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MODERN MONEY

MODERN MONEY

BY

MYRA CURTIS M.A.

ASSOCIATE OF NEWNHAM COLLEGE
CAMBRIDGE

AND

HUGH TOWNSHEND B.A.

SOMETIME SCHOLAR OF TRINITY COLLEGE
CAMBRIDGE

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PREFACE

THE production of yet another book on money calls for an explanation. Much technical work on monetary theory has been done within the last few years, and a great deal of material, both theoretical and statistical, for arriving at an understanding of how up-to-date twentieth-century monetary systems work is available to the advanced student of economics. But the subject is also of increasing interest to the general reader, who realizes that it affects his bread-and-butter and wants to know just how. For it is not at all obvious how the working of the money market and the policies of Central Banks, for example, bear on people's ordinary buying and selling—and earning—transactions. Moreover, even the whole-time student of economics is apt to find difficulty at the outset in relating what he reads about money to the contents of his general text-books. We believe, therefore, that there may be scope for a book designed to describe, simply and in outline, the working of a modern monetary system; and in attempting to write such a book we have addressed ourselves both to the general reader interested in the subject and to the elementary student of economics who may be looking for a monetary background against which he can place the actual facts recorded in his daily newspaper, before going on to more advanced and more specialized works.

In presentation we have aimed at clarity rather than at a meticulous precision of statement. It will be for the reader to judge whether we have sacrificed precision unduly or in vain. The excessive use, in the supposed

interest of precision, of technical terms—and still more so of ordinary words defined in special senses—is apt to defeat its own object. It may very well result in conveying to the reader a vaguer impression of what is meant than he would have derived from an exposition in plain, if not ideally precise, English. There is in this book no algebra or geometry and as few technical or specialized terms as possible.

In the chapter on money income we have collated some recent material on a rather confusing subject. Much perplexity arises from failing to distinguish clearly between cash and money values—between amounts of actual money, spent, lent, or held as the case may be, and the money values of goods or other assets acquired or held. And it is difficult to make much of the very valuable statistics of the National Income which are now available both in the United States and in Great Britain—material of great interest, for example, to practical men engaged in business forecasting—without a clear grasp of the distinctions between pre-final, final, and 'post-final' spending. (The reader will see that here we have not altogether succeeded in avoiding the use of technical and special terms.)

In classifying money transactions we have found it convenient to confine the term 'spending' to the purchase of goods and services. This is in accordance with ordinary usage, and has the additional advantage of bringing out the essential distinction between the effect of this type of money transaction in directly stimulating the production by labour of more goods and services and the effects of other types of money transactions—namely, financial—which stimulate activity only, if at all, at second remove. The sense in which we speak of 'hoarding' money is that of refraining from conducting transactions of any kind with it.

It will be obvious to any economist who may read this book that its authors belong to the school of thought associated with the name of Mr J. M. Keynes, whose work we frequently cite. The outstanding characteristics of this school are its insistence on spending as the sole source of business activity and its treatment of interest on money as a purely monetary phenomenon. It should, however, be mentioned here that we have been unable to adopt the treatment in Mr Keynes' latest book of the relation between savings and investment.

In the matter of spending it is now rather the emphasis than the principle that is controversial. Unfortunately the same cannot be said of interest. In the chapters which deal with interest we have tried merely to expound in outline the monetary view. It would have been very useful to the reader if we had been able to refer him to a clear elementary account of the phenomena of interest written from an alternative standpoint; but we know of none. In technical economic literature controversy about interest still rages, with great complexity and at a high level of abstraction.

The chapter on prices necessarily touches on general economics. On the one hand, there is no clear-cut border-line between the study of money and that of the economic system as a whole; on the other hand, the study of prices really covers the whole field of economics. We hope that our necessarily brief and partial treatment of prices will not mislead anyone into underrating the importance or overlooking the complexity of the subject. We have excluded, for example, not merely such matters as the degree of competition in markets (other than those in titles to money), but also such more nearly monetary matters as index-numbers, which we think are not susceptible usefully of elementary treatment.

The statistical material in the appendices to the various

chapters is intended rather for the general reader than for the student of economics, who has access to the far fuller information which he requires. The figures we give are designed merely to convey, with the minimum of trouble to the reader, an idea of the order of importance of the various quantities referred to in the text. Except where references are given, our figures are drawn from official or semi-official publications (in England the *Board of Trade Statistical Abstract*, the *Bank of England Statistical Summary*, and reports of official committees; in the United States the *Federal Reserve Bulletin* and publications of the United States Department of Commerce).

We are indebted to Mrs M. E. Robinson, Director of Studies in Economics at Newnham College, Cambridge, who read through the manuscript and made a number of useful suggestions.

MYRA CURTIS
HUGH TOWNSHEND

October 1937

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CHAPTER I

CHARACTERISTICS OF MODERN MONEY

By modern money we mean money as it exists in Great Britain and the United States. We shall use the word money in the ordinary, everyday sense of currency notes, coin, and the bank balances on which we can draw by cheque.

The most remarkable characteristic of money so understood is that its value in itself bears no relation to what it will buy—that is, to its value in a transaction. A certain piece of paper, we say, is a 'pound,' or a 'pound note.' But nothing is more certain than that no one would give so much for the piece of paper if it were not for certain signs and words appearing on its surface. And if we look at these closely[1] we find that what they tell us is that the note is a promise to pay—what? A pound. The Bank of England is bound, on demand, it seems, to exchange this note for a pound. It is not in practice asked to do so, except when the note is worn out, because the only way it has of fulfilling its promise is to replace the note with another exactly similar. The note, then, not only has no value in itself, but the owner of it has no legal claim to exchange it for any prescribed thing which has value in itself. What, then, is the 'pound' which is supposed to represent its value? The nearest answer that can be given is that a pound is a measuring unit in people's minds—a unit on which they roughly, though not universally or exactly, agree at any one time. What a pound will buy may have to be settled afresh by bargaining in

[1] They are reproduced in the appendix to this chapter (p. 25.)

the particular transaction, or it may, in another case, be settled firmly by custom. But whatever, in any transaction, seller and buyer agree that a pound will buy, that and no more and no less can be bought by our pound note. It cannot be exchanged for any fixed amount of any one commodity, but it can be and is exchanged for any parcel of goods which by the agreement of those concerned correspond to their idea of a pound's worth of value. And the reason why it is so exchangeable, notwithstanding the fact that its own value is nothing like so great, is that it is laid down by law that, having once valued his goods at a pound and offered them for sale at that price, the seller may not refuse to receive a Bank of England note for one pound in settlement of his charge.

This quality of being 'legal tender' is what gives to the coinage also its value in exchange. Although coins are made of metal with some intrinsic value, that value is very much less than the proportion of the pound which the coins represent.

As for a bank balance, it clearly has no intrinsic value whatever. It is, in fact, nothing but an entry in a book. And the cheque drawn upon it—if we choose to regard that for a moment as more closely resembling the idea in our minds of money—is merely an instruction to the bank to pay. The bank, like the Bank of England in the case of the pound note, normally does nothing of the kind. It will do so if it is asked to do so by the person to whom the cheque is payable, or by another bank on his behalf, and it is this fact which keeps the value of the balances and cheques steady; if a cheque for a pound can be exchanged for a pound note it is worth a pound. But in the absence of such a request—by far the commonest case—the bank, instead of paying anything, merely registers in its books the fact that the payee (assuming him to be

one of its customers) has a right to be paid. At the same time it registers in its books the fact that the drawer of the cheque has so much less claim to payment than he had before. Where the drawer of the cheque and the payee are customers of different banks there may be a transfer from one bank to the other of the value of the cheque; but what would be transferred is a promise to pay by the Bank of England.

It appears, then, that what in Great Britain we are continually passing from one to another under the name of money in payment of our debts is nothing but some one else's debts—debts either of the Bank of England or of the commercial (joint-stock) banks, for the small amount of token currency which we use for convenience to settle the smaller transactions hardly affects the matter. Before 1844 the circulating debts of the commercial banks of Great Britain—*i.e.*, the banks other than the Bank of England and the Savings Banks—were largely in the form of notes. The Bank Charter Act of that year confined the power of note issue in England to the Bank of England, subject to the expiring rights of existing private and joint-stock banks then possessing that power; the demand liabilities of the English commercial banks have since been increasingly, and are now entirely, in the form of deposits operated on by cheque. A similar position is gradually being created in the United States by the transfer of the note issue from the National Banks to the Federal Reserve Banks. The proportion of bank deposits to notes is, however, already higher there than in Great Britain. The cheque differs from the note (and coin) in that it is evidence only of a debt to a particular individual, and its acceptability depends on the recipient believing in the existence of the debt. Though this limits the use of the cheque for circulating purposes (since though the first recipient may have sufficient assurance that it represents

a genuine claim, he may not be able to find a third party ready to accept it), its usefulness as a means of transmitting a payment is actually enhanced by the smaller risk of loss, as compared with a note, if it falls into wrong hands; while the balance in the bank, if the bank is reliable, is absolutely safe against misappropriation. In consequence, as we shall see later, bank balances transferred from one person to another by means of cheques—that is, by evidences of sums owed by the banks to particular firms or individuals—constitute the great bulk of the total stock of money in Great Britain and the United States. It is this feature, combined with the fact that we do not seriously regard these debts as representing a claim to a fixed amount of any particular commodity, which constitutes the essentially modern character of our monetary system.

Modern money in this sense is not very old. Up to the War of 1914–18 there were in circulation gold coins which had approximately the same value as the same weight of gold in the uncoined state, and convertibility into these coins was commonly regarded as giving notes their value. Though the value of Bank of England notes had the support of their being legal tender, there were still in circulation in England a few notes issued by other banks which were accepted as a means of payment only because they were believed to be convertible into gold coin; and most people if asked would have given it as their view that Bank of England notes also were mere tokens representing gold.

The difference in the position was not, however, really so great as appears, since even then by far the greater part of the money in circulation consisted of the debts of the joint-stock banks transferable by cheque, and though in popular belief money derived its value from gold, in fact the value of uncoined gold was largely fixed by its con-

vertibility into a definite amount of money. It did not follow, because the pound was convertible into gold and had the same value as gold, that if the two were disassociated the pound would prove to have no value of its own—that is, that people would not continue to settle their bargains in much the same units as before. As a matter of fact, when war came the British Government were able to withdraw gold coins from circulation (not by statute, but by appeal to the public) without upsetting anyone's confidence in the 'pound.' At the present time (1937) the pound is worth only about 60 per cent. of the weight of gold which the pound represented in 1913 and in 1930. This is possible because there is no longer, as there was in those years, any person or institution bound to turn the pound into gold, or *vice versa*, at the old fixed rate. As soon as this obligation is removed the values of the two are settled quite independently of each other, and settled like other prices by bargaining, with the difference that the price of gold is settled (for inhabitants of Great Britain) in terms of the pound, while the value of the pound is settled in terms of every thing or set of things that is bought and sold. In the United States there is a fixed price at which the Treasury is prepared to acquire gold, though this is 69 per cent. higher than it was before 1933. This fact has a considerable influence on the market price of gold in Great Britain.

The idea that some people have that gold is still somehow 'behind' our money, giving it a reality it would not otherwise have, has no foundation in fact. It is true that the Bank of England is obliged by law to keep gold as a 'backing' for all notes issued above a certain figure, and that the Federal Reserve Banks in the United States must hold gold[1] in a certain proportion to the amount of the

[1] Now represented by gold certificates, the actual gold being in the possession of the Treasury.

notes they issue, but since these banks are not now obliged to give gold in exchange for notes, the existence of the 'backing' makes no difference to the holders of the notes. If it were all stolen from the vaults to-morrow, *and no one knew*, the circulation of pound notes and dollar notes would go on undisturbed. The monetary system, broadly speaking, in Great Britain and the United States is a system by which business is carried on by setting off debts against one another. We settle our debt to *A* by handing him evidence of *B's* debt to us, and so transferring to *A* the claim on *B*; and the vast majority of the debts are never collected at all in any concrete form, but are cancelled by the contracting of new debts in the course of business.

