

# MONEY, BUSINESS AND PRICES

BY

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## CHAPTER I

### INTRODUCTION

THERE are many social problems, of which some are economic problems. Of the latter, poverty is one of the most important. Poverty has many causes, of which one is unemployment due to a general business depression. It is with the nature, causes and prevention of depressions that we shall be concerned.

Poverty amongst a primitive people wringing a scanty living from the soil by crude methods is understandable. But depression-poverty is puzzling, for it is poverty in the midst of actual or potential plenty. The modern world in a depression presents a strange picture. Warehouses bulge with wheat; people go hungry. Textile mills stand idle; people wear rags. Houses and apartments are vacant; people hunt for shelter. Moreover, these unfortunate folk are not incapables—the halt, the maimed and the blind, who constitute a separate problem. The depression-unemployed are competent workers; many are highly skilled. Well might the traditional “visitor from Mars” have viewed the world on (say) Christmas Day, 1932, with bewilderment.

This paradox of poverty in the midst of plenty is the excuse for adding yet one more book to the

already voluminous literature of Depression. For much diagnosis by many persons may bring us one day to prognosis and cure.

Many persons contend that a depression is "inevitable," in the sense that it is a result of, and a cure for the excesses of a previous boom. I do not share this view. "Healthy liquidation," "necessary readjustments," "inevitable reaction" and other such phrases are expressions of incorrect analysis. Over-production in some lines is no excuse for collapsed production in all. As for "general over-production," it is possible in the sense that during a depression more could be produced than can be sold at the prices ruling. General over-production is also possible in the sense of the nation straining and toiling far into the night foolishly to produce an increment of product which is not worth the effort. But to talk of "over-production in 1929" is absurd. The 1929 level of prosperity was not "artificial," or "unsound," or "fictitious." Such as it was, there is no reason why a relapse therefrom was a necessity. The relapse is the anomaly.

That storms and ugly weather often follow sunshine and fair weather is not held to be evidence that the latter *cause* the former. Storms are "inevitable" only in the sense that (as yet, at least) we cannot control the weather. But no one would contend that we could eliminate the storms only by eliminating the sunshine, thus reducing the weather to a "stabilized" greyness. And so it is with the economic weather. Stormy depressions occur because they have not been brought under control,

not because a period of high prosperity necessarily causes a relapse.

General fluctuations in business conditions are usually called "business cycles." I shall use this terse and well-understood term, with the warning that no continuity of self-swinging ups and downs of business is implied.

Inasmuch as money is genuinely the life-blood of a modern economic system, we shall first consider those aspects of the monetary system which are relevant to our problem. Then we shall pass to some simplified demonstrations of monetary and industrial processes. Finally we shall turn to the problem of control.

The main proposition of this essay is that prices (of raw materials, of finished products, of the factors of production, etc.) are not completely flexible, and that variations in spending are accompanied by partial variation in production and consumption. Continuity of spending is essential to continuity of activity. This contravenes the truth of what is called Say's Law—"Goods constitute the demand for goods." True though this elliptical statement may be in the long run, it is untrue in the short run. Over short periods, *money* constitutes the demand for goods. "Money makes the mare go" is an old saying; "Money makes the machinery go" might well be a new one. Money does so, let it be emphasized, in the sense of a monetary stream or spending, not in the sense of a quantity of money. Entirely too much attention has been paid in monetary theory to the quantity of money. Not even the

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concept of "velocity of circulation of money" is an adequate correction, for it is only a derived concept, obtained by dividing the volume of spending by the quantity of money. The volume of spending is the important concept.

## CHAPTER II

### MONEY

To begin a discussion of monetary matters with a definition of money would be appropriate. Unfortunately, perhaps, it is not advisable. For money is one of those things which may be broadly defined but not precisely defined without being broken down into species and sub-species. This is true of many familiar concepts. Everyone knows what a war is, and a house, a hot day, and intoxicating liquor, but it would hardly be feasible to define any one of them precisely. Liquors would have to be classified thus :

1. Non-intoxicating (under 3·2 per cent.?).
  - (a) Unquestionably non-intoxicating. (No alcohol at all?)
  - (b) Almost intoxicating. (0-3·2 per cent.?)
2. Intoxicating (over 3·2 per cent.?).
  - (a) Mildly intoxicating.
  - (b) Moderately intoxicating.
  - (c) Very intoxicating.

—precise, perhaps, but certainly complicated.

So it is with money. If we were to attempt to secure precision, we should probably end with an array of definitions—never-money, sometimes-money, often-money, always-money, legal-tender-



always-money, non-legal-tender-often money and many others.

For that matter, why should a discussion of monetary problems be opened with a definition of money, any more than a discussion of housing problems be opened with a definition of a house? Everyone knows what a house is, but defining a house would probably be more difficult than defining money.

Rather, however, than let the matter go entirely by default, I propose to mean by money (rather vaguely) that with which we pay for things and in units of which prices, debts, wealth and income are expressed. Some wealth and most income not only are *expressed* in units of money; they *are* money.

In the United States and England almost all payments between members of the public are made by transfer of either Pocket Money or Bank Money, and we are justified in considering them to be the only money. Pocket Money is composed of coins and paper money which are usually authorized by the Government. Coins are usually minted by the Government; paper money is issued in most countries by the Central Bank. In England, Bank of England notes are the only kind of paper money. In the United States there are seven kinds of paper money—one issued by national banks, two by the Central Bank (the Federal Reserve System) and four by the Government. The most important of these is the Federal Reserve note. Federal Reserve notes are the largest element in the paper money, and they are the only type which varies substantially in quantity issued. Fortunately, this hodge-podge

condition of American paper money need not be confusing—we may concentrate our attention on Federal Reserve notes, and assume that they are the only kind of paper money. Inasmuch as paper money is much more important than coins, we may extend the assumption by identifying the paper money issued by the Central Bank with Pocket Money.

Pocket Money is used by the public—corporations and individuals—chiefly for small payments, for which a cheque would be inconvenient or impossible. Most people prefer to have on hand as little Pocket Money as possible, keeping most of their money in the bank, and drawing cheques for most of their payments. Pocket Money is sometimes used in larger payments in much the same way as a cheque is. If Mr. A has been accumulating funds in his savings account (against which he cannot draw a cheque) for a trip to Europe, he may one day withdraw \$200, and go to the steamship office to pay the \$200 for a ticket. The steamship company deposits the money at once (perhaps the same day), and the net effect of the transaction on the monetary and banking systems is practically the same as though Mr. A had paid with a cheque. It matters little whether we say that payment has been made by a transfer of Bank Money or that Pocket Money has been used.

Bank Money is the deposit balance in the banks with which the public usually does its banking business, as distinguished from the Central Bank. Many banks maintain deposits with the Central Bank. In the United States, all banks are not

members of the Federal Reserve System. The larger ones are, and the non-member banks usually have dealings with member banks, so that we shall assume that all banks are member banks. Similarly, the English joint stock banks may be considered to be member banks in relation to the Bank of England.

Bank Money and Pocket Money are alternative ways in which the public holds its money. If the banks are trusted by the public, the amounts held as Bank Money and as Pocket Money depend upon the convenience of having some of each. Usually the Public holds much more Bank Money, and makes almost all of its payments by transferring Bank Money by cheque. Indeed, we may say that ordinarily the distinction between Pocket Money and Bank Money is of little importance. When things are going smoothly in the business and banking worlds, we may turn our attention exclusively to Bank Money, as though it were the only form of money.

Just as Pocket Money and Bank Money are alternative forms of Money for the public's use, so Pocket Money and a Central Bank Balance are alternative ways in which a bank holds its cash. If a bank needs more Pocket Money (to replenish its till cash) it may draw a cheque on its Central Bank Balance and receive Pocket Money. And just as most payments between members of the public are made by cheque, transferring Bank Money, so most payments between banks (such as clearing-house balances) are made by cheque, transferring Central Bank Balances.

A bank has one main accounting liability—the deposits (Bank Money) of the public. A Central Bank has two principal liabilities—Central Bank Balances (chiefly the deposits of member banks) and Pocket Money (some of which is held by banks, the rest by the public). In many countries the Central Bank is the Government's banker; if so, part of the Central Bank balances is the Government's deposit account.

Banks are legally required to pay their depositors in Pocket Money, either on demand or after notice. In fact, they aim to pay on demand. Pocket Money, as we have seen, is a liability of the Central Bank. What does the Central Bank promise to pay? Sometimes nothing; sometimes Standard-Stuff. Since the prevalent kind of Standard-Stuff is gold, we shall speak of gold as the representative Standard-Stuff.

If a country is on the Gold Standard, its Pocket Money and a given weight of gold are kept equally valuable in a perfectly free market. This is usually done by the Central Bank's standing ready to buy or to sell an unlimited amount of gold at a fixed price. That price is, in the United States, \$20·67 an ounce. As long as this is done, and as long as the market for gold (including exports and imports) is perfectly free, the value of a dollar and that of 23·22 grains of gold cannot differ. Since payments for gold are usually made by cheque, it follows that (as long as the banks are solvent) 23·22 grains of gold, a Pocket-Money dollar, a Central Bank Balance dollar and a Bank Money dollar will be equally valuable. Furthermore, they are freely interchangeable. A person

may exchange his Bank Money for Pocket Money or gold. A bank may also exchange its Central Bank Balance for Pocket Money or gold.<sup>1</sup>

It does not follow from this that such exchanges are a matter of indifference to the parties concerned. Indeed, the banking and currency systems are constructed and operated in such a way that certain large and rapid exchanges are impossible. This is because the nation's Pocket Money is very much larger than its gold and (what is more important) the amount of Bank Money is enormously larger than the amount of gold or Pocket Money. The Central Bank can create and issue Pocket Money, but it cannot create gold, and the conditions under which it may issue Pocket Money are usually regulated by law.

To illustrate, let us assume that the monetary position of the United States is something like this :

### CENTRAL BANK BALANCE SHEET

(Figures in millions of dollars)

Gold . . . . .	4000	Federal Reserve	
Other Assets . . . . .	3000	Notes . . . . .	3000
		(Pocket Money)	
		Member bank de-	
		posits . . . . .	3000
		(Central Bank	
		Balances)	
		Other Liabilities . . . . .	1000

<sup>1</sup> Since these lines were written, the United States has gone off the gold standard, but the conditions when on the gold standard remain as described.

And let us suppose that the consolidated balance sheet of all the banks is :

### CONSOLIDATED BANK BALANCE SHEET

(Figures in millions of dollars)

Pocket Money	1000	Deposits . . .	40,000
Central Bank		(Bank Money)	
Balances . . .	3000	Other Liabilities .	10,000
Other Assets . .	46,000		

Under these assumptions the remaining \$2,000,000,000 of Pocket Money is in the hands of the public.

Now we must consider reserve ratios. Banks are required by law or custom to keep cash reserves against their deposits. Their reserve ratio usually is computed thus :

Their Pocket Money and Central Bank Balances  
Bank Money

and under our assumptions is  $\frac{4000}{40,000}$  or 10 per cent.

In fact, a 10 per cent. ratio is (roughly) required as a minimum—by custom in England, by law in the United States.

Under these circumstances, if the public wishes to exchange a billion of Bank Money for a billion of Pocket Money, the banks would have to get the necessary Pocket Money from the Central Bank. True, they could pay out the billion which they have in their tills, but we are justified in regarding a billion of till cash as an amount necessary at all times. So the banks may exchange a billion of Central Bank Balances for Pocket Money. Doing so, however,

would reduce their reserve ratio below 10 per cent. There is another possibility—the banks may sell the Central Bank a billion of their other assets. If they do so, exchanging the Central Bank Balances thus secured for Pocket Money and paying out the Pocket Money to the public, the balance sheet would be left as follows :

## CENTRAL BANK BALANCE SHEET

Gold . . . . .	4000	Pocket Money . . . . .	4000
Other Assets . . . . .	4000	Central Bank Balances . . . . .	3000
		Other Liabilities . . . . .	1000

## CONSOLIDATED BANK BALANCE SHEET

Pocket Money . . . . .	1000	Deposits . . . . .	39,000
Central Bank Balances . . . . .	3000	Other Liabilities . . . . .	10,000
Other Assets . . . . .	45,000		

And the public holds a billion more in Pocket Money.

Why could not this process go on until the public had exchanged *all* its Bank Money for Pocket Money? It could, provided that the Central Bank were willing and free to buy forty billion of bank assets and issue forty billion of Pocket Money. But the Central Bank may not be either willing or free to do so.

A Central Bank is usually required to maintain at least a minimum reserve ratio, which is usually calculated thus :

Gold
<hr/> Pocket Money plus Central Bank Balances

In the first Central Bank balance sheet the reserve ratio was :  $\frac{4000}{3000 + 3000}$ , or 67 per cent. The changes registered in the second balance sheet lowered that ratio to  $\frac{4000}{4000 + 3000}$ , or 57 per cent. And another identical series of operations would lower it to 50 per cent. Not only would a continuation of such conversions impinge sooner or later upon the Central Bank's minimum reserve ratio, but also the Central Bank might become less willing or legally unable to buy more bank assets. Hence we may conclude that usually the public cannot rapidly exchange a large proportion of its Bank Money for Pocket Money.

The foregoing analysis applies also if the public were to try to exchange its Bank Money for gold in a gold standard country. Indeed, the Central Bank's reserve ratio is reduced even faster if it pays out gold. The Central Bank might increase the quantity of Pocket Money by four billions, but it could not pay out more than four billions in gold, and doing so would reduce its reserve ratio to zero.

Thus we see illustrated the statement made above that something very serious will happen to the monetary system if the public tries rapidly to exchange its Bank Money for Pocket Money or gold. It cannot be done, and interchangeability must be suspended. Then a Bank Money dollar, a Pocket Money dollar and 23·22 grains of gold may differ in value. Usually suspension of interchangeability results in the gold unit becoming more valuable than



the others. Rarely the reverse occurs; during the World War the Scandinavian countries, flooded with gold, suspended the free coinage of gold, with the result that the gold unit became worth less than the others.

