

THE PROBLEM
OF
STABLE EXCHANGE RATES

BY

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CHAPTER I

INTRODUCTION

THE past thirty years have been characterized by recurring major monetary upheavals. During the last fifteen years the problem of stabilizing the external values of the world's currencies has been an extremely pressing one but no solution for it has so far received general acceptance.

The American government has been interested in fostering international currency stability since the end of World War I. Despite our between-wars political isolationism we did, on occasion, accept responsibility for shoring up a weak international monetary system. Our policies were not always wise or consistent, but we never denied that we possessed monetary obligations, however ill-defined. The period during which we depreciated our own currency is an apparent exception, but even then we were anxious for other currencies to remain stable.

During the later half of the 1920s the Federal Reserve Board was under frequent criticism for maintaining low interest rates in the United States in order to keep gold from flowing here. At the same time, it was charged, the domestic situation called for higher interest rates in order to curb speculation. Without passing upon the correctness of Federal Reserve policy, a perusal of the board's annual reports shows that it devoted considerable attention to the matter of international currency stability.

The Roosevelt administration came into power at a time when the world's currencies were in a disturbed state wholly without precedent. The original policy of the administration was to bring order out of the existing chaotic currency conditions by cooperating with other nations at the London Economic Conference held in the summer of 1933. But, by the time the conference took up stabilization, the administration felt that the monetary program proposed by the "gold bloc" countries would hamper our domestic recovery program. It therefore declined to bind itself to any particular policy. During the following two years we did little overtly to encourage stability; however, the Exchange Stabilization Fund was probably an influence in this direction, and aids to the Bank of France were given in June 1935.

In September 1935 the United States, France, and Great Britain entered into a tripartite agreement for the cooperative stabilization of each other's currencies and for the maintenance of equilibrium in international exchange conditional upon the devaluation of the franc. Within a few weeks, Belgium, Switzerland, and the Netherlands also joined. This agreement was renewed in 1937.

Although the American government refused to stabilize the dollar *de jure*, it was stabilized *de facto*. No doubt much more could have been done from 1933 until the outbreak of war in 1939 to make our program clearer so that other nations could know what to expect from us. Nevertheless, we did participate with other governments in attacking particular phases of international currency problems.

POSTWAR ASPECTS

After innumerable exchanges of views between monetary officials of the various United Nations, especially the United States, Great Britain, and Canada, the United Nations Monetary and Financial Conference was held at Bretton Woods, New Hampshire in July 1944. It is interesting to note that monetary stabilization and international investment were the first postwar problems to be discussed by the United Nations. This gives some idea of the importance with which these problems are viewed. The controversies that have resulted from the proposals made by the Bretton Woods conferees give an indication of the difficulties involved in obtaining any formula that will gain widespread acceptance.

The turmoil which has characterized the world's currency relationships since the outbreak of World War I has not always been the normal state of affairs. The latter two-thirds of the nineteenth century and the first years of the twentieth were marked by few monetary disturbances. Between the end of the Napoleonic wars and the outbreak of World War I, international trade and capital movements were but little hindered by currency upsets. Once the wave of depreciation resulting from World War II has passed, we shall be badly in need of a monetary mechanism that will operate with as little friction for the balance of the present century as the one we had before 1914.

If the question now facing us was simply the re-establishment of the gold standard as it existed prior to World War I, the difficulties would be great. Unfortunately, it is even more complex; conditions have altered materially and we are unable to turn back the hands of time.

The basic problem which will prove hardest to agree upon is whether or not foreign-exchange rates, once stabilized, should remain free from further adjustment.¹ The orthodox view is that it is in the best interest of all for rates of exchange to remain unaltered, come what may. But in recent years there has been a growing feeling that it is desirable to shift the emphasis from the maintenance of stable exchange rates to the maintenance of stable economic conditions. This means that the exchanges should be adjusted with the view of maintaining full employment, a stable price level, or according to some similar criterion.

ORIGIN OF DIFFERENT VIEWS

Prior to 1929 there was general acceptance of the principle that monetary policy should be directed toward the continuance of stable exchange rates. In the later 1920s there was, however, a feeling that the international gold standard was not operating the way it should. This dissatisfaction was particularly strong in the case of the British, who were able to remain on gold only by curtailing the income flow within the country to such an extent that continued large-scale unemployment resulted. Had their national income expanded, people would have purchased more imports and this would have caused loss of gold in so great a quantity that the gold standard would have been threatened. There was no corresponding feeling of dissatisfaction in the United States because we were enjoying unprecedented prosperity and were experiencing no difficulty whatever in retaining our gold reserves.

The 1930s saw a sharp division among economists in all countries regarding the desirability of flexible exchange rates. Furthermore, a difference also developed between opinion in business and financial circles in the United States, on the one hand, and public opinion in Britain, on the other. The United Kingdom found that depreciation, beginning in 1931, was a blessing rather than the calamity that had been previously predicted, for it proved to be a stimulant to employment and national income. This was in contrast to the sluggish conditions prevalent under the gold standard during the 1920s. It is thus only natural that Britain is partial to a managed paper currency and objects strongly to any arrangement that bears a resemblance to the

¹ There are really two problems involved. The first is that of choosing a desirable policy and the second is putting it into effect after it has been chosen. This study deals only with the first of these problems.

gold standard, which, to the British, is associated with deflation and unemployment.²

American experience has been quite the opposite. We were prosperous on the between-wars gold standard until 1929, and we have not blamed it for our depressions. Although we deliberately resorted to exchange depreciation in 1933, the benefits we received were far from being as obvious as those accruing to the British. Moreover, our postwar export trade will probably be better if the world has stable exchange rates.

The divergence between American and British opinions is, unfortunately, wide. The extent of this gulf is indicated by the official arguments in favor of the Bretton Woods agreements. In the United States the agreements are represented as setting up a mechanism for the settlement of international payments that has many similarities to the gold standard, will assure us of reasonable currency stability, and will foster multilateral trade. The British public believes that the Bretton Woods agreements will permit flexible exchange rates and reciprocal-trade agreements involving discrimination.³

PURPOSE OF THIS STUDY

It is the purpose of this study to investigate the reasons for these differences of opinion in regard to the desirability of continued stable exchange rates. Considerable historical material will be included, in order to show what actually happens during a period of currency depreciation. However, the bulk of the argument must be theoretical, since historical experiences with fluctuating exchange rates involve complex shifting factors and are hence not sufficiently conclusive.

² The following excerpt from an editorial headed "The Monetary Agreements" in the *Economist* (London), Aug. 12, 1944, would not be found in a business or financial journal in the United States: ". . . the main issue [is] whether, in the postwar world, multilateral stable-exchange systems will be possible or desirable."

³ For an interesting comment on the possibilities of friction between Britain and the United States if the Bretton Woods agreements are adopted, see a letter to the *New York Times*, March 14, 1945, by Robert Boothley. Mr. Boothley was a member of Parliament and also chairman of the Monetary Policy Committee in London, which included members of Parliament of all parties.

CHAPTER II

NATURE AND DETERMINATION OF FOREIGN-EXCHANGE RATES

THE particular aspect of the "value" of a currency dealt with in this study is its power to buy other currencies. Thus we say that the Canadian dollar is at a discount because it takes more than one Canadian dollar to buy an American dollar. This relationship between the moneys of different nations is called their external values. It is to be clearly distinguished from their internal values, which refer to their power to buy goods within the country—in other words, their purchasing power.

Except for a small volume of Canadian coin and paper money, virtually no foreign currencies as such are bought and sold in the United States. We learn the external values of currencies by reading the foreign-exchange quotations. Foreign exchange may be strictly defined as written or telegraphed orders to pay money drawn by merchants or bankers at one geographical point on merchants or bankers located in areas having different currency systems. The phrase "orders to pay money" means checks written by individuals or banks (the latter being called "bank drafts"), demand and time drafts drawn on individuals or firms, time drafts drawn on banks for the account of customers of the bank (called "bankers' acceptances" after presentation and acceptance by the bank upon which drawn), postal money orders, travelers checks, and other variations of the bill of exchange.

Foreign-exchange *rates* are the prices at which foreign exchange is bought and sold. They are the prices which indicate, for example, how many dollars an American will have to pay his bank for a £1,500 bank draft to settle a trade debt in England. At the present time the rate is \$4.04 per pound sterling, so that the total cost would be \$6,060. The cost of a bank draft on Montreal for \$1,000 (Canadian) is \$897.50, because the foreign-exchange rate for orders to pay in Canadian currency is, at the time of writing, \$0.8975 per Canadian dollar.

HOW RATES ARE DETERMINED

In the absence of governmental intervention, foreign-exchange rates are determined by demand and supply. When government does intervene directly, the rate is determined by the government of the

country in which the foreign exchange is being bought and sold rather than by the government on whose currency the orders are drawn. Obviously, the United States government has no power to dictate the number of pounds, shillings, and pence one Englishman charges another Englishman in England for a draft of \$1,000 on an American bank. The British government, however, may, and during wartime actually does, control foreign-exchange transactions by establishing a government monopoly. It requires anyone subject to its jurisdiction to sell to the British government at a fixed price whatever American or other foreign exchange he may have. Anyone in Britain needing American exchange must buy it from the British government. The same is true of Canada and most other belligerent powers except the United States.

Although one government cannot fix the price at which orders payable in its currency can be sold in foreign nations, it can markedly affect the price by influencing demand and supply. The Canadian government can set the American exchange rate in Canada; but it cannot set the Canadian exchange rate in the United States, because the latter price is established by buyers and sellers in the United States. Nevertheless, these American buyers and sellers can be influenced in their decisions by such actions of the Canadian government as offering more Canadian exchange in the United States or altering the ease with which Canadians can buy American goods and services.

Buyers and sellers of foreign exchange (except in countries not permitting its free sale) conduct their transactions wherever it happens to be convenient for them to meet. There is no centralized location for trading analogous to a security or commodity exchange. The market is quite like the over-the-counter market for actively traded securities.

THE ROLE OF BANKS

Banks appear as either buyers or sellers in most American foreign-exchange transactions. There are few foreign-exchange dealers in this country that are not banks. The banks act as merchants, buying in order to sell at a higher price (they hope). Thus a bank's willingness to buy foreign exchange depends upon its anticipated ability to sell at a higher price; in many transactions this "markup" takes the form of a fee or commission charged by the bank. Most foreign exchange purchased by Americans consists of bank drafts or cable transfers bought from large metropolitan banks. These banks have checking

accounts in banks in London and other important foreign cities and they sell checks (i.e., bank drafts) or cable orders on these accounts to anyone wishing to buy them. The amount of these bank drafts and cable transfers is expressed in pounds, francs, pesos, etc. The American banks are in a position similar to other bank depositors in that they cannot write checks on their foreign accounts indefinitely without making deposits. The deposits normally consist of checks, drafts, or cable transfers, drawn in pounds, francs, pesos, or whatever the local currency happens to be. American banks with foreign accounts are anxious to acquire such items of foreign exchange so that they can mail them abroad to be deposited to their credit in their foreign accounts. This enables them to continue selling bank drafts and cable transfers (i.e., foreign exchange). The competition in this field is sufficiently keen so that abnormally large profits by foreign-exchange dealers are unusual.

An illustration may make this discussion easier to grasp. The writer was once associated with a bank in a city near the Canadian border at a time when Canadian exchange rates were fluctuating frequently. Commercial firms receiving relatively large checks drawn on Canadian banks from Canadian customers found that often one bank would give them a higher price than others. A bank whose Canadian balance was quite low (because it had sold many drafts) would be willing to pay a higher price for a Canadian check than would a bank that felt it already had too much in its Canadian account. Accordingly, business firms frequently called each foreign-exchange department to ask how much it would give for, say, a check of \$1,500 drawn on Canadian funds. It was customary for a bank's offer to remain in effect for half an hour, in order to permit the holder of a check to call all the other banks. The price accepted by the firm constituted a foreign-exchange rate.

This description of the role of banks in the foreign-exchange market has omitted mention of sales between banks or other dealers in foreign exchange; such transactions involve technicalities that would needlessly complicate the present discussion.