The important result of this is that for the nation, unlike the individual, the supply of money can be varied at will—and not only can be, but is and must be. So long as there is any institution whose debts are accepted as a means of settlement of other debts, and so long as that institution is willing to increase its promises to pay, the supply of money can be increased to any extent desired. Since, failing the banking system, it is always possible for the Government to fill this *rôle*, we find that in an emergency, such as war, the total supply of money in the hands of the public may rise enormously without their having as individuals given any greater quantity of goods and services in exchange. The vital importance of this is that it shows that the nation, unlike the individual, cannot 'live beyond its means' in the monetary sense—cannot, that is to say, spend all it has and have none left. It can pile up claims owed by one section of the community to another section. And it can, of course, 'live beyond its means' in the sense of using up more than its current production of real wealth—*i.e.*, letting its capital assets fall into disrepair. But this is more likely to result from

spending too little money than from spending too much. Moreover, the nation, unlike the individual or the Government, cannot have more money by accumulating it. To accumulate money is to do nothing with it. If the nation as a whole were to take this course there would be no addition to its money, but transactions would cease. Production would come to an end, and we should all starve.

These elementary notions of the nature of modern money lead straight to the realization that it needs 'management.' It is, in fact, essentially 'managed' money, whether we like it or not. It may, however, be managed with more or less conscious consideration of the best interests of the community. If the amount of money in existence can be enlarged or reduced at some one's will it follows that some one should be considering what is the right amount for the requirements, not necessarily of business as it is, but of the right amount of business. And if it is not only the amount which is important, but the way in which it is used, another function of 'management' must be to speed up its use when it is too slow and to check it when it is too fast.

This second point is only another way of saying that money has to be so managed that people retain their confidence in it as a means of settling their debts. It might seem at first sight that confidence should be secured by the arrangement that some of our money is 'legal tender' and *must* be accepted in settlement of debts, and the rest convertible into legal-tender money with more or less certainty. But confidence relates not to the present, but to the future, and money, as Mr Keynes has said, is the link between the present and the future.[1] If *A* accepts a unit of money in settlement of *B's* debt to him

[1] J. M. Keynes, *The General Theory of Employment, Interest, and Money* (1936), p. 293.

he does so in the belief that he is accepting a claim on goods and services roughly equivalent to those he gave to *B* when the debt was incurred. If he doubts this, and thinks that the process of future bargaining is going to lead to a very different parcel of goods and services being valued at a pound or a dollar, he will not proceed, as he ordinarily would, to hold the pound or dollar just for so long as he has no occasion to use it, and then to pass it on to some one else. He will behave in one of two disturbing ways. Either he will hold his money longer than usual in the hope that future bargaining will give him more for it than he could get by spending it in normal course, or he will immediately exchange it for goods and services in the fear that he may lose by keeping it. Either of these courses, if allowed unchecked on a large scale, will upset the course of business.

The final outcome of the first would be that no new goods would be made, because there would be no one to buy them, and existing possessions would lose their value through lack of demand. Though the value of money as against goods would be rising as prices fell, yet confidence in bank balances would be shaken, as happened in the United States in 1933, by the knowledge that the banks' assets were shrinking in value. In the end there would be nothing left to cling to but currency.

The final outcome of the second course would be that it would be impossible to settle debts with money at all, because no one would have sufficient confidence in it to retain it between transactions. This or something near to it happened in Germany in 1923.

The former process is generally called deflation, and the second inflation. These words properly mean merely a decrease or increase in the means of payment, but they are apt to be dangerous tools to use because they have become associated with the extreme fluctuations we have

described in the *circulation* of the means of payment. Either deflation or inflation, in the proper sense of the words, may in itself be a salutary and, indeed, a necessary phenomenon, but either if caused by a failure in public confidence may be carried so far as to be vicious. Deflation, as we shall see,[1] is much the more damaging of the two.

Fortunately such violent movements of confidence do not occur except at very abnormal times. If they did money would not serve its purpose. That purpose is often stated in text-books as being to constitute a measure of value and a medium of exchange. Following Mr Keynes, we would add to these a third purpose, equally essential —namely, to serve as a store of 'liquid'—*i.e.*, readily exchangeable—value. It is essential for all these purposes that on the whole money should be steadier in terms of commodities than they are in terms of each other. If it were not so people would prefer to hold, as their link between present and future, some commodity which could be relied upon to exchange for roughly the same amount of other commodities whenever the exchange took place. There are various ways of maintaining the necessary confidence in money which wise management has to bear in mind, apart, of course, from avoiding or handling emergencies due to political crises. We shall refer to these later. Here it may be remarked that it is of the greatest value from the point of view of maintaining comparative steadiness in the purchasing power of money that the price of one or more large items entering into business payments should be rather difficult to change. At the present time in Great Britain this function is performed partly by money wages, which vary only by slow degrees, and thus introduce a considerable element of stability into bargains affecting the not too distant future, and partly by the rate of interest on debts.

[1] See Chapter IX, p. 243.

It might be thought at first sight that in order to ensure the stability of money it would suffice to keep its volume constant. But in fact this would not achieve the object in view. For the amount of business which is being done, and so the amount of money needed to finance it, is always varying, and so is the amount of money required by people to hold in their pockets and to keep in their bank balances. To attempt to counteract these changes by preventing the volume of money from varying would, as we shall see, lead to violent fluctuations in its value.

Assuming that the right amount of money exists, and that it is circulating fast enough, to finance business sufficient to keep the whole of the working population employed on production, the needs of the community would appear to be satisfied. But the nation would not necessarily be advancing—that is, increasing its resources and its product from year to year. It could, as a matter of fact, continue on this basis without a 'modern' monetary system at all. The advantage of modern money is that it makes expansion easy by anticipating profits. In a community with a fixed currency in circulation it would not be possible to finance additional production which was not for immediate use, except by withdrawing purchasing power from immediate consumption either by voluntary saving or by taxation. There would be an awkward period of waiting before the effect of the expansion produced additional goods, and even then the position would not be satisfactory, since a larger number of transactions would have to be financed with the same amount of money. Before the development of modern monetary systems based on credit large works had often to be financed by forced levies. Since only Governments could raise money in this way, the size of the capital works which could be undertaken by private initiative was very restricted. The building of cathedrals in Europe in the

Middle Ages, for example, was made possible only by communal enthusiasm, and even then often took generations to complete, being held up not only by shortage of labour, but by actual want of money. The large works of still earlier civilizations were necessarily conducted by forced labour, and thus depended on the institution of slavery.

With a system by which bank debts can be used as means of payment it is simple, when producers see a method of increasing output by some enterprise which will not deliver the increased output for some time, to make advances to them in the expectation of their profits, so that the advances enter into the circulation before the profits mature. The producers of the new output use the borrowed money to obtain resources in competition with other purchasers. If plant and labour are already fully employed the borrowers have to outbid the other purchasers, and thus resources are diverted by an easier method (since less obvious to the public) than either voluntary saving or taxation. If there is spare plant and labour of a suitable type no diversion is necessary. In either case this process not only eases the transition to the new state of affairs by enabling the new producers to pay the costs of their enterprise as it is proceeding, but secures that the amount of money is being gradually enlarged to keep pace with growing production. Producers of course repay the loans they have obtained from banks; but in an expanding society the tendency is for the new loans granted always to exceed a little the old loans repaid. So the money in circulation is increased. And this is essential, for several reasons. As society grows more elaborate there are more goods and more types of transactions; to take an example, the beauty-parlour habit must have necessitated a considerable increase in the circulation. The supply of durable property increases,

and more money is wanted to finance its passing from owner to owner. Then, as the number of processes in production grows, more business firms are involved in the making of any one product, and each of them needs money to hold as a balance for ready use. Without modern money the opportunities for the private producer to make profits would be much more restricted than they are. As a matter of history, indeed, credit money as we know it has developed out of successive devices by those who wished to undertake enterprise for profit to get hold of enough money. First bank-notes came into use to supplement the coin of the realm; then, when these were severely limited by law, traders used their acknowledgments of debts to each other (bills of exchange) as means of payment; finally they found that the bank balance and the cheque constituted the most convenient machinery of all.

It is not only the processes of production that lead to an increasing demand for the means of payment. As more and more claims on the future are established there arise the requirements of what is called the 'financial circulation.' The money in the industrial circulation is used for buying and selling goods and services; the money in the financial circulation is used for buying and selling money, or, rather, since money would only exchange, in the same currency, for itself, for buying and selling *future* money. Naturally money flows freely from one channel into the other. The financial circulation is a development of the monetary system which gets more and more important with the years. It has always, of course, been possible to surrender present money in exchange for a promise of future money; more trading was, in fact, done in the past than is done to-day on the basis of the 'bill of exchange'[1]—*i.e.*, an acknowledgment of debt payable

[1] A clear account of the nature and working of bills of exchange is given in Chapter IV of Mr Hartley Withers' book *The Meaning of Money* (1930).

some time hence by the buyer of goods which the seller can at once turn into money at a discount. But the development of very highly organized markets in which these and various other promises to pay, not necessarily based at all upon a sale of commodities, can be bought and sold as if they were themselves commodities has some surprising and most serious consequences. One of these is the constant possibility that the stream of money which should, for the normal purposes of business, be financing the purchase of goods and services may be turned from its course and finance nothing but the exchange of titles to more money. For money titles are the easiest things in the world to hold, not necessarily deteriorating with time, and not having to be protected against thieves. There is in consequence from time to time a tendency, which we shall examine in due course, to prefer the accumulation of money titles to the enjoyment of goods and services, and this, if the sellers of the money titles hold idle the money they receive for them, has the effect of slowing down the circulation of money.[1] Further, the value for sale of money titles, particularly those carrying a varying yearly income, changes very rapidly with varying demand, and is sensitive to mere shifts of opinion, and these titles are therefore very convenient material for speculation; so that large and rapidly fluctuating amounts of money are liable to be absorbed in the balances used for exchanging them. The satisfaction of these conflicting tendencies without, on the one hand, interfering with the production and distribution of goods or, on the other hand, disturbing confidence in the country's money is one of the most important and delicate problems of modern monetary management.

We have not exhausted the ways in which money can be increased by saying that it can be issued as loans to

[1] See Chapters II, p. 52, and V, pp. 123 and 131.

producers in anticipation of future profits or to purchasers of securities for speculation. As we shall see in the next chapter, the banks can increase the volume of money, quite independently of the demand from borrowers, merely by buying securities on their own account. And even among the borrowers there is a large proportion of private persons who are not undertaking new production or proposing to speculate, but are merely, for the purpose of immediate expenditure, turning their durable possessions into money form by borrowing on them. Banks are prepared to lend to their clients (within the limits governing their total advances, which are discussed in the next chapter) so long as they have good security for the repayment of the loan; so that the greater the quantity of durable assets which exists, and the higher the values which people choose to set on them in terms of money, the more scope there is for the enlargement of the volume of money by such loans. It is clear that by this means it would be possible to increase the volume of money far beyond the requirements of the community for the means of exchange, and so there is need for some limit to be placed on expansion, as well as, on occasion, some stimulus to expansion. The basic task is to keep money scarce enough to be valuable and abundant enough to finance production and employment.

APPENDIX TO CHAPTER I

WE give below the wording which appears on the face, first, of a Bank of England note, and, secondly, of a Federal Reserve note, to illustrate the fact that a bank-note is merely a promise to pay.

BANK OF ENGLAND

I Promise to pay the Bearer on Demand the sum of

ONE POUND

I POUND

LONDON

For the Gov[r] and Comp[a] of the BANK OF ENGLAND

Chief Cashier

£ ONE

FEDERAL RESERVE NOTE

10 10

THE UNITED STATES OF AMERICA

This note is legal tender for all debts, public and private, and is redeemable in lawful money at the United States Treasury, or at any Federal Reserve Bank.

WASHINGTON, D.C.

Treasurer of the United States

Secretary of the Treasury

will pay the bearer on demand

TEN TEN

TEN DOLLARS

CHAPTER II

THE QUANTITY OF MONEY

THE total quantity of money existing at any time in a community with a modern banking system is the total of amounts held by individuals or corporate bodies, including the Government, in currency and bank balances. This may seem obvious, but it is important that there should be no attempt to distinguish between money held by the public in balances and money 'in circulation.' All money is held, at any given moment, by somebody, and is part of his balance, even if he has just that moment received it and proposes to pass it on the next moment. It might, perhaps, be thought that a cheque in transit through the post constitutes money which is not a part of anyone's balance, but is suspended, so to speak, between two balances. But in fact the amount is still, till the cheque is cleared, a part of the balance of the drawer of the cheque.