We have noted that the public may hold its money in three forms: gold money, Pocket Money and Bank Money. Banks may hold their cash in three forms: gold money, Pocket Money and Central Bank Balances. Both the public and the banks usually may exchange dollars in one form for the same number of dollars in another form. Does it follow from this that an increase in (say) Bank Money must be accompanied by a decrease in gold money plus Pocket Money (that is to say, the total of the other two)? The answer is, No. In a closed economic system there are three ways in which the total amount of gold money plus Pocket Money plus Bank Money may be increased. They are:

1. Non-monetary gold may be exchanged for money, or vice versa.
2. The Central Bank may increase or decrease the quantity of Central Bank Balances.
3. The banks may increase or decrease the amount of Bank Money.

And for a single nation there is another way:

4. Monetary gold may be brought from another nation and be exchanged for money, or vice versa.

The first and fourth of these possibilities are probably self-explanatory. The truth of the second

and third is accepted by analysts who have gone into the question of the "creation" of money by banks. Suffice it to say here that an increase (decrease) in the total of Central Bank assets usually is accompanied by an equal increase (decrease) in Pocket Money plus Bank Money. Similarly, an increase (decrease) in the total of bank assets is usually accompanied by an equal increase (decrease) in Bank Money. By an extension or contraction of their loans and investments either a Central Bank or the banks may bring about such changes.

The significant conclusion is that the total supply of money is variable, and that the Central Bank and the banks are parties to the variations.

The significance of this conclusion must not, however, be over-stressed. For it is not the amount of *money*, but the amount of *spending*, which is really crucial, and variations in spending may occur without variations in money, or the former may be much larger than the latter. This thought is sometimes expressed by saying that the "velocity of circulation" of money is not constant.<sup>1</sup>

What we shall really be concerned with is spending. Variations in the amount of money are important only as they affect spending.

<sup>1</sup> Velocity of circulation is really a concept derived from more fundamental ones. That is, it is arrived at thus :

$$\frac{\text{Spending}}{\text{Money}} = \text{Velocity of circulation.}$$

Of these three concepts the volume of spending is the most important.

## CHAPTER III

### THE GOLD STANDARD

GOLD is not only the principal monetary Standard-Stuff, but is also a representative Standard-Stuff in the sense that much of what is true of gold is also true of any Standard-Stuff. If, therefore, we assume that gold is the only Standard-Stuff, we shall be close to facts and principles.

The gold standard may be either domestic or international. Under a domestic gold standard, a given weight of gold and the monetary unit are kept equally valuable, but the values of the gold in that country and in other countries may, and by implication do, differ substantially. This state of affairs can be continued, of course, only if the export and/or import of gold is regulated so as to prevent equalizing movements of gold occurring.

The gold standard probably had its origin in various historical accidents. Its wide adoption was probably due to England's lead. Its continuation is usually defended on the grounds that a standard imposes a check on monetary expansion. It is argued that the value of gold is inherently fairly stable, and therefore the value of money, if equated to it, will also be fairly stable.

Now, this brings us to a curious point. Monetary

stability is clearly the *end* desired; this end is to be attained by keeping the monetary unit equal in value to that of a lump of gold because the latter is fairly stable. The obvious question at this point is, Why not operate the monetary system by aiming directly at the *end* instead of aiming at the *means* to the end? Apparently few defenders of the gold standard have ever faced the issue in this simple form, but it is quite clear that their answer (stripped of verbiage and reduced to simple terms) is this: The Government's promise to keep money equal to gold may be trusted, but a promise to keep money stable could not be trusted. As far as I know, no defender of the gold standard has ever said that, but that is what it comes to, nevertheless. Some defenders of the gold standard might reply that it is not possible to keep the value of money stable. They may be right, but how then do they propose to keep it equated to the allegedly stable value of gold?

No intelligent defender of the gold standard believes that money and gold are kept equally valuable by a purely automatic process; monetary manipulation is part of the system. If monetary manipulation is required to raise or lower the value of money, and if it is effective, and if the value of money is to be regulated by some criterion, we still have not disposed of the question, Why gold?

#### THE INTERNATIONAL GOLD STANDARD

If two or more nations are on the gold standard, and impose no serious restrictions on the export and

import of gold and on dealings in foreign moneys, not only will the monetary unit of each be equal in value to a lump of gold, but gold will be approximately equal in value in each of the countries. From this it follows that the two currencies will have a parity of exchange, which is arrived at by dividing the gold weights to which the monetary unit of each is equated. Thus, when the pound sterling is equated to 113.001 grains of gold and the dollar to

23.22, parity of exchange is  $\frac{113.001}{23.22}$ , or 4.86.

I do not propose to go into the matter of the foreign exchanges very exhaustively. At this point it is important to note that if two countries are on the gold standard, buyers, sellers, lenders and borrowers know that contracts or payments involving a special number of units of one money mean a fairly definite number of units in the other money. Concretely, as long as England and the United States are on the gold standard at \$4.86 to the pound, Mr. American knows that if he sells goods to Mr. Englishman for £100 or lends him £100, he will get back approximately \$486.

This certainty is not present if the two countries are not on the gold standard (or, strictly speaking, on non-common standards). Between two such countries, the rate of exchange depends on supply and demand, and may fluctuate more widely than between gold standard countries. The rate of exchange is settled much as betting odds on a horse race or a baseball game are determined—at such a

level as to "clear" all the money at that level. And just as the amounts of money which will be bet on each team depend on the odds, and the odds depend on the amounts of money, so is there similar interaction in the foreign exchange market. The exchange rate will settle at the point where the two monetary streams are "cleared."

Passing from this brief mention, we may note that stability of foreign exchange rates is the principal advantage derived from the international gold standard. This is no small advantage, and I do not intend to minimize its importance. On the other hand, its importance is often exaggerated. International trade is by no means "hopelessly crippled" by fluctuating exchanges, if there is a "forward" exchange market. That is to say, if the seller has given the buyer (say) ninety days in which to make payment in the seller's money, the buyer may enter into a contract to purchase the requisite money after three months, at a definite rate. Conversely, if the contract is in the buyer's money, the seller may sell the amount for future delivery. This is, of course, a complication, but it does provide certainty in those foreign exchange contracts which are fairly short.<sup>1</sup>

If, however, the monetary contract is to run for years, this protection is not available, because the "forward" market does not extend ahead for such long periods. Now, large-scale international loans and investments usually run for many years, and the exchange risk would probably loom large in the minds

<sup>1</sup> This use of the forward exchange market is not a mere theoretical possibility. It is a common practice.

of the borrower and the lender. It is likely that international lending and investing are hampered by fluctuating exchanges. Hence if one considers international lending to be a good thing, one must concede this advantage in favour of the international gold standard.

The international gold standard has one other principal consequence—the entire economic life of a country tends to be affected by an international gold flow. If, for any reason or reasons whatsoever, gold is flowing at an abnormal rate from A land, the monetary authorities must take action before A land loses too much gold. Their action will aim chiefly at reducing imports and stimulating exports, and will be accomplished by reducing incomes, expenditures, costs and prices in A land. They cannot reduce these elements in the export and import industries and markets only; in order to affect exports and imports, these elements must be reduced in all industries, including the purely domestic ones. The technique of reducing incomes, expenditures, costs and prices involves (really) causing a depression of greater or less severity. These elements do not fall automatically, but are pushed down by the pressure of declining sales and increased unemployment.

Contrast the situation in a non-standard country. If the same conditions arise in B land which caused a gold outflow from A land, we find that in B land foreign exchanges rise in price; in the foreign countries B land exchange goes down. As this occurs, B land's exports tend to be stimulated,

imports to be reduced, but purely domestic industries tend not to be affected. The readjustment in B land is more direct, more automatic and less painful than in A land.

There are probably circumstances under which it would make little difference whether a country were on the gold standard or not. But certainly there are conditions under which being tied to the gold standard would be a distinct disadvantage. If the gold outflow is in the nature of an "emergency" movement, it may be clearly foolish to try to contract the country's economic activity enough to check the outflow. It now seems clear, for example, that the "flight from the pound" in 1931, which led to heavy gold withdrawals from England, is in point. True to their traditions, the English did not go off the gold standard until they had practically no gold left (deducting what had been pledged). Going off the gold standard was not only necessary, but also advisable—if English incomes, expenditures, costs and prices could have been reduced enough to offset the gold flow, the process of reducing them would have been very painful.

In short, certain readjustments in a country's international position may, under the gold standard, necessitate undesirable changes in purely domestic trades which would not be necessary in a non-standard country. It is clear that conditions may arise under which *both* domestic stability and the gold standard cannot be maintained. One must be sacrificed to the other. This dilemma has not been given much attention for two reasons: first, it is



not widely understood, and secondly, the monetary authorities usually have no option in their action. Being under mandate of law or custom to maintain the gold standard, the monetary authorities must do their best to keep their country on the gold standard. Quite naturally, maintenance of the gold standard is accepted by them as the aim of monetary policy. To go off the gold standard deliberately in order to maintain domestic stability would be illegal—nay, more—would be unorthodox.

Until recent months the gold standard seemed well on the way to becoming something sacred—adherence to which certified to national respectability. On the whole, the gold standard has in the United States attained the position of unquestionableness. It is simply taken for granted that the consequences of going off the gold standard would be (vaguely) disastrous. That the adoption of any particular relief programme might drive the United States off the gold standard is considered to be complete and final proof that the programme is very, very bad. In the United States, the gold standard is in a class with the home, monogamy, success and democracy—all are institutions the desirability of which would be questioned only by fanatics, traitors or fools.<sup>1</sup>

There is no need here to go further into the cases for and against the gold standard. Suffice it to say that many a critic of a managed currency is quite

<sup>1</sup> Since these lines were written, the United States has left the gold standard. Many persons are beginning to realize how naïve and foolish these beliefs are. However, whatever the popular opinions may be to-day, I have left these lines unchanged, if only for the sake of a record of economic superstitions.

unaware that the United States has had a managed currency for several years—that gold is not internally influential. It is there for export and for respectability. If it were not needed for export, the Federal Reserve system could be run just as well without it—nay, perhaps better.

We must not lose sight of the fact that the gold standard is supposed to be man's servant, and not his master. In this connection it is appropriate to consider that in some respects the gold standard question is related more to long-time problems than to short-time variations. And here we find a dilemma which would be ludicrous were it not taken so seriously. I refer to the alleged danger of a world shortage of gold, which would (presumably) drag the price level down and deter economic progress. If such a condition were ever permitted to come to pass, it would be the world's blindest and most asinine mistake—to retard the production of everything to the rate of increase in gold production!

It is, of course, one thing to point out the absurdity of such a course, and another to suggest a practicable alternative course. Three seem to stand out:

1. Give up the gold standard entirely. This might be the most sensible method.
2. Stick to the gold standard and introduce all possible economies in the use of gold.
3. Periodic devaluation by all of the gold standard countries, simultaneously.

The third alternative has not, so far as I know, ever been suggested before, but it would present a

simple solution. If it be objected that it would be hard to get all the gold standard countries to act concurrently, it may be replied that :

1. Any plan for " saving " the gold standard will require joint action by the leading nations.

2. Any country which delayed devaluation would soon be left stranded unless spending were contracted appropriately. Its exports would decline, imports rise and gold depart.

Gold should not be permitted to be a tyrant. As Mr. Keynes says, " Thus gold, originally stationed in heaven with his consort silver, as Sun and Moon, having first doffed his sacred attributes and come to earth as an autocrat, may next descend to the sober status of a constitutional king with a cabinet of Banks; and it may never be necessary to proclaim a Republic. But this is not yet—the evolution may be quite otherwise. The friends of gold will have to be extremely wise and moderate if they are to avoid a Revolution." <sup>1</sup>

#### THE " ELASTIC " CURRENCY QUESTION

The duty of maintaining the gold standard usually devolves upon the Central Bank. The Central Bank may have other duties, but the general rule is that maintenance of the standard is the first and most important, to which any other functions must yield if necessary. Whatever else the Central Bank is trying to do, it must keep one eye on the gold

<sup>1</sup> *A Treatise on Money*, Vol. II., p. 292.

position, and be ever ready to abandon any policy which runs counter to defence of the standard.

The Central Bank maintains the gold standard by standing ready to buy or to sell unlimited quantities of gold at fixed prices (which may be equal). Since the crucial problems usually occur when the Central Bank is selling gold, we shall turn our attention to that aspect of the problem.

Obviously the Central Bank cannot hold unlimited quantities of gold. The Bank ordinarily holds a substantial amount of gold-for-sale, and if gold is being sold in large quantities, the Bank acts to acquire more gold and to decrease the demand for gold.

In order to carry out this duty the Central Bank must :

1. Hold the gold reserves of the country, and
2. Always hold surplus reserves.

Two other subsidiary activities commonly assigned to Central Banks I do not consider to be essential, namely,

1. Acting as bankers for the Government, and
2. Issuing the paper money of the country.

There are, it is true, some elements of convenience in having the Central Bank carry the Government account, but large payments into or out of that account upset the business banks' reserve position unless the effect is offset by Central Bank action.

The paper money of the country ought to be issued either by the Central Bank or by the Government,

and not by anyone else. It may be convenient to have it issued by the Central Bank, but it is not essential. The only paper money could be gold certificates issued by the Treasury, and the certificates held by the Central Bank would constitute the bank's gold reserves. This system would be somewhat like that of the Bank of England note (especially pre-War), and quite unlike that of the Federal Reserve notes. It would not be a system of "elastic" currency, and that alone is enough to damn it in the eyes of anyone who believes that the introduction of an elastic currency is one of the chief merits of the Federal Reserve System. In fact, however, an elastic currency is not necessary.