COMPOSITION OF DEMAND AND SUPPLY

The phrase "demand and supply" needs to be translated into human terms. Who are those Americans having foreign exchange to sell and how did they come into possession of the instruments? Who are

those Americans who want to buy foreign exchange and why do they want it? To answer these questions we must go behind the scenes and learn a little about international financial transactions.

The principal nonspeculative reasons why individuals and firms in one country may want orders payable in foreign funds are:

(1) *To pay for imports.* A merchant or manufacturer who sells goods to a firm in another country wants payment in his own currency. An American firm selling factory equipment in Brazil ordinarily wants payment in American dollars and not in Brazilian milreis, because the American firm pays wages to its workers, buys its supplies, pays its interest and dividends, etc., in American dollars. Likewise, a Brazilian coffee exporter wants Brazilian milreis for his coffee because American dollars would not be satisfactory for paying his financial obligations.

(2) *To pay for services performed by foreigners.* The principal services performed by foreigners are shipping and insurance.

(3) *To pay interest due abroad.* Except in rare instances, the lender wants his interest in money that he can spend or invest in his own country. Therefore, the borrower must come into the market as a buyer of exchange on the lender's currency in order to pay his interest.

(4) *To repay principal borrowed from abroad.* This may represent either long-term or short-term commitments. Long-term borrowings are usually represented by bond issues. Short-term borrowings are frequently associated with central-bank credit policy or security speculation. A minor change in interest rates in two international centers may cause a large and rapid shift of mobile capital. So-called "fear money" is a special type of short-term capital. When an individual loses faith in the continued ability of his country's currency to retain its purchasing power, he may wish to convert his holdings into the currency of another country. In order to do this, he may go to his bank and buy a draft on its account in a foreign country. He may then either hold the draft or send it to the foreign country to open a checking account. As soon as he regains confidence, he will reconvert to his own currency. Thus, the foreign country can expect the withdrawal of his funds as soon as his attitude toward his own country's currency alters—hence the term "fear money." Historically, the American dollar has been a leading place of refuge for foreigners afraid of their own cur-

rency. However, in the months of our banking crisis in the early years of the last decade, there was a mild "flight from the dollar" by some Americans who thought Canadian, British, or "gold bloc" currencies were safer than ours.

In general, the supply of foreign exchange arises out of types of transactions opposite to those listed above. If exports of goods, services, or securities are paid for by the foreign buyer in his own currency, the seller will have a check, draft, or acceptance drawn in the foreign currency. He will wish to sell this to a foreign-exchange dealer in order to get his own currency. Similarly, borrowings abroad may increase the supply of foreign exchange, since the borrower may wish to sell drafts on these funds so that he can convert them into his own currency. It should be added that not all foreign borrowings lead to an increase in the supply of foreign exchange; some transactions are "tied," that is, the entire proceeds of the loan must be spent in the lending country and the machinery or other goods purchased are imported, so that no foreign exchange results.

EFFECTS OF INTERNATIONAL TRADE AND CAPITAL TRANSACTIONS

The pricing mechanism of foreign exchange differs only superficially from that of wheat, securities, land, or any other goods or services subject to a fair degree of price competition. Thus, if there is a demand for more foreign exchange than the foreign-exchange dealers can supply, the price of foreign exchange will rise. This rise will continue until some of the demanders become disheartened and drop out of the market, or there is an increase in the supply of foreign exchange.

It has previously been pointed out that the importation of goods will bring about a demand for foreign exchange and, hence, a tendency to cause a strengthening of foreign-exchange rates. This is true whether the importer pays for the goods with an order on the seller's currency or with the currency of his own country. If an American buyer of coffee should pay for a shipment by a check on his American bank instead of a draft on a Brazilian bank, the effect on foreign-exchange rates would be the same. The Brazilian would want to sell the check drawn in terms of American dollars for milreis. This would depress dollar exchange in Brazil and strengthen Brazilian exchange in the United States. The reason why a reduction of the price of dollar exchange in Rio strengthens Brazilian exchange correspondingly in New York is that, if this

did not occur, foreign-exchange dealers would be able to change one currency into the other and then back to the first and end up with more money than they started out with. The very act of carrying out such an arbitrage transaction, however, tends to bring about a correspondence of rates because it strengthens the low one or weakens the high one, depending upon the nature of the divergency.

The general principles involved in this section may be summarized as follows:

(1) When American firms or individuals *sell* (export) goods, securities, or services to foreigners and when they *receive* interest, dividends, and principal payments from foreigners, there results either (a) an increase in the demand abroad for exchange drawn on American currency or (b) an increase in the supply of foreign exchange within the United States. In either case, the price abroad of orders drawn in terms of American currency will rise and the domestic price of orders in terms of foreign currencies will decline correspondingly. These adjustments may be amplified by speculative transactions, because an anticipation of lower foreign-exchange rates (that is, an appreciation of the price of exchange drawn on American currency) will lead to speculative selling of drafts drawn on balances in foreign banks.

(2) When American firms or individuals *buy* (import) goods, securities, or services from foreigners and when they *pay* interest, dividends, or principal to foreigners, there results either (a) an increase in the supply of American exchange abroad or (b) an increased demand within the United States for foreign exchange. In either case, the price abroad of orders in terms of American currency will decline and the domestic price of foreign exchange will rise correspondingly. These adjustments may be amplified by speculative transactions, because an anticipation of higher foreign-exchange rates (that is, a depreciation of the price of exchange drawn on American currency) will lead to speculative buying of drafts drawn on balances in foreign banks.

LIMITATION OF FLUCTUATIONS

From the preceding discussion, it might appear that foreign-exchange rates would commonly oscillate over a considerable range, since it is unlikely that the daily flow of foreign exchange into the

market will be sufficiently close to the amount demanded for no price adjustments to occur. As a matter of fact, it seldom happens that nations permit exchange drawn on their currency to fluctuate freely.¹ Generally speaking, movements during a single day, or even a single week, are restricted to a fairly narrow range by the monetary authorities of the government whose currency is involved.

The historically "correct" method of limiting exchange fluctuations is by means of the gold standard. The adoption of the gold standard requires a nation to define its unit of currency in terms of grains of gold. The exact number of grains of gold in the currency units of various countries depends upon tradition and convenience. If the pound sterling is defined as containing 4.86 times as much fine gold as our dollar, the par value of the pound is \$4.86. If the Canadian dollar is described by law as containing the same number of grains of gold as the American dollar, then its par value is \$1.00.

To maintain the gold standard, a nation, in addition to defining the standard coin in terms of grains of gold, must require its treasury to freely buy gold and also sell it for export. It is profitable to export gold only when foreign-exchange rates are so high that banks can buy gold at home, ship it abroad, and sell drafts or cable transfers on the resultant balances for more than the sum of the cost of the gold and the transportation expenses. For example, if it costs 2 cents to ship from New York to London an amount of gold that can be sold in London for £1, and if this amount of gold costs \$4.86 in the United States, gold will move from the United States to Britain if the exchange rate rises above \$4.88. If the rate is \$4.89, there is \$0.01 profit in shipping \$4.86 worth of gold. The possibility of profit on this kind of a transaction stimulates the shipment of so much gold that the price of foreign exchange is kept from rising further by competition among the banks selling bank drafts and cable transfers. The lower limit for exchange rates is the point at which gold moves into this country—when foreign exchange is low here and dollar exchange is high abroad. Under the gold standard prior to 1914 and between 1925 and 1931, the range within

¹ The periods of freely fluctuating exchange rates since 1930 were: British pound, Sept. 1931 to spring of 1932; American dollar, Apr. 1933 to Jan. 1934; French franc, June 30, 1937 to May 4, 1938. League of Nations, *International Currency Experience: Lessons of the Inter-War Period*, New York, 1944, p. 123. "After cutting loose from the gold standard, what every country has done—save for the exchange control countries . . .—has been, in one degree or another and in one way or another, to tie back on again . . . There is no evidence of any desire for a really flexible currency." J. H. Williams, "International Monetary Organization and Policy," in *Lessons of Monetary Experience* (ed. by A. D. Gayer), New York, 1937, p. 33.

which sterling exchange could vary was between \$4.84 and \$4.88 (the "gold points").

The gold standard, if operated according to the rules, provides a mechanism whereby an outflow of gold is automatically checked and an inflow initiated. The inflow, in turn, is checked before long and an outflow begins. This adjustment mechanism assumes a close relationship between the gold held by central banks, credit conditions, incomes, and price levels. If gold flows out, two forces tend to a reversal: (1) Bank credit is contracted because of the loss of gold reserves. This results in a contraction in money (including bank deposits) and a lower price level. A lower price level means that the nation losing gold has a trading advantage, since its exports can undersell those of other countries. Moreover, its low price level makes it a poor place for foreigners to sell. Thus its imports diminish and its exports expand and this tends to reverse the gold flow. (2) The country losing gold and undergoing deflation is having its national income reduced so that its citizens cannot afford to buy as much abroad. On the other hand, the countries gaining the gold are undergoing an expansion and can afford imports. Thus, the nation losing gold finds its imports cut and its exports increased not only because of price-level changes but also by income shifts. Gold inflows are corrected by opposite movements of price and income.

During the later 1920s the gold standard did not operate as it was supposed to. The reason was that no government liked the contraction phase of specie flows—that is, the deflation and depression resulting from a loss of gold. In order to reduce the adverse effects of a loss of gold, prices were not permitted to fall and incomes to contract in the countries losing gold, with the result that the normal mechanism to stop the flow did not come into operation; and countries receiving gold did not permit their prices to rise and incomes to expand as much as an observer might expect because it was hoped that, if the inflow were "sterilized," it would not later reverse and become an outflow. Sterilization is accomplished by the monetary authority, usually the central bank, selling government bonds on the open market in an amount exactly equal to the volume of incoming gold. This policy of sterilization was one of the reasons why the United States and France obtained such a large proportion of the world's gold.

Turning to the means of limiting currency fluctuations in the post-war years, the problem of redistributing the world's gold supply in such a way that all countries would have enough to enable them to adopt the gold standard, and then subsequently preventing gold from again con-

centrating in the United States, is a very difficult one, and is one of the reasons why the international gold standard probably will never again be established. Gold exports will probably continue to be used as a means of creating bank balances abroad, but such shipments will not markedly affect credit conditions in either the exporting or the importing country.

The mechanism of alternate credit (and price and income) expansion and contraction as a means of maintaining stable exchange rates can operate without the use of gold. The essence of the monetary-fund section of the Bretton Woods agreements is the setting up of bank deposits and short-term government obligations to supplement gold in the settlement of international balances. It is essential that any plan designed to stabilize exchange rates induce contractions in certain countries, just as gold outflows did under a properly working gold standard. It is doubtful if the Bretton Woods agreements will insure this contraction. They do, however, provide for the adjustment by member nations of the external value of their currencies up to 10 per cent without the concurrence of the fund and another 10 per cent if the fund officials do not object within 72 hours. Only time can tell whether the fund, if established, will lead to more or less rigid exchange rates, since so much will depend on the policy of the administrators.

There have been a number of suggestions by Americans that the pound-dollar rate be stabilized; since most other currencies are closely related to one or the other of these two key moneys, this would constitute a long step toward general stability.² The key-currency approach has the virtue of being simple of administration. It would be in the nature of a revival of the tripartite pact entered into by the United States, Great Britain, and France in 1935 except that gold probably would play a less important role. There would be no automatic mechanism for balancing international payments similar to the effect of specie flow under the gold standard. However, the monetary authorities of the two countries would, presumably, regulate the quantity of money circulating in each country in such a way that exchange rates would remain stable. This would exclude stability of economic activity as the sole criterion for the proper amount of money in circulation.

² The two names most commonly associated with these proposals are those of Winthrop W. Aldrich and J. H. Williams. Mr. Aldrich is president of the Chase National Bank of New York City; his views were given in a speech in Chicago on Sept. 15, 1944. Mr. Williams is Nathaniel Ropes professor of economics at Harvard University and is also a vice-president of the Federal Reserve Bank of New York. His views may be found in his *Postwar Monetary Plans and Other Essays*, New York, 1944.

