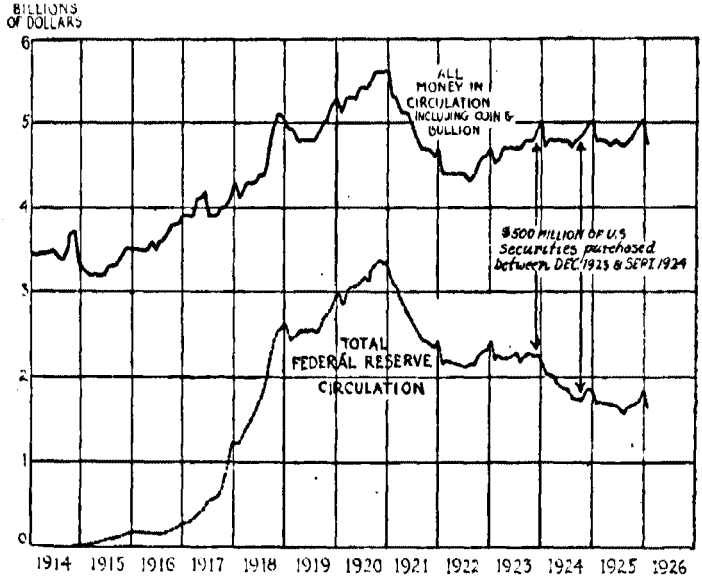
The fact that the amount of money in circulation and the open-market operations of the reserve system have no direct relationship is demonstrated by the figures for open-market operations and currency in circulation. During the period from December, 1923, to September, 1924, when the reserve banks were buying $500,000,000 of securities, the amount of currency in cir-

culation declined from $4,951,000,000 to $4,806,000,000, and the amount of Federal reserve notes in circulation declined from $2,224,000,000 to $1,729,000,000. These facts are illustrated in diagram 1.

(2) *Open-market operations and the volume of credit.*—The Chronicle further makes the error of assuming that open-market purchases of securities by the reserve system have increased the amount of Federal credit in use. The Chronicle says:

"Inasmuch as the member banks could not be persuaded to continue direct borrowing from the reserve banks, since they no longer had any need for extra facilities of that kind owing to the shrinkage in trade and business, the reserve banks, being under the necessity of paying their expenses, thought it incumbent upon them to push out reserve credit through extension of their so-called open-market operations. They proceeded to add to their holdings of Government securities until the aggregate of these on September 17, 1924, stood at $618,729,000, against $100,358,000 January 9, 1924. * * *

"By extending their open-market operations in the way indicated above, the Federal reserve banks managed to keep their earning assets at a high figure. These earning assets had been rapidly falling as a result of the decreased



borrowing by the member banks, but through the acquisition of Government securities and the open-market purchases of acceptances were once more brought above $1,000,000,000. (From Chronicle, April 11, 1925.)

It should be pointed out again, as has been done many times in the past,[1] that purchases of securities by the reserve banks do not as a rule increase the total amount of Federal reserve credit in use but rather enable members banks to liquidate indebtedness at the reserve banks. The effect of Federal reserve bank purchases in the open market is ordinarily simply to decrease the amount of borrowing by member banks, to make lighter the load which member banks are carrying in the form of loans at the reserve banks.

The interrelation between open-market purchases or sales of Government securities in which the reserve banks take the initiative and other forms of Federal reserve credit in which member banks and bill and security houses take the initiative is shown in diagram 2.

The diagram shows that when the reserve banks have bought securities there is a corresponding decrease in other forms of reserve bank credit in use.

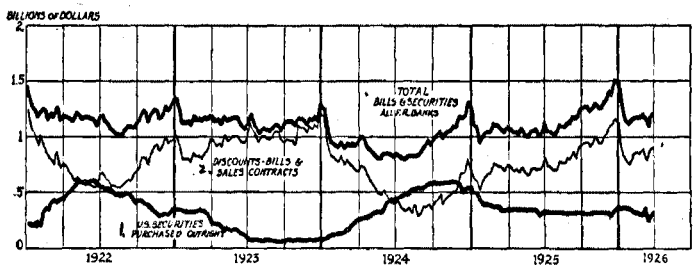
[1] See annual report of the Federal Reserve Board for 1923 and annual report of the Federal Reserve Bank of New York for 1924.

The total of reserve bank credit has not been increased. Similarly, when the reserve banks sold securities there was a corresponding increase in other forms of Federal reserve credit. The total of reserve bank credit was not decreased. Changes in holdings of Government securities were almost exactly offset by changes in discounts and bill holdings. These changes are an important influence on the credit situation but they are quite distinct from increasing or diminishing directly the volume of reserve bank credit in use. The effect of open market operations is to increase or decrease the extent to which the member banks must of their own initiative call on the reserve bank for credit. When member banks owe the reserve bank nothing they extend credit more freely than when they are largely in debt. The influence of the reserve banks upon the volume of credit is thus felt not directly, but indirectly through the member banks. The reserve banks do not "push" credit into use. The actual operation and its effects are, therefore, quite different from those which the Chronicle appears to have in mind.

REMEDIES SUGGESTED WOULD NOT ACHIEVE DESIRED RESULTS

Because of the errors just indicated, it seems that the Chronicle is mistaken as to the effects of the remedies it proposes. The changes in the Federal reserve act which are suggested would not have prevented or reduced the open market operations of the Federal reserve system, nor would they have resulted in any curtailment of credit and currency.

(1) The first remedy suggested is that the reserve banks should no longer have the power to issue Federal reserve notes against gold as collateral. Since the open market operations have not involved the issuing of Federal



reserve notes, a curtailing of the power of note issue would not have prevented the purchases of securities which have been made from time to time.

(2) A second remedy suggested by the Chronicle, that member banks should be allowed to carry part of their reserves in their own vaults, would reduce the gold holdings and reserve percentage of the reserve system somewhat, but not sufficiently to require a reduction of their open market operations under normal conditions, and particularly not under conditions prevailing at the time to which the Chronicle has referred in its editorials, when the system's gold reserves have been so high. As a matter of fact, open-market purchases of securities ordinarily do not affect either the reserves or liabilities of the reserve banks, except temporarily during the very brief period which elapses before the funds made available through security purchases are utilized by member banks to repay indebtedness at the reserve banks. Indeed, substantially the only effect is simply to change one type of earning assets for another. A reduction of the gold holdings of the reserve banks would, however, make it more difficult for them to meet any serious emergency. Just as in 1917 the concentration of the country's gold in the reserve banks was a necessary step to meet an emergency, so in some future time this might be necessary. The scattering among the member banks of a part of the gold now held by the reserve banks might be seriously embarrassing in the event of very heavy gold exports, for example.

(3) The third proposal, that the reserve banks should charge for their services, such as collecting checks, notes, and drafts, furnishing currency and coin, transferring funds, etc., instead of providing them to member banks without charge, would improve the earnings of the reserve banks at the expense of the member banks but would probably have little influence on the credit policy of

the reserve banks, because their credit policy is not based on the need for earnings but upon the requirements of the country for credit. A charge for services would have no effect upon the credit policy followed.

Thus we see that the three changes in Federal reserve legislation suggested by the Chronicle would be ineffectual in reducing the open-market operations of the system.

A POLICY OF DEFLATION

The fourth remedy, a policy of very high discount rates, suggested by the Chronicle, makes it clear that what the Chronicle really favors is deflation. This is revealed in the following quotations from editorials:

"* * * Since that time of dire distress, only four years back, the banks by graded stages have been getting back to the normal. The process has necessarily been a slow one, because the situation had to be handled with the utmost skill and care, for business concerns by the thousands would have gone to the wall if pressure by the banks to force payment of indebtedness due them had been carried too far. As the customers of the banks paid what they owed, the member banks reduced their own borrowings. The reserve banks, in turn, contracted their operations as evidenced by a huge reduction in the volume of Federal-reserve notes in circulation. But the contraction proceeded only up to a certain point—until the grossest part of the excessive circulation had been removed as the main element of danger—and since then has been arrested. In other words, the aim of the member banks, following true banking instincts, has been to get completely back to the normal (though of course there have been exceptions to the rule in the case of individual banks) while on the other hand the managers of the reserve banks have been unable or unwilling to get back and have stopped at the halfway point." (November 22, 1924.)

"* * * Over $1,000,000,000 of Federal-reserve notes continue afloat for which there is absolutely no need in commerce or trade. * * * In a period of profound ease in the money market, when no occasion exists for supplying excess credit, not a dollar of their deposits (representing the legal reserves of the member banks) ought to be put out in shape of reserve notes. * * * The reserve rediscount rate should never be less than 5 per cent or 6 per cent." (November 22, 1924.)

"There is no need now for recourse to the extra facilities of the reserve institutions and there has been no need for such facilities for over 18 months past, yet the earning assets of the reserve banks * * * amount to no less than $1,257,024,000." (October 3, 1925.)

Parts of these quotations are very difficult to understand, particularly the writer's conception of normal. What is meant when it is said that the member banks have been getting back to normal since 1920, whereas the reserve banks have stopped at the halfway point? The figures indicate that the loans and investments of member banks have increased $5,050,000,000, or 19 per cent, since the fall of 1920, whereas the loans and investments of the reserve banks have decreased $2,200,000,000, or 64 per cent.

This much is clear, however, that the Chronicle believes the deflation of 1921 should have been continued until all Federal reserve credit had been retired. It believes the reserve bank managers should have adopted a vigorous policy toward that end, including a discount rate never below 5 per cent or 6 per cent.

The only way Federal reserve credit can be retired is through a decrease in money in circulation and in reserve balances maintained in the reserve banks. Since bank deposits are dependent on currency and reserves, bank deposits would have to be reduced in proportion as currency and reserves were diminished. Money in circulation now totals $4,000,000,000; reserves at Federal reserve banks a little over two billion; together six billion. A reduction of one billion of reserve bank credit would require a reduction of about one-sixth in this total of currency and reserve balances. To get this there would have to be a reduction of something like one-sixth in the active deposits in banks and trust companies of the country. Active bank deposits total $25,000,000,000. If the reserve banks followed the policy suggested by the Chronicle, active bank deposits would have to be reduced perhaps $4,200,000,000. To visualize what this means we may think of every banker in this country going about it to cut down his loans by about one-sixth. He would refuse to renew loans when they matured and sell some of his securities. This is somewhat hypothetical but illustrates the kind of program the Chronicle appears to advocate.

It is a deflation that the Chronicle proposes. The probable results may be described in the words of the Chronicle, "Business concerns by the thousands would have gone to the wall if pressure by the banks to force payment of indebtedness due them had been carried too far."

GENERAL EFFECTS OF FEDERAL RESERVE POLICY

Passing from the consideration of the specific proposals advanced by the Commercial and Financial Chronicle, we may more profitably examine briefly the broad general question as to whether in the past few years the existence and operations of the Federal Reserve System have favored easy money and inflation, or the contrary, and whether their general influence in this regard has been beneficial or not.

The relationship between Federal reserve operations and the volume of credit can only be understood when considered in relation to gold movements, for the decade has been characterized by a gold movement larger and more extreme in its fluctuations than anything the country, or in fact the world, has before experienced. During the early years of the system, from the outbreak of the European war until we entered the war in 1917, there were net gold imports of over one billion dollars. This was at a time when European countries were purchasing war supplies in this country. After April, 1917, there was little gold movement either way, until late 1919 when about 400 million dollars of gold was exported. Then from the latter part of 1920 until 1924 there was a tremendous net import movement of gold amounting to one and one-half billion dollars, resulting from the disorganization of monetary standards abroad and the necessity of large foreign purchases in the United States.

The influence of the reserve system on the volume of credit, and on money conditions in recent years, should be interpreted in the light of its capacity for adapting itself to war needs and to this enormous gold movement, as well as to the more normal requirements of industry and trade. These general relationships for the past 11 years between the country's stock of gold, the amount of Federal reserve bank credit outstanding, the demand deposits of banks, and the general price level, are shown in diagram 3.

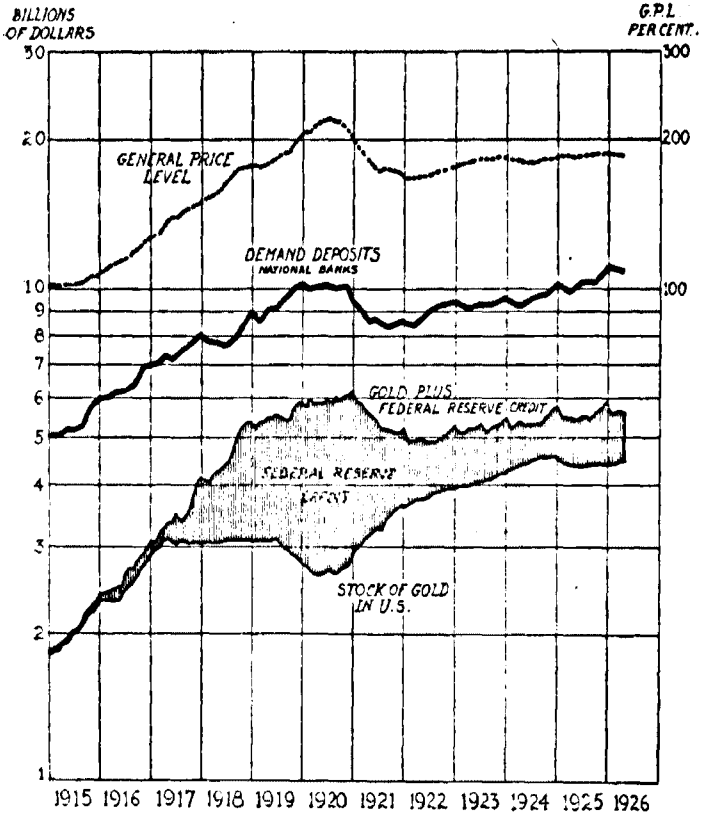
In the old days there was a direct relation between the country's stock of gold, bank deposits and the price level because bank deposits were in the last analysis based upon the stock of gold and bore a constant relationship to the gold stock, and the volume of bank deposits and the general price level were similarly related. But in recent years the relationship between gold and bank deposits is no longer as close or direct as it was, because the Federal reserve system has given elasticity to the country's bank reserves. Reserve bank credit has become the equivalent of gold in its power to serve as the basis of bank credit. A bank can meet its legal requirement for reserves by borrowing from the reserve bank, just as fully as though it deposited gold in the reserve bank. Hence, as the diagram shows, the present basis for bank credit consists of gold plus Federal reserve credit. Federal reserve bank credit is an elastic buffer between the country's gold supply and bank credit.

Throught 1915, 1916, and the first few months of 1917, there was very little Federal reserve bank credit outstanding and bank deposits rose directly as the gold stock rose, for they were based solely upon the country's stock of gold. With the entry of the United States into the war in 1917 the country's credit requirements began to expand rapidly and bank deposits continued to rise. There was, however, no corresponding increase in the country's supply of gold at this time and consequently the reserve banks were called upon to lend heavily to member banks in order that they might obtain the additional currency and bank reserves which their rising deposits required. The war and postwar period of expansion continued until the latter part of 1920.

The decrease in prices and in business activity, which started early in 1920, began to result by the end of the year in a decrease in the amount of bank credit, and the member banks began to repay the reserve banks. This movement was greatly facilitated by gold imports which placed additional funds in the hands of the banks which they might use in liquidating their indebtedness at the reserve banks. The period of reduction of reserve bank credit lasted until about the middle of 1922. From that point onward the amount of Federal reserve credit in use has remained relatively constant at between $1,000,000,000 and $1,200,000,000, and the country's normal requirements for additional credit resulting from the usual growth of population

and business activity at high wage levels have been largely met by net gold imports of between $240,000,000 and $300,000,000 a year for the three years 1922, 1923, and 1924.

Taking the postwar period as a whole, the position of the Federal reserve system in the credit structure may be summarized by saying that it has reduced its extensions of credit from $3,400,000,000 to $1,200,000,000, and that for the period as a whole, instead of pushing credit into use, as the Chronicle suggests, the system has retired $2,200,000,000 of credit. If we look at the question broadly it is this retirement of Federal reserve credit which is the remarkable feature of the period. During a period when $1,500,000,000 of gold was imported into the country and deposited with the reserve banks, thus increasing tremendously their power to extend credit, the reserve banks



not only did not increase the amount of their credit in use but diminished it by more than $2,200,000,000. Their earning assets, in fact, were reduced to a point where a number of the reserve banks did not make sufficient earnings to pay expenses and dividends and had to meet certain charges out of their surplus. These events have indicated a restraint in the employment of reserve bank credit which has received the commendation of bankers and economists in all parts of the world.

As the flow of gold imports was pouring into the United States in 1921 and 1922, many economists abroad, and in this country as well, expected that this inward flow of gold would result in a huge credit expansion and a serious price inflation. That no such expansion or inflation has taken place is due to the fact that the amount of Federal reserve credit in use was diminished as the gold imports continued. Thus, in the broad picture of financial events in this country since 1920, the presence of the reserve system may be said to have prevented rather than fostered inflation.

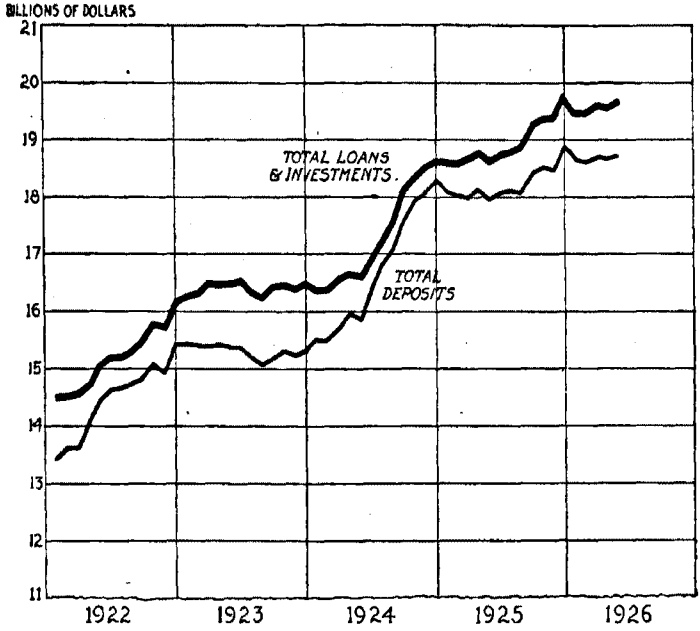
TESTS OF FEDERAL RESERVE POLICY 1922–28

It is fair, however, to ask the question whether still more reserve bank credit should have been retired in the years from 1922 to 1926, whether the reduction in reserve bank credit since 1920 should not have continued further. Through its rate and open-market policy the reserve system has doubtless had an influence on the amount of reserve bank credit outstanding. If that influence had been exerted toward a still further restriction of the use of reserve bank credit by keeping discount rates high and by refraining from any purchase of securities in the open market, it is probable that the amount of reserve bank credit in use might have been reduced further. It is clear that so large a reduction as the Chronicle has advocated would have disastrous results, but the question may fairly be raised whether a firmer money policy would have been desirable.

The question as to whether reserve bank policy during this period favored too free a use of Federal reserve funds may be answered in part at least by observing—

(1) Changes in the volume of bank credit—whether increases were unusually rapid.

(2) Level of money rates—whether they were, in fact, abnormally high or low.



(3) Movements of various economic factors which are influenced by credit, such as commodity prices, volume of trade, speculation, the status of agriculture, etc.

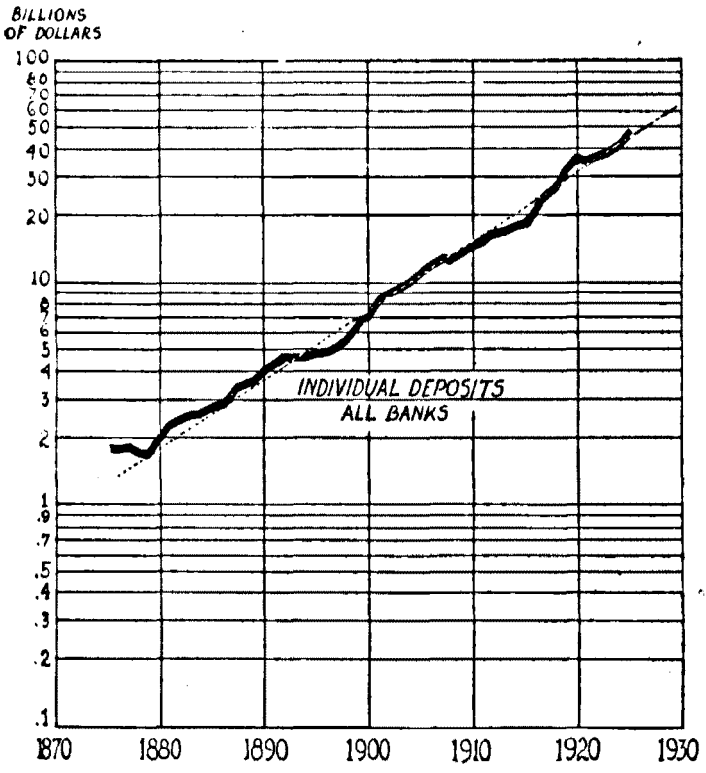
(4) Effects of Federal reserve policy on the gold standard.

(5) An examination of the probable consequences of following a tight-money policy.

The facts on these points may be taken up in order.

(1) *Changes in the volume of credit.*—The following diagram (No. 4) shows the changes in the volume of bank credit in the United States from 1922 to June 2, 1926, as they are shown by the data for member banks which report each week to the Federal reserve system. The reporting banks are about 700 of the principal banks in leading cities and their resources are about half of the total bank resources of the country. As the chart shows, there were large increases in bank deposits and loans and investments in 1922 and 1924 and moderate increases in 1925.

Any judgment as to the rapidity of increase in bank credit during this period must be based upon a comparison between the increases during this period and increases during previous periods. For this purpose diagram 5 is attached herewith, which shows the amount of bank deposits in the United States on June 30 of each year since 1875. The important fact that this chart reveals is that there is in this country a normal tendency for bank deposits to increase from year to year with great rapidity, due to the rapid increase in the volume of production, trade, and wealth of the country. An analysis of the figures shows that in the 50 years since 1875 bank deposits have on the average increased 7 per cent a year. Twenty years of this increase were in a period of falling prices and 30 years were in a period of rising prices. In comparison with this average increase in bank deposits of 7 per cent a year



for the past 50 years the following are the figures showing the rate of increase during the past five years, ended June 30, as nearly as they can be computed:

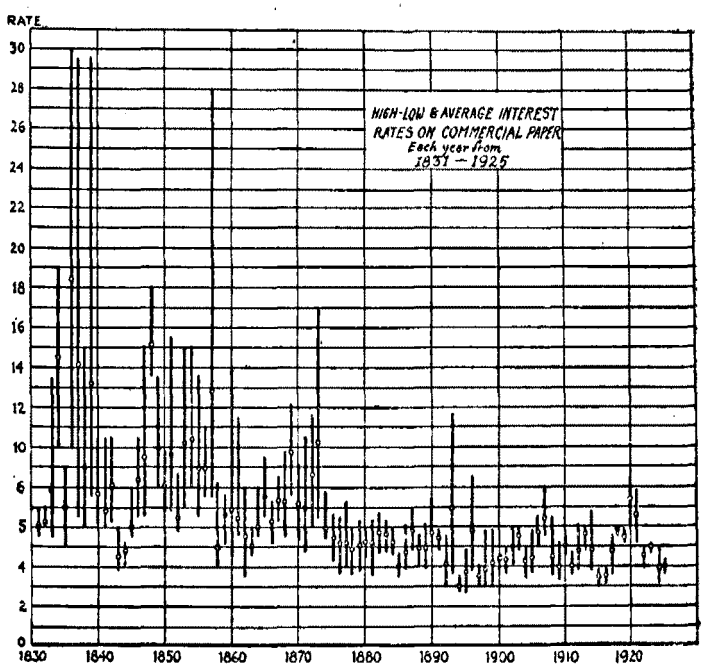
	Per cent
1922	5
1923	7.5
1924	7
1925	9
1926	[1] 7

Thus we see that the increases in bank deposits in the past five years have not been out of proportion to the increases which had been customary in this country in order that the volume of credit might keep pace with the increase in production, trade, and wealth. In the circumstances it does not seem that there has been anythink seriously abnormal about the increase in bank credit in the past five years.

[1] Partly estimated.

(2) *Money rates.*—From the discussion in the Chronicle it would be inferred that in the past four years money rates in this country have been extraordinarily low. This assumption may be tested by comparing rates in the past four years with rates in previous years. Such a comparison is made in diagram 6. An inspection of this diagram reveals the fact that while rates have been low in recent years they have been no lower than in many periods in the past.

A still further test of the level of rates and the differences between rates for different types of payer in the past few years is found in the following table which gives the average rates for the 14 years just prior to the establish-



ment of the Federal reserve system compared with average rates from 1922 to 1926:

Year	Commercial paper		Stock exchange loans	
	60-90 day	4 to 6 months	On call	60-90 day
1900-1913	4⅝	5½	3¼	4¼
1922-1926 (including April)	4¼	4¼	4¼	4½

The results of this table may be summarized by saying that in the past few years interest rates for commercial paper have been slightly lower than in the years prior to the establishment of the Federal reserve system, but that rates for funds used in speculation and other stock exchange uses have been slightly higher. In other words, the tendency of rates has been more favorable to commercial undertakings, but less favorable to speculative undertakings.

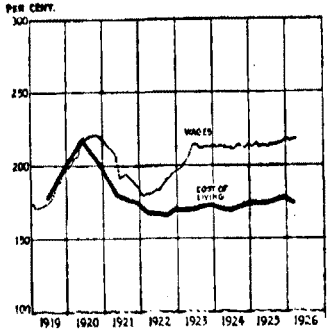
(3) *Economic factors influenced by credit.*—The position taken by the system during the period 1922-1926 should be interpreted in the light of the

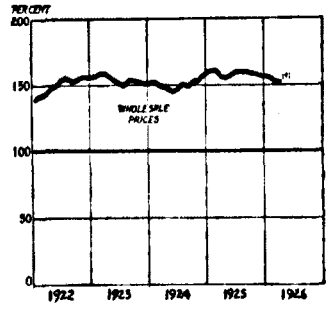
economic events of the period. Some of the most important factors of the economic backgrounds are summarized in the following diagram:

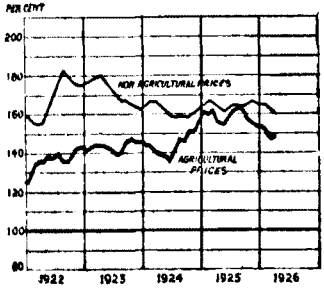
Comments on the different factors may be made as follows:

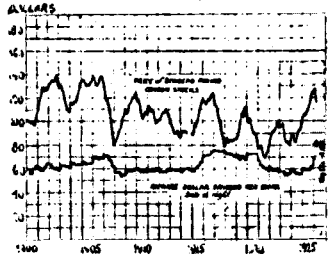
(*a*) *Prices.*—The general level of commodity prices has been fairly steady during the period and the level at the close of the period is very close to the level at the beginning.

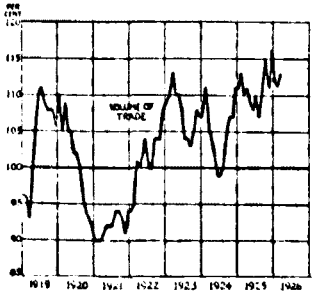
(*b*) *Agriculture.*—At the beginning of a period agricultural prices were depressed and the farm population was going through a period of severe economic readjustment. During the period prices of agricultural commodities

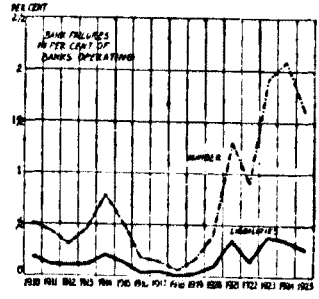












were restored to parity with the prices of nonagricultural commodities. This movement was facilitated by moderately easy money, which encouraged new financing and enabled foreign countries to buy American farm products.

(*c*) *Increase in real wages.*—During 1922 and 1923 wages increased until they were restored to practically the 1920 level. There was no such increase in the cost of living and consequently real wages (or the purchasing power of the wage earner) increased 22 per cent. This movement was facilitated by an ample supply of credit which industrial concerns could use to finance improvements in plant and higher wage payments.

(*d*) *Stock prices.*—There was a large increase in security prices, facilitated in part by moderately easy money, but this increase appears to be in part justified by increases in business profits and in the value of the properties which the securities represent.

(*e*) *Volume of trade.*—For four and a half years the volume of trade has been maintained at a remarkably high level and this has been facilitated by adequate supplies of credit. The reserve system exerted an influence toward easier money at times when trade was less active, in 1922 and 1924, and exerted an influence toward firmer money in 1923 and 1925, when trade activity showed some tendencies toward overexpansion.

(*f*) *Bank failures.*—The period was characterized by a large number of bank failures, mostly in those parts of the country where the effects of depressed agricultural prices were felt. Under these conditions moderately easy money has removed pressure for drastic liquidation and has favored recuperation.

It seems fair to summarize these various considerations by saying that during the period 1922–1926 the influence of the Federal reserve system in the direction of adequate supplies of credit, at moderate rates, has tended to facilitate the recovery of industry and agriculture from the dislocation of the war and postwar period and a restoration of more normal banking conditions. Perhaps there has been some resultant stimulation of stock speculation, but there do not appear to be any permanent serious consequences of that movement. There has been no inflation of commodity prices, and on the whole a high degree of economic stability and prosperity has existed.

(4) *The gold standard.*—During this period the countries of Europe which were forced to suspend specie payments during the war have been gradually struggling to restore the gold standard. The restoration of the gold standard throughout the world is of the utmost importance for this country for a number of reasons. We hold between 40 and 50 per cent of the world's monetary gold and if the gold standard is not restored that gold will lose much of its value. If the gold standard is not restored abroad, we may expect further large imports of gold and a credit and price inflation on the basis of the imported gold might be very difficult to prevent. Our foreign trade is in no small measure dependent on stable monetary conditions throughout the world.

The maintenance of moderately easy credit conditions in this country has aided in restoring the gold standard abroad; first, because it has made it easier for other countries to borrow here; and second, because moderate money rates here have made this country less attractive as a place for the deposit of funds and have thereby aided other countries with higher rates to retain their gold and in some cases to secure more. A high level of rates here would have forced rates abroad to still higher levels, with the consequent penalty to industry and trade, and hence would have delayed still further the readjustment of world-wide economic conditions.[2]

(5) *Probable consequences of a tight money policy.*—While it is not possible to know exactly what would have occurred during this period, if a tight money policy had been followed the following estimates may be made:

(*a*) The price deflation of 1921 would propably have been continued further.

(*b*) Agricultural prices might have recovered less rapidly because foreign countries would have found it more difficult to finance their purchases of our products.

(*c*) Industrial concerns would probably have had more difficulty in financing improvements in plant and paying a high scale of wages.

(*d*) There might have been less speculation in stocks and real estate.

(*e*) Trade would have been retarded by stringent credit.

(*f*) There would probably have been more bank and business failures and losses would have been heavier.

(*g*) European nations would have encountered greater difficulty in restoring the gold standard and the restoration would probably have been postponed a numbers of years more.

(*h*) We should have continued to import gold into this country and a period of easy money was inevitable in the long run.

In the light of these various considerations it seems that a tight money policy such as has been advocated would not have been wise or in the best interests of the country at large.

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[2] A full discussion of this matter is contained in Governor Strong's testimony with regard to the credit to the Bank of England.

SUMMARY

The criticisms which the Chronicle has made raise the whole question of the direction of Federal reserve policy for the past five years. It has been impossible within this space to set forth all the reasons which have prompted the officers and directors of the Federal reserve system to take the action they have. But, by way of summary, it has been intended to review some of the factors that suggest that the Chronicle has been in error not only in some questions of fact, but also in its estimate of the effect of the remedies it proposes. It has also been intended briefly to outline some of the broader considerations which have entered into Federal reserve policy during the period under consideration. The situation which the reserve system has faced has been a complex and puzzling one, one which could not be dealt with by following any simple or rigid formula. The wisdom or unwisdom of its policies must be judged only upon consideration of the whole broad range of related circumstances.

The CHAIRMAN. What other points have you there before you that you have not covered in explanation of the previous testimony?

Governor STRONG. We were discussing, just before you mentioned the Chronicle article, those occurrences in the money market of very short duration that seem to call for some action by the Federal reserve banks, such as the quarter-day transactions of the Treasury. It just happens that in the last 48 hours we have had a matter develop which furnishes, to my mind, a very apt illustration of the position the Federal reserve bank occupies in making adjustments that may unexpectedly arise. Something has already appeared in the newspapers about it, so I presume it is all right to go into more detail than has been published.

At about 11 o'clock on Saturday, when I was in the Federal Reserve Board offices, one of the officers of the Federal Reserve Bank of New York called me up to say a run had started on some banks in Cuba, and some of our member banks, one of whom has many offices there, and a Canadian bank which carries accounts with our members in New York, wished to be fortified with a supply of currency. The run was widespread and covered various parts of the island. Three Federal reserve banks were interested in the situation, the Boston Federal Reserve Bank—because they maintain a small office in Habana for the purpose of buying bills and effecting telegraph transfers—the Federal Reserve Bank of Atlanta, which maintains a supply of currency in the island, and the Federal Reserve Bank of New York, because the currency furnished in Habana and Cuba is largely for the account of New York member banks or for their customers. American currency is legal tender in Cuba and is the only currency they have.

After communicating by telephone with these various offices—Boston, New York, and Atlanta—it was arranged to supply the currency by sending a special train which was chartered in Atlanta——

Mr. GOLDSBOROUGH. In Atlanta?

Governor STRONG. In Atlanta; yes, and some twenty-seven millions of currency was put on the train.

Mr. GOLDSBOROUGH. Where did it come from?

Governor STRONG. Out of the Federal Reserve Bank of Atlanta's supply of currency—Federal reserve notes. It went to Key West, and the Cuban Government, I believe, sent a gunboat over for it, and the currency arrived at 2 o'clock this morning at Habana.

Now, that part of it all seems simple enough, just to ship some currency the way you ship cotton——

The CHAIRMAN. The deliveries were made to the branches in Habana?

Governor STRONG. Yes, sir; but let us see what was involved behind that. The amount actually transferred by telegraph from the Federal Reserve Bank of New York to the credit of the Federal Reserve Bank of Atlanta for the account of the banks that ordered the currency shipped to Cuba, was $33,000,000. When the Atlanta Reserve Bank ships currency to Cuba, it must get paid for it, and so they were paid through the gold settlement fund in Washington by telegram from us. In order to effect that transfer the banks in New York for whose accounts it was done, suffered a depletion of their reserves of $33,000,0000 as they paid for it out of their reserves with us. It was necessary for them thereupon to make up the legal minimum reserve, and so they had to borrow from us. They lost $33,000,000, which they made up, by borrowing from us. Atlanta, desiring to fortify their reserves, sold $14,000,000 of their securities to us, so, if a further demand for currency arises in Cuba, they can satisfy it at once. This was all done by telegraph, starting at 11 o'clock on Saturday morning and complete in effect, in Cuba, at 2 o'clock this (Monday) morning.

The CHAIRMAN. Really between the time of closing on Saturday and the opening of the banks on Monday.

Governor STRONG. Yes, sir. The runs on the Cuban banks have subsided, the money is there and the people are being paid and the alarm has subsided. The system performs practical functions in connection with the currency that are not understood at all.

The CHAIRMAN. There is just one part that is not explained—how money is paid out in Cuba from the Federal reserve branches there.

Governor STRONG. It is covered in this way: If a bank in New York desires currency in Cuba, it is furnished by the machinery that I have described and charged to their account in New York, and that is what depletes their reserve account in New York. They, then, have to make good that depletion of the reserve by borrowing. It just happened that the loss of reserve in New York, for the purpose of issuing currency for Cuba, coincided with a loss we sustained to the rest of the country by withdrawals from New York, a perfectly normal thing, amounting to $25,000,000. The figures this morning show that the loss of reserves of the member banks in New York is $33,000,000 plus $25,000,000, due to these other withdrawals, making a total of $58,000,000. The member banks in New York started this week about $20,000,000 short of reserve, starting, as it were, the cycle of a week, and so we start this week with the New York bank short $78,000,000 of reserves through those transactions. They must keep their reserves above the minimum or they are charged on the deficiency at 2 per cent above the discount rate. Naturally, they do not want to pay 6 per cent, so they come to us with their bills and we buy them. If they have no bills they can dispose of at 3½ per cent, they discount paper at 4 per cent.

I thought I would use that as a graphic description of how this works.

Mr. GOLDSBOROUGH. What is the reason the Federal reserve system had to get into that Cuban situation?

Mr. FENN. I would just like to interrupt to ask this question: How does Cuba get her circulation of United States money that is used there?

Governor STRONG. I am not as familiar as possibly I should be with the whole history of the Cuban currency readjustment.

Mr. FENN. In normal times, how do they get the money for the circulation of the island?

Governor STRONG. When the Cuban constitution was adopted and the Platt amendment was adopted, by some arrangement which I can not recall United States money was made legal tender in Cuba.

Mr. FENN. It is the only money used there—and the Spanish?

Governor STRONG. Yes, sir. Mr. Harrison and I discussed this matter at length, at lunch. To illustrate how as a matter of current operations in the bank we can estimate the "money" position, I said, "Mr. Harrison, you will see money in the stock exchange today not lower than 4½ per cent." We have just got the report. The early rate was 4 per cent and the last rate is 5½ per cent.

The CHAIRMAN. And it is now 2.30 p. m.

Governor STRONG. Credit is just as fluid as electricity and travels around as fast as electricity in this country.

Mr. CANFIELD. Do you know what was the cause of the run on these banks in Cuba?

Governor STRONG. I am afraid I have not adequate details to make a satisfactory answer to that, Congressman.

Mr. BLACK. Speaking of the fluctuating credit, there is this peculiar situation——

Governor STRONG. May I interrupt for just a moment?

Mr. BLACK. Yes. There is this situation that I want to call attention to: I know it prevails, I think I could state, all over the State of Texas. I do not know whether it prevails in the other agricultural States or not. It does not make any difference how money fluctuates, whether it is plentiful or scarce, the interest rate to the farmer is always the same, and it is practically so as to the small business man. I happen to be in business in a small way and it does not make any difference with us whether the rediscount rate is 3 per cent or 3½ or 4, we pay the bank the same rate of interest. We never have any trouble in getting money, but we always have to pay the same rate, and I believe it might be said to be true as to the entire agricultural situation. Of course I do not attribute any fault to the Federal reserve system at all, but that is a rather significant and important fact.

Governor STRONG. I hardly think it can be attributed to the Federal reserve bank, which has a 4 per cent discount rate, that farmers in that district have to pay 6 or 8 per cent.

Mr. BLACK. I say that I do not see that the Federal reserve system is at fault at all, but, if it is true, as far as production credits are concerned, why does the farmer have to pay for his production credits just the same rate regardless of the rediscount rate?

Mr. GOLDSBOROUGH. What was the reason for the Federal reserve system injecting itself into that Cuban difficulty? In other words, what was the connection between the local banks down there that

had a run on them and the Federal reserve system, which made it proper for the Federal reserve system to go to their rescue as you described?

Governor STRONG. I was away when the arrangement was made for opening these branches there, so, Congressman, it is partly hearsay—what I shall say about it.

Mr. GOLDSBOROUGH. I am not interested in the particular transaction; I just want to know why, in a given case——

Governor STRONG. Following the financial disturbances in 1921, they had a great many bank difficulties in Cuba and the Cuban Government was anxious for some arrangement to be made to afford some protection to the island in the supply of its currency. They also wanted very badly to have some arrangement which would work smoothly for retiring the great mass of worn-out and ragged paper money there and getting a fresh supply. I think there was a sentiment here that if it could be done it would be a good thing, and following quite a little discussion, these two agencies or branches were established in 1923, as I recall. It was done simply to furnish, in a friendly neighboring country which used our currency, a means of getting an adequate supply of fresh currency, and, of course, incidentally it affords protection to American banks that have branches there. The home offices of those banks used to ship United States currency direct to Cuba. They had a right to do that, of course, and the Federal reserve agency now in Cuba operates as a local currency depot for those branches of American banks. But, as I explained before, payment for a large part of that currency is made through the Federal reserve bank in New York.

Mr. GOLDSBOROUGH. It is for the special reasons you stated?

Governor STRONG. Yes.

Mr. GOLDSBOROUGH. In other words, if there was a run on a bank, a Federal reserve member bank in my county, the Federal reserve system would not feel called upon to take any action whatsoever in the matter?

Governor STRONG. It would not?

Mr. GOLDSBOROUGH. No.

Governor STRONG. In your community?

Mr. GOLDSBOROUGH. Yes.

Governor STRONG. A member bank?

Mr. GOLDSBOROUGH. Yes.

Governor STRONG. They would.

Mr. GOLDSBOROUGH. That is the information I want. What would you do?

Governor STRONG. Well, I might answer differently as to different Federal reserve districts, but when we get word of a run we send a man with currency by the first train, and down in Texas and other parts of the country they have even sent it by airplane a number of times. My last experience with an occurrence of that sort was in Chicago. I happened to be there when a run started on one or two banks in the State of Iowa. I was sitting in the office of the governor of the Federal reserve bank. They got in touch with an Army station there and arranged to send it down by airplane. However, a snowstorm intervened and they had to send it by motor. They could not get a train connection. All the reserve banks do that.

Mr. GOLDSBOROUGH. Governor, there is a matter that bothers me some. I am sorry I have not the figures here. I included it in a speech I made in 1923. It seems in 1912, for instance—this is just my recollection—there was about $11,000,000,000 worth of money and credit in the country doing the business transactions of the country.

Governor STRONG. 1912?

Mr. GOLDSBOROUGH. Yes.

Governor STRONG. I think it was larger than that.

Mr. GOLDSBOROUGH. I think not. Taking deposits and credits——

Governor STRONG. Here [exhibiting paper] is 1914.

Mr. GOLDSBOROUGH. It was larger in 1914.

Governor STRONG. June 30, 1914, before the war, the total loans and investments were $20,873,000,000; total individual deposits in banks, $18,518,000,000, and the stock of monetary gold was $1,891,000,000. I do not believe that had increased 50 per cent, Mr. Congressman, since 1911.

Mr. GOLDSBOROUGH. I am sorry I have not the figures, but I am sure this is true, that the volume increased between 1912 and 1922 about three for one.

Governor STRONG. That well may be, I think.

Mr. GOLDSBOROUGH. And that the volume of business transacted was approximately the same in those two years—1912 and 1922. Now, the index number, however, did not increase, of course, 100 per cent on an average—the index number of the wholesale prices. In 1922 it was not 200, as I remember, as compared with what would be 100, in 1912.

Governor STRONG. No; it had been above 200.

Mr. GOLDSBOROUGH. It had been above 200, but had gone below 200, I believe, prior to 1922.

Governor STRONG. I believe it was as high as 245.

Mr. GOLDSBOROUGH. But not in 1922.

Governor STRONG. No.

Mr. GOLDSBOROUGH. Now, why is this—I have not examined the figures in late years, and therefore 1922 is the last figure I have in mind, but approximately the same condition exists now, relative to the credit situation as prior to the Federal reserve system, that existed in 1922—why does it take a greater volume of credit to transact the same amount of business now than it did prior to the introduction of the Federal reserve system, and how is business benefited by that situation?

I am not talking about the workings of the system, because that is a separate proposition, but the system has made available a vast amount of credit that was not available prior to the enactment of the system. Of course, that means the interest charges are infinitely higher than they were prior to that time. That means a great many more banks have been started and a great many more people have been taken out of other industries and have gone into the banking business because of that condition, and I have often wondered just what the benefit to the country, as a whole, was from that change in the credit structure.

Governor STRONG. Well, in the abstract, I would say that one of the main reasons for the existence of the greater amount of credit or the justification for it, if you can call it that, is the fact that this

same volume of business, or a larger volume, is conducted at a higher level of prices.

Mr. GOLDSBOROUGH. But not at a level commensurate with the difference in credit.

Governor STRONG. It might seem there is enough credit in existence to justify even a higher level, and that is one of the curious features of the monetary situation brought about by the war. For instance, before the recent decline in the exchange value of the Belgian franc, Belgium had a per capita circulation of close to $50 gold; Italy, on a gold basis—that is, reducing the currency in each case to a gold basis by taking the exchange value as representing it—has a per capita circulation of about $20. Germany has about $20 or not far from that. Poland, on the other hand, has a per capita circulation of only about $4, and yet, through quite a period, they have had reasonably stable prices as between the respective countries with these great disparities in circulation. Why is it? I think it is not possible to give a perfectly satisfactory explanation of it, but I would like to describe what may be one of the influences.

Now, Professor Fisher's equation is that the volume of money multiplied by its velocity equals the price level multiplied by the volume of trade, a very simple equation to understand except when you attempt to understand what "velocity" means, that is the speed with which money turns over. You are not dealing then with a mathematical proportion, but with the state of mind of people, and let me express it, if I may, in this way: We will assume that the amount of "money" in this country——

Mr. GOLDSBOROUGH. When you say money you include credit?

Governor STRONG. Yes; but it is more easily explained by taking the pocket money currency, than to include bank credits. We will divide all of the currency, the hand-to-hand money that circulates in the retail trade, etc., into two classes. One class we will call dynamic and the other class we will call static. The dynamic is the portion which is actively used and which has an effect upon the price level. The static portion is that not used and not spent and which presumably has no effect on prices. Let us suppose that in this country we have a per capita circulation roughly of $50 and that it is the habit of all the people in the country, on the average, to have $10 of their $50 per capita, tucked away in the chimney at home. It does not perform any function whatever so far as having an effect on prices. Then, suddenly, by reason of some shock to confidence or some development which makes people rather more economical and careful about contracting ahead, they take $15 more and put it up the chimney. You increase the amount of static money from $10 per capita to $25 per capita and reduce the dynamic proportion from $40 to $25, that would have some of the effects of a sudden contraction of the currency and doubtless prices would fall. It is hard to say which is the cause and which is the effect, because if people suddenly stop buying goods, prices fall anyway without regard to the currency. That is simply two ways of expressing the same thing. But it is often a change in the mood of the public which has an effect on prices, without immediate regard to the long-time effect of the amount of money in circulation. Great masses of paper money issued by banks of issue have been hoarded

and locked up when people are afraid to invest or spend their money, and the currency may then not have the effect on the domestic price level which it might later have if confidence were restored and then suddenly they began to spend it.

Mr. GOLDSBOROUGH. One thing that has disturbed me a great deal with the workings of the Federal reserve system is the fact that the interest charges which had to be paid in connection with country's business had been apparently, by the workings of the system, increased very largely.

Governor STRONG. You mean because of the increase in the amount of credit in existence on which interest is paid?

Mr. GOLDSBOROUGH. Yes, and it has been a very interesting question to me whether or not that was a good condition. To my knowledge, just within my observation—and of course everybody has had the same observation—in the last 14 years banks have doubled and trebled; bank buildings have been built and that overhead has to be taken care of and bank officers have been appointed and they have to be supported. It has taken many people out of other businesses and they have gone into the banking business and of course the public has all that to support.

Governor STRONG. It is the consequence of the war and I do not see how it is going to be discontinued.

Mr. GOLDSBOROUGH. There is no way to decrease it apparently.

Governor STRONG. Why decrease it?

Mr. GOLDSBOROUGH. That is the question.

Governor STRONG. What happened during the war, from our point of view, was that the financial operations of the Government, combined with the extraordinary demand for certain types of production in the country—that is, war finance plus war time demands for goods—resulted in the creation of a volume of credit that never would have been needed in the country at a lower price level and which never would have been created if there had not been a war. The amount of that credit was reflected in the operations of the Federal reserve system, as I said the other day, by our loans increasing to a total of $3,400,000,000 and our Federal reserve note issue increasing to, I think, a maximum of nearly $3,400,000,000.

The collapse that took place in 1921 permitted a contraction of that expansion of our loans and note issue and our deposits as well—that is, reserve deposits of members—until they came down to a minimum of something like $800,000,000 of loans and investments and the present volume of $1,650,000,000 of currency. Of course, it imposed a great hardship on the country; any such contraction is a calamity; but, on the other hand, now that it has occurred, and reasonable adjustments, so far as any adjustment is possible, have taken place at the present price level and present volume of business, should we not endeavor, if possible, to avoid any further distortion in these matters and the further hardships resulting therefrom?

The interest charge that you refer to, I think, could be shown to be due, as Mr. Goldenweiser reminds me, partly, and possibly wholly, to the increase in the national production of goods that has taken place right along at the present price level.

Mr. GOLDSBOROUGH. Then, is it your idea that it is not requiring a larger volume of credit to conduct a given amount of business in this country than was necessary before the war?

Governor STRONG. I think, Congressman, despite suggestions to the contrary in some of the articles written by our critics, that the amount of business conducted in this country to-day—the amount of production and consumption that takes place—requires substantially the amount of credit that is now being employed, so long as prices are substantially at their present level. That amount of credit is expressed in the form of bank deposits and currency generally in circulation, and that amount of credit and circulation, required at that price level, requires, roughly, about $1,000,000,000 of credit from the Federal reserve system to support it. If the business of the country can not be assured of credit being sustained at about this level, we might have a recurrence of another period of contraction, some reduction in prices—how much I could not attempt to prophesy—and some unemployment, until another readjustment was forced on the country. While I would like the privilege of enlarging on this, that is one reason why I think these articles written about this expansion, for which they claim we are responsible, are misleading.

Mr. GOLDSBOROUGH. I want to interject this, that my question was entirely a friendly question.

Governor STRONG. Oh, I quite understand. Let me explain it in this way, Congressman: The Federal reserve system to-day has—I will leave out all the small accounts, book accounts, and other items that will confuse a simple statement—the Federal reserve system to-day has in its vaults about $3,000,000,000, in round figures, in reserves, almost all gold, and it has, in round figures, a little over a billion dollars in assets at interest, representing credits in some form—say, a total of $4,000,000,000. Its liabilities, leaving out capital, consist, in round figures, of $2,350,000,000 of deposits and $1,650,000,000 of notes—a total of $4,000,000,000. Let us suppose that, due to dissatisfaction with this gold accumulation, or for one or another reason, it was decided to abandon the Federal reserve system, liquidate it, and pay its debts; we would at once apply of our $3,000,000,000 reserves to paying back $2,350,000,000 of deposits, and with the balance, $650,000,000 we would pay back $650,000,000 of our note issue, and then the statement would show commercial paper, bankers' bills, and other securities that we own, $1,000,000,000, and notes outstanding $1,000,000,000. That is all we would have left besides our buildings and other assets which would be liquidated to pay off the capital and surplus. If we did that and the claim were sustained by Congress, say, that there was a billion dollars too much paper money in circulation in the United States, how would it be retired? It would require the repayment of a billion dollars of loans made by the reserve banks, would it not? That repayment of a billion dollars of loans extended by the reserve banks would require the retirement of some billions of banking credit—I do not know how much. Frankly, I do not want to see it done. I think it would be a grave thing for the country to attempt it. We do not want anything more of that sort, and that, in a very brief and rather inexact statement—because it can not be worked out exactly and mathematically—is the reason why I think the New York Commercial and Financial Chronicle is wrong.

Mr. WILLIAMSON. Do you think——

Mr. GOLDSBOROUGH. Could I ask just one more question?

Mr. WILLIAMSON. Yes.

Mr. GOLDSBOROUGH. Under our present system, it is a fact, then—and that is what I was coming to—that there is no possible way for people to pay their debts. If I pay mine, I simply transfer it to you, and you owe it instead of me, and unless we keep this credit structure and maintain it just about where it is now, why it will cause a collapse, which is just my view; in other words, under our system, we must maintain our system of enormous or almost incredible interest payments to somebody.

Governor STRONG. To this much-maligned creditor class.

Mr. GOLDSBOROUGH. Yes, that is the problem that has to be worked out in some way some time. I do not know how to do it.

Governor STRONG. You speak about the cost of interest as though it was an expense to commerce and industry. We are getting into theory now and I would much rather have the question put to Professor Sprague.

Mr. GOLDSBOROUGH. That is the last question I have to ask.

Mr. WINGO. I was going to ask you gentlemen to put up guide posts. You have gone a little beyond me.

Mr. WILLIAMSON. Do you not think if the bill of exchange business is permitted to grow in this country as it is in England that we would have to have this vast quantity of reserve and money—use the bill of exchange the same as we use other credit instruments?

Governor STRONG. They use them still more in France.

Mr. WILLIAMSON. I am not so familiar with the French system. Do you think that under our credit system it would go to the point where we would not need a great quantity of reserves and money?

Governor STRONG. Well, I think the answer to that is that in the days of the slave kings of India and the Middle Ages of Europe they did not have credit systems. They used good hard gold money. It was not always as good as it appeared to be, because they clipped it and debased it, but the growth of a civilized modern system of industry and commerce and higher standards of living have developed to a point where good hard gold money could not possibly conduct all of the transactions and there had to be economy in the use of money.

Mr. WILLIAMSON. There is no question about that.

Governor STRONG. So, hard money and gold have actually come to sustain a great volume of credit with which this trade is conducted and it was a necessary development, and the tax paid for conducting it is comparatively the same kind of a tax that is paid for an increase in other facilities of trade, such as we pay for the telephone and telegraph and railroad transportation.

Mr. WILLIAMSON. Strictly speaking, a bill of exchange is not based on gold, but goods, wares, and merchandise.

Governor STRONG. Yes, sir.

Mr. WILLIAMSON. So, if we develop the bill of exchange to a greater extent than we have in the past, there will be less necessity for a vast volume of gold as a reserve basis——

Governor STRONG. I think the development, Mr. Williamson, of the bill of exchange, representing actual commercial transactions, such as I described this morning, would probably restrain the creation of a certain amount of so-called commercial paper that is not commercial paper at all, but may represent bricks and mortar and engines and hopes realized, rather than goods in the process of trade. But the gold reserve would still be needed.

Mr. WILLIAMSON. A bill of exchange never represents anything of that kind. A bill of exchange always represents goods in existence.

Governor STRONG. I wish you could see a bundle of them and see how the marks appear to identify them unmistakably with trade. You know, one of the Rothchilds, the head of the house many years ago, was asked how he could identify a genuine bill of exchange, and he said with his tongue; he could taste the salt, meaning that it had made an ocean voyage. I asked a banker of France how he could tell a genuine bill of exchange and he did like that [indicating]—he determined it by the smell. These figures of speech served to indicate that bills of exchange have distinct qualities capable of identification.

There is no doubt about the desirability of developing the bill of exchange; there is no doubt whatever. I do not know that it would much reduce the need for the employment of a given amount of credit, though. It would change its form of expression.

Mr. WILLIAMSON. We should always need a vast amount of credit in any event, but if you develop a bill of exchange, we would be less dependent on the vast amount of gold for reserve.

The CHAIRMAN. You would not need to resort to short-term Government certificates that are used at the present time, if we had plenty of bills that were eligible in the Federal reserve banks.

Governor STRONG. It would reduce the need for short-time Government certificates.

The CHAIRMAN. But the gold reserves with the use of trade acceptances or bills would permit industry to be properly supplied with credit without interfering with the Government's financing.

Governor STRONG. Yes; but I do not know how soon we could come to that. War finance has extended everything to a point where it seems as though a moderate amount of Treasury bills is almost essential to an orderly market.

The CHAIRMAN. Have you finished your questions?

Governor STRONG. I have a list of those matters you mentioned in the first day's appearance, which have not been included in your letters to me. One was the fiscal agency operations and expenses incurred for the Treasury in that connection; another, collections in transit; and another, wire transfers, and then the transaction with the Bank of England. Then there were two other matters that I thought, if you had patience, I might mention briefly.

The CHAIRMAN. We touched somewhat upon the fiscal operations of the system?

Governor STRONG. Yes.

The CHAIRMAN. And the expense incident to that, however——

Governor STRONG. Has not been touched upon.

The CHAIRMAN. It has not been touched upon?

Governor STRONG. No, sir; but it will not take me long.

The CHAIRMAN. Have you complete figures?

Governor STRONG. I think so.

Mr. WINGO. Is he going to make an estimate in that connection of the expense of the services they are rendering to the Government for which they get no compensation?

Governor STRONG. Yes, sir.