The defect of the American banking system before 1914 lay not in inelasticity of the currency, but in periodic shortage of reserves. Crises would occur when there would be (to use Mr. Hawtrey's term) no "lender of last resort." The Federal Reserve System is such a lender. In order always to be able to lend, it must always have surplus reserves—that is to say, reserves above the legal or precautionary minimum. This means that it must normally carry large excess reserves (something no commercial bank is willing to do), and if its reserve ratio is falling unduly, it must take steps to check the decline *before the minimum is reached*. This is more or less common knowledge, but it is not generally understood that the Federal Reserve System does not need an elastic currency in order to carry on.

The point may be illustrated by a simplified case. Let the position of the Federal Reserve System be

as follows, and assume that Federal Reserve System notes may be issued :

(Figures in millions of dollars)

Gold . . . . .	4000	Capital . . . . .	500
Other Assets . . . . .	2000	Notes Outstanding.	2500
		Deposits . . . . .	3000

Combined reserve ratio 72·7 per cent.

Let a seasonal increase in the public's demand for Pocket Money cause member banks to re-discount 500 of their assets in order to get 500 of currency. Then the position beocmes :

Gold . . . . .	4000	Capital . . . . .	500
Other Assets . . . . .	2500	Notes Outstanding.	3000
		Deposits . . . . .	3000

Combined reserve ratio 66·7 per cent.

If the system were organized on the basis of the issue of gold certificates backed dollar for dollar with gold, the initial position would be :

Gold Certificates . . . . .	1500	Capital . . . . .	500
Other Assets . . . . .	2000	Deposits . . . . .	3000

Reserve ratio 50 per cent.

Now let the public and the member banks act as before. The additional 500 Pocket Money would have to come directly from reserves, and the result would be :

Gold Certificates . . . . .	1000	Capital . . . . .	500
Other Assets . . . . .	2500	Deposits . . . . .	3000

Reserve ratio 33·3 per cent.

Two facts stand out :

1. Under the second system, the reserve ratio of gold to currency being made 100 per cent., a given amount of gold for both will leave a correspondingly small amount available as reserves behind deposits.

2. Under the second system, any given variation in the volume of Pocket Money in circulation will cause a larger numerical change in the Central Bank's reserve ratio.

In other words, by a little accounting procedure, it can be shown that what an elastic currency turns out to be is merely the power of the Central Bank to suffer a reduction in its reserve ratio. If the Federal Reserve ratio were to fall to the minimum, we would quickly discover that the *legal* ability of the system to issue an elastic currency and the *legal* ability to re-discount for member banks would have vanished. To repeat, it is by always having surplus reserves that the Federal Reserve System prevents a "shortage of currency."

## CHAPTER IV

### SOME MONETARY AND BANKING PROCESSES

WE may next turn our attention to certain aspects of spending and saving in connection with the banking system.

#### HOARDING AND DIS-HOARDING

Mr. Robertson has emphasized the importance of the concepts of Hoarding and Dis-hoarding. He defines Hoarding thus: "If, however, he (a man who acquires a sum of money) neither presents his money-claim himself nor hands it over to another, but simply adds it to his existing money stocks, he may be said to be Hoarding, or more strictly performing new Hoarding."<sup>1</sup>

From this it would seem to follow that it is not mere possession of a stock of money which constitutes Hoarding, but the essence of Hoarding would seem to be excess of income over outgo.

On the other hand, Mr. Robertson states, "We may, if we like, speak of the total amount of Real Hoarding outstanding at any time, and say that it equals the value, in terms of goods, of the money of all kinds in circulation."<sup>2</sup>

<sup>1</sup> *Banking Policy and the Price Level*, p. 46.

<sup>2</sup> *Loc. cit.*



Is it a person's stock of money or a change therein which constitutes Hoarding? In the case of "Dis-hoarding" it would seem to be the latter: "One cause of Automatic Stinting is a decision on the part of certain persons to reduce their money holdings, or as we may say, to dis-hoard. . . ." <sup>1</sup> Clearly, it must be the change in one's money stock which, if an increase, denotes Hoarding and if a decrease, denotes Dis-hoarding, for clearly if possession of any money stocks indicates Hoarding, a reduction therein might be *less* Hoarding, but it could not be Dis-hoarding.

If this view of Hoarding and Dis-hoarding be correct, I am perplexed by his famous sentence, "If *all* members of the public simultaneously dis-hoarded to an appropriate extent, they might impose on one another Automatic Stinting which in each case exactly cancelled the intended Dis-lacking involved in the process of Spontaneous Dis-hoarding, so that on the balance neither lacking nor Dis-lacking would be done by anyone." <sup>2</sup> If excess of outgo over income for any person constitutes Dis-hoarding, and since outgo and income are the same thing for different persons, so that all outgo for a closed economic system = Income for that system, then *all* members of the public cannot simultaneously Dis-hoard. For this would be to say that there is a *general* excess of Outgo over Income, which is impossible. If there is Dis-hoarding by some, there is an equal amount of Hoarding by others.

One peculiarity of Hoarding and Dis-hoarding in

<sup>1</sup> *Banking Policy and the Price Level*, p. 47.

<sup>2</sup> *Loc. cit.*

connection with loans must be noted. If Mr. A borrows \$1000 from Mr. B, the \$1000 is outgo for Mr. B and receipts for Mr. A; Mr. B has less money, Mr. A (temporarily at least) has more. If Mr. A spends the \$1000 at once, we may say that Mr. B has Dis-hoarded \$1000, Mr. A has neither Hoarded nor Dis-hoarded, and that Messrs. C, D and N have Hoarded \$1000.

If, however, Mr. B leaves his \$1000 in the bank and Mr. A borrows \$1000 from the bank and spends it, the situation is different. Mr. B has not Dis-hoarded, but Messrs. C, D and N have Hoarded \$1000. Clearly either the bank or Mr. A must be considered to have Dis-hoarded. I prefer to say that Mr. A has Dis-hoarded. From this it follows that in computing Hoarding and Dis-hoarding, funds borrowed from banks must be excluded from the borrower's receipts. Similarly, if a borrower pays off a loan, such a payment must be deducted from his money outgo. Hence if a bank lends a man money, it is usually for the purpose of enabling him to Dis-hoard. Conversely, in order to pay off a bank loan, a borrower must Hoard until he has money enough to do so.

If the banking system is increasing its loans, the bank-borrowers are presumably Dis-hoarding on the rest of the group. If the rest Hoard entirely in the form of Bank Money, bank deposits increase as fast as loans increase.

It may seem that an unnecessary fuss is being made about these matters, in view of two points which have been brought out—first, that Hoarding

and Dis-hoarding are necessarily equal, and secondly, that a general attempt to Hoard (or Dis-hoard) cannot succeed. If it is tried, the result might be—although it is unlikely—that no one succeeded. But if any of these actions or attempted actions affects the volume of spending, it becomes important. A man may be Hoarding or Dis-hoarding without changing his rate of expenditure; such action is not important. But if he spends less with the intent of Hoarding, his action is significant; if all do so, so that none succeeds in Hoarding, the effect on the volume of spending is no less important.

#### SAVING AND THE VOLUME OF BANK DEPOSITS

Bankers frequently urge the public to be thrifty and to save. Presumably their motive is thus to increase their deposits and *pari passu* their earning assets and profits. However, with the slight exceptions presently to be noted, an effective thrift campaign cannot increase the total deposits of the entire banking system. If A is persuaded to reduce his expenditure on consumers' goods below his cash income, and to build up a bank deposit with the difference, A's Hoarding is matched by an equivalent amount of Dis-hoarding on the part of other persons. Their bank balances decrease as A's increases; the total deposits are not changed by A's action. A's bank, by its thrift campaign, may thus succeed in increasing its deposits; but only by drawing on the deposits of the other banks.

There are three (or perhaps only two and a half) exceptions to the foregoing conclusions:

1. Bankers may persuade their depositors to transfer idle balances from demand accounts to time accounts. This action causes no change in the total of bank deposits, but it results in lowering the minimum legal reserve ratio. Against \$100 in a time deposit, a Federal Reserve member bank needs only \$3 legal reserve, instead of \$7, \$10, or \$13 against a \$100 demand deposit. Changing the \$100 deposit from demand to time means therefore that the bank can lend or invest (legally) \$4, \$7 or \$10 more. Such lending or investing increases the earning assets of the bank doing it, and increases the deposits of the other banks.

2. If the bankers' thrift campaign causes anyone to save via a bank account instead of by holding currency (that is, to exchange Pocket Money for Bank Money), total bank deposits are increased. If B, who has been keeping \$100 in currency in his house, takes it to a bank and deposits it, his bank's deposits will rise by \$100, and no other bank's will decline. The \$100 will be a net increment to the total of bank deposits.

3. What has been said applies to a closed economic system, and therefore to the world, but within the world, one nation may draw deposits from others. Just as any bank whose thrift campaign is more effective than the others may draw deposits from them (within a closed system), so may balances flow from one country to another.

Of course, bankers' thrift campaigns are not the only factor affecting such international flows of balances. They constitute a minor factor. But it

is conceivable that the bankers of any country could stimulate thrift therein, reduce imports, and precipitate a flow of balances.

Two actions, then, which increase the total of **Bank Money** are :

1. Exchange of Pocket Money for Bank Money ;
2. Sale of gold to a bank for Bank Money.

The other principal actions which increase the total of **Bank Money** are :

3. The making by banks of loans to the public ;
4. Purchase by banks of bonds from the public ;
5. Sale by the public of bonds to the Central Bank ;
6. Receipt by the public of payments from the Government, provided that the Government banks with the Central Bank ;
7. Payments by banks to the public (dividends, interest, wages, expenses, etc.).

Each of these types of action, except numbers 3, 4 and 7, also increase the member banks' **Pocket Money and/or Central Bank Balances**.

Conversely, the following actions decrease the total of **Bank Money** :

1. Exchange of Bank Money for Pocket Money ;
2. Purchase of gold from a bank for Bank Money ;
3. Repayment of bank loans by the public ;
4. Sale of bonds by banks to the public ;
5. Purchase of bonds by the public from the Central Bank ;
6. Payments by the public to the Government, if the Government banks with the Central Bank ;

7. Payments by the public to banks (interest, commissions, etc.)

Each of these actions, except numbers 3, 4 and 7, decreases the member banks' Pocket Money and/or Central Bank Balances. Some of these items are continuous on both sides—for example, loans are continually being made and repaid. In such a case, the excess one way or the other affects the total of Bank Money.

#### SAVING, INVESTING, SPENDING

If Mr. A decides to reduce his expenditure on consumers' goods and to increase his direct expenditure on producers' goods by the same amount, there is no *a priori* reason for supposing that the total volume of spending will be altered. The repercussions of his reduced consumers' goods spending may vary from those of his increased producers' goods spending, but this is indeterminate. As far as A is concerned, he is not altering the volume of spending. This conclusion is also true if A buys stocks or bonds, provided that the recipients of A's money spend it at once on producers' goods.

But if A decides to save by permitting his bank account to grow, the situation is different. His action is Hoarding, and imposes Dis-hoarding on other persons. A's reduced expenditure on consumers' goods is not balanced (as it was before) by his increased spending on producers' goods. There will therefore be a net decrease in spending unless

A's bank increases its loans (these being promptly spent by the borrowers).

It is impossible to say by how much A's bank must increase its loans in order to keep the total volume of spending unchanged. This is because we have no *a priori* knowledge of the repercussions of A's reduced expenditure or of A's bank's increased loans. If the multiple effect of these changes is taken to be equal, then A's bank can keep the total volume of spending constant by increasing its loans as fast as A's deposit grows, provided that the other banks do not reduce their loans. In short, the preservation of spending necessitates an *increase* in the volume of Bank Money. Such an increase is possible only if there are surplus reserves somewhere—either in the banks or in the Central Bank. A's action by itself is repressive (or deflationary); the bank's action is stimulating (or inflationary). Herein lies part of the necessity that the Central Bank keep surplus reserves. Central Bank activity against Hoarding (which is what A's saving really was) necessitates an increase in Bank Money. Under the law, there must be reserves adequate to support such an increase. Hence a Central Bank cannot fight a Hoarding depression unless it has or can get surplus reserves. Since it can get more reserves only from other countries (unless its country has important gold mines), the Central Bank finds it expedient to keep its own surplus reserve.

## A RACE FOR LIQUIDITY

The early 1930's have witnessed a large-scale race for liquidity on the part of the public, the banks and the Central Banks. In trying to get liquid, the members of each of these groups wish to increase their holdings of their most liquid item. For the public, this item is usually Bank Money; for the banks it is Pocket Money or Central Bank Balances; for the Central Banks it is gold.

We have seen that all members of the public cannot Hoard simultaneously. Therefore all cannot become more liquid unless the banking system supplies more Bank Money.

Similarly, all banks cannot increase their Central Bank Balances unless the Central Bank increases the total of such Balances. Of course, some banks may get liquid faster than the others, but this merely means that they deplete the others' Central Bank Balances. If some banks succeed in "Hoarding" Central Bank Balances, other banks must be Dis-hoarding, provided that there is no change in the total.

The competition for gold is similar in that one Central Bank may draw gold from the others and all can acquire more gold only if the total of monetary gold is increased.

One peculiarity of the situation is that these items are related in the liquidity hierarchy. We have seen that the banks' liquidity ratio is computed thus :

$$\frac{\text{The banks' Pocket Money plus Central Bank Balances}}{\text{Bank Money}}$$



and the Central Bank's liquidity ratio is arrived at by dividing

Gold

---

Central Bank Balances plus total Pocket Money.

If the public desires to Hoard, the banks could oblige if they increased the total of Bank Money. Such action, however, would lower the banks' liquidity ratio, whereas the banks may be trying to raise the ratio. A bank goes about raising its ratio by reducing its loans. If some banks do this faster than others, they draw on the others' Central Bank Balances, and may actually contribute to forcing some of them into insolvency.