CHAPTER III

CURRENCY INSTABILITY: CAUSES AND EFFECTS

CURRENCY instability is a loose phrase that is difficult to define. It refers to substantial alterations in quotations resulting from the absence of rigorously fixed limitations upon the range of short-term fluctuations. A 4-cent range in the price of sterling does not constitute instability. But, if the range is between \$4.84 and \$4.88 in January, between \$4.26 and \$4.30 in June, and between \$4.00 and \$4.04 in September, we may say that sterling is unstable.¹ Furthermore, currency instability usually refers to depreciation; appreciation seldom involves immediate and direct international monetary complications.

REASONS FOR CURRENCY DEPRECIATION

The immediate cause of currency instability is that a nation is called upon to make foreign payments so far in excess of its foreign receipts that it virtually exhausts the supply of gold and foreign balances which have been used to restrict oscillations of exchange rates to a desired range. Efforts to maintain the external value of the currency (i.e., the price of exchange drawn on this currency) must be given up. The quotations will subsequently drop until there is an equilibrium between foreign payments and foreign receipts.

How does it happen that a country's foreign payments and receipts may remain out of balance for such an extended period of time that its gold and foreign-exchange reserves are so seriously depleted that currency depreciation results? Since currency instability is merely a symptom of basic economic maladjustments, the answer must be sought in the causes of economic maladjustment. The domestic economy may be disarranged by any number of circumstances, but only the four most important will be discussed here.

(1) Probably the best known is inflation. This is simply a rise in the general price level. If most prices and production costs in the United States should rise substantially, in relation to the price levels of other countries, our exports would decline because of their high price and our imports would increase because of their low price. In the absence of offsetting trends, dollar exchange would fall abroad and foreign

¹ For the purposes of this paper, *exchange depreciation* and *currency depreciation* will be considered as being synonymous. *Devaluation* refers to the reduction in the gold content of the standard coin.

exchange would rise at home; American balances abroad would decline as the sales of foreign exchange by American banks exceeded the amount offered to them. Gold would be shipped to build up these balances as long as it was profitable to do so and a supply of gold remained.² A day would finally come when the external value of the dollar could no longer be sustained by gold shipments; then dollar exchange would decline and foreign exchange in the United States would rise correspondingly. As soon as American dollars became cheaper, foreigners could buy our goods in greater volume. Simultaneously we would automatically curtail our imports because the rise in foreign-exchange rates would have made them more expensive in terms of our dollars. Eventually our imports would be restricted and our exports expanded to a point where our foreign payments and receipts would again balance. The dollar could then be stabilized at this new level, provided the inflationary trend had ceased.

(2) Much the same sequence of events occurs if the foreign market for a country's exports contracts or if the physical volume of exports is maintained but their value falls drastically. Australia, Argentina, New Zealand, and other nations whose prosperity was largely dependent upon the exportation of grain, wool, meat, and similar agricultural products saw the value of their exports melt away during the three years beginning with 1929, although the physical quantity did not undergo a corresponding reduction. The seriousness of the situation was increased because the price of imported manufactured goods remained high and foreign payments failed to contract as rapidly as receipts. This placed severe pressure upon the exchanges.

(3) A third cause of currency depreciation is large foreign indebtedness. The only way the borrower can service this debt is by selling goods and services or by further borrowing. If the latter is not feasible, the payments of principal and interest may require more foreign exchange than is being provided by receipts from abroad for the sale of goods and services. Debts of the size to cause currency difficulties are ordinarily political in origin, war debts and reparations being typical illustrations.

(4) Only since 1933 have governments voluntarily depreciated their currencies. However, many people believe that this may be done

² Under the full gold standard, an outflow of gold would contract the money supply in the United States, thereby causing deflation and ending the loss of gold. It is assumed here that no such domestic monetary contraction occurs.

in future depressions in order to stimulate employment. A doctrine recently adopted by many economists holds that the maintenance of full employment after the war may be difficult for countries not possessing independent currencies. "Independent currencies" are those whose values in foreign transactions are flexible, the nature and degree of their instability being subject to the control of the monetary authorities. Since depression is the prime economic bugaboo in every country in the world, there is wide objection in many nations (other than the United States) to adopting what is frequently called the gold-standard straight jacket, or anything approaching it. The desire for an independent currency policy as a tool to fight depression will probably lead to instability at any time when there is widespread unemployment, no matter what international agreements may exist to the contrary.

ADVANTAGES OF CURRENCY DEPRECIATION

The economic advantages to be gained by a country permitting its currency to depreciate are limited to periods in which it is suffering from underemployment of labor and other resources. The advantages are stimulation to domestic employment and increased national income within the country adopting this policy.

(1) The first advantage to a country depreciating its currency in a time of depression is that its exports are placed in a better competitive position in the world market. Let us suppose that Americans normally export large quantities of a certain good to country A. The rate of exchange is 2 pesos (A currency) per dollar—one peso buying a half-dollar of American exchange. The domestic (and export) price of the commodity is \$500 or 1,000 pesos per ton. If a depression should set in, our export sales of this good would probably decline, and this would augment the unemployment already existing in this country. It is true that a substantial reduction in the price of the commodity would probably result in an increase in purchases by A importers. However, reductions of costs are not easy to effect. Wage rates are particularly difficult to lower; the prices of certain crucial raw materials are frequently not subject to downward revision because of understandings among producers. As an alternative, we could depreciate the value of our dollar on the foreign-exchange markets of other countries until the rate fell so far that a peso could buy a dollar instead of half a dollar. The price of a ton of the commodity in question would then be

500 pesos rather than 1,000. This would lead to an increase of exports, other things being equal.³

As our exports increased, there would be greater employment in the export industries. Furthermore, people who had previously been unemployed but were now working in the export industries would spend their newly earned money to buy clothes, furniture, etc. This would lead to further employment, but in this case the increase would be in nonexport industries. The people put to work in these latter industries would likewise spend their income for consumers' goods of various kinds, and this chain of increased income would continue for some time. Thus, an increase in exports would lead to an increase in the national income of several times the value of the increased exports, provided there still existed unemployed labor and unused factory capacity. The relationship between the increase in exports and the greater increase in national income is known in economic literature as the "foreign-trade multiplier."

The export stimulus of currency depreciation is not permanent. Even in the absence of offsetting actions by other nations, it will wear off because the price of imports will be higher and this will lead to higher production costs, thus gradually necessitating a rise in the price of exports. The "boost" to the national income provided by the foreign-trade multiplier will be steadily diminished and eventually will be completely dissipated.

(2) A second advantage to a country depreciating its currency in a period of depression is that it curtails imports. This greatly facilitates domestic "reflationary" measures undertaken by its government to fight depression.

This point necessitates a brief digression on governmental policy during the depression phase of the business cycle. It is becoming generally recognized that governments should spend substantially more than their receipts during periods of unemployment. In order to render the greatest possible aid, the government should undertake

³ If costs of production here were to rise as rapidly as the dollar depreciated abroad, this filip to exports would not occur because, when the price rose to \$2,000 (1,000 pesos), the cost to the foreign buyer would be the same as before depreciation. In the future, nations voluntarily depreciating their currencies will probably exert considerable effort to hold down domestic prices and costs in order to reap the export advantage.

public works financed by means of borrowing.⁴ The result of this expenditure, in the absence of offsetting developments, is to put *additional* men to work. These men will spend their augmented income in the purchase of more goods, and so on. The relationship between the investment by the government in public works and the much greater addition to national income (accounted for by the fact that the additional money spent by the government becomes the income for many people) is called the "investment multiplier." When recipients of this newly created income spend some of it for imports, part of the stimulating effect is passed on to a foreign country. This "leakage" reduces the investment multiplier. There are other leakages also, the principal one being uninvested savings, but they are not pertinent to this paper. The point to be stressed here is that imports reduce the effectiveness of a public-works "pump-priming" program.

(3) The principal cause of long-continued periods of depression is the inability of businessmen to reduce their costs sufficiently so that they can operate profitably at the lower prices prevailing for their finished products. In the absence of profit, private enterprise will, of course, contract employment. The growth of monopolies, often government-supported, in labor and raw-material markets has led to increasing cost rigidity. As a result, it is often impossible for a large section of the business world to force costs down sufficiently to maintain income in excess of expenses. Governmental alleviation can be directed in either of two directions: (a) Toward effecting a downward adjustment of costs so that industry as a whole may operate more profitably. Such a policy meets powerful economic and social opposition and causes considerable immediate suffering, largely because of the existence of many contractual obligations such as mortgage loans on homes and farms that cannot be lowered as incomes are lowered. (b) Toward raising prices of the finished product so that businessmen can use labor and raw materials profitably at prevailing costs. This means an increase in the price level—inflation. Generally higher prices result from an increase in the circulation of money (either an increase in the amount of money, its rate of circulation, or both) relative to the volume of goods and services for which it is used for payment. But higher domestic prices tend to weaken the country's currency abroad by curtailing exports and expanding imports. Eventually the decision

⁴ Space precludes an adequate discussion of the role of government in depression. For a good treatment see J. Maurice Clark, *Strategic Factors in Business Cycles*, Washington, 1935.

must be made whether the currency shall be maintained at its existing value on the foreign-exchange markets or whether the higher domestic price level shall be retained—the two are irreconcilable. Twenty-five years ago the universal choice would have been the maintenance of currency stability. Today most countries would be unlikely to make such a decision.

Currency depreciation can aid a country in fighting depression by increasing domestic income derived from exports and by permitting a rise in prices so that prices exceed costs. However, all monetary programs calling for deficit financing (i.e., the investment multiplier) will eventually lead to higher prices. These will then mean higher costs to export industries and a lessening of any existing export advantage. The orthodox solution of the problem of long-continued depression is entirely different. It involves no exchange-rate manipulation; rather, it seeks to attack the cause of lethargic readjustment of the domestic economy by reducing rigidities in the cost-price structure. This provides a more permanent solution than trying to lower export prices by depreciation and hoping that costs do not immediately rise to restore exactly the same situation that exchange depreciation was designed to alleviate. It should be pointed out that the orthodox solution tacitly assumes a reasonably stable domestic price level. But, if the maintenance of stable exchanges means continuous deflation (e.g., if the purchasing power of gold were continuously appreciating and the exchanges were tied to gold through the gold standard), the downward pressures on prices and costs may become politically unbearable.

A single nation or a group of nations may try to insulate themselves to a limited extent from external depressing factors by currency depreciation. Especially, many countries may try to protect themselves from future severe depressions in the United States which they fear may wreak havoc on their own economies. This is based on their experience in the early 1930s when, for the world as a whole, "the most serious retarding influence was the behavior of economic life in the United States."⁵

Empirical studies have shown that during the 1930s "countries with depreciated currencies increased their exports mainly to other countries with depreciated currencies. This was a natural result of the expansion of production and money income that accompanied or followed devaluation. In other words, monetary expansion tended to

⁵ *The United States in the World Economy*, Bureau of Foreign and Domestic Commerce, Economic Series No. 23, Washington, 1943, p. 5.

stimulate not only home-market activity but also the foreign trade of the countries with depreciated currencies *inter se*.⁶ Thus, exchange depreciation does not necessarily result in the countries with the depreciated currencies expanding trade solely by appropriating the markets of nations whose currencies have remained stable.

(4) Finally, there are always strong "pressure groups" that desire higher prices for their particular commodities and think inflation will bring this about. In most cases their commodities are those whose prices rise quickly but whose costs of production rise slowly. Since inflation leads to depreciation, these pressure groups want currency instability in order to permit inflation; depreciation to them is simply a prerequisite for attaining their desired end.

DISADVANTAGES OF CURRENCY INSTABILITY

Frequent substantial fluctuations in exchange rates impede foreign trade. Assume that an American firm is considering the importation of £1,000 worth of woolen yardage from the United Kingdom at a time when the sterling exchange rate is \$4.00. It may order the goods and find that, when it has to pay the bill, the sterling rate is \$4.50. This means paying \$4,500 instead of the anticipated \$4,000, a difference which may well result in a loss on the transaction. A second possibility of loss would arise if the sterling exchange rate dropped materially shortly after the American firm acquired its woolen yardage but before it had an opportunity to sell it. If the £1,000 worth of cloth was paid for when the rate was \$4.00 and immediately thereafter the rate dropped to \$3.00, later imports would sell in the United States at a 25 per cent lower price. This might cause the original importer to suffer a substantial inventory loss. Such possibilities have the effect of markedly discouraging international transactions.