Mr. WINGO. I think that is what you are driving at?

Governor STRONG. Yes, sir.

Mr. WINGO. In other words, you want an estimate of the value of the services you are rendering free to the Government as a system?

Governor STRONG. I have those all here.

The CHAIRMAN. I think it would be difficult to cover all that thoroughly in a statement of figures, because, in the quarterly operations, as in many other instances, services are rendered, upon which no value can be arrived at.

Mr. BLACK. That report that the Federal Reserve Board sent us some time ago, I think, made a pretty complete analysis of that whole situation. We might get a copy of that and insert it as a part of this hearing.

The CHAIRMAN. I have a copy of that before me now. It is a report from the Federal reserve banks, branches, and agencies, directors and personnel, capital, reserve deposits, and bills and securities; earnings and expenses, cost of bank premises, furniture and equipment, and volume of currency and checks handled. I thought that more properly belonged in the hearings which we had in connection with the Federal reserve bank buildings.

Mr. BLACK. It did, but in that statement they furnished us, which I put away in the files, it gave a segregation of the services that were paid for and those that were not paid for, and rather a detailed estimate of the——

The CHAIRMAN. I think you are entirely correct, but I think Governor Strong should be permitted to make his statement on that.

Mr. BLACK. I will be very glad to hear him.

The CHAIRMAN. It is made by banks in that report. What have you to say on that now, Governor Strong?

Governor STRONG. Generally, as to the past years, commencing with 1917, when the war financial operations began, we have expended, for the Treasury, in New York, simply for handling Treasury obligations, including issues, redemptions and exchanges, a total of $14,627,000. Of that amount, $12,757,000 has been reimbursed and $1,870,000 absorbed by the bank. That does not give the whole picture as you would care to have it, because of the vast change that has taken place since the war ended. Much the largest part is now absorbed by the bank.

The CHAIRMAN. Without objection, that statement will be placed in the record at this point.

Federal Reserve Bank of New York, statement of fiscal agency expenses

	Grand total fiscal agency expenses	Reimbursed by Treasury	Absorbed by bank
1917	$841,726.86	$841,726.86	
1918	4,678,171.05	4,678,171.05	
1919	5,186,422.23	5,103,879.87	$82,542.36
1920	1,055,071.46	949,020.43	106,051.03
1921	760,615.02	481,787.29	278,827.73
1922	666,709.74	209,289.33	457,420.41
1923	866,263.71	422,090.43	444,173.28
1924	353,114.46	48,468.91	304,645.55
1925	180,830.24	18,544.14	162,286.10
1926 (3 months to Mar. 31)	38,274.41	4,016.71	34,257.70
Total	14,627,199.18	12,756,995.02	1,870,204.16

Mr. WINGO. Now, take the ordinary activities.

Governor STRONG. Yes.

Mr. WINGO. In other words, try to get an estimate of what it has been for the last year or two and what it will probably continue to be, for services that, in the normal run of things now, you will constantly render the Government for which you get no remuneration, translated into dollars and cents for monthly periods, if you can.

Governor STRONG. Last year we estimated that the total expenses of the bank, including certain overhead, required on account of Treasury Department operations, were $650,000. This amount includes not simply the handling of Government bonds, certificates, and notes, the cost of which is shown above, but it also includes the handling of Government checks, the payment of coupons, the purchase and sale of securities for Treasury account, handling coin, etc. It does not include the cost of certain other things we do that the Treasury formerly handled through the subtreasuries, such as handling currency and gold. The Treasury Department expended, in reimbursements of all reserve banks, last year, $168,000, as I recall the figures, and, of that $168,000, our share happened to be $18,000. The expense which is now reimbursed to us is that which applies only to new issues of securities, and all the current operations conducted for the Treasury are not reimbursed to us.

Mr. WINGO. That is, your bank is running roughly about $600,000 a year?

Governor STRONG. Yes, sir.

Mr. WINGO. Covering nonreimbursable services that you render?

Governor STRONG. Yes, sir.

Mr. WINGO. You estimate it costs $600,000 a year to serve the Government in the ordinary current way you do?

Governor STRONG. Yes; those are the things we do for the Treasury. In the first place, we perform all the operations formerly performed at the subtreasury in New York, handling coin and currency, etc. We make practically all their payments, all the disbursing officials' checks, etc. I think we are paying now about 12,000 checks a day for the Treasury approximately. We pay all the coupons from the Government coupon bonds outstanding—that is, those presented at New York. We conduct all the operations in connection with the issue and retirement of currency except that which is necessarily conducted at Washington in the Treasury.

Mr. WINGO. You are speaking of the Federal reserve bank in New York?

Governor STRONG. Yes, sir.

Mr. WINGO. Of course, the major part of the Government's operations are handled in your bank?

Governor STRONG. Yes. We receive the unissued notes, certificates, and bonds issued by the Treasury every quarter day and make their deliveries to the subscribers. We issue the new bonds of various denominations in exchange for the surrender of old bonds of different denominations, a process that is taking place every day. We receive and transfer registered bonds and ship them to Washington where transfer has to be actually effected from one owner to another. We conduct all the Treasury's orders for purchases and sales of securities for the investment of the various funds, like the Alien Property Custodian, civil-service retirement funds, and a great many funds of that character that are kept invested. I can not think of them all.

The CHAIRMAN. I would like to insert in the record at this point, covering the subject under consideration, a statement of the expenses of the fiscal-agency departments of the Federal reserve banks, which, I understand, covers the subject which has been sent to the committee.

Mr. WINGO. What is the total?

The CHAIRMAN. From 1917 to 1925, inclusive, $54,000,936. It also gives a list of expenses of fiscal agency function, including War Finance Corporation operations, and shows the amounts reimbursed by the Treasury, the amounts absorbed by the Federal reserve banks, and the total of all functions, and gives the percentage, which is practically a complete answer of the very questions raised.

Mr. WINGO. Does it give any figures on which to base the present fixed annual expense for that service?

The CHAIRMAN. A copy of this was furnished to each member of the committee. You have copies of this in your files. It seems to me to be very complete. Without objection, it will be incorporated in the record.

EXPENSES OF THE FISCAL-AGENCY DEPARTMENTS OF FEDERAL RESERVE BANKS

The Federal reserve banks were appointed depositaries and fiscal agents of the United States by the Secretary of the Treasury on January 1, 1916, in accordance with the provisions of section 15 of the Federal reserve act. Their operations in these capacities were, however, of relatively small volume until the entry of the United States into the World War in 1917, and for that reason were conducted by the Federal reserve banks without expense to the Treasury. After the Government began to issue certificates of indebtedness and Liberty bonds in order to finance the war, fiscal-agency operations increased very rapidly, and provision was therefore made in 1917 by the Treasury to reimburse the Federal reserve banks for practically all direct expenses incurred by them in the performance of their fiscal-agency functions. This arrangement was continued until June 30, 1921, since which time the Federal reserve banks have been reimbursed for only those fiscal-agency expenses which are incurred directly in connection with the sale of new issues of Government securities, the cost of conducting all other fiscal-agency operations being absorbed by the Federal reserve banks.

The table below shows the reimbursable and nonreimbursable fiscal-agency department expenses of the Federal reserve banks, beginning with 1917, in comparison with the current expense of operating all departments:

Comparison of expenses of the fiscal agency function of the Federal reserve banks with the total expense of all functions

[Fiscal agency expenses as shown below do not include general administrative expenses, such as salaries of senior officers and cost of space in buildings owned by Federal reserve banks]

	Expenses of fiscal agency function (including War Finance Corporation operations)			Total expense of all functions [1]	Ratio of fiscal agency expense to total expense (per cent)
	Reimbursed by Treasury	Absorbed by Federal reserve banks	Total		
1917	$3,094,750		$3,094,750	$8,254,477	37.5
1918	16,256,689		16,256,689	27,216,222	59.7
1919	16,626,016		16,626,016	35,965,649	46.2
1920	6,215,356		6,215,356	34,473,366	18.0
1921	2,609,754	$1,245,939	3,855,693	37,073,599	10.4
1922	1,183,815	1,530,551	2,714,366	30,742,864	8.8
1923	1,912,483	1,142,936	3,055,419	31,676,656	9.6
1924	444,067	867,765	1,311,832	28,875,193	4.5
1925	167,330	703,485	870,815	27,696,498	3.1
Total	48,510,260	5,490,676	54,000,936	261,973,539	20.6

[1] Current expenses of Federal reserve banks plus reimbursable fiscal agency expenses.

Under the arrangement now in effect, the Federal reserve banks absorb the expense of the following fiscal agency operations:

Denominational exchange of coupon bonds.
Exchange of temporary for permanent bonds.
Exchange of interim receipts for permanent bonds.
Interchange of coupon and registered bonds.
Telegraphic transfer of securities.
Forwarding of registered bonds to the Treasury for transfer.
Shipment of canceled securities to the Treasury.
Redemptions of called or matured securities.
Maintenance of Government deposits accounts with depositary banks.
Custody of securities for Treasury.
Purchase and sale of Government securities for Treasury account.

Aside from purely fiscal agency operations, all Federal reserve banks act as depositaries for the general funds of the Treasury, for which work they have never received reimbursement. In this capacity the reserve banks are required to perform the following operations:

Pay Government checks and warrants.
Pay coupons from Government securities.
Transfer funds by telegraph for Government account.
Withdraw Government deposits from banks in the district.
Collect checks and noncash items for Government account.
Handle former subtreasury operations.

No separate record has been maintained of the cost of some of these operations, but for 1925 the direct cost of handling Government checks and warrants was $136,735, Government coupons $123,719, and coin $304,381.

Mr. BLACK. I understand the Federal reserve bank at New York, by reason of the ability to issue Federal reserve currency under the theory of the law, would owe the Government a fiscal franchise tax. According to your statement, it pays that in two ways; one is the actual franchise tax paid in and the other is the service performed which you say amounts, in your bank, to $650,000 for the year 1925.

Governor STRONG. Yes, sir. On the point you raise, the facts are really these, that nearly all earnings of the reserve bank—90 per cent of the earnings in excess of their expense of operation and of 6 per cent dividend to the stockholders, are paid the Treasury as a franchise tax. Last year there was no franchise tax paid because the earnings

did not permit it. Suppose the Treasury went through the motions of paying us $1,000,000 a year; it would go back to the Treasury Department.

Mr. BLACK. In the form of a franchise tax?

Governor STRONG. Yes, sir; except 10 per cent would be retained as a permanent addition to our surplus, and this saves a great deal of accounting and expense.

Mr. BLACK. But it does in the long run amount to a franchise tax?

Governor STRONG. It is a form of paying a franchise tax, and I may say that it has much support in tradition, because the banks of issue of Europe have invariably performed these services for the governments that create them, and while some compensation is, at times, paid, generally it is the case that the bank of issue has a statutory loan to the government on which possibly the government pays little or no interest at all. It remains there as a permanent loan extended to the government as a sort of compensation to the government for giving the right of note issue. They frequently have to pay, in addition, a heavy tax to their governments.

Almost universally, however, they perform the identical services we do for our Government, and if it were reduced to a strictly commercial basis, as a commercial bank would charge for services, the Treasury would undoubtedly pay large sums for these services, but why do it when the amount would go right back to the Treasury again?

The CHAIRMAN. It is pertinent to this situation because frequently a misunderstanding arises in the minds of people, which is reflected here, that a large part of the earnings of the system are being absorbed by the reserve banks and very little money is getting back to the Government, as many people were led to believe it would be a source of income, prompted no doubt by the excessive earnings made during the war period. It would be well to have it understood that the Government is getting compensation in the form of services to this magnitude so that it may be clearly understood.

Governor STRONG. I can give you readily some idea of the magnitude of the work. For instance, we are paying now in New York a daily average of 40,000 coupons for the Treasury. That is quite a little chore; in handling the coinage which was formerly handled by the subtreasury, we receive every day about 28 tons of small change in the bank and pay out 28 tons. It is quite an operation to conduct. It is the way the country is supplied with the small exchange of commerce. It comes in in truck loads and goes out in truck loads. In handling the currency, including our own notes, we are counting about two and one-half million individual pieces of paper money each day.

The CHAIRMAN. Briefly outline your wire service in the transmittal of funds through the gold settlement fund.

Mr. WINGO. The $600,000 you mentioned is the estimate of the cost of the service and it is not an estimate of the value of the service if rendered by a regular bank, that would charge for it?

Governor STRONG. Oh, no.

Mr. WINGO. It is the actual cost to you and not measured by the commercial charges that a commercial bank would charge a customer?

Governor STRONG. We do a great many things for the Treasury for which banks would charge a great deal of money. For instance, it was deemed wise recently to turn over the Alien Property Custodian fund to the Reserve Bank of New York. We already had a large amount of invested funds there as we had purchased those investments. In a week they turned over 30,000 accounts and securities from banks all over the United States. We have a vault full. That requires a great deal of checking and it has to be done with great accuracy and it amounts to a very large sum in value. These things have to be done by the Treasury or by somebody and it is much better to have it done by a responsible fiscal agent with a large building and plenty of clerks and assistance and a secure vault. This work was done for the cost, with no profit.

Mr. WINGO. That $600,000 would not be the commercial value, but the actual cost.

Governor STRONG. Oh, no; the actual cost. Would you care to pursue the subject of the fiscal agency matters just a step further, because there are some interesting figures that are offsets to these expenses. From the time we started our war finance operations to the present time, approximately, we have also handled the special Government deposits made in the banks through which the issues of Government securities are made to the public. For instance, in our district we have 930 such banks, and the total of these special deposits, the proceeds of sales of Government securities, amounted to nineteen and three-quarter billion dollars. We collect a little interest from the banks for that—2 per cent—and the interest collected for the Treasury amounted to over $29,000,000. That went to the Treasury.

Mr. FENN. That went to the Treasury?

Governor STRONG. That went to the Treasury; yes, sir.

Mr. WINGO. You rendered the service?

Governor STRONG. Yes, sir; we handled the account.

The CHAIRMAN. Can that statement be placed in the record at this point?

Governor STRONG. Yes.

The CHAIRMAN. Without objection, that will be done.

(The statement referred to is as follows:)

Statement of Government deposit transactions from 1917 to 1925, inclusive (as of December 31)

Year	Number of transactions	Total Government deposits	Number of Government depositaries	Total value collateral held by Federal reserve bank to secure deposits	Total interest collected on Government deposits
1917	[1] 25,000	[2] $3,760,000,000.00	530	$858,534,220.00	$2,515,352.10
1918	54,420	6,635,000,000.00	779	590,758,501.00	10,679,242.65
1919	58,277	4,471,000,000.00	889	405,951,037.00	6,355,266.98
1920	24,714	1,502,000,000.00	903	266,146,222.00	1,905,873.36
1931	23,787	1,396,617,600.00	914	201,049,595.00	2,287,850.70
1922	17,326	964,791,700.00	902	335,144,745.00	1,242,701.07
1923	17,116	527,323,800.00	911	139,273,222.00	2,055,933.85
1924	7,949	171,474,000.00	915	117,343,760.00	871,845.40
1925	9,536	229,218,700.00	927	117,580,210.00	858,641.64
1926 (3 months)	1,099	92,494,496.00	930	125,456,760.00	347,789.65
Total	239,224	19,749,920,296.00			29,120,497.40

[1] Approximate.

[2] 6 months.

Governor STRONG. I have here two charts prepared by the foreign commerce department of the chamber of commerce, very simply——

The CHAIRMAN. The Chamber of Commerce of the United States?

Governor STRONG. The Chamber of Commerce of the United States; yes, sir. One of them shows our chief exports in 1924. The top line is cotton, unmanufactured cotton, 21 per cent of all exports, and the value $950,581,000. The next is wheat, $237,114,000, and so on down.

Mr. FENN. That is for 1924?

Governor STRONG. Yes.

The CHAIRMAN. These are in connection with your reference to the foreign banking credits?

Governor STRONG. Yes; I understood you wanted to discuss that.

The CHAIRMAN. Without objection, these will be placed in the record at this point.

Mr. WINGO. We want all charts to go in at the point where Governor Strong thinks they should be inserted.

The CHAIRMAN. We will leave that to Governor Strong, then.

Governor STRONG. The other chart is a chart showing our chief markets and supplies in 1924. It shows the exports to, and the imports from, different countries. At the top of the list is Great Britain, to which we exported $964,000,000 in 1924, and we imported from Great Britain $335,000,000; in other words, the largest single commodity in our export trade was cotton and the largest single customer was Great Britain. I think that chart should go in.

Mr. FENN. I think all three of them should go in. There are three of them, are there not?

Governor STRONG. Yes.

Mr. CANFIELD. Do they include Canada?

Governor STRONG. Yes; it includes Canada, separately stated.

(See Chart N–1 below; Chart N–2, p. 494; Chart N–3, p. 495.)

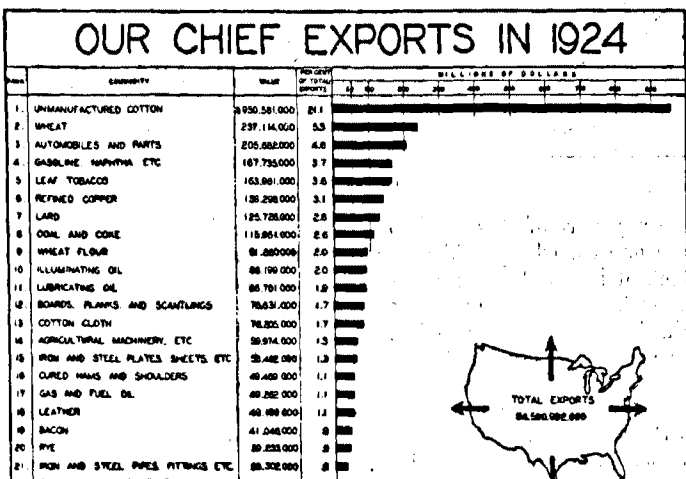


CHART N–1

(Charts showing same data for 1925, made available since 1924 charts were introduced into this record, ars as follows: Chart N-4, p. 495; Charts N-5 and N-6, p. 496.)

Governor STRONG. I understand, Mr. Chairman, that you are specially interested in hearing a description of a transaction the Federal Reserve Bank of New York had with the Bank of England.

The CHAIRMAN. As well as any similar relations with any foreign banks.

Governor STRONG. It was primarily a transaction, as set out in the statute; on the one hand in gold, and on the other hand in bills, such as we are authorized to buy in foreign markets.

The Federal reserve bank agreed to furnish the Bank of England up to a total at any one time of $200,000,000 of gold, which the Bank of England, to the extent that it used it, might either ship out of the country, earmark by setting it aside in our vault and taking it out of our reserve, or use to make payments in this country. In

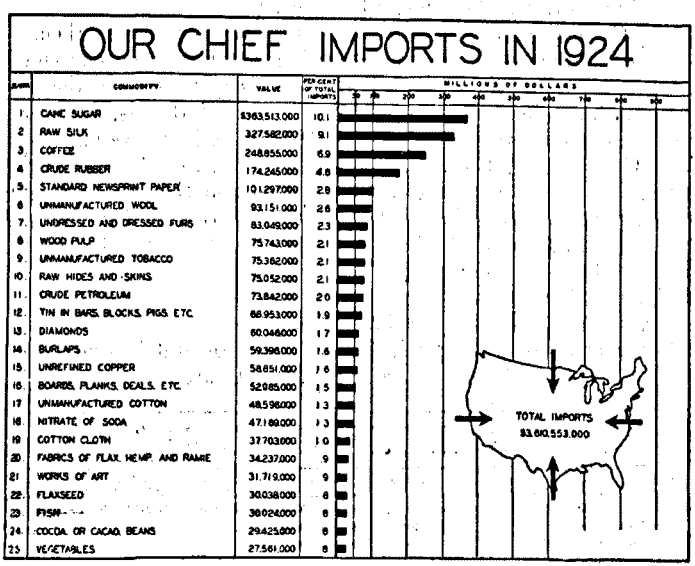


CHART N-2

case any part of this credit or transaction calls for a shipment of gold or earmarking gold or making payments in this country, the Bank of England is to give us a corresponding credit on their books in sterling for the equivalent of the dollars which will be maintained at the equivalent of the dollars which they use. Of course the amount in use, as this was or might be a changing situation, would fluctuate from time to time. By the arrangement between the two institutions, a portion or all of the balance credited in London on the books of the Bank of England might be invested from time to time in eligible sterling bills, such as we buy in the New York market and held there for our account. The rate charged for any amount of the credit used is to be 1 per cent above the discount rate established by the New York Federal Reserve Bank for 90-day commercial paper, but not less than 4 per cent nor more than 6 per cent except in the event that the discount rate of the Federal Re-

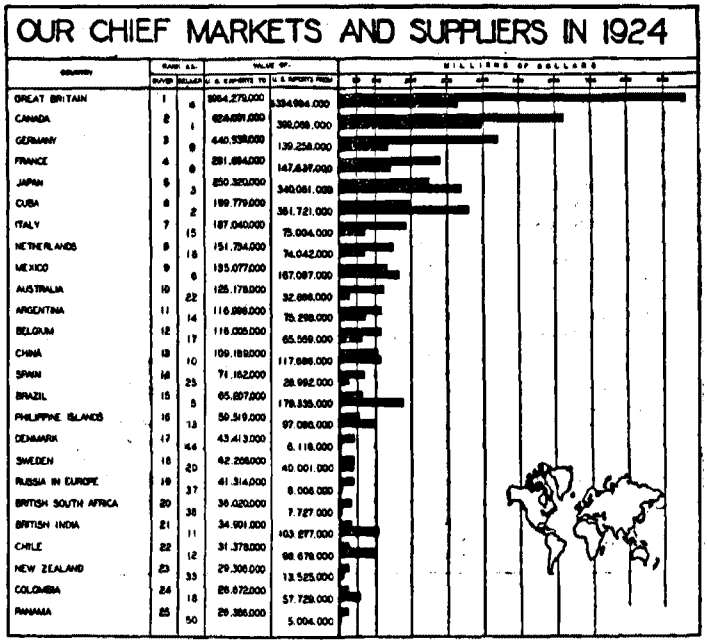


CHART N-3

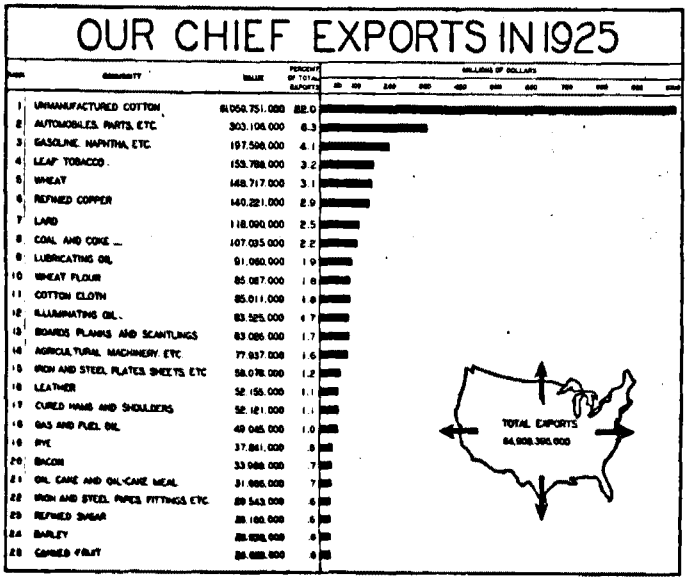
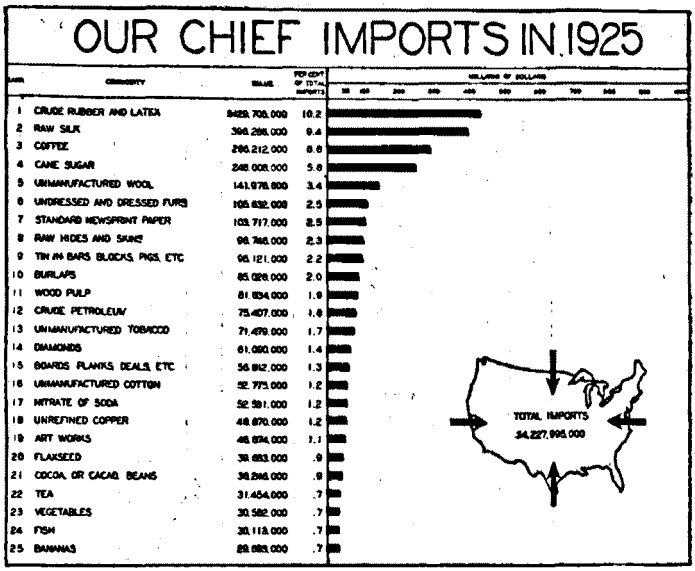
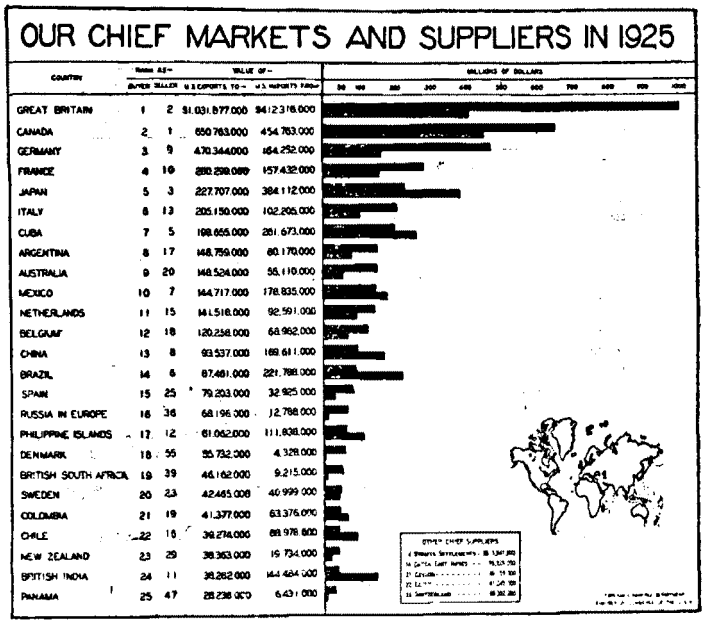


CHART N-4



	COMMODITY	VALUE	PER CENT OF TOTAL IMPORTS
1	CRUDE RUBBER AND LATEX	$429,708,000	10.2
2	RAW SILK	398,286,000	9.4
3	COFFEE	286,212,000	6.8
4	CANE SUGAR	240,008,000	5.6
5	UNMANUFACTURED WOOL	141,978,800	3.4
6	UNDRESSED AND DRESSED FURS	105,632,000	2.5
7	STANDARD NEWSPRINT PAPER	103,717,000	2.5
8	RAW HIDES AND SKINS	98,746,000	2.3
9	TIN IN BARS, BLOCKS, PIGS, ETC	96,121,000	2.2
10	BURLAPS	85,028,000	2.0
11	WOOD PULP	81,934,000	1.9
12	CRUDE PETROLEUM	75,407,000	1.8
13	UNMANUFACTURED TOBACCO	71,479,000	1.7
14	DIAMONDS	61,080,000	1.4
15	BOARDS, PLANKS, DEALS, ETC	56,812,000	1.3
16	UNMANUFACTURED COTTON	52,773,000	1.2
17	NITRATE OF SODA	52,391,000	1.2
18	UNREFINED COPPER	48,870,000	1.2
19	ART WORKS	48,834,000	1.1
20	FLAXSEED	38,883,000	.9
21	COCOA, OR CACAO, BEANS	38,246,000	.9
22	TEA	31,454,000	.7
23	VEGETABLES	30,582,000	.7
24	FISH	30,118,000	.7
25	BANANAS	29,883,000	.7

CHART N-5



COUNTRY	RANK AS— BUYER	RANK AS— SELLER	VALUE OF— U.S. EXPORTS TO—	VALUE OF— U.S. IMPORTS FROM—
GREAT BRITAIN	1	2	$1,031,877,000	$412,376,000
CANADA	2	1	650,763,000	454,763,000
GERMANY	3	9	470,344,000	164,252,000
FRANCE	4	10	280,298,000	157,432,000
JAPAN	5	3	227,707,000	384,112,000
ITALY	8	13	205,150,000	102,205,000
CUBA	7	5	198,655,000	281,673,000
ARGENTINA	8	17	148,759,000	60,170,000
AUSTRALIA	9	20	148,524,000	55,110,000
MEXICO	10	7	144,717,000	178,835,000
NETHERLANDS	11	15	141,518,000	92,591,000
BELGIUM	12	18	120,238,000	68,962,000
CHINA	13	8	93,537,000	188,681,000
BRAZIL	14	6	87,481,000	221,788,000
SPAIN	15	25	79,203,000	32,925,000
RUSSIA IN EUROPE	16	36	68,196,000	12,788,000
PHILIPPINE ISLANDS	17	12	61,062,000	111,838,000
DENMARK	18	55	55,732,000	4,328,000
BRITISH SOUTH AFRICA	19	39	46,162,000	9,215,000
SWEDEN	20	23	42,465,000	40,999,000
COLOMBIA	21	19	41,377,000	63,376,000
CHILE	22	16	38,274,000	88,978,000
NEW ZEALAND	23	29	38,363,000	19,734,000
BRITISH INDIA	24	11	38,282,000	144,484,000
PANAMA	25	47	28,238,000	6,431,000

CHART N-6

serve Bank of New York is above 6 per cent, in which event they pay the discount rate.

The arrangement was to run for two years from the time it was to commence, May, 1925. The obligation to pay at the end of two years was guaranteed by the British Government under a special act of Parliament known as the gold standard act. By arrangement, all the reserve banks share pro rata in the transaction.

This was submitted, when proposed, to the Federal Reserve Board on January 10, 1925, and approved by the Federal Reserve Board. Certain safeguards have been thrown around the use of the credit in case it should be used, both as to money conditions in the London and New York markets; that is to say, at the time we effected this arrangement with the Bank of England, a group of American bankers also extended a credit for a similar period of time to the British Government. You will certainly understand from what I have stated about the money market and its management and of the introduction or withdrawal of Federal reserve funds into or out of the money market that it is something which always requires consideration. By exchange of views we would be able to arrive at some decision from time to time as to whether one or the other credit should be used in case occasion arose to use either. In similar fashion, the arrangement about buying bills in London was such that if it resulted in inconvenience in the money market there we would wait to buy bills until it would not be a disturbing influence, although interest was to be paid to us whether investments were made or not. Now, I have prepared this statement in writing; in fact, I had prepared it some time late last summer or fall in order to have a proper description of it, much more extensive in detail and argumentative than previously made, largely because of some questions which had been raised from time to time in the press. I have since rearranged it. May I now read it through? I am sorry it is as long as it is. I have taken up each of the points which have been discussed to try, if I may, to show the committee what the facts are.

The reasons for charging no commission are as follows:

First. We are informed that the credit extended by the private bankers is directly to the British Government upon the security of Treasury bills payable in dollars. The only obligation given to the bankers for that credit is the obligation of the British Government. In the case of the gold transaction of the Federal reserve banks the obligation is that of the Bank of England, guaranteed by the British Government, and the bills in which the equivalent amount of the credit in sterling is to be invested will bear three obligations, including that of one British bank or banker, and these bills will be supported in fact by the guaranty of the Bank of England and the British Government. The credit is therefore supported by obligations beyond those given to the private bankers.

Second. It is coming to be believed by banks of issue that it is a mistake, as a matter of policy, for such banks to charge commissions in credit transactions between each other.

Elaborating that, I think the feeling is recognized among banks of issue in Europe, as it necessarily must be here, that operations for profit of a competitive character in any market are a mistake, and if that is the spirit in which banks of issue are to be conducted,

it means a type of competition which is not desirable. That is a rather dogmatic statement, but it applies internationally as well as in a domestic sense. Another reason for charging no commission is that private banks, when they enter into such arrangements, in effect earmark a certain part of their lending power. That is not the case with reserve banks which have the power to issue notes and whose deposits consist of the reserves of banks, because they in effect manufacture the credit and it is not an earmarking in the sense that it imposes the same type of restriction on a reserve bank's lending money as in the case of a private bank. You will understand that if large demands for loans were made upon the commercial banks which extended the credit at the same time that this credit was largely used and at a time when they had no surplus lending power, they would have to come to us and borrow and pay such discount rate as we charged them.

Third. The rates were fixed with due regard to the fact that a fixed rate would not be possible, for the Federal reserve banks might be left in a position where they were in effect charging a foreign bank lower rates than their own banks, and it was fixed high enough —that is, 1 per cent above the discount rate—so that under almost any likely circumstances, any reserve bank participating in the arrangement would be receiving a margin over the rate at which it lends to its own members.

Fourth. Now, as to the suggestion that because the British Government guarantees this loan, it might be considered, in effect, a loan to a foreign government—that is the suggestion which has been made; that the guarantee by the British Government may, in effect, make it a government loan—it is not justified. This guarantee was not called for primarily as an additional security, such as would be afforded by Treasury bills, but rather so as to commit the British Government that it would undertake no act which would operate as a restraint upon the Bank of England in fulfilling its obligations to the Federal reserve banks. It was thought best to make it an affirmative guarantee in the form in which it was given rather than to have the British Government agree not to interpose obstacles to repayment, such as would be the case if a gold embargo had to be reimposed, etc. It gives greater force and strength to the obligation, and, resting as it does upon a special act of Parliament, affords complete security that the agreement will be scrupulously carried out.

At the time the credit was being discussed, suggestion was made that the Bank of England might furnish the reserve banks with British Treasury bills, payable in dollars, as security rather than the guarantee of the British Government, but objection was made that it would be difficult or impossible to justify an issue of Treasury bills against which no money consideration would be received by the British Government.

Fifth. Inasmuch as the Federal reserve bank, in exchange for any gold used in this arrangement, will temporarily receive the equivalent in sterling, which it can not reduce to gold for two years, the arrangement contemplates that the Federal reserve banks will assume no risk of loss or of reduction in the amount of principal or interest to be received because of any fluctuation in the value of sterling; in other words, the exact amount of dollars of gold furnished the

Bank of England will be repaid in dollars in New York plus the amount of interest, so that no matter what rate of discount is earned on the bills purchased in London, the principal and the stipulated amount of interest will be repaid in dollars in New York at the end of two years. I may say right here that no part of this credit has been used.

Sixth. The proposal by the Bank of England, and all discussions of the project for placing gold at the disposal of the Bank of England, were based upon, conditioned upon, and presupposed the immediate return of Great Britain to free gold payment, the reestablishment of a free gold market in London, and the maintenance of exchange stability. There was no other object whatever in making the transaction. We had received since the commencement of the war, about two and one-half billions of gold from the rest of the world on top of nearly two billions which we held before the war, that in itself proving a serious menace to our own monetary stability. The time seemed opportune to facilitate the development of conditions by which this gold could gradually be restored to the bank reserves of other nations, where it would be a greater benefit to us than to have it here, because of the advantages of stable monetary and exchange conditions. This start was made in the case of Great Britain because Great Britain desired to resume gold payments, the conditions there favored doing so successfully; that is the principal European gold and financial market, and the influence of restoration of the gold standard there would be effective in gradually restoring the gold standard elsewhere, as has proved to be the case.

The relations between the Federal Reserve Bank of New York and the Bank of England were first established in 1916. The American and British money markets are the most important in the world, and have a close interrelation and interdependence. Exchange stability must have its origin, if it is to be developed, in stability between the dollar and the pound. It could be brought about by two methods: One being material assistance in the restoration of the gold standard in England, as has now been done; the other being some reasonable cooperation between the two markets. The question is of what such cooperation should consist. Obviously, neither the Federal Reserve Bank of New York nor the Bank of England can afford to surrender independence in the management of domestic credit and monetary matters, either one to the other. No agreement of any kind, expressed or implied, has been made other than that which is expressed in the credit itself. The Federal Reserve Bank of New York is absolutely uncommitted as to any policy. It is free to raise and lower its discount rate; quite as free, in fact, as though no such arrangement had been made. But while it is clear that the Federal reserve bank is free in its policy, it nevertheless would not have entered into such an arrangement if it contemplated any act which was hostile to the maintenance of the gold standard and which was not necessarily in the interests of the domestic economy of the country. Obviously, we are not going to increase world monetary and exchange disorder by doing anything in the nature of a hostile attitude toward each other, simply as a hostile move with no domestic need giving rise to it, since to do that might break down the gold standard at the very time we are trying to reestablish it.

Now, there has been some question, I believe, as to the provisions of the act under which this was done, as to whether they cover it. I would like to deal with that in some detail, and it may be that in this part of the discussion some question will arise that you would like to ask before I continue further.

The gold transaction is consistent with both the letter and spirit of the act. Under section 4, it is provided that the Federal reserve banks "shall have power * * * (3) to make contracts."

Under section 14 the Federal reserve banks are authorized to "purchase and sell in the open market at home or abroad, either from or to domestic or foreign banks * * * bankers' acceptances and bills of exchange of the kinds and maturities by this act made eligible for rediscount with or without the indorsement of a member bank."

Mr. WINGO. Is there not something in there that gives you authority to buy and sell gold?

Governor STRONG. Yes, sir.

The CHAIRMAN. Mr. Wingo was the only member of the committee present when the Federal reserve act was passed. Mr. Wingo, can you tell me if it was the intent of section 4 to grant loans of this character or permit the rediscount of foreign bills to this extent? Was that discussed at the time of the insertion of that particular authority in the act?

Governor STRONG. May it not be a fair suggestion, Mr. Chairman, to wait until I finish this discussion?

The CHAIRMAN. Very well.

Governor STRONG. Section 14 also provides that "every reserve bank shall have power (a) to deal in gold coin and bullion at home or abroad," and "(e) to open and maintain accounts in foreign countries, appoint correspondents, and establish agencies in such countries, wheresoever it may be deemed best for the purpose of purchasing, selling, and collecting bills of exchange, and to buy and sell, with or without its indorsement, through such correspondents or agencies, bills of exchange (or acceptances) arising out of actual commercial transactions which have not more than 90 days to run, exclusive of days of grace, etc."

The bills described in the statute are identical with the bills I have described as dealt in in New York and identically the type we can buy in London.

In other words, the act clearly contemplates the exercise of the following powers:

1. To make contracts; that is to say, a Federal reserve bank can contract to do those things which it is directly authorized to do, otherwise the express power to make contracts is meaningless;
2. To deal in gold at home or abroad;
3. To open accounts with banks in foreign countries, and
4. To employ funds in foreign countries by purchasing bills.

All of these things contemplated by the act can not only be done directly, but the Federal reserve bank can contract to do them.

Power to sell gold abroad necessarily includes the power to sell "on time." This is made clear by illustration of what would naturally happen. The gold placed at the disposal of the Bank of England may be used, broadly speaking, in any one of three ways:

1. It may be exported at the direction of the Bank of England.

2. It may be earmarked, taken out of the reserve of the Federal reserve bank and held for safekeeping for account of the Bank of England, thereupon no longer forming a part of the assets of the Federal reserve bank, but becoming an asset of the Bank of England as gold held abroad.

3. It may be used for the purpose of making payments in the United States.

In any one of these three events the Federal reserve bank must receive some equivalent in exchange for the gold pending repayment in gold at the end of two years. The equivalents could only be the following:

1. Some form of payment in dollars; that is to say, the Bank of England could use an American bank balance for the purpose of taking the gold; but if they had the bank balance, they would not need the gold. If the Bank of England had a balance in commercial banks or at the Federal reserve bank (where it keeps its only account in this country) it could simply order the gold shipped, it would not be a purchase of gold, but it would be a redemption of our currency. Theoretically, the Bank of England would present a check on its balance and ask for Federal reserve notes; then it would redeem the Federal reserve notes and take the gold, and there would be no occasion for a credit transaction at all. The gold would be at its command, just as our gold is at the command of any depositor in any American bank. A "balance" in this country is gold. That is why we have the gold standard and a free gold market.

2. It could give us a credit on its own books (in a deposit account subject to immediate withdrawal) for the equivalent of any gold used, but that would afford the Bank of England no protection whatever. The minute we received such a credit, subject to check, we could present a check and order gold withdrawn for the equivalent of the gold which we had advanced to the Bank of England. No sane bank of issue would rely upon such support as the foundation for a return to gold payment.

3. It could give us Bank of England notes, but the notes in similar fashion as the deposit account could be immediately converted into gold at the Bank of England.

The only alternative in a country which has restored a free gold market and resumed free gold payment would be to give something in exchange for the gold which was not immediately convertible into gold at the office of the bank of issue, that is to say, in the very nature of the purpose to be accomplished, they would have to give us some form of credit which would not put the Federal reserve bank in position instantly to withdraw from the Bank of England the gold which it had delivered to it. While we could legally accept a note or obligation of the Bank of England with collateral, nevertheless that credit under the law could be most conveniently and satisfactorily expressed in one or both of two ways; either by a deposit not subject to immediate withdrawal in gold; or in the purchase of bills, which we are authorized by the act to buy, or both. The agreement with the Bank of England provides that they shall give us a deposit credit and for a period of two years from the date the transaction became effective they would make arrangements

with us from time to time to invest the balance or a portion of it in eligible bills. The sale of gold necessarily involved accepting some obligation or making some investment which precluded our demanding a return of the gold immediately that it was delivered.

The Federal reserve bank has therefore entered into a contract with the Bank of England to do the things which the act says that it should do. One is to deal in gold; the second is to open a deposit account, and the third is to buy bills.

The provisions of the Federal reserve act relating to dealing in gold, to opening accounts in foreign countries, buying foreign bills and checks and cable transfers, had but one object in view, and could have had but one object in view, namely, to provide a stabilizing influence upon exchange rates and effect some regulation of the inflow and outflow of gold. This is the traditional function of the banks of issue which are the custodians of the gold reserves of the nations, because disorder in the exchanges great enough to cause premiums and discounts above and below the gold export points results in flows of gold which sometimes become a menace to the stability of the monetary position. The regulation of the gold movement is partly affected by changes of discount rate, but when such gold movements become excessive, reliance upon discount rate alone may bring about serious domestic disturbance, resulting from high interest rates and sharp contraction of credit.

The Federal reserve act contemplated that very situation, and gave the Federal reserve banks power to deal with it by these reciprocal accounts; by giving them the power to accumulate balances abroad at times, and to have their foreign correspondents accumulate balances with them; by giving the reserve banks the power to deal in gold, buy foreign bills, etc.

I might suggest right there that in 1916 when we made the arrangement first with the Bank of England, which never became an active matter for some years, it was found that the usance of bills in England ordinarily for 90 days also carried grace of three or five days. There was no provision in the Federal reserve act for grace, and so any arrangement to buy bills in London was ineffective and the act was amended to deal particularly with the usance in London including grace.

The Federal reserve bank had in view this main objective expressed in general terms in the act. It is, of course, true that the authors of the Federal reserve act did not have in mind, when drafting it, that the world would be plunged into a great war which would result in universal exchange disorder, suspension of gold payment, and monetary disorganization throughout the world. The powers granted to the reserve banks, however, are fortunately those which are expressly applicable to dealing with just such a situation, and they have been invoked for that specific purpose, although it may, indeed, be true that the authors of the act, knowing nothing of the possibilities of war, did not contemplate that transactions of that character would necessarily be of the magnitude of this one. They doubtless did have in mind such gold movements as that of 1907. The principle is no different, the powers are no different from those which would be required, nor are the objects to be attained any different, except that the circumstances calling for their

exercise are more grave and important in their considerations than would have been the case without a war.

I would like to interject here that during the panic of 1907 in New York it seemed imperative to the bankers that we should get some gold from abroad, and an effort was made to borrow some gold from the Bank of France. The Bank of France could not let us have gold because we had no Federal reserve bank of issue in New York. We got our gold from England, and I understand there was some arrangement made between the Bank of England and the Bank of France by which the former could get some gold from France if it was needed, which it never was. It was the reverse of that situation at this time, when in 1907 we wanted some gold and could not arrange for a special purchase and importation.

Certainly the authors of the Federal reserve act never contemplated that the war would place responsibilities upon the Federal reserve banks beyond the usual ones then in mind; fortunately, however, the powers granted to the Federal reserve banks are adequate, with a few exceptions, to enable them to function under conditions quite different from those anticipated.

For instance, it could never have been in the mind of Congress, not having war in contemplation, that the United States would accumulate such a vast store of gold as to represent nearly one-half of the world's monetary gold, nor that the Federal reserve banks would shortly have a capital and surplus of $340,000,000 and gold reserves approaching $3,000,000,000, nor that the United States would have a Government debt of over $20,000,000,000.

Now, as to the economic objects of the credit, bear in mind those charts, gentlemen, which show that in 1924 we exported a little less than a billion dollars from the United States to England and in 1925 our exports to that country exceeded $1,000,000,000, and remember that our chief exports are agricultural products; that the chief of them is cotton, which equals all the rest combined, and that most of that cotton goes to England. I have attempted to set out here some of the reasons why this matter is of considerable interest to our country.

It should not be overlooked that one of the great menaces to the trade of a country like the United States is depreciating foreign exchange. The whole country was aroused by the menace which it was felt would arise through the depreciation of German exchange during the period of their currency inflation. It has the effect of reducing the real wages of labor and temporarily and artificially increasing the margin of profit on export goods. The restoration of stable monetary conditions in Germany alleviated the alarm in this country in that respect. In every case where stable monetary conditions can be established throughout the world, that menace of an artificially and unhealthily stimulated competition in export goods will be reduced. It is a type of competition for which the working man alone pays, and is one of the cruelest injustices which the world has suffered as a result of the war. No country is free from the menace of it so long as budgets are unbalanced and paper money is being issued to enable governments to pay their bills. In the case of Great Britain, the American debt had been courageousiy refunded, the British budget had been balanced, and the Government

is reducing its debt. Steps had been taken to place restrictions upon issues of currency notes, and all the conditions essential to the restoration of the gold standard seemed to be successfully developing when the transaction was undertaken.

This is not the first attempt which has been made to deal with the subject. Various economic conferences have been held in Europe seeking the establishment of some broad plan. I will have to remind you that two United States Senators introduced rather elaborate and ambitious plans for dealing with that subject—Senators Hitchcock and Owen. I had in my possession at one time no less than 12 separate plans, produced both by Americans and Europeans, some abroad and some at home, to accomplish this exchange stability. The most recent was that undertaken at the Genoa Conference, which contemplated a meeting of representatives of the banks of issue to be called by the Bank of England for the purpose of developing some world-wide program. Representation by the Federal reserve system at such a meeting had been approved by President Harding, but for various reasons the meeting could not be called. It was felt by some of those in the reserve system that there were insuperable difficulties in the way of accomplishing a program such as was contemplated by the Genoa plan. In fact, it seemed as though the best chances for success lay in dealing with the problem in detail, taking one situation at a time, rather than to attempt to deal with all at once, and experience seems to indicate that this view was sound.

I have with me a map and an explanation showing the history of various steps leading toward the resumption of the gold standard in various countries, and charts showing the effects upon the rates of exchange in dollars which have been steadily maintained at gold value. (See map, p. 505, and Chart O, p. 506.)

The course of the exchanges from 1914 to date, exhibited on the attached chart, graphically discloses the great disorder which has existed since the outbreak of the war and the enormous handicap to trade which this has imposed upon the world and upon this country more than any other country, because our international trade is the greatest in the world.

I would like to recount, in percentages, what these fluctuations in sterling have amounted to. During the war sterling was pegged, as it was then described, and down to January, 1919, a fair average rate for sterling was about $4.7583. It represents a depreciation from gold par of 2.2 per cent. When it was unpegged in 1919, it had a sudden drop. Between January, 1919, and January, 1920, it dropped from a depreciation of 2.2 per cent to a depreciation of 34.4 per cent, when it sold in February, 1920, at $3.19. By April it had recovered to $4.0675 or 16.4 per cent depreciation and again, by the end of the year, in November, 1920, it had depreciated to $3.33, or 31.6 per cent depreciation. It advanced in May, 1921, to $4.00, or 17.7 per cent depreciation, and declined in July to $3.55, or 27 per cent depreciation. From July of 1921 until the early part of 1923, in February, it had a continuous rise until it got to $4.72. Then it took a sudden decline throughout that year until January, 1924, it sold at $4.20, 13.6 per cent depreciation, and it recovered to parity—or substantially to gold parity—when this transaction was

effected in May of 1925, since which time it has been substantially around gold par. I have prepared that chart (exhibiting) and some others to go into the record at this point in order to bring out the very simple fact that it is hard indeed for any export trade to survive such fluctuations in exchange. (See Chart O–1, p. 507.)

The effect of disorder of this character in the exchanges will be discussed later.

The relation of central banks of issue to exchange stability has been the subject of discussion by students for the last hundred years or more. Central banks are the custodians of the gold reserve; the gold reserve serves for the redemption of bank note issues: necessarily the ability of the central banks to maintain reserves adequate to redeem their notes implies the ability of business people to get gold



Shaded areas show countries which have taken definite steps in return to gold standard or gold-exchange standard and have maintained substantial stability

in exchange for notes in order to pay debts owing abroad when they can not be paid as cheaply by purchases of exchange. Failure to redeem notes in gold means exchange depreciation and trade disorder.

London has long been the center of a financial system extending to all parts of the world, for reasons which are not always appreciated in the United States. Not only has Great Britain established a system of branch banking throughout the world, paralleling the British trade organization, but London has traditionally maintained its position as a banking center for many years by freely permitting any foreign bank, without legal or other restrictions and limitations such as exist in this country, to open branches in that city. There

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are to-day probably about 70 foreign banks having establishments in London, in addition to some 30 or more banks of British origin doing foreign business, all serving as avenues of contact for the business world with the London money market, into which flow bills drawn in connection with movements of goods throughout all parts of the world.

London has been a financial center partly because of free banking in London and partly because of the knowledge that balances in London can instantly be converted into gold at a fixed rate. The

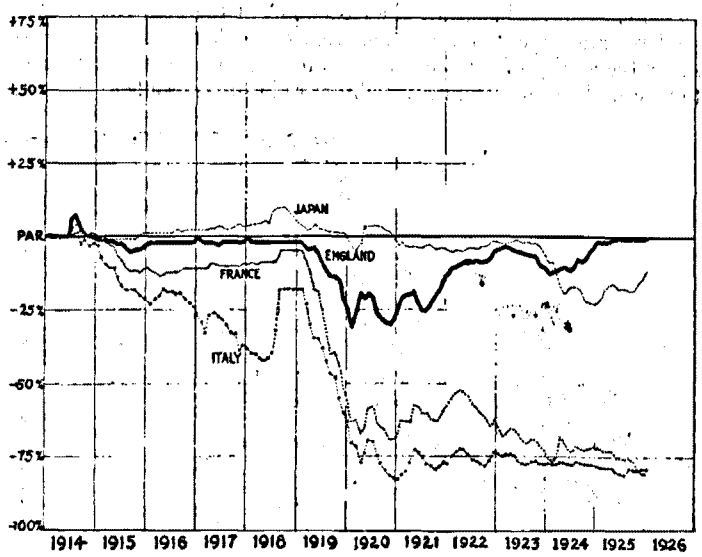


CHART O

Depreciation of foreign exchange rates from par

Sources: Computed by Federal Reserve Bank of New York from the following:
England—
1914–1917—Commercial and Financial Chronicle.
1918—February, 1922—Annalist.
March, 1922, to date—Reports from brokers to Federal Reserve Bank of New York.
France and Italy—
1914–1916—Commercial and Financial Chronicle.
1917–February, 1922—Annalist.
March, 1922, to date—Reports from brokers to Federal Reserve Bank of New York.
Japan—
1914–1919—Federal Reserve Bulletin.
1920—New York Times.
1921—February, 1922—Annalist.
March, 1922, to date—Reports from brokers to Federal Reserve Bank of New York.

assurance of being able to get gold in London has been one of the stabilizing influences in world trade. The same assurance which has been maintained by the Federal reserve banks since May, 1919, has gradually had the effect of developing this country as a world banking center to a degree far beyond anything anticipated when the Federal reserve act was passed. Looking at the matter from a selfish standpoint only (which, however, does not appeal to me especially), we can not expect to do our part, in our own interest, toward

restoring stable conditions both at home and abroad unless we are willing to give up gold as freely as London has always done.

This credit really helps to do two things: Reestablish the gold standard abroad; justify our continuance as the important center which the war forced us to become. The importance of reestablishing this stability and of doing so in one of the world's principal money markets at the outset, can not be exaggerated. It is the start in reestablishing world-wide stability. It means the elimination of speculative hazards in international purchases and sales of goods which have been a restricting and withering influence upon trade ever since the war started. The determination to resume a free gold market in London means ultimate world-wide reestablishment of the gold standard, and only action by the Bank of England

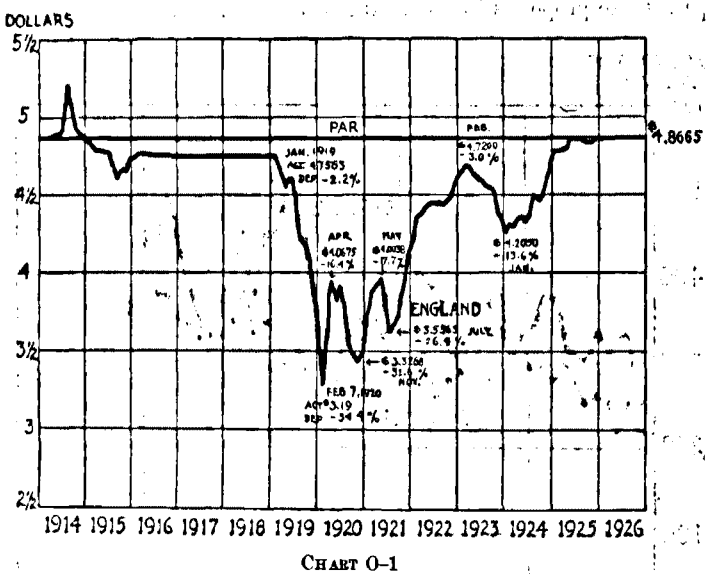


CHART O–1

Course of sterling exchange since 1914

Sources: Computed by Federal Reserve Bank of New York from the following:
1914–1917—Commercial and Financial Chronicle.
1918–February, 1922—Annalist.
March, 1922, to date—Reports from brokers to Federal Reserve Bank of New York.

to that end, could give the world assurance that sound monetary policies would be resumed throughout the world.

The course of our trade since more stable conditions of exchange and greater general tranquillity developed in 1924, both directly with Great Britain, and with other parts of the world, has been distinctly to increase. This can be shown by this chart [exhibiting]. (See Chart K, p. 508.)

One important consideration to us, and to England, in arranging this transaction with the Bank of England, was the technical position in which matters had been left as a result of war legislation. Over five years ago the British Parliament had passed an act authorizing the Government to embargo exports of gold. That act expired by limitation December 31, 1925. Some decision had to be made as to whether the act would be allowed to expire, or

whether it would be extended by act of Parliament. It could not be allowed to expire without assurance of some kind that there would not result a drain upon the reserve of the Bank of England of such magnitude as to again compel suspension of gold payment and export. It was decided to permit it to expire, even, in fact, to lift the embargo last May, provided assurance of support from the United States could be obtained, adequate to protect sterling against any such drain. It seems to me doubtful whether it should or could have been undertaken without such an assurance. Hence, the arrangement between the Federal reserve banks and the Bank of England, and the credit which the commercial banks of the United States extended to the British Government.

If, on the other hand, the banks of this country had been unsympathetic to proposals for an arrangement to support the resumption

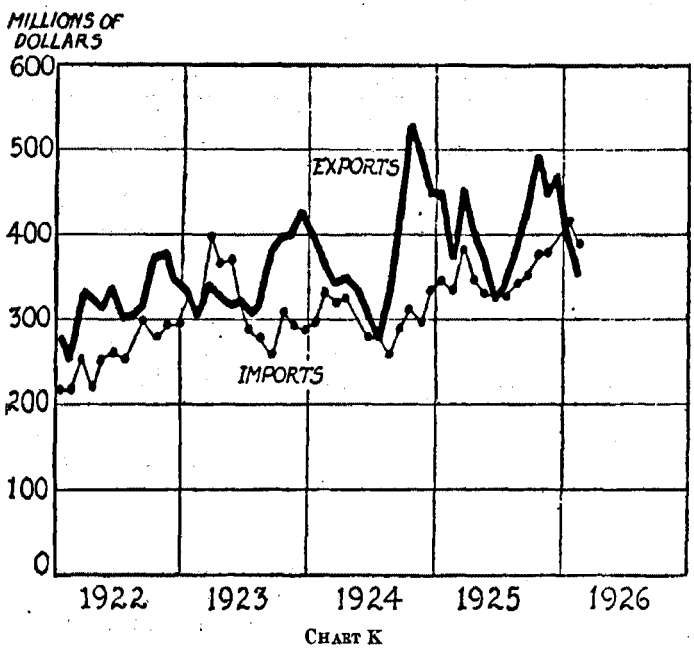


CHART K

Monthly imports and exports of merchandise of the United States since 1921
Source: Department of Commerce Reports

of gold payment in England, and had it been necessary to extend the embargo act, there would undoubtedly have been an extension, both in area and range, of exchange disorders; it would have been regarded as an admission by the British Government and by the Bank of England that a free gold market could not yet be restored; other countries would have been unable to resume gold payment, for lack of its leadership in the protection of sterling, and we would have entered into another long period of exchange disorders, with all the hazards which that would involve.