The liquidity ratio of *all* the banks can be raised only by an increase in Central Bank Balances or by a decrease in Bank Money. If the Central Bank makes open-market purchases, the quantity of Central Bank Balances is increased and all the banks could become more liquid. But this action, in turn, makes the Central Bank less liquid, and the Central Bank may be unwilling or unable to permit this to happen.

If all banks are trying to get liquid, the net result is likely to be that they attain their end in part by reducing the total volume of Bank Money. In short, they deflate the country in order to get liquid. Lest this sound like an unqualified indictment of bankers, it should be noted that the bankers have felt such action to be necessary: (1) in order to reassure their depositors and prevent runs; (2) in order to avoid losses on investments; (3) because

there have not been enough good, safe loans; (4) because things have been getting worse, and they wished to be well fortified against any contingency.

These reasons are excellent, but what the bankers have not seen is that the conditions which they point to as *causing* their race for liquidity are quite as much the *results* of their race for liquidity. A general bank race for liquidity is not likely to be successful; all banks can scarcely hold cash equal to 50 per cent. of their deposits, as the New York banks did in January 1933; if such a race could be won by all, the prize would be a bankrupt country.

The problem is not solved even if the bankers see the truth of this reasoning, unless they all act together in refraining from joining the race. A wise and benevolent banker must join the race if the race is on, or his bank will probably fail. It is expecting too much to request an individual banker to bell the cat.

In this respect England has an advantage over the United States. With five big banks doing 90 per cent. of her banking business, two results follow:

1. The English bankers can see more easily that one can absorb Central Bank Balances only at the expense of the others;
2. Being few in number, it is easy to agree on a policy of not starting such a race.

The international competition for gold is not effected solely by Central Bank action. Tariffs,

quotas, trade restrictions are used. And the result is likely to be "check" as far as the gold is concerned, and "checkmate" as far as trade is concerned.

Some of these days the economic historian will see these recent years as the Great Free-for-all-Race for liquidity. "In the first ring, individuals and corporations scramble for Bank Money. In the second ring, banks scramble for Central Bank Balances. In the third ring, Central Banks and countries scramble for gold."

It is an impressive spectacle. All that it needs is a watcher playing the fiddle.

## CHAPTER V

### A CRITICISM OF THE QUANTITY THEORY

ONE part of the Quantity Theory of Money and Prices, in conjunction with the teachings of Equilibrium Economic Theory upon which this part is posited, has stood in the way of a clear understanding of the theory of Business Cycles. This part is the openly stated or tacitly assumed belief that fluctuations in spending affect only the price level, and do not affect the number of transactions, the volume of output or the volume of employment.

The Quantity Theory has been stated in so many ways that it is difficult to say exactly what it is. The algebraic formulation of Professor Fisher— $MV + M'V' = PT$ —is perhaps the most famous presentation. This formula, as has frequently been pointed out, is really no theory, but is a mere truism. All that it says is that the sum of money paid for things in general in a given period of time is equal to the sum of the prices of things. Upon this equation Professor Fisher strove to build a theoretical structure to show that variations in  $M$  produced corresponding variations in  $P$ .

This simple theory has been sharply criticised, and all monetary theorists are familiar with the attacks. It has been pointed out that  $M$  and  $M'$

do not vary together. It has been demonstrated that  $V$  and  $V'$  are not relatively constant, but highly variable. It has been observed that "... neither  $P$  nor  $T$  corresponds to quantities in which we are likely to be interested for their own sakes.  $P$  is not the Purchasing Power of Money and  $T$  is not the Volume of Output."<sup>1</sup> Argument has waxed warm over the meaning of the terms "Purchasing Power of Money" and "Value of Money."<sup>2</sup> It has been suggested that the causal relationship runs not from changes on the left-hand side of the equation to induced changes on the right-hand side, but vice versa, and also that there is causal interaction between the factors on the two sides.

None of these criticisms, however, gets at the point at which the Quantity Theory is faulty with respect to certain aspects of cyclical variations. All of the discussion of the Quantity Theory has revolved around the relationship between monetary fluctuations and *prices*, on the assumption that the volume of output, etc., are not affected by such fluctuations. Mill stated as follows what is still the generally accepted notion: "We are now only called upon to consider what would be the effect of an increase of money, considered by itself. . . . Let us rather suppose, therefore, that to every pound, or shilling, or penny, in the possession of anyone,

<sup>1</sup> J. M. Keynes, *op. cit.*, vol. I., p. 235.

<sup>2</sup> This I consider to be an especial waste of time. If the problem to which these terms are relevant be clearly stated, it will usually be found that some appropriate concept may be found. It may not, of course, be the same concept which is serviceable in another problem.

another pound, shilling or penny was added. There would be an increased money demand, and consequently an increased money value, or price, for things of all sorts. This increased value would do no good to anyone; would make no difference, except that of having to reckon pounds, shillings, and pence, in higher numbers. It would be an increase of value only as estimated in money, a thing only wanted to buy other things with; and would not enable anyone to buy more of them than before. Prices would have risen in a certain ratio and the value of money would have fallen in the same ratio. It is to be remarked that this ratio would be precisely that in which the quantity of money had been increased."<sup>1</sup> It is true that Mill occasionally protects himself by qualifying with "other things being equal." So do modern writers, but this formal hedging is not significant if the argument drifts along and the validity of the assumption is never fully examined. The assumption comes to be taken for a fact.<sup>2</sup>

This notion that the price level is the principal dependent variable is stated thus by the Macmillan Committee, "Obviously the general price level must be governed by the volume of purchasing power directed to the buying of current output relative to the volume of this output."<sup>3</sup> Having the short

<sup>1</sup> J. S. Mill, *Principles of Political Economy* (Ashley Ed.), p. 492.

<sup>2</sup> Incidentally this kind of error is not confined to monetary theory, but occurs in economic theorizing generally. For example, some of the most precise-appearing analyses of the shifting and incidence of taxation rest upon assumptions which are not true.

<sup>3</sup> *Report*, p. 93.

run in mind, I think that it would be truer to say, Obviously the volume of current output is governed by the volume of purchasing power directed to the buying of this output relative to the general price level.

The assumption of price flexibility is to be found in the works of our foremost monetary theorists, as, for example, D. H. Robertson and J. M. Keynes. The former writes, "Suppose first that some or all of the public . . . experience an increased desire to Hoard . . . this shows itself in a diminished daily flow of money on to the market. If the bank took no action, the result would be a fall in the price level. . . ." <sup>1</sup> Indeed, the whole precise analysis of that brilliant and suggestive little book is posited upon this assumption. "The expenditure of newly-created money, whether by the Government or private persons, brings on to the market an additional daily stream of money which competes with the main daily stream of money for the daily stream of marketable goods, secures a part of the latter for those from whom the additional stream of money flows, and thus deprives the residue of the public of consumption which they would otherwise have enjoyed." <sup>2</sup> This deprivation ("Automatic Stinting" in Mr. Robertson's words) necessarily occurs only if the stream of goods does not increase in proportion to the increase in the stream of money.

Let us call Mr. Keynes to the stand. "When a bank increases the volume of credit to the accompaniment of rising prices . . . the borrower, coming

<sup>1</sup> *Op. cit.*, p. 53.

<sup>2</sup> *Ibid.*, p. 48.

on to the market as an additional buyer without any diminution in the purchasing power of the existing buyers at the existing price level, raises prices. . . . What the rise in prices diminishes is the value of all current incomes in cash. That is to say, the *flow* of purchasing power in the hands of the rest of the community is diminished by an amount equal to the fresh purchasing power obtained by the aforesaid borrower." <sup>1</sup> "Equal" implies that there has been no increase in the stream of goods. Or again, "Consider what happens when an individual refrains from spending his money-income on consumption. . . . There is now in the market one purchaser less for consumption-goods with the result that their prices fall." <sup>2</sup> In justice to Mr. Keynes, however, it must be observed that this assumption is not adhered to throughout his monumental work. Many passages suggest or state the possibility of variations in output resulting from monetary variations.<sup>3</sup> Indeed, it would seem that Mr. Keynes' "mechanism of induced changes" implies that unemployment is the *modus operandi* of reducing wages. We shall revert to this point later.

We may conclude by emphasizing the proposition that the theory of business cycles will not be fully understood until it is formally acknowledged and carefully considered that although in the long run changes in spending may chiefly influence prices, in the short run they substantially influence the volume

<sup>1</sup> *Op. cit.*, Vol. I., pp. 300, 301.      <sup>2</sup> *Ibid.*, Vol. I., p. 173.

<sup>3</sup> Cf. *Ibid.*, Vol. I., pp. 182, 210, 263, 303, 305, 306 ff., 362.



of sales, output, employment and consumption. Then, and then only, will the confusing influence of the Quantity Theory and Equilibrium Economics be removed from Cyclical Theory.

#### QUALIFICATION

To the proposition, More Spending More Production, there is one general exception. The more completely utilized the factors of production are, the less effect on production will an increase of spending have. Labour may be taken as a representative factor. If unemployment is down to what may be called the "inevitable minimum," an increase in spending will affect prices, profits, or, for a short time, sales, but it will not greatly affect production.

"Inevitable minimum" of unemployment is admittedly a vague concept. But we all know that some unemployment exists even if business is good, due to drifting from one job to another, seasonal occupation, technological displacement, decreases in the demand for particular goods, etc. Perfect control of business cycles could not eliminate these causes of unemployment. Patently it is not possible to say with certainty how much unemployment is involved in this minimum. For rather obscure reasons I should guess the figure for the United States to be about 5 per cent. of the labourers, or about two million persons.

In fact, exact determination of the figure is not essential. If, therefore, two million be taken as the figure, we are left with this important criterion of

American monetary policy : If unemployment is only two million, an increase in spending should be discouraged, for it will do no good. If unemployment is above two million (especially if it is very much above), the aim of monetary policy should be to prevent a decrease and encourage an increase in spending. We shall revert to this point when we come to the discussion of measures of control.

### SOME ILLUSTRATIVE CASES

The line of argument may be made clearer by some simple examples. These cases have been deliberately made very simple in order to reduce the possibilities and complexities which are necessarily involved. It must be admitted that the oversimplification may result in dodging relevant problems or even missing crucial points. But I believe that the general conclusions which may be drawn from these simple cases are equally applicable to the much more complex situations in real life.

The cases are posited upon the following assumptions :

1. There is but one kind of commodity being produced—a consumers' good.
2. It is being produced under the management of "businesses" which hire labourers, pay them wages and pay dividends to capitalists. The labourers and the capitalists buy the commodity from businesses.
3. The production process takes no time and the product per employed labourer is constant, so that

output is directly governed by the number of labourers. (This waives changes in productive technique and increasing and decreasing costs.)

4. Businesses, labourers and capitalists have bank accounts only (Bank Money), and all payments are made by cheque.

5. The only "capital" is stocks of finished goods.

6. The economic structure is a "closed" one.

7. No explanation is offered as to why initial changes in spending rates occur.

8. All rates are volume per standard time unit.

#### *Case 1. The Initial Position.*

There are no unemployed and these are the facts : 50 (employed) labourers, receiving \$100 each; capitalists receiving a total of \$1000 in dividends; both spending sums equal to their incomes; output 6000 units, selling at \$1 per unit.

Money income and outgo is :

Business Outgo.		Business Income.		Hoarding and Dis- hoarding.
To 50 Labourers	\$5000	From 50 Labourers	\$5000	o
„ Capitalists	1000	„ Capitalists	1000	o
	<hr/>		<hr/>	
	\$6000		\$6000	o

#### *Case 2. Perfect Flexibility of Prices.*

From Case 1, the consumers decrease their spending by 10 per cent., or \$600. If prices were perfectly flexible (as the Quantity Theory implies), and if dividends were reduced from \$1000 to \$900, wages could fall from \$100 to \$90, and the price of the

commodity from \$1 to \$.90, with no reduction in employment, output or sales.

Business Outgo.		Business Income.		Hoarding and Dis- hoarding.
To 50 Labourers	\$4500	From 50 Labourers	\$4500	o
„ Capitalists	900	„ Capitalists	900	o
	<hr/>		<hr/>	
	\$5400		\$5400	o

This might not be the final solution if the consumers were trying not merely to reduce their expenditure by 10 per cent., but to reduce it below their income, for this solution reduces their income to their previously reduced expenditure. A continued effort on the part of consumers to spend 10 per cent. less than they receive would cause a continued fall of prices and wages at an indeterminate rate. That is, unless businesses acquiesced in (a) lowered profits, (b) an increase in their goods stocks, and (c) Dis-hoarding at a rate equal to the consumers' Hoarding.

*Case 3. Perfect Rigidity of Prices.*

Let us start again from Case 1 and (as in Case 2) assume that consumers reduce their expenditure by \$600. But now let us assume that prices and wages are rigid.

Businesses might, of course, acquiesce in reduced sales, continue to hire the same number of labourers, Dis-hoard at the rate of \$600 and watch their goods stocks increase at the rate of 600 units.

But this is not likely. Businesses will discharge labourers and (let us assume) reduce dividends in proportion to reduced output in order to keep

income and outgo equal. The number of labourers which businesses will have to discharge depends on how much more (if any) the men reduce their expenditure on becoming unemployed. If they cease spending entirely, businesses could not equilibrate their position if they discharged all of them, for every reduction in the wage and dividend bill would be accompanied by a reduction almost as large in sales to labourers, and sooner or later, on the other hand, to the capitalists. If the discharged labourers do not reduce their expenditure any more (continuing at \$90 each),<sup>1</sup> businesses can equilibrate their position by discharging five men and reducing dividends to \$900. Then we would have wages \$4500, dividends \$900, output 5400 units, sales 5400 units at \$1 each.