A threat of currency instability discourages international investment. The reason is obvious. If Americans loan English borrowers \$5,000, the British will receive £1,000 if the sterling rate is \$5.00. If the rate is \$4.00 when the loan is repaid, the borrowers will have to pay £1,250 to acquire \$5,000. Borrowers are reluctant to run the risk of being placed in such a situation. On the other hand, if the Americans had lent £1,000,⁷ they would have parted with \$5,000 but would

⁶ League of Nations, *International Currency Experience, Lessons of the Inter-War Period*, 1944, p. 129.

⁷ In this case the Americans would be accepting the "risk of exchange," whereas in the previous example the Englishmen would be accepting it.

receive only \$4,000 at maturity when they converted the £1,000 repaid by the borrowers into dollars.

A third disadvantage is that the depreciation of a currency which gives export advantages to the nation adopting this policy may well result in retaliation by other nations. These retaliation measures may have the effect of strangling trade; at best the depreciation will be neutralized. What may happen is that other countries will raise their tariffs, limit purchases of foreign exchange by their importers, or also devalue their currencies. In any case world trade tends to be lessened.

Another disadvantage of currency instability that does not directly impinge upon foreign trade or capital movements is a possible loss of prestige. One of the reasons why, after World War I, England restored the pre-1914 value of her currency (measured in terms of gold, not domestic prices) was because it was believed that a different course would have injured the prestige of the pound and caused an unfavorable reaction upon the position of London as an international financial center.

Finally, depreciation of a nation's currency turns the terms of trade against that nation. That is, by cheapening its exports the country is forced to sell abroad a larger physical quantity of goods than formerly in order to acquire the same volume of imports.

ADVANTAGES OF STABLE INTERNATIONAL CURRENCY RELATIONSHIPS

The argument in favor of currency stability is that over a long period of time it will lead to higher living standards all over the world. There is no question of the benefits of the greatest volume of trade between nations; the greater the degree to which each country specializes in exploiting its particular advantages, the greater will be the general welfare.⁸ This means that countries, in order to have the highest possible standard of living, should produce those articles and services in which they have comparative advantages and exchange the surplus for goods they do not produce. Any factors that interfere with the most efficient location of industry lower the size of the total product and hence the general welfare. Since currency instability hinders international trade, the cost paid by residents of every country is higher prices and less goods.

⁸ This argument obviously assumes a world in which peace not only exists at the moment but is anticipated to be permanent, at least as far as economic decisions are concerned. It is also to be emphasized that the advantages of such a policy are found in the long run; mitigation of short-run domestic depression is quite another matter.

Not only must present currency relationships be stable in order to maximize international trade, but traders and investors must have confidence in the continuation of stability in the future. Given confidence in permanent stability, international transactions will be much like those in the domestic field. Foreign loans for such productive purposes as the building of new factories may lead to the immediate transfer of supplies and equipment to the borrowing country. When installed, these productive facilities may result in a continuous stream of exports from the borrowing nation, some of which will be used to pay the loan. But investors are easily frightened; and the threat of loss through currency devaluation will very effectively stop the flotation of new foreign bond issues in lending nations. The feeling of security on the part of both traders and investors is greatest when the units of all the currencies in which they are interested are defined by law as so many grains of gold. If the rules of the gold standard are observed, the price of foreign exchange will be stable. The gold standard gives the appearance of removing international currency relationships from the realm of political decision to something similar to weights and measures.

CHAPTER IV

CURRENCY INSTABILITY SINCE WORLD WAR I

WORLD WAR I was accompanied by huge increases in the volume of money in circulation in most of the belligerent countries. The natural result was a cheapening of the value of money; this is simply another way of saying that a higher price level, or inflation, was a characteristic of the period. The first few postwar years were marked by extreme currency disorders, especially in Germany, Austria, and France. The monetary and banking authorities in all countries desired a return to stable currency relationships as soon as possible, and favored a general re-establishment of the pre-1914 gold standard as the best method of attaining that goal.

The question that posed the greatest difficulty was the exact external value at which the inflated currencies should be stabilized. Most nations attempted to stabilize at or slightly below a point which was compatible with their internal price level. Britain, on the other hand, attempted to turn back the clock and return the pound sterling to its pre-1914 value in gold. For complete success, this would have necessitated considerably more deflation of prices within the country than actually occurred. The United States was not faced with the problem of revaluation, since we had left the gold standard during World War I in only a technical sense. By 1927 most of the leading trading nations had one by one returned to the gold standard, but the international-currency structure was far from secure.

WEAKNESS OF THE BETWEEN-WARS GOLD STANDARD

Toward the close of 1929 and in the early part of 1930, the exchange quotations on currencies of six countries, Brazil, Argentina, Australia, New Zealand, Bolivia, and Peru, began to drop. This was but the first gust of a storm that led to currency depreciation by one nation after another until only a few retained their gold parities. And even in these latter nations exchange control was so rigorous that the apparent maintenance of parity was meaningless. Between 1929 and 1937 there was only one currency that had not either depreciated or been subjected to exchange control; that was the Albanian franc.

There were many reasons why a strong international monetary structure could not be developed after World War I. These should

be kept clearly in mind at the present time, so that we will not repeat our mistakes.

An important cause of the breakdown of the between-wars international monetary structure was the existence of huge political debts left in the wake of World War I. These necessitated the transfer of larger sums than could be obtained from the volume of trade then prevailing—the volume of trade was insufficient to create an adequate quantity of exchange to service these debts. Germany had huge reparation payments to make to the Allies other than the United States. The Allies, in turn, had debts which were due the United States, and they looked to Germany for the exchange to turn over to us. The Allies considered German reparations and their debts to the United States to be two parts of a single settlement, whereas the United States maintained that they were unrelated. One reason why Germany was able to make what reparation payments she did and the Allies were able to pay their debts from 1924 to 1931 was that foreign investors, principally American, provided Germany with a flow of foreign funds by buying a stream of bonds issued by German cities, utilities, and other enterprises. The German government bought from firms, organizations, and political subdivisions the foreign balances which they had obtained by borrowing. Thus, American investors supplied American exchange which Germany turned over to the Allies and the Allies paid over to the United States Treasury. This explanation is considerably simplified, but the point to be emphasized is that the payments on the huge political debts could not have been maintained without this constant flow of American exchange.

Political debts were by no means the only disturbing element. The stock-market boom was one of the reasons for the keen demand for American exchange. Foreigners were anxious to "get in on the ground floor;" but in order to speculate they needed orders payable in American dollars. The need of foreign nations for our goods created an even greater demand for American exchange. Europe needed rebuilding and the people desperately wanted our machinery, durable consumers' goods, raw materials, etc. Another disturbing element was the lack of confidence of many foreign peoples in the ability of their own currency to withstand whatever shock might come. Although this feeling was understandable and perfectly rational, it meant that at the first sign of trouble many foreigners attempted to buy whatever little American exchange happened to be available. This further raised American exchange and depreciated their own.

The piecemeal and haphazard manner of international monetary reconstruction sowed the seeds of subsequent disintegration. There were no general plans and policies insuring that all nations act in concert; rather, each acted independently. This lack of coordination was another of the reasons why the system broke down in the 1930s.

The continued economic depression in Britain during the 1920s was a further disconcerting factor. Had the United Kingdom been reasonably prosperous, the world economy would have been on a much sounder basis. An important, if not the principal, reason for the British difficulties was that the pound was stabilized at too high a rate in 1925. It probably should have been closer to \$4.00 than \$4.86.

If the United States had been willing to accept more imports, other countries might not have had to scramble so hard for American exchange—there would have been more of it. Unfortunately, our tariff policy limited the amount of goods we could buy abroad.

FOREIGN-EXCHANGE RATES, 1929-1939

The currency disturbances of the 1930s were not caused by inflation, as had been the case with all previous depreciations. On the contrary, the main factor was deflation.

The great wave of desertion from the gold standard was composed of two movements, each distinct in itself, although one reacted upon the other. The first to develop involved those nations whose exports consisted almost entirely of primary or unprocessed goods such as minerals, wool, wheat, and coffee. The decline in the prices of these commodities in the three years beginning with 1929 was more severe than the decline in the prices of manufactured goods. This meant that the export of the same volume of goods produced less foreign exchange. The countries engaged in producing raw products were, for the most part, comparatively undeveloped economically and were deeply in debt to foreign investors. They had heavy fixed charges to meet in servicing these debts, and the manufactured goods they bought did not drop in price commensurably. The demands by citizens of these nations for foreign exchange (to service debts and pay for imports) far exceeded the supply, with the result that their meager gold reserves were soon exhausted and the external value of their currencies began to fall.

The predicament in which these primary-goods producers found themselves early in the 1930s made a deep impression upon them. Aus-

ustralia and New Zealand,¹ for example, have today no intention of remaining almost entirely agricultural, even though this means imposing tariffs on manufactured goods. They are willing to subsidize relatively inefficient industries in order to reduce their dependence upon the sale of raw commodities to secure manufactured goods from the United States, Britain, and other industrial nations. The implications of this attitude are not favorable, for the world as a whole will be more prosperous the fewer the trade restrictions.

The second, and more spectacular, desertion of the gold standard involved the major industrial nations, and had its immediate cause in the fear, in nation after nation, that the withdrawal of short-term banking balances in gold would not be permitted if inadequate exchange existed. This wave of fear began in Austria in the spring of 1931. As soon as the Austrian currency system proved too weak to sustain a "run," fear spread to Germany, and finally crossed the Channel and involved Britain. London normally carried immense balances from all over the world. Once the solvency of these balances came into question, heavy withdrawals ensued. A billion dollars in gold and credits were paid out by Britain before it became necessary for England to suspend gold export on September 21, 1931.

One of the causes for the catastrophe was the unwillingness of American investors to buy new issues of foreign bonds, which eliminated an important supply of American exchange for our debtors. Although it was logical for the United States to have exported capital after World War I,

Unfortunately, two cardinal mistakes were made: (1) There was, far too frequently, an extremely poor choice of investment risks, reflecting both the absence of any official policy and the abuse and mismanagement of the capital market by inexperienced and unscrupulous investment houses temporarily attracted by opportunities for abnormal profit; (2) largely as a result, the outflow of American capital behaved in an erratic fashion, rising to a peak in the first half of 1928 and falling sharply thereafter.²

The lesson is plain: in the postwar period, capital exports must be carefully planned on a long-range basis so that they will tend toward,

¹ According to a dispatch in the *New York Times*, Jan. 7, 1945, the New Zealand government now intends to continue its prewar program of controlling foreign trade to build home industry, despite the fact that these controls were introduced in 1938 solely to furnish foreign exchange to meet her external obligations. Australia's attempts to industrialize go back several decades but have been given a decided fillip by the war.

² *The United States in the World Economy*, Bureau of Foreign and Domestic Commerce, Economic Series No. 23, Washington, 1943, p. 19.

rather away from, international stability. The international bank for reconstruction and development proposed in the Bretton Woods agreements (and to which there is little opposition), as well as our own Export-Import Bank, may prevent the repetition of capital disturbances. However, a greater sense of responsibility must be shown by the investment banking houses sponsoring foreign issues if capital exports are to be a stabilizing influence.

A second cause, which also involved the United States, was the instability of the American economy, coupled with its great size relative to the world economy. Our 1929 national income, expressed in money, was equal to that of the twenty-three largest capitalist countries combined. Our industrial production was nearly half that of the entire world. Our decline and recovery in 1920-1921 was sharper than in any other country. In the depression of the early 1930s, our industrial production dropped almost 50 per cent, while in other countries (excluding the U.S.S.R.) the decline was 25 per cent. Again, in 1937, our industrial production dropped 20 per cent in a single year. Our imports consist mainly of industrial raw materials; consequently, there is a high correlation between our volume of imports and of industrial production. Between 1929 and 1932 the supply of dollars available to foreigners dropped by more than two-thirds because of our cessation of lending, reduction of imports, curtailment of foreign travel, etc. The extent of this decline is shown in Table I.