The influence of this action was immediately felt in the resumption of gold payment in Holland, Switzerland, the Dutch Indies, Aus-

tralia, and New Zealand; South Africa and Sweden, as I recall, had acted in anticipation, and active steps have already been taken or are under consideration for partial or complete resumption in other countries.

It is not always clear why exchange disorder proves an impediment to trade. There are many reasons. Take the case of the American cotton exporter. (I keep at cotton, and the chart shows why; it is the main article of commerce between this country and Great Britain.) If he contracts to sell in sterling, as was the case before the war, he is liable to sustain a depreciation in the value of the money which he receives in payment, which may at once reduce the amount of his selling price and wipe out his profit. He must, therefore, arrange to sell his sterling at once when he sells his cotton. The buyer of the sterling must be some one who is making a purchase in Great Britain for which he must make payment in sterling at some future date, and because he is unable to assume the risk of loss on exchange, he buys a "future"—that is, makes a forward contract—at the same time he makes a contract for the goods in England; should he fail to do so, when the time arrives to make payment, sterling may have advanced to such a high price that the cost of the goods which he has bought will be so greatly advanced that there will be no profit on its resale, and certainly that chart, showing a fluctuation over a range as high as 34 per cent in the value of sterling, exhibits the hazard involved.

This situation resulted in the development of what is known as the market for "forward exchange," through which traders, either selling or buying goods abroad, covered their purchases or sales in foreign currencies. Of course, the development of such a market—the cost of maintaining it—the commissions and profits required of dealers, is simply an addition to the margin of cost and trade.

Some one was obliged to underwrite these contracts, usually banks and exchange dealers, and the development of the forward exchange market was producing a vast and complicated organization; in fact, the development of underwriting contracts involved hazards beyond what had been known before the war.

These same hazards apply equally to buyers of goods, such as raw cotton, in England. That is to say, when a British spinner purchased raw cotton from an American producer, he had to have a good "future" contract for his dollars instantly in his hand to enable him to make payment at some future date when the cotton was to be delivered and paid for, otherwise a depreciation in sterling might have made his dollars cost so much more that there would be no profit in manufacturing the cotton into cotton cloth. It was subject to the further hazard that fluctuations in sterling might result in depriving him of his profit on the sale of cotton cloth for which he had paid dollars in advance, but for which he would not ultimately receive payment at a rate to reimburse him for the cost of his dollars. If he speculated in the cost of the dollars and sterling advanced, his competitor might buy his raw cotton so much the cheaper and be enabled to undersell him.

And I should mention here that it is a very common occurrence, and it was during this period, for merchants to make contracts for goods, either to buy or sell, which had to be canceled for one reason

or another reason. When the contract was made for the goods, a contract was also made for the sale or purchase of the foreign currency, and at once the hazard arose, and frequently losses occurred of considerable magnitude because the contract for the "forward exchange" could not be canceled. And to illustrate the extent of the difficulties of dealing with this matter I would like to introduce a little description of what we had to do in the case of sales of cotton to Germany.

During the period of depression there was very great difficulty in Germany in financing imports of raw cotton from this country, not only because credit conditions were tight in Germany, but because of this constant fluctuation in rates of exchange. So an arrangement was worked out by the cotton exporters, and by the bankers who financed it, with the Federal reserve bank in New York, under which cotton was shipped from this country to Bremen and put in storage there. Bills of exchange were drawn, as I have described this morning, and floated in the New York money market and considerable amounts purchased by the Federal reserve bank to finance that storage of consigned cotton in Bremen.

When the cotton got to Bremen the spinners came there and would buy 10, 25, or 50 bales at a time, ship it to the mills to convert it into cotton cloth, and sell it. But, even then, the movement of the cotton from Bremen to the mills had to be financed and new bills were drawn while the cotton was being processed and made into a fabric for sales; that was extending into quite a large business and was about the only way in which cotton could easily be exported for use in Germany.

When the Dawes plan was put into operation, exchange stability was restored at once, so cotton exports to Germany went right up and no more of these unusual financial arrangements were necessary.

I explain that as an illustration of the extreme difficulty of conducting trade with a highly unstable exchange market.

The ramifications and complications of this difficulty, applying to all trade, can be elaborated in great detail. All the multitude of textbooks by financial writers and students, and the reports of committees of investigation made since the war, unanimously emphasize the need for a prompt restoration of stable exchanges and stable monetary conditions as one of the essentials to the restoration of trade and the preservation of markets. They are too well known to justify burdening the record with quotations. I would, however, suggest that a valuable statement on this subject is here in Congress, being the report of an investigation conducted by a committee, of which I think Senator Oddie was chairman, into all the disorders and difficulties in connection with gold and silver production and the exchange market. That document contains a great deal of valuable information on this subject.

The interest of the United States in the restoration of sound monetary conditions and stable exchanges lies largely in the fact that we have the largest foreign trade of any country, and just now especially in the fact that the one industry in this country which has suffered a depression from which it has not yet fully recovered, is the farming industry and that it so largely depends upon foreign markets. Roughly one-half of all that we export is produced by farmers and one-half of that produce is cotton and

any considerable part of this crop that is left over and can not be sold makes the price of the whole crop, as you know.

Anything which reduces trade, reduces employment, and reduces living standards. This country, with its vast resources, is interested in maintaining its markets and consequently in the general restoration and elevation of living standards, which have been so greatly impaired because of the war.

If disordered exchange restricts the ability of the spinners of Lancastershire or of Poland to buy our cotton it reduces their ability to employ their people in gainful occupation. It thereby reduces their consuming power. It reduces their ability, for instance, to buy machinery and manufactured goods from England, France, Belgium, and Germany. These countries import large amounts of foodstuffs from us, and the reduction of their trade in turn reduces their standards of living and consequently their ability to purchase foodstuffs from this country. It reduces our ability to buy goods from them, and with lower standards of living the markets are necessarily further contracted and the surplus production of goods in this country will remain on our hands unsold and unconsumed.

The proper credit policy for this country toward those countries which have shown willingness and ability to balance their budgets, pay their debts, and an earnest intention to stabilize their currencies, is to help them to do so when they have a sound program, if for no other reason than that it will be one of the chief, if not the most important, constructive step that we can take to preserve our own trade.

Trade must not be understood to mean simply the selling of goods for cash. Trade is exactly what the name implies—an exchange of goods for goods. The more we export, the more we can import, and it is such a development—a general enlargement of world trade—which raises standards of living, keeps people employed and contented, reduces discontent and social disorder, and establishes political and social stability.

Now this, gentlemen, is our explanation of the Bank of England credit. I would like to add one word to that prepared statement.

The question has frequently been raised by critics of the Federal reserve banks in various ways. I apprehend that you will agree with me that the responsibility for financing, for instance, the production of the crops of this country rests upon the banks in the districts where the crops are produced, and if the banks in those districts have not sufficient resources with which to finance the production of the crops they can go to their reserve bank and get the resources.

We have no agricultural problem in the second Federal district. The banks of the district are generally sound and well managed, and most of them have surplus funds to loan. I think you will agree with me that if we have any responsibility in the second Federal district to the farming community of this country it is not to finance the production of wheat in Kansas, corn in Iowa, or cotton in Texas, but that it is to protect the market for those things.

Our purpose in New York—and I have tried to make it clear to the committee—is to create the machinery, and, if necessary, to furnish the banking credit there that is required to move these crops

abroad at the seasons when they go abroad; and I further apprehend that a part of our responsibility is likewise to do what we can in a financial way to preserve these foreign markets. I have not got the ability that you have to express myself as forcibly as I would like to on this subject. If we are not discharging our responsibility to our own people by the protection of their markets abroad, if you gentlemen have any doubts on that subject, I wish you would ask me and tell me what they are, and ask me what is wrong about it.

The CHAIRMAN. Governor, are you ready for questions?

Governor STRONG. Yes, sir.

The CHAIRMAN. At the time this credit was established there was a similar loan extended by a group of bankers in this country of $100,000,000, as I recall. Was that identical with this loan?

Governor STRONG. No. I think I described the differences, excepting in one respect. Of course, Mr. Chairman, I hesitate very much to talk about other people's business, though I do not hesitate talking about my own.

The CHAIRMAN. Just in a general way, tell us about that, Governor.

Governor STRONG. There was a credit extended by a group of banks—I do not know how many; quite a large group—directly to the British Government, through its financial agents in New York, J. P. Morgan & Co. It was a credit which, I am told, was to be secured by British Treasury bills payable in dollars, and for the arrangement of that credit some commission was charged. I have not any doubt that those gentlemen would explain to you in great detail, if they were asked to, about that; but I hesitate to go into too much detail.

The CHAIRMAN. The two loans were in no way connected?

Governor STRONG. No; except in one respect: You realize that if any group of American banks had to meet the entire amount of this credit, and it had all been used, the gold would have come out of our vaults just the same.

The CHAIRMAN. Was the negotiation of this $200,000,000 loan conducted by the Federal Reserve Bank of New York directly with the Bank of England?

Governor STRONG. Directly with the Bank of England.

The CHAIRMAN. I presume in that connection that you and the governor of the Bank of England were the moving spirits in the undertaking?

Governor STRONG. Yes; we negotiated the arrangement.

Mr. BLACK. Governor, just one question: You explained that by reason of the return of Great Britain to the gold standard that there was no longer any exchange difficulty and that by reason of the Dawes plan in Germany there was no longer any exchange difficulty there; all of which I think has contributed greatly to the strengthening of our world commerce.

How is the Russian situation; for instance, Russia buys a good deal of cotton in this country—how do they pay for it?

Governor STRONG. Well, there have been credits extended by one or two New York banks (the extent of which I know nothing about) to an organization which I believe has representatives in this country, for the purpose of buying cotton for Russian consumption. If

bills were drawn in connection with that transaction, such as the ordinary cotton bill, I do not think they have come into the market. I asked about it some time ago—not very recently—at the bank, whether any of them had appeared, and I do not understand that any of them have. The difficulties of conducting trade by credit with Russia are very great.

Mr. BLACK. They have no bank of issue with which you do business, have they?

Governor STRONG. No, sir; we have no business in Russia.

Mr. BLACK. With the Bank of France, I take it, that on account of their situation you still have a great deal of difficulty, and that commerce, of course, would be greatly facilitated when they can return to the gold basis and eliminate those difficulties in that way?

Governor STRONG. Yes, sir; and any other country in the position France was in.

The CHAIRMAN. Governor, you spoke of the difficulties encountered in selling cotton, for instance, to Germany. Are you handling now in the open-market German bills representing sales of cotton?

Governor STRONG. Oh, yes.

The CHAIRMAN. Both in New York and London, I suppose?

Governor STRONG. Oh, yes; cotton bills are drawn both on New York and London. I have somewhere—I am afraid not here—some figures showing the increase in the exportation of American cotton to Germany since the adoption of the Dawes plan; and it would astonish you—I think it is tenfold.

The CHAIRMAN. I watched very closely your statement, and did I understand you correctly that under this arrangement you will be paid a rate of exchange, whether this credit is used or not?

Governor STRONG. Oh, no; only on the amount used.

The CHAIRMAN. Only on the amount used?

Governor STRONG. Yes.

The CHAIRMAN. There is to be no compensation whatever except the money is used?

Governor STRONG. None whatever. I might say on that point, Mr. Chairman—the question of compensation of the Federal reserve bank—all questions of compensation are of two characters: One is the dollars and the other is the service.

I think there is plenty of compensation in this to the American people, without taxing the transaction with any fee for making it unless it is used.

The CHAIRMAN. Has the Federal Reserve Bank of New York or the Federal reserve banks established credits with any other banks or countries of a similar nature?

Governor STRONG. Not of any great moment, although we have made some loans abroad on gold at times to meet the convenience of our correspondents. But it is quite natural that that should not be so, because most of the relations that we have abroad are with those countries which are reestablishing their currencies, stabilizing their currencies; and in all of those countries a part of the program is to accumulate American balances. So that the boot is on the other foot—they have balances with us; we have no balances with them.

The CHAIRMAN. You do not have balances in those countries?

Governor STRONG. We have small balances abroad.

The CHAIRMAN. I rather infer from your splendid statement of this credit situation and the reasons leading up to it that this really established a precedent so that such loans in the future under similar conditions might be readily made by the Federal reserve bank.

Governor STRONG. I do not like the word "precedent," if it implies any limitation upon judgment. No transaction of this kind will be made by our bank in New York unless it is both wise and safe in our opinion. The circumstances of each case have got to be dealt with, and I have to say very frankly, Mr. Chairman, that that was my principle reservation about any general meeting of the banks of issue.

The CHAIRMAN. The contract, I understand, is between the Bank of England and the Federal Reserve Bank of New York?

Governor STRONG. Yes.

The CHAIRMAN. I rather gained the impression from your explanation that in the granting of this loan we were serving a very selfish purpose on our own part, while at the same time being of considerable aid and assistance to England in reestablishing the gold standard?

Governor STRONG. I would rather put it this way: That I believe that every sound business transaction should represent an advantage to both parties to it. I think that is an economic principle that is supportable in theory and practice.

The CHAIRMAN. And you think this is clearly one of those transactions?

Governor STRONG. I think it is one of the outstanding contracts of that character in the history of monetary matters.

Mr. WINGO. You spoke about the powers of the system, Governor, and it occurs to me that in addition to the express powers that you enumerated it might also be suggested there are always implied powers necessary to do any of those things that are incidentally necessary to carrying out the express powers.

While, of course, we could not visualize the possibility of any situation ever arising like that coincident with the war. But it was plainly contemplated by the framers of the Federal reserve act the necessity of the banking system which is being set up, constituting that credit agency which would handle the financing of our world trade, our imports, and our exports; and that is the reason why I presume that the act authorized you under the open-market operations to buy and sell gold bullion both at home and abroad and to make contracts with reference to that.

And I remember quite distinctly how the six months' paper got in there; I remember the argument that I used with President Wilson at the time I was arguing out the proposition. You remember the first proposal carried a very limited time for the paper, and it was contended that it was limited both as to character and to maturity to such an extent that it would preclude the banks in agricultural States from having any participation in the system at all. I also remember the six months' provision in there and that we used as illustration—I remember I did—these tramp steamers carrying our cotton, and that it is very necessary to finance the production of the cotton, yet it would not be of any profit to the cotton farmer if he financed and produced his crop, if a market was denied to him by

reason of lack of proper credit facilities to cover the export, which at that time was 65 out of every 100 bales. I was speaking, of course, for the Southern brand of cotton.

While, of course, we did not contemplate a situation like this, we did contemplate from the experience of 1907 that we might want to deal with gold in international exchanges, and we did contemplate this system, entering into contracts and handling paper that facilitated, conserved, and accommodated our foreign business, to wit, that cotton I have spoken of.

So it can be plainly said that while peculiar circumstances surrounding it and the particular form your transaction was compelled to take by reason of the exigencies growing out of postwar transactions, yet clearly it could be said it was in contemplation of those who visualized the functions of the act.

Governor STRONG. On a smaller scale?

Mr. WINGO. On a smaller scale. It did intend for you to serve as the credit agency that would accommodate and serve the financing of our exports and imports, and in doing that you not only were expressly authorized to buy and sell gold. But the experience at that time showed that it greatly facilitated these credits, that they would have to deal in gold exchanges and sometimes that that would necessitate the dealing in gold itself.

Governor STRONG. Mr. Congressman, you referred to the implied powers. After the discussion that has taken place about this credit and some of the criticism, which I have possibly felt personally, I would not care to rely upon implied powers in the Federal reserve act for the conduct of these transactions, and there has been no reliance upon implied powers in this.

If I may tax your patience just for a minute, because we are discussing this thing in rather general terms, I would like to tell you just what I think about the responsibilities of the Federal reserve system. I do not think it was a system created to serve only the American banks, nor the Treasury of the United States, nor the American farmer or manufacturer; I think it was created to serve the employer and the laboring man, the rich man and the poor man, the producer and the consumer, the importer and the exporter, the debtor and the creditor: and if it does not serve that purpose it will fail of its purpose, and I can assure you it is being run, so far as I am aware of it, in exactly that way.

Mr. LUCE. That statement may seem very admirable, but it prompts me to ask one or two questions along that line, if I may—perhaps they may serve to bring your statement to a head, if you have finished what you contemplated saying.

Governor STRONG. Partially.

Mr. LUCE. As I have gathered from the testimony and from previous knowledge, at the time the system was established there seem to have been definitions as to whether it should, to use a mechanical illustration, act like the flywheel, automatically, to help something you have expressed the idea it should help, others thinking that it should serve as a regulator, working by the initiative and upon the judgment of some man or men; that for about two years or more little attention was paid to the operations of the system. But the banks were opened, and then came four years, when, to use

the Latin phrase, legis omnia sine temporis bellum—all laws are set aside in times of war; and then for about two years you were prevented from exercising a discretion in the matter by the demands of the Treasury. But then, in 1921, you first conceived that you had an opportunity to act as a regulator upon individual judgment. You exercised that judgment. The gentlemen of the commission of agricultural inquiry were divided as to the course you pursued: Some said you began too late; others said you began too early. But you began, and as a result of it you brought down upon your head the wrath of a large part of the American people living in the Northwest. But you kept on acting as a regulator; and now for three years you have done it very effectively.

Much of your discussion has been devoted to the efficiency of this conduct in the three years and for one I want to say that you have quite convinced me of the wisdom and judgment that you have exercised.

Now, that brings us to the question before us. If the financial writers are right in their prediction we are upon the edge of a reaction, and that it is coming this summer or this fall, it does not take a very able prophet to expect that what you are going to do if you repeat what you have done, will renew the storm of criticism. You are going to be damned if you do try to regulate and you are going to be damned if you do not try to regulate; and in any case, for my own part, I am inclined to think that out of it is coming a political issue once more of the money questions. Already there are numerous straws that indicate that we are in for another money fight. The rapid reduction of the debt is to be brought in issue. The surplus this year will reduce it by half a billion dollars, and it is going to arouse controversy. With that situation, we are confronted, it seems to me, with this question which may bring to a head your discussion. In the first instance, you will recall that in 1921 some gentlemen connected with the system disclaimed or avoided admitting that it was acting as a regulator; there was not that frankness of openness about it which comes from looking backward, and hindsight is always better than foresight. But now it seems to have warded off some of the criticism in the Northwest. I remember extremely well how difficult it was through those years to get men connected with the system to admit that they were doing this thing.

Governor STRONG. I was away the entire year of 1920, and the Agricultural Commission, shortly after I got back, conducted its inquiry, and I endeavored, to the best of my ability, to be as frank with that commission as I have been here.

Mr. LUCE. That was a year later?

Governor STRONG. Yes.

Mr. LUCE. I mean while the thing was being done, it was not admitted by all of those connected with it that it was being done. There was uncertainty about it.

In view of that dissatisfaction, the corollary of which is still of importance in the political field, we are now confronted with the question of whether, as a matter of policy and prudence, we would better set forth definitely a recognition of your powers. For one, I agree that you have exercised those powers in a salutary man-

ner, and I am not disposed to question that you have wrongfully interpreted what the act already said. I think you could go on doing so to the great benefit of the country. But as a psychological question, with the depression coming again, with this almost certain question of the debt reduction, with the question of the renewal of your charter pressing upon us, already put upon one of our bills as a rider by the Senate committee, likely to come into issue between the two Houses within a few days or few weeks, with not a few persons in the country ready to renew the Jackson episode, which so distracted, and disturbed, and damaged, the country—would it not be better for us to take the "bull by the horns" and tell the people that in our judgment it is best to have a regulator and not merely a flywheel?

Governor STRONG. I think they have got it.

Mr. LUCE. I know they have it, only the definite problem before us is whether we should say so.

Governor STRONG. Can we agree, Congressman, upon what it is we shall regulate?

Mr. LUCE. I should say steadying general prices—and let me just interpolate that the Boston Post this morning had an editorial showing the need of definiteness and understanding in this matter, because it told the people that we are here attempting to regulate individual prices. They wholly failed to grasp the true situation and already agitation has begun about it.

Governor STRONG. That is what I fear.

Mr. LUCE. I understand that, but wouldn't it be better to attempt to make an accurate statement of the case than to have this misinformation based upon surmise?

Governor STRONG. That is an important question; I should like to have the wisdom to make a recommendation to this committee about it, but I certainly would not want to do so without consulting my associates; and without having done so, Congressman, I think if any declaration of purpose is to be made in the Federal reserve act it should be so carefully devised that it would even go so far as to contain some disclaimers of intention. The difficulty of definition in law or in contracts is that the more you include the more you exclude in a sense. If you can not do it in general terms, as is really done in the act now, and so begin definitions, there is no end to the extent of the definitions required.

Mr. LUCE. That is absolutely true.

Governor STRONG. My thought about this particular bill has been, first, to try and formulate in my own mind what particular things the Federal reserve system could do which the people would clearly understand that would influence to some extent stability in all directions.

We have here a chart—it may not be accurate—which shows at the bottom of the line of prices agricultural produce and at the top wages. There are the interests expressed as graphically as it is possible to do it, that are in conflict. Here at the top is the wage level, if it is accurate. I think its position expresses the interest of the great consuming class; at the bottom are farm commodities, which is the interest of the great producing class. Those at the bottom want high prices for what they produce; the working man,

who consumes these things, wants lower prices for what he consumes. (See Chart D, p. 351.)

If we should have the misfortune in this country to have a period of liquidation, if we should lose some of our foreign trade, great numbers of working men being thrown out of employment, and we should have a sudden decline in wages, what would our answer be to the laboring man if we accepted this amendment by Congress, or even a suggestion which was capable of misinterpretation—what would our answer be to the laboring man about his wages?

This is a very big subject.

Mr. LUCE. It is a very big subject.

Governor STRONG. The Federal reserve act, under the most capable management by the Federal reserve banks, can not underwrite the prosperity of the country, employment, prices, and so on. I am doing my utmost to look at the question raised by the "Strong bill" just as fairly as I can; and if it were possible to formulate words that would not in some future year result in worse animosities and complaints about the system, I would certainly attempt to do it.

I really have a feeling in my own mind that the prosperity of our country is so wrapped up in general world prosperity that, aside from any declaration of purpose in the act, the best that we can do for our people is to try in any way that we can to maintain these markets on which our prosperity so largely depends. That we have been trying to do.

When it comes to formulating a project for helping, my mind naturally turns to what we have been doing. If it needs regularizing, let us regularize it by amendment. If you think that politically, socially, and in a public way we would be better off in regularizing it by some language, well and good—I would like to have a chance to look at the language very carefully, to make sure that it did not leave us in some later year in a worse state than we were in 1921–22.

If you will permit me to say so, I earnestly believe that the greatest service that the Federal reserve system is capable of performing to-day in this matter, is to hasten so far as it has the power wisely and without undue hazard, this question of monetary reform in the countries that have suffered from the war. We can not do it until the time is ripe, and the conditions are favorable in each country.

I especially emphasize the case of this British transaction as being for that very purpose. I personally would like to have a great deal of freedom, which I possibly would not feel now, in going ahead with these matters, as opportunity arises and as it is safe to do so. But if the Congress has doubts about it, they made the act; they can unmake, they can modify, they can restrict us or give us more power.

If you ask me to-day what I earnestly think would be the best thing, I would say "Don't let there be any misunderstanding in the act or with the public as to our having all the powers we need for that purpose"; in other words, some one said that the language of this act would in fact be a restriction upon our powers. My answer is, don't restrict them; give us more power; watch us; criticise us; get us over here before your committees and call us to account, but give us a chance to freely work.

Governor STRONG. Have I discussed it sufficiently?

Mr. LUCE. I think I have no further questions.

Mr. STRONG. I simply before leaving wanted to give the committee a little picture, not only of the Federal Reserve Bank of New York but of all the Federal reserve banks. I would like to give the committee a little idea of what we do, aside from these credit operations, what our transactions consist of. It will not take very long, unless it calls for questions.

The CHAIRMAN. Will it be agreeable to you to-morrow morning?

Governor STRONG. Quite so.

The CHAIRMAN. If that is agreeable to the committee, we will recess until to-morrow morning at 10.30.

(Thereupon, at 4.40 o'clock p. m., the committee adjourned to meet to-morrow, Tuesday, April 13, 1926, at 10.30 o'clock a. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Tuesday, April 13, 1926.

The committee met at 10.30 o'clock a. m., pursuant to adjournment, Hon. Louis T. McFadden, chairman, presiding.

The CHAIRMAN. The committee will resume its hearings. Governor Strong, we will be very glad to hear you further.

STATEMENT OF HON. BENJAMIN STRONG, GOVERNOR OF THE FEDERAL RESERVE BANK OF NEW YORK—Continued

Governor STRONG. There was one omission in my statement yesterday afternoon in regard to our foreign business that I would like to correct in the record.

When you asked me what other transactions of importance we had had abroad in connection with these currency matters, I mentioned two or three loans which we had made on gold, but failed to mention the fact that a few months ago we entered into a temporary arrangement with the National Bank of Belgium to let them have some money through purchases of bills. But the plan never became operative; that is, no bills were ever bought under the arrangement which has now lapsed.

The CHAIRMAN. To what extent were you committed to buy bills?

Governor STRONG. $5,000,000.

The plans now under consideration by the Belgian Government for a thoroughgoing monetary reorganization in Belgium have not yet been brought to maturity. When they are they will doubtless come to us, and we will consider whatever they have to suggest. We will be very glad to do so.

The CHAIRMAN. So that whatever tentative arrangement you have with the Bank of Belgium depends upon their working out a satisfactory adjustment of their own internal affairs?

Governor STRONG. Yes, sir. If they conform to a sound program, we naturally would feel inclined to help them.

The CHAIRMAN. There has been in the papers a good deal of discussion with reference to the desire on the part of Belgian institu-

tions to secure American financing, indicating some resentment on the part of certain Belgians that America was assuming a dictatorship over the affairs of Belgium before she would grant such a loan. There is nothing in this negotiation that would indicate anything of that type, is there?

Governor STRONG. Oh, no. I think responsible people have no such feeling, Mr. Chairman. Of course, if we undertook to explain or deny or qualify everything that appeared in the newspapers about the Federal reserve system, we would be doing nothing else.

The CHAIRMAN. I appreciate that.

Governor STRONG. Mr. Chairman, if you will permit me, I will now review as briefly as I can some of the functions performed by the Federal Reserve Bank of New York and what it costs to do the work; and as a preface to that I would like to ask the committee to look at this document—it should not go into the record; it is much too long, and would not be illuminating to anyone—which is the December comparative statement of current expenses of the bank, with certain comparisons with previous years, which exhibits the way we exercise a departmental control over every penny that is spent in the bank. It is a rather ponderous document, because it is a rather large bank; but if the committee would like to glance at it, it will give a little idea of the way that work is done. (Submitting document to the committee.)

At the same time the committee might care to glance at the actual working copy of what we call the office manual, and the organization chart of the bank, which shows the way the work of the bank is organized in order that business may be conducted in an orderly manner.

This chart carries the organization down to the level of a department manager.

The CHAIRMAN. If you will pardon me, Governor, I think this chart might well go into the record. It is Chart A, official organization, Federal Reserve Bank of New York. (See Chart P, p. 521.)

Governor STRONG. You understand, Mr. Chairman, that that covers about the three top stories of a chart which if complete would show the entire organization. If you take that part of the chart which covers the cash function, and then where you find the name E. C. French as manager, you will find in this volume [indicating] the chart of the organization over which he is manager. It will simply exhibit graphically what an immensely complicated organization it must be to perform all these functions.

The CHAIRMAN. This chart, I observe, is of the cash department, and is identical with a similar organization of other departments.

Governor STRONG. Yes. At this level [indicating], at the bottom line, is the line of managers. Now, E. C. French, at this point [indicating], being the manager of the cash department, has under him this organization [indicating], which would make the chart too big to put on one piece of paper. Each one of those extends down in the office manual in similar fashion to the cash-function chart.

Mr. STRONG of Kansas. Each one of the managers has under him the organization which carries on the functions of his department?

Governor STRONG. Yes; just like a bank of his own.

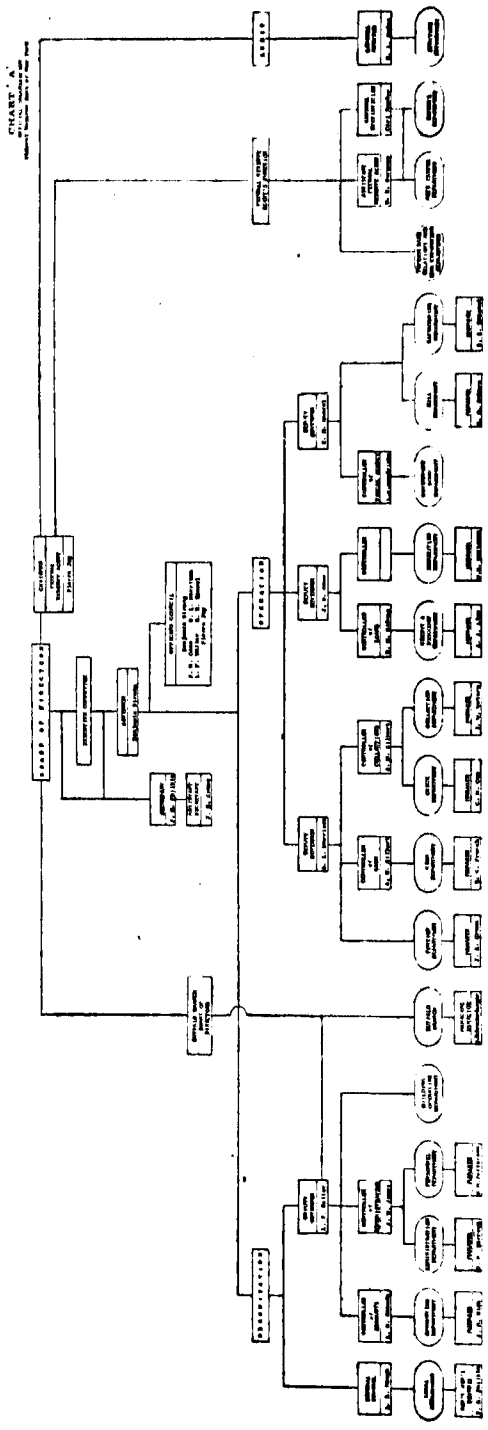


CHART P

The CHAIRMAN. Without objection, then, we will have inserted in the record this chart, the cash-department chart, which is typical of the organization of the several departments of the bank.

(The chart referred to appears below.)

The CHAIRMAN. Noting this comparative statement of current expenses of the Federal Reserve Bank of New York, being the departmental analysis for the month of December, 1925, I infer, Governor, that this is gotten out monthly, and is a detailed statement of all the operating expenses, including overhead, etc.?

Governor STRONG. For that month and for the year; and it shows a comparison of the actual results with the budget figures prepared at the beginning of the year, and compares the results of the current year with the previous year.

The CHAIRMAN. The point I was getting at was, without going into all the details of it, which involve a large mass of figures,

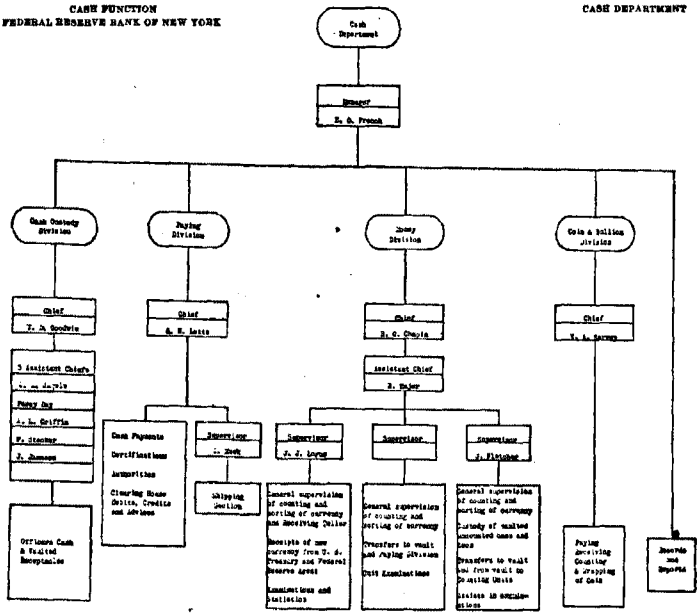


CHART Q

by comparison with previous years are the operating expenses of the Federal Reserve Bank of New York going up or down?

Governor STRONG. They are going down. I have the figures here to read into the record.

The course of the expenses of the bank, by years, is as follows: From November 16, 1914, the day we opened for business, until the end of 1914 our expenses were $57,000; 1915, $412,000; 1916, $486,000; 1917, $1,655,000; 1918, $2,510,000; 1919, (now we are coming into the period where we are beginning to assume the expense of the fiscal agent operations of the Treasury) $5,561,000; 1920, $6,798,000; 1921, $8,078,000.

Now they begin to go down. In 1922, $6,776,000; 1923, $6,880,000; 1924, $6,350,000; 1925, $6,325,000.

(The statement by Mr. Strong is as follows:)

Expenses of operation of Federal Reserve Bank of New York

Nov. 16 to Dec. 31—		Nov. 16 to Dec. 31—	
1914	$57,412	1920	$6,797,764
1915	411,510	1921	8,078,362
1916	486,255	1922	6,776,529
1917	1,655,507	1923	6,880,136
1918	2,509,770	1924	6,350,821
1919	5,561,086	1925	6,325,202

Governor STRONG. You will observe from these figures, gentlemen, that the lowest expense since 1919 was last year. Last year was the first year when we had completely moved into our new building.

The CHAIRMAN. I was going to ask you about that. Now that you are in the new building, you are enabled to operate on a much better basis?

Governor STRONG. Yes, sir. The saving in cost of conducting the business of the bank by being in one building, scientifically designed for our purpose, has been sufficient to absorb the entire additional cost of carrying the building, taxes, operating expense, and everything else, and a few hundred thousand dollars more than that.

Mr. FENN. Do you pay taxes on the building?

Governor STRONG. We pay taxes on the building; yes, sir.

There are a good many ways in which we have to make up the expense account of the bank, and without confusing the record with details, I may say that the cost of providing space, which covers all expense in connection with housing the bank and its affairs in our new building, is $350,000 a year, roughly, more than it was when we were scattered in different buildings and paying rent, but at the same time occupied the subtreasury without any rent. In other words, for the facilities and security which we get in our new building we add $350,000 of expense, and the better organization of the bank under that condition enables us to save that $350,000 and quite a bit more without taking into consideration the income received for space rented in our buildings.

The CHAIRMAN. All of your operations now are confined to the new building, are they?

Governor STRONG. Yes, sir.

The CHAIRMAN. Your storage and all of them?

Governor STRONG. All of them.

The CHAIRMAN. Except that you have some surplus property now on your hands?

Governor STRONG. We have a large surplus of space for expansion as needed.

The CHAIRMAN. But outside of your main building you have a storage building?

Governor STRONG. We have a building which was built as a warehouse, if you please, for our records, which accumulate at a tremendous rate, and which temporarily we are renting; and my recollection is that we get a return of about 5 per cent on the cost of that property, net, pending the time arriving when we will have to use it.

Mr. STRONG of Kansas. Do you derive any rentals from offices or anything in your new building?

Governor STRONG. We have one floor rented.

Mr. STRONG of Kansas. A legitimate deduction from that $350,000 of additional expense made because of the use of the new building would be the use of the subtreasury, which is now vacant, would it not?

Governor STRONG. Yes, sir.

Mr. STRONG of Kansas. I do not know what it would be worth.

Governor STRONG. We do not keep the accounts that way. If we had charged that into our costs under the old arrangement, of course the increased cost now would be much smaller. That is a very valuable piece of property.

Mr. STRONG of Kansas. Yes; that would be a just deduction. Does the Government derive any use from the subtreasury now?

Governor STRONG. Oh, yes; they are using it. They are not using it for any monetary transactions, however.

Mr. BLACK. Governor, what do you count as expenses in that computation?

Governor STRONG. In the figures that I have just read to you?

Mr. BLACK. Yes.

Governor STRONG. Everything that we pay.

Mr. BLACK. Do you count depreciation?

Governor STRONG. No; we do not count depreciation on the building.

Mr. BLACK. It seems that that would be a legitimate factor.

Governor STRONG. Well, it all depends upon the way you look at that.

The accountants in the bank and the accountants over here who pass on these matters consider that that is a readjustment of assets that should not go into the expense of running the bank.

Mr. BLACK. Do you keep a depreciation reserve, or how do you do that?

Governor STRONG. We charge off 2 per cent of the cost of the building structure every year.

Mr. BLACK. Does that go into a depreciation reserve, or do you charge it off as an expense?

Governor STRONG. No; it goes directly to an account on the books which offsets the value of the building. It does not go through the expense account at all.

Mr. STRONG of Kansas. That would replace the building in 50 years or less?

Governor STRONG. Yes, sir.

Mr. FENN. Less.

The CHAIRMAN. According to the figures which the Federal Reserve Board has furnished to the committee, the original cost of the New York building was $21,844,323.

Governor STRONG. That is the land and building.

The CHAIRMAN. The land and building. The furniture and fixtures were $1,575,434, making a total cost of $23,419,757. Now, there has been charged off for depreciation the sum of $5,227,263 on land and buildings.

Mr. BLACK. You do not charge off anything on account of land, do you?

The CHAIRMAN. And the entire amount for furniture and equipment of $1,575,434, or a total charged off for depreciation of $6,802,697, leaving a net book value of the land, buildings, and furniture and equipment, at the date of this statement, which I suppose is December 31, 1925, of $16,617,060.

Governor STRONG. That is both buildings.

The CHAIRMAN. That includes the Gold Street building?

Governor STRONG. The Gold Street building.

The CHAIRMAN. The method of charging off depreciation, Mr. Black, whether it is charged off against real estate or buildings, this report does not disclose. Perhaps you can answer that, Governor.

Governor STRONG. Yes. As to these transactions in readjusting the value of the property of the bank, the land that we bought, being the only land available in the financial district of adequate size for the building, had two or three modern buildings on it, which had to be torn down. After we bought the land we had those buildings appraised by two independent appraisers, and then charged off, as though the value had been destroyed, the appraised value of the buildings that were torn down. Then, under a ruling which the Federal Reserve Board made, we had an estimate made by responsible contractors of what would have been the average or mean cost of the building over a period of years. Of course, this building was erected after the cost of building had greatly advanced because of the war, and we took the mean of that figure, as I recall, and wrote off the cost of the building to what would be regarded as a fair average replacement cost.

Those are two principal reductions in book value which have occurred, outside of an amortization charge. We have charged off annually 2 per cent of the actual cost of the building, the structure of the building, and 5 per cent annually of the cost of the fixed equipment, like elevators, machinery, boilers, etc.

Mr. BLACK. If you made this arbitrary deduction on account of the inflated costs of the war period, it seems that it would not be proper to charge off each year 2 per cent of the original cost. It looks as though you would have to get down to the figure of the orginal cost less the arbitrary charge-off, and then charge off 2 per cent as an annual depreciation.

Governor STRONG. Well, I think that was what was done.

The CHAIRMAN. My understanding is, Governor, that you have worked out, as well as the other several banks, a fixed basis of charge-off of depreciation with the Federal Reserve Board.

Governor STRONG. Yes, sir. This is a uniform method which applies to all of the banks of charging annually 2 per cent depreciation on the structure of the building.

The CHAIRMAN. I notice here that you have charged off the original cost of furniture and equipment entirely.

Governor STRONG. That is done every year—chairs, tables, adding machines, and all of the paraphernalia.

Mr. STEVENSON. You mean the whole of the furniture is charged off every year?

Governor STRONG. Every year; yes, sir.

Mr. STEVENSON. You do not replace it every year, do you?

Governor STRONG. No, sir. It is done upon the theory that it is a pretty poor asset for a bank to show as a part of the surplus. You certainly could not realize the cost of it, and in order to make a conservative statement for a bank which, of all others, should make a conservative statement, we charge it off as an expense.

Mr. STRONG of Kansas. You do not charge off the cost of the same material that you charged off last year, do you? You only charge off what you purchase this year?

Governor STRONG. Yes; we just charge off the amount which we expend each year on furniture and fixtures.

Mr. STEVENSON. That is what I was getting at.

The CHAIRMAN. You say you do not carry on your books your furniture as an asset?

Governor STRONG. And charge it off, too? No.

The CHAIRMAN. You do not carry your furniture as an asset in your statements?

Governor STRONG. No, sir.

Mr. STRONG of Kansas. If you should spend $10,000 this year, you would charge it off, would you?

Governor STRONG. Entirely.

Mr. BLACK. You mean to say, for example, that if you bought tables and chairs in the year 1926 you would charge them off?

Governor STRONG. Yes, sir.

Mr. STEVENSON. In other words, you would set that down as an expense item, would you?

Governor STRONG. Yes, sir.

Mr. BLACK. If the bank, of course, owed no duty to pay a franchise tax to the Government, it might use entire liberty of choice in a matter of that kind, inasmuch as the stockholders are limited to 6 per cent; but it looks to me as though that is a rather arbitrary thing to do, in view of the fact that the Government is entitled to a franchise tax under certain conditions, and I have never heard it even contended that furniture would make that rapid a deterioration and depreciation.

The CHAIRMAN. In liquidation, it might be observed, however, that furniture, or whatever was realized from its sale, would belong to the Government.

Mr. BLACK. I know; but that is an "if" and a supposition. It seems to me that is a rather arbitrary deduction.

Mr. STRONG of Kansas. What would you do—buy a typewriter and carry it along?

Mr. BLACK. No; but every business that I know of, speaking on the average, and in the ordinary way, of course, makes a charge-off for depreciation on furniture, fixtures, and machinery. The rates vary. In rendering income-tax returns the Treasury has a schedule that they permit, and sometimes an extra conservative concern may take a larger rate for their own statement than the Treasury permits; but I do not think it is customary to arbitrarily charge off the entire value of furniture and fixtures.

Governor STRONG. If we took the rates which the Treasury permits on income-tax returns, the total amount charged off, I think, would be larger than this.

Mr. BLACK. Well, it would not be larger than 100 per cent, I dare say.

Governor STRONG. The charge-off on the building would be larger than it was.

Mr. BLACK. I know. Well, that varies, of course, according to the type of building. The Treasury has no arbitrary rule, so far as I know, except that they have a maximum beyond which they do not go and will not permit the taxpayer to go.

Governor STRONG. Now, Congressman, let us see where that would lead us. Suppose we carried these typewriters and general paraphernalia of the bank as an asset and paid the Government a larger franchise tax on that account. The Government would get some cash, but on the other hand, would we be presenting to the public a statement of the condition of the bank which fairly represented the value of its assets?

Mr. BLACK. I think you would. If you made the depreciation charge that would be in order for the particular class of furniture, I think you would be presenting a correct statement; and merely to charge off 100 per cent of what you buy during the year as an expense of doing business, for goods that you have in your bank in 1927, as an asset of the bank, it seems to me would be an arbitrary deduction.

Governor STRONG. Do you know of any large bank that carries furniture and fixtures as an asset—any considerable amount?

Mr. BLACK. I am not familiar with what they do.

Governor STRONG. I do not think they do. In fact, many of the banks of issue do not even carry their buildings or real estate at a valuation on their books.

This may have an exaggerated importance in a sense right now, during the time that the reserve banks have acquired the properties which they had to have for their own security; but this arrangement about depreciation has been worked out with the Treasury Department by the Federal Reserve Board, and has been accepted and concluded, and I would gather that it was acceptable to the Treasury. I would be very sorry to see it changed. I think it is a proper and conservative method to make up our books. It certainly passed the test of a good many accounting examinations.

Mr. BLACK. Undoubtedly any business ought to deduct a depreciation charge. It ought to be as heavy as the actual depreciation would be, and then perhaps some more; but of course there should be some limit.

Governor STRONG. Is that all on that subject, Mr. Chairman?

The CHAIRMAN. I think so.

At this time I would like to place in the record pages 4, 5, 6, and 7 of the report made by the Federal Reserve Board of January 1, 1926, showing the Federal reserve banks, branches, and agencies, including the directors, personnel, bank premises, etc., which is very appropriate in connection with the statement which Governor Strong is making, and should be in these hearings at this point.

(The statements referred to are as follows:)

Directors, Federal Reserve Bank of New York

Name	Residence	Business affiliation	Term expires Dec. 31
CLASS A			
R. H. Treman	Ithaca, N. Y.	President Tompkins County National Bank.	1926
Delmer Runkle	Hoosick Falls, N. Y.	President Peoples National Bank	1927
Jackson E. Reynolds	New York, N. Y.	President First National Bank	1928
CLASS B			
Theodore F. Whitmarsh	New York, N. Y.	President Francis H. Leggett & Co	1926
Samuel W. Reyburn	do	President Lord & Taylor	1927
Owen D. Young	do	Chairman General Electric Co	1928
CLASS C			
Wm. L. Saunders	do	Chairman-Director Ingersoll-Rand Co	1926
Clarence M. Woolley	do	Chairman American Radiator Co	1927
Pierre Jay	do		1928

Directors' meetings: Every Thursday afternoon, or, if that day be a holiday, on such day as the board may determine at a preceding meeting, unless otherwise ordered by a majority of the board.

Executive committee: Meets every Monday.

OFFICERS FEDERAL RESERVE BANK OF NEW YORK

	Annual salary
Governor, Benjamin Strong	$50,000
Deputy governor, J. H. Case	40,000
Deputy governor, L. F. Sailer	36,000
Deputy governor, G. L. Harrison	30,000
Deputy governor, E. R. Kenzel	25,000
Controller of fiscal agency function, L. H. Hendricks	18,000
Controller of accounts, L. R. Rounds	18,000
Controller of cash and of collections, A. W. Gilbart	16,500
Controller of loans, R. M. Gidney	15,000
Controller of administration, J. W. Jones	12,000
Manager, securities department, W. B. Matteson	12,000
Manager, credit and discount department, A. J. Lins	11,000
Manager, check department, C. H. Coe	10,000
Manager, foreign department and assistant secretary, J. E. Crane	9,000
Manager, bill department, R. M. O'Hara	9,000
Manager, personnel department, H. M. Jefferson	8,000
Manager, collection department, I. W. Waters	8,000
Manager, cash department, E. C. French	8,000
Manager, accounting department, J. M. Rice	8,000
Manager, safekeeping department, S. S. Vansant	7,500
Manager, administration department, D. H. Barrows	9,000
Chairman and Federal reserve agent, Pierre Jay	40,000
Assistant Federal reserve agent, W. R. Burgess	10,000
General statistician, rank of controller, Carl Snyder	11,000
General auditor, E. L. Dodge	10,000
Manager, reports department, G. B. Roberts [1]	6,000
Total, 26 officers (exclusive of counsel)	437,000
General counsel, L. R. Mason	12,000
Assistant general counsel and secretary, J. H. Philbin	7,500

Number of employees other than officers (Dec. 1, 1925), 2,255.

[1] Resigned effective January 31, 1926.

Federal Reserve Bank of New York, bank premises and furniture and equipment

	Original cost	Charge-offs and depreciation	Net book value
Head office:			
Bank premises—			
Main building—			
Land	$4,850,210	$1,703,832	$3,146,378
Building	10,480,915	2,762,891	8,816,482
Vault and vault equipment	1,098,458		
Fixed machinery and equipment	3,090,948	157,258	2,933,690
Annex building—			
Land	592,679	117,679	475,000
Building	1,481,571	411,948	1,073,653
Vault and vault equipment	4,030		
Fixed machinery and equipment	141,950	20,093	121,857
No. 10 Gold Street—			
Original cost	91,715	53,562	50,000
Remodeling	[1] 11,847		
Total bank premises	21,844,323	5,227,263	16,617,060
Furniture and equipment	1,575,434	1,575,434	
Total	23,419,757	6,802,697	16,617,060
Buffalo branch:			
Bank premises			
Furniture and equipment	72,090	72,090	
Total, bank and branch	23,491,847	6,874,787	16,617,060

[1] Including fixed machinery and equipment, $3,004.

Head office and branch combined

Capital paid in	$32,395,000
Surplus	$59,964,000
Member bank reserve deposits	$847,249,000
Discounts for member banks	$232,943,000
Total bills and securities	$334,269,000
Currency received and counted, year 1925, number of bills	554,123,000
Checks handled, year 1925, number	143,175,000
Year 1924:	
Gross earnings	$8,569,350
Current expenses	$6,350,821
Year 1925:	
Gross earnings	$10,217,174
Current expenses	$6,325,202

Directors, Federal Reserve Bank of New York, Buffalo branch

Name	Residence	Business affiliation	Term expires Dec. 31
W. W. Schneckenburger	Buffalo, N. Y.	Managing director	1926
J. E. McNulty, chairman[1]	do	President Pratt & Lambert Co	1926
Harry T. Ramsdell	do	Chairman Manufacturers & Traders National Bank	1926
Elliott C. McDougal	do	Chairman Marine Trust Co	1927
Arthur Hough[1]	Batavia, N. Y.	President Wiard Plow Co	1927
Frank Crandall	Westfield, N. Y.	President National Bank of Westfield	1926
John A. Kiemper[1]	Buffalo, N. Y.	President Liberty Bank	1928

[1] Appointed by Federal Reserve Board.

OFFICERS

	Annual salary
Managing director, W. W. Schneckenburger	$15,000
Cashier, H. W. Snow, jr.	$6,000
Assistant cashier, C. L. Blakeslee	$4,500
Assistant cashier, E. L. Theobald	$4,200
Total, 4 officers	$29,700
Number of employees other than officers (Dec. 1, 1925)	116
Bank premises: No real estate owned.	
Furniture and equipment:	
Original cost	$72,090
Charge-offs and depreciation	$72,090
Member bank reserve deposits	$30,930,000
Discounts for member banks	$30,331,000
Currency received and counted, year 1925, number of bills	39,481,000
Checks handled, year 1925, number	11,471,000
Current expenses:	
Year 1924	$306,033
Year 1925	$308,701

Governor STRONG. We prepare a statement every year showing what it costs the bank to perform the various functions. This is published preliminary to the publication of our annual report, and I am now repeating the figures that appear for the year 1925.

The figures are prepared by including in the cost of these various operations a certain amount of the overhead cost of maintaining the plant, of salaries, and so on; that is, of the general-management salaries of the bank—not all of them, but some of them.

Maintaining the accounts of the bank: In order that you may have an idea of the volume, this work included in 1925 the making of substantially ten and three-fourths million entries in the books of account; that is, the ledgers in which the member banks' accounts are kept, and so on. The cost of that function was $220,000.

Supplying currency and coin; paying out, receiving, and redeeming currency which last year involved the count of 788,000,000 individual pieces of paper money, and cost $870,000. In that connection, after three or four years of experimentation, we have devised a machine to do the counting. The girls do the sorting, which includes the test of the note to see whether it is fit for further circulation, whether it is a counterfeit, and so on. The operation of these machines last year saved, I think, about $80,000 in the cost of that department.

Mr. STRONG of Kansas. Governor, you do not mean that the machine does anything more than count, do you?

Governor STRONG. It just counts. The girl does the rest. The girl sorts.

Mr. STRONG of Kansas. Does the machine ever make any mistakes in counting?

Governor STRONG. It has not yet.

Mr. STRONG of Kansas. I will say it is a wonderful machine.

Mr. BEEDY. Have you now one of those machines in each one of the original banks, Governor?

Governor STRONG. They are testing them in some of the banks.

Mr. BEEDY. I know they have one in Cleveland. I think I have seen it in operation.

Governor STRONG. Yes.

Mr. BEEDY. My recollection is that that machine throws out a defective bill.

Governor STRONG. No; the machine stops. It will not pass two notes through.

Mr. BEEDY. That is it.

Governor STRONG. It will not pass a note through that is folded beyond a certain point, and when it gets up to a hundred the last bill sticks, so that the girl knows that the hundred count is reached.

Mr. BEEDY. I remember that now.

Governor STRONG. Paying out and receiving coin: Yesterday I inadvertently doubled the amount that we handled. I said it was 28 tons in and out every day. It is 14 tons each way, totaling 28 tons. I do not know that it makes very much difference whether it is 14 or 28. It is a large amount.

Mr. STRONG of Kansas. A ton of money more or less in your institution is not of very great moment. [Laughter.]

Governor STRONG. This service was formerly performed by the subtreasury, and was taken over as the result of the closing of the subtreasuries.

Receipts and issues of coin: This is principally small change, the largest being 50-cent pieces. It amounted last year to $516,467,000. It cost $189,000 to run that department. Most of that work is done also by machinery.

Shipment of coin and currency to and from member banks out of town: That is mostly done by registered mail through a post office which we maintain in the bank. Last year we made 274,000 such shipments in and out, and the cost was $533,000. I think the postage bill of the bank is $280,000 a year, or something like that.

Printing of Federal reserve currency to replace worn-out notes: Of course, that is an expense that is not under our control. We have to have it. It costs $280,000.

So that division of the operations of the bank, having to do with the coin and currency of the country, cost $1,873,000.

Mr. BEEDY. While you are speaking of the printing of the notes, Governor, may I ask where these Federal reserve notes are signed?

Governor STRONG. They are not signed. It is all done by machinery.

Mr. BEEDY. It is done by plate?

Governor STRONG. Yes, sir.

It is very fortunate that we do not have to sign them, or we would have thousands of people doing nothing else.

Mr. BEEDY. Is it done right here in Washington?

Governor STRONG. Yes; it is all done in Washington.

Mr. BEEDY. I understood it was done by machinery, using from 12 to 18 pens which signed a similar number of notes. Now, it is done wholly by plate and done in Washington?

Governor STRONG. Yes; entirely.

Mr. BEEDY. That is true of the national bank notes, too, is it not?

Governor STRONG. I think they are signed; are they not, Mr. Harrison?

Mr. HARRISON. I think the law was amended so as to permit of their being engraved.

The CHAIRMAN. They are delivered both ways.

Governor STRONG. I am not familiar with that.

Next is the function of making loans and investments. I am going over these because I am anxious that you should have an idea of the magnitude of the transactions of the bank.

Last year the number of items handled in the discount department—that is, the number of items discounted—was 36,272, and they aggregated $17,068,000,000. The cost of that work was $222,000.

Purchasing acceptances and Government obligations for account of the New York and the other Federal reserve banks: The total amount purchased last year was $3,984,000,000. The cost of conducting that work was $126,000.

The total cost of all those credit operations was $348,000.

Collecting checks, drafts, notes, and coupons; cash items—that is, the checks that are deposited with us payable at banks on presentation: the average daily number handled for collection was 470,000, or 142,500,000 for the year, aggregating $88,013,000,000. The cost was $1,673,000.

That is the largest department, in number of employees, in the bank.

Collection of noncash items—that is, the drafts, notes, coupons, and similar items—aggregated 2,040,000 items, amounting to $2,085,000,000. The cost was $454,000. Those are more expensive per item because each one has to be handled and recorded individually.

The cost of these collection functions totaled $2,127,000.

Custody of securities held by the bank: This service involved holding in safe keeping for the United States Government an average of about $710,000,000, including securities held for the War Finance Corporation and the Alien Property Custodian, and $451,000,000 from other sources. The cost was $116,000.

Purchases and sales of bankers' acceptances—not for our own account, but for member banks and foreign banks—amounted for the year to $305,700,000, and the total of securities received and delivered for account of member banks during the year was $2,779,000,000. The cost was $234,000.

Telegraphic transfer of funds: This service is performed over a system of private telegraph wires rented by the Federal reserve system. I have here a diagram of the private wire service, which covers every city in which there is an office of a Federal reserve bank, with the exception of Helena, Mont. These wires are under our own control and operated in our own offices by telegraph operators, and the messages are usually in code.