#### *Case 4. Partial Flexibility of Prices.*

Starting as in Case 1, we may next assume partial flexibility of prices. The consumers reduce their expenditure \$600. Assume that discharged labourers continue spending at the same rate (\$90). Some result like this might occur :

Business Outgo.		Business Income.		Hoarding (+) Dis- hoard- ing (-)
To 46 Labourers		From 46 Labourers	\$4140	+ 230
at \$95.	\$4370	„ Capitalists	900	+ 30
To Capitalists	930	„ 4 Unem- ployed	360	- 360
	<hr/>		<hr/>	
	\$5300		\$5400	+ 100
Output 5520 units, Sales 5520 units, at \$'978 each.				

<sup>1</sup> This is unlikely, but the reasoning is not affected thereby.

The process might not stop here. The labourers who are still employed, worried over the prospect of losing their jobs, may have started to spend less; the capitalists may have reduced their spending due to dividend cuts and falling securities prices; businesses may decide to change over from a goods position to a money position in view of declining sales and (more important) falling prices; businesses may charge inventory losses to income and reduce dividends even more sharply with stronger effects on the capitalists' buying. This would illustrate the familiar vicious circle.

*Case 5. Differential Flexibility of Prices.*

Starting from Case 1, let us assume that wages are rigid and the price of the finished goods is flexible. Consumers reduce their expenditure by \$600. Any of several results might follow, of which this is one :

Business Outgo.		Business Income.		Hoarding (+) Dis- hoard- ing (-).
To 50 Labourers	\$5000	From 50 Labourers	\$4500	+ 500
„ Capitalists	1000	„ Capitalists	900	+ 100
	<u>\$6000</u>		<u>\$5400</u>	- 600

Wages \$100, output 6000 units, sales 6000 units at \$.90 each.

The above result seems unlikely, however, for profits are smaller than dividends.

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The more they reduce their expenditure, the more labourers businesses will have to discharge.

Assuming that discharged labourers halve their expenditure, this result might occur :

Business Outgo.		Business Income.		Hoarding (+) Dis- hoard- ing (-).
To 42 Labourers	\$4200	From 42 Labourers	\$3780	+ 420
„ Capitalists	500	„ Capitalists	500	0
		„ 8 Unem- ployed	360	- 360
	<hr/>		<hr/>	
	\$4700		\$4640	- 60

Wages \$100, output 5040 units, sales 5040 units at \$.92 each.

It may be objected that although all of the above figures are arbitrary, those for dividends and profits are peculiarly so. And they are. The rôle of dividends in the business cycle has never been adequately considered. The volume of dividends is a crucial point in Foster and Catchings famous cases.<sup>1</sup> Attention has been drawn to their difficulties by Mr. Novogilov<sup>2</sup> and Mr. Robertson.<sup>3</sup>

The point yet remains to be fully explored. Suffice it to say here that the volume of profits depends in part on the spending of dividend-recipients, and that in turn depends on the volume of dividends. It appears to be possible that if all businesses acted together they could keep the volume of profits from falling in a depression by boldly raising dividends, provided that the dividend-recipients would correspondingly increase their spending. Businesses, however, have no *individual* rational inducement to do so.

<sup>1</sup> *Profits*, Bk. V.                      <sup>2</sup> *Pollak Prize Essays*, pp. 89 *et. seq.*

<sup>3</sup> "The Monetary Theories of Messrs. Foster and Catchings" in *Economic Essays* (with A. C. Pigou).

In these Cases, the initial change in spending has been assumed to originate with the consumers. This assumption is not meant to imply that in fact the change in spending is usually initiated by consumers. The Cases could as well have been presented on the assumption that the change was initiated by businesses. By whomsoever the change is initiated, the repercussions may be analysed as in these Cases, and they would follow the lines indicated by the Cases. Wherever the change in spending starts, induced changes follow, and the subsequent actions and reactions occur in the same general manner, so that once a general increase or decrease of spending starts, its origin becomes a matter of indifference in analysing the repercussions. The analyst may break into the circular monetary flow where he pleases; I have chosen to break in at consumer spending. Any other point of entry would be just as good.

This is not to say, however, that it is not worth while to try to ascertain where and why initial changes in spending occur. It is also important to try to find out where the trend of spending could most easily be reversed. If the initial changes could be detected and either be checked or counteracted, the induced changes would not occur. If this cannot be done, the next best thing is to discover where the induced changes could most readily be checked.



## CHAPTER VI

### CAUSES OF CHANGES IN SPENDING

WE have seen that general variations in spending accompany general business fluctuations. If Messrs. A, B, and C decide to reduce their expenditure (with the intention, perhaps, of Hoarding), D, E and N may not acquiesce in the induced passive Dis- hoarding, and may in turn reduce their expenditure. Each individual may be subject to the counter-influences to the same extent, and therefore no Hoarding or Dis-hoarding may in fact result. Usually, of course, some individuals are successful in Hoarding. But not much Hoarding *necessarily* occurs even when total spending is declining rapidly. In order that any person may undertake to reduce his expenditure, he must be spending above an irreducible minimum. In fact, many (perhaps most) persons are usually doing so. They can, if they wish, reduce their expenditures.

### POTENTIAL VARIABILITY OF EXPENDITURE

Expenditure being on consumers' goods and capital goods, we may consider changes in each type of spending. With regard to consumers' goods we may generalize that the higher the real incomes of a people, the greater the potential variability of

expenditure. A poor people, living a hand-to-mouth existence, must spend their money as fast as it is received in order to buy the bare necessities of life. Such people cannot reflect whether to cut down expenditure (Hoard) or not; their money outgo is always equal to receipts. A richer people have several ways of reducing expenditure.

1. They may reduce expenditures on comforts or luxuries—house room, fine foods, fine clothes, clubs, travel, automobiles, jewellery, radios, furniture, servants, amusements, etc.

2. They may reduce expenditure on necessary items and live by depleting their existing stocks. This might occur to a small extent with respect to stocks of foodstuffs, etc. It would be more significant, however, if it took the form of not buying clothing and wearing that on hand to a greater degree of shabbiness, or not replacing the old car as soon, or, in general, postponing expenditure on the more durable consumers' goods.

3. If their prosperity has taken the form of considerable leisure time, they may reduce expenditure without reducing their standard of living by working in their (otherwise) leisure to produce things for themselves which they had been paying others to produce. Housewives may do the family washing in lieu of sending it to the laundry, may make clothes for the family, may bake bread and pastry, may can fruits and vegetables, may do their own domestic work, etc. Men may tend vegetable gardens, do repair work around the house, etc.

With regard to capital goods, we may generalize that the more capital, the greater the potential variability of expenditure. Businesses may seek to reduce capital expenditure in various ways :

1. By permitting their stocks of raw materials, supplies, finished goods, etc., to decline.

2. By allowing their fixed capital equipment to become depleted by failing to replace worn-out equipment, by not repairing equipment and plant—in short, by permitting physical depreciation and/or depletion, while accumulating funds against them.

Any such reductions in expenditure involve switching over from a goods position to a money position. They involve Hoarding, which, if attempted generally, cannot succeed. All will find that as they reduce their expenditure, their receipts are declining. Production and trade decline, labourers are thrown out of work, dividends are reduced, Dis-hoarding is imposed upon unemployed labourers and perhaps upon the recipients of dividends.

It is obvious, of course, that variation in expenditure may involve increases from a low level as well as decreases from a high level.

It is well known that the business cycle occurs principally in highly developed countries, although serious repercussions may be felt in simple countries which export to them. Apparently the richer a country is and the more capitalistic its production methods, the greater are the general business fluctuations. Advocates of the capital over-production theory have their explanation, but the greater

variability of expenditure in such countries must be counted as an important independent factor.

#### THE "MULTIPLE EFFECT" OF INCREASED OR DECREASED SPENDING

If in an economic system under which many commodities are being produced, spending on one of them is increased, the result may be an all-round increase of spending, so that the rate of flow of the money stream is increased by much more than the rate of the initial increase. This would occur if the various recipients of the increased receipts do not acquiesce completely in excess of money income over money outgo. Suppose that the Government spends newly created money on commodity A. If the producers of commodity A do not alter their money outgo as a result of their increased money income, the "inflationary" results stop there. If, however, these producers are forced to increase their money outgo by paying higher wages, higher prices for materials or higher dividends, or if they hire more labourers or buy more materials, the money income of others will be increased. Then these recipients face a similar problem: What action, if any, to take as a result of increased money income? If the money situation were "taut," *i.e.* if everyone attempted to pass on increased money, the money stream in exchange for commodities A, B, C and N would increase much more than the Government's rate of increased spending. Not all could succeed in passing all the increased money along, of course.

for the new money finds lodgement somewhere; the Government's Dis-hoarding must be matched by equivalent (unwanted, perhaps) Hoarding.

Indeed, an additional repercussion might occur. If brisker business induced a general attempt to change from a money position to a goods position, the increase in spending would be even greater.

Conversely, this possible multiple effect could result in multiple contraction of spending as a result of a given initial decrease.

Thus far we have noted that in a rich, capitalistic country, spending is highly variable. We have not considered why changes in spending start. We may now turn our attention to spontaneous changes in spending.

#### NEW COMMODITIES

If a new commodity catches the public's fancy, expenditure on the new commodity will increase. If the public reduces its expenditure on other commodities by the same amount, there is no *a priori* reason for supposing that total spending will increase. The public may not do so, however, in which case a general increase in spending occurs. Increased spending on automobiles is generally considered to have had this effect in the 1920's.

An interesting example of a commodity which has been defended in the United States on these grounds is legal beer. Its proponents have argued that the legalization of beer would stimulate business generally by affording an increased demand for equipment and raw materials. The answer is indeterminate.

All that can be said is that if the increased public spending on legal beer is not matched by a decrease in spending on other things—soft drinks, clothing, foods, etc., and even illegal liquors—the result will tend to be stimulating to business generally.

### CROPS

Variations in crop conditions causing a decrease in the income of a large part of the population and less prosperity for the agriculturist may lead either to more or less prosperity for the industrialists. The usual teaching of Equilibrium Economics is that such an agricultural decrease means that the agriculturists' trade their goods for manufactured goods on less favourable terms, and therefore as they get less the industrialists get more.

Given : One large crop or a series of large crops, the demand for which is inelastic ; or small crops, the demand for which is elastic ; or both. Agriculturists' money income falls. If their spending also declines, and if the industrialists' spending increases proportionately, the result will be as forecast by Equilibrium Economics.

There are at least two other possibilities :

1. The agriculturists' spending declines by less than the decline in their incomes, while the industrialists' spending increases by the whole amount of such decline. Result : increased general spending and tendency towards expansion.

2. The agriculturists' spending declines by the

whole amount of the decline in their incomes, while the industrialists' spending does not increase by such amount. Result: reduced general spending and tendency towards depression.

The same possibilities are present in the cases of large crops with elastic demand, small crops with inelastic demand, or both.

#### TECHNOLOGICAL CHANGES

Equilibrium Economic Theory is something of a handicap in understanding technological unemployment (the displacement of labourers by labour-saving machines and methods). It is not that Equilibrium Theory is formally wrong or incompatible with an explanation; rather it is that the stress on the tendency towards equilibrium and the implication that equilibrium is in fact usually attained are wrong and confusing. Were equilibrium actually attained, there would be no technological (or cyclical) unemployment. Prices, wages, and spending are not as flexible as Equilibrium Theory tacitly assumes.

Applying the spending and partial flexibility of prices analyses to the question of technological unemployment, we may note several possibilities. Let us assume a simple case. Suppose that the business producing commodity A discovers a method by which, without any new equipment, output per labourer is increased. If the price of the commodity is not reduced, and sales therefore do not increase,

labourers will be discharged, the money income of the business may be unchanged, and profits will increase equal to the decrease in wages paid. If the discharged labourers continue spending at the same rate, if the business increases its dividends equal to the increase in profit, if the shareholders increase their spending equally, if the discharged labourers' immobility coefficient is zero, if the producers of commodities B, C and N hire more labourers (in view of their increased sales to the A shareholders), then the discharged labourers will be readily absorbed.

The case is somewhat different if the price of commodity is reduced, equal to the reduction in costs. If the demand for the commodity is less elastic than the average for other commodities, the money income of the business will be reduced, and some labourers will be discharged whether wages are cut or not. If the consumers of commodity A increase their expenditure on other commodities by as much as the decrease on A, if the discharged labourers do not reduce their expenditure, if the producers of B, C, and N are willing to hire more labourers, if the discharged labourers' immobility coefficient is zero, then the discharged labourers will be absorbed in the production of B, C and N.

If the price of commodity A is reduced and the demand for the commodity is more elastic than average, no commodity A labourers will be discharged; rather, the business may hire more. Indeed, if it does not do so, unemployment may result in consequence of reduced sales of commodities B, C and N.



Not only must all of the respective conditions be fulfilled, but the various changes must take place *at once*, or technological unemployment will occur.

In each case, the easy avoidance of unemployment depends upon preservation of the existing wage level, which depends upon reductions in commodity prices or upon the total of spending *increasing* enough to carry off the increased production. If these conditions do not obtain, unemployment will increase. And if technological improvements are being made rapidly in all lines of business, so that the changes are of large magnitude, the consequent increase in unemployment might easily lead to a depression.

It is not possible to say with certainty what the repercussions of technological improvements will be. In particular, will spending be increased enough to prevent the necessity of reducing wages and prices? Here the day may be saved if the new process requires equipment, and if the banking system supplies new money to pay for its making. In the interval, spending may be increased enough and the higher spending rate may become permanent, so that no general reduction in wages and prices is necessary.

Were it not for the inflexibility of prices, it would not matter whether the price level fell or remained unchanged, but the mechanism of getting a general fall of prices is, unfortunately, often that of a depression—idle plant, idle men, low production.

There are many more types of spontaneous variations in spending. The foregoing examples, however, illustrate the general principles. Of other causes of variation in spending we may merely list

these : changes in tastes, changes in fashion, new tariffs, currency changes, earthquakes, wars and rumours of war, changes in taxes, interest rates, etc.