We do not, however, include as money *everything* recorded in the banks' ledgers as part of their depositors' balances. Some banks, when they make loans, enter them as if they were deposits in the borrowers' accounts. Now, these amounts, before they are drawn upon, are no more money than is the record of the fact that the bank is willing to allow the depositor to overdraw the account, an alternative form in which the loan is frequently entered. As soon as the loan (or a part of it) has changed hands for value, it (or the part of it used in exchange) becomes money in the hands of the recipient. Till then it is on the same footing as notes in the

printing-press, printed, but not yet delivered to the issuing bank.

Nor do we regard as part of the stock of money time deposits in banks—*i.e.*, deposits for the withdrawal of which notice is required—or deposits in Savings Banks. The practice on this point differs, and time deposits will be found included in money by some writers on monetary theory. We consider it more consistent, however, to class them with other monetary assets which the depositor *buys* with his money, parting with it under contract. They require a two-sided transaction between the bank and the customer before they can become money again —either an exchange of the time deposit for a deposit on current account, or a loan by the bank to the customer for which the time deposit is a security. All monetary classifications shade off into one another, and the limits of the definition are not of great importance so long as it is recognized that time deposits, on whichever side of the line they are placed, have some of the qualities of money (being bank liabilities) and some of the qualities of 'investments.'

The amount of money in existence is thus the total of bank deposits which can be freely drawn upon by cheque without a preliminary transaction with the bank—*i.e.*, the total of deposits in current accounts, less those representing bank loans not yet spent, and plus all currency notes and coin in the hands of the public (not those held by the banks as a reserve in readiness to exchange depositors' balances for cash when called upon). It will be observed that this total is a perfectly definite one, though on account of the unspent loan element it would not be possible to extract it with certainty from the combined accounts of the banks as they are now presented. But it will be apparent from what we said in our first chapter that though a definite amount, it is also a

continually varying one. It consists, as we have seen, of the liabilities of the banks payable on demand, and these are subject to constant fluctuations. As the banks increase, on balance, their promises to pay on demand, and these pass into use as means of payment, the supply of money is increased.

To put the matter in a different way, every time a bank makes an additional loan or buys an additional investment it credits some one with a claim upon it, and whether the claim is paid into an account on that bank or another the total deposits in the banking system as a whole are increased, and deposits, as we have seen, are money. As, on the other hand, people discharge their liabilities to the banks, and the banks' IOUs to them, so to speak, are cancelled, the corresponding amount of money disappears from existence. It cannot be too much emphasized that deposits are not something a bank *has*, but something it *owes*, and is liable to pay to its depositor, or to some one else, on his demand. Against these sums due to the depositor the bank sets off in its books the sums which from time to time become due from the depositor, so that instead of drawing out in cash the amount he requires to settle a debt, and transferring the cash to his creditor or the creditor's bank, he can hand it over as a claim upon his own bank—*i.e.*, in the form of a cheque. The banks themselves have accounts at the bankers' bank, or Central Bank—in Great Britain the Bank of England, in the United States (for members of the Federal Reserve system) the Federal Reserve Banks—and there their claims are set off against each other just as in a single bank depositors' claims are set off against each other, any credit balance being, of course, entered to the account of the person or bank concerned. The whole thing can be done without any cash (legal-tender notes and coin) passing at all.

All this means that it is not necessary for any bank, even the Central Bank, to hold cash equal in amount to its liabilities. There is not, in fact, anything like enough cash in existence to cover all the liabilities of all the banks. The Central Bank holds enough to meet the probable demands upon it of the commercial banks, and these in turn hold enough to meet the probable demands of their depositors. Two facts lie at the foundation of modern banking—first, that the banks' liabilities are their stock-in-trade, and that, unlike private persons, they are always trying, within limits which we shall indicate, to *increase* those liabilities; and, secondly, that their liabilities are *not* limited to the amount of cash entrusted to them by depositors. When the Bank of England was first set up in 1694, to lend the Government a sum of £1,200,000, it collected by degrees that amount from the public. But it handed over only part of the loan in cash or claims to cash—*i.e.*, coin or drafts on other banks—paying the rest in notes (its own promises to pay), which at once passed into circulation as they were spent by the Government. The surplus cash was used by the Bank as a basis for further loan operations. The result was that in two years, during which it had acquired only £300,000 additional cash, its capital and demand liabilities had risen to £3,000,000, and its cash actually in hand was under £270,000, the rest of its assets being debts due to it from the Government.[1] For needless to say, it could produce a balance-sheet in which its liabilities—the sums it could be called upon to pay—were balanced by its assets—the sums which other people could be called upon to pay to it. Banks are not free from this necessity any more than other businesses. In order to satisfy their clients and their shareholders that they are solvent they must have assets sufficient nominally

[1] A. E. Feavearyear, *The Pound Sterling* (1931), pp. 116, 133.

to balance their liabilities. These need not, however, consist of cash, even if we include in cash, as bankers themselves do, not only legal tender, but balances in the books of the Central Bank which can immediately and certainly be turned into legal tender. It is enough from the point of view of solvency if the debts owed to them balance the debts owed by them, and if the readiness with which the debts owed to them can be turned into cash without loss (their 'liquidity') corresponds with the likelihood that cash will be asked for by their depositors.

If an attempt had to be made on any large scale actually to turn the assets into cash the nominal value would probably not be forthcoming, since the very attempt would reduce it (by placing debtors in difficulties if it were done by calling in loans, or by reducing the value of securities owing to the increase of the supply on sale if it were done by selling securities). No bank is therefore in practice solvent in the sense in which a private person or a business firm may be solvent—in the sense of feeling sure that in almost any conceivable circumstances it could meet its obligations. A bank's tangible assets are small, and the value of its monetary assets may be reduced by the same causes which increase its need for ready money.

It would be possible to imagine a banking business conducted on principles which would admit of its being solvent in the sense in which the term is applied to an ordinary business—if, for example, it confined its activities to setting its depositors' debts off against each other in its books and making a charge for the clerical work involved in doing so. But modern banking is not conducted on this principle. Its immense earning-power arises, not from the clerical services it performs for its clients (though there are large numbers of private persons who never avail themselves of any other services from their banks), but

from its practice of undertaking, at a price, to pay certain sums of money, knowing that in fact it will not be called upon to pay more than a fraction of them in actual cash.

The most embarrassing event that can happen to a bank is therefore a 'run' upon it—a sudden presentation of an abnormal number of claims all at one time. Though a bank may be perfectly solvent in the ordinary banking sense, such a 'run' may cause it to shut its doors and declare itself unable to meet its liabilities, as happened to many United States banks in 1933. The danger that a bank may have to declare itself insolvent depends in any particular case not only on the liquidity of its resources, but also on how large it is, and on how far it can rely on the support of other banks in time of difficulty. In Great Britain, where the bulk of the banking is done by five large concerns, each with country-wide branches, the risk is obviously not so great as in a country with a large number of small local independent banks serving a narrow range of customers, all of whom are liable to be affected at the same time by the same alarm. A 'run' can, of course, quickly be checked by the prompt conversion of the applicants' balances into legal tender, because this shows the remaining depositors that there is nothing to fear. It would take a very large demand indeed to strain the means at the disposal of any of the British 'Big Five' to obtain legal tender as it was required. In a really acute and nation-wide crisis, however, Governments generally come to the rescue, as the British Government did in 1914, and as the United States Government did in 1933–34, when it actually insured the bulk of the deposits of approved banks, besides greatly enlarging the Federal Reserve Banks' power of note issue. Once a modern banking system is established in a country the Government of the country cannot afford to allow it to

collapse, because the continuance of the ordinary business processes by which the citizens live depends upon it.

Assuming a bank to be free from anxieties of this kind, it is not much hampered by the mere requirement that every liability it incurs must be balanced on the other side of its balance-sheet by the corresponding amount of cash or something that can be exchanged for the corresponding amount of cash. For, provided that a lending bank can rely on the amount of a loan passing when spent into the accounts of its own depositors, its own accounts in respect of the loan *automatically* balance, the amounts it becomes liable to pay to those depositors being balanced by the amount the borrower of the money is liable to repay to the bank. The loan figures in the balance-sheet as an asset, the deposits as a liability. If all debts were set off against each other, and there were no need to turn any loans into actual cash, the power to make loans need never be exhausted by the banks taken all together, except by coming to an end of possible borrowers or by a failure of the public's belief that the banks' debts would be acceptable in payment of their depositors' obligations. For in practice all the banks taken together *can* rely on the proceeds of all bank loans being deposited with them. If, however, one of them were to lend more than the rest in relation to its cash it would run the risk of having to transfer more cash, or more balance at the Central Bank, to the other banks at the settlement than it could afford. We shall find later that the banks in Great Britain arrange, and the banks in the United States are obliged by law, to keep in step so far as the minimum ratio of cash to liabilities is concerned.

Having got so far, we begin to realize that the picture we have probably all had in our minds at some time of the banks receiving money from their depositors for 'safe keeping,' and lending some of this money out to others

and buying investments with the rest, is very far from the truth—if, that is to say, it is supposed that they are limited to the use of those funds. The fact that they are not so limited is at once apparent if we grasp that a bank can put a sum of money at the disposal of depositor *A*, which when spent will pass into and increase the balances of its other depositors *B*–*Z*, without having to deplete the balances of *B*–*Z* in order to do so. The result is obviously an increase in the total of the depositors' balances. Banks do not make any payments 'out of' their deposits. They pay with a cheque on themselves or a credit in their books, either method giving rise to an addition to their deposits.

This fact about banking is so peculiar that even many bankers fail to realize its truth. They maintain, truly, that they have not unlimited power to 'create credit,' and go on to say mistakenly that they can lend to others only what their depositors lend to them. They forget that what their depositors deposit with them are merely claims, and may very well have arisen, in a particular case, from a service rendered to another depositor whose only resources at the time consisted of sums advanced by the bank itself. The deposits thus reach them mainly in the form either of their own obligations or of the obligations of other banks. What limits the banks' power to lend is not what their depositors lend to them, but their own power to obtain cash at need.

Deposits are, in fact, the liabilities which the banks agree to incur, the inducement being the interest they earn; and though they do not increase their liabilities without *any* reference to their existing deposits, the reference is not on the lines of looking in the cupboard to see what there is there that they can lend—there is, in fact, nothing in the cupboard—but rather of looking at the list of what they already owe, and considering how much more they can undertake to pay out on demand

without getting into difficulties. It is a mistake to suppose, as some people do, that the banks can lend more when deposits are high than when they are low. Their difficulties, if they have any, in meeting applications for loans are simply due to lack of cash. During the greater part of the nineteenth century, when the banking system was less developed and more transactions were effected in notes and coin, the banks could increase their cash basis, and so put themselves in a position to lend more, by attracting new depositors, who left with them currency which they had formerly kept in hand. The mistaken belief to which we have referred is probably a survival from those conditions.

As we have said above, the banks' means of increasing their deposits, apart from making loans, consist in the purchase of securities—*i.e.*, titles to money—the purchase price becoming, of course, at least in the first place, a balance to the seller's credit in the books of some bank. These money titles bear interest at various rates, and become due for repayment at various dates, and the object of the banker is so to combine his holdings with the direct loans which he makes to his depositors that his earnings in interest will be as large as is consistent with his holding suitable assets—*i.e.*, assets which become due for payment or repayment in cash, or can readily be repaid, at the moments at which he needs cash or wishes to make further loans without increasing his total loans outstanding. Since loans to private persons or business firms may become 'frozen'—*i.e.*, not easy to recover at the due date—the banker likes to keep a large proportion of his other assets 'liquid'—*i.e.*, readily realizable in cash.

Subject to these considerations, it must be the first desire of a banker to increase his liabilities to a maximum, since in so doing he increases the assets which bring him in his annual income. But there are certain checks on his

power to do so, and since the first of these is the size of his cash reserve and his power to obtain cash on demand from the Central Bank, it is necessary to look closely at the conditions which determine these. Though only a small proportion of the bank's deposits is likely to be turned into cash, it must have at least that proportion always available. The proportion assumed to be required is fixed by a convention among the British banks at about 10 per cent. It is variable to some extent, and may in present conditions be excessive, though not to a very large extent excessive, as a provision for the actual needs likely to arise. It has been estimated recently that a proportion of 8 per cent. would be adequate to meet all possible demands, taking till-money as 5 per cent. and balance at the Bank of England to meet the amounts due to other banks at the settlement as 3 per cent.[1] The bankers, however, might argue that it is precisely by convincing their depositors that they maintain an ample, even an excessive, margin of cash that they have succeeded in establishing the banking system on so firm a basis in Great Britain, and are able to rely on the demands for cash being as small as they actually are. At all events, they are unwilling now, and seem likely to remain so, to let their cash (reserves and till-money) and their balances at the Bank of England together appear in their accounts as less than 10 per cent. of their deposits.