Last year this involved the making of a daily average for the New York bank of 971 transfers of funds to and from all parts of the country, amounting on the average each day of $128,123,000, and aggregating for the year $38,821,000,000. The cost of that service was $127,000.

The CHAIRMAN. Governor, without objection we would like to put into the record at this point the chart which you have here, showing the Federal reserve leased wire system.

(See Chart R, p. 533.)

Governor STRONG. The total cost of this group of services—the three I have just recounted—was $477,000.

Services in connection with Government loans; that is, the fiscal agency work: In 1925 this included the receipt and delivery of

1,513,000 Government bonds, notes, and certificates, amounting to $2,085,000,000. Those were presented for exchange or conversion or handled in connection with the registration of registered bonds. They included the payment of 12,156,000 coupons on Government bonds. They included the sale and issue of 47,300 pieces, amounting to $560,000,000, and the redemption of 136,000 pieces, amounting to $1,362,000,000 of Government bonds, notes, and certificates.

Aside from the amounts received from the Treasury in partial reimbursement, the segregated cost of these particular operations for the Treasury last year was $293,000, including certain overhead costs. The amount that we received, exactly, as our shore of the Government's payments to the reserve banks, was $18,544.14.

Of course, this does not include many other functions that we perform for the Treasury Department.

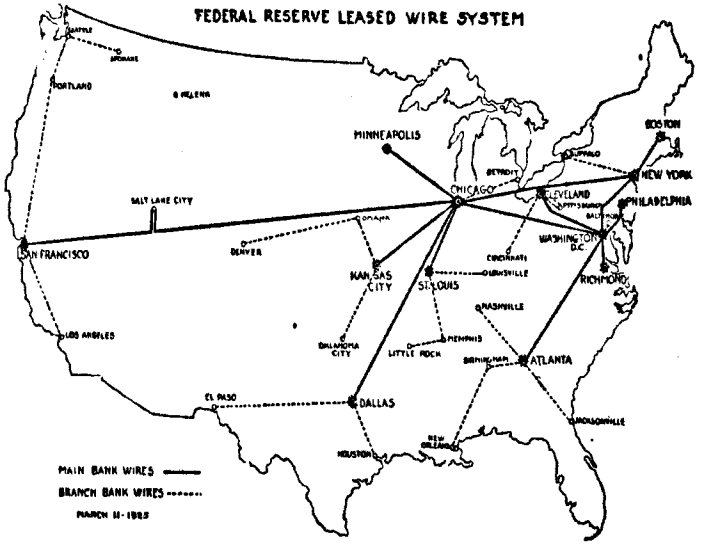


CHART R

The expenses not apportioned among the functions above specified are as follows:

Executive salaries; that is, the chairman, governor, deputy governors, secretary, and so on, $222,300.

The other salaries are apportioned as overhead in the various departmental expenses that I have reported.

The work of the Federal reserve agent's function, which includes the handling of the note issue, the department of examination of member banks, the member banks' relations department, all the statistical information service, the preparation of all the statements rendered by the bank to the Federal Reserve Board and published, and the publication of the Monthly Review, $345,000.

The general audit of the bank, which includes daily checking of most transactions and records, together with the periodical verifications of securities, cash, and so on, costs $209,000.

Directors' fees and traveling expenses, $18,000.

The bank's share of the expenses of the Federal Reserve Board, $192,000.

Mr. GOLDSBOROUGH. Governor, referring to the amount for directors' fees and traveling expenses, do you mean that that is all that they receive?

Governor STRONG. Yes, sir.

Mr. GOLDBOROUGH. All that your directors receive?

Governor STRONG. I think they get $20 apiece for attending each meeting, and those who live out of town have their expenses paid.

Mr. GOLDSBOROUGH. That is extraordinary.

Governor STRONG. I think so, too. We have one director who for 11½ years has traveled from Ithaca, N. Y., to attend a meeting almost every week, and for a long time twice a week. Those men are really devoting themselves to the service of the bank.

Mr. GOLDSBOROUGH. Well, that is no charge at all, so far as that goes. I was surprised, but I was particularly surprised, because I was told last week that one of the directors of the Philadelphia bank said that he got $10,000 a year.

The CHAIRMAN. Mr. Goldsborough mentioned that to me the other day, and I checked it up with the Federal Reserve Board. I called the secretary of the Federal Reserve Board, and he informed me that no directors in any of the 12 banks were paid a salary, but that they were paid either $10 or $20 for attending each meeting, and that when they resided out of town their actual traveling expenses were paid—practically the same method as suggested by Governor Strong as applying to the New York bank.

Governor STRONG. You will recall that yesterday, or last week, in discussing the cost of conducting the fiscal agency operations of the Government, I mentioned an estimate of $650,000, and the figures which I have reported here are something less than $300,000. That $650,000 is an estimate that has been made in the bank, which includes a great many items that do not appear in this specific departmental expense, which are widely distributed over all the various functions of the bank. The $293,000 represents the expense of our fiscal agency department which handles Treasury issues, redemptions, and exchanges, together with its share of overhead. Other operations which we perform for the Treasury, such as collecting checks, paying coupons, etc., which are handled in other departments would bring the total to $650,000. In repayment of that last year, as I state, we got from the Treasury $18,000.

There is no reason, it seems to me, to attempt to reconcile what appear to be certain inconsistencies in the acounts, such as the charge-off on our building and matters of that sort. If we were going to put our relations with the Treasury upon a distinctly business basis, rather than upon this basis of accommodation, as is at present the case, it would require a very great revision of all of our practices, and I think would be highly undesirable as a matter of fact. It certainly would impose upon us a great deal of expense in revising our present methods, which I should like to avoid, and the result would be just about the same in the end.

I think there is an impression also that since the war the business of the bank may probably have declined to such an extent that some explanation should be made of the present cost of conducting the

business. That is hardly the case. There was a very considerable decline in the volume of work caused by the Government loans and similar business, but in other departments of the bank the business is increasing and will inevitably continue to increase. A Federal reserve bank is not comparable to a commercial bank, which is subject to the vicissitudes of good or bad business. They may grow rapidly or they may decline. They have consolidations and losses and all sorts of things affecting their rate of growth. A Federal reserve bank represents, in a sense, a percentage of the total growth of the whole banking system, which grows in volume in this country, roughly, at the rate of 6 or 7 per cent per annum. Now, we have had a calculation made of the volume of work in all the departments of the bank where the volume is capable of computation, and this curious result is shown: We are using 1922 as the basis of comparison, and calling that 100. The index number of the volume for the year 1923 would be 111.24; for 1924 it would be 119.19, and for 1925 it would be 125.09. In other words, so far as we can estimate the increase in the volume of business, it almost exactly corresponds to the rate of increase of the volume of the banking business in the country. You may say that the Federal reserve bank is a diminutive shadow, in size, of all the banks of the country, and as the banking business grows we inevitably will grow with the growth of banking.

Mr. FENN. Do you speak of that, Governor, simply with reference to the New York bank, or have you any knowledge that that condition exists in the other banks?

Governor STRONG. I think it will be generally true of the whole system. The following tables will show clearly the increase in the volume of work in those departments of the Federal Reserve Bank of New York, which are capable of computation:

TABLE IV

Federal Reserve Bank of New York

[Including Buffalo branch]

CURRENCY

Year	Federal reserve notes		
	Amount issued to bank by agent	Amount redeemed	Number of pieces money counted
1915	$89,440,000		
1916	71,273,000	$54,509,235	14,070,188
1917	415,000,000	65,865,200	53,051,334
1918	589,400,000	26,722,730	206,902,800
1919	753,120,000	652,419,880	477,476,000
1920	373,080,000	276,441,725	558,397,400
1921	538,810,000	758,417,730	640,362,000
1922	470,252,000	439,012,620	647,326,000
1923	346,333,350	406,790,650	715,795,000
1924	214,620,000	306,774,825	696,179,000
1925	278,394,300	285,802,685	751,176,684

TABLE IV—Continued

Federal Reserve Bank of New York—Continued

[Excluding Buffalo branch]

COIN

Year	Received and counted	Paid out	Coin wrapped	Weight of coin handled in and out (tons)
1920 (March to Dec. 31)			$2,450,113	
1921	$92,532,336	$59,986,191	6,827,225	5,417
1922	71,998,300	106,033,437	9,538,750	10,812
1923	121,178,147	96,308,832	8,915,400	12,456
1924	111,173,918	156,257,437	7,795,700	13,491
1925	264,983,374	244,837,699	8,653,500	14,305

Shipments (currency and coin)

	Number		Number
1916	2,631	1921	82,174
1917	9 669	1922	105,563
1918	18,276	1923	113,792
1919	42,603	1924	121,887
1920	44,032	1925	139,758

[Excluding Buffalo branch]

COLLECTION SYSTEM

Year	Check collections		Noncash collections, number of items	Amount of coupon collections
	Number of items	Amount		
1915	1,262,211	$1,334,015,772	4,417	
1916	8,192,629	5,380,669,000	23,617	
1917	19,408,179	20,104,527,000	54,153	
1918	46,458,000	47,518,425,000	229,548	$17,945,000
1919	70,609,767	55,230,588,000	309,362	39,748,000
1920	79,389,279	52,946,250,000	646,942	60,115,335
1921	95,594,419	34,213,148,000	814,329	104,843,668
1922	108,816,740	60,310,376,000	964,828	129,903,333
1923	117,851,686	62,958,265,000	1,093,598	168,485,592
1924	125,548,215	65,942,162,000	1,130,592	196,280,716
1925	131,337,948	85,027,110,000	1,061,520	206,210,708

GOVERNMENT CHECKS AND WARRANTS PAID

Year	Number of items	Amount	Year	Number of items	Amount
1916	1,356,265	$220,476,739	1921	12,342,638	$1,612,924,000
1917	3,029,189	1,099,458,000	1922	12,560,664	1,282,824,000
1918	11,107,981	4,936,592,000	1923	12,939,824	1,361,432,000
1919	12,967,138	6,895,806,000	1924	11,128,347	1,332,709,000
1920	10,712,245	2,437,759,000	1925	5,406,047	1,153,272,000

NOTE.—The above figures are also included in the check-collections figures shown on the collection-system sheet.

REDISCOUNTS, INVESTMENTS, ETC.

Year	Discount and advances		Open market acceptances purchased			
			For New York bank		For other than our own account	
	Number of items	Amount	Number of items	Amount	Number of items	Amount
1915	2,261	$4,820,000	1,236	$25,834,000	1,632	$22,312,094
1916	2,505	22,330,000	6,296	123,406,000	8,667	126,487,939
1917	22,484	6,511,275,000	23,876	464,965,000	10,895	152,919,831
1918	129,038	24,535,538,000	37,161	945,497,000	8,142	174,864,545
1919	127,721	42,449,491,000	43,572	1,211,399,000	29,451	764,450,000
1920	175,364	49,978,602,000	69,961	1,697,330,000	41,067	834,200,498
1921	136,878	29,725,107,000	46,836	799,813,000	35,590	505,505,242
1922	53,515	8,597,596,000	56,482	871,544,000	43,946	545,437,727
1923	64,593	17,091,323,000	76,799	1,190,924,000	62,841	780,180,581
1924	37,037	6,499,647,000	61,616	1,080,184,000	59,036	705,103,528
1925	32,614	15,983,522,000	63,436	1,165,976,000	90,612	1,174,134,903

TRANSFER OF FUNDS

Year	Telegraphic transfers		Amount of gold settlement, including telegraphic transfers
	Number	Amount	
1915			[1] $556,432,000
1916	2,971	$484,500,000	2,335,225,000
1917	10,302	6,768,400,000	17,118,917,000
1918	39,099	19,384,371,849	32,935,576,000
1919	82,321	18,245,250,181	41,932,723,000
1920	147,302	17,021,509,734	48,840,900,000
1921	205,706	17,770,400,000	39,697,533,000
1922	230,387	24,612,631,000	45,465,167,000
1923	278,307	27,478,033,000	53,609,847,000
1924	281,556	34,485,890,000	60,604,843,000
1925	280,665	37,899,855,000	67,863,392,000

[1] 1915 figures include period from May 20 to Dec. 31 only.

The CHAIRMAN. Governor, that statement is interesting in view of some discussion which has taken place, brought about perhaps more particularly by some of the member banks feeling that these additional services which are being rendered by the Federal reserve bank to the member banks take away the opportunity of member banks to be served by their correspondent banks. They have mentioned that as one thing that the Federal reserve banks should not do; in other words, that the Federal reserve banks were rendering many of the services which large city banks had been rendering to their customers in the past; and your statement also indicates that in addition to those services they are now rendering a vast amount of service to the Government. Now, what is your view on that? Do you think that these services are necessary to the successful operation of the Federal reserve system, or should they be eliminated from the operations of the system?

Governor STRONG. It depends upon the point of view you take of the purpose of the organization of the system. If it is correct to say that the only purpose of the organization of the Federal reserve system is to increase banking profits and protect the banks of the country, it might be that there would be some foundation for that statement. But that is not our theory. I believe the Federal reserve

system was created for the benefit of all the people of the country, including the bankers, and these powers that were given to us, although expressed in permissive terms in the act, were nevertheless intended to be exercised by the reserve banks.

Let me express it in this way: The Federal reserve act says that the Federal reserve banks may do so and so—collect certain types of items, for instance. I regard that as a direction, in a sense, to the Federal reserve banks to perform that service for those of their members who desire to have that service performed. If members do not want us to perform that service, they do not have to come to us for that purpose. It is not compulsory. We can not require them to use us for these services. But I think equally we have no right to deprive those members who want those services performed of the right to have them performed.

Now, it happens that in banking, as in everything else, there are two interests, like the producer and the consumer. Certain services that we perform for country banks make the city banks feel a little cross at times, because they say that it takes some business away from them. That is also true the other way around. There are certain advantages that the city banks get from the organization of the Federal reserve system which the country banks think that they should enjoy.

For instance, the banks in the cities where a Federal reserve bank is established, or a branch, are able to run on a very much lower amount of cash in their own vault. I suppose the average cash held in vaults of many of the New York City banks is probably under 1 per cent of their deposit liabilities, whereas out in the country, where they are remote from us, the country banks have to carry a very much larger percentage of cash in their vaults. In the same way, when we collect checks, some of the city banks may complain that it takes some business away from them, but it is a service that the act intended that we should perform, and I do not believe that we have any power, if you please, to nullify the intention of Congress by declining to perform those services. Do you? That is what it would amount to.

Mr. STRONG of Kansas. Governor, there is a particular service that the banks get in cities where there is a Federal reserve bank or a branch Federal reserve bank, and that is in the clearing house proposition. A good many cities, I think urged on by the bankers and wholesale houses, are urging the establishment of branches because of the advantages given them; and I have sometimes wondered how great that demand for branches was going to become.

Governor STRONG. It is going to continue.

Mr. STRONG of Kansas. What is your idea; that we should continue to expand the number of branches that we have throughout the nation?

Governor STRONG. Not too fast. I think in time the Federal reserve system will have many more branches than it has now. The service of our banking system will probably require it. But I do not think that we should develop our branch system too fast.

Mr. STRONG of Kansas. Of course, when you have a branch you have a demand for a building, with increased expenses, and every city of any considerable size is going to get its board of trade, chamber of commerce, and all its organizations lined up with a demand for a branch bank.

Governor STRONG. But, after all, Congressman, sometimes our judgment of these things should be based upon what does not happen rather than upon the things that do happen. For instance, the cost of the building for a branch is a very small item compared with the undisclosed savings which may be effected to the country's business and commerce by the extension of the system of branches of the Federal reserve banks. I am not advocating that that be done at once. I am speaking rather of the long future in the evolution of the system.

The CHAIRMAN. But confining the operation of these branches with the member banks and not to general business concerns or the public?

Governor STRONG. Oh, no. I mean continuing their functions exactly as they are now, and I am looking ahead to the long future.

In this matter of economies to the Nation, let us see some of the things that the Federal reserve system has accomplished. It is possible to-day to make all important payments for customers of member banks throughout the United States by telegraph. To show the magnitude of that, I have read the amount of transfers that the New York bank alone made last year—nearly $39,000,000,000. Now, you can not express that in terms of dollars as a saving or convenience to the country, but it is a very great saving.

Take the question of the collection of checks: In the billions of dollars of checks that we collect, I have no doubt that the average time of collection of all checks in the United States has been cut in half. The saving of exchange charges on the checks; many banks complain very bitterly about it, but those banks get compensating advantages for the loss of exchange, and that has been a very great saving and convenience to the country. I have no doubt, if it could be accurately estimated, that the economy in the cost of conducting business in this country, represented by the prompter collection of checks, the making of payments by telegraph, and the elimination of exchange charges to-day, exceeds $200,000,000, and it may be more than that.

The CHAIRMAN. What do you estimate is the cost of the so-called transit and wire transactions of the system?

Governor STRONG. I have just read those figures.

The CHAIRMAN. Of the system?

Governor STRONG. Of the system?

The CHAIRMAN. Yes. It has been said that approximately one-third of the entire cost of the operation of the system is the cost of the operation of the transit department, which is the check and collection department.

Governor STRONG. I think I can get that from Mr. Harrison.

The CHAIRMAN. The point I wanted to make—and it can be inserted later—is this, that the additional cost of the transit department is costing the Federal reserve system approximately $10,000,000 annually, which is a service that is valuable to the country generally, and particularly to the member banks and the public, and that this cost is being absorbed out of the earnings of the Federal reserve system.

Governor STRONG. Yes.

The CHAIRMAN. The operation of the transit and wire departments tends to eliminate waste, and at the same time there is an actual expense to the carrying on of the transit and wire department. It is a service to the banks of the country which is being performed by the Federal reserve system.

Governor STRONG. It is a great service institution. It cost some $27,000,000 last year to run the whole system. The savings are many times that.

The CHAIRMAN. It was stated by one financial man connected with one of our large business organizations that the wire transmittal of funds through the Federal reserve system had reduced the cost of their operations considerably. He stated, for instance, that ordinarily they had been required to keep a balance of $10,000,000 scattered around in banks throughout the country where the business contacts required it, but now by the transmittal of funds through the Federal reserve banks, through the wire system, it had reduced their requirements—cash requirements or bank balances—from $10,000,000 to less than $1,000,000.

Governor STRONG. Is that not an economy in the use of credit?

The CHAIRMAN. And better service, through that plan.

Governor STRONG. Take another item, the shipment of currency: Before the establishment of the Federal reserve system, the great volume of settlements for these payments we now make through wire transmissions was made through the shipment of currency. We do not ship currency as we used to do. It is now simply a matter of distribution of new bills through the districts, and payments between districts are made by telegraph.

The CHAIRMAN. When you contemplate the risk of shipment of money by express and mail, it is quite an item?

Governor STRONG. It is a tremendous item when there are so many thugs about to-day to steal it. I do not believe this is known to the committee, but we also transfer Government bonds by telegraph.

Mr. GOLDSBOROUGH. That probably ought to be clear to me, but it is not, exactly. The bonds, of course, have to actually be transmitted at some time, do they not?

Governor STRONG. As fiscal agents of the United States, the reserve bank has to have a supply of unissued Government securities on hand. If certificates of indebtedness have to be delivered in New York that are sold in San Francisco, they can be turned in to the bank of San Francisco, canceled there, and by a code telegram we deliver the new ones in New York and save the transportation across the country. I think that is a real economy.

Mr. STEVENSON. You have spoken several times of payment by telegraph. You have given a clear-cut definition of the transfer of bonds by telegraph that everybody will understand that reads the record. Now, give us an instance of payment by telegraph so people who have not studied the proposition will know what you mean when they read the record.

Governor STRONG. A member bank in New York, by using certain forms, signed in a certain way, directs us to pay a certain amount of money, say, to the bank in San Francisco and charge the amount against the New York member banks's account with us. We send the

San Francisco bank a telegram over our own wire in code to make that payment. That is one type of transaction. We are also sending checks for collection to the Federal Reserve Bank of San Francisco which have to be settled, and San Francisco must pay us the proceeds of those checks when collected.

The Treasury is also making transfers from one Federal reserve bank to another, in order to make their payments in the different districts. This is all done in code messages among all the reserve banks and their branches. In our bank all these messages average about 1,000 a day. Each reserve bank has on deposit in Washington, in a fund held in the Treasury, a total of something over $600,000,000 of gold.

Mr. STEVENSON. That is known as the gold settlement fund?

Governor STRONG. The gold settlement fund; yes. At the end of each day the Federal reserve banks and their branches send to the Federal Reserve Board a telegram advising in round figures how much they each claim from each of the other reserve banks and branches on account of all these transactions. Of course, only one side of the account is telegraphed to the board in Washington. The books show each evening the net results, and the settlement of payments of every character are worked out in a species of clearing house in Washington, so that the amount each bank owns in the fund fluctuates up and down according to whether the balance of payments is against it or in favor of it.

Mr. STEVENSON. The balance against San Francisco at the close of the evening is settled by a transfer of the funds here to the banks that San Francisco owes to?

Governor STRONG. Yes, sir; it is a matter that requires a great deal of nicety of management for this reason: A big bank like the Federal Reserve Bank of New York can stand a big change in its interest in the gold settlement fund, but if one of the smaller reserve banks does not get its settlements promptly, and the exchange was running against them, they might have their reserves seriously depleted; in fact, it happened at one time that we had a holiday in New York, when one of the smaller reserve banks did not have a holiday, and one other large reserve bank also had a holiday that same day. This particular reserve bank was a debtor in the gold setlement fund. We always settle the debtor side of the account. So, although we were closed, they had to pay us through the gold settlement fund, what they owed us, but they could not collect what we owed them, and the difference took the greater part of their reserve, until after the holiday we could pay them.

Mr. STEVENSON. At certain seasonal periods, where the smaller reserve banks have a very large demand and their interest in the gold settlement fund is running low, that, as I understand it, is relieved by their transferring paper to a bank that is in a region where the gold is abundant at that time.

Governor STRONG. That is going on right along.

Mr. STEVENSON. You, in other words, keep the level by transferring paper to the bank that has more gold than it needs and the transfer of gold to the bank that has less gold than it needs in return for the paper?

Governor STRONG. Exactly. We are doing that all the time.

Mr. STEVENSON. If you will pardon my expressing an opinion about it, I think that is one of the wonderful safeguards of the system.

Governor STRONG. If you consider that the 12 Federal reserve districts are 12 gold standard countries instead of one country, you will get an exhibition of how the gold standard works better than any exhibition that can be made. During the difficulties in the banking situation in the Northwest, when they not only had crop failures but when the value of their crops declined in those Federal reserve districts, they had an adverse trade balance with the other parts of the country; they had to pay more out than they collected for what they sold, and it drained the banks of their resources. The individual banks were borrowing from the reserve banks, and the reserve banks were borrowing from us, and that is the way the gold standard operates between nations. That is the way it works between the districts, only it is possible so to perfect the mechanism by telegraph and by the gold settlement fund that it operates almost without our being conscious of it.

I would like to introduce in the record at this point, if we have got it, a statement which shows the total transactions through the gold settlement fund and the net amount of payments in the fund where the actual change in the ownership of the gold is infinitesimal compared to the enormous magnitude of the operations through the fund.

Mr. BEEDY. While waiting for that, Governor——

Governor STRONG. May I answer an earlier question of the Chairman I failed to answer?

Mr. BEEDY. Yes.

Governor STRONG. The Federal reserve system's expenses for the year 1925, on the basis of the last six months, amounted to $26,400,000. The collection expenses for checks were $4,000,000, and for noncash items, $800,000, making a total of $4,800,000, or 18 per cent of the total expenses of the system.

Mr. BEEDY. Appropos of your gold settlement fund in the operation of the gold standard, you, of course, know that it has been proposed by the League of Nations that a gold settlement fund be deposited in Geneva, and some savings made for the various nations. What do you think of that as to its practicability and benefits to the world?

Governor STRONG. I do not want to be facetious, but when do you want to go home, Congressman? That would involve a lot of discussion and a lot of theory about prices.

Mr. BEEDY. You could, perhaps, intimate whether there was something in it that perhaps the future would develop whether or not it is desirable to work it out or attempt to work it out.

Governor STRONG. I think when the development of central banking and the development of comity between the various nations interested has reached far beyond what it is, it may be possible to do something of that kind, but in the present state of the world's exchanges and monetary disorders and possibly political difficulties, that is more of a dream than a practical thing, in my opinion.

Mr. STEVENSON. Then, the gold settlement fund is just a mobilization of gold in this country, just as we say when they mobilize the Army.

Governor STRONG. We put 20 per cent in a common pot for the purpose of operating the gold standard system between the various Federal reserve districts.

Mr. STEVENSON. And it is transferred to banks where it is needed?

Governor STRONG. Yes, sir. I think there has been an impression also, Congressman, that possibly these banks are managed with less care than they are. I do not want to say this boastfully; I simply want to give you the facts.

We had an occasion to look up the question of losses of the Federal Reserve Bank in New York arising from all sources; that is, on loans and discounts—we have not lost a penny on those—but on thefts, mistakes, differences, litigation, claims—everything that you would charge off of that character to profit and loss—and in the last 10 years the total of all losses of that character charged to profit and loss is $57,000; that is to say, in a volume of business which never runs less than some hundreds of millions every working day, the total losses in the last 10 years amount to only $57,000.

Mr. CANFIELD. For the New York bank?

Governor STRONG. For the New York bank; yes, sir.

Mr. FENN. What were those losses occasioned by?

Governor STRONG. Well, we would have a case of this kind: Due to some error or mistake of routing a collection item, it would not be presented within the time which is required in order to avoid the charge of negligence. Now, when you handle the number of items that we do, you can not avoid a certain amount of that. Where a nice question arises as to whether it was or was not negligence and it is a case of a thousand or two thousand dollars, we would much rather avoid dispute and litigation and settle it. I think the largest items of loss have been of that character.

The CHAIRMAN. In connection with that matter, a statement has been made before this committee that it is the practice of the Federal reserve banks, when they step into a failing banking situation and extend credit to a bank, for instance, having a run, etc., the Federal reserve bank—to put it raw—grabs the best assets of the bank which is in trouble and, while they do render valuable service to the bank, at the same time they take the cream of the securities, and that that is a discrimination against depositors and that the Federal reserve banks should not be quite as drastic in that respect and that they oftentimes take an unusual amount of collateral to secure themselves. What have you to say about that?

Governor STRONG. I can only discuss that as to the practice of our own bank. It is a matter we have discussed a great deal in New York and very naturally there is some difference of opinion as to how far a reserve bank is required to go in dealing with a bank which may be in an extended condition or in a condition of some doubt; as to how far we should go in taking additional collateral above the face of the paper discounted. Our practice in New York now is to avoid doing so. At the last examination that I made, which was only within a few weeks, I think there were only five of the banks borrowing from us where we had any margin or additional collateral

and in those five cases only 20 to 25 per cent, and in one case 35 per cent margin on a comparatively insignificant amount loaned. Our practice in New York is not to take additional collateral to a discount, although we make a 15-day advance upon the security of commercial paper with a margin in some cases. Expressing my own views personally about that I would a great deal prefer to see the reserve banks lose some money than to take what might appear in any given instance, an excessive amount of collateral.

Professor Sprague touched on that the other day when he said he felt the reserve banks owed a responsibility to their members' depositors just as much as they did their own stockholders or to the stockholders of the member banks.

The CHAIRMAN. How much has the New York bank charged off to bad debts?

Governor STRONG. We have not had any bad debts.

The CHAIRMAN. The $57,000 loss you referred to covers everything?

Governor STRONG. Everything, yes, sir; and they are losses occasioned by error or some small thefts we have had from time to time—mistakes and differences in cash which always occur in every bank.

The CHAIRMAN. But there has been no charge-off in what might be termed bad debts?

Governor STRONG. None. We have never had a penny of paper on which we have lost anything.

Mr. STEVENSON. I think I heard it stated—I have not looked at the law, but you probably know—has the Federal reserve bank a preferred lien on a member bank when it makes an advance to it?

Governor STRONG. No, sir.

Mr. STEVENSON. There is some claim of that kind. There is a case decided recently which caused a great deal of criticism where a surety company under an old statute is subrogated to the rights of the Government. The Government has a preferred lien on all assets when a bank fails.

Governor STRONG. Are you sure of that, Congressman?

Mr. STEVENSON. Yes, sir; it is in a statute and I looked at it the other day. They passed a law some 75 years ago that the surety required by the bank should be subrogated to the rights of the Government if they took up the liability. This matter of surety companies has got to be a great commercial business. They are paid to take the risk, and it occurred that a bank on the coast failed and the surety company had given a bond to the Treasury, and they came up and paid the bond as they had to do and turned around and were subrogated, and the Supreme Court recently held under that statute, they are entitled to be subrogated to the rights of the Government and therefore get first claim on everything the bank had.

What do you think of that being a good proposition in the banking world? The idea when that law was passed was here is a surety, who, the court says, is a favorite of the law. That is the statement in nearly all the Supreme Court's decisions, and these sureties came up and gave security when they went on the bond of the bank practically as an accommodation of the bank, and therefore they said they shall have the same preference as the Government if they

pay the bank's debts to the Government. But the great commercial surety companies are paid for the purpose of taking the risk and are in business to take the risk, and it strikes me that is one of the old landmarks that a man could honestly favor a removal of.

Governor STRONG. I think the depositors in the bank ought to have something in their minds about it.

Mr. STEVENSON. It will make a lot of fuss. I had a brief from a lawyer in Oklahoma the other day where there were some folks caught on that very old statute.

Governor STRONG. If the bank fails, and there are no assets for anybody but the Government, it would not seem to make much difference to the depositors whether the surety company had a claim on anything that was left or not.

Mr. STEVENSON. That is true. That is the practical way of looking at it.

Governor STRONG. If the committee would be interested in looking at one of the reports which is used in the bank for informing the officers as to the volume of work, etc.—I do not think it ought to go into the record, Mr. Chairman; it is one of the many reports that are made to officers of the bank on the different aspects of the bank's work—that will give you an idea of the methods of supervision that are employed in the bank. That [exhibiting] is a copy of one of them.

Mr. FENN. This is an administrative paper?

Governor STRONG. Yes; and in connection with the volume of work in the bank, I have a little chart here that should go in the record. That [exhibiting chart] shows the growth of the collection department.

The CHAIRMAN. Without objection, this chart will be placed in the record at this point. (See Chart S, p. 546.)

Governor STRONG. I find that I also have some figures for the entire system that may be of interest to the committee in connection with collections and transfers. The number of telegraphic transfers in 1925 for the whole system was 1,566,000; the value of the transfers was $109,431,000,000, and the expense was $386,537.

The interesting thing about that figure is that there were 150,000 more transfers made last year than in 1923, and there were thirty billions more funds transferred and the cost of doing the work was about $60,000 less than in 1923. It merely shows that as the organization is perfected—we are now in our new buildings—greater skill is developed and naturally more economy results.

The collection of cash items—that is, in the transit department—in 1923, for the system, amounted, in round figures, to 700,000,000 items. I am just giving round figures. The value in 1923 was $207,000,000,000; in 1925 the number of items was 780,000,000, and the value was $259,000,000,000. The expense in 1923 was $4,600,000, and the expense in 1925 was $4,174,000. In noncash items, in 1923, we collected 5,732,000, and in 1925 5,467,000. There was a decrease. The value in 1923 was $5,900,000,000, and the value in 1925 was $6,100,000,000. The expense in 1923 was $1,156,000, and the expense in 1925 was $906,000, a reduction of exactly $250,000. Is this of any interest to the committee?

Mr. STEVENSON. It is. It indicates the progress in the perfection of handling your business.

Governor STRONG. Yes, sir. In currency received and counted, in 1923, there were 1,723,000,000 pieces. In 1925 there were 1,947,000,000, an increase of about 220,000,000 pieces. The amount in 1923 was $10,300,000,000, and in 1925 was $11,500,000,000. The expense in 1923 was $1,960,000,, and the expense in 1925 was $1,871,000, a reduction of $90,000.

In coin received and counted in 1923—and to save the record I will not include 1924 at all—we received and counted 2,076,000,000

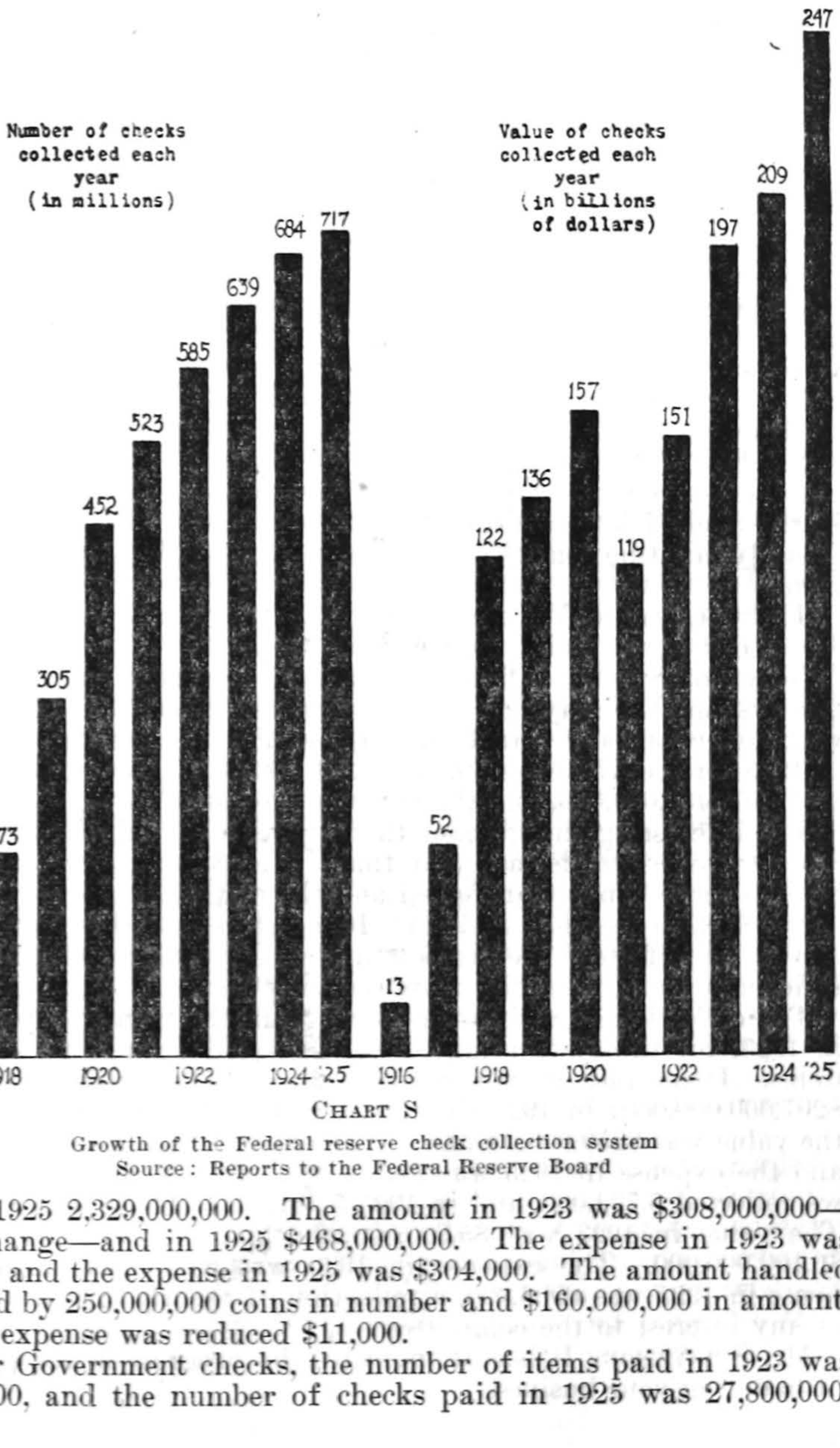


CHART S

Growth of the Federal reserve check collection system
Source: Reports to the Federal Reserve Board

and in 1925 2,329,000,000. The amount in 1923 was $308,000,000—small change—and in 1925 $468,000,000. The expense in 1923 was $315,000 and the expense in 1925 was $304,000. The amount handled increased by 250,000,000 coins in number and $160,000,000 in amount, and the expense was reduced $11,000.

Under Government checks, the number of items paid in 1923 was 34,300,000, and the number of checks paid in 1925 was 27,800,000.

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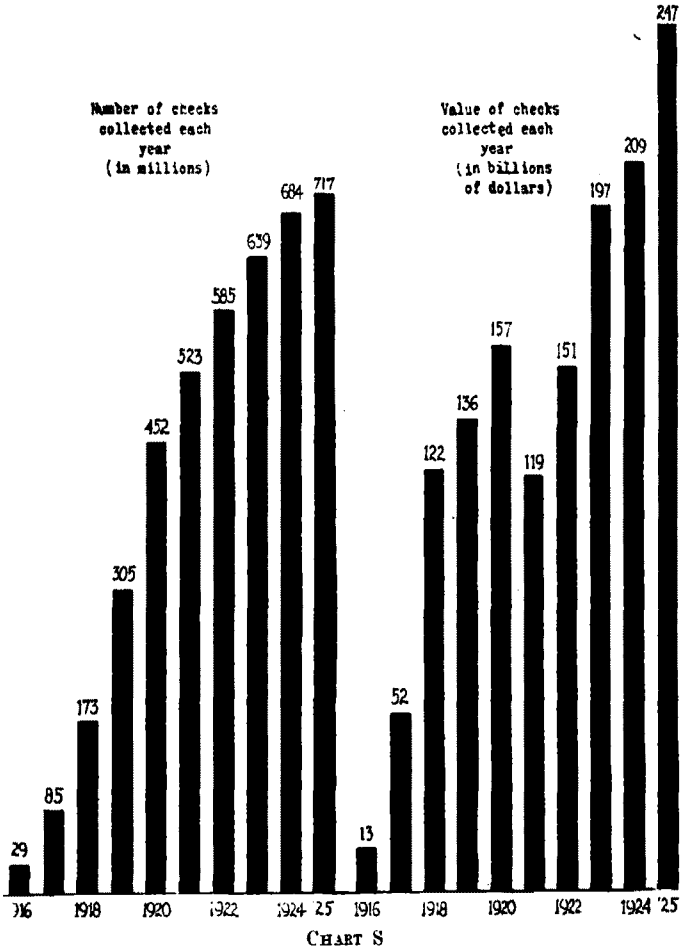


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The value was $4,160,000,000 in 1923, and $4,009,000,000 in 1925. The expense was $160,000 in 1923 and $137,000 in 1925, a reduction of $23,000.

In Government coupons, we paid 64,600,000 in 1923 and 44,174,000 in 1925. That is a reduction of 20,000,000 pieces. The value was $760,000,000 in 1923 and $680,000,000 in 1925, a reduction of $80,000,000. The expenses were $195,000 in 1923 and $123,000 in 1925, a reduction of $72,000.

Mr. CANFIELD. What were the reasons for the reductions?

Governor STRONG. With the exception of coupon payments, there was an increase in almost every item, and the reduction is attributable entirely to better organization and methods—the perfection of the reserve bank system.

Mr. STEVENSON. There are one or two questions I should like to ask you. How much currency is in actual use in the country?

Governor STRONG. Roughly, about $4,800,000,000, of which $4,000,000,000 is paper money.

Mr. STEVENSON. The Secretary of the Treasury's statement shows how much is supposed to be, but I do not know how much was actually in use or how much was locked in vaults. There is another thing: the Federal Reserve Bank in New York, which is a great bank—what is the experience of that bank in the matter of failures of member banks? How many have failed since the institution of the system—member banks?

Governor STRONG. Very few, Congressman. I have not the figures. I do not think we have had any banks closed that have not reopened again in the last three or four years.

Mr. STEVENSON. I knew it must be very small.

Governor STRONG. Very small. We have had some close shaves in country banks. Where a bank approaches the point where any trouble is going to develop, our men are generally there. We have many curious things to do. I was talking about it to one of the members of the committee the other day. During the influenza epidemic all the officers and almost all the clerks in a bank and most all the directors were stricken with influenza and we had to send a force of men out there to run the bank until they got well. We have had bank buildings burn down and banks where the vaults would not open and had to rush up currency to keep them going.

Mr. STEVENSON. But you mostly save the institutions?

Governor STRONG. Oh, yes. Of course, Mr. Chairman, I could go on with a great deal more detail about the bank's operations, but I would like to say just a word about another side of the bank's work.

The CHAIRMAN. If there is material matter that you have not covered on this subject, in the extension, it can be added. You have that latitude.

Governor STRONG. I should like to say a word or two about what I think the newspaper men call the human interest side of the bank. A statement has occasionally been made that we spend quite a lot of money on the hospital and medical department and a few things like that.

Mr. FENN. They are in the building?

Governor STRONG. Yes, sir. Now, taking first the medical department; we have a department with four doctors on part time at the bank.

Mr. FENN. How many employees have you?

Governor STRONG. About 2,400 employees in the bank. Every new employee is required to pass a physical examination and each employee has to pass an annual examination and in general his health is supervised by his department, by competent people. We also have some nurses, and my recollection is that the expense of the department is about $39,000 a year. It is equipped to take care of emergencies that may arise, and it is also in contact with that department of the work which keeps check upon absences from the bank. We may have from 35 to 50 cases dealt with every day requiring dressings or some minor attention, and generally the department will average around 100 cases a day, including the regular examinations. In addition there are possibly an average of 60 or 70, principally young girls, who are under par, who are in need of an extra feeding to bring them up to par in their health. That department also checks every absence from the bank, and if, within 48 hours, a satisfactory explanation is not received, it is run down in the home of the employee.

I believe, as nearly as I can estimate from the experience of other institutions, the reduction in unnecessary absences from the bank alone saves to the bank between two and three times the cost of running the department. I attribute this to two things: The first is that all employees have a close medical supervision. The department manager is supposed to report at once any who have colds. They are sent at once to the medical department and if they have what appears to be an infectious cold they are sent home. But perhaps the most important influence upon the health of the force is the fact they have a large air space in which to work. The average will run over 100 cubic feet per person and every floor is adequately ventilated. There is plenty of light and they get one good square meal every day at something less than what it costs us to provide it. The working conditions in the bank——

The CHAIRMAN. That is the noonday meal?

Governor STRONG. The noonday meal; yes, sir. The working conditions in the bank are just as perfect as science and money can make them, and it has been no extravagance to do it. We have floors—whole floors in the building filled with adding machines and tabulators in operation. The strain of that racket is very much greater than one realizes. We have adopted a system of sound proofing that kills that noise. It is perfectly astonishing how in the transit department where there are 300 machines in operation—there are over a thousand in the bank—how that noise is flattened out by the soundproof ceiling and by the type of floor that is used. I do not think there is anything to apologize for or explain about that feature of the bank's operations.

There is one thing in the bank that is not right, and every reserve bank has the same fault, and I think it should be remedied. The employees in our bank are moderately paid. They are not very well paid. They are moderately paid. The average clerical salary in our bank is a little over $1,500. That includes all employees

of the bank except officers. It is rather low, because a very large proportion, or about half of our force, consists of young girls who work for not very long periods and then they get married or leave for one or another reason. Our employees have very little opportunity to improve their financial position in the world. With minor exceptions, they are not allowed to engage in outside business activities. The menace to the bank would be considerable. That applies to the officers as well.

There is pending before Congress a bill to establish a retirement and pension system for the Federal reserve system. These people who are going to devote their lives—many of them—to the service of this system are entitled to some protection when they retire. It is a matter that has received the attention of officers of the Federal reserve banks for six years. I believe we have the most perfect pension plan that has ever been devised for this purpose, and I have no hesitation—it is the only thing that I will ask this committee—in asking that if you can get it through Congress for us I hope you will, because it will improve the service and morale and efficiency of the organization.

I had intended to conclude with a last word about the bill, the subject that I started with, but you have heard enough from me about those matters. This is the first time I have had the privilege of appearing before this committee. I have enjoyed it, and I am very appreciative of the courtesy and attention that you have shown me.

Mr. BEEDY. I want to say that your statement with reference to the medical department and the resulting economies and increased efficiency is very interesting to me, and I think it ought to suggest to all of us the thought of possibilities for economy and increased efficiency in that direction in every department of our Government.

Governor STRONG. You ought to come and see it. I can not give you a picture of it in words.

Mr. BEEDY. I have resolved to do so.

Mr. GOLDSBOROUGH. Now, Governor Strong, the reaction made upon me and possibly upon some other members of the committee, in the remarks which you made concerning the bill which is now before the committee, was that you feared more the misapprehensions that might arise in the minds of the public as to the scope of the legislation than you feared any impropriety—any economic impropriety—in the legislation itself. I may have misapprehended the scope of your answer, but it has seemed to me that the committee might feel that there should be a more valid objection to the legislation than simply the fact that its legitimate scope might be, for a time, misapprehended by the public, and I am going to suggest that if you can, you amplify your reasons for your objection to this proposed bill.

The CHAIRMAN. If you will pardon me, I think I recall another reason that the governor gave was the fear of placing a limitation upon the authority which the board or system now has.

Mr. GOLDSBOROUGH. Do you not think it would be better for the governor to explain it?

The CHAIRMAN. I am entirely in accord with that, but that is the impression I got.

Governor STRONG. That was an outgrowth of statements made by others who appeared before I did, that this was in effect a limitation upon the system rather than an enlargement of powers. I would deplore that, of course.

But, answering your question, Congressman, my feeling about the proposed amendment possibly can be summarized in this way: I believe that an administration of credit such as is afforded by the Federal reserve system, is capable of exerting an influence upon the volume of credit employed by the country and an influence upon the cost of that credit, and, within the limitations which the volume of credit and the cost of credit exert an influence upon the price level and only within that limitation, can the operations of the Federal reserve system influence prices, that is, the general price level; that there will be times when even the power to somewhat regulate the volume of credit and its cost will fail of complete or anything like complete regulation of the price level, because there are many other things far beyond the control of the influence of credit, that is, the volume and cost of credit, such as the mood of the people.

Therefore, if any expression is contained in the Federal reserve act which appears to represent to the people that the Federal reserve system can do more in stabilizing the price level than the limited control of credit is capable of performing, I am afraid that disappointment will come when there are fluctuations of prices which can not be controlled within the strict limitations I have described. This may be an inadequate and lame explanation of what I have in mind, but I can elaborate it by an example, possibly.

As Professor Sprague says, I firmly believe that when the Federal reserve system has an adequate volume of earning assets—that is, discounts or investments—it has a very considerable capacity to control a runaway movement of prices, because it can continue to force the banks to borrow and advance the discount rate and apply the pressure of high interest rates which, in time, becomes effective. But when you get to a decline in prices, one of those insidious periods of liquidation, and not a sharp movement like in 1920 and 1921, but one of these very difficult slow price movements, possibly, not attributable to credit operations at all, what is the Federal reserve system to do? There is a present decline of prices. Let us suppose that the present decline is caused by this. Possibly the spirit of optimism of last year has resulted in all merchants contracting for goods which they expected to sell but are unable to sell when delivered; in other words, there is an overstocking of goods beyond what the trade will consume or the people will consume. If there is a margin of goods for sale beyond the capacity for consumption, the introduction of more credit into the credit system will not correct that until the goods are consumed, and that situation arises in the form of contracts long before it can be detected in any reports on volume of business, inventories, or anything of that sort. The amount of goods being transported over the railroads will be just the same. The amount of employment will be just the same. Everything will be marching along with all outward evidence of a sound business situation, but when the public, for one or another reason, slows down in buying and consuming goods that starts a declining price movement, I do not see how we can correct it.

Mr. GOLDSBOROUGH. It certainly seems to me that you are correct in your statement that it would be impossible to prevent a period of falling prices, but what I had in mind is giving the Federal Reserve Board such a legislative direction of its mental operation that it would be able, in times of commercial pressure, to call upon the legislation in restraining an undue expansion of credit based, of course, upon a very greatly inflated gold reserve.

Now, what is your reaction to an amendment of subsection 6 of section 14, which would read this way:

To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by Federal reserve banks for each class of paper which shall be fixed with a view of accommodating and of stabilizing agriculture, commerce, and business, and preventing inflation and deflation.

That legislation, as it seems to me, does not indicate that the Federal reserve system could prevent a period of deflation, but directs the system to have that in mind in its operations.

Governor STRONG. Not to indulge in excesses in either direction?

Mr. GOLDSBOROUGH. Yes. That, as far as I can see, is the scope of that legislation or that proposal, and I would like to have your reaction.

Governor STRONG. Congressman, I would not like to make a suggestion or consider it to be a suggestion without some conference with my associates, because I attach great importance to this; but it has been more in my mind that any declaration of purpose would properly appear in the title of the act; that is to say, Congress when it passed this act originally declared the purpose in the first paragraph and a declaration of that purpose on this subject might more properly appear there than in the description of the powers to be exercised by the banks of the Federal reserve system. If such a declaration had appeared to cover these points, I would rather have seen it more in this language, that within the limitations, as I have described them, one of the purposes of the act is to stabilize business.

It seems to me it is less capable there of being interpreted as a mandate to an extent and scope that the Federal reserve system would fail or be unable to accomplish. If another amendment is to be made to the act in that respect, I really think it would be incomplete without some direction as to the gold standard. I think that is the key to the whole situation. The difficulty that the farmers have experienced in the country is really not fundamentally a credit one. I think most people are coming to recognize that. It is the difficulty of marketing a surplus crop, and I think it is no exaggeration to say that while many people have been discussing the farmers' problems from the standpoint of credits and marketing standards, etc., we have been really trying, at least in New York, to take measures that will protect their market abroad for their surplus production. That is what we have been mainly directing our attention to, and one of the principal elements in maintaining those foreign markets is stable currency and stable exchange, and another is the extension of a suitable amount of credit to the rest of the world during this period of reconstruction. I think I have made clear to the committee that those are two things we have been directing our attention to.

Mr. GOLDSBOROUGH. There is no doubt about that, and what the board has done and what your bank has done and may have done probably was a much greater stabilizing factor than this legislation would be.

Governor STRONG. Yes, sir; I think so.

Mr. GOLDSBOROUGH. But the question that I would like to direct your attention to is whether or not legislation of this kind would be of further assistance to the Federal reserve system in effecting that stabilization or whether your conception of it is that it would interfere with the other methods which you have used to try to stabilize the market.

Governor STRONG. It would not interfere. As I read the language proposed by you, I do not think it would limit our powers under the act in any way. It affects no change in the language relating to powers. It is only a declaration of purpose. The possibilities of misconception, of misunderstanding, are infinite, however. This very article of the Commercial and Financial Chronicle that was introduced into the record the other day charges us with being guilty of inflating the credit position by a billion dollars, so that we have brought on a period of great speculation. I do not think we have done it, and in fact I know we have not done it, but if it can be charged that we are guilty of causing dangerous speculation or guilty of causing a dangerous deflation of values—and it may apply to crops, labor, wages, or many other things—that is my fear of the declaration. But if a declaration of purpose is to be made in the statute, I would interpret it as a direction to future managements of the Federal reserve banks, and of the system, to use their influence to avoid such excess, if you please, as developed as the result of war finance or for any other cause.

A declaration that can be carefully framed and will be properly interpreted in the country which will introduce sound doctrine into the minds of men who run the system and keep them reminded of it, I think will be good. None of us want to see excesses developed in the operation of the system.

Mr. GOLDSBOROUGH. Governor, you know I think we all recognize—I certainly do—that the system has been, for the last few years, managed exceptionally well. I feel also that the mandates of the Federal reserve act did not require—did not demand—of the Federal reserve system a great many of the things which you have told us the Federal reserve system has done to stabilize conditions and to help foreign marketing and things of that kind; in other words, the human element has entered very largely into the practical management of this system.

That human element, however, changes in time. It might not be as adequate as it is now. It might be more subservient to powerful influence than it is now, and, as I understand legislation of this character, it is for the purpose of assisting, if it has any purpose at all, the Federal reserve system in maintaining a high standard of independence from any influences which would tend to an undue expansion of credit, which, of course, results in an undue period of deflation, and it has seemed to me also that right after this period or shortly after this period of alleged deflation in 1921, the country is in a better frame of mind to respond to the efforts which the board has made, from your statements, to stabilize conditions—

conditions of credit and conditions of price level. But, as time goes on, people will forget about what has happened, just as they forget about what happened during the war and now is a good time to try to introduce into the act something which will assist the system in its effort and its present effort to stabilize. That is about what I have in mind, and I presume that is about what my brother, Strong, has in mind in this bill which is now before the committee.

Governor STRONG. Well, Congressman, I do not like the words "inflation" and "deflation" and if——

Mr. GOLDSBOROUGH. Of course, they require definition.

Governor STRONG. If I could find it possible to frame language which would accomplish the very desirable purpose that you have described and which I stated at the first hearing by saying I thoroughly agreed with, I would not hesitate to do it, and with the approval of my associates, because I am simply one small element in the system—one bank—I would not hesitate to do it, and I do not know but what it may be possible to devise some language. Frankly, I would avoid the use of the words "inflation" and "deflation." "Stability" is a less objectionable word from my point of view. We all want stability of prices and conditions of all kinds, and I wish I might be able to write the words. I will try to if you would like to have me.

Mr. GOLDSBOROUGH. I think the committee would like very much to get the governor's considered views on the question.

The CHAIRMAN. I suggest, Governor, that the committee would be very glad indeed to have an expression of your more mature consideration of this subject that is now pending before the committee and to aid them in such consideration as they are giving to this subject.

Governor STRONG. I will need a little time for that, Mr. Chairman.

The CHAIRMAN. That can be submitted at your leisure.

Mr. GOLDSBOROUGH. I certainly feel there is no more important subject which can be considered by Congress than this very subject we are considering now. Just what should be done legislatively is another question.

The CHAIRMAN. I suggest to the committee it is nearly 1 o'clock, and——

Mr. GOLDSBOROUGH. I think Mr. Strong of Kansas has something to ask.

Mr. STRONG of Kansas. I want to discuss this matter with Governor Strong, but perhaps it would be better to come back after lunch.

The CHAIRMAN. Very well; the committee will recess until 2.30 o'clock.

(Whereupon, at 1 o'clock p. m., a recess was taken until 2.30 o'clock p. m. of the same day.)

AFTER RECESS

The committee reconvened at the expiration of the recess.

The CHAIRMAN. Governor Strong, Representative Strong wants to ask you some questions in regard to his bill before you leave.

Mr. STRONG of Kansas. Of course, naturally, having introduced this bill, I have wanted to be constantly in attendance, but I am the chairman of another committee that is very active, and I have been unavoidably absent part of the time, and just at the time when

you have been discussing the bill in most instances; and therefore I want to just go over the subject matter of the bill.

Of course, as to the language in the bill, the word "minimum" seems to have been placed in the bill by the drafting service. I made some remarks on the floor of the House, which I will put in the record, on February 20, shortly after I introduced the bill, in which I referred to the amendment itself, and in referring to that it is very evident that the word "minimum" was not in my mind, and was not intended to be incorporated in the bill.

As to the language of the bill, my purpose was simply this, to try and have the Government or the Congress adopt a settled policy that its financial agency—the Federal reserve system—should be directed toward a policy which would avoid inflation and deflation. In the bill I used the words for "promoting a stable price level for commodities in general," and then added "all of the powers of the Federal reserve system shall be used for promoting stability in the price level."

From which, of course, it is evident that the purpose I have in mind is that of having the Government direct that that policy shall be adopted and maintained as far as may be.

I understand that your theory is that the adoption of such language in a law will cause the public to get the idea that the Federal Reserve Board and the Federal reserve system can *under all circumstances* bring about stability in the price level. Personally, I doubt very much if it could *under all conditions*, such as war or other national crisis, stabilize prices or prevent inflation or deflation in the country. Yet I feel that the very fact that it was known throughout the Nation that such a policy was to be established, that is, that all the powers of our financial system would be used, as far as may be, to prevent inflation and deflation, or for the stabilization of price level would, under normal conditions, have an influence that would bring that condition to pass. I believe if the bankers of the Nation and if the men who might fear inflation or deflation, or who might want inflation or deflation would realize——

Mr. FENN. If things were normal, why would you have inflation or deflation? Is it your idea that only in abnormal times this could be used?

Mr. STRONG of Kansas. Well, not necessarily abnormal times. We have had rises and falls of price levels since the war.

Mr. FENN. But they were abnormal.

Mr. STRONG of Kansas. Well, inflation and deflation is perhaps abnormal. But I mean from some unusual occurrence like war, a great calamity in the Nation, earthquakes, something of that kind.