TABLE I—DECLINE IN DOLLARS SUPPLIED BY THE UNITED STATES TO FOREIGN COUNTRIES, 1929-1932*

<i>Transactions</i>	1929 (millions)	1932 (millions)	Percentage Decrease
Dollars supplied by the United States through purchases of goods and services and new investments abroad.....	\$7,400	\$2,400	68
Dollars needed by foreigners to meet debt service payments to the United States, assuming no defaults.....	900	900
Remainder available to foreign countries for other purposes....	6,500	1,500	77

* *The United States in the World Economy*, p. 6.

Foreign nations curtailed their purchases from us and also defaulted on some of their debts. Excluding the political war debts, it is pleasantly surprising to learn that approximately two-thirds of the bonds purchased by American investors weathered the depression without default.³ German reparation payments were placed under a moratorium in 1931. But, although the moratorium was sponsored by the United

³ *Ibid.*, p. 19.

States, we did not extend it to the nations owing war debts to our government. As a consequence, all defaulted except Finland (whose debt was small).

Foreign exchange was made even more scarce by rising tariff barriers. The American Tariff Act of 1930 provided for much higher rates, and was followed in 1931 by the Ottawa system of tariff preferences within the British Commonwealth. Prior to that time, the United Kingdom had, on the whole, maintained a policy of free trade. As the depression deepened, trade barriers in other countries were inaugurated by the score.

After Britain had suspended gold payments, the only nations remaining on gold were France, Belgium, Netherlands, Switzerland, and the United States. Germany and Italy maintained a nominal value for their currencies equal to what it was before 1931, but this was done by such rigorous exchange regulations that the quotations were virtually meaningless.

As a result of this widespread depreciation, the dollar was left high above the receding value of the currencies of most other countries. Table II gives an idea of the extent to which this had occurred by February 1933, the month preceding the depreciation of the American dollar.

TABLE II—DECLINE IN REPRESENTATIVE FOREIGN EXCHANGE RATES, 1929 TO FEBRUARY 1933*

Nation	Currency Unit	Average Rate 1929	Average Rate Feb. 1933	Percentage Decline
Australia.....	Pound	\$4.81	\$2.72	43
Canada.....	Dollar	.99	.84	15
China.....	Yuan (Shanghai)	.41	.20	51
France.....	Franc	.04	.04
Germany.....	Reichsmark	.24	.24
Italy.....	Lira	.05	.05
Japan.....	Yen	.46	.21	54
Netherlands.....	Guilder	.40	.40
Sweden.....	Krona	.27	.18	33
United Kingdom.....	Pound	4.86	3.42	30

* Federal Reserve Bulletin.

The American currency system was able to withstand the shock of British departure from gold. However, foreign central and commercial banks were sufficiently fearful of our ability to continue gold payments that their withdrawals of gold lowered our gold stock \$1.1 billion in the nine months following British suspension. This was 20 per cent of our holdings. Our ability to weather this drain seemed to

re-establish confidence and we gained a slight amount of gold during the latter half of 1932. But at about the same time our domestic banking situation became critical. As bank failures mounted and as bank holidays were declared in state after state, a domestic drain of gold developed. Many people preferred to keep their funds in gold rather than in currency or bank deposits. The sharp domestic deflation in the early part of 1933 and the apparent disintegration of our banking system led to a second wave of foreign gold withdrawals. As a result, the gold in the hands of the Federal Reserve banks was dwindling, but was not threateningly low, when President Roosevelt declared a national banking holiday on March 6, 1933.

As a part of his bank-holiday order, the President prohibited further exports of gold. Although this step was not imperative, it did seem wise. There has been much debate about how critical our gold situation really was. There is no need to review these arguments here. It is safe to say, however, that we were not pushed off the gold standard as was England and every other country that had suspended payments in gold. It was a deliberate policy with us and it made monetary history.

At first the dollar remained almost at par because there was no basic disequilibrium in the demand and supply of dollar exchange abroad and of foreign exchange here. But within six weeks it became apparent that the policy of the American government was to stay off gold and to deliberately depreciate the currency. This caused a drop in the dollar because speculators wanted foreign exchange, American exporters tended to leave their funds abroad, and foreigners selling goods to us converted their dollars into other currencies as rapidly as possible. The President's message to the London Economic Conference on July 3, 1933, rejecting the monetary proposals of the countries still on gold (France, Netherlands, Belgium, and Switzerland), clearly stated our intention of lowering the value of the dollar. This resulted in a further decrease in the demand for dollar exchange abroad and an increase in the demand for foreign exchange here at home. In June the dollar was off 18.4 per cent from its former external value and by September it had declined 32.6 per cent.

Higher domestic prices were the principal method by which the Roosevelt administration hoped to relieve the depression. There were three outstanding tools chosen to accomplish this end. The first was the Agricultural Adjustment Administration, the second was the National Recovery Administration (NRA), and the third was currency de-

preciation. It was hoped that currency depreciation would not only raise domestic prices but would also eliminate the competitive advantage enjoyed by foreign exporters whose currencies had already depreciated. These two objectives were clearly incompatible over a long period of time, since higher domestic prices would neutralize our export advantage.

In October 1933, the Reconstruction Finance Corporation was delegated the task of depreciating the dollar still further. The procedure adopted was for the RFC to buy gold abroad at higher than prevailing prices and pay for it with dollars. This would increase the supply of dollars abroad, thus tending to lower dollar exchange. As it worked out, the RFC was forced to buy very little gold because, as soon as its intention was announced, the demand for dollars declined further, since persons engaged in foreign trade had no desire to hold an asset the value of which was certain to decline.

Depreciation was made permanent by altering the legal description of the dollar on January 30, 1934. This was done by decreasing the number of grains of gold in a dollar so that it contained only 59 per cent as much gold as before. Congress at this time limited the President's power to alter the weight of the gold dollar to a range between 50 and 60 per cent of its former weight. (The President's power to alter the weight of the gold dollar in any manner expired on June 30, 1943, so that Congressional approval is now required for further changes.)

The depreciation and later devaluation of the dollar had the effect of raising the rates of exchange on other currencies. That is, as the dollar dropped it appeared to Americans that other currencies were rising—hence the desire of speculators to buy claims on other currencies.

Figure 1 shows the changes in sterling rates from 1931 to 1936, the period of greatest fluctuation. The rise after March 1933 was primarily due to a reduction in the external value of the dollar rather than to an appreciation in sterling in terms of a stable currency such as the franc at this particular time.

The dollar-pound relationship did not alter materially until the outbreak of the war, when sterling exchange dropped again, this time to \$4.04. It has been stabilized at this level during hostilities. In September and October of 1936 the currencies of Belgium, Holland, France, Switzerland, and Italy were "readjusted to the pound and the dollar"—that is, they were depreciated. The quotations for exchange

drawn on countries producing primary goods continued to slip until the outbreak of the war. Since that time developments have varied so greatly in different countries that little can be said in a general way.

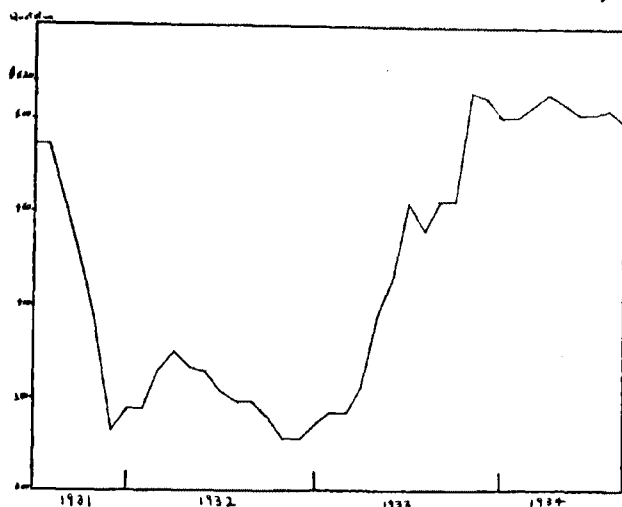


FIGURE I. STERLING EXCHANGE QUOTATIONS DURING PERIOD OF GREATEST FLUCTUATION.

The net changes in representative foreign-exchange rates between 1929 and the eve of World War II are shown in Table III.

TABLE III. COMPARISON OF REPRESENTATIVE FOREIGN EXCHANGE RATES, 1930 TO AUGUST 1939*

Nation	Currency Unit	Average Rate 1929	Average Rate August 1939	Percentage Change
Australia.....	Pound	\$4.81	\$3.67	-24
Canada.....	Dollar	.99	.99	...
China.....	Yuan (Shanghai)	.41	.07	-83
France.....	Franc	.04	.026	-35
Germany.....	Reichsmark	.24	.40 (nominal rate)	...
Italy.....	Lira	.05	.05	...
Japan.....	Yen	.46	.27	-41
Netherlands.....	Guilder	.40	.53	+33
Sweden.....	Krona	.27	.24	-11
United Kingdom.....	Pound	4.86	4.61	-5

* Federal Reserve Bulletin.

POSTWAR CURRENCY PROBLEMS

Liberated Europe is suffering from extreme inflation; history is repeating itself as far as this particular aftereffect of the war is con-

cerned. Belgium has resorted to heroic methods to deflate her currency but these have not been particularly successful. A few other European efforts at deflation have also met with indifferent success. It is unlikely that we will see much more deflation. This means that foreign-exchange rates substantially lower than in 1939 are likely to prevail for orders drawn in terms of the currencies of most belligerents.

The initial problem is that of determining the new rates of exchange which are to be stabilized.⁴ Relatively soon it should be possible for the liberated countries to stabilize their internal price levels and then to estimate an external value of their currency that is compatible with its internal value. Moderate adjustments may be necessary before the exact rate is decided upon.

A more serious problem is that of the permanence of stabilization. That is, will the new rate be retained even though the country suffers from depression? Differences of opinion on this point are very great indeed.

⁴ Some aspects of this problem are discussed by Frank M. Tamagna, "The Fixing of Foreign Exchange Rates," *Journal of Political Economy*, March 1945, pp. 57-72.

CHAPTER V

TWO FAVORABLE EXPERIENCES WITH EXCHANGE DEPRECIATION

PRIOR to 1929, exchange depreciation had always been the result of prior currency inflation. It had been observed, particularly after World War I, that a nation experiencing inflation obtained export advantages if its exchange declined more rapidly than the prices of its exports rose. Furthermore, it was fully appreciated that, if stabilization were effected so that the external value of the currency were lower than its internal value (at least in regard to important exports), the country would continue to possess an export advantage until such time as it was extinguished by a sufficient rise of internal costs. Yet the resulting domestic havoc was dreaded so much that inflation never was deliberately used as a means of obtaining exchange depreciation.

For a decade following 1929, exchange depreciation was preceded by deflation rather than by inflation. Because depreciation took place when there was substantial unemployment of labor and other productive resources, the foreign-trade multiplier was large and the results were, on the whole, desirable.

The stimulating effects of depreciation caused favorable public reaction in many countries (less in the United States than in Britain), and this favorable attitude to expansion was buttressed by a new school of economic thought that grew up around the writings of Lord Keynes¹ of Cambridge University. According to these economists, our principal economic problem is that of obtaining full employment; earlier economic theory had, for the most part, devoted little attention to this topic, on the assumption that full employment was normal and extensive unemployment was purely a temporary phenomenon. A large segment of the new school of economic thought is convinced that we are faced with permanent (rather than recurrent) economic stagnation unless heroic measures are adopted. Professor Alvin Hansen² of Harvard is the leading Cassandra in the United States. Since deflation is accompanied by unemployment and inflation is usually characterized by increasing employment, this school wishes to attack unemployment by mildly inflationary means. Obviously, rigid exchange rates would

¹ J. M. Keynes, *The General Theory of Employment, Interest and Money*, New York, 1936, is the Bible of this school.

² Alvin H. Hansen, *Full Recovery or Stagnation*, New York, 1938.

preclude such a policy. These economists urge freedom to depreciate as the occasion arises.