In the United States those banks which are members of the Federal Reserve system are bound by law to keep balances at the Federal Reserve Banks representing a certain proportion (varying in different cases) of their liabilities to their depositors. The currency notes which they have in hand do not count towards this statutory 'cash reserve.' The reserves of other banks are governed by the laws of the states in which they are situated.

[1] *The Economist*, November 14, 1936.

But the total possible amount of the banks' cash reserves and the total possible credit at the Bank of England or the Federal Reserve Banks are matters entirely out of the commercial or member banks' control. We find that these are ultimately determined so far as the upper limit is concerned by the second great convention of our monetary system, this one made binding by law both in Great Britain and the United States—the provision that the note liabilities of the Central Bank must be limited by the amount of gold in the Bank's possession. In the United States a reserve of 40 per cent. in gold certificates must be held against the Federal Reserve notes in circulation, and a reserve of 35 per cent. in gold certificates or 'lawful money' against Federal Reserve Banks' deposits. In Great Britain all notes issued in excess of £260m.—the amount of the legally permissible 'fiduciary issue,' as it is called—must be backed pound for pound with gold in the possession of the Bank of England. If, therefore, the gold reserves of the Central Bank are depleted (which in present conditions in Great Britain means that for some reason or other it has had to send gold abroad or to sell it to the authority managing the foreign exchange), and if this means that its reserve of notes, which by law must be reduced correspondingly, is brought down to a point which is considered dangerously low, then the Bank must reduce its liabilities by selling securities or calling in loans, just as the commercial banks have to do if their cash has fallen below the 10 per cent. ratio in Great Britain, and may do if it has fallen below the legal ratio in the United States.[1] And this action on the part of the Central Bank reduces the cash basis of the other banks, because the Central Bank's liabilities *are* to a large extent their cash, being convertible into notes on demand. It is probable that the controversies which occur from time to time as

[1] See p. 44.

to the banks' power of 'creating credit' arise from the fact that one party is thinking of the Central Bank's control of the commercial banks' cash basis, while the other is remembering that it is, within limits, for the banks themselves to decide how far they extend credit on any given basis.

It is customary in all countries with a Central Bank to limit the Bank's liabilities in accordance with its holdings of gold, or in some cases 'gold exchange'—*i.e.*, foreign currency which can be turned into gold. Such limitations originated at a time when, on the one hand, an increase in a Central Bank's liabilities ordinarily took the form of an increased issue of notes, and, on the other hand, the notes were convertible on demand into gold. An excessive issue of notes in relation to the gold available might have led to an internal drain of gold into the hands of the public which would have depleted the supplies required for international transactions. At the present day, when the principal form of bank credit is the deposit, and the amount of cash (notes and coin) in circulation is a small proportion of the deposits, regulated by wage payments and the habits of the people, it may seem strange to limit the amount of cash permissible by reference to gold, into which it is not convertible. Apart, however, from the fact that free convertibility has only recently ceased (in 1931 in Great Britain, in 1933 in the United States [1]), and might conceivably be restored, this provision not only maintains confidence in the minds of those who like to think that a connexion with gold in some way gives a reality to the currency which it would not otherwise possess, but also indirectly controls the total quantity of cash liabilities. As we saw, such control is one of the main processes of monetary management; whether it is, or ever was,

[1] The restricted sale of gold by the United States Treasury does not constitute free convertibility.

convenient to use so arbitrary a method of effecting it as making it depend on the country's imports and exports of gold is another matter.

The amount of currency which is actually required in proportion to the total stock of money depends first on the extent of the payments customarily made in cash by employers—*e.g.*, wage payments—and by private persons —*e.g.*, for small retail purchases and bus fares—and, secondly, on the amount which private persons prefer to have readily available in that form. Private persons, as well as banks, have some liking for 'liquidity,' and the most liquid form of wealth is cash in the pocket.

In Great Britain wages are normally paid in cash, and a change in wage payments is one of the most important causes of a fluctuation in the note circulation. In the United States cheques are freely used for this purpose, and the note issue does not vary with wages to the same extent. The amount of cash which individuals on the average like to keep in their possession varies, of course, with the amount of their total holdings: as people get richer they are more lavish in small payments and tend to keep more money in their purses. It also varies with the briskness of business. Every year at Christmas we see on the City page of our newspaper the announcement of an increase in the note circulation. But such seasonal increases are of no practical significance in the monetary position provided that the system is sufficiently elastic to allow them to take place without disturbance. As soon as the notes are no longer required they flow back into the banks, and thence into the Central Bank, where they are cancelled and replaced by book entries to the owners' credit.

It would be unreasonable if so minor a part of the system as the note issue were automatically to impose a serious check upon its expansion, and this was recognized in the British Currency Act of 1928, which gives the

Treasury power to allow an increase in the fiduciary issue (the note issue that need not be backed by gold) from the level of £260m. then fixed, if it is asked to do so by the Bank of England and reports to Parliament the action taken. This power is limited to a period of six months, extensible up to two years, after which Parliamentary authority is required. It has been used once. An increase to £275m. was authorized in 1931, but the total was reduced again to £260m. in 1933. An additional elasticity has since been introduced. At the end of 1936 the Bank acquired £65m. in gold, and in ordinary course would have printed notes accordingly, but the total note issue was not increased to this extent, as the Treasury at the same time ordered the reduction of the fiduciary issue by £60m. Thus, the net increase in the note issue was only £5m., which was wanted for the seasonal needs of the moment. As the result of this transaction a much larger proportion of the note issue than before is 'backed' with gold, and the total is £60m. below the *legal* limit. The Treasury and the Bank of England, acting in concert, can therefore increase the amount of the fiduciary issue within that margin without even reporting to Parliament.

In the United States measures have been taken recently to prevent the stock of money expanding as fully as it might on the basis of the available gold, of which the United States holds very large stocks. The methods employed have been to hold a large amount of gold in an 'inactive' fund, created by the sale of Government securities specially issued for the purpose, and to increase the amount of the reserves which the member banks in the Federal Reserve system must hold against their deposits, thus rendering inactive the balances with the Federal Reserve Banks which they acquired by selling the incoming gold to the Treasury, as they are bound by law to do.

Though in neither country at present is a shortage of

gold likely to impose a limit on a desirable expansion of the currency, this has been the position for only a few years. Previously, when international trading and financial balances were settled in gold and the gold stocks of the Bank of England could be drawn upon for the purpose, British reserves often fell to a point at which it was thought necessary to take steps to prevent any further expansion of the home currency. The position is now much easier, since stocks of gold are held by the Bank of England on behalf of the Government in the Exchange Equalization Account for the purpose of official transactions in foreign currency. These are not available for, and therefore cannot be reduced by, private transactions; but the Bank can purchase gold from this source (with Treasury approval) when it is desirable in order to expand or maintain the note issue. It is generally assumed that it was from the Exchange Equalization Account that the £65m. we have mentioned was obtained in 1936. The difference between this and the former state of affairs is that the Bank of England is not entirely dependent for supplies of gold on the state of the country's account with foreign nations *at the moment*. The Exchange Equalization Account acts as a buffer, and when the balance is on the British side piles up stocks of gold which do not lead to an immediate expansion, but can be used later, if necessary, when the balance has shifted.[1]

It may be said, therefore, that the Central Bank in Great Britain at the present time is in a position to exercise a more direct control than ever before over the liabilities of the commercial banks, or at all events over their expansion, and thus over the total supply of money in the country, but that at the same time it has to exercise this control to an increasing extent in collaboration with the Treasury.

[1] This subject is more fully dealt with in Chapter X.

Like the commercial banks, the Bank of England expands its liabilities to the utmost extent consistent with holding assets of the right type and with maintaining the standards to which it works. These standards are, however, somewhat different. The Bank of England, unlike the commercial banks, does not aim at making the maximum profit consistent with safety, but takes into account the effect of its proceedings on the monetary condition of the country.[1] It also operates with considerably more flexibility than the commercial banks. It maintains, of course, the statutory holding of gold behind its note issue, and as it gets more gold it prints more notes. It also prints notes, backed by Government and other securities, up to the full amount of the fiduciary limit as fixed by the Treasury. This side of the Bank's activities (conducted by the Issue Department) is automatic, and the whole profit on the note issue, which consists of the interest on the securities held against the fiduciary issue, less the expenses of management, accrues not to the Bank, but to the State. In its Banking Department, however, the Bank is free to establish its own reserve standards, and we find that though it normally maintains a higher ratio of cash to its deposits than the commercial banks' 10 per cent., on the ground that it is the bankers' bank and holds the reserve for all of them, it does not adhere with the same regularity to any fixed ratio. Its cash reserve in the Banking Department consists (except for a small amount of coin, mainly silver) of the notes which have been issued by the Issue Department and have not passed into circulation—*i.e.*, have not been drawn out by the commercial banks, or by the public departments or the private persons keeping accounts with the Bank of England, to meet their currency requirements. The 'proportion' which this reserve bears to the Bank's liabilities to depositors corresponds to the

[1] *Report of the Macmillan Committee on Finance and Industry*, p. 119.

commercial banks' cash ratio. It varies considerably: before the War 30 per cent. used to be considered the minimum, but in recent years it has sometimes fallen to half that percentage.

Assuming that the Bank has received additions to its stock of gold (through deposits of trading balances or foreign capital, or by direct purchase on its own account) or is otherwise in possession of a margin of notes above what it considers a necessary reserve, it is in a position to increase its liabilities or reduce the reserve, and this it does in one of two ways. Either it may reduce the rate of interest at which it is prepared to lend to the discount market—the 'Bank rate'[1]—and thus affect rates of interest generally, causing increased business activity and so a greater demand for notes, or—and this has been of late the more normal method—it may increase its holdings of securities. Note that there is no question in these circumstances of its buying the securities *with* its excess notes, as the uninitiated might suppose. It buys them with its own cheques—*i.e.*, with its own acknowledgments of debt. It is in a position to do this because to the sellers of the securities such acknowledgments are just as good as notes. They pay the Bank's cheques into their accounts at the commercial banks, which by presenting them at the Bank of England increase their balances there. The commercial banks can then, under their 10-per-cent. convention, increase their liabilities by nine or ten times the increase in their credit balance at the Bank of England, and this, as we know, means an increase in the quantity of money available to the public. In short, the Bank of England in buying securities has created the money to buy them with, and has put it into circulation *via* the commercial banks; at the same time it has put those banks into a position to

[1] See Chapter VI, p. 148.

put still more money into circulation. The result of the series of transactions is that the reserve of notes in the Bank once more bears the desired relation to the Bank's liabilities.

Similar results will follow if the Bank deliberately decides to let its 'proportion' fall as a means of encouraging more active trade. Yet another method of enlarging the bankers' balances sometimes employed by the commercial banks at a time when the Bank of England seems to be unduly restricting them is to refuse loans to the discount market, and so to force it to borrow from the Bank of England, which, in virtue of its admitted position as 'lender of last resort,' is by long-established practice unable to refuse. Any or all of these processes may, however, if carried far enough, bring the Bank up against the limit of the fiduciary issue—*i.e.*, may cause a demand for notes so great that the Bank's reserve is depleted. Or, of course, the Bank may lose gold by processes opposite to those by which we supposed it to have received gold. It has then either to reverse the expansionary policy—by selling securities or raising the Bank rate—or, if it thinks the circumstances justify it, to ask the Treasury to authorize an increase in the fiduciary issue.

Till recent years the Bank rate was the principal tool of the monetary authorities for the control of the quantity of money. This was because it has a double effect, an increase in the rate not only cutting down the supply of money at home, but also attracting gold from abroad from foreigners wishing to lend funds at the high rate; and under a system by which imports and exports of gold determined the cash basis this twofold action made it an invaluable weapon. The announcement of the rate, which is decided upon weekly by the Court of the Bank, was awaited as a vital item of news by the business world. Times have changed, however. Gold no longer occupies

quite its old position in the structure.. More important still, public opinion is no longer convinced of the reasonableness of depriving home industry of the means of operating at full strength merely in order that gold may be attracted into the country. The Bank rate has remained steady at 2 per cent. since July 1932, and the Bank of England takes its expansive or restrictive measures through the purchase or sale of securities.