These many causes are always operating. Spending is always increasing in some directions and decreasing in others. Occasionally an all-round increase or decrease in spending may result from a large change in a single item or from a preponderance of change in several small items occurring in the same direction simultaneously. If such a change occurs, it tends to become cumulative. Business in general becomes better or worse, and the change in spending tends to be accentuated. This is the real essence of the business cycle—cumulativeness. Now, the peculiarity of cumulativeness is that it is at once subtle and simple. We ask why business is becoming worse, and the answer is because it is becoming worse. Action and interaction become confused. Cause is effect and effect is cause. One school of experts says that the way to improve business is to raise prices. Another school says that the way to raise prices is to improve business. And both are right.

Once business and prices start to slide, they tend to keep on going, regardless of what started the slide. Some of the causes of aggravation may be briefly passed under review.

#### SPECULATION

Whether or not speculation accentuates or modifies fluctuations of business and prices is hotly debated.

Disagreement is probably perpetuated by the fact that sometimes it does the one and sometimes the other. Speculation may have the result (if done correctly throughout) of modifying price swings or (if eventually done mistakenly) of making them larger. The former might be dubbed "equalizing" speculation, and the latter (for lack of a more colourful term) "non-equalizing" speculation. Non-equalizing speculation eventually over-shoots the mark, but this is not tantamount to saying that *all* non-equalizing speculation is unintelligent. He who rides with a rising or falling price and who gets out before the reversal occurs cannot be called unintelligent. Perfect foresight on the part of all would eliminate non-equalizing speculation; a more or less general condition of imperfect foresight is the concomitant of non-equalizing speculation. But a few persons with good foresight could, under the latter condition, engage in non-equalizing speculation and, by shifting position at the proper moments, profit handsomely.

Is the net effect of speculation that of making cyclical fluctuations larger or smaller than they would be were there no speculation? I am of the opinion that it makes them larger. When on the up side, with prices rising, there is a net desire on the part of speculators to shift from a money position to a goods position, the money stream tends to increase faster than the goods stream. On the down side, the reverse action occurs. The manner in which this might occur has been suggested briefly in Case 4.

## ERRONEOUS ESTIMATES

Whenever capital instruments generally are earning fat returns, over-investment in them is likely to occur. New investment is stimulated. If the new investment is financed entirely by new bank loans, there will probably occur an increase in consumer buying as the newly created funds find their way into the hands of labourers and others, in the shape of increased employment and/or higher wages and dividends. This increased spending will not be matched for a time by an increased flow of goods, and the greater the lag the greater the stimulus to over-investment. When the new stream of goods comes on to the market, sales and/or prices of consumers' goods will fall. If the owners of machines generally acquiesce in reduced prices and profits, unemployment will not set in. If they do not, we shall have a condition analogous to Cases 3 or 4, with output increasing relatively to spending. The delay in arriving at the inevitable, but distasteful downward readjustment of the quasi-rents of the machines is accompanied by idle men and idle machines.

Another type of erroneous estimate arises in connection with unfilled orders. In a genuine "sellers' market," there may not be goods enough to fill all the orders. Do prices promptly rise to equilibrate the situation, as the Quantity Theory and Equilibrium Economics suggest? Sometimes they do, sometimes they do not. If they do not, two results occur with respect to the unfilled orders :

1. If the unsatisfied demand is equal to 50 per cent. of the current rate of output and if there are fifty firms, it may happen that each firm, "regarding itself as the special protégé of Providence, and ignorant of the preparations being made by its neighbour,"<sup>1</sup> may prepare to expand its output by more than its share.

2. If the unsatisfied demand is equal to 50 per cent., and if the buyers are rushing to order before prices go higher, the temporary rate of increase in the unfilled orders may be much greater than 50 per cent., and the producers may be led to expand their output in anticipation that the larger buying rate will be permanent.

3. If the buyers "shop around" when unable to get goods at once, they may create the impression that the unsatisfied demand is much greater than it is. If with 50 per cent. unsatisfied demand, each buyer telephones or telegraphs several sellers with offers of immediate purchase, the unsatisfied demand could easily appear to be 100 or 200 per cent. This condition may further be aggravated by the placing of duplicate orders to be followed by intended cancellation. Buyer A telephones seller X: "I want 10,000 units at once." Seller X replies: "I can't promise delivery before one month, and it may be three, depending on how soon my new machinery arrives." Buyer A: "All right, put me down for 10,000 units as soon as possible." Buyer A may then telephone Sellers Y and Z, with similar results. He places an order with each of them, and will take

<sup>1</sup> Robertson, *op. cit.*, p. 37.

delivery on the first lot which is ready and will cancel the other two orders.

When such a buying wave ends as the stream of goods doubles or trebles and cancellations occur, prices stop rising and the stage is set for a collapse.

### THE STOCK MARKET AND INSTALMENT BUYING

If given a rising market with the bulk of persons interested "long" (and the bulk usually are long, whether the market is rising or falling), these persons may decide to increase their spending and reduce their money stocks. This involves their Dis-hoarding. If those upon whom they Dis-hoard acquiesce in the concomitant Hoarding, the increase in spending will be limited to this initial amount. If they do not (and why should they in the face of increased sales and/or prices?), and they in turn attempt to Dis-hoard, we witness a general desire to Dis-hoard, and this means rising prosperity.

If the banking system creates purchasing power to buy stocks and the sellers thereof do not acquiesce in increased money stocks, but spend their profits, the situation is intensified.

If the happy owners of rising stocks decide not only to spend all their cash, but to buy goods on instalments, the result may also be intensified, if the sellers borrow from the banks on the strength of the buyers' notes. If the instalment buying were general, and if the buyers' notes were 100 per cent. bankable (which they are not), the buyers could be supplied by the banks, via the sellers in increased

wages and dividends, with the very means necessary to pay off the notes. Verily a triumph of modern economy!

All this complicated mechanism may operate in reverse on the down side.

#### IS THIS A MONETARY THEORY OF BUSINESS CYCLES?

One might well ask, Is this theory of partial flexibility of prices another monetary theory of business cycles? This is a question which cannot be answered until one knows clearly what a "monetary" theory is. By a "monetary" theory might be meant that monetary changes are the only changes in the cycle, but such a view would be absurd, neglecting as it would changes in prices, profits, wages, employment, production, sales, consumption, etc., etc.

Perhaps by "monetary" theory it is meant that were it not for money there would be no cycles. This view I am not able to accept, as I am quite convinced by Professor Souter's analysis that stoppages akin to cyclical crises could occur in a barter economy.<sup>1</sup> However, it also seems clear that cycles are stimulated by the use of money. The emergence of a generally preponderant attitude towards holding money is the major cause of aggravation of business fluctuations. In this view, it is not so much a change in the volume of money which is important as it is a change in spending and its multiple effect. In a depression fewer dollars are spent per year, not so much because there are fewer

<sup>1</sup> *Pollak Prize Essays*, pp. 19 ff.

dollars, but because those who receive them try to keep them, and that eventually means that they receive fewer.<sup>1</sup>

It is a mistake to take too narrow a view of what is meant by a "monetary" theory. As Professor Carver has observed, "Money has no organs of locomotion." A monetary or spending theory is necessarily a theory of people and their attitude and actions.

#### IS THE BUSINESS CYCLE SELF-PERPETUATING?

Many explanations of the business cycle have explicitly stated or implicitly assumed that it is self-perpetuating or self-swinging. In this view prosperity grows out of and is explained by recovery; prosperity leads to boom, boom to collapse, collapse to depression, depression to recovery and so on indefinitely. A boom or a depression is not, as it were, an isolated phenomenon, but it is a natural consequence of the preceding depression or boom.

An alternative view is that year in and year out some circumstances make for decreased spending and some for increased spending, and that occasionally there is a preponderance in one direction or the other. When such a preponderance occurs, there will be a net increase or decrease in spending. Any such general increase or decrease tends to become cumulative, and when it does we witness a boom or depression. In this view a boom is not generated in

<sup>1</sup> From June 1929 to December 1932, the volume of money (the Public's Pocket Money plus Bank Money) in the United States decreased about 20 per cent., while the rate of spending decreased about 60 per cent.



recovery from depression (or *vice versa*), but either is simply a departure from average conditions. This view is important in forecasting, inasmuch as, if it is true, a depression could occur without having been signalled by a preceding boom.

I am of the opinion that there is truth in each of these theories. However, from the point of view of control, unless one wishes to get at the spontaneous causes of changes in spending themselves, it does not matter which view is accepted. The fact is that general changes in spending occur, and that, unless they are counteracted, there will be business cycles. If an effective mechanism of counteraction can be devised, it would be much simpler to use it than to attempt to cope with the separate causes of changes in spending. To argue by analogy: Suppose an excursion steamer moving along a scenic river; there are various attractions on the shores—villages, waterfalls, mountains, historical spots, etc.; at times the bulk of passengers may move to one side, causing the steamer to list; problem: keeping the steamer on even keel. It could be done by creating a diversion on the other side of the ship itself, in the way of games or entertainments. This capacity of the passengers to move about freely corresponds to persons' freedom to spend or not to spend. And just as keeping the ship stable involves luring passengers into moving in certain ways, so does the control of business cycles involve inducing people to increase or decrease their spending.

## CHAPTER VII

### DETECTION

CONTROL of cyclical fluctuations requires two things : detection and deflection. The preservation of a given condition necessitates no action at all so long as that condition obtains ; action is called for only when there is a departure from that condition. Then the action called for is corrective action designed to re-establish that condition.

To illustrate by a mechanical analogy let us consider some type of automatic regulator—say a governor on a steam engine. The function of the governor is to keep the speed of the engine constant at a given speed. Now, in fact this constant speed is not attained. What actually happens is that when the engine's speed falls below the norm, the governor admits more steam in order to increase the speed ; when the speed rises above the norm, the governor admits less steam in order to decrease the speed. The variation in speed will be slight if the governor is delicate and if the corrective action is prompt and powerful. If the variations in speed are small, the action of the governor will probably be described as *maintaining a constant speed*. Logically, however, the governor is continually *re-establishing a desired*

*speed.* The governor has only three types of action : (1) inaction, (2) speeding up the engine, (3) slowing down the engine. The governor is not the only variable affecting the speed of the engine. It is the balancing variable. If the net effect of the other variables is to reduce the engine's speed below the norm, the governor's action must be opposed to theirs. The governor's action (if any) is always defective.

So it is with an economic regulator. Given a norm, the task of regulation is counteraction in the event of departure from the norm.

The first question is : What is the proper norm ? What is to be the criterion of regulative activity ? What condition is regulation to be directed toward (roughly) maintaining ?

It may seem curious that there should be any question about what the norm should be. Put negatively, it is : No booms and no depressions. Other specific criteria have been suggested, and we shall consider some of them.

But whatever the norm, stabilization is not maintaining the norm, but re-establishing the norm. Re-establishing the norm involves detection of departure therefrom and defective action in the opposite direction.

#### MR. KEYNES' CRITERION <sup>1</sup>

I turn to Mr. Keynes' analysis with a word of caution. Some of the criticisms which I offer of

<sup>1</sup> This section is for readers of Mr. Keynes' *Treatise on Money*, and I shall assume familiarity with his symbols and analysis.

certain of his views may be expressed or implied in other parts of his own work. It is scarcely possible to know which of mutually inconsistent opinions is to be accepted as his final thought.

We have already noted that sometimes Mr. Keynes assumes that prices are perfectly flexible and that therefore prices are the only dependent variable. In other places he mentions "sticky" prices, and speaks of variations in employment and output. But in the main, and especially in his formal and algebraic analysis, he assumes perfect flexibility of prices. When he does so, the business cycle is a price-and-cost cycle.<sup>1</sup>

Mr. Keynes states clearly and simply his criterion. It is that the banking system should aim at keeping Savings equal to Investment. "If the banking system controls the terms of credit in such a way that savings are equal to the value of new investment, then the average price-level of output as a whole is stable and corresponds to the average rate of remuneration of the factors of production. If the terms of credit are easier than this equilibrium level, prices will rise, profits will be made, wealth will increase faster than savings as a result of the incomes of the public being worth less—the difference being transferred into the pocket of the entrepreneurs in the shape of ownership of increased capital; entrepreneurs will bid against one another for the services of the factors of production, and the rate of remuneration of the latter will be increased—until

<sup>1</sup> As Mr. Hawtrey has pointed out, *The Art of Central Banking*, Chap. VI.

something happens to bring the actual terms of credit and their equilibrium level nearer together. And if the terms of credit are stiffer than the equilibrium level, prices will fall, losses will be made, wealth will increase slower than savings by the extent of the losses, unemployment will ensue, and there will be a pressure towards a reduction of the rate of earnings of the factors of production—until something happens to bring the actual terms of credit and their equilibrium level nearer together. Booms and slumps are simply the expression of the results of an oscillation of the terms of credit about their equilibrium position.”<sup>1</sup>

Equilibrium obtains, says Mr. Keynes, when Savings and Investment are equal and Profits equal zero. If a depression gets under way, and  $S$  exceeds  $I$ ,  $Q$  being negative, prices falling, Mr. Keynes' criterion requires that  $S$  and  $I$  be brought back to equality. If this is done, the price level stops falling; but it does not rise to its previous level.

In short, Mr. Keynes does not (formally at least) recognize the truth of what was said above about the logic of a regulation device. In order to secure Mr. Keynes' desideratum—stability of the price level—the banking system would alternately have to cause  $S$  to be *larger* or *smaller* than  $I$ .

This may seem to be mere hair-splitting; but it is more than that. It is not only correct logic, but it is also very important if the deviation from the norm becomes large. Suppose that a depression is growing,  $S$  exceeds  $I$ , prices are falling, unemployment

<sup>1</sup> *Op. cit.*, Vol. I., p. 183.

rising.<sup>1</sup> If the banking system brings  $S$  and  $I$  back to equality, prices and employment will stop declining, but unemployment will continue at the then existing volume. This follows from Mr. Keynes' definition of  $Q$ . If  $Q$  is negative, employers are motivated to discharge labourers and to reduce wages; conversely if  $Q$  is positive. If therefore during a depression the banking system merely brings  $S$  and  $I$  to equality, unemployment continues. Such a condition, however, would represent equilibrium under Mr. Keynes' analysis.