Economists have, on the whole, more effect on government policy abroad than in the United States, Keynesian philosophy is rather widely accepted in British business circles, whereas in similar groups in the United States an unbalanced budget in time of peace is viewed with great misgivings. The emergence of the Keynesian philosophy at a time when most currencies were depreciated gave depreciation an aura of respectability that it had not previously possessed. This philosophy became a factor to be reckoned with at a time when many nations were, to their surprise, enjoying more prosperity after depreciation than before. Two countries in which this was particularly true were Australia and Britain and their experience has profoundly affected their attitudes toward rigid exchange rates after World War II. Their experiences with depreciation will be examined in the remaining portion of this chapter.

AUSTRALIA³

Demand and Supply of Exchange Prior to 1929. Australia was dependent upon foreign trade for her prosperity to an even greater extent a decade and a half ago than today. Approximately one-third of the goods she produced were exported.⁴ Eighty-five per cent of these exports were raw material, 58 per cent being wool and wheat. The proceeds of the sale of these exports were used to buy manufactured goods, largely from Britain, and to service debts which were, for the most part, due to British investors.

The importance to Australians of the relationship between the prices of their exports and the prices of their imports must be emphasized. A reduction in the price of exports unaccompanied by a similar reduction in the price of imports would mean that the same volume of exports would buy fewer imports. If the terms of trade were turned against Australia, the standard of living would suffer markedly because of the importance of exports as a means of obtaining finished goods. The situation was aggravated by the existence of large interest and principal payments which had to be remitted to London for in-

³ For more detailed information see Melton Gilbert, *Currency Depreciation and Monetary Policy*, Philadelphia, 1940, chapter II; see also Lawrence Smith, "The Suspension of the Gold Standard in Raw Material Exporting Countries," *American Economic Review*, Sept. 1943, pp. 442-447.

⁴ G. L. Wood, "Survey of Production and National Income [of Australia]," *Annals of the American Academy of Political and Social Science*, Nov. 1931, p. 27.

vestors who had purchased securities of Australian political bodies and business firms. This amount was relatively fixed, and a decrease in the price of exports meant that a larger volume of wheat, wool, etc. had to go for debt service and less was left over for imports.

A further complicating factor was that Australia was geared to the importation of substantial quantities of capital. Continued prosperity was dependent upon an uninterrupted flow of this new capital.

A decline in the price of Australian exports began in the middle of 1928, but the price of imports remained relatively high. A short time later British investors ceased buying new issues of Australian securities. Thus the supply of foreign exchange available to Australians was cut not only by the drop in price of exports but also by the curtailment of new capital imports.

The pressure on the Australian pound became severe. The demand in Australia for foreign exchange (mostly sterling) for the purchase of manufactured imports and the service of debts was in excess of the volume appearing on the market from the sale of exports and the borrowing of new capital. If a balance were to be attained without exchange depreciation, imports would have to be restricted by half. Such an adjustment could probably have been made over a period of years, but not in a single year.

The gap between receipts and payments which developed late in 1928 and early in 1929 was bridged in three ways: (1) large accumulated balances in London were drawn down—that is, exchange was sold against these balances; (2) the London balances were augmented by short-term borrowings by the Australian state and Commonwealth governments; (3) during 1929-1930 most of the country's gold supply was shipped to London to keep up the balances there.

In January 1930, the Commonwealth government took steps to insure that the remaining gold was exported only to service the public debt. Australian exchange immediately dropped and foreign exchange in Australia correspondingly rose because of the demand in Australia for foreign exchange and the lack of demand abroad for Australian exchange.

The degree of depreciation was somewhat lessened by other and simultaneous developments. For one thing, the drop in national income because of lower prices for exports and the cessation of foreign borrowing meant that fewer people could afford imports. This automatically reduced the demand by Australians for foreign exchange. The

loss of gold and foreign balances caused banks in Australia to curtail loans. This caused additional deflation, unemployment, and loss of income, which further reduced the ability of the public to purchase imports. Finally, substantially higher tariffs were imposed in 1930, thus placing an additional impediment upon the purchase of goods from abroad.

The Australian pound depreciated about 10 per cent during 1930, then dropped to a level about 25 per cent below sterling early in 1931. The Australian pound has had an external value oscillating between 20 per cent and 30 per cent below the British pound ever since; early in 1945 it was nearly 20 per cent. In terms of the American dollar, the Australian pound was a third lower in 1945 than in 1929, and in terms of gold its value was only two-fifths what it was sixteen years ago.

Results of Depreciation. As would be expected, the price of internationally traded goods rose in Australia with the depreciation of the pound. The producers of wheat and wool received larger incomes in terms of Australian currency than would have otherwise been the case. Since such producers were a very important segment of the Australian economy, this meant a substantially higher national income. If there had been full employment at the time, the result would have been much higher prices. There was, however, substantial unemployment in industrial and service lines. Thus the higher agricultural income meant that many previously unemployed persons were given jobs making goods or performing services.

To the Australians, not only were export prices higher, but so were import prices. The latter acted as a tariff on all imports and greatly enhanced the effectiveness of the Tariff Act of 1930. The combination of the tariff and depreciation sufficiently reduced the volume of imports so that exchange rates varied only from 20 per cent to 30 per cent below sterling. The rise in the price of imports also helped to create additional employment; inefficient domestic industry could compete successfully and this put men to work. It should be pointed out that, desirable as the short-run effects of currency depreciation and the tariff were in reducing unemployment by keeping out efficiently produced foreign commodities, the long-run effects of such impediments on trade were bad not only for the Australians but also for the world at large.

The higher national income had a mildly offsetting effect. It tended to increase the volume of imports because more people could pay for

them. Furthermore, the higher national income, plus the higher prices of imports or domestically produced substitutes, led to somewhat higher prices (and costs) within the nation. Apparently prices have not yet risen as much as the external value has dropped, although data on this point are very unsatisfactory.

Despite exchange depreciation in 1930, Australian industry did not recover rapidly. It seemed that a greater stimulation was needed. Perhaps an even greater dose of depreciation would have done the job if a policy of greater internal credit expansion had been inaugurated first. A particularly important difficulty facing Australian industry was downward wage adjustments. Although the agricultural section of the country was enjoying a higher income, it was insufficient to provide an adequate market for industry. A reduction in the price of manufactured goods, so that farmers could afford to buy them in large enough quantities to provide employment for the bulk of industrial labor, would have involved wage reductions. This was fraught with political hazards, since most industrial wages are controlled by government industrial tribunals in each of the six states or by the Commonwealth Arbitration Court. The Labor Party came into power in 1929 (and has retained its control of the Commonwealth government since then). Obviously, a policy of wage reduction was particularly difficult for a Labor government. Nevertheless, the necessity of cost reduction was such that it could not be avoided. The Commonwealth Arbitration Court ordered general wage reductions. The results were not clear-cut. Furthermore, the task of modifying the business cycle was a difficult assignment for the court, since it has no control over monetary and fiscal policy, the exchange rate, or the foreign demand for Australia's exports. However, the government also arbitrarily reduced interest rates on outstanding private debts at the time wage reductions were put into effect. These deflationary steps involved considerable friction.

Probable Postwar Attitude. If domestic prices rise and wage rates remain stable, the power of wages to buy goods is diminished. In economic literature this is referred to as a decrease in real wages. Such a decrease is disguised because the amount of money received by the wage earner does not change, and consequently gives rise to no such violent opposition as a decrease in money wages. Therefore, many Australians argue that variation in the exchange rate is a more desirable method of adjusting their economy to changes in external conditions

than are variations in the wage level. An Australian economist who has served as adviser to the Commonwealth court says:

... a policy of exchange depreciation with stable, or slightly reduced, money wages would bring all the benefits that could be expected from cutting wages. Such a policy would probably lead to somewhat lower real wages . . . It would have many advantages: The relief to the exporters would be direct and immediate, while with lower wages it came only slowly as the wage reductions led to lower charges for goods; there would not be the grave complications about debts which arise when all prices are reduced; dealers would not be faced with a series of losses as they sold stocks bought at a higher price level; above all, in this instance, there would have been none of the friction arising out of the different wages declared by the various tribunals.⁵

The war has temporarily eliminated the problem of unemployment. Hence the question of exchange-rate flexibility as a means of stimulating employment has not recently been actively debated. However, the Commonwealth government has been making postwar economic plans with the thought uppermost of bringing about high employment. The Prime Minister expects a high level of employment and income to bring about a revival of international trade.⁶

The views of some Australian economists are reflected in an editorial entitled "Bretton Woods" in the December 1944 number of the *Economic Record*, the journal of the Economic Society of Australia and New Zealand. The underlying attitude toward rigid exchange rates is clear in the following excerpts:⁷

Britain will have a tough economic problem after the war. The monetary proposals will not substantially and directly help. Moreover Britain (like Australia) is committed to a high employment policy which will heavily increase her adverse balances, unless other major countries—particularly America—adopt the same employment policy. America is unwilling to commit herself and distrustful of her ability to carry it out, if she did commit herself, without unorthodoxies in finance which would be shattering to American business morale; which we know by experience to be very tender. America (it is assumed) will therefore have a major depression in the post-war years, which would make it impossible for Britain (and Europe generally) to maintain employment and at the same time remain subject to the rules of the Fund. [That is, exchange rates would have to be lowered more than permitted by the Bretton Woods agreements] The Fund would break down and with it all economic collaboration and the world would be in ruins.

⁵ W. B. Reddaway, "Australian Wage Policy, 1929-1937," *International Labour Review*, March 1938, pp. 330-331.

⁶ "Post War Planning in Australia," *Monthly Labor Review*, Oct. 1944, pp. 754-758.

⁷ *Economic Record*, Dec. 1944, pp. 150-151.

As an alternative to this dismal prospect, it is urged that a sterling bloc be set up of countries mutually pledged to maintain a high level of employment . . .

We have to recognize that it is primarily Britain's affair. If she decides in favor of the Monetary Fund and against the sterling bloc, then the choice of a sterling bloc is not open to us . . . The scheme of the sterling bloc is one that only Britain can father. If she does not, but accepts the Monetary Fund, at least on trial, then there is nothing for Australia to do except decide [if it will join. If the Fund fails and] the United Kingdom then suggests a sterling bloc we shall be very anxiously concerned with the definite features of a plan which so far has had a very nebulous shape.

Unless some kind of an international clearing arrangement is adopted, the Australian economy will be tied to Britain in a very close manner after the war. Largely as a consequence of the British government's policy of purchasing the entire Australian wool clip during the war, though it could not be removed from the continent because of lack of shipping space, and also because of a sharp constriction on imports, unusually large Australian balances have accumulated in London. For example, the Commonwealth Bank's reserve of sterling exchange and funds loaned on short term in London averaged £33,000,000 during 1939 and was £158,000,000 in January 30, 1944.⁸ Since Britain possesses insufficient gold to effect a transfer of these huge balances elsewhere, they must of necessity be spent in the United Kingdom. Australian balances in nonsterling countries are very scarce. It is plain that United States-Australian trade will be quite restricted for many years after the war.

Australian tariffs have been raised markedly during the last twenty years. Since Australia is a strong proponent of imperial preference (she wants to share the British market with as few countries as possible), it is unlikely that she will be aggressive in taking steps leading to multilateral trade or to any international monetary system possessing rigid exchange rates.

GREAT BRITAIN

An Overvalued Pound. When Great Britain returned to the gold standard in 1925, there was considerable contention that the pound was overvalued. Many observers held that the gold content should have been about \$4.00 instead of \$4.86. If the internal price level actually was such that the external value of the pound should have been \$4.00, then a \$4.86 pound meant that it cost Americans \$4.86 to

⁸ W. C. Flake, "Australia—The Dramatic Course of It's Wartime Economy," *Foreign Commerce Weekly*, Dec. 16, 1944, p. 7.

buy a commodity priced at £1, whereas it should have cost only \$4.00; the pound was stabilized so that we received too few pounds for our dollars.