Mr. FENN. Do you think this would take care of it?

Mr. STRONG of Kansas. No; I say it would not take care of it. I was just trying to explain——

Mr. FENN. I am listening to you.

Mr. STRONG of Kansas (continuing). That it would not take care of all those things. But I do think that the bankers and the business men of the country, who might either be interested in inflation or deflation, or might be afraid of it, would realize that if it was written in the law that all the financial strength of this country would be against inflation or deflation, that that knowledge

in the minds of the people would create a psychological condition that in itself would tend to prevent inflation and deflation, and I am of the opinion that the influence that the enactment of such a law would have on the public mind would outweigh the suggestion that they would get the idea that more could be done than is possible.

It seems to me that this amendment might be a direction on the part of the Congress, representing the Nation, to its financial agencies to use all their powers against inflation and deflation and for the stabilization of the price level, or the purchasing value of the dollar, or whatever language you might use; and I have intended ever since I introduced this bill, and it was brought to my attention that this word "minimum" had crept into the bill, to introduce another amendment to correct it, but I have delayed to do so purposely until the various witnesses that came before the committee might be heard, and we might conclude what was the best thing to do.

It was suggested by Mr. Goldsborough that you, Governor, might suggest language that possibly would bring about the thing that we desire—the direction by the Government to its financial agencies to use their power against fluctuation in the price level, or however you want to word it, might be advantageous, but I wanted to make this statement to you, suggesting as Mr. Goldsborough suggested, that you formulate for this committee the wording that might bring about the desired purpose of this bill.

Governor STRONG. Congressman, since the morning session I have been trying to fix in my mind the possible principal sources of some distinctly inflationary development—a deflationary development might be a little different—but take the inflationary side first, where it might originate, and see if that would not throw a little light on the possibilities of language.

It is probable that the danger of an inflation resulting from the operations of the Federal reserve system (using the word "inflation" in the very broad sense of creating generally a surplus of credit and currency that would have an effect upon the price level ultimately) might come from four or five different major causes; and may I recount them?

One is that the management of the system, either in intelligence and capacity or in integrity, would deteriorate; that men would get into the service of the system who either had no comprehension of the problem, or else would be actuated by some improper motive, and plunge the country into inflation by overextension of credit. That, you might say, is one thing to be guarded against by safeguarding the management of the system. I am going to elaborate just a little bit, if I may, by telling you that one of the greatest difficulties we encounter in the bank in New York in our organization is dealing with the temptations that are offered to our men to take positions at much larger salaries in other institutions. They are offered 50 per cent more and 100 per cent more than we pay them, and there is no school or training school for Federal reserve bankers except in Federal reserve banks. You can not get them out of commercial banks; they have no comprehension of the problem, as a rule—the average man trained in a commercial bank.

The same thing applies to the Federal Reserve Board. We need good men in this organization throughout, and a tradition that will

support the continuance in the service of good men—men who are ambitious to learn and have some inspiration for public service. That is the way the system is going to be safeguarded in personnel and as to its future management.

A second possible cause of inflation would lie in the administration of the Treasury. If for one or another reason the administration of the Treasury was such that regardless of the consequences and recklessly, in order to borrow cheap money or for any other reason, the Treasury Department borrowed huge sums directly from the Federal reserve banks, there is no power that could prevent the inflation that would result from it. I do not need to elaborate that; I am sure you are all aware of it.

A third possibility of inflation beyond the control of the Federal reserve banks and the management of the system would be in Congress undertaking to change the reserve provisions of the act to such extent as would cause a great release of reserve funds in the United States, such as I described might arise from an interpretation by the courts of the meaning of the act in the matter of the immediate credit of checks.

The CHAIRMAN. In that connection, Governor, you refer to that balance which was shown in your statements as "checks in process of collection"?

Governor STRONG. Yes.

The CHAIRMAN. Which amounts to $600,000,000 to $800,000,000.

Governor STRONG. Yes.

The CHAIRMAN. If that method of collection was changed and that amount of balances was considered as legal reserves, would that have the same effect?

Governor STRONG. The same effect; it would be a calamity to the country.

The CHAIRMAN. In other words, that is an extra reserve, created by the checks that are in process of collection, which is not a legal reserve?

Governor STRONG. Well, fortunately, the Supreme Court has held that a check can not be considered as reserve deposit until the proceeds are collected and in the hands of the reserve bank; that is my understanding of the decision; is not that so, Mr. Harrison?

Mr. HARRISON. Yes, sir; I think that is a fair interpretation of the decision of the Supreme Court.

Governor STRONG. That is, the Supreme Court denied an appeal to the Supreme Court when application for writ of certiorari was denied because the circuit court of appeals had held that way, hadn't it?

Mr. HARRISON. The circuit court of appeals sustained the contention that checks in course of collection should not be counted reserve. There is no way of appealing to the Supreme Court under the judicial code.

The CHAIRMAN. The practical effect of that, Governor, is that while the legal reserve rate is fixed at a definite amount, the banks in actual practice are required to keep additional reserve to the extent that they have checks in process of collection in the transit department of the Federal reserve banks to that extent over that plan which was in operation before the Federal reserve act came into existence?

Governor STRONG. Oh, no.

The CHAIRMAN. In other words, prior to the Federal reserve act the country banks got credit for those checks at their city reserve banks and they were then a part of their legal reserves?

Governor STRONG. That was all carefully calculated in the reduction allowed in the reserves required under the Federal reserve law, which was made so as to compensate for the loss of the privilege under the old national bank act to count the entire volume of checks in the mail as reserves. That was one of the main reasons for the reduction in the reserve requirement.

The CHAIRMAN. Was not that one of the real items in controversy between the country banks and the collection system of the Federal reserve, as to who should carry the "float"? And, then, if your statement is a correct one, the member banks are exactly in the same position they were in before this Federal reserve system collection or transit department was started.

Governor STRONG. Why, before the Federal reserve act was adopted, the country banks were required to keep 15 per cent reserves, and when the Federal reserve act was adopted that reserve was reduced for the country banks in order to compensate for the loss of those checks that formerly did count as reserves; and then when the act was amended again, 1917, it was again reduced in order to compensate them for the loss of reserve which would occur by having a reserve balance in the reserve bank, and being required to also carry till money which did not count as reserve.

They have already had the adjustment to meet the losses of reserve which formerly counted because of uncollected checks.

The CHAIRMAN. As a matter of fact, then, the other day when the question was asked you as to whether or not the country banks carried an excess of balance with the Federal reserve over and above the legal requirements, it did not include items in transit, or the float. These member banks, of course, now carry that float and it is represented by that uncollected balance in the Federal reserve banks. Perhaps I do not make myself clear.

In other words, here are $2,000,000,000, approximately, of legal reserves in the Federal reserve system. Then there is this other balance of $600,000,000 to $800,000,000 which represents checks in process of collection, or float. So far as the member banks are concerned, they have sent to the Federal reserve banks the two billion and the six to eight hundred million; they only have legal reserve of the two billion; but the six to eight hundred million on deposit with Federal reserve banks is checks and items in process of collection?

Governor STRONG. Yes; and that eight hundred million is the equivalent of what they formerly had as a reserve in the float, but which is now not required to be deposited with the Federal reserve bank because of the reduction that has been made in their required reserve; in other words, under that law where they did count the uncollected checks as reserve, their total reserve would have aggregated, for the purpose of argument, two billion eight hundred million. Now they are only required to carry two billion reserve, so as to offset the loss occasioned by those $800,000,000 of uncollected checks which do not count as reserve.

Mr. WINGO. Let us see if I can refresh my memory: We reduced first the country bank from 15 per cent down to 10 per cent, was it not?

Governor STRONG. To 12 per cent on demand deposits and 5 per cent on time deposits.

Mr. WINGO. And that was divided how?

Governor STRONG. A minimum of $\frac{5}{12}$ in reserve banks, $\frac{4}{12}$ in own vault, and the balance either in own vault or reserve banks.

Mr. WINGO. In 1917 we cut the reserve down in the country banks how much?

Governor STRONG. To 7 per cent for demand deposits and 3 per cent for time, all reserves to be kept with the reserve banks.

Mr. WINGO. In other words, it was contended then that the actual tendency of the banker would be to carry sufficient till money in his vault anyway, and that the thing we want to be sure of is to have this mobilization of the amount and require them to keep mobilized a compulsory amount of $7,000,000, and we took away from them the $5,000,000.

Now, on the basis, to use your figures, there are two billion now—under the proposition of carrying the float before that, they would have been required to have had the equivalent of two billion eight hundred million?

Governor STRONG. Yes, substantially. It doesn't work, necessarily at exactly that amount.

Mr. WINGO. Roughly, by having 7 per cent, if that 7 per cent is the 2,000,000,000, then the 5 per cent that they had released—of course, all of it was not released—but, anyway, I think it was estimated that there would be a release of 2 or 3 per cent, because they had used for all practical purposes just as good as legal reserve money.

So that your contention is that in the checking of the requirement that their net position of compulsory reserve, where they kept it, is going on the same as it was before?

Governor STRONG. Going on the same as it was before. It was the intention in those calculations to make a sufficient reduction in the requirements for reserve to offset the fact that the country banks lost credit for all checks—uncollected checks—as a part of their reserve. It may not have accomplished it accurately, Congressman, but I am satisfied from discussions I have had with those who had to do with the framing of the bill and by what you say that that is the fact.

Mr. WINGO. There is another question right in that connection I would like to ask now, Mr. Chairman, if it will not interfere with your line of questioning: I am reminded by a couple of letters I happened to receive this morning, both from different States, and neither one of them from my own State—bankers who in the course of their letters have happened to raise the question that you have raised before, that some of these banks are not going in the system "because some of our friends tell us they have to put up so much idle money, and they do not get interest on balances, that it is unpopular."

I am anxious to know, for the record, what is the answer to that contention? What kind of an answer would you write that banker, for practical reasons?

Governor STRONG. There are a variety of reasons, but the one absolutely controlling is this: We have 2,200,000,000 of deposits of member banks' reserve. If we pay them 2 per cent interest on that it

would require $44,000,000 a year of earnings in order to do so. In order to earn $44,000,000 a year and pay the 2 per cent interest, it would be necessary for us to make discounts or loans or investments which at 4 per cent would aggregate $1,100,000,000 to-day, and it would give us the dandiest inflation you possibly could imagine.

The CHAIRMAN. It would also bring you in competition with the member banks, would it not?

Governor STRONG. Yes.

Mr. WINGO. Let me pursue that a little further. I made that explanation when on the "swing around the circle" at one of these Southeastern cities, and, as I recall, they said, "Let them reduce their expenses." Let us have the answer to that in the record. You could answer that better than I could.

Governor STRONG. If we reduced our expenses to an amount which would be necessary in order to meet an interest charge of $40,000,000 or $45,000,000 a year, there would not be any reserve banks, because our expenses are only $27,000,000 a year now.

Mr. WINGO. Otherwise, you would have to not only cut off all the salaries, but you would have to make an assessment to make up that deficit?

Governor STRONG. Exactly.

Mr. WINGO. I made another answer at the time—I do not know whether it was sound or not, and I am going to put it up to you, that if you did pay them, that you had to get it from somebody; that the member banks were the ones that you made your money out of, or business that is in competition with them, the open-market, because the same gentlemen were complaining about you being in competition with them.

I said, "If they do that, then they will be compelled to either charge you a higher rate for the services they render you, or else they will have to go into the market in competition with you and do that"; and then I made another suggestion; which I want to get your reaction or your suggestion; I want to get your reaction on both answers to see whether I was sound or not—

> While you point now to the abnormal earnings that those earnings are really temporary, growing out of this paying of dividends. When we settle down to a normal basis, if they were to pay you interest upon your balances, it would cut down the earnings so that you would not get your 6 per cent, and the net result of the transaction would be to take money from you indirectly by competition, or else make you pay additional for the service; and in the last instance it would be a question of reducing your dividends; and either operation would be practically taking the money out of one of your pockets and putting it over into the other.

Is there anything in that logic or not?

Governor STRONG. Quite. If we engage in operations in the money market of the magnitude required to earn what would be required, the effect upon the earnings of the member banks would be so severe that they would have a hard time paying their dividends, for a time, anyway.

Mr. WINGO. This matter came up frequently and attracted the attention of the Federal reserve banks. What effort have they made in the system to direct the member banks' attention to the practical elements that enter into the net results of these different contentions that you are making?

Governor STRONG. Well, it is done in different districts in different ways, and I can not answer for all the districts. I can tell you about the method that has been adopted in the Boston district. They have an organization of member banks, and periodically the officers of the member banks are invited to Boston, and they are there carefully informed about all of these matters.

That particular matter was discussed at one of these meetings, it was explained to them, and I think they voted unanimously in support of the proposition then submitted, namely, that it was unwise for the Federal reserve banks to consider any such proposal as paying interest.

Mr. WINGO. Proceeding upon this theory that you gentlemen in charge of the system have a more practical comprehension of the difficulties of these different proposals that are put up to us than we have, and that where these proposals are unsound, and they are made by your own members, leaving outside of consideration our anxiety over these things, would it not be the part of wisdom of those in charge of the system to frankly meet these different contentions, proceeding upon the theory that the member bankers are level-headed, practical men who understand the operations of banks, and that where they did make an unsound proposal their attention can be directed to the facts by a proper analysis of their proposal, and the results which would remove in a good many exigencies not only a great many criticisms that are made, but some proposals that are made evidently based upon the convenience that the proposals are sent. Whereas we members of the committee here are not so acquainted with the practical working of these things, we are of the faith that they, as practical bankers, make to us, and we have some hesitancy in saying to them that "You know less about your business than these institutions to which you belong and how they should be operated than they who are regarded as mere politicians, and who in keeping with the fashion of the day are not supposed to have even intelligence or integrity in handling technical problems involved in business affairs."

Governor STRONG. There is a great deal of that being done. In our district last year we had meetings periodically throughout the year of all the bankers in the district. We invited them to come to the bank in groups from different counties or sections, and all these matters were discussed with them.

We have a department in the bank with a small number of men who are thoroughly familiar with all of these questions, and in the course of the year they visit every bank in the district. When they go to visit a bank they take with them a little record of all the matters that have come up in the period between this particular member bank and our bank, and they discuss those things and just such matters as we are discussing here now; and I think on this subject of paying interest on deposits there is not any feeling that it should be done. I think it has all been overcome as it has been in the Boston district—I am not so sure in the other districts whether it has been.

Mr. WINGO. Do you not think it would be the part of wisdom in control of the Federal reserve system, instead of joining the hue and cry of impeaching the integrity and intelligence of Congress that they should avoid that? I have in mind right now a thing that

attracted my attention at a meeting of some very estimable gentlemen in the Federal reserve business, seated around one of these breakfasts. You know, farmers are not the only ones who have 12 o'clock breakfasts, especially Kansas farmers. But among these bankers the whole burden of their speeches was cursing Congress and trying to put the Federal reserve system beyond the reach of the unholy hands "of this ignorant and dishonest bunch down here called 'Congress.'" Do you not think that was not only an asinine performance, very unwise from the standpoint of the system?

Governor STRONG. Congressman, my relations with the Members of Congress have been almost entirely confined to hearings such as this one; and I have no sympathy with statements of that sort.

Mr. WINGO. Will you please explain to me the attitude of the writers in the financial press? You are in touch with those people. I have a financial journal which one of my banker friends, who had a desire to enlighten me, has been kind enough to send me. I have followed the pages of that publication for several months, and I observe that there is not an issue when I do not find from one line to a half or whole column that leaves the subtle intimation with the reader that we are either very ignorant down here or else that we are very corrupt, to the extent that we have absolutely no comprehension of the responsibility vested upon us and that we would sacrifice public welfare for our political fortunes.

Why do these men in charge of the financial publications continually do that, and is not that about as reprehensible as the other complaints and the other criticisms of other groups that they complain of in the so-called "radical press"? "People who live in glass houses should not throw stones"?

Governor STRONG. I really think, Congressman, you are fortunate in one respect—you say they think you are either ignorant or corrupt. Most of the criticisms of the management of the Federal reserve banks that I read—I mean the really severe criticisms—would indicate that our critics think we are both ignorant and corrupt.

Mr. WINGO. That is the very point we are getting at. It looks to me like you people are also suffering from that, and that you would have some consideration for the Members of Congress. I can not understand, from my rather diligent study of human nature, why it is that newspaper editors and magazine writers do try to destroy the confidence of the people in the Members of Congress. I can understand how men talking to a liar get satisfaction from announcing the truth, but I can not see how those publications get any satisfaction from telling a lie and rolling it under their tongues as a sweet morsel.

Governor STRONG. I may have been guilty a little bit myself in former years, before I got to know more about Congress through my connection with the Federal reserve system. But I must say if I have had that feeling in the past, I have lost it through my contact with congressional committees.

Mr. STEVENSON. I think that men who go into political life at all must shed that part of their cuticle which makes them supersensitive and throw it in the wastebasket.

Mr. WINGO. I am thinking of a wholly different thing. This is a representative Government, and I am not worrying about what the radical does, but when reputable magazines and reputable business

men and bankers stand up and hammer day in and day out to the American people that their chosen representatives have either not sufficient intelligence or sufficient regard for the public welfare to discharge honestly their duties, that undermines public confidence in their own Government, and that is the thing I am complaining of. I am not complaining on behalf of myself personally; I can take care of myself. I am not supersensitive, but I am interested in the proposition of carrying on a propaganda that I think is more destructive of our system of Government than these so-called radical elements.

Governor STRONG. I can only speak for myself, Congressman. I never knew anything about the Congress of the United States until I got into the Federal reserve system and had to come over here to hearings and have necessarily had occasion to meet men who are in Congress. I do not mind telling you my impression of men in Congress; I think they are hard-working, underpaid men.

Mr. WILLIAMSON. Governor Strong, I was detained and did not get in when you started your discussion. Something was said just as I was coming in about the Federal reserve system paying interest to member banks. There has been some complaint on the part of national banks throughout my section of the country and they have thought that the Federal reserve system ought to pay interest upon their deposits. What was your answer to that—if you did pay interest upon deposits it would become necessary to charge a higher discount rate?

Governor STRONG. Oh, no; it would be necessary for us to loan more money, somewhere around a billion to a billion and a half dollars.

Mr. WILLIAMSON. In other words, enter into larger competition with them?

Governor STRONG. Yes; but suppose we imported a billion or a billion and a half dollars more gold into this country—that illustrates the effect of it; just the rankest kind of inflation.

The CHAIRMAN. Do you think it is a legitimate demand from the banks?

Governor STRONG. This demand for interest?

The CHAIRMAN. Yes.

Governor STRONG. No; I do not.

The CHAIRMAN. From your study and observation of the system's operations, do you think the system should ever contemplate the question of the payment of interest on member bank reserves?

Governor STRONG. Never.

Mr. WINGO. This is an agency of service more than for profit?

Governor STRONG. Yes.

Mr. WINGO. And overlooking the returns that come from it, they are a great deal better and greater and more real benefit to them than any paltry 2 per cent interest, that is what they overlook. They can not measure benefits except by the rule of dividends.

Governor STRONG. It is a most illogical proposal, when they are already complaining of taking earnings away by competition, to require us to compete with them more actively in order to pay them a little interest.

Mr. STRONG of Kansas. You would either have to do that, go in competition with them and making more money, or you would have to cut down the service you give them.

Mr. WINGO. If they did that, that would not reduce expenses, because their total expenses are only $27,000,000.

Mr. STRONG of Kansas. If they paid these banks a dividend they would have to get the money from some other source, either by doing more business in competition with the banks to earn more money, or cut down the service they render in cutting down expenses.

Mr. WINGO. But the great thing is that to do that they would have to inflate the credit of the country beyond the legitimate needs; in other words, the business they do would be not in the service of commerce by furnishing the necessary credit to meet the ordinary exchanges of everyday life, but they would have to create an artificial body of credit to pay 2 per cent on deposits?

Governor STRONG. Yes, sir.

Mr. WINGO. And indirectly the effect on the banks themselves would be detrimental as compared with the benefit of the little 2 per cent.

The CHAIRMAN. It occurs to me also that it would be forcing these liquid legal reserves into investment securities which would tend to make the system unliquid, so that in emergencies when they might be called upon, they could not serve such cases as you mentioned in the extension of relief to Cuba, whereby you have shipped out—I do not know, Governor, since the newspaper notices indicate $36,000,000, $58,000,000, and $80,000,000; which is right?

Governor STRONG. I have not checked up the figures. But it is not any such huge sum as that.

The CHAIRMAN. It is indicated by a financial writer to-day or through other channels that this shipment of $58,000,000 of Federal reserve currency to Cuba has created a situation in the city of New York whereby loans to the extent of $100,000,000 were called yesterday. That is a complete demonstration of how elastic our system is and how responsive the system is to the credit needs of the country?

Governor STRONG. Well, if that news or surmise in any way resulted from anything I said here yesterday, of course, it is an indication also of how careful you have to be in what you say.

The CHAIRMAN. I do not know that it was.

Governor STRONG. The facts probably are that the total amount shipped to Cuba is a little over $30,000,000. It is a bagatelle. We frequently lose as much out of our reserve and much more in New York in a single day.

The reason for the situation that you described is a little different from that. I did have the figures here. I think I can quote them accurately: The day the loss of reserve occurred by reason of shipments of currency to Cuba, which came out of our reserve in New York, we also lost $25,000,000 or $30,000,000 reserve to the rest of the country over the wire transfers; and that plus the deficiency of reserve with which the New York bank started the week, made a total deficit in the reserve position of the New York banks—I said yesterday of $70,000,000; it was $78,000,000; and that is quite a large deficit. It has to be made up by borrowing from us, and I suppose there was quite a lot of money called. But that will straighten out right away; we are taking steps to offset it anyway.

Mr. WINGO. As I read those articles in the financial papers, I just said to myself that the Congressional Record is not the only

place where you can read things that are not so; that other gentlemen engaged in imagination and in fanciful theories the same as we do.

Governor STRONG. This very rumor that you refer to, Congressman, is an illustration of the misapprehensions that can arise as to what the Federal Reserve Bank of New York does. Let us suppose quite a lot of loans were called; in fact, enough loans called on the exchange to make a rather unfavorable situation in New York, and we, through open-market operations or by loans to banks, deal with that situation so that no harm results. Then somebody says, "You are lending your money to those speculators," when that is not so.

Mr. WINGO. They charge you with taking money out of this country needed by the farmers and financing these sugar speculators and booze manipulators down in Habana; you get charged with that.

Governor STRONG. You understand—I have much sympathy with the position of Congressmen in the matter of criticism.

I would like, if I may, Mr. Chairman, to complete the statement that I was interrupted in making by questions in response to Congressman Strong's inquiry.

The CHAIRMAN. May I make just this correction in the suggestion I made a moment ago about these different amounts of relief having been sent to Cuba? I understand the $80,000,000 report of relief came from Cuba.

Governor STRONG. No such sum has been sent.

The CHAIRMAN. I did not want it said that it was given out here.

Mr. STEVENSON. They put it out down there to allay public sentiment and allay panic; in other words they say, "We have $80,000,000 from the United States to meet all demands." It is not hard for the Cubans to multiply any figure of that kind by two.

Governor STRONG. They can get all that is necessary. There are American banks doing business in Cuba that are perfectly good, strong banks, and this is a foolish sort of sentimental run started by fear, and the only thing to do is to pay off as long as they want the money; and we will keep on providing that.

The CHAIRMAN. In other words, Governor, this is just the kind of situation where the forces of the Federal reserve system we have been discussing here are put in play to hold the credit situation steady?

Governor STRONG. Yes, sir; I think that is what it is for, to keep things reasonably steady in credit matters.

Mr. STRONG of Kansas. May we get back now to the answer to my questions? You were starting to illustrate several different propositions that you thought the banks might not be able to do?

Governor STRONG. Yes. I had covered the question of management and I had covered the question of Treasury operations. Next we come to Congress: If Congress should pass laws changing the reserve requirements of the Federal reserve, or giving member banks the right to have immediate credit on checks (there are lots of things Congress could do), say, for instance, that we must pay 2 per cent interest on balances, it would be beyond our power to prevent inflation of credit.

And the fourth thing that might happen would be the unavoidable and uncontrollable importation of gold into the country, coming

especially at a time when we had not sufficient earning assets, either loans that could be repaid or investments that could be sold to offset the importation of that gold. And I think those things comprehend the four major causes of an inflation in the country, which we would have to look out for, however the circumstances were. We might even have to come over here and oppose legislation, which, so far as I am concerned, we would not hesitate to do if we felt that it would plunge the country into a period of inflation.

Mr. STRONG of Kansas. Governor, this bill does not give the Federal reserve system any more power than it now has, does it?

Governor STRONG. It does not give us any more powers or take material powers away from us.

Mr. WINGO. Your question was asking for the wording, and when you and Brother Strong get to revising the language of this bill, now conceded to be an unavoidable accident, I want you to be sure to include in that wording a very careful restriction upon how you arrive at that formula that will determine when the inflation is an extraordinary fluctuation, or when the decline is an extraordinary decline. You want to be careful about that. I want you to be careful about that collaboration you gentlemen are to engage in.

Mr. STRONG of Kansas. We are hoping to have your very valuable assistance in that proposition.

Mr. WINGO. I was trying to give it to you as best I could, and I was pointing out the important points I want you to be sure to cover.

Mr. STRONG of Kansas. If you will, you are capable of being very helpful. I know that you can be helpful.

Governor STRONG. The earnestness with which this subject has been approached has led some economists who appeared before the committee to nominate me as the "chief stabilizer" and now I observe one or two members of the committee are going to delegate to me the job of writing the stabilization amendment, and I am getting in deeper every minute.

Mr. STRONG of Kansas. I understand that you do take the position that this does not give the Federal reserve system any more powers than it has now.

Governor STRONG. No, sir; I do not think it does.

Mr. STRONG of Kansas. It is using those powers, is it not?

Governor STRONG. The powers that it has?

Mr. STRONG of Kansas. Yes.

Governor STRONG. Oh, yes.

Mr. STRONG of Kansas. Then, why should we not by legislative enactment seek to continue the policy of such use of those powers?

Governor STRONG. Barring the first cause of inflation that I described, what would be the position of the Federal reserve system in respect of that amendment, if by reason of any one of the other three causes we did have a period of inflation?

Mr. STRONG of Kansas. I imagine you would use all your powers to stop it.

Governor STRONG. I feel——

Mr. STRONG of Kansas. Then you do generally all you can.

Governor STRONG. Would you think we did all we could do during the war?

Mr. STRONG of Kansas. I think perhaps you did all you could do to deflate; I doubt if all was done to keep from inflation that might have been done after the war.

Mr. WINGO. I challenge the accuracy of that statement, Mr. Chairman. I do not think they did any deflation during the war.

Governor STRONG. We were specifically discussing inflation, because that is an easier process to describe as being brought about by some act beyond the control of the Federal reserve system.

The CHAIRMAN. You are referring to the deflation period a little after the war?

Mr. STRONG of Kansas. We all admit that the deflation came immediately after the war.

Mr. WINGO. At the proper time I am going to put the figures in showing when the high peak of note issue occurred and the high peak of rediscount, because I confess I never heard any one give that.

Governor STRONG. It is all in the records of the Agricultural Commission hearings.

Mr. WINGO. Yes, but that Agricultural Commission record is rather voluminous, and we can not find anything. Somebody stole every copy but one of those hearings out of my office.

Governor STRONG. I have an extra one for you.

Mr. WINGO. I found one volume, No. 13, and that is all I found.

Governor STRONG. I am afraid I helped to make the record so long.

The CHAIRMAN. The statements Mr. Wingo referred to will be placed in the record at some later date.

Mr. STRONG of Kansas. I do not know if it would be possible to engage in a line of questioning just now. My point is, it being admitted that this bill gives the Federal reserve system no more power than it has now and it is using those powers, there ought not to be any objection in having the Government determine by legislation that that shall be the policy of this Federal reserve system.

Governor STRONG. Could it be so framed that it would cover all four of the possible causes of inflation such as I describe?

Mr. STRONG of Kansas. I do not know. I do not claim to be a financial expert or ever having had bank experience. All the knowledge I have had in banking I got since I came upon this committee seven years ago. I simply believe—at least, I have not been convinced to the contrary—that if it is admitted that the Federal reserve system has the power, and if it is used as a matter of policy now there ought not to be any serious objection to that policy being put into the law, and, as I said, I am perfectly willing to amend the language. Of course, I intend to amend the language of the bill myself, and I have delayed doing that until I could have the statements of the witnesses before this committee. I am just trying now to find out what the serious objection is to the present bill to help frame a proper amendment.

Governor STRONG. Congressman, as to drafting an amendment, I am embarrassed—I think I should say this frankly—by this fact: I am anxious to be of any possible service in connection with this bill or any other bill. But if I should undertake to draft language which seeks to accomplish what you have in mind, notwithstanding the

fact that I am simply the governor of one of these banks, it would very readily be interpreted as something which the Federal reserve system has proposed to the committee; if adopted, it would be regarded by the Congress no doubt, or by the country, as a proposal from the Federal reserve system to deal with this matter. I have no authority to do that.

As an individual, if I could dissociate myself from my connection with the system, I would certainly do anything that I could to frame that language. I think I might go so far as to say that if this discussion had not taken place that appears to put me in the position of offering, if you please, or responding to a request of that sort, I might try a hand at it quietly, to see what I could do. It would obviously be necessary for me to consult the Federal Reserve Board. Now, the board is here in Washington! they must have their own views about this bill, and if you would like to have me take it up with the board, I could do that.

Mr. STRONG of Kansas. Governor, I do not know whether I would agree or whether this committee would agree to any amendment you might suggest. But it seems to me it would be beneficial to have your suggestions and to have any suggestions that the witnesses coming before this committee might offer, and that out of it all we might arrive at proper language that would bring about the thing that we are trying to do, which is, in my mind, the direction by Congress to its financial organizations to do everything in its power to bring about a stabilization of the price level and prevent inflation and deflation in our system of finance.

Mr. WINGO. Mr. Chairman, does not the gentleman from Kansas overlook the very careful analyses that the witness has just given him a short time before of the important factors that cover this thing? And only one of those is based upon congressional action, which, of course, could not be put in this bill.

I gathered from his statement that he has gone as far as he felt, occupying the position he does, by pointing out to the author of the bill what in his judgment, based upon his experience, were the four factors that might bring about an unwise administration of the Federal reserve system, so as to produce either an improper inflation or an improper management that might result in a depression, and I was struck with the force of the analyses that he made, and I was anxious to see what suggestion the gentleman from Kansas should make as to how he could engraft upon this bill any language that would meet any one of those four conditions.

Mr. STRONG of Kansas. Let me say to the gentleman from Arkansas that by the time these hearings are over and we get all the information we can, which I expect to try and use in redrafting this bill, then possibly I may be able to suggest some language that will be satisfactory.

Mr. WINGO. The gentleman is taking what I said in the wrong spirit. I was trying to call attention——

Mr. STRONG of Kansas. I want to say that you can be helpful if you will be.

Mr. WINGO. I generally try to be helpful. But I want to be frank; and the thing that flashes in my mind was, as one of those who is seeking to solve this problem as earnestly as is my friend

from Kansas, and these things worry me just as much, and I thought how clearly the governor has analyzed what are the dangerous things that tend to unsettle the credit machinery of the Nation.

Can you think of any other factor that enters into it than the four he named?

Mr. STRONG of Kansas. I can see how those four conditions, in spite of this protection that we seek to have put into the law, might make it impossible. But I do not see that that is an argument against our trying to have them do all that they can do.

Mr. WINGO. I am not making an argument; I am trying to be helpful; and if you can bring any proposition here that I think is practical and feasible, that will insure even an aid toward stabilizing the credit machinery of this Nation, you will find nobody that will help any quicker than I will. I want to be practical. I do not want to go off on a rabbit trail and find they are by settling one little trouble creating a hundred more that might affect disastrously the credit system of the Nation.

Mr. STRONG of Kansas. I do not think any member of the committee wants that.

Mr. WINGO. I am sure of that. I am just trying to justify my position and get the idea out of your head that I am antagonistic to what you propose to do. I am trying to find a way it can be done.

The CHAIRMAN. May I make a suggestion——

Mr. WINGO. I have been impressed by this hearing more than ever before of the service rendered by the Federal reserve system and what a delicate piece of machinery credit machinery is, and how we ought to be pretty sure before we go to doing anything that it is going to be wise; that it does not create more confusion than it obviates confusion. In other words, I do not want to throw a monkey wrench into this machinery merely as a gesture. That has been my view all the time. If you want to get something practical and concrete, that will not unsettle more than it has already unsettled the credit machinery and price level, I will join with you.

The CHAIRMAN. Might I suggest this: That Governor Strong has added very much aid and assistance to the subject before this committee; he has evidenced, at least to the chairman, his very deep concern on the subject; and that he has given thoughful consideration to it and to the several resolutions before the committee.

Governor Strong happens to be one governor of one of the Federal reserve banks—one of the most important banks—and is probably the best-posted governor on the subject of any of the governors in the Federal reserve banks. I think he has covered the subject as far as he can cover it this time, without further study of the hearings and this subject and giving due consideration to the expressions of the members of the committee and others who have appeared before the committee.

I have this to suggest: In view of the fact that the Federal Reserve Board are daily getting the results of these hearings and are studying the subject, that when the members of the Federal Reserve Board come before this committee on this subject that undoubtedly many of the same questions that have been put to Governor Strong will be put to the members of the Federal Reserve Board, as the result of

which I have no doubt that the Federal Reserve Board will call into their councils such men as Governor Strong, before they prepare a definite answer to this committee on this subject; and that that might then be the opportunity whereby we could not only have the expression of Governor Strong, but the others who are associated with him and the board in the management of the Federal reserve system. In that way, will we not get a proper and better reply than we would to carry on the discussion here in the manner that we are now proceeding to do? It seems to me that such a conclusion is logical.

Mr. WINGO. I think you are right; I agree with you.

Mr. STRONG of Kansas. Mr. Chairman, I would like to continue for a minute.

I was trying to develop the thought I had all along. This bill does not give any additional powers, and the powers we are talking about the Federal Reserve Board not only has but are now using. I think Governor Strong has convinced every member of this committee, at least every one I have talked to, that the Federal reserve is now properly trying to bring about stabilization of the financial condition of the country, and I believe they have been doing it satisfactorily for several years. But conditions might change; Governor Strong might not always be at the head of this great Federal Reserve Bank of New York City; there might be others at the head of it, with different views, who do not feel that they ought to use the powers that Congress has given them in the Federal reserve system to try and bring about a condition of stabilization. Therefore, it seems to me that it would be proper for Congress to direct, as a matter of policy, that the Federal reserve system should be by statute made to adopt this policy; and if a year from now, Governor Strong, you should not be at the head of the great reserve bank of New York, and they should have a different idea, and not use the powers they now have to try to bring about stable conditions as regards agriculture, the manufacturing industry, and business generally, then it would be very practical and helpful to have that provision in the law.

Mr. STEVENSON. Mr. Chairman, I have not heard all of these hearings. I will read them with a great deal of interest, I know.

I want to know if we write into the law the direction or the authority for them to stabilize prices, which means they shall take such steps that the level of the whole 400 articles enumerated in that index will be maintained by them, or if some one of them may sag away down. It happens some years that wheat sags away down; there is a big crop made in Australia, Canada, the Argentine and everywhere else, and the price of wheat sags away down, but the selling price level is maintained. Then the folks out in Kansas get after Brother Strong and say, "Didn't you fix it so the Federal Reserve Board are directed to maintain the price level?" "Yes; it is all there in the law." "Well, now, why don't they maintain the price level? Our wheat was bringing $1.25 last year and now it is only bringing 62½ cents. If you have instructed them, why have they disobeyed the mandate of Congress?" Mr. Strong will say, "Why, yes; we have done that and they have stabilized prices, but they have not stabilized the price of wheat." What is the wheat farmer going to do with Brother Strong and Congress? What are

they going to do ultimately to the Federal reserve system? That is the danger of writing a thing into law. That is what I am afraid of.

Mr. STRONG of Kansas. I am not using a demogogue argument that this bill is going to regulate prices of wheat or anything else. But it has been admitted here, I think to the satisfaction of the whole committee, that the Federal reserve system is using this power of stabilization, and that they have been doing it very successfully for the last three or four years. But there has been a good deal of criticism throughout the country that there have been times when the Federal reserve system has not used those powers for such purpose.

Mr. STEVENSON. There has been criticism in my part of the country.

Mr. STRONG of Kansas. Here is the situation: They have the powers already; they can use them this way. Then, why not by law have the Government direct its financial agents to continue to use them? What argument can there be against that proposition? Simply because some demagogue out in my district or in yours, who, for the purpose of trying to defeat us, desires to get up before an audience and make a fool argument of that kind, there is no reason why you and I should be led away from the facts.

Mr. STEVENSON. You misconstrue what I said. Of course, it was open to that construction. But it makes very little difference who holds the seat from the fifth district of Kansas or the fifth district of South Carolina. But you go and write into the law here the direction that they stabilize prices, and although the prices may be stable as to the general price level, yet if one of the great staple crops of this country goes down below the cost of production the people of that part of the country are going to hold the Federal reserve system responsible for it, and the next thing you know there will be a repeal of authority or refusal to grant any. That is the trouble about that.

Mr. STRONG of Kansas. I can not believe anybody would hold the Federal reserve system responsible for the fact that an overproduction of wheat brought down and caused a reduction in the price of that commodity.

Mr. STEVENSON. A man has got mighty little reason if the price of the crop goes away below the cost of production. I have been through a good many of those things.

Mr. STRONG of Kansas. All I am seeking to do is to continue to have the Federal Reserve Board do as it has been doing the last two or three years.

Mr. WILLIAMSON. Mr. Chairman, I would like to suggest one question to the witness, if I may, that I do not think has been fully developed: To what extent has the Federal Reserve Board interested itself in the question of stabilization? Has this been a policy developed by the board as such, or has it been a policy developed by yourself and others who have been in actual charge of the Federal reserve bank?

Governor STRONG. You mean for me to distinguish between the functions of the banks as such in developing policies, and the board as such?

Mr. WILLIAMSON. My thought was this, as to whether or not the Federal Reserve Board has, as a body, given concrete consider-

ation to the question of stabilization, or has this stabilization policy been worked up by the Federal reserve banks themselves, unaided by the board?

Governor STRONG. That is a hard question to answer because the contacts we have with the board are but occasional, of course, at meetings. These questions of the administration of credit, which have some effect upon stability, are generally those that we discuss at almost all of our meetings with the board.

In open-market matters, the practice under the terms of the resolution of the board that I introduced into the record is for the committees of the bank officers to submit recommendations to the board. That would be the natural thing in open-market matters. Questions of theory and practice are very freely discussed with the Federal Reserve Board.

Mr. WILLIAMSON. What I am getting at, Governor Strong, is this: This bill of Congressman Strong's directs, as a matter of policy, the Federal Reserve Board to use its powers for the purpose of stabilization. Has there been conscious endeavor on the part of the Federal Reserve Board during the past four or five years to carry out a policy which had for its object stabilization, in the sense in which we have been using it throughout these hearings, or has it been worked out automatically without any conscious endeavor as to stabilization?

Governor STRONG. I think, Congressman, I tried to develop that as fully as I could in describing the origin and operations of this open-market committee. I think a conscious, affirmative policy upon the initiation of the system has been developed, partly by recommendations made by this committee of the governors of the reserve banks, and partly at the initiation of the Federal Reserve Board.

Mr. WILLIAMSON. So that the mere fact that the governor of a bank changed or one or two members of the board changed would not be likely to modify or change the policy of the board as such in regard to the question of stabilization?

Governor STRONG. I do not think so. I think that the experience of the system in the past five years, say, and the perfection of the machinery through which it operates, the committees and frequent meetings, have gradually evolved a harmonious system of policies which were very difficult in the early days before we had experience, and during all the distractions and preoccupations of the war period.

Mr. WILLIAMSON. That answers my questions, I think.

The CHAIRMAN. Doctor Wolff.

Doctor WOLFF. I just want to submit one clarifying question. A little while back Governor Strong referred to four potential sources of inflation. I would like to ask whether or not these potential causes do not exist at the present time as much as they would after this measure has been passed, if it were passed?

Governor STRONG. I think they will always exist.

Doctor WOLFF. They will always exist, you think?

Governor STRONG. Yes.

Doctor WOLFF. The passage of this measure would not create a disturbing influence with respect to those; they exist anyway and continue to exist with or without the passage of this measure?

Governor STRONG. Well, a few of them—it certainly would not impose any limitation upon the power of Congress to amend the act.

Doctor WOLFF. However, would not Congress hesitate to adopt legislation which would bring about inflation, if it had already committed itself to a stabilization policy?

Governor STRONG. I do not know enough about the procedure of Congress to answer that. I guess these gentlemen of Congress could answer that better. It is a declaration of purpose made by this Congress, if it should adopt it; whether future Congresses would feel the same about that declaration of purpose I do not know. The pressure for some change in the Federal reserve act might result in a change years hence.

Doctor WOLFF. In which case it would be necessary to repeal this particular provision of the reserve act, would it not?

Governor STRONG. I do not suppose so. Suppose the banks of the country wanted interest on deposits and Congress decided to give them interest on deposits. Congress might amend the Federal reserve act to require Federal reserve banks to attempt to pay interest, but I do not think they would be able to.

Mr. STRONG of Kansas. They would not if it came before a committee that had passed this present bill—they would not seek to tear down the very policy they built up?

Governor STRONG. That is quite a speculative discussion. I do not know; I can not answer the question. So far as the Treasury Department is concerned, wise management there will certainly safeguard the country against occurrences which very bad management might make possible.

Mr. WILLIAMSON. To what extent can the Federal Reserve Board restrain an unsound policy on the part of the Treasury if one should develop?

Governor STRONG. Well, a very wise English economist, Mr. Congressman, once said, "When war occurs, the sinister hand of the finance minister reaches for the central bank."

The Federal reserve system is not a supergovernment; it does not run the Treasury Department and should not. It is a fiscal agent of the Treasury Department; there is very close interrelation, especially since the war, and the creation of these great war debts, between the policy of the Treasury Department and the policy of the Federal reserve system. If the Treasury should decide to attempt to make large issues of securities at rates of interest which the public would not take, and the banks of the country had to take them and borrow from us in order to pay for them, it would undoubtedly create an inflation. I do not know how that can be controlled by statute. I would not like to see prohibitions introduced.

As to the menace of large importations of gold into the country, I think the policies that have been adopted by the Federal reserve system and the technique that we are developing and the progress that is being made in monetary reorganization abroad, have probably in a considerable degree removed the menace of very heavy importations of gold. I will not elaborate upon that. It is a highly technical matter.

Now, as to management—and, after all, that is the main thing—we are training men. They have got to be trained in the reserve banks. Every bank officer in the world, except officers of banks of issue, is engaged in a highly competitive occupation in efforts to make all the money he can for stockholders. To step out of a commercial bank into the Federal reserve banks, one must change one's philosophy from top to bottom; you are no longer a money-maker; you are in a big service institution; you have got to run it regardless of any consideration of profit; and the men who are being trained in the reserve banks can only be trained there, and they are the only men, in my opinion, who will usually qualify for positions of responsibility. We are paying them pretty good salaries, but commercial banks coming in contact with them recognize their value and their ability, and are taking them away from us all the time at much larger salaries.

Mr. STRONG of Kansas. Paying higher salaries?

Governor STRONG. Paying higher salaries. I do not mind giving you the record of a case.

Mr. WILLIAMSON. I think that would be very interesting, Governor, if you would give the turnover.

Governor STRONG. Well, we have lost about 9 officers in the Federal reserve bank in New York in the last few years, of which 5 or 6 have been within the last year.

Mr. WILLIAMSON. And about what salary have these officers gotten?

Governor STRONG. I am sorry I have not got all these figures in my head, but Mr. Harrison can give me a memorandum of two. We might take two men who have had to do with loaning money to banks. They have left us; one of them became vice president of a trust company recently. We were paying him $12,000 a year; he is now getting $22,500. Another man in somewhat similar position in our bank who was getting $12,000 accepted a position at $18,000.

Another man who was getting $6,000, one of the younger men further down the line, is now vice president of a big bank over in New Jersey at something like $9,000. They are not the only ones.

One man who was getting $14,500 almost exactly at the time when we raised his salary to $16,500, declined an offer of $30,000. I talked with him about it. These men have families, and it is a great temptation to a man who is getting a salary of $14,500 to step into a position of $25,000 or $30,000. I can give you almost exactly the words he used when he said he was not going to take the position. He said, "I can not leave the Federal reserve bank; I am too much interested."

Mr. WILLIAMSON. To what extent does the Federal Reserve Board control the matter of salaries? I must confess I have not looked up the statute on the subject.

Governor STRONG. They are all fixed, subject to approval by the board.

Mr. WILLIAMSON. So that they have, as a matter of fact, a large latitude in fixed salaries. Do you think, Governor, it would be wise for the Federal reserve system to attempt to meet the salaries paid by commercial institutions?

Governor STRONG. No. My salary is $50,000 a year, as you know. The presidents in big banks in New York usually get $100,000 a year or more. Somebody in the bank found upon inquiry that there were a great many vice presidents of banks in New York City who got larger salaries than mine.

Now, I am not making this statement in defense of the salaries that are paid; I am just telling you the facts, which are that there is a competition for men such as are trained in the reserve banks; it can not be escaped, and we are losing them inevitably from time to time, and we have got to train them fast enough to fill the vacancies that occur.

Mr. WILLIAMSON. Would you in your system get this same disinterested public service out of a man, if he came there simply as a salaried proposition, paying more moderate salary; in other words, do you think that the salary itself would add very much to the efficiency of your system? I am not saying you ought not to increase salaries, but I am wondering whether or not the salary, after all, is a very large element in the equation.

Governor STRONG. Well, it is. They are human beings; they have children to educate. I will tell you there is a remarkable record of men in our employ declining positions. One of the deputy governors of the bank, who was getting a salary of $25,000, was offered a position with a salary over $38,000 by a bank in New York, and declined it. And another deputy governor was offered almost double the salary we were paying him. He also declined the offer. Those are two cases.

Mr. FENN. Governor, if I may ask, what is the reservoir from which you draw your capable and competent men?

Governor STRONG. When the bank was organized we picked up good men wherever we could lay our hands on them in other banks. I think the great number of officers in the bank are men—not the deputy governors, who are older men—who have been trained right in the bank in clerical positions.

Mr. FENN. In other banks?

Governor STRONG. No; in the Federal reserve banks.

Mr. FENN. They have promotion, I presume?

Governor STRONG. Promotion. There was some criticism of the rapidity with which salaries were advanced in the bank at one time, and they were advanced fairly rapidly. But let me give you an illustration again in one particular instance of why that was necessary: During the war we had such an immense responsibility thrown upon us and had to expand our organization so rapidly that we had over 5,000 on our pay roll at one time, including the Liberty Loan organization. It was not possible for me personally to watch all these departments. Sometimes we would set up a department almost overnight that would require the services of 100 or 200 people. One of the important departments in the bank was the management of the deposits which we carried with member banks of the proceeds of issues of securities for account of the Treasury. The amount in those depositary banks at times ran to nearly a billion dollars in our district; in other words, the man who ran that department, in effect, was running a bank larger than any commercial bank in the United

States, so far as the doposit account went. And for all that we had to take collateral. I remember at one time, to secure Government deposits, we had nearly a billion and a half collateral in our hands, all sorts of securities, under the terms of the Treasury regulations.

The man who had been assigned to that work was a young man who had come over with me to the bank from a trust company of which I was president. He was a young fellow. The business started in a small way and did not at first amount to very much. But it grew until he had 150 people, or something like that, under him. In going over things one day I realized that here was a department handling funds amounting to $800,000,000 or $900,000,000 on deposit with 900 banks, and I had never been able to personally look over the collateral. I appointed a committee of five of the most experienced bond men in New York from large firms or banks, wrote them a letter, laying out a program for examining that department for us, and they made a thorough examination of it. It took them about a week.

They gave that man a letter-perfect report. Every security was there, every one of them conformed to the Treasury Department regulations; every account was well secured; they were well distributed, not too much of any one thing.

Now, when that man came to us he was getting $1,200 a year. He did a wonderful job; he is getting $11,000 a year now. At one time when we were paying him $6,000 he declined an offer of $10,000 to go out to New Jersey as vice president of a trust company. He is married and has a family. You have got to recognize the ability of men like that.

Mr. FENN. Of course.

Governor STRONG. This is a little intimate story about the bank. If it interests you, I think you ought to know it.

In other words, to get back to the main subject. That is one way in which the Federal reserve system has got to be guarded—by training people and giving them some inspiration to do a good job and do it well in the public interest.

Mr. WILLIAMSON. In addition to the matter of salary, do you not think that the appeal of the public service that they have in the Federal reserve system is a very strong factor in keeping men with you?

Governor STRONG. Up to a certain point. They do take a pride in it. These men who are declining offers are declining them on that ground. But put yourself in the position of a man who is getting $8,000 to $10,000 a year, when he is offered twice that.

Mr. WILLIAMSON. There are some men in Congress who are in that position.

Governor STRONG. That is so. But there are a certain percentage also who say, "I can not afford to decline that. My duty is to my family."

Mr. STRONG of Kansas. A good many men have been leaving Congress every year because they felt their duty to their family was to try to get out and make some money.

Mr. WILLIAMSON. I think the Federal reserve system should pay salaries which would enable them to hold their men so far as possible to do it.

Mr. STRONG of Kansas. That ought to be the policy throughout the Government service, but it can not be. We can not pay salaries to compare with the commercial institutions of the country.

Governor STRONG. Our men are not permitted to engage in outside activities for profit; and if one of them needs to earn a little money we permit him, for example, to act as usher in a theater or to teach in the evening or act as secretary of a building and loan association where they earn a few hundred dollars a year. But at once, if they speculate or anything of that sort, they leave the bank instantly. We have very severe—I possibly should say we have very necessary rules to govern all of these things; and as long as they stay in the service of the bank it is difficult for them to better themselves.

Mr. WILLIAMSON. Aside from the officials that hold the more responsible positions in the Federal reserve system, and the officials that hold more responsible positions in commercial banks, is there a material difference between the salaries paid to your employees and those paid by commercial banks? I have the impression that so far as ordinary employees in the banks are concerned that you pay them on the basis which is fairly comparable with that paid in commercial institutions, and that the lower salaries that you are paying had application rather to the more important positions in the bank rather than those lower down the scale.

Governor STRONG. I think that is so, with this exception, that most of the commercial banks every year's end make some sort of a profit division—bonus, sometimes—sometimes a very large bonus, even 100 per cent.

Mr. WILLIAMSON. That goes all down the line?

Governor STRONG. All down the line—and we do not do that.

Then many of the banks have arrangements by which the clerks, when they retire, get a pension or various types of benefits. I am anxious that we should be able to do that. There is not much that we can do without running into criticism about extravagance in management.

The average pay of all the clerks in the Federal Reserve Bank of New York is something like $1,515. I haven't got the exact figures here.

Mr. WILLIAMSON. In this connection, does the Federal reserve system establish a uniform salary schedule all over the country?

Governor STRONG. Oh, no.

Mr. WILLIAMSON. In other words, you establish a schedule somewhat in keeping with the place where the bank is located?

Governor STRONG. Yes; and that is, of course, higher in New York than it is in other reserve banks.

Mr. WILLIAMSON. Yes; there is no doubt about that.

Governor STRONG. On February 28, 1926, in the New York bank—that leaves out the Buffalo branch—there were 2,351 clerks, whose average salary was $1,537.

Mr. LOMBARD. Governor Strong has pointed out a situation which I sometimes paraphrase by saying, "Eternal vigilance is the price of stability." You have got to have eternal vigilance on the part of Congress, the Federal Reserve Board, and the managers of reserve banks, but on top of that you have got to have a thorough under-

standing of the problem by the people, who, in the last analysis, are the rulers of this country; and I have thought that some such an amendment as this would tend toward the education of the people as to the desirability of stable price level, the evils of deflation and inflation, and it would be a bulwark against inflationary epidemics that sweep across this country every generation or so.

Mr. STRONG of Kansas. We have had a lot to say about inflation and have not said very much about deflation. I understand that the general price level and index number has been going down for the last month or two. I just wonder if we are in for another period of deflation?

Governor STRONG. Congressman, the same effort as to credit, within the limitations that credit exerts an influence upon prices, the same effort applied to arresting an inflation of credit can bring about a deflation of credit.

Mr. STRONG of Kansas. Can it bring about arresting a deflation?

Governor STRONG. When you come to arresting a deflation of credit, you are coming into the most difficult problem that the Federal reserve system can possibly have to face.

As long as the Federal reserve system has ample earning assets, so that by the processes I described in earlier hearings it can bring pressure to bear, tighten up on that pyramid of credit at its base, you have got a fairly good control of an expanding credit condition, even due to gold imports, unless interference by statute or by Treasury operations, or something of that sort, should make it impossible to exercise control. But when it comes to a decline of price level, the origin of which can not be attributed to a credit policy, this effort that you make by a credit policy to arrest a fall of prices may do more harm than good; and I tried to describe that by such a case as would arise if we lost our foreign markets for the farm produce of the country. I have not got the figures here—I can not quote them from memory—but I should say the total value of what we export which comes from the farm exceeds a billion and a half dollars. If we had such a severe decline in the value of cotton and all the commodities that are influenced by world market prices as to cause a decline in the general price level, in this Department of Labor index of 404 commodities, which is very heavily weighted as to farm commodities—53 per cent of that price index, as I recall.

Mr. LOMBARD. Around 25 per cent, I think, Governor.

Mr. SNYDER. Fifty-three per cent for food and farm prices.

Governor STRONG. For food and farm commodities I think 53 per cent. If that decline should occur and we should attempt to remedy it just by buying securities and making cheap money, it would not cause an advance, certainly not immediately in the prices of those commodities, whose prices are fixed by world markets and world competition. It would have an inflationary effect, which might indeed affect price levels of purely domestic commodities; and if it did thereby advancing the price of everything the farmer consumed at the same time the selling price of what he produces was being reduced——

Mr. STRONG of Kansas. I quite agree with you, Governor, that the great farm problem is the regulation and disposition of the surplus.

Governor STRONG. I agree with you; and I do not recall whether you were here while I was discussing it. But so far as we have any responsibilities for that in New York I think that we have done all that we could to take care of the export of that surplus.

There is more we will be able to do in the future if we are allowed to try.

Mr. STRONG of Kansas. Those are the demands which are made upon me in my correspondence. If I had some way to set a price on surplus it would solve the difficulty, but when I answer that we have not been able to solve the problem they seem to think we are not trying, and sometimes I have been tempted to resort to the expediency of saying, "If you have a bill, send it on, I will introduce it."

Governor STRONG. The limitation that the farmer will suffer in foreign markets for his surplus will probably arrive more from the effects of disordered currency and impairment of living standards and in the inability to buy and pay for goods produced in this country, than anything else.

Mr. STRONG of Kansas. That is the reason the argument is advanced that in the interest of agriculture it is in part necessary to try and get the demoralized financial condition of foreign governments remedied in order that they may be in position to buy our surpluses.

Mr. WILLIAMSON. I want to go back to what was said some time ago by the governor in answer to Mr. Strong's question as to whether or not the Federal reserve system could not do something practical in the way of inflation as well as deflation.

Now, within the limits you have already described of inflation and deflation, if the Federal reserve system were to undertake the inflation of prices, if I may use that term, where would that inflation first be noticed? Would it be with reference to articles of manufacture and articles that have been processed, or would it first be manifested in the primary products of agriculture?

Governor STRONG. I think it would first be noticed in the price of stocks and bonds; in other words, the process of inflating the currency and credit position of the country would make cheap money.

Mr. WILLIAMSON. There is no doubt but what that is true.

Governor STRONG. Yes. When cheap money comes, before business springs up, the surplus loaning power of the borrowers, for which there is no employment, generally goes into securities.

Mr. WILLIAMSON. But would it not be manifested first in those articles which consumers purchase every day for the ordinary walks of life? Would it not manifest itself there before it manifests itself to wheat, hogs, cattle, corn, etc.?

Governor STRONG. I believe, Congressman, you have a student on these matters here, Mr. Snyder, and I think he can give you a better answer to that than I can.