Such purchases and sales have always been the most reliable weapon of the Federal Reserve Banks in the United States. Their 'Bank rate' is the 'rediscount rate'—the rate at which they are prepared to lend money to their member banks on securities held by those banks—*e.g.*, commercial bills and their customers' promises to pay. Unlike the British banks, the American member banks normally restore their cash ratio, when it is depleted, not by reducing their liabilities to their customers, but by increasing their reserve by such borrowings from the Central Banks. As they are working to a legal minimum ratio, and the profit on the corresponding loans is normally higher than the interest on the borrowed cash, the raising of the rediscount rate does not greatly deter them from lending. Moreover, the effect on customers' borrowing is not so direct as in Great Britain, because the various rates of interest are not so closely linked together. The usual method of restricting credit employed by the Federal Reserve Banks is therefore to sell securities, the purchase price of which, being withdrawn from the balances held at the member banks, depletes their cash reserves. The extent to which they feel free to restore these by borrowing from the Reserve Banks is limited by convention. It may be added that at the present time (1937), when the member banks have much larger cash reserves than the law requires, the rediscount rates are quite ineffective in influencing their activities. It should be mentioned that the

rediscount rates of the various Federal Reserve Banks differ, but their policy is co-ordinated by the Federal Reserve Board at Washington. Their profits are limited by law.

We have perhaps made it sufficiently clear that a maximum limit is set to the commercial banks' expansion of their liabilities, and therefore to the quantity of money, by the operations of the Central Bank (though it should be added that the control in Great Britain is much closer and more uniform than in the United States), and that in Great Britain they observe another maximum limit, superimposed on the first, set by their own conventional ratio of 10 per cent. of cash to deposits, while in the United States a second maximum is fixed by law. It remains to examine whether they are always in a position to expand as far as these limits would allow.

It should be understood that banks are not prepared to increase their liabilities on *any* terms. They expect borrowers to possess assets which could if necessary be turned into cash in order to repay the loan, and they would not be prepared to lend to customers of doubtful solvency, however much interest they offered. As we shall see in Chapter VI, the rate of interest on bank loans is not determined by bidding on the part of borrowers for the available money. Nor would the banks be prepared to purchase as their sole assets money titles which it might be possible to turn into cash only at a loss. What they require is a mixed holding of

(*a*) advances to customers, both private individuals and business firms, for periods of, say, six months and upward, and to dealers in securities for short periods down to a night;

(*b*) short-dated commercial and Government debts;

(*c*) long-dated Government debts.

They do not favour long-dated commercial debts on account of the risk that these may depreciate in value, and still less are they inclined to take a direct share in the profits of an industrial enterprise. They want, in fact, to keep their assets as 'liquid' (as readily realizable in cash without loss) as they can, in order that they may at any time be in a position to incur fresh liabilities of the kind convenient to their clients. So long as money from the repayment of the old loans is always flowing in they can afford to make new loans.

The commercial bank, apart from its business of facilitating payments by setting off debts against each other, is primarily a lending institution. It is from its advances that it earns the highest rate of interest. As the late Dr Leaf of the Westminster Bank wrote in 1926 in his book on banking, "It is from his advances that the banker has to look for most of his profit; it is here that he has to meet the competition of his rivals in the most acute form."[1] It should be noted, however, that the 'competition' affects not so much the rate of interest at which the banker will lend as the other conditions (of security, repayment, etc.) on which he lends. Formerly there was yet another banking convention in Great Britain by which it was usual to maintain a proportion of just over 1 : 2 between the advances and the total deposit liabilities, including time deposits, and though the advances in recent years, from causes beyond the bankers' control, have stood at a much lower level than this, no doubt the limit would operate again if they should once more rise so far. Advances to customers are, of course, a more risky form of asset than, for example, Government debt, and the banks would not venture to hold too high a proportion of them. As we shall see, the proportion of Government loans to private loans held as assets in the banking system shows a

[1] Walter Leaf, *Banking*, p. 154.

strong tendency to increase. Beyond the danger-point a bank would not precisely refuse a loan to a customer, but would become much more critical of the conditions on which a particular loan was asked for, and would demand a more substantial asset to be pledged as security ('collateral') for its due repayment. In a time of slump, when a business in difficulties might be inclined to approach its bank for a loan, the business itself would be a less valuable security than usual, and it might well be difficult to produce any other security. At the same time the value of the securities already accepted as 'collateral' would be running down, and the bank might be nervous about its own margin of safety. As we saw above, the banks' solvency depends on the maintenance of the value of their assets, and this 'running off of margins' is one of the most alarming features of the later stages of a slump.

Apart from the banks' difficulties, however, there may be obstacles arising on the side of the borrowers in the way of increasing advances beyond a certain point. Rather than borrow against their money titles at a time when confidence is low (especially if at the same time interest is high), business firms may prefer to sell their money titles outright and meet their expenses from the proceeds, or even repay previous bank advances. Or they may decide that it is prudent policy to borrow less than usual and meet their outgoings from profits which they would otherwise have distributed to their shareholders as income. This process has been carried so far in Great Britain in recent years that a Chairman of one of the 'Big Five' banks estimates[1] that only 32 per cent. of its advances in 1936 were to "productive industry," the rest being loans to private persons (about 34 per cent.) and

[1] Mr Edwin Fisher of Barclays Bank, reported in *The Economist*, January 23, 1937.

(presumably) to the dealers in money, public authorities, and other non-industrial borrowers.

These tendencies, it will be noted, have the effect of preventing the banks from getting as much money into circulation as might at times be desirable in order to correct that general falling-off in industrial activity which is known as a slump. Other things being equal, a high rate of interest and a reluctance on the part of the banks to lend will keep down the total of advances, but, however ready the banks are to lend and however low the rate of interest, they may not be able to find sound new borrowers, and existing borrowers may be paying off their loans.

It is true, however, that this need not affect the total quantity of money (though it will affect its circulation) if the banks are able to expand in other ways. But they are not always free to do this. Too large an investment in long-term Government securities may mean that their assets are not sufficiently liquid—*i.e.*, that there is too much risk that they could not be turned into cash at their full nominal value. The banks prefer a considerable proportion of short-term Government debts (Treasury Bills), which fall due for repayment a few months after issue—so that the total holding can readily be varied at short intervals—and are not subject to capital depreciation. If, however, the Government decides for one reason or another to reduce the amount of this short-term or 'floating' debt[1] there results a shortage of this type of assets for the banks to hold, and rather than acquire more assets of other types they may prefer to keep their liabilities low and their cash ratio high. To take examples from recent British history, in the first half of 1933 bankers' cash rose as compared with the previous year, but deposits were merely kept at a stable level, as the banks were not willing to buy more long-term securities and the

[1] See Chapter VIII.

supply of Treasury Bills had been reduced because the Government had paid off a part of them as they fell due. In 1933–34 deposits actually fell for the same reason, though bankers' cash remained steady or rose. In 1934–35 the supply of Treasury Bills was increased, and bank deposits went up again.[1]

It should be mentioned here that the effect of increasing or reducing the floating debt is not limited to the one result we have just mentioned. On the one hand, a shortage of Treasury Bills tends to keep down the rate of interest,[2] and, on the other, the *immediate* result of borrowing by the Government from the banks is to reduce bankers' cash, since it transfers balances from bankers' accounts at the Bank of England to 'Public Deposits' —*i.e.*, deposits standing to the credit of Government Departments. On the whole, however, a reduction of the floating debt tends to reduce the amount of money in existence, and an increase in the floating debt to increase it.

Finally, it must be observed that even if the banks have increased their liabilities to the utmost extent possible under their conventions and limitations, that does not mean that they can ensure the maintenance of any given supply of money in the sense in which we are using the word. For though they may create money, they cannot make it circulate. Depositors may choose to transfer their money from current accounts to deposit accounts—*i.e.*, purchase short-term interest-bearing assets with it instead of holding it available for spending. It is true that such 'time' deposits may be regarded as on a different level from the banks' other deposit liabilities, since their owners are less likely to ask for cash; and if the banks take this view (as in the United States they do with legal

[1] A. M. Allen, "The Volume of Bank Deposits in Great Britain," in *The Economic Journal*, June 1936.

[2] See Chapter VI, pp. 156–157.

sanction) they will consider it unnecessary to hold the same proportionate reserve of cash against them as they do against current accounts. In that case the transfer of money by some depositors from current to deposit accounts would put the banks in a position to increase their liabilities, and so the current accounts of other depositors; and to the extent to which borrowers were available for the additional sums which could be so lent the effect of the transfer in reducing the volume of money would be offset. But though there is some evidence of a recent tendency of British banks to follow at a distance the American practice, the net effect of transfers from current to deposit account in both countries is markedly to reduce the aggregate of current accounts—*i.e.*, the quantity of money.

The factors which determine the quantity of money having been indicated, it is perhaps unnecessary to draw attention to the fallacy of the belief that a high level of bank deposits is due simply to people 'putting more money in the bank.' To say, for example, that the banks are 'bulging with money awaiting investment' means nothing as applied to the total of deposits. If it relates, not to deposits as a whole, but to the time deposits, it may be replied that these in a sense are already 'investments.' It cannot be too strongly emphasized that in a country with a highly developed banking system, given the habits of the public with regard to the proportion of their holdings of money which they prefer to keep in their note-cases, the amount which they 'put' in the bank is simply the whole of the remaining money in existence. There is nothing else that they can do with it. If some of them bought investments with their deposits (from any other sellers than the banks) they would pay by cheque, and the purchase price would still be 'in' the banks, though in different depositors' accounts. This miscon-

ception is continually recurring in comments on public affairs. It is assumed that because bank deposits are high it will be easier to spend money on some object people think desirable. But the fact that bank deposits are relatively high does not even imply that incomes are relatively high (see our next chapter). And in any case the test of whether a community can afford to undertake any particular task is not one of money. It is decided by whether the existing labour and resources of the community are fully employed or not. If they are, and if no means of economizing them is available, the expenditure of money on new tasks will cause rising prices, and later possibly loss of confidence. If they are not, the community can afford to spend money on a new task irrespective of the level of the existing money stock. There is no difficulty about producing new money: that is what the banking system is for. An attempt to expand might, of course, fail because of difficulties in making the spare labour in one industry or part of the country available for service in another industry or another part of the country, but such a failure would have nothing to do with any shortage of money.

The *quantity* of money at any time is not, in fact, the point of most direct consequence to industry. What matters is what stimulates activity; and that is the money which is *spent* on goods and services (and expected to be spent). The amount of bank deposits would remain the same for some time even if the deposits were all stationary, but in that case there would be no money incomes at all and no production. This is not to say, however, that changes in the quantity of money have no indirect importance. As we have seen, an increase in the basis of the community's money influences the activities *of the banks.* If in their efforts to expand their liabilities on the new basis they make increased loans to industry these loans are

normally spent forthwith, and the total volume of spending is to that extent increased. If, on the other hand, they buy long-term money titles we shall find that they may bring down the rate of interest, and enable more expenditure on production to be profitably undertaken. Another possibility is that by such purchases they may keep the rate of interest and the volume of expenditure steady when the former would have risen and the latter would have fallen. If there is a tendency on the part of sections of the public to wish to hold larger amounts inactive in their bank balances, some increase in the quantity of money may be called for in order to enable them to do so without reducing the stream of spending, whether through an increased disinclination to spend or through a greater reluctance to lend. For such people would either hold some of their money income idle, instead of spending it, or turn some of their existing monetary assets into cash. If the second method meant that the prices of such assets had to come down to a point at which other sections of the community would be tempted to purchase them as an alternative to spending on goods and services, then there would be a net reduction in spending. If, on the other hand, the banks were ready to take the assets off the sellers' hands in return for new money which they (the sellers) would hold idle, no one else being affected, it is clear that the stream of spending could flow on as before.

It is important to realize that the relation between the quantity of money and the volume of spending is neither rigid nor simple. Nevertheless a fall in the money basis —*i.e.*, the banks' cash and credit at the Bank of England— is generally regarded in Great Britain as an ominous symptom, portending that the rate of interest will rise and that spending and activity generally are in danger o being diminished. Though any quantity of money can keep things going if it circulates fast enough against new

goods and services, a change in the existing quantity means either that it must circulate at a different rate, or that the amount in the financial circulation must change, or that production and consumption must proceed at a different rate. And although, as we said in Chapter I, both a reduction and an increase in the circulation of money may be carried so far as to be pernicious, the two are not on a parity. For an actual restriction of business activity and employment, which may be caused by reduction, is an unmitigated and overriding evil; whereas an increase tends to promote production and real wealth, and does harm only if it is carried so far as to impair public confidence.