The result that we would anticipate from this would be a decrease in exports from Britain because the price of her goods would be too high in terms of foreign currencies. Likewise, Britain would be a good place for Americans to sell their goods because they could convert the pounds they received into so many dollars. We might assume that this would lead to unemployment in Britain and that competition among the unemployed for jobs would be followed by lower wages. A reduced wage level would then make possible lower prices and lower prices would mean increased exports, reduced imports, and additional employment. Thus, the internal price level would fall in order to adjust to the overvaluation of the pound. No such changes occurred.

From 1925 until 1930 unemployment in England was never less than 2,000,000, an unprecedented volume for an extended period of time. Two questions may be asked: Was this unemployment due to an overvalued pound? Why did not British costs drop so that Britain could regain her export market?

It is impossible to give a categorical answer to the first question. The existence of unemployment does not of itself prove that the pound was overvalued. Many changes had occurred since 1914 that could cause British exports to decline. The industrialization of the relatively undeveloped sections of the world had robbed Britain of many of her markets—this was especially true of textiles. Another possible explanation was the development of American industry, which resulted in reducing Britain's export market. If unemployment were caused by one of these factors, labor and capital should have been transferred from export to domestic industry. If the pound were not overvalued, a reduction in its external value would have meant that England would be subsidizing foreigners who bought her goods. On the other hand, prior to 1925 there was little unemployment; but in 1925 the external value of the pound was raised, just before stabilization, and from then on there was unemployment. There is no way of telling exactly what external value corresponds to a particular internal value of a currency; the consensus among most students is that the pound was overvalued when stabilized in 1925, and that this was one of the causes of subsequent British unemployment.

The answer to the second question lies in the rigid cost structure of British industry. In the period between 1925 and 1930, costs and

prices in Britain were probably even more rigid than in the United States. Because of the strength of organized labor, extensive wage cuts were not possible. Furthermore, there was sufficient monopoly in British industry to make other costs and prices rigid. The result was that unemployed labor and unused industrial-plant facilities did not bring about sufficient price declines to offset the overvaluation of the pound and thereby stimulate the export market.

Effects of Depreciation. The immediate cause of depreciation in 1931 was touched upon in the preceding chapter. British exports consist predominantly of manufactured and semimanufactured goods. It has already been pointed out that the prices of these exports were, for the most part, impervious to downward pressure. However, exchange depreciation is a method of reducing export prices, provided the domestic cost and price structure does not rise enough to neutralize it. Such price rises are not likely to occur as long as there is extensive unemployment and unused factory capacity. We would, accordingly, expect British exports to have improved their competitive position after 1931.

Although British exports did not, in fact, immediately increase, they stopped decreasing; and there is good reason to believe that this was due to currency depreciation. Exports had been falling since 1929 but the decline flattened out in 1931, although the depression had not reached its lowest point in most other parts of the world. Real recovery in Britain did not get under way until 1933, but when it did appear it was quite rapid. This is shown in Table IV.

TABLE IV. COMPARISON OF INDUSTRIAL PRODUCTION IN THE UNITED KINGDOM AND THE UNITED STATES, 1929-1933*

Year	United Kingdom	United States
1929	100	100
1930	92	83
1931	84	68
1932	83	53
1933	88	63

* *International Currency Experience, Lessons of the Inter-War Period*, League of Nations, 1944, p. 49.

The depreciation of the pound automatically brought about a somewhat similar depreciation of many other currencies (in the so-called "sterling area") because the reserves of these other currencies consisted of sterling balances. The experience of these countries was similar to that of Britain. It might seem that these nations obtained their prosperity at the expense of countries which did not depreciate, such

as the United States. It appears that this was not the case, for the increased trade of these depreciated countries was largely accounted for by a growth in the exchange of goods among themselves. That is, their own economic conditions improved and this enabled them to import more, but their imports tended to be centered on those countries which had also depreciated their currencies.⁹

Probable British Postwar Attitude. It is impossible to sum up a nation's attitude in a few words. However, it is safe to say that the British public is on the whole opposed to rigid exchange rates. This is due to the favorable effects of exchange depreciation in the 1930s and the unfavorable effects of the gold standard in the 1920s.

England wants to do two things: (1) control her internal economy in such a way as to provide reasonably full employment, and (2) avoid external pressures—such as a severe depression in the United States—which would threaten that control.¹⁰ All through English discussions of currency stabilization runs the fear that it might be a means by which deflation elsewhere in the world would cause unemployment in the United Kingdom. The British would, apparently, prefer a policy under which the world's leading nations looked first to maintaining a high level of employment domestically and secondarily to exchange-rate stability. The *Manchester Guardian*, in commenting on a pre-Bretton Woods American plan (White plan) providing for stable exchange rates, said in its August 24, 1943 issue, "Let it be said at once that no British government could accept anything remotely like these proposals and remain in power beyond the first post-war election."

In the United States, Lord Keynes is the person most commonly associated with the British attitude. His views may be gleaned from the following excerpts from one of his articles:¹¹

[A modern] complaint against the gold standard is . . . that it attempts to confine the natural tendency of wages to rise beyond the limits set by the volume of money, but can only do so by the weapon of deliberately creating unemployment. This weapon the world, after a good try, has decided to discard . . .

The primary aim of an international currency scheme should be, therefore, to prevent not only those evils which result from a chronic shortage of international money due to the draining of gold into creditor countries, but also those which

⁹ Seymour E. Harris, *Exchange Depreciation, Its Theory and Its History, 1931-1935*, Cambridge, 1936, pp. 240-241.

¹⁰ J. H. Williams, "Currency Stabilization: American and British Attitudes," *Foreign Affairs*, Jan. 1944, pp. 333-347.

¹¹ Lord Keynes, "The Objective of International Price Stability," *Economic Journal*, June-Sept. 1943, pp. 185-187.

follow from countries failing to maintain stability of domestic efficiency costs and moving out of step with one another in their national wage policies without having at their disposal any means of orderly adjustment . . .

Thus the more difficult task of an international currency scheme, which will only be solved with the aid of experience, is to deal with the problem of members getting out of step in their domestic wage and credit policies. To meet this it can be provided that countries seriously out of step (whether too fast or too slow) may be asked in the first instance to reconsider their policies. But, if necessary (and it will be necessary, if efficiency wage-rates move at materially different rates), exchange rates will have to be altered so as to reconcile a particular national policy to the average pace. If the initial exchange rates are correctly fixed, this is likely to be the only important disequilibrium for which a change in exchange rates is the appropriate remedy.

The *Economist* of London, an outstanding British business and financial publication, views the monetary-fund portion of the Bretton Woods agreements with skepticism because of the objective of maintaining considerable exchange-rate stability:

It is not quite right to say, as some are saying, that the Fund is a subtler version of the gold standard. But it is true that the gold standard and the Fund are different species of the same genus. In the gold standard the links between the currencies are entirely rigid. In the Fund they have some elasticity—both in the provisions for alterations in rates and provisions of (limited and temporary) accommodations for countries with adverse balance of payments—but the object is the same as the gold standard, to secure universal convertibility and the maximum stability of currencies.

Different individuals' judgments on the desirability and workability of the Fund are therefore likely to vary with their opinion, considered in the light of subsequent events, on the return to the gold standard in 1925. Of the theoretical desirability of a universal system, few will have any doubt. But equally few will deny that the gold standard system failed rather disastrously after the last war. If this new system is to work, one of two conditions must be met. Either the new system must be such an improvement, in its internal arrangements, over the rigid gold standard that it would have worked in the years of the Great Depression, or else there must be sound reason for believing that another Great Depression is entirely impossible.¹²

In November 1944, the Federation of British Industries (roughly comparable to our National Association of Manufacturers) endorsed the Bretton Woods agreements, but with the reservation that the proposals should not come into effect until a second conference had been called to see what progress the various member countries were making in the direction of assuring continuous high levels of employment and rising standards of living. This last comment was expanded by saying that it applied principally to the United States.¹³

¹² "The Monetary Agreements," *Economist*, Aug. 12, 1944, p. 208.

¹³ *Economist*, Dec. 2, 1944, p. 730.

CHAPTER VI

THE PACIFIC NORTHWEST AND UNSTABLE CURRENCIES, 1930 TO 1936

A GENERAL outline of the causes and effects of the depreciation of the dollar was given in Chapter IV. There are many differences between the situation of the United States and that of either Australia or Great Britain. Foreign trade was far less important to us than to either of these nations; prices of American agricultural exports were not as important to the economic welfare of the country as they were in Australia, nor were industrial costs quite so rigid as British costs (or as our own costs are now). Australia and Britain endeavored to stay on the gold standard as long as possible, whereas the United States deliberately resorted to currency depreciation as one of a number of means of raising the domestic price level. But the resultant stimulus to American exports was muted by the NRA, AAA, public works, deficit financing, wage policies, etc.,¹ which raised costs.

The Pacific Northwest is used in this study as an example of what happened in the United States with currency depreciation. By limiting the discussion to a comparatively small area, we can be more detailed in our treatment and yet avoid the excessive length that would result from considering the entire country. It should be pointed out, however, that the Pacific Northwest does not constitute a United States in miniature even in the limited field of international economic relations. One important difference is that exports are comparatively more important to the Pacific Northwest than to the country as a whole.²

BOUNDARIES AND INDUSTRIAL ACTIVITY OF PACIFIC NORTHWEST

The Pacific Northwest is comparatively isolated. The Canadian line, the Pacific Ocean, the northern borders of California and Nevada bound it on three sides, but the eastern limits are ill-defined. Although it is usually considered to include some of Idaho, the southeastern por-

¹ For an extended discussion of American experience with depreciation, see S. E. Harris, *Exchange Depreciation, Its Theory and Its History, 1931-35*, chapters VI to XIII, inclusive. His conclusion is (p. 385), "exchange depreciation in the United States and Great Britain is reflected in large improvements in these countries relatively to the developments in France," which did not depart from gold.

² The Department of Commerce estimates that exports originating in Idaho, Montana, Oregon, and Washington constituted 12 per cent of the goods produced in these states (*New York Times*, Apr. 16, 1932). The relationship for the United States as a whole was 10 per cent.

tion of that state is excluded because it is part of the intermountain country tributary to Salt Lake City. Likewise, central and eastern Montana are excluded because they are commercially a part of the plains. But western Montana has close relations with Spokane. The exact location of the eastern border of the Pacific Northwest is of no great importance for the purposes of this paper because of the small population in that region. The border is, however, somewhat east of Boise and Missoula; both of these cities are here included in the Pacific Northwest.

Our story begins in 1930, the year in which the international currency stability attained in the late 1920s broke down. The industrial structure of the Pacific Northwest in 1930 differed from what it will be after reconversion, when the problem of currency relationships once again becomes of immediate concern. The biggest factor of change will be found in the industrialization resulting from the hydroelectric development of the Columbia River. Unmanufactured lumber will probably be less important and manufactured lumber products more important. There will also be substantial changes in agriculture. Nevertheless, there seems little reason to believe that foreign trade will be substantially less important to this area than in the first half of the 1930s. Accordingly, a study of this period may give us a clear idea of the effect of stable and unstable currency relationships on the Pacific Northwest in the postwar years.

Normal industrial income in 1930 amounted to about \$1,260,000,000. Agriculture and lumbering each accounted for approximately \$400,000,000 of this total, manufacturing (excluding sawmill operations) \$340,000,000, while mining and fishing contributed the rest.

NATURE OF THE NORTHWEST'S FOREIGN TRADE

Wheat and flour, lumber, and apples constituted virtually all of the exports of the Pacific Northwest.³ The wheat, flour, and apples sold abroad constituted approximately 20 per cent by value of total agricultural production. In the neighborhood of 8 per cent by value or 18 per cent by volume of the lumber produced in the area was exported. The difference in the value and volume percentages is due to the fact that lumber exports were made up largely of logs and squares which were of comparatively low value. Although the domestic market ab-

³ Goods produced in other sections of the United States (e.g., automobiles) passed through Pacific Northwest ports enroute to foreign nations. Such exports are not included in this discussion.

sorbed the major portion of the lumber output, nevertheless that part sold abroad often acted as a market stabilizer, to say nothing of being a contributor of considerable additional income. Apple exports often amounted to a quarter of the crop.