But my belief is that the first reaction from cheap money, always the consequence of inflation, will be felt in the security markets. Then you get the stimulation following that in the various price levels of goods. I will not undertake to say where it is likely to strike first. Presumably it would go through a course like this—and Mr. Snyder will correct me if I am not right—when we

have very cheap money, corporations and individuals borrow money in order to extend their businesses. That results in plant construction; plant construction employs more labor, brings in to use more materials for plant construction, and gives more employment. It may cause some elevation of wages. It creates more spending power; and with that start it will permeate through into the trades and the general price level.

You know the old statement that Andrew Carnegie always made improvements and extensions to his plant when there was a period of depression. That was the way it was expressed. It was really in a period of cheap money. After some collapse had taken place and industry was dull, money was cheap, he could get money. Then he began to build a new plant. Am I substantially right in that, Mr. Snyder?

Mr. SNYDER. Yes.

Mr. WILLIAMSON. My question was not inflation, but whether the rise in prices first manifested itself in manufactured products or whether or not it would manifest itself first in raw materials. My impression has always been that it first manifested itself in manufactured, finished goods rather than raw material, and that raw materials were the last to feel the influence of the rising level of prices.

Governor STRONG. If you get more employment in plant construction, building operations, and things of that sort, you enlarge the pay envelope, and then you begin to enlarge the streams of goods from the retail trade into consumption, and that works back into manufacture; and that is just what happens when it goes the other way—goods pile up at the point of last distribution and all the way back to the point of original production.

Mr. WILLIAMSON. So that the feeling that first manifests itself is in wholesale prices and then down the line rather than manifesting itself in raw material?

Governor STRONG. I do not know whether you are aware of the fact that at the very peak point of inflation, I think it was in May before the great price decline, about May, 1920, John Wanamaker had a full-page advertisement in the newspapers of Philadelphia of which Governor Norris had a photostat copy, announcing that anything in his store was for sale at 20 per cent below list price. He had sensed what was coming.

Mr. LOMBARD. What was the date of that advertisement?

Governor STRONG. I think it was May 3, 1920.

Mr. WILLIAMSON. 1920.

The CHAIRMAN. Governor Strong, I am presuming you have about finished, no further questions being propounded. I want to express to you, and, in doing so, I think I am expressing the view of the whole committee, our sincere appreciation of your splendid discussion of the subject before this committee at this hearing. You have added very materially to the subject under discussion, and we particularly appreciate the frankness which you have displayed and the attempt to answer quite in detail every question that has been propounded; and we hope in expressing that frankness it has been no embarrassment to you; on the other hand, we want you to feel that the committee was interested in these subjects and are pleased with the testimony you have given to the committee.

Governor STRONG. You are very kind, Mr. Chairman. I can not tell you how much I appreciate the committee's attitude.

Mr. WILLIAMSON. I want to say, Mr. Chairman, so far as I am concerned, that it has been a liberal education along some lines.

Mr. GOLDSBOROUGH. Mr. Chairman, in view of the fact that I appear to be the only member of the minority that is here, I would like, in behalf of the minority, to express very great appreciation at the frankness with which Governor Strong has given us the information he has, and the evident great care that he has taken to go into the details. I can imagine that he has worked at night quite a good deal between times in order to give us just exactly what we want in as accurate a way as it is possible to do it.

I want to corroborate what Mr. Williamson has said, that, in my judgment, he has given us a great deal of very valuable information, and to say also that as far as I am concerned I feel that as long as the Federal reserve system is in the hands it is now in that it continues to be a very, very useful service, useful beyond my calculation and my ability to calculate it.

In the remarks that I have made myself during the hearing, which would seem to indicate that there should be changes in the act, they were based a great deal on the general knowledge that we all have, not only that the personnel of the board is not immortal, unfortunately, but also on the fact that all boards everywhere are subject to political influences and other influences and that their quality ebbs and flows from time to time, and it seems to be essential to fortify them in so far as we can by legislation.

The CHAIRMAN. Fearing lest those who may read these hearings interpret Mr. Goldsborough's statement to indicate that this committee is discussing these matters in a partisan way, I simply want to say that such is not the case.

Mr. GOLDSBOROUGH. How is that, Mr. Chairman?

The CHAIRMAN. I say, for fear those who may read these hearings may interpret——

Mr. GOLDSBOROUGH. I had no such idea as that.

The CHAIRMAN. I understand that; but you were speaking for the minority. I want it clearly and distinctly shown in the record that this committee is not a partisan committee and that in dealing with the subjects that come before them they do not deal with them in a partisan way, but have in mind the best interests of the country when considering financial legislation, and so far as my 12 years' work on this committee is concerned, I do not recall partisanship ever entering into the discussion of financial legislation.

Mr. GOLDSBOROUGH. In saying "I spoke for the minority" a few minutes ago I did not have it in mind that this matter or any other matter was ever discussed by the committee in a partisan way, because that would not be true. I desired the opportunity, which seemed to be presented, for me to express my personal appreciation of the service rendered to the committee by Governor Strong, and expressed it as I did simply because I happened to be the only member on the committee of the Democratic Party in the room.

The CHAIRMAN. I realize the hour is late, but Mr. Snyder has been here patiently since yesterday, and inasmuch as we are going to be otherwise engaged in the morning, I am just wondering whether we can not have a statement from Mr. Snyder at this time,

briefly outlining to the committee how he arrives at index numbers and matters of that kind in the Federal Reserve Bank of New York.

STATEMENT OF CARL SNYDER, STATISTICIAN, FEDERAL RESERVE BANK, NEW YORK CITY, N. Y.

Mr. WILLIAMSON. Mr. Snyder, while Governor Strong was on the stand, there was some discussion as to what the Federal reserve system might be able to do in the way of stabilizing prices, both in the way of holding down undue inflation and also in preventing undue deflation. Now, in the event that the Federal reserve banks should be the means of causing a deflation in the price level, would that deflation first be felt in connection with manufactured and processed articles that enter into consumption, or would it manifest itself first with reference to raw materials, products of the farm, cattle, hogs, and the like?

Mr. SNYDER. I think, Mr. Congressman, it would be extremely difficult to answer that question, because it would largely depend upon the circumstances. For example, take the reverse of it, the war's demands, as you will remember, in 1915, caused a very rapid increase of certain types of commodities, which carried up with it very rapidly the commodity price level, as shown in our familiar indexes. It seems to me that you could hardly say in advance of a knowledge of what kind of conditions which were to arise, just how that action would take place.

Mr. WILLIAMSON. What we had in mind, Mr. Snyder, when we discussed this a moment ago, was this: Suppose the Federal reserve system should proceed by way of buying up securities or by some other means, causing a lot of money to go into the market, thereby making money easy and cheap; the general tendency of that is to cause prices to rise, manifesting itself first, probably, in stocks and bonds. Where would it manifest itself next? Would that be manufactured goods and processed goods, or would the increase in prices go right on down the list of raw materials, or would they be the last to be influenced by that condition?

Mr. SNYDER. It seemed to me Governor Strong accurately expressed it, dealing with the present particular instance. I should say that cheap money would undoubtedly tend toward a continuation of our tremendous building boom, and probably if you had had a prolonged depression in building, one of the first places that cheap money would show its influence would be precisely as the governor has described; in other words, it is always antecedent condition which would determine. If, for example, your cheap money were to flow abroad in the form of large foreign loans, that might readily stimulate a demand for our products such as cotton, wheat, meat, etc., copper, and so on; and then you would have the effect of that felt in your commodity prices at wholesale. The antecedent condition would certainly determine the effect. I do not see how you could say in advance.

Mr. WILLIAMSON. Now, whether or not it would do that is a question I do not care to discuss now, but the point is that if the Federal reserve system shall, by lower rates of interest and expansion of the

money and credits available for purchases and sales, stimulate an upward trend of prices, would the farmer have more harm by that, by having to pay a larger price for what he consumes, and would it go down the line and affect his raw materials so that the increase in prices at the source would more than offset what he had to pay on what he had to consume?

Mr. SNYDER. I think you have a concrete answer to that in the present situation, and that is that you have had a very heavy inflow of gold, as you know, even in the last four years—$650,000,000—which, without any interference from the Federal reserve banks, has tended of course to expand credit and make money cheap, automatically.

Now, it is a very remarkable fact that we have had in the last four years an increase of about 35 per cent in demand deposits, which is the actual form of purchasing power in this country, and, in spite of that, your farm products have risen and fallen. They have been falling, as I could show you by the chart if you care to have me do it, for some little time, six months or more, in the face of one of the biggest business booms this country has seen in many years; so there, in a concrete case, is an instance where, even though you had a general price level that has been fairly stable, and you had a large increase of credit, banking credit, purchasing power, it did not result in stabilizing the price of farm products.

Mr. WILLIAMSON. So that you think that any effort by the Federal reserve system to stimulate the price level upward would not necessarily mean that the farmers and the primary producers would get an increased price, because there might be other conditions that might have a tendency to depress their prices to such an extent as would overcome any possible inflation that might be undertaken by the Federal reserve system?

Mr. SNYDER. That is my view.

Mr. WILLIAMSON. I think that is all.

The CHAIRMAN. The committee will now adjourn until 2 o'clock to-morrow afternoon.

(Whereupon, at 5.08 o'clock p. m., an adjournment was taken until Wednesday afternoon, April 14, 1926, at 2 o'clock p. m.)

HOUSE OF REPRESENTATIVES,
COMMITTEE ON BANKING AND CURRENCY,
Wednesday, April 14, 1926.

The committee met at 2 o'clock, p. m., pursuant to adjournment, Hon. Louis T. McFadden (chairman) presiding.

The CHAIRMAN. The committee will resume its hearings. Mr. Snyder, will you take the stand?

STATEMENT OF CARL SNYDER, GENERAL STATISTICIAN OF THE FEDERAL RESERVE BANK OF NEW YORK

The CHAIRMAN. Mr. Snyder, how long have you occupied the position of general statistician of the Federal Reserve Bank of New York?

Mr. SNYDER. Going on seven years.

The CHAIRMAN. You are familiar, of course, with the subject that is under consideration, having been with the committee for a couple of days. You know that we are considering the Strong bill, proposing stabilization, and incidentally considering the operations of the Federal reserve system.

The attention of the committee was particularly directed to you because of an article appearing in the American Economic Review of June 23, 1923—on the stabilization of gold, in which you presented a plan; and they were also interested because of the study that is being made in connection with stabilization of the preparation of indexes showing the price levels. The committee would appreciate first, I think, hearing from you as to just how these price indexes are prepared, what elements enter into them, and briefly a general explanation of them. I might say to you in that respect that I do not recall anyone having appeared before the committee who made an explanation of just how those figures are made up, and I think the committee would be glad to know something from you on that subject first.

Mr. SNYDER. Mr. Chairman, a price index is, if I may put it so, just precisely what one would imagine it to be; that is to say, you put together the prices, say for the commodity index, of various articles, taking them month by month or year by year, or whatever the period may be, and taking them in terms of a base year or series of years. For example, in one of the earliest they took the base of 1860, and again the Senate committee index that was prepared—the so-called Faulkner index—took the base of 1890, and other indexes have taken a series of years. The average price of an article for a series of years or for a base year is taken as 100, and the price for each succeeding year or month, or whatever it may be, is taken in percentages of that base year.

The most usual way is to take a so-called weighted average, which gives different importance to different commodities, so that, for example, the price of pepper and cheese should not count as much as the price of cotton and wheat. Those weighted averages are taken in terms of relatives. There are various methods—the straight or so-called arithmetic method, the geometric mean, and so on. Those methods give sometimes quite different results, as do different base years taken for the weighting; but over a very broad series of years the main question is the composition, as it appears to me, of the materials that go into the index.

I should like to illustrate that by the chart that I have here, which deals with a series of different indexes that go to the making of an index that we have called the general price level, or average of all kinds of payments, as contrasted with, for example, price indexes of commodities at wholesale, of the cost of living, of wages, etc.

(See Chart I, p. 584.)

It seems to me that this is especially important, in view of the problem that you have before you. One of your committee yesterday asked the question as to how farm prices could be stabilized. Personally, I can see no more reason to suppose that we could stabilize farm prices as such than the individual prices, let us say, of corn and copper and cotton and various other commodities, except as broad changes in the average purchasing power of money

would affect the individual prices of articles or the prices of any groups of articles, such as commodity prices at wholesale.

Now, referring to the chart before you, we have, first of all, at the top, a composite index of wages. That is prepared in essentially the same way as an ordinary index of prices; that is to say, we have taken wages of various types, such as the weekly earnings

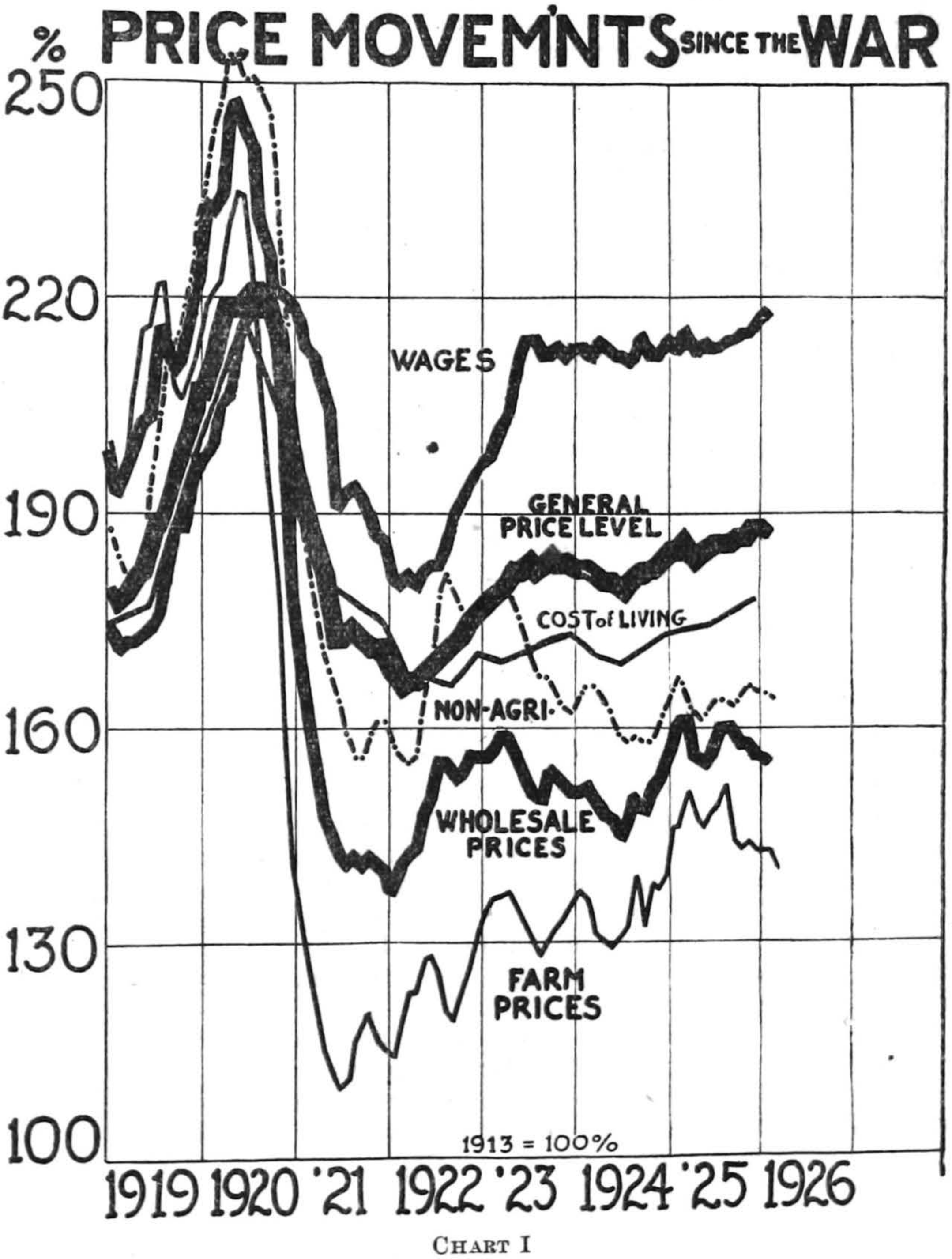


CHART I

of factory operatives in New York State; then clerical wages and teachers' salaries, and finally an index which we have made up at the bank of hourly rates of unskilled labor paid by the large corporations in our district, covering quite a comprehensive group of men.

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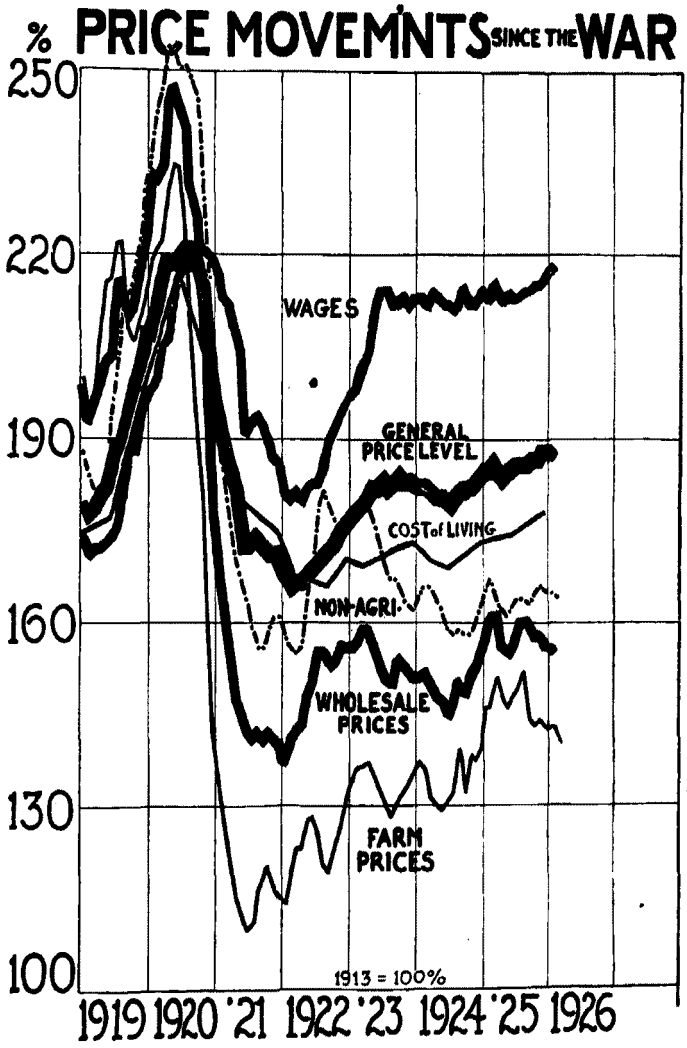


CHART I

of factory operatives in New York State; then clerical wages and teachers' salaries, and finally an index which we have made up at the bank of hourly rates of unskilled labor paid by the large corporations in our district, covering quite a comprehensive group of men.

The CHAIRMAN. Your studies in that respect simply go to the limits of the second Federal reserve district, or do they embrace the whole country?

Mr. SNYDER. We have kept more or less to our own bailiwick; but as a matter of fact, it has been noted by various students of the question how remarkably the employment figures of New York State go with the much more comprehensive series prepared by the Bureau of Labor Statistics and the Federal Reserve Board, and how closely those from New York State are representative of all the available material.

So, I think, Mr. Chairman, that this would represent a very fair cross-section of the average employment wage in the country. We are now attempting to broaden this; other series have been made available since that preparation was begun, such as farm wages, railway wages by months, and several other series; but I doubt, if we could include the whole United States, that it would materially change the picture.

The next line below is the so-called "cost of living," which is a weighted average of the items that go into the consumption of an average worker's family.

The CHAIRMAN. I notice that your chart begins with the year 1919, and that it compares with 1913 as 100.

Mr. SNYDER. Yes. We have here simply a cut-off section from 1919. The base is 1913.

The CHAIRMAN. Such a chart as this has already appeared in the record, has it not, so that reference can be easily made to it to corroborate your statement?

Mr. SNYDER. Yes, sir.

Mr. CANFIELD. Mr. Chairman, is the chart that is in the record an exact duplicate of this or does it start with 1913?

Mr. SNYDER. Yes, sir. This is simply a chopped-off section of it since the war. The base in each case save one is 1913.

Mr. CANFIELD. I know; but I am talking about the chart that was put in the record.

The CHAIRMAN. The chart that is in the record, I think, goes back to 1913.

Mr. LOMBARD. You say in every case save one, Mr. Snyder?

Mr. SNYDER. Yes; and that is the one that I shall refer to in a moment.

The CHAIRMAN. Go ahead. I did not mean to interrupt you, but I wanted the record to show the reference.

Mr. SNYDER. The cost of living index includes a certain amount of retail prices and such items as rents, carfares, amusements, and various other items.

The next heavy line is that of commodity prices at wholesale, prepared by the Bureau of Labor Statistics, which includes, as you know, some 404 commodities now.

Finally, we have a new index, at the bottom, of farm prices, which was prepared by the Agricultural Department. This is an index of average prices at the farm, taking wide samplings over the country.

You will see, Mr. Chairman, that the most striking part of it all is the different direction of movements at times. In the case of a tremendously strong movement, as in the upward swing of prices after the war, there was a general movement in the same direction,

but in the great decline that followed there was a decided difference in the extent of the fall, as you will see; farm prices falling more heavily than any other type here measured.

That is very strikingly brought out by another new index which has been prepared by the Bureau of Labor Statistics, dividing this index of commodity prices at wholesale into two groups, agricultural and nonagricultural. We have given here in the dotted black line simply the nonagricultural part of this new index; the other part of it, food and farm prices, having something of the same allure as the line at the bottom of farm prices at the farm. It would be confusing to put too many lines on the chart.

The CHAIRMAN. You make a distinction between those commodities which are affected by world-wide prices and those which are affected by prices in the United States?

Mr. SNYDER. It seems to me that we must; and I think that all competent students of the subject would make that distinction. I was very much interested, Mr. Chairman, to come across this morning an article in Wallace's Farmer for April 6, in which the editor, Mr. Henry A. Wallace, deals with precisely this question. Mr. Wallace, I might say, is himself a statistician and a student of statistics of competence and training; has written interesting books upon the subject; and is the vice president of the Stable Money Association. Mr. Wallace there speaks very strongly along the line which I was taking last night, that the stabilization of the average purchasing power of money would not in itself effect a stabilization of farm prices. It could not deal with the question of a surplus of farm products such as appears to be in existence at the present time.

Now, Mr. Chairman, it seems to me that that goes to the very heart of the problem that you have before you. I believe everyone would agree that you can not stabilize individual commodity prices, such as pig iron or cotton or any other article of commerce. No one dreams that—at least by any method of stabilizing the average purchasing power of the dollar. In the same way, it seems to me, you can as little think of stabilizing the prices of any particular group. All that ever could be done would be to attain to a fair degree of stability of the monetary standard or unit, which would have to be measured, or at least would be ideally measured, by the average of every kind of payments made for the exchange of goods and services and property of every description.

Of course, it would be impossible to devise such an ideal index as that, but something like an approximation to it, I believe, can be devised, and that is just what I wish to put before you now, with this proviso—that every index of prices or wages or other things is simply a sampling, and sometimes it may be a quite misleading sampling.

Let me illustrate: Even in the case of commodity prices at wholesale, which we have come to regard as somehow a very perfect sort of index, it is an index of quotations, not an index of the actual average sales price of commodities; and the distinction is very vital. A young man of my acquaintance has made an extremely interesting study in the case of merchant pig iron, in which he has shown that the average sales of merchant pig iron are usually effected at a relatively low level of prices, and that the amount of the sales, in tons, falls off very rapidly as the price rises. In fact, he makes the

generalization that, very roughly speaking, one-half or more of the total sales in a given period of a rise from a very low level to a high level are made in the lower one-third of the movement. That is to say, supposing for the sake of convenience, that the price of pig iron rose from $15 to $30 a ton, he means that one-half or more of the total quantity sold within the period taken would be sold at between $15 and $20 per ton, and less than half would be sold between $20 and $30; much less, proportionally of course, between $25 and $30. So in any extreme movement of prices it is certain that the best indexes of prices that we possess are misrepresentative to that extent. They represent quotations on marginal quantities of goods only, and do not represent the big bulk line average, as it might be called.

So not only in that regard, but in others that I might suggest, it is evident that any index, price index or other, is simply a tolerable approximation. It can never be, probably—"never" is a large word—much more than that. And so with the question of measuring the average purchasing power of the dollar. It has been assumed that the index of commodities at wholesale would be a fair measure of the changes in that purchasing power. It seems to me that the last three years especially have shown us very clearly that commodity prices alone can not be regarded as a valid index of the average purchasing power.

The CHAIRMAN. If I understood you correctly, in arriving at your farm prices you took the values at the farms rather than the quotations at the point of consumption?

Mr. SNYDER. Yes, sir; but that is, of course, a quotation and not an actual sales price. In many cases, as I have pointed out, that may be a quite vital difference.

Now, Mr. Chairman, if you will note the chart you will see that in the last three or four years the course of wages, the composite of wages, has tended generally upward with a marked stability for something like three years, ending with a distinctly upward tendency. The same thing, you will note, is true of the next line, the cost of living. Its tendency in this period has been steadily upward. But now if you take the average of commodity prices at wholesale, the lower heavy line, you will see that they have risen and fallen and risen again, and in the last six months or so have been falling again.

Now, when you compare the wholesale prices as a whole with the nonagricultural group, you will see that that rise and fall has been greatly diminished in the case of nonagricultural prices. While reference to the line below will show that in most of that period farm prices have been steadily rising until the middle of last summer, and since then showing a sharp tendency to fall.

In other words, among the indexes there is a wide disparity in the movement and in the amount of movement. Yet all of those things are indexes in some degree of purchases made; so that if you were to arrive at some kind of an approximate index of average purchasing power you would have to take into consideration all the different kinds of expenditures that are made, and that is what we have tried in a very limited way to do.

In the heavy black line, which is labeled "General price level," we have made up a composite or average of these several groups—

wages, cost of living, wholesale prices, and even an index also of rents, which is not given there; and in that index it will interest you to know that we have weighted wholesale prices, commodity prices at wholesale, which has been assumed to be the ideal index, at only 20 per cent, the others being weighted, respectively, 35, 30, and 10, to make up 100 per cent. In other words the commodity prices at

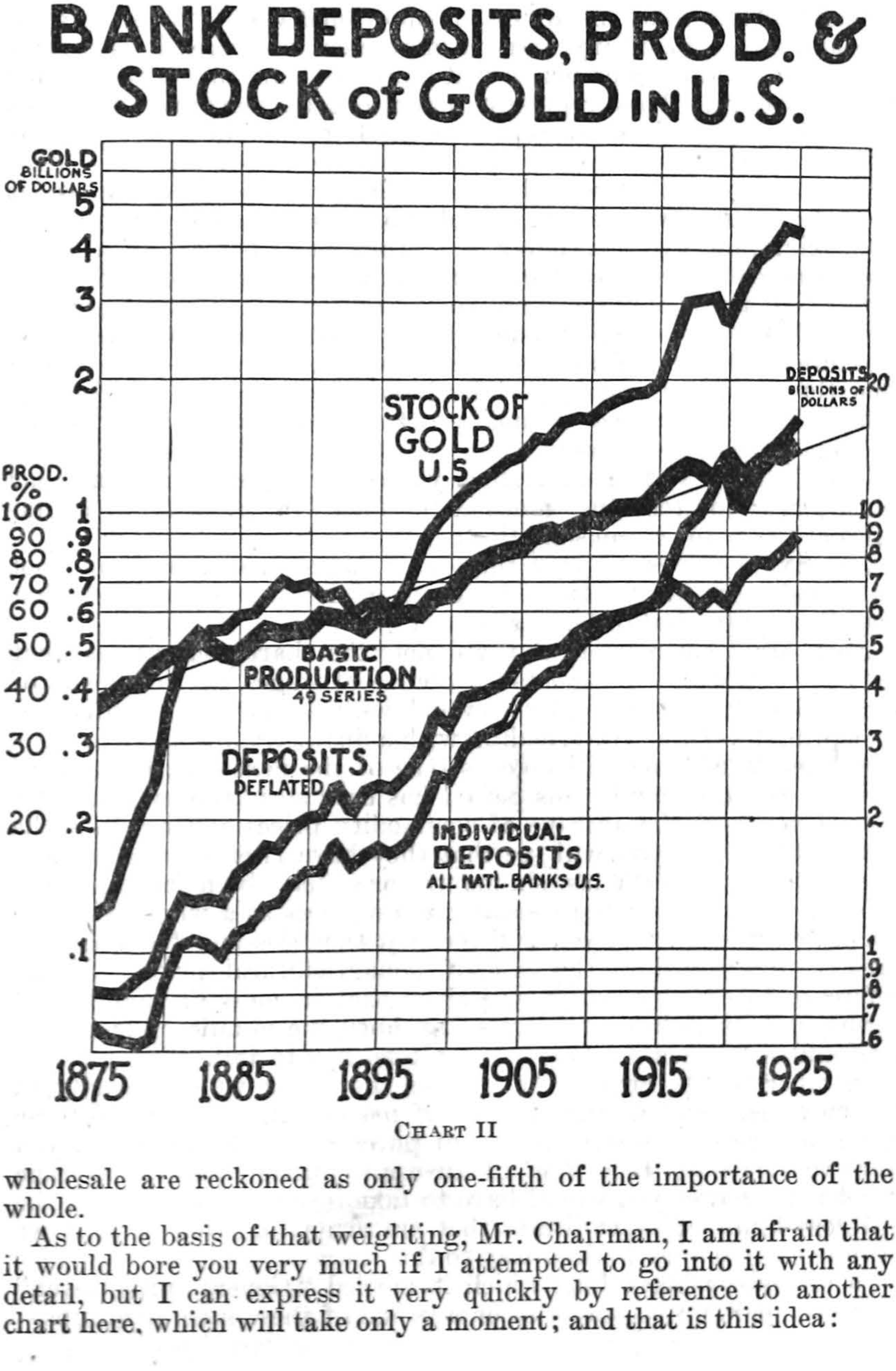


CHART II

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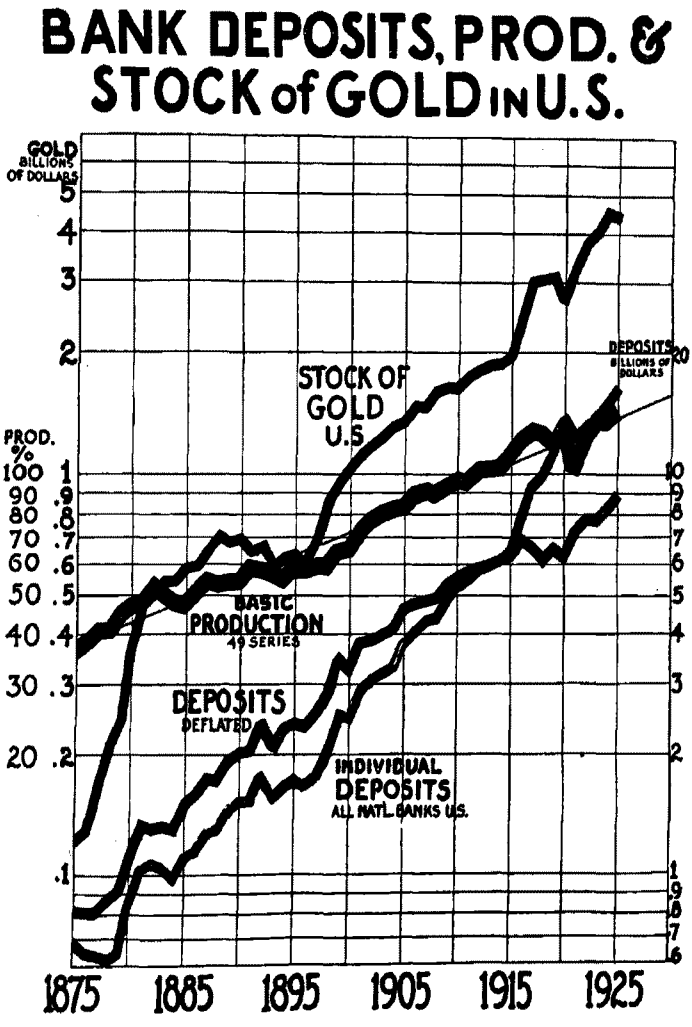


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If you take bank deposits as they are reported and chart them for a long period, you find an irregular line of growth, such as you see here in the lower blue line; but if you take out the element of price change, such as is indicated in this heavy black line of the general price level, you see that the amount of deposits tends to take on a much more regular movement, unaffected by changes in the price level, and that after a certain rather rapid rise the increase in bank deposits, ex-prices, tends to run somewhat at the same rate and in the same way as the increase shown in an index of basic production measured in quantities and not in prices. In other words, what I have inferred from that is that bank deposits represent simply the growth of the volume of business, production, trade, and transportation, and the volume of exchanges, multiplied by the price level. If you take out price changes you have in bank deposits—and I might add, in bank clearings—something approaching to a fair measure of the growth of the actual trade of the country.

Mr. STRONG of Kansas. Why do you take production in volume and not in value?

Mr. SNYDER. Simply to get away, Mr. Congressman, from the effect of changes in value. That was precisely what we wanted to get at—to know what was the actual increase in the physical product of the country, measured in bushels, barrels, tons, and bales.

Mr. STRONG of Kansas. You were trying to get at how much we produced; not what it is worth?

Mr. SNYDER. Precisely.

Mr. STRONG of Kansas. Not what the producer gets for it?

Mr. SNYDER. Precisely.

Mr. STRONG of Kansas. I see.

Mr. SNYDER. Now, Mr. Chairman, by making use of these comparisons we reach a weighting such as I have described for the different factors entering into what I have called the general price level.

The CHAIRMAN. May I interrupt you there? In that connection I notice that you add from time to time new elements. I am wondering how, by comparison, the insertion of those new elements into your consideration affects the charts which have been made previously, without the inclusion of those elements.

Mr. SNYDER. No, Mr. Chairman; I would not like to give that impression of any change in this index. Substantially there is no change back to its base in 1913. It is essentially the same thing.

The CHAIRMAN. You spoke of one instance of including rents, which had not been included previously.

Mr. SNYDER. Yes; but I meant that it was not shown here in this chart.

Now, if you compare such an approximate average of general prices or general purchasing power with the other indexes, you will see, for example, that farm products could rise almost continuously for four years while this general price level was changing very little, and correspondingly in the last six months your farm prices could fall pretty sharply while the tendency of your general price index or the inverse of average purchasing power was upwards. From which I would infer, Mr. Chairman, just what good theory would

suggest, namely, that the prices of commodities are determined largely by the simple laws of supply and demand, relative, of course, to the average purchasing power of your monetary standard or unit, and that that unit may be relatively stable while the prices of individual articles may rise or fall, or even groups of large elements, such as the Bureau of Labor index of commodity prices as a whole.

Incidentally, I should like to draw your attention to the general stability of this group of nonagricultural commodities. This is a rather striking division, showing that there was a general tendency to stability in the last three years in your nonagricultural groups, as in our averages, whereas farm prices, of course, have risen in that time very sharply, and have fallen since. From which I would draw the conclusion suggested, namely, the same that Mr. Wallace makes in the article which I have cited, and that is that even a high degree of stabilization of the purchasing power of money would not necessarily mean the stabilization of farm prices.

Mr. STRONG of Kansas. Do you not think it would be very desirable?

Mr. SNYDER. The stabilization of purchasing power; most decidedly.

Mr. STRONG of Kansas. If the farmer, with all other industries, could be assured of a stable price of commodities in general, he might hope to rearrange his own industry so that he could make a profitable return; but to attempt to do that, and then have the price level fluctuate so that he is still at a disadvantage, it seems to me, is not so desirable as it would be if he could be assured of a stable price level.

Mr. SNYDER. Precisely. But do you not think, Mr. Congressman, that there might be a danger that other prices would be stabilized, namely, the things that he mostly buys, while his own commodities, being so heavily affected by world conditions and surpluses and purchasing power and all, would not be stabilized, and he would be no better off in that regard, as a class?

The CHAIRMAN. Cotton and wheat particularly, being commodities that would be influenced by international prices?

Mr. SNYDER. Yes, sir.

Mr. STRONG of Kansas. But would there not be times when commodities produced by other industries might fluctuate as much as wheat and cotton?

Mr. SNYDER. Undoubtedly.

Mr. STRONG of Kansas. You are taking an example that perhaps will sustain your theory; but suppose that we had different conditions that might stabilize wheat and cotton, and yet the manufacturing industry might suffer from overproduction or lack of consumption. They might have conditions in the world market that would interfere with them.

Mr. SNYDER. Undoubtedly. But the evidence, Mr. Congressman, is apparently that the average of nonagricultural commodities tends to fluctuate rather less than the farm commodities. The Bureau of Labor Statistics has carried back that index to 1910, and perhaps you would be interested to see it.

(See Chart III, p. 591.)

We had in the four or five pre-war years quite extraordinary stability even of commodity prices. I doubt if we have had anything quite like it in a long period of years. So we have not the evidence

as clear then as since the war; but since the war, as you will see, your nonagricultural prices, from going higher, that is to a higher point in 1920, stopped falling in 1921 at around 160, whereas your farm products dropped below 125, or 120, I believe, at the farm; and since then the two lines, just as you would expect, have been tending closer together.

Mr. STRONG of Kansas. Of course, naturally after the war there was a dearth of need for agricultural products. After the war the men who had been consuming food products in the Army were discharged and went back home, and many became producers, and the countries that needed the food to feed them did not have the money to buy; then the deflation came, and the farmer could not find a market for his surplus.

Mr. SNYDER. Well, the other side of the matter, Mr. Congressman, is, of course, that before the war we had exactly the opposite condition, namely, that for a long time food prices and farm prices had been, relative to the average of other commodities, tending to rise.

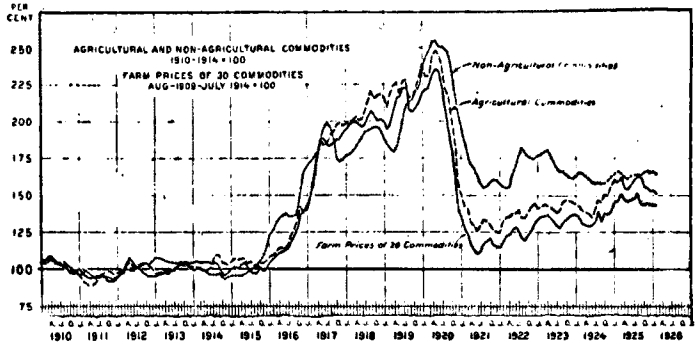


CHART III

Index numbers of wholesale prices of agricultural and nonagricultural commodities and prices received by farmers

In other words, the cost of living was going up, and you remember that about 1911 or 1912 there was a great outcry about the high cost of living, mainly due to the high cost of farm products and foods.

Mr. STRONG of Kansas. That is, the high cost to the consumer?

Mr. SNYDER. Yes; and yet in that time the remarkable thing was that we had, for six or seven years, a greater degree of stability even in commodity prices at wholesale than in almost any other period that I recall or could find, running back for 20, 30, or 40 years. That was the remarkable fact about it.

Mr. STRONG. Do I arrive correctly at your line of argument, that you do not believe stabilization is desirable or that it can not be accomplished?

Mr. SNYDER. Not in the least, Mr. Congressman. I would like to go on to that for a moment a little later. All I am trying to suggest is this: Having been born and brought up in a farming country, close to your own, Mr. Congressman, I know the farmers pretty well,

and I am sure that if it were held out to them that such a measure as this would be a great aid to agricultural—I say I am sure, I feel pretty sure—that it would result in a keen disappointment.

Mr. STRONG of Kansas. Is such a proposition being held out to them?

Mr. SNYDER. I gather from what Congressman Williamson was saying last night that he too felt something of the same kind.

Mr. STRONG of Kansas. But have you any evidence that it is being held out to them that this will be of great benefit to them especially?

Mr. SNYDER. No, sir.

Mr. GOLDSBOROUGH. Might I interject there that Wallace's Farmer itself, in the editorial that you speak of, is disabusing the farmers' minds of that idea.

Mr. STRONG of Kansas. I want to say to you that I do not think there is any intention of trying to fool the farmer in this proposition. I have contended all along that it would be advantageous to all industry.

Mr. GOLDSBOROUGH. Including the farmer.

Mr. STRONG of Kansas. And what helps all industry, I think, will help the men who produce the food to feed industry, as a general proposition. If you can maintain the general price level, I think that the farmer will be benefited as well as all other people except the gambling speculator. I do not think that he will be very greatly helped.

Mr. SNYDER. The farmer might be, at times.

The CHAIRMAN. Mr. Snyder, how many articles go into your compilation of the price index?

Mr. SNYDER. Of this general price level?

The CHAIRMAN. Yes. For instance, included in the index of the Department of Labor I understand there are 404 articles.

Mr. SNYDER. Yes. That is one element.

The CHAIRMAN. How many do you consider in your compilation?

Mr. SNYDER. We take that index as it stands and give that a weight of 20 per cent in the make-up of our index. Then we take a composite of wages and give that a weight of 35 per cent; then we take the cost of living, as made up by the Bureau of Labor Statistics, and give that equally a weight of 35 per cent; and then we take an index of rents made up by the Bureau of Labor Statistics and give that a weight of 10 per cent, adding up to 100 per cent. So all we have done is to take five of the best known indexes of payments that we could find and take a weighted average of those different series. That is all. If we could have gotten at changes in the price of land, real estate and all those things, of securities on the average, and all the rest of the things that are exchanged, we would have included them. We could only deal with the existing material.

Mr. STRONG of Kansas. Is not the cost of living that you add, and wages also, included in the index number used by the Department of Labor?

Mr. SNYDER. Not in the all-commodity index, Mr. Strong. That is an index purely of commodities—cotton, wheat, lumber, etc

Mr. STRONG of Kansas. Wages?

Mr. SNYDER. No; there are no wages included in that. The wage index is a separate affair. It is entirely distinct, and that is

similar to the wage index that we have used here. Wages are not included in the commodity price index—the Bureau of Labor index of commodity prices at wholesale.

Mr. STRONG of Kansas. I am frank to say to you that that is a surprise to me. I had supposed wages were included in that calculation.

Mr. SNYDER. No, sir. So far as I know there has never been an attempt to combine the two.

Mr. STRONG of Kansas. As I understand your chart there, wages are now about 30 per cent higher than your general price level?

Mr. SNYDER. Thirty points, or, say, 17 per cent.

Mr. STRONG of Kansas. And about 45 per cent higher than the cost of living?

Mr. SNYDER. Not quite that much.

Mr. STRONG of Kansas. Well, right close to 45 per cent?

Mr. SNYDER. Forty-five points, rather.

Mr. STRONG of Kansas. And about 75 per cent higher than farm prices?

Mr. SNYDER. Farm prices are now in the neighborhood of 145 on the index, and wages nearing 218.

Mr. STRONG of Kansas. It is about 75 per cent?

Mr. SNYDER. It would be nearer 50 per cent difference, Congressman; 75 points, would you not say?

Mr. STRONG. It would be about 75 points, according to your chart.

Mr. SNYDER. Yes; 75 points. But if you take it as an increase over 140 or 150, it would be about one-half.

Mr. STRONG of Kansas. Oh, yes. From the basic level, you mean?

Mr. SNYDER. Yes.

Mr. STRONG of Kansas. But as they exist on the chart it is about 75 points higher than farm products?

Mr. SNYDER. Precisely.

Now, that disparity, Mr. Strong, has developed at other times. As you will observe by another chart here, which compares an index of wages over a long period with commodity prices, you will see that commodity prices in the Civil War rose very rapidly, while wages did not rise nearly so much, apparently, and after the Civil War commodity prices came down rapidly while wages did not. Then you come to a period after the nineties when wages and commodity prices moved upwards at something like the same rate. In the World War they moved up at very nearly the same rate, but since the war their course has been markedly different.

(See Chart IV, p. 594.)

Now, Mr. Chairman, we have been in those 50 years, and for the last 100 years, changing, of course, from an essentially agricultural to an industrial régime in this country, and whereas wage payments in the earlier day were relatively small compared with the total value of products, to-day they are very high. The total value of all the commodities sampled in the Bureau of Labor index, I believe, runs to something like $32,000,000,000, or did at the last make-up, where as your wages would now be running probably considerably above that—35 or 40 billions of dollars, at least. So in considering the average purchasing power of a day's wage, or of the dollar, it

seems to me you must just as much consider your wage payments as your commodity prices at wholesale, since commodity prices at wholesale again constitute but a small part of the total exchanges of goods of the country.

The total of all checks drawn in the country now runs to the staggering sum of something like 600,000,000,000 of dollars a year, as we have computed, and your cash payments would probably run at

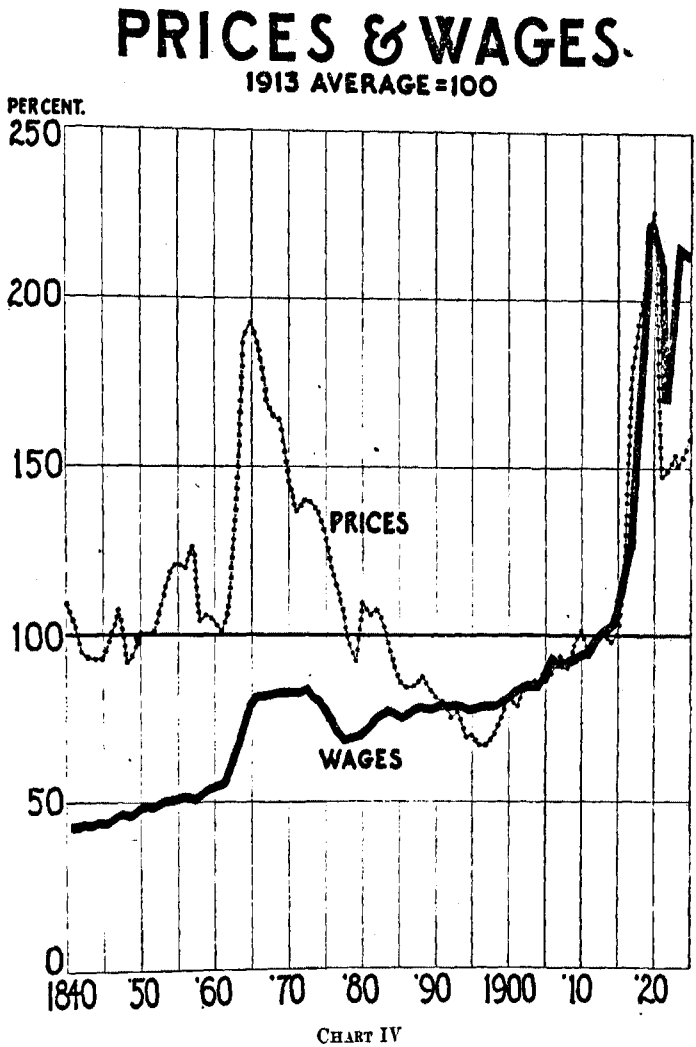


CHART IV

least a hundred billions more. That makes $700,000,000,000 of exchanges actually effected for goods and services and property in the country.

That is why, Mr. Chairman, I do not think that we can any longer consider an index of commodity prices alone as a fair measure of the average purchasing power.

Now, if I may, I will say just a word on what seems to me the larger question of stabilization, namely, our relationship to gold in our present banking system.

The CHAIRMAN (interposing). I would suggest that this chart headed "Bank deposits, production and stocks of gold in United States," be inserted in the record at this point.

Mr. SNYDER. I will be very glad to do so.

(See Chart II, p. 588.)

Mr. SNYDER. You will see that in the last half century there have been three periods of very rapid increase in our stock of gold. One was just preceding the resumption in 1879—a very lucky circumstance for us then; the other was following the extreme depression of the nineties, 1893 to 1897. From then on, for 10 or 15 years, you had a very rapid rise of the gold stock, and then, of course, in and following the World War.

The CHAIRMAN. I notice on the chart there was a period about 1896 when gold began to rise. Did the discussion which took place at that time on free silver and the gold standard have anything to do with that, in your judgment?

Mr. SNYDER. No, Mr. Chairman. That was due to a combination—I might almost say a concussion—of circumstances. One was the discovery of the great deposits in the Rand, and large deposits, also in Australia; secondly, the introduction of the pneumatic drill and dynamite blasting which greatly reduced the expenses of operation; and, third, the cyanide process, which greatly increased the amount of gold recovered from the crush and reduced the expense of recovery.

This peculiar combination, which began to take effect in the early nineties, was going on steadily, and everybody who was then watching the thing saw a flood of gold coming; so that the depression in the United States—which was more or less, of course, world wide—had no more to do with that than with the weather. It was something that was coming, and has been almost continuously operative since. (See Chart V, p. 596.)

The CHAIRMAN. The fact, then, that we confirmed the gold standard at that time did not have any bearing on the rise in the amount of gold in the United States?

Mr. SNYDER. That would be a very large question to answer, because undoubtedly the demand from the United States for gold for monetary purposes might affect—shall I say the price of gold, in commodities? But materially speaking, I should say that it had no great effect.

Mr. STRONG of Kansas. Would not the continued prosperity of this country and its development and growth tend to draw to this country the gold that was being increased in production throughout the world?

Mr. SNYDER. Undoubtedly, Mr. Congressman.

Now, you will note, Mr. Chairman, that those three periods—I have not a chart here, but it is a fact—those three periods of heavy gold imports were concomitant with a very marked rise in prices in the country, an expansion of bank credit, as evidenced in bank deposits, and consequently an expansion of bank credit beyond the needs of business, which is always represented by a rise in prices.

The importance of this, Mr. Chairman, is simply this: In the last four years we have imported a large quantity of gold, it is true, some $650,000,000 net, but by fortunate circumstance this has not had its normal effect upon the price level which would otherwise have been the case under what you might call average or usual conditions. The banks of the country were heavily indebted to the Federal reserve banks; there was a concerted movement to reduce that indebtedness,

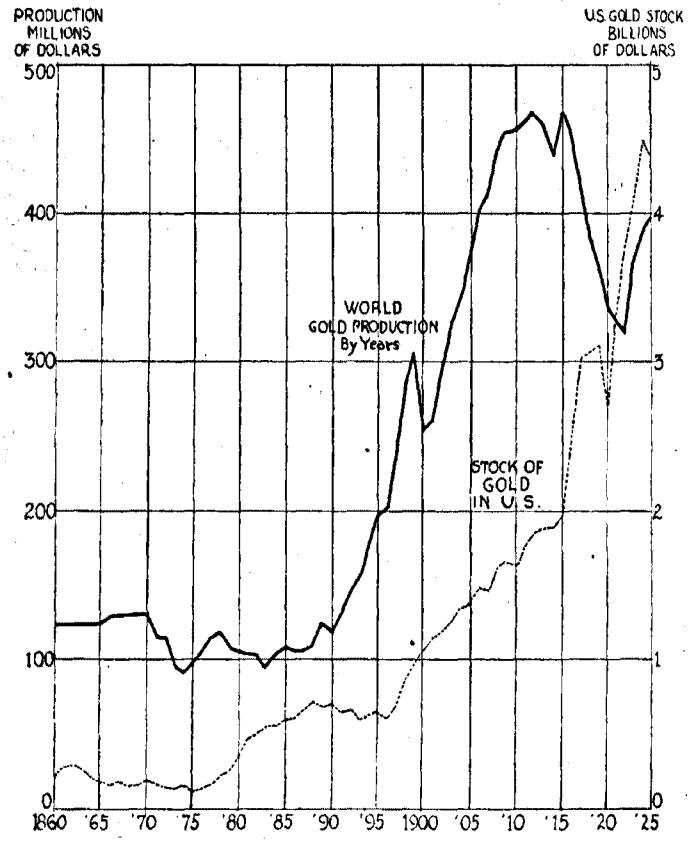


CHART V

World production of gold and United States stock of gold

and they used the gold that came through the banks to pay off that indebtedness.

At the same time gold production has continued at not far from the same level as before the war—some decrease, but not a great decrease—so, as we are the principal country which has maintained a free gold market we should have gotten most of the gold produced since the war if it had not been for a singular circumstance, and that was the heavy balance of payments due to India. In something like 40 or 50 years, I think, India was supposed to have absorbed something like a billion dollars of gold, or it may be more. In the seven years, Mr. Chairman, since the war they have absorbed a

billion and a quarter dollars. They have taken over a billion in the last four years. One of my colleagues at the bank has made an estimate that India and the arts have accounted for or absorbed all the new gold produced, so that this $650,000,000 which we have imported in the same four years has come from the existing stock in other countries.

The CHAIRMAN. How do they consume it in India?

Mr. SNYDER. They absorb it. They are wonderful purchasers of gold for jewelry and plate—gold plate and even gold bars. They regard gold as some people do the purchase of diamonds, as a good investment. It is their most stable investment, as they consider it; and they have consumed or absorbed in the last four or six years a simply staggering quantity.

The CHAIRMAN. Is there any data to indicate how much gold is stored in India and might it not come back into the channels of credit?

Mr. SNYDER. Only the vaguest, of course; but it might easily run to a billion and a half dollars, or more.

Mr. Chairman, I speak of this simply to show that if it had not been for this favoring wind of circumstance, literally these favorable monsoons, so that India could absorb or purchase this gold, all that surplus that has gone to India would probably have come to this country, because we were the only large free market; and I do not think then that the general stability of prices and credit which has been shown in this country in the last three or four years could have been maintained without resort, as Governor Strong suggested, to other means of control.

The CHAIRMAN. How, under the circumstances, did this gold happen to go to India? Were they bidding a higher price for it?

Mr. SNYDER. Naturally. That is the only method by which gold can move anywhere, actually. In that sense gold is a commodity, and is bought at a price, in London, we will say. London is the gold-buying center.

It seems to me that in considering the question of stabilization this is a very important end of it, and indicates, I believe, just what Governor Strong was saying yesterday afternoon, that there are very distinct limits as to what could be done under existing powers against a further flood of gold such as we had in and after the war.

Mr. STRONG of Kansas. Granting all that you have said, is not that all the more an argument why the Government should direct its great financial agency to do all that it can toward stabilization; to use all the powers that it has toward that end? The very fact that it has powers in that direction seems to me all the more argument why the Government, through the Congress, should direct the great financial agency of the Government to use every power that it has toward solving the problem of stabilization.

Mr. SNYDER. What if it fails, Mr. Congressman?

Mr. STRONG of Kansas. If it failed, the law would have done no harm. The difference is whether you say to a man, "Follow your own inclination, and win or lose," or "We will direct you to work to win."

Mr. SNYDER. You do not think, Mr. Congressman, that it would inevitably build up in the public mind the idea which is so evident

in hundreds of different ways, that the Federal reserve system is some kind of an almighty power; that it can do anything?

Mr. STRONG of Kansas. Do you not think it is in the minds of the American public right now that it does do a great many things that it perhaps ought not to do, whether it is true or not?

Mr. SNYDER. I should rather doubt that. I do not know.

Mr. STRONG of Kansas. Well, I have been all over the country, and I get a lot of reaction to that sentiment.

Mr. SNYDER. Well, you would know that, Mr. Strong, far better than I would in New York.

Mr. STRONG of Kansas. But in either case, what harm could it do for the people to know that this Government had adopted the policy of instructing its great financial agent to use every power that it had toward the general stabilization of prices? All they could say to the people would be, "Well, we did the best we could and failed." Would not that be better than to lead them to conclude, after a failure, that we had not done all we could?

Mr. SNYDER. But supposing that the critics came forward and suggested that it had been done badly—that they had done it all wrong?

Mr. STRONG of Kansas. Well, would that be any different from not having instructed them to do the best they could?

Mr. CANFIELD. Have they not already done that?

Mr. SNYDER. Badly, Congressman?

Mr. CANFIELD. You hear that criticism. They say they have. I do not say they have.

Mr. SNYDER. Yes. Probably they can never escape criticism, because that is one of the favorite amusements of the American people.

Mr. STRONG of Kansas. The same thing happens to Congress, I might interject. We are criticised no matter how conscientiously we may endeavor to do what we think is right.

Mr. GOLDSBOROUGH. What the committee is trying to do is to go as far as legislation can in correcting a very manifest evil. You have described it here. You have said that in the importations of gold naturally credit was expanded and naturally prices rose and naturally, again, when all that has taken place, you have either to maintain that tremendous structure of credit which has been superimposed or you have a period of deflation. That is manifestly an evil, and if the Federal reserve system can be assisted by legislative direction in maintaining its efforts, and if it is making an effort—and I believe it is—to establish and maintain stabilization, it seems to me you have to give this committee a better reason for not doing it than because the system will be subjected to criticism of various kinds.