Clearly such a criterion is not acceptable. Equality of costs and prices, absence of Profits or Losses and even stability of the price-level may be attained while unemployment is large. Their maintenance would involve continuation of unemployment.

### THE PRICE LEVEL

Stabilization of the price level is the most frequently proposed criterion of policy. We have just observed that stability of the price level without regard to the volume of employment is not an acceptable criterion.

Stability of the price level is sometimes considered to be an end in itself and sometimes to be a means to an end. As an end in itself it is argued that a stable price level prevents injustice as between debtors and creditors. There is no need to elaborate

<sup>1</sup> It is important to note that the Dis-hoarding of unemployed labourers is negative Saving, and makes the difference between  $S$  and  $I$  smaller than it would otherwise be.

this familiar argument, but two counter-arguments may be mentioned.

The first is that, the debtors' loss being the creditors' gain, there is no global loss involved. This is why price deflation is worse than price inflation. Price inflation robs the creditors for the benefit of the debtors, but may increase employment, the last item representing a net gain. Price deflation robs the debtors for the benefit of the creditors (no net gain) and slows down production and employment, which is a net loss.

The second reply is the familiar contention that in periods of increasing per capita output a stable price level really robs the creditor, because, although when the loan is repaid he can buy as many goods-in-general as before, he cannot buy the same proportion of a labourer's output.

Taking these various arguments into account, I think that stability of the price level cannot be defended as being an important end in itself. And if it is a means to an end, why not turn attention directly to the desired end?

### PRODUCTION AND EMPLOYMENT

The desirable goal, in my view, is the maintenance of a full volume of employment and production. Since they go so closely together, we may take the volume of employment to represent both.

Cyclical unemployment represents both an economic and a "human" loss. If a machine is idle for a month, it may last a month longer; the

only loss may be the loss of a month's earnings. If a man is idle for a month, he probably will not last any longer. Indeed, if he is idle for six months or a year, he may not last as long. Lost production is lost forever. It is not easy to estimate the loss due to a depression. Certainly the lost production in the United States in 1932 amounted to something like fifteen billion dollars, at 1932 prices. Taking into account the higher price level of war-time, and putting to one side the war debts, it is safe to say that depression during 1932 cost the United States more than the World War did !

So much for the economic cost. The "human" cost of depression is also large. Prolonged unemployment can turn a stout labouring man, a happy husband, a proud father, into a cringing, broken, desperate bum, a pitied or despised husband, an ashamed father. Money gone, shoes worn out from tramping streets looking for work, hope fled, spirit bitter, pride crushed, the wonder is that he and millions like him do not die from sheer misery.

If unemployment is to be the criterion of policy, it must be admitted that it is a rough criterion. I have mentioned the difficulty of determining what the normal minimum of unemployment is. Despite this difficulty, the right criterion, albeit somewhat vague, is preferable to a wrong one, however precise.

While the volume of unemployment would be the principal indicator by which the regulating authorities would detect variations from the norm, it need not be the only indicator to be used. Figures showing the volume of production (car-loading, electric



power consumption, etc.), bank clearings, the price level, the volume of profits—these and others may be utilized to detect variations in the basic position.

It may seem that detecting a boom or a depression is not very important, and in a sense it is not. That is to say, in the midst of a severe depression there can be no question about its existence. It is not mere detection, but *quick* detection that is important, for the sooner deflective action is taken the less damage is done, and the less powerful the counter-action needs to be in order to reverse the direction of movement.

## CHAPTER VIII

### DEFLECTION

WE pass now to a consideration of different kinds of deflective action. The first one to be discussed—wage manipulation—has never been proposed as a deliberate instrument of control. It has been included because there has been so much controversy since 1929 on the desirability of wage cuts. Wage manipulation, however, is too cumbersome a tool to be considered as a regular method of control.

### WAGE CUTS

Opinion is divided as to whether cutting money wages in a depression paves the way to recovery by lowering costs and substituting business profits for business losses, or makes a bad situation worse by reducing the purchasing power of the bulk of consumers, which will go round the vicious circle and cause fewer sales, lower prices, lower profits or larger losses.

There is no definite answer to the problem, for there are many possibilities. We may take a situation as in Case 5, and it could be made worse by supposing an even greater fall in the commodity price or by assuming that businesses have to pay

interest charges of (say) \$600 on bonds. Either assumption could be made to show businesses sustaining a loss on current operations. If wages are cut, the expenditure of labourers (1) may be increased, (2) may not change, (3) may decrease by less than the decrease in their wages, (4) may decrease by as much as such decrease, (5) may decrease by more than such decrease. If (1), (2) or (3) results, the position of businesses would be improved, in decreasing degrees. If (4) results, the position of businesses might be slightly improved if the Capitalists' spending were unchanged. If (5) results, the position of businesses would be worse if the Capitalists' spending were unchanged. Which is likely to occur? That must be a matter of opinion. It is possible that the longer the depression has already lasted, the less will be the reduction in the labourers' expenditure, for (1) their consumers' goods may be more worn out or used up, and (2) their funds may be lower if they have been supporting unemployed relatives. On the other hand, if their bank has recently failed, they may be trying to build up a new money stock and may wish to Hoard.

And what of the spending of the non-wage recipients (in our Cases, the Capitalists)? If at the same time that wages were cut dividends were increased, the Capitalists' expenditure might be increased by enough so that the position of businesses would assuredly be better; provided of course that all or most of the businesses were to take the same action. This action is not likely, however, as (1) to insist upon wage reductions while increasing divi-

dends is nearly impossible, and (2) no *single* business has any real motive to take such action by itself. It is interesting to note that an all-round increase of dividends and Capitalists' expenditure might save the day even without wage cuts. This action is very improbable, however, if businesses are incurring losses.

There is also the possibility that wage cuts might send stock and bond prices up and might induce more spending by their owners.

#### CENTRAL BANK CONTROL.

In general, monetary theorists consider the Central Bank to be the most feasible instrument of control. Before discussing Central Bank control, let us recall that in a gold standard country, not stabilization of industry but maintenance of the standard is the first duty laid upon the Central Bank. We have noted that under certain conditions continued stability would drive a country off the gold standard, and maintenance of the standard would involve instability. Under such conditions the Central Bank may be able to maintain one or the other, but it cannot maintain both. To expect the Central Bank to do both is not only to increase its duties, but perhaps to make them impossible of fulfilment. This potential dilemma has not been generally understood, and has not, I think, underlain the shyness displayed by Central Banks in undertaking to stabilize business. Central Bank authorities have hesitated to accept this responsibility on the grounds that the task lies

beyond the power of a Central Bank. Let us consider what a Central Bank can do.

The principal tools which the Central Bank has for influencing the money market are Rate Control, Open-Market Operations, and Moral Suasion. Their importance has generally been considered to be in that order. I suspect that their real importance is in inverse order.

In order to influence the tempo of business the Central Bank must be able to affect the total volume of spending. The Central Bank itself "spends" only for pieces of paper, and, while such spending is not unimportant, it does not directly absorb commodities or put labourers to work. The aim of the Central Bank, however, is to affect the volume of spending done by bank-borrowers. The Central Bank, let it be noted, has no direct influence over much the larger part of spending, but the spending done by bank-borrowers is not unimportant, and changes in such spending may have a multiple effect. Moreover, it takes two to make a bargain, and the Central Bank has no influence over the borrowers' willingness to borrow at any given rate of interest.<sup>1</sup> In short, Central Bank action can affect the volume of bank lending and borrower spending only on the *supply* side of such loans, by influencing the banks' willingness to lend.

The presumption is that the volume of lending could be increased by inducing borrowers to borrow more at lower interest rates and/or by inducing the

<sup>1</sup> Unless the minds of borrowers are influenced by changes in Central Bank policy, apart from any effect on the borrowers' banking conditions.

banks to grant more loans at the same interest rate. It is argued that if the Central Bank lowers its re-discount rate, banks will lower their rates and additional borrowing will be induced. The process is reversed if a decrease in lending is desired.

Mr. Robertson sounds a note of caution in connection with this line of reasoning: "It behoves, however, even an advocate of moderate stability of the price level to admit that it is likely to prove harder for the banking-system to check an uneconomic fall in prices than to restrain an uneconomic rise. For first, while there is always *some* rate of money interest which will check an eager borrower, there may be *no* rate of money interest in excess of zero which will stimulate an unwilling one. Secondly, a policy of direct limitation of bank-loans has no counterpart in periods of falling prices: the assumptions made in Chapter V, § 5, that the total magnitude of the money supply lies entirely within the discretion of the banking-system, and not at all within that of the public, seems to have only a limited validity for such periods."<sup>1</sup> Indeed, I cannot concede the implication that a rate of zero would attract unwilling borrowers, in a significant sense. That is to say, anyone would borrow money from a bank for long or short period (the longer the better) at zero interest, but the mere borrowing is not very significant; the important question is, When will the borrower *spend* the borrowed money? If A is a builder, he would cheerfully borrow at zero interest, but he might well delay using the money in erecting buildings because he thinks that building costs will be lower later on.

<sup>1</sup> *Op. cit.*, p. 81.

B will not borrow money at zero interest and buy (say) cotton if he thinks that cotton will be 10 per cent. cheaper in six months. In periods of swiftly falling prices, the interest rate would have to be negative in order to stimulate borrowers to borrow *and spend* at once. A negative rate is out of the question unless banks could *charge* their depositors interest and *pay* the borrowers a subsidy. And that would not work, for the depositors would simply exchange their Bank Money for Pocket Money and keep the latter at home or in safe-deposit boxes.

Nevertheless, it does not follow that Rate Control offers no possibilities. For one thing, if rates are dropped promptly, before the demand-rate falls so low, the objection just adduced would not apply. For another thing, there is not *one* demand rate; there are several. The rate which a borrower is willing to pay on loan depends on his prospective profit rate, and the prospective profit rate differs in different industries much more than we are led to believe by orthodox economic theory. Actual profit rates influence the estimate of prospective profits, and we have some statistical information on actual profit rates in American industries :

Industry.	Profit Rate as % of Proprietors' Capital.	
	1931.	1932.
Automobiles . . . . .	5·5	— 2·9
Chain Stores . . . . .	12·7	7·8
Chemicals . . . . .	7·8	4·9
Electrical Equipment . . . . .	3·8	— 2·5
Food Products . . . . .	8·5	5·6
Iron and Steel . . . . .	— 1·4	— 4·0
Miscellaneous Manufacturing . . . . .	3·7	— 1·4
Petroleum . . . . .	— 2·7	1·4
Tobacco . . . . .	14·4	13·4

From this showing it would appear that a change in interest rates might induce more or less borrowing by making it more or less worth while to borrow in different industries.

Finally on the subject of Rate Control, we must note a disturbing factor. We have reached the general conclusion that borrowers will borrow more if the interest rate is lowered. If, however, borrowers believe that the new rate is a sign of even lower rates yet to come, they might postpone their borrowing and actually for the moment borrow less.

Open-Market Operations are often regarded as being a mere adjunct to Rate Control. That is to say, if the Central Bank wishes to raise interest rates, the re-discount rate is put up. If the member banks have surplus reserves and are not borrowing from the Central Bank, they may be under no pressure to raise interest rates. The Central Bank then sells bonds, and the proceeds of the sales are debited against the Central Bank Balances of the member banks. This action destroys the member bank surplus reserves, forces them to borrow from the Central Bank, and induces them to raise their interest rates to cover the higher re-discount rate which the Central Bank is charging them. Such, in brief, is what might be called the Original Theory of Open-Market Operations.

It is becoming increasingly clear, however, that Open-Market Operations constitute a powerful Central Bank tool, wholly apart from and, indeed, without changes in the re-discount rate. If member banks aim at not being in debt to the Central Bank, they tend to contract their loans if open-market sales



have reduced their reserve and compelled them to borrow, regardless of how high or low the re-discount rate is. The reserve position of a member bank affects its general lending policy more than does the rate at which it can borrow from the Central Bank.

A bank goes about reducing its loans either by raising the interest rate in order to deter some borrowers from asking for a new loan or a renewal, or by refusing new loans or renewals at the same interest rate. If a bank is losing cash it may call in some loans which are considered to be perfectly good, simply for the sake of getting the money. This is the second main way in which the Central Bank can affect the volume of borrowing. If the Central Bank sells bonds and depletes member bank reserves, they tend to contract their loans, although there may be little or no change in the re-discount rate or bank interest rates. Conversely, if the Central Bank buys bonds, member bank reserves rise, the banks become more liquid and they tend to grant loans to the fringe of would-be borrowers.

In these ways, then, the Central Bank has some influence on the volume of bank-borrower spending and so on the total volume of spending. But how great its influence may be is something which is as yet the subject of much controversy.

Thus far we have considered Rate Control as affecting bank-borrowers' spending. Might it not have some effect on non-borrowing depositors' spending as well? Rate Control will not directly affect the depositors' inclination to Hoard or to Dis-hoard unless the interest rates paid on deposits are affected.

In the United States, deposit-rates are much less volatile than loan-rates. A bank may go on paying (say) 3 per cent. on time deposits year in and year out, while short-time loan rates oscillate between 1 and 10 per cent. and long-time loan-rates between 3 and 6 per cent. In short, Rate Control has very little effect on deposit-rates. This is also true in England of deposit-rates outside of London, where  $2\frac{1}{2}$  per cent. (say) is paid steadily. In London, however, the general practice is to pay 2 per cent. under Bank Rate.<sup>1</sup> In London, therefore, Rate Control does affect deposit-rates.