The quantity of canned salmon exported from Puget Sound and the Columbia River was not large. However, if the Alaskan pack is added, the story is quite different, since approximately 15 per cent of the combined total was exported, principally to the United Kingdom. There are good reasons for treating the Alaskan canned-salmon pack as a part of the Pacific Northwest's production. The men and supplies went north each spring from Seattle, Bellingham, and other communities to the remote canneries on Alaskan inlets. In the fall they returned to their homes in the Northwest and the boats that brought them back were loaded with canned salmon. The offices of the canneries were in the Pacific Northwest rather than in Alaska.

The wood-pulp industry was in an interesting position, and one that may well be repeated soon. Although a large portion of the pulp was used by local paper mills, an increasing amount was being shipped to markets outside of the Pacific Northwest. Most of these shipments were made to the eastern seaboard of the United States, where Pacific Northwest pulp was sold in competition with pulp from Canada and northern Europe as well as pulp from other sections of the United States. The market was highly competitive, because of the absence of tariff protection. In addition to sales on the Atlantic coast, some pulp was sold abroad, principally in South America, where it competed with pulp produced in other parts of the world.

The exports of the Pacific Northwest were composed of the following commodities in approximately the indicated proportions (by value):

Flour and wheat.....	40%
Lumber	30%
Apples	8%
Other agricultural commodities	8%
Salmon (including Alaskan)	6%
Other	8%
	100%

Imports passing through the Oregon and Washington customs district were, for the most part, destined for the United States at large and not solely for the Pacific Northwest. For example, silk was an important import; but it was immediately sent to mills in New Jersey and

from there it was distributed over the country generally. Accordingly, little further attention will be given to imports.

EFFECT OF CURRENCY DEPRECIATION ON FLOUR AND WHEAT EXPORTS

The principal market for Pacific Northwest exports of flour and wheat was the Orient. This was largely lost to Australia during the period following the depreciation of the Australian pound but preceding the depreciation of the American dollar. A considerable por-

TABLE V. EXPORTS OF PACIFIC NORTHWEST WHEAT AND FLOUR, 1929-1936*

Year	Wheat (bushels)	Flour (barrels)
1929	24,612,209	4,316,214
1930	24,907,619	4,242,917
1931	19,864,854	3,146,667
1932	4,578,222	2,312,160
1933	4,993,271	974,454
1934	16,617,598	1,209,634
1935	65,641	384,623
1936	1,682,865	507,691

* From *Foreign Commerce and Navigation of the United States* (Oregon and Washington Customs District).

tion of the former volume of Oriental sales was recovered in 1934, but thereafter the price of American wheat became too high for foreign sales, largely because of the policies of the Agricultural Adjustment Administration. The story is told in Table V (allowance should be made for the size of the crop in different years).

EFFECT OF CURRENCY DEPRECIATION ON LUMBER EXPORTS

In seeking foreign purchasers, the Douglas-fir lumber industry of Oregon and Washington is in direct competition with the Douglas-fir industry of British Columbia. During the late 1920s about three-fourths of the lumber produced in British Columbia was sold outside of the Dominion of Canada. The British Columbia mills sometimes had cost advantages, largely because there were stands of timber closer to salt water than in Oregon and Washington.

When Canadian currency depreciated, foreign buyers found that it was cheaper to buy Canadian than American lumber, because Canadian dollars were cheaper—unless American mills reduced their prices to offset this advantage.

The effect of Canadian exchange depreciation appears in a decrease in mill profits. Col. W. B. Greely, secretary-manager of the West Coast Lumbermen's Association, explained, "Depreciated exchange gives the Canadian manufacturer a clear advantage in the costs of produc-

tion. 90c exchange for Canadian dollars, this advantage ranges from \$1.00 to \$1.50 per thousand feet on Douglas fir dimensions and board items, and up to \$3.00 per thousand feet on western red cedar items."⁴ In March 1932, the sawmills of Oregon and Washington were operating at 22 per cent of capacity, whereas Canadian mills were operating at 44 per cent of capacity.⁵ Although the lumbermen frequently blamed this situation upon depreciated exchange, lumber production and export figures were affected by so many different factors that it is difficult to segregate the results of any particular factor.

It also appears that lumber imports to the United States from Canada would have absorbed an increasing share of our domestic market, had it not been for an American excise levy imposed in June 1932. This sharply curtailed Canadian lumber sales in this country until the general readjustment of tariff rates which took place January 1, 1936, as a result of the Canadian-American reciprocal-trade pact.

EFFECT OF CURRENCY DEPRECIATION ON THE PAPER AND PULP INDUSTRY

This industry suffered badly from the reductions in price on the part of its foreign competitors made possible by their depreciated currencies. The local mills chose to meet these price reductions rather than cease operations; many operated at a loss for a while. As soon as the American dollar was depreciated to the level of the currencies of the foreign competitors, the Pacific Northwest pulp and paper mills recovered rapidly.

There is a high degree of correlation between quotations for Swedish exchange and wood-pulp prices during the period that Swedish exchange was lowest in terms of the dollar. Figure 2 shows the percentage change in Swedish exchange and the minimum prices of chemically bleached wood pulp in New York and other Atlantic ports—this is the price that the mills of the Pacific Northwest had to meet on that part of their output sold on the eastern seaboard. It seems clear that the exchange-rate situation was the dominant element in price changes between the fall of 1932 and the summer of 1933. The rapidity with which prices rose, once the pressure of depreciated currency was removed, tends to confirm this view. Incidentally, it should be pointed out that Canadian, Norwegian, Finnish, and other currencies were also factors.

⁴ Editorial, *West Coast Lumberman*, July 1932, p. 7.

⁵ Editorial, *West Coast Lumberman*, May 1932, p. 44.

In October 1932, E. M. Mills, president of the Washington Pulp and Paper Corporation of Port Angeles, Washington, presented a petition to President Hoover requesting remedial legislation to counteract the effect of the depreciated currency of foreign pulp and paper

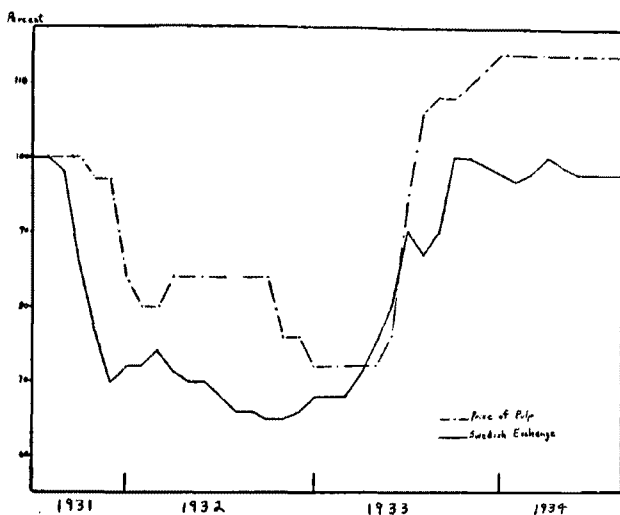


FIGURE 2. PERCENTAGE OF AUGUST 1931 PRICES—SWEDISH EXCHANGE AND PULP.

producers. He stated that the prices forced upon the industry by its foreign competitors were \$8.00 to \$10.00 a ton less than the actual cost of production of Oregon and Washington mills. Of the thirty-four mills in the two states at that time, four were in receivership, two had defaulted on bond issues, and five were idle. Mr. Mills continued:

Paper is being shipped from Sweden and Eastern Canada to the Pacific Coast and sold in Oregon and Washington at a price below the cost of production, at the very doorstep of mills located in the great forests from which our raw product is hewn. The depreciated currency of those nations that have abandoned the gold standard, aided by the lower standards of living which obtain in the Scandinavian countries, has brought about an unfair and unequal competition.⁷

In evaluating the complaints of the industry regarding foreign competition, it is only fair to say that the pulp and paper industry of the Pacific Northwest is efficient (and was efficient in 1932). These were not the cries of an inefficient industry that was unable to meet competition based on normally prevailing costs.

⁷ *Paper Trade Journal*, Oct. 20, 1932, p. 13.

CHAPTER VII

WHERE ARE OUR INTERESTS?

THE advantages and disadvantages of stable exchange rates were discussed in Chapter III. It will be recalled that stable exchange rates necessitate internal price adjustments. If these adjustments can be made without curtailing production and employment to an undesirable degree, it appears that fixed external currency values are desirable to the world in general because of the resultant increase in production (standard of living). Especially is this true for the United States with its enormous productive power. We want to expand our exports in order to increase our output and employment; and the accomplishment of this goal will be facilitated if we can make foreign trade as nearly like domestic trade as possible. Most of our mass manufacturers in the postwar years will have no difficulty in meeting competitive prices based on efficiency; competing against depreciated currency is quite another matter. The experiences of Pacific Northwest exporters between 1931 and 1934 indicate how disturbing currency depreciation by other nations can be.

Objections to rigid exchange rates center in the fear that they may induce unemployment. It is felt that too high an external value of a country's currency may curtail its exports, thereby causing unemployment, and that the way to rectify this maladjustment is to lower the exchange rate on this particular currency. It is also held that a depression in one part of the world may be prevented from infecting other nations, if these other nations adopt a credit-expansion program coupled with lower currency values. But, obviously, an attempt to insulate a country from outside influences is economic isolationism and is as fallacious as political isolationism. For one thing, it is a goal impossible of attainment; and, for another, it results in a lower productivity because it reduces regional specialization.

The reason behind these objections is the dislike of price changes, particularly when they are in a downward direction. But such adjustments are essential to any system of stable exchange rates whether it is the gold standard or some other system. If prices are reasonably flexible, the required changes can be made with little unemployment or other hardships.

Not only are flexible prices a prerequisite for stable exchange rates, but they are also necessary for the smooth operation of our economic

system. Relative price changes¹ guide industry into the manufacturing of new products and the curtailment of old ones. Wage changes guide labor into one field and out of another. In fact, our economic system uses price changes as a compass in production and the allocation of labor and capital among various possible uses. The consumer's influence upon price is the mainspring of a free-enterprise economy. An increase of price rigidity will markedly interfere with the smooth operation of the system.

Another advantage of flexible prices is that they prevent depressions from becoming unduly long and severe. The failure of some price changes to occur blocks recovery and forces much greater changes on those few prices that will adjust.

Price flexibility can be obtained by greater price competition. Truly competitive prices are determined impersonally by the action of the market, rather than by the action of individuals as in the case of rigid prices. Price rigidity is the result of monopoly (lack of competition) in the fields of labor, materials, and finished products. The most common agencies involved are labor unions and trade associations. In many cases the government directly supports the rigid price.

There are many means by which price competition can be increased. Two important ones are strict enforcement of the Sherman Antitrust Act and the reduction of tariffs to permit competition with foreign producers.

EXCHANGE RATES WHEN PRICES ARE RIGID

Although there is little doubt of the desirability of stable exchange rates under the conditions discussed in the previous section, there is no reason to believe that we are traveling in the direction of more flexible prices. In all parts of the world governments are becoming increasingly important factors in the making of economic decisions. They are reluctant to permit downward price readjustments and they are also taking over the responsibility of providing adequate employment at all times. Price control (especially price support) is becoming characteristic of the economies of most countries.

Stable exchange rates simply will not work in this kind of a setting. The free-enterprise system has stronger public support in the United States than in other large trading countries. Yet in our economic relations with other peoples we must compromise our views somewhat.

¹ The important subject of erratic changes in the general price level due to sudden fluctuations in the quantity of circulating media (principally bank deposits) is not discussed in this study.

That is, we must permit them to have the kind of an economic system they desire. This means that we cannot force price flexibility on them.

It seems, therefore, that we will have to reconcile ourselves to a certain amount of adjustment in exchange rates. It is doubtful if any system of international agreements calling for rigid exchange rates could remain in effect for any protracted period of time. However, we can attempt to reduce these adjustments to a minimum.

It is to the interests of all for the American economy to be as stable as possible. The fear of foreigners of world-wide depression induced by us should be allayed if possible. This would remove one objection to stable exchange rates and might curtail possible exchange-rate reductions.

Lower tariffs will increase the volume of trading and will therefore result in increasing the supply of foreign exchange. This will do much to reduce sudden pressures on particular exchange rates that might otherwise require adjustments.