APPENDIX TO CHAPTER II

I. The Quantity of Money

To illustrate what we have said about the quantity of money we will take the figures (*a*) of bank deposits repayable in cash on demand, (*b*) of notes and coin in circulation in Great Britain and the United States, for certain post-War years. We begin with an estimated figure for Great Britain in 1913:

Year	Bank Demand Deposits for London Clearing Banks	Notes and Coin in Circulation (Estimated)	Total
1913	£400 m.	£150 m.	£550 m.

We follow with the figures for 1921, the height of the post-War boom:

1921	£1025 m.	£448 m.	£1473 m.

By 1922, after deflation had begun, the figures had gone down to:

1922	£998 m.	£401 m.	£1399 m.

By 1932, the bottom of the slump, the figures were:

1932	£867 m.	£359 m.	£1226 m.

Since then there has been a gradual rise to:

1933	£978 m.	£361 m.	£1339 m.
1934	£953 m.	£368 m.	£1321 m.
1935	£1054 m.	£383 m.	£1437 m.
1936	£1197 m.	£415 m.	£1612 m.

Note that the amount of the 'total' column would represent, subject to a possible adjustment in respect of unspent loans,[1] the total amount of money in circulation if the demand deposits shown in the first column were complete. There are, however, certain minor banks outside the clearing system.

[1] See p. 26.

In the United States, where the course of events was different, we have the following.[1] The figures are in millions of dollars.

Year	Demand Deposits (All Banks)	Cash outside Banks	Total
1923	18,889	3759	22,648
1927	22,462	3579	26,041
1928	22,738	3643	26,381
1929	22,744	3660	26,404

After the collapse of 1929 the quantity of money fell till 1933. Here are the figures for that year:

1933	15,163	4784	19,947

Then the figures rose again in 1934:

1934	18,262	4684	22,946

It is interesting to note the addition to the cash outside the banks caused by the hoarding of currency during the slump.

II. Turnover of Money

The following figures give some idea of the transactions financed by the amount of bank money shown in the preceding table for Great Britain. They show the amounts cleared in the settlement of the banks' debits and credits against one another at the London Bankers' Clearing House, and do not, of course, include transactions between customers of the same bank. The 1913 figures are shown for the sake of comparison.

Year	Amount cleared (in £m.)			
	Town	Metropolitan	Country	Total
1913	14,191	856	1389	16,436
1922	32,780	1575	2806	37,161
1928	39,311	1854	3039	44,204
1930	38,782	1812	2964	43,558
1931	31,816	1668	2752	36,236
1932	27,834	1610	2668	32,112
1933	27,715	1657	2766	32,138
1934	30,740	1760	2984	35,484
1935	32,444	1887	3229	37,560

These figures tell the same tale of decline and recovery as those relating to the quantity of money in Table I.

[1] Lauchlin Currie, *The Supply and Control of Money in the United States* (1934), p. 33.

III. Banks' Assets and Liabilities

Next we will illustrate the balance-sheet of a bank by taking for a specimen year (1933) the combined weekly statements, averaged over the year, of the clearing banks in Great Britain, and for the United States some corresponding figures for the member banks. On the one side are the banks' liabilities to the public—the deposits which they owe to their customers; on the other are their assets—their cash and balances at the Central Banks and the sums which their customers are under an obligation to pay to them. The table does not show an exact balance, because it does not include the banks' capital—the amount they owe to their shareholders—nor their concrete assets, such as premises.

London Clearing Banks' Average Weekly Balances (in £m.)

Liabilities		Assets	
Current, deposit, and other accounts	1,953	Notes, coin, and balances with the Bank of England	212
		Balances with other banks	43
		Money at call and short notice	102
		Bills discounted	354
		Advances to customers and other accounts	759
		Investments	537

Federal Reserve System Member Banks: Assets and Liabilities at June 30, 1933 (in $m.)

Liabilities		Assets	
Deposits	26,563	Cash and reserves	2,640
		Loans	12,858
		Investments	11,928
		Balances with domestic banks	2,008

Note that in each case only the first item in the assets is cash or *certain* supplies of cash. The rest represent *potential* supplies of cash.

IV. Banks' Cash Ratio (Great Britain)

To show the extent to which the British banks have varied in recent years the proportion of their 'cash' (notes, coin, and balances with the Bank of England) to their liabilities we may take the following table:

	London Clearing Banks		
Year	Current, Deposit, and Other Accounts (in £m.)	Notes, Coin, and Balances with the Bank of England (in £m.)	Percentage of Notes, Coin, and Balances with the Bank of England to Current, Deposit, and Other Accounts
1928	1766	196	11·1 per cent.
1929	1800	194	10·8 ,, ,,
1930	1801	192	10·7 ,, ,,
1931	1760	182	10·4 ,, ,,
1932	1791	187	10·4 ,, ,,
1933	1953	212	10·8 ,, ,,
1934	1880	212	11·3 ,, ,,
1935	1999	215	10·8 ,, ,,

V. Banks' Reserves (Great Britain)

To show how the various monetary factors interact let us take a specimen year (1933) from the Bank of England and London Clearing Banks' statements. The figures are weekly averages in millions of pounds.

A	*B*	*C* Bank of England Deposits			*D* Commercial Banks' (London Clearing Banks only) Deposits and Notes in Circulation			
Gold Coin and Bullion in Bank of England	Notes in Bank of England	(1) Total	(2) Public and Other	(3) Bankers	(1) Demand Deposits	(2) Time and Other Deposits	(3) Notes and Coin with Banks	(4) Notes and Coin with Public
177	70	158	58	100	978	975	112	259
					1953		371	

Columns *B* and *D* (3) and (4) together represent the note issue, which is fiduciary—*i.e.*, backed by holdings of securities only—except for the amount corresponding to the gold in

column *A*. Columns *C* (3) and *D* (3) together represent the commercial banks' cash reserve (£212m.) against their deposit and other accounts, their cash ratio thus being 10·8 per cent. If the amount in column *A* goes up or down the effect is to change either the amount in column *B* or the amount in column *C* (3); if the latter, then either to increase the cash ratio or the deposits in *D* (1) or (2) or the notes in the hands of the public in *D* (4).

Corresponding figures for the United States are too complicated for presentation in this form.

CHAPTER III

MONEY INCOME

We said in our last chapter that a high level of bank deposits did not necessarily imply a high level of income. That is because income is created by money only as it changes hands. And it is money income, not the stock of money, which measures the prosperity of the community, in so far as it can be measured by money. The individual regards his stock of money as to some extent a measure of his wealth, and so it is of his wealth relatively to the rest of the community, since it represents his claims upon them; but for the community as a whole the stock of money has no significance as a measure of wealth. Even in the case of the individual, prosperity cannot rightly be estimated without regard to his money income—that is, his part in the remuneration due for, or the charges raised on, new production, and therefore his part in the new wealth coming into existence. Without new production the holdings of money would come to represent a dwindling amount of wealth, as there would be nothing to buy with them but the goods already made, and those which were perishable would rapidly disappear. So long as there is new production at least sufficient to make good the depreciation or consumption of existing wealth, the amount that money can buy is maintained or increased, and though the total amount of money may remain the same, it passes in the processes of production through all the hands concerned in those processes, carrying with it as it goes the possibility of spending, acquisition, and enjoyment.

The concept of money income is, however, by no means so simple and unambiguous as it appears. The income of the private person who pays income tax—as distinct from the business-man, with whom we shall deal separately—is, indeed, usually simple to ascertain. It consists of his net receipts in certain well-defined categories. (Net here means reckoned after deducting expenses which are recognized to have been necessarily incurred in securing the income.) Reflection in the light of experience of individual cases will show that, broadly speaking, income receipts, as distinct from the money receipts which are not regarded as income, such as a personal gift or the price of a 'casual' sale of property, consist of payments *received in the income period in respect of contributions to the new production of the period, whether the contributions have been made then or earlier.* The contributions need not have been made by the income-receiver himself. Income receipts fall, therefore, into two main classes:

(*a*) Remuneration received for the part played by the income-receiver in current new production. (New production covers not only goods, but services, as, for example, the work of dentists, hairdressers, and domestic servants.)

(*b*) Payments in the period received in respect of titles to money which the income-receiver has acquired (dividends, interest, rent, annuities, and so on) which are a charge upon new production.

The receipts from the sale of existing assets (other than the profits on trading sales, with which we shall deal later) are not regarded as income, because they add nothing to the individual's stock of wealth, but merely alter the form in which he holds it. These may be called 'capital,' as distinct from 'income' receipts.

The British Income Tax authorities go a little beyond

our idea of the individual's money income by counting as part of income the rent paid by an individual to himself, so to speak, if he lives in a house which he owns. But apart from this exception the official idea of income is much the same as that of the man in the street. It does not include, as he would not include, loans or casual gifts. It would, however, include an allowance of which the regular payment was guaranteed, even if no services were given in return for it.

The idea of money income is essentially related to a period of time. The income-tax payer is accustomed to measure his income (as do the Inland Revenue authorities) in periods of one year: a year, covering, as it does, the cycle of agricultural and other economic activities which fluctuate with the seasons, has come to represent a complete unit of the income-earning process. This leads us on to the consideration of the rest of the community of private persons, namely, those who are not liable to income tax—that is to say, mainly wage-earners. Most wage-earners are paid weekly; the cycle of their monetary activities, so to speak, is shorter, and they reckon their income in periods of one week. But it is still essentially similar in character to the income of the people who reckon annually. Indeed, there is, of course, a considerable overlapping between the two classes, some weekly wage-earners being liable to income tax and some annual incomes not reaching the income-tax limit. There is no difficulty in measuring such income, whether weekly or by addition annually, and it mostly falls into the same two classes (*a*) and (*b*) above, the greater part of it into class (*a*). Mostly, but not altogether. For some people receive regular payments of money—as a rule weekly payments—which consist of cash 'benefits' under one or other of the social services. And if we include these payments as income they constitute a third kind of

income payment, neither earned in respect of new production nor claimed as due under previously acquired titles to money. They are 'transfer' incomes, taken in taxation or as loans by the Government or other public authority from one set of people and handed over to another set. Regular private allowances, to which we have already referred, and interest on private loans and mortgages should also be regarded as transfer incomes.

There is one other important item of transfer income, which affects not only some weekly income-receivers, but a larger number of those who reckon their income annually. That is the interest on the National Debt, which is not paid in return for any new values created, and is not a charge on any specific new production (except the small part of it representing the interest paid on capital borrowed to finance those Government services which are sold for fees to the public—*e.g.*, postal facilities, or in Great Britain the telephone service).

All the incomes which are acquired otherwise than as remuneration for an active share in *current* new production of goods and services, whether they are transfer incomes or not—that is, all the allowances, dividends, interest, etc., to which we have referred (save only pensions paid in respect of the income-recipients' past activities)—are classed as 'unearned' as opposed to 'earned' income. The unearned income is in most communities very unevenly distributed over the population, and its existence greatly affects the real value of the earned income. It constitutes a claim, largely of fixed amount, on current new production by persons not necessarily contributing directly to the processes of production, and to that extent reduces the share of those who do so contribute. This comes about through the competition of the former with the earners in buying what is currently produced.

There are some classes in the community which need

particular mention because they receive a part of the real income of the community which is not represented or not fully represented by their money incomes—for example, agricultural labourers and domestic workers (including many farmers living on their own produce and married women working in their own homes) who receive their remuneration partly in kind, no cash passing in respect of their board and lodging. For purposes of considering money income this remuneration may be ignored, though it always has to be borne in mind in considering real income. The numbers of such income-receivers tend to be smaller in advanced industrial communities.

So far we have been considering the income of private persons only. As soon as we come to reckon the income of a producer (often called an *entrepreneur*) we meet a new feature, one which in practice gives much difficulty both to producers themselves and to Inland Revenue authorities, and provides much work for specialist accountants. For producers—that is, both individuals who own and manage businesses and business firms of all kinds—regard as their incomes an essentially different category of money receipts—namely, their profits. Their profits are the difference between their total receipts (other than capital receipts) and the amount of their costs (other than expenditure on adding to their capital). A business may, and generally does, own titles to money from invested reserves, and it usually includes its current receipts (in dividends, etc.) from this source together with the money receipts from the sale of its products before deducting its costs to obtain its income.