If the deposit-rate influences depositors in deciding whether to Hoard or to Dis-ward, greater volatility in deposit-rates would add to the effectiveness of Rate Control. That is to say, if the Central Bank wished to check an increase in spending via higher interest rates, the deposit-rate would rise. Then, perhaps, some depositors would be moved to liquidate stocks of goods or to sell securities and to Hoard. Conversely, a low Bank Rate might cause the deposit-rate to fall to 1 per cent. Some depositors, dissatisfied with 1 per cent. on their funds, might Dis-ward in favour of securities or producers' goods.

Certainly it is possible to make a fair case on these grounds. In so far as "interest received" is a factor influencing a depositor in maintaining a money position as against a goods position or securities position, such a depositor might be influenced to

<sup>1</sup> Bank Rate is the interest rate at which the Bank of England will discount bankers acceptances for persons who are not its regular customers. Bank Rate corresponds more or less in significance to the Federal Reserve re-discount rate.

Hoard or to Dis-hoard by a change in the deposit-rate. Many depositors, however, undoubtedly hold Bank Money without being influenced by the deposit-rate; they go on their way regardless of changes in the deposit-rate, being neither stimulated thereby to Hoard nor to Dis-hoard.

The importance of variable deposit-rates in connection with Rate Control depends on the number of depositors who are influenced by changes in the deposit-rate. Perhaps they are many, perhaps few; Rate Control would be at least somewhat more effective if the deposit-rate were more variable.

Of the many other difficulties connected with Central Bank control, suffice it to mention the difficulty of knowing when action should be taken. If in 1928 the Federal Reserve authorities had predicted that the Dow-Jones average of thirty leading industrial stock prices would rise to 381 in 1929 and fall within three years to 41, the business community would have been alarmed. Alarmed, not over the stock market, but over the Federal Reserve authorities. The talk would go around, "Have those chaps gone crazy? Something had better be done about them before they do some damage to business!" The more perfect and detailed their forecast had been, the greater the incredulity with which it would have been received.

It is no wonder that Central Banks shrink from accepting the responsibility of stabilizing general business. Complete success would merit few thanks, and partial success would be rewarded with bitter criticism. If an incipient depression got under way,

and if proper action eventually checked the decline, the Central Bank would be blamed for not having taken earlier action. But can the physician do much before the patient breaks his leg? The case would be worse if a boom acquired considerable momentum either before being noted or before the remedies took effect. The Central Bank would have to check the rise in the face of violent protests of the business community, and induce a reaction which might even cause conditions to decline for a while below normal. And imagine the delicacy of the situation if a potentially dangerous expansion had to be checked six months before a Presidential election !

### PUBLIC WORKS

The scheme of postponing public works while business is booming and carrying them out during a depression is an old one. The political difficulties are great, for it would be hard work to build up a reserve of unspent cash during prosperity.<sup>1</sup> And unless that were done, the success of the depression public works would rest upon the Government's being able to get its funds during the depression either via borrowing or taxation, *without reducing the contributors' expenditures by the amount of the public works expenditures.*

The theory is that not only would the Government be getting something for its money, in lieu of merely

<sup>1</sup> For, as President Coolidge once said, "Public money seems to belong to no one. There is, therefore, a considerable disposition to bestow it upon someone."

supporting men otherwise unemployed, but also (and this would be true in either case) that public spending would stimulate business generally.<sup>1</sup>

In this respect, the crux of the matter is that (1) the Government would be spending on a large scale, and (2) the Government's wage payments would not be accompanied by an increase in the stream of goods, coming into the market as a result of their labour.

Public works would be less effective if the recipients of the governmentally-employed labourers' expenditure were content to Hoard. There would be no multiple effect in that case. Sooner or later, however, their stocks of goods would grow low, and they would be compelled to re-spend some of the new money stream. Slowly the reduction of stocks and cessation of Hoarding would spread through retailers, wholesalers, manufacturers and producers of raw materials; then the multiple effect would be fully felt.

### INFLATION

If, in the event of a severe and prolonged depression, industry becomes reduced to such a state of paralysis as not to respond to the encouragement of cheap and plentiful credit, resort may be had to the potent stimulus of a deliberate inflation. By the spring of 1932 I had become convinced that these conditions obtained in the United States and that inflation was desirable.

<sup>1</sup> Cf. the multiple effect discussed in Chap. VI.

“ Inflation ” is one of the most loosely used terms in the economics vocabulary. I propose to mean by it a substantial increase in governmental expenditure, financed presumably either by loans from the Central Bank or the member banks or by the cruder method of printing government paper money.

This advocacy is shocking heresy, because “ Inflation ” is the current Horrible Word, just as “ Leprosy ” was in biblical times and “ Socialism ” was as late as Coolidge’s time.<sup>1</sup> But we must not be frightened or impressed by words; the question is, Would it work ?

The Government could increase its expenditure in many ways : by supporting the unemployed, by

<sup>1</sup> Since writing these lines I have discovered that I can appeal to Mr. Hawtrey’s latest pronouncements for support for this argument. “ Exaggerated fears of inflation have done very great harm during the present depression and crisis . . . proposals made in England or America to relieve the depression by bringing about an expansion of credit have been met again and again with the objection that they would cause inflation. Every plan for improving the ventilation of the Black Hole (of Calcutta) is rejected on the ground that it would admit air. This is a degree of ineptitude which Surajah Dowlah, with all his moral and intellectual shortcomings, never attained. . . . The evils of inflation are great, and are beyond dispute . . . flagrant injustice to the creditor class . . . discredit the practice of saving among people of small means, with demoralizing effect . . . lag of wages behind prices, so that real wages will be depressed. . . .

“ Yet, great as are these evils, they are not merely equalled but definitely surpassed by the evils of deflation. . . . If we compare the consequences of the inflation of the years 1919-23 with those of the deflation of 1929-32, I do not think it is open to doubt that the economic loss and misery caused by the latter are very much the greater. If the public fully appreciated what has happened, the obsession on the subject of inflation would soon be matched by at least as stubborn an obsession on the subject of deflation.” *Op. cit.*, pp. 270-73.

I should comment only that most of the losses caused by inflation are equalled by the gains accruing to other groups, which is not true of most of the losses caused by deflation.

buying commodities, or by buying securities. Any of these activities would stimulate business, and if they were coupled with a *bold announcement that the inflation would be continued until prosperity was well on the way*, would encourage private Dis-hoarding and stimulate multiple spending.<sup>1</sup> One of the defects of the attempts made by the Federal Reserve authorities to stimulate activity by open-market purchases of bonds is that this activity and its aim were not widely publicized, and are little understood by the average man.

The indirect effect of such inflation would be the same as such open-market purchases by the Federal Reserve System—the funds would gravitate into bank reserves, raising them and increasing the liquidity of the banks. This might increase their willingness to make loans and to buy bonds.

The direct effects of such inflation on sales of goods, and commodity and security prices is entirely lacking with open-market operations. Something more powerful and more stimulating than a mere increase in bank reserves is thus provided.

Incidentally, two additional advantages would flow from commodity and security purchases :

1. The Government would be armed with things which it could sell later on if prosperity threatened to turn into a boom. (This applies of course to the Federal Reserve bond holdings in the same sense.)

<sup>1</sup> The bold announcement would probably be more effective than the increased Government spending in stimulating a general desire to Dis-ward.

2. The Government would certainly make a profit on such operations both from income and appreciation.

Let us consider the objections to inflation. It is alleged that deliberate inflation would drive a gold standard country off the gold standard. Perhaps it would; but, frankly, is this an adequate objection? Is the gold standard more precious than prosperity? The gold standard has become a monetary golden calf. If maintenance of the gold standard interferes with prosperity, then indeed is Bryan's objection to crucifying mankind on a cross of gold justified. (As it happens, his alternative—crucifixion on a cross of amalgam—would be just as bad.)

If inflation caused the United States to leave the gold standard, that country is in a peculiarly happy position with respect to inflation, because its Government has no foreign debt. If a non-gold standard country inflates its currency, the transfer of cash balances and speculation against its currency are likely to cause the foreign exchanges to rise faster than the internal price level and internal business activity. If the country's Government owes large sums abroad, the amounts needed to purchase the requisite foreign exchange increase faster than does the tax revenue of the government. This causes budgetary difficulties, which may lead to more inflation—for the sake of balancing the Budget, not for the original purpose of stimulating business. If this condition results, the inflationary process is likely to become cumulative. This budgetary pres-



sure for continued inflation is not likely to occur, however, in a creditor country like the United States. Indeed, the reverse is more likely to be true.

One of the commonest objections to inflation is that it would cause a rise in the price level, thereby robbing the creditor class and (due to the lag in money wages) lowering real wages. With regard to the creditor class argument, several replies may be made :

1. Many members of the creditor class also own equity shares and as such would be gainers.

2. Many " creditor " securities (bonds and mortgages) have fallen greatly in value and have suspended payments ; rising prices and increased activity would benefit such interests.

3. The creditor class whose incomes have not actually fallen have reaped an undeserved gain during the last few years while prices have been falling. Why should not some of this be taken from them ?

With regard to the wage-earning classes it may be replied that :

1. Is it not better for them that all should be employed at slightly lower real wages than that part of them only should be employed at slightly higher wages ?

2. Is the lag in money wages really so very large ?

It may be observed that a depression ends only when spending increases or costs are reduced, and either process will bring about the allegedly objec-

tionable results. Indeed, given the weight of indebtedness (private and public) in most countries, it may safely be asserted that the economic engine will never function well until either this indebtedness is reduced or prices are raised substantially from the depression level.

A larger objection to inflation is that it would cause a boom, to be followed by another collapse. To this allegation it may be said that :

1. This is certainly crossing a bridge long before we come to it. The problem in hand is the present depression, not the depression which allegedly would come after inflation-induced recovery.

2. Much would depend upon the handling of the inflation, to be sure. The inflation should be turned off gradually once recovery is well under way.

3. The methods of coping with a boom are much more effective than those of checking a collapse.

Inflation is opposed on the grounds that it has been tried and has failed. The Federal Budget has been unbalanced for some years and, despite this condition, business has become worse. Two comments may be made on this criticism :

1. The Budget deficits have not been caused so much by an increase in Government spending as by a decrease in fiscal income. The Government has been Dis-hoarding, to be sure, but it has been passive imposed Dis-hoarding. By not reducing its expenditures the Government refrains from contributing

to a further decline, but it does not stimulate expansion. Its action is neutral.

2. The manner in which the deficits have been incurred is important. They have been incurred in order merely to continue the usual governmental expenditures. They are a symptom that things are getting worse. They are deficits which have been forced upon the Government ; not deficits deliberately incurred for the sake of making extra-ordinary expenditures. In short, they are interpreted as a sign of weakness instead of as a part of a bold plan.

There is also a considerable public feeling that prosperity will not return until the Budget is balanced. As far as the monetary aspects of an unbalanced Budget are concerned, this opinion is fallacious. But if most people believe it to be true, and *act accordingly*, it becomes true. If people will not increase their spending until the Budget is balanced, the Budget must be balanced, with the hope that increased public spending will exceed decreased governmental spending. Peculiar though this psychological situation may seem, it may be very real. For if we would stimulate mass action, we must cater for mass opinion. If it were generally believed that prosperity would not return until there was an eclipse of the moon, we should have to wait for an eclipse.

The dilemma presented by the public's desire for a balanced Budget might be circumvented by a bit of jugglery. Let the Government establish an "extra-ordinary" Budget ; transfer to it all capital

expenditure; conduct the inflationary expenditure through it; reduce the "ordinary" expenditure and balance the "ordinary" Budget. There would still be a deficit, but it might be an "acceptable" deficit. The public feeling might be that the ordinary governmental Budget is balanced; that the Government really has put its own house in order; that the Government is temporarily stepping into fields of expenditure which are not ordinary governmental activities for the express purpose of stimulating business. In short, the deficit would no longer be a sign of weakness, but of action taken deliberately in order to stimulate business.

A more fundamental objection to inflation is that it would not bring prosperity. To this it can only be replied that all the analysis in the earlier parts of this essay indicate that increased spending will bring increased prosperity.

Finally, the fear of inflation seems to imply that inflation means riotous inflation, culminating in collapse of the monetary structure. "Look at Russia and Germany," say the critics. Yes, but while we're looking, why not look at France, Italy, England, the United States and most other countries, in which moderate inflation occurred and was followed either by stabilization or deliberate deflation? Special circumstances explain the riotous inflations in Germany and Russia. Neither theory nor experience indicates that inflation necessarily continues to astronomical figures or is necessarily followed by collapse or deflation. Inflation has never been tried as a deliberate antidote to deflation ;

it has always been inflation piled on inflation—usually with strong political or military motives which demand its continuation. Scientific inflation would be an innovation.

The really comical aspect of the argument is that the opponents of inflation would welcome "respectable inflation"—coming about "naturally" as a result of increased spending, more investment, higher profits, etc. That which governmental inflation is designed to precipitate is in fact ardently desired by everyone.

But habits of thought persist, "Give a dog a bad name. . . ." I have deliberately used the term "inflation" in preference to the sugar-coated "reflation" in order to face the issue squarely. It is absurd to advocate inflation under another name.

It may not be denied, of course, that inflation is fraught with difficulties, would have to be skilfully handled, and might even be dangerous. None the less, I am of the opinion that, this depression having gone to such an insensate extreme, it should be tried. Politicians and economists have been ridiculed for having said in 1928 and 1929 that "business is fundamentally sound." The tragedy is that they were much more right than wrong. The United States was neither over-producing nor mal-producing in those days. The level of well-being of those years should be the normal condition.

What if there are elements of risk connected with inflation? The immense gravity of the present situation justifies risky action if it promises well. It is not enough to make speeches and issue pontifical

statements and wait for the depression to cure itself. Some day that sort of "action" will be seen to be analogous to savage therapeutics—a witch-doctor jogging about, beating his drum, frightening the evil spirits while the fever is left to run its course in the patient.



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