We have had a great many objections of this kind, to this legislation; that is, that the Federal reserve system would be subjected to criticism. That is not a fundamental reason; it is not a reason that would last. If the Federal reserve system is improperly criticised, the Federal reserve system, aided by its friends, will have to make a declaration and say it has done as well as possible under the circumstances, just as when the Federal reserve system was criticised for the alleged deflation in 1921. While they were probably largely improperly and unfairly criticised, explainations have been gradually made and people have been made to see that, but it does seem

to me that there should be some greater objection to the legislation than that it would subject the board to criticism.

I will tell you what I am afraid of. Governor Strong, in his testimony, emphasized, in answer to the question as to what was done by the system in 1923, first to correct apparently a period of inflation and then change a seller's market into a buyers' market, that it was easy to do. then because the public and the business world had their minds focused on the evils from this inflation and subsequent deflation, but without legislative direction, without something to assist the board, in future years, when people forget gradually the evils of the past which have resulted from time to time from inflation and deflation, it will be continuously harder for the system to function as it should. But, if you have legislative direction which tells you to do that, anl to say, when pressure is brought on, "we are directed by statute to maintain stabilization in so far as we can," you will be fortified. That is not exactly a question, but is an observation I should like to have you comment on.

Mr. SNYDER. Mr. Chairman. I was brought up in what seems to be now a rather antique school of economics; namely, that a minimum of government is the best government. My observation is that people at large have extremely little interest in monetary problems except when their pockets are touched especially; in other words, when they have met with losses. Then the interest is acute, for the time being, and then it falls. I have not observed many economists in great degree of agreement as to questions of monetary policy or even the relation between money and prices. If economists can not agree, how about the general public, who have given little attention or thought to the matter, and to a matter that seems to be, to many minds, extremely difficult?

You remember, Mr. Congressman, historically, the fate of a central banking system in this country—perhaps I should have said a coordinated banking system—and that it has been rather sad. We started off with a Bank of the United States that was probably as well run as it could possibly have been under the circumstances. Its management seems to have been singularly able in every way except perhaps to cater to the desires of the different communities for branches of that bank. At any rate, that bank failed to receive a recharter; and then, after the War of 1812, the bank that was reestablished—that bank also was admirably run, at least for a considerable period, and nevertheless the prejudice against coordinated banking apparently was so strong as to again defeat the renewal of the charter.

I think Congressman Strong probably has in mind something of that same prejudice that exists probably in many sections of the same sort against the Federal reserve system to-day, frequent charges that it is being run in the interest of Wall Street and speculation and heaven's knows what, and those charges made not by some populist orator in the West but even by our approved journalists of New York.

Mr. STRONG. I am glad to hear there are some Bolsheviks in the financial circles of New York. I have always suspected it.

Mr. SNYDER. I can not help thinking that the most desirable thing that could be achieved would be to keep the Federal reserve system out of politics for the next 10 years; and if it could go along untram-

meled, maintaining, as I see it—and I speak now as an impersonal and outside observer—maintaining as wise a tradition and as far-sighted a policy as it has, as I believe in the last four or five years at least, then I think we should have a tradition in this country growing toward, for example, as strong a place in the estimation of the people of this country as the Bank of England occupied in the British Empire.

The CHAIRMAN. Will you not give the committee a definition of political interference with the Federal reserve system, such as you refer to?

Mr. GOLDSBOROUGH. I suggest Mr. Snyder finish his answer.

Mr. SNYDER. That was the finish of it.

The CHAIRMAN. The committee has heard about political interference with the Federal reserve system. Now, will you tell the committee just what you have in mind?

Mr. SNYDER. Endless proposals.

The CHAIRMAN. Proposals of what nature?

Mr. SNYDER. Of almost every kind. Have we not had proposals that the Federal banks should directly make loans to farmers, or to special groups of citizens, and everything of that sort?

Mr. STRONG. Not by any act of Congress.

Mr. SNYDER. No; I did not mean to suggest that.

Mr. STRONG. You would not say it was political interference, because some fellow wrote a wild article and had it published?

Mr. GOLDSBOROUGH. As I have understood the testimony on the part of Governor Strong and yourself, the policy of the Federal reserve system is to carry out just what would be this legislative direction. If that is the policy of the system and the system thinks it is a wise policy, but that it is doing it on its own initiative and exercising its own judgment in the matter of the welfare of the country, what is the objection to crystallizing, in legislation, that very policy in order to fortify the Federal reserve system in the future, in carrying out in the future what it thinks is a wise economic policy and tradition?

Mr. SNYDER. As I recall, Mr. Congressman, that question has been gone into considerably, and you will hear from other governors no doubt, and from the Federal Reserve Board, and I should very much prefer, if it is your pleasure, that questions such as that be left to them. I should prefer to deal with what I call the technical and economic side of the question.

Mr. GOLDSBOROUGH. But you have, in your testimony, dealt with this very thing. However, if you prefer not to go any further, I shall not insist on an answer.

Mr. SNYDER. I have given the best answer that I know of, Mr. Congressman—I mean that I could make personally—and that is that the less—shall I say the least of governmental direction, perhaps, might be better.

Mr. STRONG. As I understand you, your position is that the Federal Reserve Board or the Federal reserve system are doing the things now that we are seeking to establish as a policy, and your idea is that we should not direct them by law to keep on doing it. Now, let me put this point to you: I hire you to do a job of work. You say, "I am doing a good job; I do not want you to write in

the contract that I shall go on and continue to do a good job for fear I might be criticized."

Mr. SNYDER. Mr. Congressman, you do not usually write in a contract, "You will please go ahead and do the best you can."

Mr. STRONG. No, but I always write in the contract that they shall do the things that an ordinary skilled mechanic should do, and I have written a great many. I never write into the contract, "Go ahead and follow your own policy and I shall not direct the line of policy." Another thing: I believe Governor Strong and the other witnesses who have come before this committee, have practically convinced the committee of the truth of your statement when you say that, for the last three or four years, the Federal reserve system has been going along and going a great work, preventing inflation and deflation, in its own way. But suppose Governor Strong should pass away and action should be taken, as was taken shortly after the war, the policy of which has been variously criticised, would not then the people say, "Why did not Congress direct that board to keep on doing the work they were doing?"

Mr. SNYDER. Well, Mr. Chairman, does not the appointment of any officer of the Government, or, for example, of any officer of any company more or less presuppose the idea that he will fulfill his task the best way he knows how?

Mr. STRONG. Certainly, and if the best way is to try to prevent inflation and deflation—and we acknowledge that the experience of the past three or four years establishes the fact that that is the best policy—I cannot understand the argument against this proposal—"that is what we are doing, but we do not want you to establish a policy by legislative act that we shall do it."

The CHAIRMAN. One of the reasons urged is that it places a limitation on the very acts they are carrying on.

Mr. STRONG. A limitation?

The CHAIRMAN. Upon the work they are already doing.

Mr. GOLDSBOROUGH. He said yesterday afternoon it would not do it.

Mr. STRONG. They have already power now, and when you put in the bill all the powers of the Federal reserve system shall be used to promote stability, it does not seem to me to be a restriction.

Mr. SNYDER. If we should be inundated with another flood of gold, so, as practically, to clean out the Federal reserve banks of available securities and bills with which to meet that in any way, they would come to the end of their tether, as Governor Strong said yesterday.

Mr. STRONG. Would they not come to the same end without legislation?

Mr. SNYDER. You do not think that the inevitable effect of any kind of legislation of this type would be to further the idea that I spoke of, that the Federal reserve system is some all-powerful father of business and trade and prices, getting away from what seems to me the fundamental idea of government, that the least government is the best.

Mr. STRONG. That may be, but we have set up, as an act of government, what we say is the greatest financial system in the world. We have gotten away from the least government being the best and we have set up a very delicate machine that we say is

the best. Along in the year 1920, the Federal reserve system took action that has been universally criticized throughout the Nation. Now, for three or four years, they have been adopting a policy that I believe will be generally commended. Now, do you mean to say it will be a greater direction of government or such a direction of government as to interfere, to say, "Keep on adopting that policy?"

Mr. SNYDER. I pointed out that the success of the policy was largely dependent on the singular acts of the weather on the other side of the world, namely, the monsoon, and the Federal reserve system would have had a far more difficult task to meet if India had not been able to absorb, in the last three or four years, a billion dollars of gold. That would have been, I believe anyone would agree, a very serious difficulty.

Mr. STRONG. That might all have been, but the fact that this legislation is enacted into law would not have changed that thing. As I understand your only possible objection to it is that some people in the country might think it could do the thing when it could not. If it could not do it, it could not do it without this legislation, and my friend suggests that if the Federal Reserve Board found it could not carry out the policy successfully and needed legislation to help them, they could come here and ask for that legislation.

Mr. GOLDSBOROUGH. You might have to raise your reserve rate or something of that kind.

Mr. SNYDER. Higher interest rates would tend to attract more gold and not less. If our interest rates were raised very sharply, we should draw funds and eventually gold from England and abroad where we have now considerable deposits. It would have an adverse effect, raising the rates, as far as the question of the flow of gold was concerned. For a century or more the Bank of England's traditional policy has been to raise the rate when it needed gold.

Mr. GOLDSBOROUGH. I said the reserve rates—the gold reserve requirements was what I had in mind.

Mr. STRONG. But the Bank of England is not managed by bankers.

Mr. SNYDER. They have been pretty good bankers.

Mr. STRONG. That is possibly true.

Mr. GOLDSBOROUGH. I do not suggest raising the reserve requirements. I suggested, carrying out Mr. Strong's suggestion, that the Federal Reserve Board could come to Congress and say, "We can not maintain this policy in a satisfactory manner and you will have to give us additional legislative power."

Mr. STRONG. Do you think that the Federal reserve system is entitled to any share of the credit given them in the public press lately for taking part in stopping the deflation in stocks that happened a short time ago?

Mr. SNYDER. I would prefer, Mr. Congressman, not to go into questions of that kind further than to say I do not think that is any concern of the Federal reserve system in this country any more than to interfere with the price of cottage cheese.

Mr. STRONG. That might be, but I want to say that there was quite a strong sentiment throughout the country, right or wrong, that they do take a little more interest in it than they do in the price of cottage cheese.

Mr. GOLDSBOROUGH. You have advocated or suggested some plan, have you not, for the valorization of gold?

Mr. SNYDER. That would be nothing more than a development along the lines I have just been talking about, the idea that you must meet the question of gold inflow in some way if it comes.

The CHAIRMAN. I think you cover your thought in this article that I have referred to on stabilization of gold.

Mr. SNYDER. That article was written three or four years ago and I think we have learned, Mr. Chairman, a great deal since that time. That was written at a time when public opinion was rather inchoate, and I think now we are developing a policy which would probably meet, so far as possible, the points raised in that essay.

Mr. GOLDSBOROUGH. Will you proceed now with a discussion of the valorization plan that you had in mind?

Mr. SNYDER. It was simply the idea that we must find some manner of means to neutralize any excessive inflow of gold beyond the needs of the country. As to what form that should take, Mr. Chairman, opinions would differ widely. It is a question that has been met experimentally, in the last four years, it seems to me, with a high degree of success. I should like to see three or four more years under different conditions, perhaps, before I should want to make up my mind as to what should be done other than is being done.

Mr. GOLDSBOROUGH. Now, let us assume that this legislation was passed and there was a great influx of gold and the Federal reserve system felt it had to come to Congress. Would not Congress immediately call together specialists such as yourself and others, in order to work out some plan which would put the Federal reserve system back into a position where it could carry out this policy and continue to carry out the policy?

Mr. SNYDER. It could be no more, as I see it, than a continuation of just what has been the general policy in this period; namely, the attempt to adjust the volume of credits so far as it may be controlled, to the needs of business, which, inevitably, in my judgment, means the largest obtainable degree of stabilization which we can achieve. That adjustment, I think the last three or four years have taught us, can not be as precise as some of us were inclined to think some years ago; and I will illustrate that. Right here, in the last four years, has been an increase of banking credit at a considerably greater rate than the increase, as we measure it, of production and trade; in other words, the volume of business. So far it seems to have had, according to various measures of prices, apparently less effect than might have been expected.

Mr. GOLDSBOROUGH. Was not that because a large part of that credit had become crystallized.

Mr. SNYDER. Possibly so. I do not think that is a question that anyone could answer offhand or offer experimental proof; but the fact is that we had an increase in the last four years of more than one-third in our volume of demand deposits, but I do not think that anyone would suggest that the trade of the country in that time has grown much more than half that amount. The average rate of growth appears to be, according to various measures, something like 3½ or 4 per cent per annum, and yet, in spite of this difference, it has not yet much affected the general price level. Personally it

would seem to me to suggest that the price level may more likely rise in the next year or two—the broad average—than seriously to fall; but it remains to be seen whether that will be the effect or not. It is very difficult to say, and that is one of the things that makes this whole question so difficult to handle—the conflicting evidence or the absence of clear evidence.

The CHAIRMAN. If you desire to add anything to what you have said, you will have that opportunity.

Mr. SNYDER. I thank you very much.

ADDED STATEMENT OF CARL SNYDER

NOTES ON WAGES AS AN ELEMENT IN THE GENERAL PRICE LEVEL

Mr. SNYDER. In the testimony following, Mr. Ethelbert Stewart suggests that wages are actually included in the Bureau of Labor Statistics index of commodity prices at wholesale, and that to combine this index with a composite index of wages is a duplication, in view of the fact that wages form an essential part in the make-up of the prices of almost every commodity. This is, in a broad sense of course, true, since the labor cost or wages paid is the foundation of nearly all value. But it is evident that the trend of wage rates, or workingmen's earnings, may at times be quite markedly different from the trend of commodity prices; and this is especially true in the case of such an index of commodity prices as the Bureau of Labor index, so heavily weighted (slightly more than half) by food and farm prices.

It is clear enough that at times an index of weekly earnings of factory operatives, or of building wages, or clerical wages, or teachers' salaries, or the rates for unskilled labor paid by large enterprises, may be a very different thing from such an index of commodities; and this is precisely what we find. Taken on the basis of 1913, commodity prices are a little more than 50 per cent above the pre-war level, while the average of factory and urban wages is more than 100 per cent. And all this has a very definite bearing upon the question of the average purchasing power of the dollar. That average is not merely a question of what a dollar will buy in commodities, but what wages will buy of the necessities of life, commodities or service, or what the employer's salary list will produce him in goods, and so on.

I have pointed out in the foregoing pages that wages now constitute a very important part of the monetary exchanges of the country, and the wage level, therefore, has its portion of effect in the average purchasing power of money. And it is perfectly evident that this is not adequately measured at the present time by an index of commodity prices at wholesale.

What we have aimed at in what we call our index of the general price level is an approximation toward an average of all types of payments, either for commodities or for services or for property. It is extremely difficult to obtain indexes of the changing value of different types of property; but it is not difficult to measure the changing rate of payments for wages, nor for the average cost of living, nor for rents; and the inclusion of these different elements of prices is justified by precisely such wide variations between these different elements as we find, especially, within the past six or eight years.

STATEMENT OF ETHELBERT STEWART, UNITED STATES COMMISSIONER OF LABOR STATISTICS

The CHAIRMAN. Mr. Stewart, as you probably know, the committee has under consideration a bill introduced by Congressman Strong proposing to give the Federal Reserve Board power to influence stabilization. Knowing that you have charge of the price index of the Department of Labor, which is one of the standards of the country, the committee would like to hear you on that subject in any manner you would like to discuss it.

Mr. STEWART. My understanding was that the committee wanted to know how this index was constructed and what it meant.

The CHAIRMAN. That is one of the things; yes, sir; and any other suggestions you may see fit to give us on that subject.

Mr. STEWART. The Bureau of Labor Statistics collects wholesale prices on 526 articles that, at the time—speaking now of 1919—were valued at $1,000,000 or more each. Of the 526 articles we were able to secure the weighting for only 404. By weighting I mean the volume of that article which enters into commerce or is sold—sold as distinguished from used. For instance, I mean such articles as hay. A farmer's hay that he feeds, we do not consider. Hay that he sells we do. Those 404 articles, with their weights, are in this statement which I will now present for the record.

The CHAIRMAN. Without objection, this statement will be inserted in the record as part of the remarks of Mr. Stewart.

(The statement referred to is as follows:)

TABLE OF WEIGHTS USED IN CONSTRUCTING REVISED INDEX NUMBERS OF WHOLESALE PRICES OF UNITED STATES BUREAU OF LABOR STATISTICS

The weighting factors used in constructing the revised index numbers of wholesale prices computed by the United States Department of Labor, through the Bureau of Labor Statistics, are contained in the table which follows. The figures are taken from the 1919 census, supplemented in some instances by information from other Government sources and from trade associations, etc. In each case the figures represent, as nearly as could be determined, the quantity of the article sold in the markets in 1919. For commodities represented by more than one series of price quotations, the total quantity marketed has been apportioned among the several markets or grades of the commodity in proportion to their relative importance.

FARM PRODUCTS

(a) Grains:		
Barley, malting, Chicago	bushels	57,705
Corn, Chicago—		
Contract grades	do	164,459
No. 3 mixed	do	246,689
Oats, contract grades, Chicago	do	325,609
Rye, No. 2, Chicago	do	88,909
Wheat—		
No. 1, northern spring, Chicago	do	72,534
No. 2, red winter, Chicago	do	305,358
No. 2, hard winter, Kansas City	do	285,799
No. 1, northern spring, Minneapolis	do	104,378
No. 1, white, Portland, Oreg	do	39,747
(b) Livestock and poultry:		
Cattle, steers, Chicago—		
Choice to prime	100 pounds	45,450
Good to choice	do	90,901

(b) Livestock and poultry—Continued.		
Hogs, Chicago—		
Heavy	100 pounds	32,775
Light	do	98,327
Sheep, Chicago—		
Ewes, native, all grades	do	2,259
Lambs, western, good to choice	do	7,906
Wethers, fed, good to choice	do	1,129
Poultry, live fowls—		
Chicago	pounds	299,223
New York	do	299,224
(c) Other farm products:		
Beans, medium, choice, New York	100 pounds	8,709
Clover seed, contract grades, Chicago	do	467
Cotton, middling—		
New Orleans	pounds	3,806,921
New York	do	1,903,461
Cottonseed, average price at gin	tons	4,069
Eggs, fresh—		
Firsts, western, Boston	dozens	107,273
Firsts, Chicago	do	297,545
Extra firsts, Cincinnati	do	32,386
Candled, New Orleans	do	32,386
Firsts, New York	do	387,619
Extra firsts, western, Philadelphia	do	110,314
Extra pullets, San Francisco	do	44,531
Flaxseed, No. 1, Minneapolis	bushels	22,030
Hay—		
Alfalfa, No. 1, Kansas City	tons	5,648
Clover, mixed, No. 1, Chicago	do	3,116
Timothy, No. 1, Chicago	do	3,408
Hides and skins—		
Calfskins, No. 1, country, Chicago	pounds	152,926
Goatskins, Brazilian, New York	do	132,905
Hides, heavy, country cows, No. 1, Chicago	do	371,746
Hides, packers, heavy, native steers, Chicago	do	371,747
Hides, packers, heavy, Texas steers, Chicago	do	371,747
Hops, prime to choice—		
New York State, New York	do	4,258
Pacifics, Portland, Oreg	do	25,551
Milk, fresh—		
Chicago (vicinity)	quarts	4,052,905
New York (vicinity)	do	5,066,131
San Francisco (vicinity)	do	1,013,226
Onions, fresh, yellow, Chicago	100 pounds	5,773
Peanuts, No. 1, Norfolk, Va	pounds	751,982
Potatoes—		
White, good to choice, Chicago	100 pounds	72,355
Sweet, No. 1, Philadelphia	⅝ bushel	12,067
Rice, New Orleans—		
Blue Rose, head, clean	pounds	742,836
Honduras, head, clean	do	346,366
Tobacco, Burley, good leaf, dark red, Louisville, Ky.	100 pounds	15,116
Wool, Ohio, Boston—		
Fine clothing, scoured	pounds	146,851
Fine delaine, scoured	do	55,069
Half blood, scoured	do	73,426
One-fourth and three-eighth grades, scoured	do	91,782
FOODS		
(a) Meats:		
Beef, fresh—		
Carcass, good native steers, Chicago	pounds	2,484,747
Sides, native, New York	do	2,484,747
Beef, salt, extra mess, New York	barrels (200 pounds)	650

(a) Meats—Continued.		
Hams, smoked, Chicago	pounds	1,383,017
Lamb, dressed, Chicago	do	339,505
Mutton, dressed, New York	do	169,752
Pork, fresh—		
Loins, Chicago	do	454,762
Loins, western, New York	do	454,761
Pork, cured—		
Mess, salt, New York	barrels (200 pounds)	6,909
Sides, rough, Chicago	pounds	691,508
Sides, short clear, Chicago	do	691,508
Poultry, dressed—		
Hens, heavy, Chicago	do	274,388
Fowls, 48–56 pounds to dozen, New York	do	274,388
Veal, dressed, good to prime, New York	do	422,928
(b) Butter, cheese, and milk		
Butter, creamery—		
Boston—		
Extra	do	31,209
Firsts	do	109,229
Seconds	do	15,604
Chicago—		
Extra	do	79,292
Standards	do	277,523
Firsts	do	39,646
Cincinnati—		
Extra	do	1,849
Centralized firsts	do	6,473
Centralized seconds	do	925
New Orleans—		
Fancy	do	11,443
Choice	do	26,700
New York—		
Extra	do	76,518
Firsts	do	267,814
Seconds	do	38,259
Philadelphia—		
Extra	do	17,569
Extra firsts	do	61,492
Firsts	do	8,785
St. Louis—		
St. Louis, extra	do	38,143
San Francisco—		
Extra	do	14,217
Prime firsts	do	33,173
Cheese, whole milk—		
American twins, Chicago	do	390,640
State, fresh flats, colored, average, New York	do	81,281
California flats, fancy, San Francisco	do	20,690
Milk, fresh. (See Farm products.)		
Milk, condensed, 14-ounce tins, New York	cases	16,643
Milk, evaporated, 16-ounce tins, New York	do	29,125
(c) Other foods:		
Beans, medium, choice. (See Farm products.)		
Bread—		
Chicago	pounds	2,680,740
Cincinnati	do	400,680
New Orleans	do	381,600
New York	do	5,571,360
San Francisco	do	505,620
Cocoa, beans, Arriba, New York	do	348,758
Coffee, Rio, No. 7, New York	do	1,252,434
Copra, South Sea, sun dried, New York	do	167,820
Eggs, fresh, dozen. (See Farm products.)		

(c) Other foods—Continued.

Fish—		
Cod, large, shore, pickled cured, Gloucester, Mass	100 pounds	1,394
Herring, large, split, New York	barrels	495
Mackerel, salt, large, 3's, Boston	do	121
Salmon, canned, Alaska, red, factory	dozens	27,079
Flour, rye, white, Minneapolis	barrels	2,575
Flour, wheat—		
Winter patents, Kansas City	do	36,676
Winter straights, Kansas City	do	12,225
Standard patents, Minneapolis	do	39,181
Second patents, Minneapolis	do	13,060
Patents, Portland, Oreg	do	13,895
Patents, soft, winter, St. Louis	do	8,818
Straights, soft, winter, St. Louis	do	2,939
Patents, Toledo	do	6,814
Fruit, canned, New York—		
Peaches, California, standard 2½'s	cases	10,457
Pineapples, Hawaiian, sliced, standard 2½'s	do	10,457
Fruit, dried, New York—		
Apples, evaporated, State, choice	pounds	46,624
Currants, uncleaned, barrels	do	24,919
Prunes, California, 60–70's	do	136,377
Raisins, coast, seeded, bulk	do	302,556
Fruit, fresh—		
Apples, Baldwins, Chicago	barrels	26,223
Bananas, Jamaica, 9's, New York	bunches	35,117
Lemons, California (300–360 count), Chicago	boxes	4,536
Oranges, California, choice, Chicago	do	22,075
Glucose, 42° mixing, New York	100 pounds	14,661
Hominy grits, bulk, car lots, f. o. b. mill	do	2,923
Lard, prime contract, New York	pounds	1,372,550
Meal, corn—		
White, f. o. b. Decatur, Ill	100 pounds	14,495
Yellow, Philadelphia	do	14,495
Molasses, New Orleans, fancy, New York	gallons	72,474
Oatmeal, car lots, in barrels (180 pounds), New York	100 pounds	7,479
Oleomargarine, standard, uncolored, Chicago	pounds	348,976
Oleo oil, extra, Chicago	do	129,863
Pepper, black, Singapore, New York	do	24,387
Rice. (*See* Farm products.)		
Salt, American, medium, Chicago	barrels	49,168
Sugar, New York—		
Granulated, in barrels	pounds	7,884,900
Raw, 96° centrifugal	do	7,128,130
Tallow, edible, Chicago	do	36,506
Tea, Formosa, fine, New York	do	93,550
Vegetables, canned—		
Corn, Maryland-Maine style, New York	dozens	28,805
Peas, State and western, No. 5, New York	do	18,651
Tomatoes, New Jersey, standard, No. 3, New York	do	21,619
Vegetables, fresh. (*See* Farm products.)		
Vegetable oil—		
Coconut, crude, Pacific coast	pounds	244,325
Corn, crude, in barrels, New York	do	83,764
Cottonseed, prime, summer, yellow, New York	do	1,180,285
Olive, edible, in barrels, New York	gallons	8,959
Peanut, crude, f. o. b. mill	pounds	243,620
Soya-bean, crude, in barrels, New York	do	88,987
Vinegar, cider, 40-grain, in barrels, New York	gallons	56,530

CLOTHES AND CLOTHING

(a) Boots and shoes, factory:		
Children's—		
Little boys', gun metal, blucher	pairs	16,180
Child's, gun metal, polish, high cut	do	16,180
Misses', black, vici, polish, high cut	do	16,180
Youths', gun metal, blucher	do	26,500
Men's—		
Black, calf, blucher	do	10,560
Black, calf, Goodyear welt, bal	do	10,560
Black, dress, Goodyear welt, side leather	do	10,560
Gun metal, Goodyear welt, blucher	do	10,560
Mahogany, chrome, side, Goodyear welt, bal	do	10,560
Tan, dress, Goodyear welt, calf	do	10,560
Tan, dress, Goodyear welt, side leather	do	10,560
Tan, grain, blucher	do	10,560
Vici kid, black, Goodyear welt	do	10,560
Women's—		
Black, kid, Goodyear welt, 8½-inch lace	do	26,200
Kid, Goodyear welt, 9-inch lace	do	26,200
Kid, McKay sewed, 8½-inch lace	do	26,200
Patent leather pump, McKay sewed	do	26,200
(b) Cotton goods:		
Denims, Massachusetts, 2.20 yards to pound, New York	yards	161,804
Drillings, brown, New York—		
Massachusetts D standard, 30-inch	do	157,197
Pepperell, 29-inch, 2.85 yards to the pound	do	157,197
Flannels, New York—		
Colored, 7.75 yards to the pound	do	139,420
Unbleached, 3.80 yards to the pound	do	139,420
Ginghams—		
Amoskeag, 27-inch, 6.37 yards to the pound, New York	do	232,434
Lancaster, 26½-inch, 6.50 yards to the pound, Boston	do	232,434
Hosiery—		
Men's half hose, combed yarn, New York	dozen pairs	22,721
Women's cotton, silk mercerized, mock seam, New York	dozen pairs	15,731
Women's, combed yarn, 16-ounce, New York	do	15,731
Muslin, bleached, 4/4—		
Fruit of the Loom, New York	yards	63,079
Lonsdale, factory	do	63,079
Rough Rider, New York	do	63,079
Wamsutta, factory	do	63,079
Print cloth, 27-inch, 7.60 yards to the pound, Boston	do	1,237,960
Sheeting, brown, 4/4—		
Indian Head, 2.85 yards to the pound, Boston	do	186,433
Pepperell, 3.75 yards to the pound, New York	do	186,433
Ware Shoals, 4 yards to the pound, New York	do	186,433
Thread, 6-cord, J. &. P. Coats, New York	spools	1,038,636
Underwear—		
Men's shirts and drawers, New York	dozen garments	6,332
Women's union suits, combed yarn, New York	dozens	3,985
Yarn, Boston—		
Carded, white, mulespun, northern, 10/1 cones	pounds	271,669
Carded, white, mulespun, northern, 22/1 cones	do	271,669
Twisted, ordinary, weaving, 20/2	do	99,542
Twisted, ordinary, weaving, 40/2	do	99,542
(c) Woolen goods:		
Flannel, white, 4/4, Ballard Vale, No. 3, factory	yards	2,200
Overcoating, soft faced, black, Boston	do	25,207
Suitings—		
Clay worsted, diagonal, 12-ounce, factory	do	27,923
Clay worsted, diagonal, 16-ounce, factory	do	27,923
Middlesex, wool-dyed, blue, 16-ounce, New York	do	25,207
Serge, 11-ounce, factory	do	27,923
Trousering, cotton warp, 11-11½ ounce, New York	do	22,372

(c) Woolen goods—Continued.		
Underwear—		
Merino, shirts and drawers, factory	dozen garments	650
Men's union suits, 33 per cent worsted, New York	dozens	911
Women's dress goods—		
Broadcloth, 9½ ounces, 54–56 inch, New York	yards	25,207
French serge, 35-inch, factory	do	27,923
Poplar cloth, cotton warp, factory	do	22,372
Sicilian cloth, cotton warp, 50-inch, New York	do	22,372
Storm serge, double warp, 50-inch, factory	do	27,923
Yarn—		
Crossbred stock, 2/32's, Boston	pounds	27,700
Half blood, 2/40's, Philadelphia	do	27,700
Fine domestic, 2/50's, Philadelphia	do	27,700
(d) Silk, etc.:		
Linen shoe thread, 10's, Barbour, New York	do	3,210
Silk, raw—		
China, Canton filature, extra extra A, New York	do	9,398
Japan, Kansai, No. 1, New York	do	26,199
Japan, special extra extra, New York	do	8,733
Silk yarn, New York—		
Domestic, gray spun, 60/1	do	4,601
Domestic, gray spun, 60/2, No. 1	do	4,601

FUEL AND LIGHTING

(a) Anthracite coal, New York, tidewater:		
Broken	gross tons	4,625
Chestnut	do	28,242
Egg	do	15,628
Stove	do	21,585
(b) Bituminous coal:		
Mine run, Chicago	net tons	42,700
Prepared sizes, Chicago	do	54,900
Screenings, Chicago	do	24,400
Mine run, Kanawha, Cincinnati	do	40,700
Mine run, smokeless, New River, Cincinnati	do	40,700
Mine run, Pocohontas, Norfolk, Va	gross tons	54,500
Prepared sizes, Pittsburgh	net tons	81,300
Indiana, No. 4 mine run, f. o. b. Indianapolis	do	61,000
(c) Other fuel and lighting:		
Coke, Connellsville, furnace, at ovens	do	61,000
Gasoline, motor, New York	gallons	3,637,045
Matches, average of several brands, New York	gross	16,500
Crude petroleum, at wells—		
California, 20°	barrels	164,332
Kansas-Oklahoma	do	216,370
Pennsylvania	do	32,041
Refined petroleum, New York:		
Standard white, 110° fire test	gallons	1,152,425
Water white, 150° fire test	do	1,152,425

METALS AND METAL PRODUCTS

(a) Iron and steel:		
Iron ore, lower lake ports—		
Mesabi, Bessemer, 55 per cent	gross tons	21,355
Non-Bessemer, 51½ per cent	do	35,440
Pig iron—		
Basic, valley furnace	do	4,541
Bessemer, Pittsburgh	do	2,920
Foundry, No. 2, northern, Pittsburgh	do	748
Foundry, No. 2, Birmingham, Ala	do	748
Ferromanganese, seaboard	do	218
Spiegeleisen, 18 and 22 per cent, furnace	do	84
Bar iron—		
Best refined, Philadelphia	pounds	506,373
Common, f. o. b. Pittsburgh	do	506,373

(a) Iron and steel—Continued.		
Bars, reinforcing, Pittsburgh	100 pounds	6,751
Nails, wire, Pittsburgh	do	13,094
Pipe, cast-iron, 6-inch, New York	net tons	703
Skelp, grooved, Pittsburgh	100 pounds	57,994
Steel billets, Pittsburgh—		
Bessemer	gross tons	1,320
Open hearth	do	4,908
Steel merchant bars, Pittsburgh	100 pounds	88,370
Steel plates, tank, Pittsburgh	pounds	9,648,128
Steel rails, Pittsburgh—		
Bessemer, standard	gross tons	214
Open hearth, standard	do	1,893
Steel sheets, black, f. o. b. Pittsburgh	pounds	5,130,944
Steel, structural shapes, Pittsburgh	100 pounds	56,617
Terneplate, 8 pounds I. C., Pittsburgh	box (200 pounds)	854
Tin plate, domestic, coke, Pittsburgh	100 pounds	24,076
Wire—		
Barbed, galvanized, Chicago	do	6,823
Plain, fence, annealed, Pittsburgh	do	11,849
(b) Nonferrous metals:		
Aluminum, New York	pounds	159,176
Copper, ingot, electrolytic, refinery	do	1,805,307
Copper, sheet, New York	do	105,400
Copper wire, bare, mill	do	323,320
Lead, pig, New York	do	964,440
Lead pipe, New York	100 pounds	932
Quicksilver, New York	pounds	2,404
Silver, bar, fine, New York	ounces	56,682
Tin, pig, New York	pounds	89,665
Zinc, sheet, factory	100 pounds	1,086
Zinc, slab, New York	pounds	931,486

BUILDING MATERIALS

(a) Lumber:		
Douglas fir, mill—		
No. 1 common	1,000 feet	4,427
No. 2 and better	do	1,476
Gum, sap, firsts and seconds, St. Louis	do	851
Hemlock, northern No. 1, Chicago	do	1,755
Maple, hard, No. 1 common, 4/4, Chicago	do	858
Oak, white, plain, No. 1 common, 4/4, Cincinnati	do	2,708
Pine, white, No. 2 barn, Buffalo, N. Y.	do	1,724
Pine, yellow, southern, mill—		
Flooring, B. and better	do	4,898
Timbers, square edge and sound	do	8,165
Poplar, No. 1 common, 4/4, Cincinnati	do	350
Spruce, eastern, random, Boston	do	980
Lath, yellow pine, No. 1, f. o. b. mill	1,000	2,674
Shingles—		
Cypress, 16 inches long, mill	do	1,182
Red cedar, 16 inches long, mill	do	10,258
(b) Brick, common building, simple average of 82 yard prices	do	4,353
(c) Structural steel. (See Metals and metal products.)		
(d) Other building materials:		
Cement, Portland, f. o. b. plant, simple average of 6 plant prices	barrels	86,141
Crushed stone, 1½-inch, New York	cubic yards	27,200
Gravel, f. o. b. pit, average of 22 plant prices	tons	34,607
Hollow tile, building, Chicago	blocks	264,050
Lime, common, lump, f. o. b. plant, average of 15 plant prices	tons	3,071
Sand, building, f. o. b. pit, average of 26 plant prices	do	21,970
Slate, roofing, f. o. b. quarry	100 square feet	454
Glass, plate—		
3 to 5 square feet, New York	square feet	28,808
5 to 10 square feet, New York	do	28,808

(*d*) Other building materials—Continued.			
Glass, window, American, f. o. b. works—			
Single, A	50 square feet		3,689
Single, B	do		3,689
Linseed oil, raw, New York	gallons		62,536
Putty, commercial, New York	pounds		66,682
Rosin, common to good, (B), New York	barrels		2,272
Turpentine, southern, barrels, New York	gallons		19,271
White lead, American, in oil, New York	pounds		237,359
Zinc oxide (white zinc), New York	do		279,321
Pipe, cast-iron. (See Metals and metal products.)			
Copper, sheet. (See Metals and metal products.)			
Copper wire. (See Metals and metal products.)			
Lead pipe. (See Metals and metal products.)			
Nails. (See Metals and metal products.)			
Reinforcing bars. (See Metals and metal products.)			
Roofing tin (terneplate). (See Metals and metal products.)			
Zinc, sheet. (See Metals and metal products.)			

CHEMICALS AND DRUGS

(*a*) Chemicals:			
Acids, New York—			
Acetic, 28 per cent	pounds		53,084
Muriatic, 20°	do		294,260
Nitric, 42°	do		38,880
Stearic, triple pressed	do		16,970
Sulphuric, 66°	do		6,592,540
Alcohol, New York—			
Denatured, No. 5, 188 proof	gallons		60,399
Wood, refined, 95 per cent	do		6,985
Alum, lump, New York	pounds		654,000
Ammonia, anhydrous, New York	do		54,700
Bleaching powder, New York	100 pounds		1,771
Borax, crystals and granulated, New York	pounds		42,870
Copper sulphate, 99 per cent, crystals, New York	do		35,288
Copra, South Sea, sun dried, New York	do		98,561
Formaldehyde, New York	do		19,664
Oil, vegetable—			
Cocoanut, crude, Pacific coast	do		244,325
Corn, crude, in barrels, New York	do		13,636
Palm kernel, crude, New York	do		41,564
Soy bean, crude, in barrels, New York	do		88,987
Potash, caustic, 88–92 per cent, New York	do		12,625
Sal Soda, New York	100 pounds		1,437
Soda ash, 58 per cent, light, New York	do		20,670
Soda, bicarbonate, American, f. o. b. works	pounds		283,120
Soda, caustic, 76 per cent, solid, New York	do		638,980
Soda, silicate of, 40°, New York	100 pounds		5,736
Sulphur, crude, New York	gross tons		678
Tallow, inedible, packers' prime, Chicago	pounds		263,951
(*b*) Fertilizer materials:			
Acid phosphate, 16 per cent basis, bulk, New York	tons		3,680
Ammonia, sulphate, double bags, New York	100 pounds		5,950
Ground bone, steamed, Chicago	tons		60
Muriate of potash, 80–85 per cent, K. C. L. bags, New York	tons		21
Phosphate rock, 68 per cent, f. o. b. mines	do		2,272
Soda nitrate, 95 per cent, New York	100 pounds		8,978
Tankage, 9 and 20 per cent crushed, f. o. b. Chicago	tons		297
(*c*) Drugs and pharmaceuticals:			
Acid, citric, domestic, crystals, New York	pounds		3,164
Acid, tartaric, crystals, U. S. P., New York	do		5,313
Alcohol, grain, 190 proof, U. S. P., New York	gallons		25,000
Cream of tartar, powdered, New York	pounds		2,855
Epsom salts, U. S. P. in barrels, New York	100 pounds		587
Glycerine, refined, New York	pounds		64,343
Opium, natural, U. S. P., New York	do		619

(c) Drugs and pharmaceuticals—Continued.		
Peroxide of hydrogen, 4-ounce bottles, New York	gross	875
Phenol, U. S. P. (carbolic acid), New York	pounds	64,300
Quinine, sulphate, manufacturers' quotations, New York	ounces	3,937

HOUSE-FURNISHING GOODS

(a) Furniture:		
Bedroom—		
Bed, combination, factory	each	3,914
Chair, all gum, cane seat, factory	do	2,035
Chiffonette, combination, factory	do	783
Dresser, combination, factory	do	783
Rocker, quartered oak, Chicago	do	1,018
Set, 3 pieces, Chicago	sets	783
Dining room—		
Buffet, combination, factory	each	2,349
Chair, all gum, leather slip seat, factory	½ dozen	2,416
Table, extension, combination, factory	each	1,174
Living room—		
Davenport, standard pattern, factory	do	2,349
Table, library, combination, factory	do	1,174
Kitchen—		
Chair, hardwood, Chicago	dozens	201
Refrigerator, lift-top type, factory	each	2,349
Table, with drawer, Chicago	do	1,174
(b) Furnishings:		
Blankets—		
Cotton, colored, 2 pounds to the pair, New York	pairs	5,139
Wool, 4 and 5 pounds to the pair, factory	pounds	2,880
Carpets, factory—		
Axminster, Bigelow	yards	19,600
Brussels, Bigelow	do	13,328
Wilton, Bigelow	do	6,612
Cutlery—		
Carvers, 8-inch, factory	pairs	980
Knives and forks, factory	gross	275
Pails, galvanized iron, 10 quart, factory	do	5
Sheeting, bleached, 10/4—		
Pepperell, New York	yards	73,829
Wamsutta, factory	do	73,829
Tableware—		
Glass nappies, 4-inch, factory	dozens	10,240
Glass pitchers, ½-gallon, factory	do	10,240
Glass tumblers, ⅓-pint, factory	do	25,180
Plates, white granite, 7-inch, factory	do	19,112
Tea cups and saucers, white granite, factory	do	7,434
Ticking, Amoskeag, A. C. A., 2.85 yards to pound, New York	yard	36,309
Tubs, galvanized iron, No. 3, factory	dozens	220

MISCELLANEOUS

(a) Cattlefeed:		
Bran, Minneapolis	tons	2,409
Cottonseed meal, prime, New York	do	1,817
Linseed meal, New York	do	164
Mill-feed middlings, standard, Minneapolis	do	2,409
(b) Leather:		
Calf, chrome, B grade, Boston	square foot	191,068
Glazed kid, black, top grade, Boston	do	161,860
Harness, California oak, No. 1, Chicago	pounds	44,145
Side, black, chrome, B grade, Boston	square foot	220,565
Sole, Boston—		
Hemlock, middle, No. 1	pounds	26,819
Oak, scoured backs, heavy	do	156,220
Union, middle weight	do	113,287

(c) Paper and pulp:			
Paper—			
Newsprint, rolls, f. o. b. mill	pounds		3,899,590
Wrapping, Manila, No. 1, jute, New York	do		1,868,750
Woodpulp, sulphite, domestic, unbleached, New York	100	pounds	48,390
(d) Other miscellaneous:			
Hemp, Manila, fair current shipment, New York	pounds		149,000
Jute, raw, medium grades, New York	do		135,972
Lubricating oil, paraffin, 903 gravity, New York	gallons		818,950
Rope, pure Manila, best grade, New York	pounds		130,420
Rubber, Para, island, fine, New York	do		530,829
Sisal, Mexican, current shipment, New York	do		299,180
Soap—			
Laundry, Cincinnati	100	cakes	16,890
Laundry, Philadelphia	do		16,890
Starch, laundry, bulk, New York	pounds		783,500
Tobacco—			
Plug, New York	do		141,038
Smoking, 1-ounce bags, New York	gross		25,396

Mr. STRONG. Is it true that wages are not included?

Mr. STEWART. I was rather astonished at Mr. Carl Snyder's statement that wages are not included in these items. What we do is to take the wholesale prices. Of course, the price includes the wages paid in the production of the article. The price of steel rails contains all the wages that have been paid in the mining of the ore and other processes, in the manufacture of steel rails. The same with every other item.

Mr. STRONG. Then, if you go back and attempt to compare your price index as established by your system, with a wage scale to be again included, there would be a duplication, would there not?

Mr. STEWART. Certainly. In his index, Mr. Snyder has wages every time he has anything, simply a——

Mr. STRONG. A multiplication?

Mr. STEWART. Yes, sir; a multiplication or duplication—a snowball process.

Our weights are as of 1919. It is necessary to use the census in order to get the volume of a thing that enters into commerce. Hence, we can only use, as a weighting year, a census year. The present census of 1925 is perhaps the best one, so far as the volume of production is concerned, that has ever been made and, when it is completed, it is my intention to reweight the index with a weighting as of 1925.

Our method, then, is to take the price multiplied by the volume of that article and then divide that by the same price as of the year 1913, which is our base year.

I want to call attention to the Congressional Record, to a speech by Hon. James G. Strong, of Kansas, House of Representatives, February 29, 1926, in which he uses a chart. I will say that those figures in the raw—I mean just the basic facts—were furnished by the Bureau of Labor Statistics to the Agricultural Department which preferred a five-year base.

Then the chart is drawn on the arithmetical scale instead of logarithmical scale. To make myself clear on that, under the arithmetical scale, such as used in Mr. Strong's chart, the percentage base is changed constantly and hence a large increase would show progressively a lesser percentage of increase, because you are in-

creasing your base each year. Under our system, the percentage of increase is upon the original base all the time. Our index is derived from the original base all the time and, not as a percentage of change, from year to year.

Unless you want me to go more fully into that, a 50 per cent increase, occupies the same space on a logarithmic chart, no matter where it falls. On the arithmetical scale the increase from 250 to 300, which is only 20 per cent, occupies as much space as the increase from 100 to 150, which is 50 per cent. Your chart, therefore, tends to accentuate the changes and is not, to my mind a correct method of statement. Your figures themselves are accurate; the appeal to the eye is a misleading way of presenting the figures.

On the question of our base, 1913, it seems a long time ago. The demand was insistent to know the relation between prices each year with the prices before the war. It seemed absolutely necessary at the time that we have a prewar base to sight from. I still think, as far as our correspondence shows, the prewar base is one that the people want, with the possible exception of corespondence where we are asked to give the change from the peak. They want to know what the relation is to peak prices. Of course, an index based on peak prices would be absolutely unscientific and we simply answer these letters, giving them the things they ask for—change the base to peak and give them the figures they want, but we do not print any such figures.

I am rather inclined to think that 1913 is drifting too far into the past and that when we get our new weightings for 1925 we will change our base to 1925, but it will be necessary, even then, I think, to retain the pre-war base as a sighting post.

The CHAIRMAN. How would it have been to take the average for a period of 5 or 10 years instead of arbitrarily taking the year 1913 or the peak, so to speak? Would not that have been a more accurate way?

Mr. STEWART. No, sir. The base is simply a sighting point—something to sight from. What is the price to-day as compared with something that the mind can grasp. Just before the war was something that was somewhat definite in the mind. The people could grasp that. When you widen your base, you simply befog the issue to the ordinary mind. The average of prices for five years does not mean anything to anybody, because the mind simply can not grasp the average of prices for five years. The farmer knows what he got for his wheat in 1905 or 1913, but when you undertake to show up the average he got for five years, he has to do so much computing, even if he has the information upon which to compute it, he throws up his hands and the figures mean nothing to him. What we want, in a base, is a definite thing in its relation to time. For instance, we worked out what the three-year base would do for wheat, corn, and——

The CHAIRMAN. You may insert that in the record.

Mr. STEWART. I will insert that in the record here, as follows:

COMPARISON OF ONE-YEAR WITH THREE-YEAR BASE PERIOD IN COMPUTING INDEX NUMBERS OF PRICES

Differences between the use of a one-year base and a wider base, say three years, are illustrated in the following example, the data for which have been taken from records of the Bureau of Labor Statistics.

One-year base, single commodities

[Year 1925=100]

Commodity	Average price in—		Index number for February, 1926, on year 1925 as base
	1925	February, 1926	
Corn, bushel	$1.014	$0.727	71.7
Wheat, bushel	1.770	1.849	104.5
Cotton, pound	.235	.206	87.7

Three-year base, single commodities

[Average for 1923-1925=100]

Commodity	Average price in—		Index number for February, 1926, on three years, 1923-1925, as base
	1923-1925	February, 1926	
Corn, bushel	$0.927	$0.727	78.4
Wheat, bushel	1.407	1.849	131.4
Cotton, pound	.272	.206	75.7

One-year base, group of commodities weighted

[Year 1925=100]

Commodity	Weight (000 omitted)	Weighted price in—	
		1925 (000 omitted)	February, 1926 (000 omitted)
Corn	394,000	399,516	286,438
Wheat	520,000	920,400	961,480
Cotton	6,560,000	1,541,600	1,351,360
Total		2,861,516	2,599,278
Index number		100.0	90.8

Three-year base, group of commodities weighted

[Average for 1923-1925=100]

Commodity	Weight (000 omitted)	Weighted price in—	
		1925	February, 1926
Corn	394,000	365,238	286,438
Wheat	520,000	731,640	961,480
Cotton	6,560,000	1,784,320	1,351,360
Total		2,881,198	2,599,278
Index number		100.0	90.2

In the above example a wide difference is observed in the index numbers of individual commodities when computed on the one-year and the three-year bases. Thus the index for wheat is 104.5 on the 1925 base, while it is 131.4 on the 1923–1925 base. For cotton the index is 87.7 on the 1925 base and 75.7 on the 1923–1925 base. When combined into a group, however, and the prices weighted by the same factors in each case, the resulting group index numbers for February, 1926, are almost identical, viz 90.8 and 90.2, respectively. This is, of course, due to the comparatively small difference between the weighted aggregates for 1925 (2,861,516) and 1923–1925 (2,881,198) used as bases in the two cases. With wider differences in the bases wider differences in the resulting index numbers would be observed.

This sample shows that for individual commodities a one-year base shows exactly what is happening. The first section of the table shows the actual price of corn, wheat and cotton in February, 1926, as against the average of 1925. The index shows the degree of fluctuation by commodity. The second section of the table shows the same facts on a three-year base.

Take these three articles and whether on the one-year or three-year base wheat acts one way and corn and cotton act in varying degrees exactly the opposite. Now, when we group our commodities as we do in farm products, we have done all that it seems to me fair to do in smoothing out these inequalities, and if you group your commodities and spread your base over three years of time you have practically concealed all of your price fluctuations in the group and are getting more statistics than you are facts. I can see no justice nor statistical fairness in the idea of a broad base. All the sharp fluctuations in prices are smoothed out when you have a three or five year base. It does just what I said. It entirely obliterates sharp changes in prices. Of course people will say, "We do not want to call attention to these sharp changes in prices." But my purpose is to call attention to the facts and the fact that there is a sharp radical change is one of the facts and I very seriously object to any smoothing out of prices which throws the minds off of the real facts of the change.

The CHAIRMAN. Your work, then, is the practical work of recording the changes that take place.

Mr. STEWART. Recording, exactly. We do not deal in the why of things at all. We simply record the facts.

The CHAIRMAN. And in the recordation, you try to get the most correct phase of the thing that it is possible to get?

Mr. STEWART. Yes, sir; we get the wholesale prices where we can, from the source of manufacture. We can not always do that. We get lumber now largely from the lumber mills. We take wheat in Chicago and Minneapolis and I think one other point.

The CHAIRMAN. But all within the United States?

Mr. STEWART. Oh, yes. We do not take anything outside of the United States. As I said before, the next index will have more than 404 articles. We have been criticized because we did not have the things that a farmer had to buy—farm machinery. I will say that I did my very best to get prices on farm machinery, but it does not mean anything any more than women's hats. The next time I have the promise of certain manufacturers that they would give us the price of certain farm implements—farm machines—that do not change in type radically, and we can get the price of certain farm machinery. But farm machinery, as a whole, is not sufficiently specific in its meaning for us to handle.

The CHAIRMAN. In other words, it might include a tractor engine, plows, harrows, rakes, etc.

Mr. STEWART. Yes, sir; and it does not mean anything. If we can get certain definite things—plows, tractors—I do not know what we will get, but the manufacturers have agreed to agree among themselves upon a group of things that we can depend upon as reasonably stable.

The CHAIRMAN. Will the inclusion of those new articles in your figures tend to confuse in comparing the figures with the past records?

Mr. STEWART. Well, all I can say is this, that when we changed in 1919 and increased our number from 327 to 404, the effect was 9 points, as I remember it. Mr. Bell is my right-hand man on that subject and I brought him along.

(Mr. Bell verified the statement.)

Frankly, I do not know what the effect of the new list will be. But a situation has arisen which will make it necessary to include a large number of items—for instance, an automobile is no longer a luxury for the rich. It is one of the common things of life. If we can get an average automobile with which we can use the weighting of the total production of automobiles, we will carry it.

The CHAIRMAN. But up to this time you have not carried automobiles?

Mr. STEWART. No, sir.

The CHAIRMAN. Of course automobile manufacturing is to-day a big factor.

Mr. STEWART. Yes, sir; and it should be in the index. If we can get an average unit at an average price, we will multiply the total output by that and include it in the index. The same thing applies to automobile tires. If there is an average automobile tire and a price of that average tire is ascertainable, the 55,000,000 output gives us the weighting factor that enables us to put automobile tires in the index.

The CHAIRMAN. Mr. Stewart, does your study of these practical figures indicate to you, or rather, has that study of these figures indicated to you as to whether or not Congress might, by specific direction, through legislation, stabilize prices. In other words, do you think it would be possible for any Government board or institution to, in any way, stabilize the general price level?

Mr. STEWART. I do not know, as I said before, whether I want to discuss the question of money or not. In answer to your question I will submit a statement which I have prepared for this committee, I believe, under the Goldsborough bill.

The CHAIRMAN. Yes. This committee has had under consideration the Goldsborough bill.

Mr. STEWART. Yes, last year.

The CHAIRMAN. Of course the proposition under consideration now is similar to that. It does not go as far as the Goldsborough bill. It is the subject, however, that the committee has been considering. If you have something on that subject which has been prepared, we will be glad indeed to have it in the record at this point.

Mr. STEWART. It is hardly necessary to read it.

The CHAIRMAN. It can be inserted in the record.

Mr. STEWART. I take the position that if the quantitative theory of money is true, which I think most economists who have not an ax to grind are beginning to accept, then that quantity of money must have some relation to the quantity of things to be purchased.

This index number is locked primarily to quantity, and the index is based upon the quantity of things sold, money is not linked up with anything. Congress has said that there shall be a certain number of grains of gold or silver in a dollar. This simply fixes its size, not its value.

However, I think what I have written is better than I can say it now.

The CHAIRMAN. The article will be inserted at this point.

(The statement referred to is as follows:)

Mr. Chairman, my prime purpose in coming before the committee at this time is to state just what the index of wholesale prices of the United States Bureau of Labor Statistics is, also to outline just what the index of retail prices is.

I realize, of course, that the committee is not ready to go into all the details of the mechanical operation of the Goldsborough bill. However, some general outline of that mechanism may not be amiss, particularly since the theory of the bill as I understand it is very closely connected and interwoven with that mechanism.

If I may, I will digress a minute at the beginning to express to you the serious importance of adopting some measure if possible that will control the ratio between wages and the price of those things which go into the maintenance of life and comfort. You will note that I accent things, and it is because I wish to emphasize the fact that measured by dollars and cents, pound, shillings, and pence, the volume of business about which we talk so glibly has as a matter of fact no necessary relation and too frequently no connection whatever with things. It has frequently happened that more wheat was bought and sold on the board of trade of Chicago in 30 days than we raised in the United States in 10 years. It is a pretty far cry to say that the bank clearances, the money involved in stock and bond transactions, have anything to do with the physical facts of food, clothing, and shelter. True, there may be a remote connection, but the average workman lets that go over his head and wants to know the relation between his weekly wages and the pounds of meat and floor, or the tons of coal, that he must buy to be warm and to be fed.

Gradually the statisticians have brought the economists, who spun out theories of money and theories of value based upon nothing until we had reached the point that nobody cared what they said or thought, back to a substantial agreement upon the quantitative theory of money. True, some otherwise intelligent economists still stand aloof. They remind me of the couple who were looking at an airplane several thousand feet above the earth. One said to the other, "How would you like to be up there with that thing?" The other replied that he would a great deal rather be up there with that thing than be up there without it. In the world of economics there are a few left who prefer to be up there without it.

Now, under the quantitative theory of money, money must be linked with the quantity of commodities measured by volume preferably, but necessarily either by volume of price or both. In the past there have been two schools having a practical objective or purpose which they sought to achieve through the manipulation of money, the creditor class by insisting upon a gold base which was naturally, necessarily, and essentially restricted and therefore easily manipulated as to volume, the other the debtor class which so far as this country is concerned expressed itself through the greenback movement of the seventies; and now a money scheme emanates from and I think admittedly in the interest of the salaried and fixed income portion of our population. The difference between the three, if we entirely ignore the interest of all as special groups, is that the salary and income group presents a plan, and on its face a working plan, which is fair to everybody and which gets us away from the injustice, not to say the dangerous features, of both the other systems. This plan for regulating the value of money by coupling the volume of money with the tangible volume of commodities in their relation to consumption will doubtless in the long run regulate prices, or what amounts to the same thing,

maintain a practically uniform ratio between the dollar and the quantity of any given commodity which can be received in exchange for that dollar.

It may be that Congress has no power to directly fix, regulate, alter, or determine price, but its constitutional power to regulate the value of money is not open to question: and if Congress shall see fit to construe the term "value of money" as meaning something more than the mere number of grains of gold and the per cent of alloy and shall conclude to regulate the actual value as measured in purchasing power of money, then much of our social and industrial unrest may be allayed and many of our labor problems put far along on the road to a just solution.