We say that business profits are an essentially different kind of income from that of the private person because the expenditure which has to be deducted from the gross receipts of a business in order to reckon its income is incurred not merely before the receipts accrue, but also

before the amount of the receipts is known. The other recipients of income who co-operate in the production which creates the income may, like producers, have to incur some expenses which are deducted before the income is reckoned, though as a rule these expenses are relatively small. But they are in quite a different position from the producer in that they know beforehand what they will get for their co-operation. The owners of a business shoulder the risk involved in spending money in the enterprise in the *hope* of receiving an income from the sale of the product. In fact, the amount of activity and expenditure undertaken depends entirely on their estimates—their *expectations* of profit. If they do not expect to receive a net income from the activity no one else will receive any income from it, for it will not be undertaken. Conversely, if they think they can earn income, and have the necessary money, or can borrow it, for the production, other people will earn, whether the producers do or not. This, we may say in passing, is the central feature of a capitalist society.

Where the business is a company and the owners are not private proprietors, but shareholders, we must distinguish between the income of the firm and the income distributed to the shareholders. If all the profits were distributed to the shareholders the distinction would not be necessary, but, as we shall see, this is not the case. The shareholder may be regarded as a 'producer' on the ground that his income from the business is part of the profits, but as an individual he incurs no current costs, and his risk is limited to the amount of his holding; moreover, he has no voice in the day-to-day decisions of the management. From his point of view, therefore, his dividends do not differ in nature from his income from interest on fixed loans. It is the income of the business itself which has the peculiar character of which we speak;

and income tax is, in fact, assessed on the income of the business whether or not it is distributed to shareholders.

It may seem at first sight that the calculation of income in the case of a business should be as straightforward as in the case of the individual. And so it is if 'costs' are interpreted as merely what the firm *actually pays out* for raw materials, labour, rent, and interest, and for renewals and repairs of its equipment and stocks. The difference between the total of these and the firm's gross income receipts constitutes the firm's cash income, and this is a perfectly definite figure. It may be either distributed in full to the shareholders (in the case of a company) or paid into the producer's private account (in the case of a 'one-man' business), or, on the other hand, it may be set aside in part as reserves for meeting probable or possible depreciation of the firm's assets beyond what it has spent on renewals and replacements, in which case the part so set aside can be regarded as saved. The parallel with the private income seems to be fairly complete.

We must warn the reader, however, that this cash income is not necessarily precisely what the firm itself regards as its income or what the Income Tax authorities regard as its income. The firm itself considers its income to be what is left after deducting not only its *actual* outgoings, but

(*a*) any sum set aside for depreciation in excess of the actual outpayments on replacements and renewals—in other words, it does not regard the amount we have just agreed to regard as saved on the cash basis as income at all;

(*b*) the sum required to make good any fall in the aggregate value of its stocks ('inventories') as between the beginning of the period and the end.

It should be noted that a *rise* in the aggregate value of

the stocks in hand should logically make the income so reckoned more than the cash income, but in practice it is not so treated.

The Inland Revenue authorities not merely do not assess such a rise in income for taxation, but add a further refinement by deducting, in place of actual expenditure on renewals and replacements, only the sum which they think, applying certain well-defined principles, the firm *ought to have* set aside for those purposes. We have thus three possible measures of income for the same firm in the same year:

(*a*) The net cash receipts—what we have called the cash income.

(*b*) The gross receipts, less (1) expenditure and (2) the amount set aside for depreciation and for reduction in the value of stocks—what the firm's accounts show as profit in its profit-and-loss accounts.

(*c*) The gross receipts, less (1) expenditure and (2) the amount which *should have been* set aside for depreciation in excess of what was actually spent on renewals and replacements. This is the income as assessed for income tax.

Only the first of these corresponds to the actual movements of money. The second is governed in part by a change in the mere market value of unsold goods. The third involves a purely suppositious element corresponding neither to the movement of money nor to a change in market values.

Thus we see that there is a fundamental difference between the method of *reckoning* of a business and of a private person—that the business makes good in some sense the value of its assets before reckoning its income, while the private person does not. Hence, whereas the

income of a private person is commonly definite and unambiguous, that of a business as actually declared contains an element of valuation as distinct from actual cash reckoning. It is as if the private person were to deduct from his money income all that he spends, or might spend, on keeping his house and household equipment in perfect repair, and were to regard this not as income, but as costs. Carrying the principle yet further, we can arrive at yet another method of calculating income—namely, deducting from the gross receipts the amount necessary to keep intact, not merely the value of the plant and the stocks, but the total money value of *all* the firm's assets, even its monetary assets. This, it may be mentioned, is the basis which the firm's accountants would urge it to adopt before regarding any particular sum as income, because it represents the position of the greatest possible financial safety, which it is the business of financial advisers to secure for their clients. In practice most firms tend to adopt basis (*b*), or a compromise between this and the accounting ideal. One of the main objects of accountants is to see as far as possible that the business does not reckon as income the capital assets which it has acquired, and so proceed to 'live on its capital.' That way lies, or appears to lie, financial disaster. The income as finally reckoned will thus always depend partly on the *opinion* of the accountants, partly on the *opinion* of the business men managing, and drawing income from, the concern. It is not without importance that the influence of accountants is always exercised in favour of accumulation, since they tend to insist on making good from income reductions in the value of assets, while not restoring to spendable income the sums by which assets increase in value.

The conception of keeping all assets intact deserves more examination. The physical property of a business (its building, plant, and stocks) deteriorates with time and

with use in spite of the best possible attention to maintenance, so that if the firm did not put money into depreciation reserve, but distributed all its gross profits to its owners to be disposed of by them as part of their private incomes, it would find itself bankrupt when the plant was no longer serviceable. For it would have no money to buy new plant, and would not be able to borrow it, having failed to pay back the money borrowed to pay for the now worthless plant when it was new. But physical deterioration is not the only cause of depreciation in the *money value* of plant, etc. The plant may also lose money value—in extreme cases all its money value—through obsolescence, that is to say, through the invention of some new type of plant or some new process so superior in efficiency of production that the old plant cannot compete. This may happen long before it has become physically incapable of use in production. Similarly, it may lose value, as may also stocks of goods in hand ('inventories'), because of a change of taste or a fall in the money incomes of the firm's customers and potential customers, causing the demand for the firm's product to fall off. Since contingencies of this kind cannot be foreseen definitely, many firms put aside each year—or at least in good years—more than enough money to make good physical depreciation calculated according to the probable physical life of the plant. But the amount of such additions likely to be required to cover obsolescence can be arrived at only by an informed guess. And the effects of changes of taste, and above all of variations in customers' incomes, cannot be estimated even by guesswork. For this reason the British Inland Revenue authorities do not allow any such payments, as distinct from payments against foreseeable physical depreciation, to be deducted before they assess taxable income. We may agree that this is theoretically sound, since such deductions do

not correspond either to any actual outgoings or to any actual reduction in the period of the value of the firm's property. They represent rather a prudent provision against contingencies, and are therefore properly treated like a private individual's savings (with which, indeed, they are closely comparable)—that is, as part of the firm's taxable income in the year in which it receives them and puts them aside.

The same considerations apply to a firm's property in the shape of money titles—'investments' in the ordinary sense of that word. It has probably acquired some of these in previous years in order to earn an annual return on the money it has set aside to meet physical depreciation and obsolescence of its plant. These 'investments' are themselves liable to depreciate in value—very much so—for the proceeds realizable at any time by their sale depend entirely on the state of the market at the time. A common business practice is to 'write down' such assets when their market value falls and to put aside extra money to the amount of the fall—*i.e.*, enter them at a lower value in the balance-sheet, so that the loss of value is a deduction from gross profit just as if it were a current cost—but not to write them up or reduce current payments to reserve when their market value rises. Such write-offs are allowed in the United States, but not in Great Britain, as deductions before income is reckoned for taxation.

The main distinction to be borne in mind in thinking of the various conceptions of business money income is that between what we have called the cash income—the net cash receipt on income account—and the others, which all represent attempts in one way or another to allow for changes in the value of real assets (the volume and price of stocks and the value of plant and buildings). The measurement of such changes is, of course, an

essential factor in measuring real net income, either of the individual or of the community; and the universal business practice of allowing for them, however inadequately—that is to say, of allowing for loss of value as well as for money expenditure before assessing income—has the effect of bringing the business money income more closely into relation with real income than it would be if it were reckoned on a purely cash basis.

Private individuals, however, as we have seen, make no such attempt, but are content to reckon their cash income without deduction as their money income. They keep no balance-sheets showing the aggregate value of their assets; for they do not, in the main, operate with borrowed money, as do businesses, and so need not in their accounts demonstrate their solvency to third parties.

When we come to consider the income of the community we shall see how the business practice in reckoning money income goes a long way to help us to calculate the community's money income in a way that has some relation to its real net income. Conversely, the fact that in assessing private people's money income no account is taken of depreciation of physical property (except, for income-tax purposes, houses), and of the accumulation or depletion of such assets as furniture and domestic equipment, is a handicap in our assessment of the community's money income in relation to its real income.

The concept of money income, private or business, assessed in such a way as to allow for changes in value is necessarily rather nebulous, as is shown by the number of different ways in which it can be arrived at by business firms; and for purposes of clear thinking about the movements of *money* it is desirable not to lose sight of what we have called the cash income—that is, the difference between gross income-receipts and actual outgoings. On the alternative basis, while an individual does his

saving out of what is agreed to be his income, the firm's savings (sums not spent, but put to reserve) are made in part, though not entirely, out of the gross profits *before* the nominal income is arrived at. The effect of such savings does not, however, differ from that of private persons' savings.

It is none the less essential to have a picture clear in our minds of the way in which producers behave in assessing their income. For this governs their spending, or in the case of companies their shareholders' spending, and so other people's incomes, and this in turn affects consumers' expenditure, and so again producers' profits. A comprehension of the main factors which govern this complicated cyclical process is indispensable to the understanding of the changes in the income of the community.

The concept of the community's income—which is known as the 'National Income'—must be carefully distinguished from that of the income or receipts of the Government. The Government, from the point of view of reckoning income, is merely a large producer, subject to the same rules as other producers (except that it does not assess itself to income tax). All payments to the Government, except those devoted to paying transfer income, are remuneration for services rendered—education, health, police, and so forth. It is peculiar among producers in that it endeavours to make its receipts balance its costs exactly, apart from certain types of borrowing which are recognized as normal, so that it ordinarily has no income.[1] An income accrues to it, however, in any year in which there is a Budget surplus. This is usually devoted entirely to paying off debt.

The 'National Income' is a different matter altogether. Clearly it can have nothing to do with money payments

[1] With some exceptions, such as (in Great Britain) its income from Post Office business.

to the nation. Except for the small part of a nation's income which comes to it from abroad, its income is not paid *to it* at all. And none of its income, not even the part derived from abroad, is paid to it *in money.* For obviously no one, whether in the country or outside it, can be said to be paying pounds to the English nation or dollars to the United States. And the increase or decrease of a nation's money depends on considerations (discussed in Chapter II) which have nothing to do with income.

How, then, are we to reckon the National Income of a period in terms of money? There are three possible ways:

(*a*) The net addition, valued in money, to its real wealth, plus the value of the wealth created and consumed in the period.

(*b*) The selling price of the net new output of the period which is sold—in other words, the expenditure of the period after deducting expenditure on renewals and replacements.

(*c*) The sum of individuals' non-transfer money incomes (including business incomes).

It will be fairly obvious that of these three possible ways of reckoning the National Income (*b*) and (*c*) are different aspects of the same thing if the business incomes under (*c*) are cash incomes. All the money spent on output enters into somebody's income, and money income cannot finally be otherwise derived. (The transfer incomes, of course, constitute a charge on the incomes—derived from output—of the rest of the community.) To reconcile (*a*) with either (*b*) or (*c*), however, presents some difficulties. The net additional wealth of the community is not entirely measured by total sales, since some of the net output is not sold, and must appear in the calculation as an estimated value. This conception is not even in

theory a precise one, since the income period is long enough for money values to change in the course of it. Moreover, as we indicated above, there is no way of allowing for the depreciation of existing possessions (except houses) in private hands. Neglecting the privately owned wealth (other than houses), however, as for lack of means of dealing with it we must do, we may say that the national real income measured in terms of money corresponds roughly to the sum of individuals' non-transfer incomes—*i.e.*, the incomes derived from new production of goods and services (reckoned, so far as business incomes are concerned, on the basis of deducting from profits the cost of making good any fall in the market value of physical assets, equipment, and stocks). A fairly close approximation can be obtained by using business income as reckoned by the Income Tax authorities. Mr Colin Clark, in his *National Income and Outlay* (1937),[1] takes this basis, with certain adjustments, for reckoning all British incomes subject to tax.