The difficulty heretofore has been the intangibility of everything relating to money. Union wage rates in the building trades in 1919 were 42 per cent higher than they were in 1914; yet with his 42 per cent more wages the workman could buy only 74 per cent as much of the things that go to make life as he could in 1913. While 42 per cent better off in money he was 26 per cent worse off. In 1921 wages had gone up 96 per cent above the 1914 rate, but as a matter of fact the workman could buy only 11 per cent more, measuring his prosperity by things. He naturally was disinclined to accept a wage reduction as a first move toward so-called deflation when from 1914 to 1920 inclusive his wages had been worth less to him than were his wages in 1913.

Most of the trouble about wages and wage rates is that the employer insists upon talking about dollars, and the worker insists upon thinking about what the dollar will buy. Now, if you can fix the ratio between the dollar and what it will buy you immediately put the employer and the worker in the position of talking and thinking about the same thing and half of your difficulties are settled. So much for the theory.

Now, an index is locked primarily to quantity. The Bureau of Labor Statistics wholesale price index, which is the starting point of the machinery of the Goldsborough bill, is based upon 404 commodities or price series. It is weighted according to the quantity—bushels, tons, yards, dozens, or pounds, of the various commodities actually entering into the commercial life of the United States. These commodities are selected, it is true, on the basis of their money value in commerce.

Generally speaking, we have selected every commodity of which $1,000,000 worth or more enters into the markets of the United States per year; but, having selected them upon their market value, the weight which each article is given in the index after selection is upon a quantity basis. These weighing factors are taken from the census supplemented by information from other Government sources where census does not give quantities and from trade associations, etc. For the purpose of the record I submit here the table of weights used in constructing the revised index numbers of wholesale prices of the United States Bureau of Labor Statistics. Once a month we issue in the form of a press release this index by commodity groups and by all commodities combined, while once a month we publish in the form of a separate pamphlet the average price and index number on each individual article, those indexes being based upon 1913 as equalling 100.

Here we have the actual volume of commodities going through the markets of the country and the price of each. Emerson tells us to hitch our wagon to a star; many of us have not been able to reach so far; but, in theory, we all believe it to be good advice. Now, if we can hitch our money to the actual commodities of the market, the quantitative theory of money being true, we can maintain a ratio through this index system of money to price; in other words, we can control the purchasing power of the dollar within certain reasonable limits.

I will say that the duties imposed upon the Bureau of Labor Statistics of the Department of Labor in the Goldsborough bill, H. R. 11788, are not burdensome, and are entirely acceptable to the Department of Labor and to the Commissioner of Labor Statistics. Some modification of our index to wholesale prices may be necessary under the bill. The present expenditure of the Bureau of Labor Statistics on the wholesale price index runs about $6,000 a year, exclusive of printing, and exclusive of overhead which probably would add 20 per cent to that.

Something may be said in favor of basing the volume of money upon an index of retail prices rather than wholesale prices, but I will not go into that now beyond saying that the bureau collects retail prices on 43 food articles from 51 cities, reported by approximately 1,800 firms, this at a cost last year of $26,288.90 of which $2,682.74 was expended on field work. This index is weighted by the actual average consumption of the various items of food as shown from the family schedules secured by the bureau from 12,096 families in 91 localities throughout the United States.

Mr. STEWART. That is one of our greatest difficulties in labor problems. The manufacturer or employer is thinking about the number of dollars he is paying this man. The man is thinking about what those dollars will buy. He does not give a rap for a dollar, because he has got to spend it.

The CHAIRMAN. It is the purchasing power in goods which he has to use.

Mr. STEWART. And that is where much of the conflict comes, between the different viewpoints. One is money in the abstract and the other is money in use.

We also carry tables of the purchasing power of the dollar. Of course, that is simply wholesale prices turned over the other way—simply another way of expressing the same thing. That is published every three months—simply a conversion of the wholesale prices into the purchasing power of the dollar as another form of expression.

I believe we have here the purchasing power of the dollar from 1913 to 1925 by various groups—for instance, farm products, food, clothing, etc.—the various sections into which we divide our wholesale index.

If you care to put pages 54 to 64, inclusive, into the record, perhaps it would be of assistance.

The CHAIRMAN. I would suggest that pages 54 to 64, inclusive, be entered in the record at this point.

(The matter referred to is as follows:)

PURCHASING POWER OF THE DOLLAR (WHOLESALE PRICES), 1913 TO 1925

That the purchasing power of money has gradually diminished since 1913, the year preceding the World War, is well known to the most casual observer. To the average person, however, the extent of such decrease is more or less conjectural, owing to the wide diversity of price fluctuations of individual commodities and the difficulty of reducing them to a common standard for gauging changes in the price level. The index numbers of wholesale prices constructed each month by the Bureau of Labor Statistics furnish a reliable barometer of composite price movements. The bureau has published, from time to time, figures showing these price movements (see Monthly Labor Review for September, 1923, August, 1924, and August, 1925). In the present article the figures have been brought together and monthly changes in the buying power of the dollar for various groups of commodities are shown from 1913 to 1925. The dollar's average buying power in 1913 forms the basis of the comparisons, or 100 cents.

Monthly changes in buying power of the dollar in the purchase of specified groups of commodities, 1913 to 1925

[1913=$1.000]

Year and month	Farm products	Foods	Cloths and clothing	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House furnishing goods	Miscellaneous	All commodities
1913—January	$1.024	$1.011	$1.007	$0.997	$0.994	$0.989	$.0998	$1.002	$0.943	$0.999
February	1.022	1.020	1.002	.986	.948	.982	.992	1.001	.954	1.000
March	1.015	1.021	1.000	.994	.955	.975	.994	1.001	.976	.998
April	1.011	1.017	1.000	1.016	.958	.970	.995	1.001	1.002	1.000
May	1.024	1.033	1.004	1.019	.970	.973	.998	1.001	1.018	1.012
June	1.026	1.014	1.002	1.018	.995	.985	1.001	1.002	1.002	1.006
July	1.006	.994	1.002	1.011	1.016	1.009	1.001	1.002	1.004	1.000
August	.997	.980	1.001	.995	1.019	1.011	1.005	1.002	1.020	.998
September	.969	.968	.992	.987	1.018	1.010	1.002	1.002	1.001	.993
October	.967	.983	.992	.981	1.030	1.021	1.000	.995	1.016	.991
November	.967	.966	.994	.983	1.066	1.033	1.003	.996	1.031	.997
December	.975	.986	1.003	1.012	1.125	1.046	1.017	.998	1.045	1.014
1914—January	.973	.991	1.008	1.009	1.134	1.074	1.017	1.000	1.058	1.015
February	.976	1.004	1.008	1.008	1.119	1.056	1.022	.999	1.040	1.014
March	.980	1.024	1.008	1.003	1.126	1.060	1.024	.999	1.017	1.016
April	.985	1.048	1.007	1.018	1.139	1.070	1.030	.999	1.016	1.024
May	.989	1.047	1.009	1.056	1.179	1.076	1.032	.999	1.009	1.030
June	.988	1.028	1.009	1.101	1.192	1.080	1.040	.999	1.054	1.035
July	.973	1.010	1.007	1.098	1.209	1.083	1.050	.998	1.070	1.031
August	.940	.920	1.014	1.119	1.192	1.073	1.040	.998	1.060	.992
September	.948	.898	1.034	1.124	1.168	1.082	.914	.998	1.043	.985
October	.994	.943	1.045	1.140	1.212	1.114	.925	1.000	1.087	1.026
November	.981	.947	1.067	1.140	1.250	1.131	.931	1.002	1.095	1.032
December	.986	.955	1.068	1.142	1.230	1.138	.931	1.004	1.040	1.034
1915—January	.961	.942	1.065	1.145	1.218	1.136	.998	1.012	1.010	1.017
February	.951	.929	1.056	1.170	1.168	1.119	.861	1.009	1.071	1.005
March	.965	.946	1.056	1.198	1.138	1.116	.845	1.009	1.075	1.012
April	.958	.954	1.040	1.222	1.111	1.107	.848	1.006	1.071	1.008
May	.955	.955	1.036	1.227	1.042	1.079	.860	1.002	1.078	.999
June	.993	.977	1.028	1.229	.983	1.072	.812	1.002	1.074	1.010
July	.964	.962	1.037	1.229	.956	1.064	.767	.999	1.067	.996
August	.970	.980	1.029	1.174	.975	1.070	.737	1.000	1.072	1.001
September	.985	1.006	1.011	1.099	.964	1.066	.699	.999	1.085	1.005
October	.947	.977	.986	1.065	.948	1.024	.663	.998	1.074	.977
November	.961	.944	.955	1.017	.906	.993	.606	.995	1.050	.960
December	.949	.926	.933	.969	.823	.959	.559	.993	.997	.929
1916—January	.911	.917	.906	.889	.749	.912	.544	.973	.907	.887
February	.907	.911	.875	.867	.703	.882	.491	.967	.952	.869
March	.899	.894	.855	.840	.641	.847	.485	.965	.929	.844
April	.882	.876	.847	.831	.608	.833	.501	.963	.909	.826
May	.869	.870	.831	.835	.597	.830	.518	.952	.875	.817
June	.875	.870	.822	.820	.611	.833	.424	.950	.836	.816
July	.854	.854	.802	.826	.631	.835	.571	.935	.833	.812
August	.798	.821	.781	.834	.657	.833	.637	.934	.824	.792
September	.763	.791	.761	.836	.624	.829	.631	.932	.810	.772
October	.733	.748	.728	.781	.608	.806	.669	.922	.758	.737
November	.682	.708	.682	.644	.575	.791	.598	.898	.722	.687
December	.686	.729	.648	.612	.502	.756	.581	.898	.678	.672
1917—January	.657	.715	.635	.583	.505	.726	.579	.844	.673	.654
February	.637	.692	.637	.563	.489	.712	.578	.843	.668	.638
March	.604	.675	.623	.576	.460	.696	.553	.833	.661	.616
April	.545	.608	.610	.609	.434	.646	.538	.826	.652	.578
May	.511	.571	.597	.563	.417	.628	.515	.824	.662	.548
June	.513	.583	.576	.546	.374	.593	.512	.812	.653	.539
July	.511	.590	.553	.570	.342	.595	.487	.773	.654	.533
August	.496	.571	.537	.600	.354	.600	.474	.773	.666	.528
September	.495	.568	.541	.627	.385	.599	.449	.769	.679	.534
October	.484	.556	.539	.656	.482	.643	.432	.769	.703	.547
November	.472	.552	.524	.621	.546	.642	.449	.762	.712	.546
December	.482	.553	.512	.613	.546	.633	.438	.754	.713	.548
1918—January	.475	.548	.497	.608	.546	.622	.448	.728	.690	.543
February	.474	.547	.487	.608	.543	.619	.441	.725	.689	.539
March	.475	.559	.474	.605	.544	.609	.437	.712	.682	.536
April	.470	.552	.454	.604	.544	.592	.438	.695	.657	.526
May	.478	.555	.442	.591	.542	.587	.451	.685	.645	.526
June	.476	.555	.430	.593	.542	.580	.467	.657	.624	.522
July	.461	.541	.421	.572	.529	.564	.479	.630	.628	.510
August	.441	.531	.419	.571	.525	.560	.472	.620	.625	.501
September	.428	.514	.408	.568	.526	.558	.475	.613	.621	.490
October	.445	.505	.407	.568	.522	.565	.475	.611	.612	.495
November	.445	.489	.414	.559	.522	.565	.478	.612	.609	.493
December	.442	.485	.428	.558	.534	.565	.515	.612	.613	.495
1919—January	.446	.492	.454	.561	.571	.569	.533	.597	.604	.503
February	.463	.515	.476	.561	.589	.579	.592	.604	.613	.517
March	.447	.502	.492	.562	.612	.584	.616	.609	.622	.510
April	.435	.487	.489	.564	.652	.593	.627	.599	.624	.505
May	.427	.477	.463	.562	.655	.578	.622	.594	.619	.493
June	.442	.490	.412	.556	.648	.528	.618	.557	.598	.493

Monthly changes in buying power of the dollar in the purchase of specified groups of commodities, 1913 to 1925—Continued

Year and month	Farm products	Foods	Cloths and clothing	Fuel and lighting	Metals and metal products	Building materials	Chemicals and drugs	House furnishing goods	Miscellaneous	All commodities
1919—July	$0.415	$0.477	$0.382	$0.552	$0.625	$0.479	$0.599	$0.546	$0.564	$0.472
August	.414	.468	.362	.544	.618	.442	.596	.532	.534	.463
September	.443	.488	.353	.531	.622	.456	.588	.526	.529	.476
October	.440	.488	.344	.530	.618	.436	.579	.516	.534	.473
November	.422	.476	.329	.533	.608	.431	.568	.460	.531	.461
December	.413	.455	.316	.528	.595	.403	.551	.450	.531	.448
1920—January	.405	.433	.295	.514	.571	.365	.528	.418	.516	.429
February	.421	.451	.299	.504	.528	.341	.513	.413	.506	.430
March	.421	.456	.291	.481	.508	.336	.489	.413	.500	.427
April	.411	.420	.297	.433	.493	.354	.477	.413	.485	.409
May	.415	.403	.305	.418	.494	.342	.470	.404	.481	.405
June	.421	.411	.318	.401	.499	.364	.471	.403	.488	.411
July	.430	.420	.333	.385	.495	.372	.473	.364	.493	.415
August	.458	.452	.350	.372	.495	.377	.477	.365	.502	.432
September	.476	.464	.376	.356	.500	.392	.487	.367	.514	.442
October	.534	.498	.407	.357	.522	.417	.506	.368	.532	.473
November	.577	.525	.442	.379	.567	.465	.551	.385	.560	.509
December	.657	.588	.465	.393	.623	.490	.610	.414	.601	.558
1921—January	.697	.616	.510	.405	.653	.520	.652	.460	.647	.589
February	.753	.661	.531	.445	.678	.556	.672	.461	.679	.625
March	.787	.691	.540	.472	.716	.579	.697	.462	.718	.644
April	.858	.694	.568	.488	.726	.599	.739	.463	.772	.676
May	.849	.719	.577	.500	.723	.607	.745	.479	.796	.687
June	.886	.729	.580	.525	.751	.613	.752	.510	.803	.706
July	.840	.711	.583	.538	.808	.625	.775	.556	.816	.709
August	.812	.686	.566	.545	.854	.642	.775	.557	.840	.707
September	.805	.708	.560	.552	.864	.641	.762	.557	.847	.707
October	.805	.713	.554	.550	.842	.629	.760	.556	.844	.706
November	.824	.722	.555	.507	.880	.614	.775	.561	.840	.711
December	.831	.737	.556	.504	.893	.632	.789	.561	.829	.715
1922—January	.821	.766	.567	.512	.891	.635	.805	.563	.857	.723
February	.766	.742	.574	.522	.910	.640	.814	.565	.855	.707
March	.769	.732	.580	.522	.917	.647	.802	.570	.856	.703
April	.774	.732	.585	.517	.888	.641	.806	.571	.863	.701
May	.756	.724	.571	.464	.844	.625	.818	.569	.866	.678
June	.761	.712	.558	.444	.831	.597	.821	.570	.874	.668
July	.739	.705	.554	.393	.828	.590	.826	.578	.875	.646
August	.765	.723	.554	.369	.794	.580	.819	.578	.869	.645
September	.750	.725	.548	.409	.746	.556	.808	.578	.865	.652
October	.726	.714	.532	.442	.741	.546	.805	.567	.835	.649
November	.698	.699	.521	.459	.754	.542	.786	.559	.823	.643
December	.690	.692	.515	.464	.764	.541	.769	.550	.816	.640
1923—January	.702	.712	.510	.458	.750	.533	.764	.543	.806	.642
February	.702	.710	.502	.471	.719	.526	.759	.543	.794	.638
March	.700	.698	.497	.486	.672	.506	.738	.541	.789	.631
April	.708	.693	.488	.500	.649	.489	.735	.536	.791	.630
May	.721	.692	.496	.527	.659	.496	.746	.536	.799	.640
June	.727	.704	.506	.537	.676	.515	.761	.535	.816	.651
July	.740	.708	.518	.546	.688	.527	.778	.536	.829	.664
August	.722	.706	.519	.561	.692	.538	.785	.547	.832	.666
September	.696	.679	.496	.569	.694	.550	.782	.548	.827	.651
October	.695	.673	.503	.582	.705	.549	.775	.547	.835	.653
November	.687	.676	.498	.597	.709	.552	.768	.568	.847	.657
December	.692	.681	.492	.617	.706	.561	.767	.567	.859	.662
1924—January	.693	.698	.500	.592	.705	.552	.759	.569	.858	.661
February	.699	.699	.510	.596	.700	.549	.764	.569	.881	.659
March	.729	.710	.522	.553	.696	.549	.770	.572	.886	.667
April	.722	.729	.529	.560	.721	.551	.779	.572	.886	.674
May	.733	.732	.535	.564	.743	.555	.786	.580	.890	.681
June	.746	.737	.534	.572	.756	.579	.790	.582	.900	.692
July	.710	.721	.533	.577	.767	.592	.791	.585	.890	.680
August	.698	.694	.527	.589	.767	.591	.769	.585	.870	.668
September	.669	.677	.536	.595	.780	.586	.766	.584	.864	.672
October	.670	.660	.531	.617	.786	.586	.756	.585	.835	.658
November	.669	.650	.525	.614	.777	.583	.746	.581	.814	.655
December	.638	.633	.522	.608	.752	.571	.743	.580	.776	.637
1925—January	.612	.626	.523	.596	.734	.558	.740	.579	.787	.625
February	.619	.637	.524	.563	.737	.547	.743	.580	.803	.623
March	.620	.629	.524	.573	.748	.556	.745	.588	.797	.621
April	.634	.649	.527	.592	.777	.573	.749	.587	.776	.640
May	.658	.653	.531	.595	.786	.576	.751	.587	.762	.644
June	.644	.644	.531	.579	.793	.586	.753	.589	.726	.635
July	.618	.636	.530	.581	.791	.588	.750	.591	.697	.625
August	.613	.628	.527	.588	.786	.580	.743	.591	.725	.623
September	.623	.624	.528	.591	.786	.574	.737	.597	.741	.626
October	.644	.635	.528	.582	.782	.575	.741	.596	.725	.635
November	.650	.624	.532	.572	.770	.569	.739	.603	.704	.634
December	.657	.637	.534	.572	.772	.565	.742	.603	.724	.640

It will be seen from the foregoing table that the purchasing power of the 1913 dollar, as applied to farm products, sank below 50 cents in the closing months of 1917 and continued downward until January, 1920, when it equaled only 40.5 cents. Declining prices of farm products, however, brought the dollar's buying power up to 88 cents in June, 1921, the highest point since 1916. In the latter part of 1921 the purchasing power declined again to a point ranging from 80.5 cents to 84 cents. From January, 1924, to the end of 1925 the value of the dollar in the purchase of farm products has fluctuated between 61.2 cents and 74.6 cents. In foodstuffs the low point of 40.3 cents was reached in May, 1920, with rising buying power thereafter, fluctuating between 41.1 cents and 76.6 cents, the latter high point being reached in January, 1922. During 1925 the figures ranged from 65.3 cents in May down to 62.4 cents in September and November.

As regards cloths and clothing, the dollar would purchase more than a dollar's worth in 1914 and most of 1915, but sank to 28.9 cents in February, 1920, since which time the figures have ranged between 29.1 cents and 58.6.

In the three groups of fuel and lighting, metals and metal products, and building materials, the buying power of the dollar rose above its buying power in other groups in 1914 and the first part of 1915. Advancing prices of metals for war purposes after 1914 brought the dollar's purchasing power rapidly downward, and this was followed by similar declines in the other groups. By the middle of 1917 the dollar of 1913 had shrunk to 34.2 cents in the purchase of metals and their products, but expanded quickly as prices again declined. In 1920, the year of highest prices, the dollar of 1913 reached a low point, equivalent in its purchasing power to 49.3 cents in the case of metals and metal products, 35.6 cents in the case of fuel and lighting, and 33.4 cents in the case of building materials. After the dates of these low points the buying power of the dollar rose again, going to 61.7 cents in October, 1924, in the case of fuel and lighting; to 91.7 in March, 1922, for metals and metal products; and to 64.7 in the same month for building materials. During 1925 the purchasing power of the dollar, in so far as it relates to fuel and lighting, ranged from 59.6 cents in January to 56.3 cents in the following month.

Measured by its buying power in the purchase of chemicals and drugs in 1913, the dollar was equal to less than 50 cents during the latter half of 1917 and most of 1918 and 1920. Since 1920 the figures have ranged from 65.2 cents in January, 1921, to 82.6 cents in July, 1922. In the case of house-furnishing goods the dollar of 1913 had a value of less than 40 cents in the second half of 1920, since which time it has ranged from 46 cents in January, 1921, to 60.3 cents in December, 1925. For all commodities combined, the dollar of 1913 was equal in purchasing power to more than a dollar in most of 1914 and 1915, but dropped steadily thereafter until May, 1920, when it equaled only 40.5 cents. With a declining general price level it advanced above 70 cents in the second half of 1921 and the first half of 1922, but receded to 64 cents thereafter. From 1923 to 1925 it fluctuated between 62.1 cents, and 69.2 cents.

In view of the importance of building materials, the table which follows affords a comparison of the dollar's purchasing power since 1913 for several classes of such materials. As in the preceding table, the comparison is with the average for the year 1913.

Monthly changes in buying power of the dollar in the purchase of specified classes of building materials, 1913 to 1925

[1913=$1.000]

Year and month	Lumber	Brick, common	Structural steel	Other building materials	All building materials
1913—January	$0.979	$0.994	$0.990	$1.003	$0.989
February	.969	.994	1.007	.994	.982
March	.969	.994	.889	1.000	.975
April	.962	.997	.889	.997	.970
May	.958	.997	.902	.994	.973
June	.973	.997	1.007	.998	.985
July	1.010	1.003	1.007	1.008	1.009
August	1.016	1.003	1.007	1.006	1.011
September	1.021	1.003	1.042	.990	1.010
October	1.043	1.006	1.042	.989	1.021
November	1.046	1.006	1.140	.997	1.033
December	1.048	1.006	1.161	1.025	1.046

Monthly changes in buying power of the dollar in the purchase of specified classes of building materials, 1913 to 1925—Continued

Year and month	Lumber	Brick, common	Structural steel	Other building materials	All building materials
1914—January	$1.067	$1.011	$1.374	$1.042	$1.074
February	1.066	1.011	1.259	1.037	1.066
March	1.063	1.011	1.233	1.030	1.060
April	1.072	1.011	1.314	1.032	1.070
May	1.079	1.013	1.314	1.042	1.076
June	1.079	1.013	1.314	1.048	1.080
July	1.085	1.013	1.314	1.049	1.083
August	1.082	1.013	1.233	1.037	1.073
September	1.092	1.014	1.233	1.048	1.082
October	1.138	1.014	1.233	1.068	1.114
November	1.145	1.014	1.285	1.094	1.131
December	1.151	1.014	1.342	1.094	1.138
1915—January	1.144	1.025	1.374	1.095	1.136
February	1.145	1.025	1.314	1.059	1.119
March	1.142	1.025	1.314	1.058	1.116
April	1.142	1.042	1.314	1.036	1.107
May	1.145	1.042	1.279	.976	1.079
June	1.152	1.042	1.279	.953	1.072
July	1.153	.992	1.208	.944	1.064
August	1.144	.992	1.208	.965	1.070
September	1.131	.992	1.079	.989	1.066
October	1.067	.977	1.079	.964	1.024
November	1.055	.977	1.007	.917	.993
December	1.031	.977	.944	.876	.959
1916—January	.995	.989	.839	.827	.912
February	.985	.989	.775	.784	.882
March	.973	.989	.636	.754	.847
April	.981	.957	.575	.739	.833
May	.989	.957	.575	.726	.830
June	1.002	.957	.575	.722	.833
July	1.007	.858	.575	.726	.835
August	1.002	.858	.575	.728	.833
September	1.003	.858	.565	.722	.829
October	.965	.797	.565	.706	.806
November	.944	.797	.560	.692	.791
December	.930	.797	.504	.650	.756
1917—January	.884	.800	.465	.637	.726
February	.859	.800	.465	.627	.712
March	.834	.800	.458	.615	.696
April	.750	.775	.403	.596	.646
May	.721	.775	.398	.584	.628
June	.701	.775	.302	.574	.593
July	.699	.749	.336	.559	.595
August	.703	.749	.336	.567	.600
September	.696	.749	.336	.571	.599
October	.723	.721	.504	.582	.643
November	.714	.721	.504	.589	.642
December	.693	.721	.504	.589	.633
1918—January	.676	.67	.504	.583	.622
February	.678	.67	.504	.575	.619
March	.670	.670	.504	.558	.609
April	.639	.577	.504	.556	.592
May	.639	.577	.504	.544	.587
June	.638	.577	.504	.529	.580
July	.622	.534	.504	.512	.564
August	.625	.534	.504	.500	.560
September	.625	.534	.504	.496	.558
October	.640	.517	.504	.500	.565
November	.643	.517	.504	.496	.565
December	.639	.517	.504	.502	.566
1919—January	.630	.496	.504	.516	.568
February	.632	.496	.539	.530	.579
March	.632	.496	.539	.543	.584
April	.625	.490	.617	.556	.593
May	.591	.490	.672	.552	.578
June	.514	.490	.672	.529	.528
July	.452	.484	.617	.499	.479
August	.402	.484	.617	.479	.442
September	.390	.484	.617	.484	.436
October	.389	.469	.617	.485	.436
November	.382	.469	.617	.485	.431
December	.343	.469	.617	.482	.403
1920—January	.299	.408	.617	.468	.365
February	.272	.368	.617	.458	.341
March	.268	.350	.617	.451	.336
April	.274	.365	.462	.440	.334
May	.285	.354	.448	.439	.342
June	.315	.347	.448	.443	.364
July	.323	.342	.487	.451	.372

Monthly changes in buying power of the dollar in the purchase of specified classes of building materials, 1913 to 1925—Continued

Year and month	Lumber	Brick, common	Structural steel	Other building materials	All building materials
1920—August	$0.328	$0.339	$0.544	$0.446	$0.377
September	.346	.341	.544	.451	.392
October	.382	.344	.544	.463	.417
November	.452	.349	.544	.484	.465
December	.479	.354	.554	.510	.490
1921—January	.517	.368	.617	.525	.520
February	.587	.371	.617	.551	.556
March	.600	.383	.657	.562	.579
April	.631	.403	.679	.569	.599
May	.633	.423	.686	.582	.607
June	.639	.434	.686	.588	.613
July	.649	.447	.719	.600	.625
August	.661	.458	.816	.612	.642
September	.650	.479	.816	.621	.641
October	.615	.483	.863	.631	.629
November	.575	.486	.915	.646	.614
December	.596	.490	1.007	.654	.632
1922—January	.602	.490	1.007	.654	.635
February	.605	.494	1.007	.661	.640
March	.611	.499	1.042	.666	.647
April	.602	.502	1.007	.670	.641
May	.579	.503	.944	.660	.623
June	.541	.501	.944	.654	.597
July	.535	.497	.915	.646	.590
August	.524	.501	.863	.642	.580
September	.506	.494	.728	.620	.556
October	.493	.491	.711	.615	.546
November	.486	.489	.737	.613	.542
December	.483	.489	.755	.617	.541
1923—January	.472	.489	.755	.613	.533
February	.460	.486	.719	.600	.520
March	.446	.477	.686	.585	.506
April	.436	.469	.581	.571	.489
May	.449	.466	.575	.567	.496
June	.473	.462	.592	.578	.515
July	.486	.462	.604	.589	.527
August	.501	.463	.604	.595	.538
September	.519	.462	.604	.599	.550
October	.517	.460	.604	.599	.549
November	.519	.461	.604	.606	.552
December	.533	.463	.604	.608	.561
1924—January	.521	.465	.604	.602	.552
February	.519	.466	.604	.596	.549
March	.521	.466	.604	.592	.549
April	.520	.466	.617	.596	.551
May	.523	.467	.636	.599	.555
June	.558	.466	.664	.608	.579
July	.578	.471	.686	.610	.592
August	.579	.472	.702	.602	.591
September	.564	.474	.737	.605	.586
October	.561	.474	.775	.606	.586
November	.558	.475	.795	.599	.583
December	.543	.477	.765	.593	.575
1925—January	.525	.481	.719	.590	.557
February	.506	.480	.737	.590	.547
March	.518	.481	.719	.598	.556
April	.542	.480	.737	.606	.573
May	.544	.481	.755	.606	.576
June	.559	.485	.755	.610	.586
July	.561	.487	.755	.612	.588
August	.550	.490	.784	.605	.580
September	.547	.490	.775	.594	.574
October	.548	.490	.775	.595	.575
November	.538	.489	.775	.596	.569
December	.528	.489	.775	.600	.566

The figures for lumber in the above table are based on wholesale prices of Douglas fir, gum, hemlock, maple, white oak, white pine, southern yellow pine, poplar, spruce, yellow-pine lath, cypress shingles, and red-cedar shingles, each material having an importance equal to its production in 1919. The figures for brick represent an average for the United States computed from prices in various localities, while the figures for structural steel are for Pittsburgh. Included in "other building materials" are Portland cement, crushed stone, gravel, hollow tile, lime, sand, slate, plate and window glass, linseed oil, putty, rosin, turpentine, white lead, zinc oxide, cast-iron pipe, copper wire, sheet cooper, lead pipe, nails, reinforcing bars, roofing tin, and sheet zinc.

The table shows that the dollar's purchasing power has fluctuated more widely in the case of structural steel than of other materials. In January, 1914, and again in 1915 the 1913 dollar had a buying power of $1.37, while in June, 1917, it had dwindled to 30.2 cents. With the inauguration of price control later in 1917, as a war measure, the dollar's buying power increased to 50.4 cents and, except for a short period in 1920, has fluctuated above that figure since. Early in 1922 it rose above the 1913 level of 100 cents, but soon dropped, going as low as 57.5 cents in May, 1923. During the past year it has ranged from 71.9 cents to 78.4 cents. Lumber, also, shows wide fluctuations since 1913 in the dollar's purchasing power. Averaging $1.14 in the first half of 1915, it fell to 26.8 cents early in 1920. From this low point it began to rise again, and since 1920 has fluctuated between 43.6 cents and 66.1 cents. Brick, while relatively more stable than other materials, has shown a range in the purchasing power of the dollar extending from $1.042 in 1915 to 33.9 cents in 1920, advancing to 49.0 cents in 1925.

Bituminous coal and coke also furnish examples of extreme variation in the dollar's buying power since 1913. In the table below are shown for these two commodities the average money price, the relative price compared with the average money price in 1913 as 100, and the purchasing power of the dollar by months since the beginning of 1913. The coke prices are for furnace coke at the ovens, while the prices for bituminous coal are quoted on the New River variety f. o. b. Cincinnati.

Wholesale prices of bituminous coal and coke, and purchasing power of the dollar, 1913 to 1925

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1913—January	$2.600	107.8	$0.928	$3.675	150.6	$0.664
February	2.600	107.8	.928	3.075	126.0	.794
March	2.600	107.8	.928	2.550	104.5	.957
April	2.350	97.4	1.027	2.325	95.3	1.049
May	2.350	97.4	1.027	2.150	88.1	1.135
June	2.350	97.4	1.027	2.200	90.2	1.109
July	2.350	97.4	1.027	2.375	97.4	1.027
August	2.350	97.4	1.027	2.500	102.5	.976
September	2.350	97.4	1.027	2.450	100.4	.996
October	2.350	97.4	1.027	2.175	89.2	1.121
November	2.350	97.4	1.027	1.925	78.9	1.267
December	2.350	97.4	1.027	1.875	76.9	1.300
1914—January	2.350	97.4	1.027	1.925	78.9	1.267
February	2.350	97.4	1.027	1.925	78.9	1.267
March	2.350	97.4	1.027	1.875	76.9	1.300
April	2.350	97.4	1.027	1.925	78.9	1.267
May	2.350	97.4	1.027	1.925	78.9	1.267
June	2.350	97.4	1.027	1.875	76.9	1.300
July	2.350	97.4	1.027	1.875	76.9	1.300
August	2.350	97.4	1.027	1.800	73.8	1.355
September	2.500	103.6	.965	1.725	70.7	1.414
October	2.500	103.6	.965	1.675	68.7	1.456
November	2.500	103.6	.965	1.550	63.5	1.575
December	2.500	103.6	.965	1.625	66.6	1.502
1915—January	2.500	103.6	.965	1.625	66.6	1.502
February	2.500	103.6	.965	1.575	64.6	1.548
March	2.500	103.6	.965	1.575	64.6	1.548
April	2.350	97.4	1.027	1.625	66.6	1.502
May	2.350	97.4	1.027	1.625	66.6	1.502
June	2.350	97.4	1.027	1.625	66.6	1.502
July	2.350	97.4	1.027	1.625	66.6	1.502
August	2.500	103.6	.965	1.750	71.7	1.395
September	2.500	103.6	.965	1.675	68.7	1.456
October	2.500	103.6	.965	1.675	68.7	1.456
November	2.500	103.6	.965	2.000	82.0	1.220
December	2.500	103.6	.965	2.375	97.4	1.027
1916—January	2.500	103.6	.965	2.300	94.3	1.060
February	2.500	103.6	.965	2.875	117.8	.849
March	2.500	103.6	.965	2.625	107.6	.929
April	2.450	101.6	.984	3.000	123.0	.813
May	2.450	101.6	.984	2.825	115.8	.864
June	2.450	101.6	.984	2.375	97.4	1.027
July	2.450	101.6	.984	2.625	107.6	.929
August	2.450	101.6	.984	2.625	107.6	.929
September	2.600	107.8	.928	2.625	107.6	.929
	2.600	107.8	.928	2.750	112.7	.887

Wholesale prices of bituminous coal and coke, and purchasing power of the dollar, 1913 to 1925—Continued

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1916—October	$3.600	149.2	$0.670	$3.125	128.1	$0.781
November	4.500	186.5	.536	5.750	235.7	.424
December	6.100	252.9	.395	5.750	235.7	.424
1917—January	6.100	252.9	.395	7.250	297.2	.336
February	6.100	252.9	.395	7.500	307.4	.325
March	6.100	252.9	.395	8.500	348.4	.287
April	6.100	252.9	.395	7.250	297.2	.336
May	6.100	252.9	.395	7.000	286.9	.349
June	6.100	252.9	.395	9.550	389.4	.257
July	6.100	252.9	.395	12.250	502.1	.199
August	4.500	186.5	.536	10.000	409.9	.244
September	3.550	147.2	.679	11.750	481.6	.208
October	3.550	147.2	.679	6.000	245.9	.407
November	4.900	165.8	.603	6.000	245.9	.407
December	4.000	165.8	.603	6.000	245.9	.407
1918—January	3.850	159.6	.627	6.000	245.9	.407
February	3.850	159.6	.627	6.000	245.9	.407
March	3.850	159.6	.627	6.000	245.9	.407
April	3.850	159.6	.627	6.000	245.9	.407
May	4.050	167.9	.596	6.000	245.9	.407
June	3.950	163.7	.611	6.000	245.9	.407
July	4.300	178.2	.561	6.000	245.9	.407
August	4.300	178.2	.561	6.000	245.9	.407
September	4.300	178.2	.561	6.000	245.9	.407
October	4.300	178.2	.561	6.000	245.9	.407
November	4.300	178.2	.561	6.000	245.9	.407
December	4.300	178.2	.561	6.000	245.9	.407
1919—January	4.300	178.2	.561	5.781	237.0	.422
February	4.350	180.3	.555	5.219	213.9	.468
March	4.350	180.3	.555	4.469	183.2	.549
April	4.350	180.3	.555	3.900	159.9	.625
May	4.350	180.3	.555	3.844	157.6	.635
June	4.350	180 3	.555	4.000	164.0	.610
July	4.600	190.7	.524	4.095	167.9	.600
August	4.600	190.7	.524	4.219	172.9	.578
September	5.350	221.8	.451	4.592	188.2	.531
October	5.350	221.8	.451	4.825	197.8	.506
November	4.300	178.2	.561	5.938	243.4	.411
December	4.300	178.2	.561	6.050	248.0	.403
1920—January	4.300	178.2	.561	6.000	245.9	.407
February	4.300	178.2	.561	6.000	245.9	.407
March	4.300	178.2	.561	6.800	278.7	.359
April	5.850	242.5	.412	11.013	451.4	.222
May	6.100	252.9	.395	11.625	476.5	.210
June	6.600	273.6	.365	14.400	590.3	.169
July	6.600	273.6	.365	17.813	730.1	.137
August	6.600	273.6	.365	18.250	748.1	.134
September	7.700	319.2	.313	17.150	703.0	.142
October	7.700	319.2	.313	15.683	643.0	.156
November	7.700	319.2	.313	8.625	353.5	.283
December	7.700	319.2	.313	6.350	260.3	.384
1921—January	6.700	277.7	.360	5.250	215.2	.465
February	6.200	257.0	.389	5.000	205.0	.488
March	5.700	236.3	.523	4.550	186.5	.536
April	5.700	236.3	.423	3.938	161.4	.620
May	5.700	236.3	.423	3.438	140.9	.710
June	5.700	236.3	.423	3.110	127.5	.784
July	5.700	236.3	.423	2.888	118.4	.845
August	5.450	225.9	.443	3.000	123.0	.813
September	5.200	215.5	.464	3.375	138.3	.723
October	4.950	205.2	.487	3.419	140.1	.714
November	4.700	194.8	.513	3.140	128.7	.777
December	4.450	184.5	.542	2.875	117.8	.849
1922—January	4.200	174.1	.574	2.875	117.8	.849
February	4.050	167.9	.596	3.050	125.0	.800
March	3.950	163.7	.611	3.375	138.3	.723
April	3.950	163.7	.611	4.688	192.1	.521
May	4.200	174.1	.574	6.375	261.3	.383
June	5.200	215.5	.464	7.000	286.9	.349
July	5.490	227.6	.439	10.938	448.3	.223
August	6.490	269.0	.372	13.350	547.2	.183
September	7.490	310.5	.322	11.938	489.3	.204
October	7.490	310.5	.322	10.688	438.1	.228
November	7.490	310.5	.322	7.400	303.3	.330
December	7.490	310.5	.322	7.313	299.7	.334

Wholesale prices of bituminous coal and coke, and purchasing power of the dollar, 1913 to 1925—Continued

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1923—January	$7.990	331.2	$0.302	$8.425	345.3	$0.290
February	6.990	289.7	.345	7.094	290.8	.344
March	6.490	269.0	.372	7.438	304.9	.328
April	5.990	248.3	.403	6.625	271.6	.368
May	5.990	248.3	.403	5.400	221.3	.452
June	5.990	248.3	.403	5.188	212.6	.470
July	5.240	217.2	.460	4.719	193.4	.517
August	4.990	206.8	.484	4.675	191.6	.522
September	4.990	206.8	.484	4.813	197.3	.507
October	4.990	206.8	.484	3.975	162.9	.614
November	4.490	186.1	.537	4.075	167.0	.599
December	3.990	165.4	.605	4.125	169.1	.591
1924—January	3.990	165.4	.605	4.025	165.0	.606
February	4.490	186.1	.537	4.194	171.9	.582
March	4.490	186.1	.537	4.181	171.4	.583
April	4.490	186.1	.537	3.775	154.7	.646
May	4.240	175.8	.569	3.406	139.6	.716
June	3.990	165.4	.605	3.225	132.2	.756
July	3.990	165.4	.605	2.955	121.1	.826
August	3.990	165.4	.605	3.000	123.0	.813
September	3.990	165.4	.605	3.125	128.1	.781
October	3.990	165.4	.605	3.125	128.1	.781
November	3.990	165.4	.605	3.225	132.2	.756
December	3.990	165.4	.605	4.035	165.4	.605
1925—January	3.990	165.4	.605	4.638	190.1	.526
February	3.990	165.4	.605	4.075	167.0	.599
March	3.990	165.4	.605	3.520	144.3	.693
April	3.990	165.4	.605	3.169	129.9	.770
May	3.990	165.4	.605	3.113	127.6	.784
June	3.990	165.4	.605	2.895	118.7	.842
July	3.990	165.4	.605	2.913	119.4	.838
August	3.990	165.4	.605	3.194	130.9	.764
September	4.240	175.8	.569	3.695	151.5	.660
October	4.240	175.8	.569	6.531	267.7	.374
November	4.490	186.1	.537	6.875	281.8	.355
December	4.490	186.1	.537	4.450	182.4	.548

In November, 1914, the purchasing power of a dollar, as applied to coke, was $1.575. In August, 1920, it was 13.4 cents. Three times since the middle of 1917 it has dropped to 20.0 cents or below. The stabilizing effect of price control is seen in the figures for the last three months of 1917 and all of 1918, when the dollar's buying power held steadily at 40.7 cents. In 1919, with war conditions removed, prices declined and the dollar's buying power advanced to 63.5 cents in May. Increasing prices thereafter steadily diminished the dollar's equivalent in coke until in the summer of 1920 it would buy less than one-fifth as much as in 1913. This condition was repeated in August, 1922. In June, 1925, the dollar averaged 84.2 per cent of its 1913 buying power in the purchase of coke, while in November it averaged only 35.5 per cent of such power, due to radical increases in the wholesale price of this commodity.

Bituminous coal to a less extent shows the same variations as coke. From 1913 to the middle of 1916 the dollar averaged close to 100 cents in its purchasing power. At the end of 1916 and during the first half of 1917 it was only 39.5 cents. For the next two years it averaged well above 50 cents, dropping again to 39.5 cents in May, 1920, and to 31.3 cents in the closing months of that year. Following a period of rising buying power in the next two years, it fell to 30.2 cents in January, 1923, advancing again to 60.5 cents in the last month. Compared with 1913, the dollar in the first half of 1923 had lost almost two-thirds of its buying power as applied to bituminous coal. In 1925 its buying power averaged about 59 per cent of its pre-war power, with a decrease at the end of the year.

The table which follows furnishes a comparison of the pre-war dollar's purchasing power since 1913 for agricultural and nonagricultural commodities. The figures for agricultural commodities in this table are based on the whole-

Wholesale prices of bituminous coal and coke, and purchasing power of the dollar, 1913 to 1925—Continued

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1916—October	$3.600	149.2	$0.670	$3.125	128.1	$0.781
November	4.500	186.5	.536	5.750	235.7	.424
December	6.100	252.9	.395	5.750	235.7	.424
1917—January	6.100	252.9	.395	7.250	297.2	.336
February	6.100	252.9	.395	7.500	307.4	.325
March	6.100	252.9	.395	8.500	348.4	.287
April	6.100	252.9	.395	7.250	297.2	.336
May	6.100	252.9	.395	7.000	286.9	.349
June	6.100	252.9	.395	9.550	389.4	.257
July	6.100	252.9	.395	12.250	502.1	.199
August	4.500	186.5	.536	10.000	409.9	.244
September	3.550	147.2	.679	11.750	481.6	.208
October	3.550	147.2	.679	6.000	245.9	.407
November	4.900	165.8	.603	6.000	245.9	.407
December	4.000	165.8	.603	6.000	245.9	.407
1918—January	3.850	159.6	.627	6.000	245.9	.407
February	3.850	159.6	.627	6.000	245.9	.407
March	3.850	159.6	.627	6.000	245.9	.407
April	3.850	159.6	.627	6.000	245.9	.407
May	4.050	167.9	.596	6.000	245.9	.407
June	3.950	163.7	.611	6.000	245.9	.407
July	4.300	178.2	.561	6.000	245.9	.407
August	4.300	178.2	.561	6.000	245.9	.407
September	4.300	178.2	.561	6.000	245.9	.407
October	4.300	178.2	.561	6.000	245.9	.407
November	4.300	178.2	.561	6.000	245.9	.407
December	4.300	178.2	.561	6.000	245.9	.407
1919—January	4.300	178.2	.561	5.781	237.0	.422
February	4.350	180.3	.555	5.219	213.9	.468
March	4.350	180.3	.555	4.469	183.2	.549
April	4.350	180.3	.555	3.900	159.9	.625
May	4.350	180.3	.555	3.844	157.6	.635
June	4.350	180.3	.555	4.000	164.0	.610
July	4.600	190.7	.524	4.095	167.9	.600
August	4.600	190.7	.524	4.219	172.9	.578
September	5.350	221.8	.451	4.592	188.2	.531
October	5.350	221.8	.451	4.825	197.8	.506
November	4.300	178.2	.561	5.938	243.4	.411
December	4.300	178.2	.561	6.050	248.0	.403
1920—January	4.300	178.2	.561	6.000	245.9	.407
February	4.300	178.2	.561	6.000	245.9	.407
March	4.300	178.2	.561	6.800	278.7	.359
April	5.850	242.5	.412	11.013	451.4	.222
May	6.100	252.9	.395	11.625	476.5	.210
June	6.600	273.6	.365	14.400	590.3	.169
July	6.600	273.6	.365	17.813	730.1	.137
August	6.600	273.6	.365	18.250	748.1	.134
September	7.700	319.2	.313	17.150	703.0	.142
October	7.700	319.2	.313	15.683	643.0	.156
November	7.700	319.2	.313	8.625	353.5	.283
December	7.700	319.2	.313	6.350	260.3	.384
1921—January	6.700	277.7	.360	5.250	215.2	.465
February	6.200	257.0	.389	5.000	205.0	.488
March	5.700	236.3	.423	4.550	186.5	.536
April	5.700	236.3	.423	3.938	161.4	.620
May	5.700	236.3	.423	3.438	140.9	.710
June	5.700	236.3	.423	3.110	127.5	.784
July	5.700	236.3	.423	2.888	118.4	.845
August	5.450	225.9	.443	3.000	123.0	.813
September	5.200	215.5	.464	3.375	138.3	.723
October	4.950	205.2	.487	3.419	140.1	.714
November	4.700	194.8	.513	3.140	128.7	.777
December	4.450	184.5	.542	2.875	117.8	.849
1922—January	4.200	174.1	.574	2.875	117.8	.849
February	4.050	167.9	.596	3.050	125.0	.800
March	3.950	163.7	.611	3.375	138.3	.723
April	3.950	163.7	.611	4.688	192.1	.521
May	4.200	174.1	.574	6.375	261.3	.383
June	5.200	215.5	.464	7.000	286.9	.349
July	5.490	227.6	.439	10.938	448.3	.223
August	6.490	269.0	.372	13.350	547.2	.183
September	7.490	310.5	.322	11.938	489.3	.204
October	7.490	310.5	.322	10.688	438.1	.228
November	7.490	310.5	.322	7.400	303.3	.330
December	7.490	310.5	.322	7.313	299.7	.334

Wholesale prices of bituminous coal and coke, and purchasing power of the dollar, 1913 to 1925—Continued

Year and month	Bituminous coal			Coke		
	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)	Money price per ton	Relative price (1913=100)	Purchasing power of dollar (1913=$1)
1923—January	$7.990	331.2	$0.302	$8.425	345.3	$0.290
February	6.990	289.7	.345	7.094	290.8	.344
March	6.490	269.0	.372	7.438	304.9	.328
April	5.990	248.3	.403	6.625	271.6	.368
May	5.990	248.3	.403	5.400	221.3	.452
June	5.990	248.3	.403	5.188	212.6	.470
July	5.240	217.2	.460	4.719	193.4	.517
August	4.990	206.8	.484	4.675	191.6	.522
September	4.990	206.8	.484	4.813	197.3	.507
October	4.990	206.8	.484	3.975	162.9	.614
November	4.490	186.1	.537	4.075	167.0	.599
December	3.990	165.4	.605	4.125	169.1	.591
1924—January	3.990	165.4	.605	4.025	165.0	.606
February	4.490	186.1	.537	4.194	171.9	.582
March	4.490	186.1	.537	4.181	171.4	.583
April	4.490	186.1	.537	3.775	154.7	.646
May	4.240	175.8	.569	3.406	139.6	.716
June	3.990	165.4	.605	3.225	132.2	.756
July	3.990	165.4	.605	2.955	121.1	.826
August	3.990	165.4	.605	3.000	123.0	.813
September	3.990	165.4	.605	3.125	128.1	.781
October	3.990	165.4	.605	3.125	128.1	.781
November	3.990	165.4	.605	3.225	132.2	.756
December	3.990	165.4	.605	4.035	165.4	.605
1925—January	3.990	165.4	.605	4.638	190.1	.526
February	3.990	165.4	.605	4.075	167.0	.599
March	3.990	165.4	.605	3.520	144.3	.693
April	3.990	165.4	.605	3.169	129.9	.770
May	3.990	165.4	.605	3.113	127.6	.784
June	3.990	165.4	.605	2.896	118.7	.842
July	3.990	165.4	.605	2.913	119.4	.838
August	3.990	165.4	.605	3.194	130.9	.764
September	4.240	175.8	.569	3.695	151.5	.660
October	4.240	175.8	.569	6.531	267.7	.374
November	4.490	186.1	.537	6.875	281.8	.355
December	4.490	186.1	.537	4.450	182.4	.548

In November, 1914, the purchasing power of a dollar, as applied to coke, was $1.575. In August, 1920, it was 13.4 cents. Three times since the middle of 1917 it has dropped to 20.0 cents or below. The stabilizing effect of price control is seen in the figures for the last three months of 1917 and all of 1918, when the dollar's buying power held steadily at 40.7 cents. In 1919, with war conditions removed, prices declined and the dollar's buying power advanced to 63.5 cents in May. Increasing prices thereafter steadily diminished the dollar's equivalent in coke until in the summer of 1920 it would buy less than one-fifth as much as in 1913. This condition was repeated in August, 1922. In June, 1925, the dollar averaged 84.2 per cent of its 1913 buying power in the purchase of coke, while in November it averaged only 35.5 per cent of such power, due to radical increases in the wholesale price of this commodity.

Bituminous coal to a less extent shows the same variations as coke. From 1913 to the middle of 1916 the dollar averaged close to 100 cents in its purchasing power. At the end of 1916 and during the first half of 1917 it was only 39.5 cents. For the next two years it averaged well above 50 cents, dropping again to 39.5 cents in May, 1920, and to 31.3 cents in the closing months of that year. Following a period of rising buying power in the next two years, it fell to 30.2 cents in January, 1923, advancing again to 60.5 cents in the last month. Compared with 1913, the dollar in the first half of 1923 had lost almost two-thirds of its buying power as applied to bituminous coal. In 1925 its buying power averaged about 59 per cent of its pre-war power, with a decrease at the end of the year.

The table which follows furnishes a comparison of the pre-war dollar's purchasing power since 1913 for agricultural and nonagricultural commodities. The figures for agricultural commodities in this table are based on the whole-

sale prices of all products of American farms included in the bureau's regular series of weighted index numbers, while those for nonagricultural commodities are based on the prices of all other articles so included.

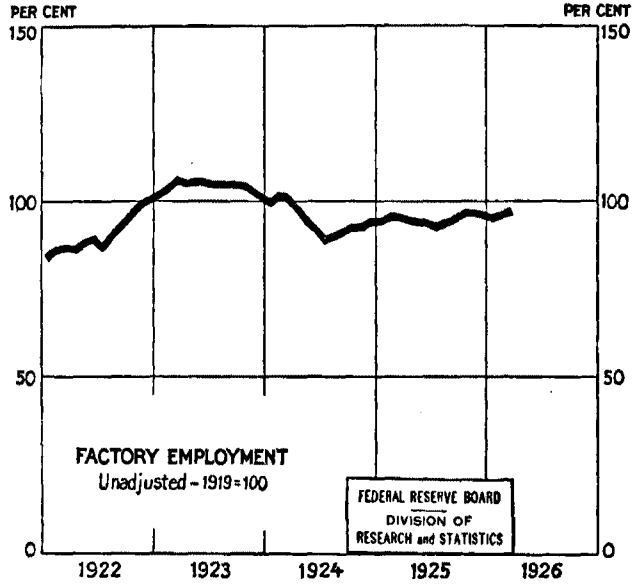
Monthly changes in buying power of the dollar in purchase of agricultural and nonagricultural commodities, 1913 to 1925

[1913=$1.000]

Year and month	Agricultural	Nonagricultural	Year and month	Agricultural	Nonagricultural	Year and month	Agricultural	Nonagricultural
1913—January	$1.025	$0.975	1917—May	$0.532	$0.564	1921—September	$0.750	$0.669
February	1.025	.976	June	.541	.537	October	.763	.658
March	1.015	.981	July	.541	.525	November	.785	.649
April	1.008	.991	August	.522	.534	December	.796	.650
May	1.027	.999	September	.518	.552	1922—January	.801	.660
June	1.010	1.002	October	.507	.596	February	.750	.670
July	.992	1.009	November	.499	.605	March	.735	.674
August	.986	1.009	December	.505	.601	April	.736	.670
September	.965	1.003	1918—January	.502	.591	May	.722	.639
October	.978	1.005	February	.498	.588	June	.724	.622
November	.979	1.015	March	.497	.582	July	.710	.592
December	.990	1.040	April	.490	.570	August	.736	.574
1914—January	.984	1.049	May	.496	.561	September	.736	.585
February	.987	1.043	June	.494	.555	October	.717	.592
March	.994	1.040	July	.482	.543	November	.698	.597
April	1.001	1.047	August	.466	.541	December	.690	.598
May	1.000	1.062	September	.452	.536	1923—January	.704	.592
June	.995	1.080	October	.462	.534	February	.701	.588
July	.982	1.065	November	.458	.534	March	.691	.583
August	.913	1.087	December	.457	.541	April	.693	.580
September	.911	1.075	1919—January	.460	.557	May	.698	.594
October	.961	1.101	February	.476	.568	June	.707	.606
November	.962	1.116	March	.458	.578	July	.719	.619
December	.975	1.101	April	.443	.584	August	.714	.627
1915—January	.952	1.094	May	.437	.570	September	.680	.626
February	.933	1.092	June	.455	.540	October	.678	.634
March	.944	1.092	July	.437	.513	November	.679	.641
April	.936	1.093	August	.436	.495	December	.684	.645
May	.932	1.078	September	.461	.492	1924—January	.689	.639
June	.965	1.062	October	.461	.487	February	.697	.629
July	.951	1.046	November	.445	.478	March	.712	.631
August	.967	1.037	December	.431	.467	April	.717	.639
September	.993	1.017	1920—January	.416	.444	May	.727	.646
October	.960	.994	February	.432	.429	June	.735	.656
November	.962	.957	March	.431	.423	July	.705	.660
December	.949	.906	April	.407	.411	August	.682	.658
1916—January	.922	.858	May	.401	.411	September	.685	.661
February	.914	.822	June	.405	.418	October	.660	.661
March	.899	.794	July	.415	.417	November	.661	.653
April	.880	.778	August	.445	.420	December	.636	.642
May	.871	.768	September	.461	.425	1925—January	.618	.636
June	.876	.762	October	.511	.441	February	.624	.625
July	.859	.769	November	.552	.473	March	.614	.633
August	.811	.773	December	.627	.503	April	.640	.645
September	.778	.765	1921—January	.658	.533	May	.645	.648
October	.743	.732	February	.700	.564	June	.634	.641
November	.699	.675	March	.705	.592	July	.618	.637
December	.719	.630	April	.756	.612	August	.612	.639
1917—January	.696	.616	May	.769	.622	September	.616	.640
February	.673	.605	June	.791	.639	October	.637	.635
March	.637	.596	July	.768	.659	November	.642	.630
April	.571	.585	August	.746	.672	December	.651	.633

In the first half of 1920, the year of high prices, there was little difference in the buying power of the pre-war dollar as between agricultural and nonagricultural commodities, the average being around 42 cents. After the middle of that year, with the slump in prices of farm products, the purchasing power of the 1913 dollar in terms of agricultural commodities rose rapidly, reaching 80.1 cents in January of 1922. At this time the pre-war dollar was equal to only 66 cents in the purchase of nonagricultural commodities. In 1923 and

1924 relatively more agricultural than nonagricultural commodities continued to be purchaseable by the dollar of 1913, but in 1925, except for the last three months, these conditions were reversed, showing that agricultural products had again slightly exceeded the price level of other commodities.



The CHAIRMAN. Thank you very much, Doctor. Without objection, the committee will adjourn, subject to call.

(Whereupon, at 4.15 o'clock p. m., the committee adjourned.)