In considering the difference between these conceptions of the National Income it is well to note one characteristic which they obviously have in common. None of them is in any sense (as has sometimes been supposed) the 'maximum potential spending power' of the community. As we have already seen, there is, in fact, no such maximum: a community cannot run short of its own money, however fast it spends it. It may, indeed, be spending it too fast, in the sense of 'faster than is desirable,' but the criterion for judging whether this is the position or not has nothing to do with the National Income, which, in fact, as we shall see, merely measures the rate at which it *is* spending it. As in so many monetary matters, the analogy with the case of the individual is misleading.

[1] Chapter III. We have not felt able to follow Mr Clark in reckoning the proceeds of indirect taxation as income.

It is of interest to see how, according to Mr Clark, the National Income in Great Britain is made up. For the year 1935, the latest for which his figures are complete, he estimates that of a total home-produced income (omitting Government receipts and transfer income) of £3745m. wages accounted for £1520m., salaries for £937m., profits and interest for £949m., and rents for £339m.[1] He points out that wages normally represent a high share of the National Income in times of slump, when they are relatively stable and profits are falling, and a lower share in times of boom, when they remain relatively stable and profits are rising. It should be noted that unearned income, on this estimate, approaches a third of the total money income. If National Debt interest (a transfer income) is added the proportion goes up to over a third. As regards the distribution of income per head of the population, Mr Clark calculates that 1½ per cent. of the population took 23 per cent. of the whole total of personal incomes, and that 10 per cent. of the population took 42 per cent. of the whole total of personal incomes.[2] He estimates [3] that only £91m. (about 2½ per cent. of the total National Income) was in 1935 transferred from the rich to the poor in the form of services, allowing for that part of the cost of social services defrayed from working-class taxation.

In the United States in the same year, out of a total of $53,587m., compensation of employees (covering both wages and salaries) accounted for $36,057m., profit and interest for $16,004m., and rents and royalties for $1526m.[4]

If we turn for a moment from the national money income to the national real income we observe that just as the amount of actual goods and services which an

[1] *National Income and Outlay*, p. 94.
[2] *Op. cit.*, p. 110. [3] *Op. cit.*, p. 148.
[4] *National Income in the United States, 1929–35* (U.S. Department of Commerce).

individual gets for his money income depends on the level of prices in the period, so does the real income of the community, given its money income. The National Income of Great Britain measured in money is now in the neighbourhood of £4000m. Before the War it was about half that amount. But this does not mean that we as a nation are enjoying twice the output of goods and services we had before the War, for prices have risen in the meantime. The rise in prices does not, however, account for the whole difference, and by calculating from an index number of prices we can arrive at a rough estimate of the extent to which we are actually richer.

Given the price level, an increase in the National Income in terms of money means increased riches and prosperity, whereas a fall in it means depression. We must now look for an explanation of its fluctuations, which we can best do by examining the sources of the different classes of income separately.

In the case of a business there is no difficulty. The only source of a producer's money income *qua* producer is his receipts from the sales of his product—that is to say, the *expenditure* of other people, whether private people or other firms (or the Government), on his product. But the sources of private people's income require more analysis.

We have pointed out that the money income of a private person (apart from transfer incomes from social-service benefits, private allowances, interest on private loans and mortgages, and interest on loans to Government) consists either of payments received by him in return for services rendered to a producer in creating during the period some new value (which the producer hopes to sell) or of payments for services rendered directly by him to a consumer, or else of payments received in respect of titles to money. These last may represent either a share in the profits of a business—in which

case he is in effect a producer—or claims to fixed interest on money lent to a business. Now, the latter payments come either from producers who have borrowed money for production (and expect to get it back from the sale of their product) or from the proceeds of loans to some public authority. In so far as the public authorities (Government or local) have borrowed for productive purposes they get the money back from the sale of the product, just as commercial producers do, and in both cases the income derived from the sale prices has been distributed in advance. Where the public borrowing has not been for production the incomes paid out in respect of the loans are regarded, as we have already said, as transferred from one section of the community to another, and not to be counted again in the aggregate of income. This leaves us with the result that, except for transfer incomes, those private persons' incomes derived from claims to money which are not profits of some business are charges by a business on its receipts before reckoning its profits; that is to say, they are, like private incomes of the other types—those consisting of payments by producers or consumers for services rendered—part of the current expenditure of the period.

Thus we arrive at the conclusion that all private incomes (save only transfer incomes) are either direct payments for services currently rendered, or profits of businesses, or out-payments (expenditure) incurred in the period by businesses. Incomes, both private and business, are created by new production. The payment of some income is, indeed, a charge under contracts entered into by producers in previous years; but it has to be met, in their profit-and-loss accounts, out of their current receipts—that is to say, out of the sales proceeds of new production. It follows that the continuance of money income may be conceived as dependent on the continu-

ance of new production. And a further consequence, and the most vital of all, is that *all money incomes* (save only those consisting of social-service benefits or private allowances or interest on money lent privately or to the Government) are *directly and immediately* created by expenditure. For private incomes are created by the expenditure of consumers and businesses, and the incomes of businesses are created by the expenditure of their customers (whether other businesses or private people or the Government). Thus, the creation of money income is a circular process, dependent for its continuance on one thing and one thing only—expenditure; and fluctuations in its amount reflect directly fluctuations in the spending of the different classes of the community.

Here we must draw attention to a distinction. We are not saying that the *total* expenditure of a period on goods and services—still less the total money payments—equals the total income of the period. If all the money payments were added up the total would be greatly in excess of the aggregate of money incomes. For one thing, those payments which represent merely the exchange of money for money titles or for second-hand property—*i.e.*, property which has already been purchased once at the end of the process of production—would be included in full, though they generate little income. For another thing, there are the payments which are made over and over again in the course of production for the same materials or services. The wool which makes a coat, for example, appears in the price which the consumer pays for the coat, again in the price which the tailor pays for the cloth, again in the price which the wholesaler pays to the manufacturer, and again in the price which the manufacturer pays to the sheep-farmer. But it enters only once into income; except in the case of

the last recipient it is a cost, which each party concerned deducts from his receipts before reckoning his income, since he has, of course, to pass it on to some one else. (Note that it may be some time before the whole of the sale price has been passed on to the various recipients and has become part of their income.) All these 'repetition' payments have to be deducted from the total payments of the period before we get the amount which enters into income; and the result is that the expenditure of 'final buyers'[1] equals the income of the period (apart from the effect of the time-lag on the transformation of expenditure into income). Final buyers are the buyers who complete the process of production and distribution by purchasing consumption goods for enjoyment and instrumental goods for use in production. The two classes of expenditure which we have excluded from income may be described respectively as 'post-final' (if the expression may be allowed) and 'pre-final' buying. Expenditure on renewals and replacements, being a cost, must also be excluded from final buying. Statistically, therefore, a year's National Income can best be ascertained by a double process—on the one hand the addition of individuals' cash incomes, on the other the totalling of the final expenditure of the period on goods and services. As we have said, an exact balance must not be expected for a finite period, since some expenditure may not become income during the period, while, on the other hand, the income of the period may include some expenditure from an earlier period. Consequently, when expenditure is rising it will exceed the income of the period, and when falling it will be less than the income. In stable conditions approximate equality would be reached, since the differences at the beginning and end of the period would offset each other.

[1] Mr A. H. Abbati is the inventor of this term. See his book *The Final Buyer* (1928).

An example for Great Britain for the year 1932 is given in the appendix to this chapter.

Although the amount of the repetition payments of producers does not enter into the final total of income, it is nevertheless true that a check to them will reduce income. They are to a large extent made in anticipation of final sales, and at the same time they are the means of distributing the income out of which the final purchases are made. If, therefore, owing to a change in the conditions of borrowing or a fall in producers' expectations, producers check their production, they reduce the amount of money income they are distributing; at the same time, of course, they reduce real income by producing less. This change of mind in producers represents a major cause of fluctuations in aggregate income. But a change of mind on the part of final buyers (whether consumers or business firms) is equally effective. In that case the money which, to keep up an even flow of income, should be spent on the purchase of goods and services is hoarded or used to repay bank loans; and the result is that in so far as producers have distributed more incomes in advance than the final sales make good, the reduction falls upon their own incomes; in so far as they have not, it is distributed over the community. It thus remains true that the maintenance of the flow of (cash) income depends entirely on the flow of expenditure, and that ultimately the *final* expenditure *is* the income, since what is spent must equal what is earned.

"Expenditure equals income" has an odd ring in our ears, because we naturally incline to interpret the phrase as applying to the *disposal* of income, whereas it is used here in relation to the *formation* of income. It is, of course, by no means necessarily true that an individual's expenditure for a period is equal to his income for the same period. He may have drawn on his capital, or he may have saved

something out of the income and added it to his capital. Similarly for the community, though all final expenditure on goods and services generates income (and therefore in the aggregate is equal to income), it does not follow that the whole of, and no more than, the sums received as instalments of income becomes expenditure on new goods and services. Clearly if it did income would remain unchanged from one period to another. The community may spend less at some point in the period than it has just received as income, possibly reducing the money in existence by paying off debt, as the Government does when it devotes its income to the Sinking Fund; or it may divert more of it than usual to purchasing existing property or titles to money, in which case the money may pass from hand to hand without becoming income in any of the hands; or it may merely hold some of the money immobile, in cash-boxes or bank balances. On the other hand, it may be supplementing income by drawing fresh funds into circulation from the banks, or obtaining goods on credit, or diverting some of the funds normally passing from hand to hand in the market for money titles and durable goods to the purchase of new goods and services. One of the income-stabilizing forces in times of trade fluctuation is the tendency for private persons to spend more than their incomes in bad times and less than their incomes in good times. This to some extent offsets the tendency of Governments, public authorities, and producers to spend less than usual in bad times and more than usual in good times—a major aggravating cause of fluctuations in prosperity.

It will now be clear that, as we said at the beginning of this chapter, the amount of income does not depend primarily on the amount of money in existence, but rather on the number of times units of money change hands in return for new real values. If *A* earns a unit of

income and adds it to his money balance it counts as income only once in the period. If he starts a train of transactions involving *B*, *C*, *D*, *E*, and *F* it enters again into their incomes. Provided the total amount of money remains unchanged, an increase in one person's holding (in cash or bank balances) means a reduction in some one else's. This is not the case with incomes. *All incomes can increase simultaneously* even with the total amount of money remaining fixed, provided that there is an increase in the number of times the money passes from hand to hand in exchange for new real values. On the other hand, variations in the total amount of money, which, as we saw in Chapter II, are constantly occurring, affect incomes only through their influence on spending. More spending makes more income, even if there is no more money. More money does not make more income unless there is more spending.

APPENDIX TO CHAPTER III

I. Final Expenditure and Income

The following table,[1] in two parts, verifies statistically for Great Britain in the year 1932 the theoretical conclusion at which we arrived on p. 79 that in the aggregate the total final expenditure of a community is equal to its income.

(1) *Analysis of Outlay*

	£M.		£M.
Consumption	3493	Incomes (including trading incomes of State and Local Authorities)	3303
Taxes and workers' insurance contributions	444	Depreciation and maintenance	366
Gross investment and expenditure on transfer of property	478	Transfer incomes	551
	4415	Savings by public authorities	77
Total right-hand side	4297		4297
Difference	118		

(2) *Part of above Transactions which became Income*

	£M.		£M.
Spending (less indirect taxation incorporated in selling values)	2971	Private incomes	3253
Net investment	48	State and Local Authority incomes	50
Public services paid for by taxation[2]	357		
Outlay on services in respect of transfer of property	45		
	3421		
Total right-hand side	3303		3303
Difference	118		

[1] Colin Clark, *National Income and Outlay*, p. 157.

[2] Excluding services paid for out of State and Local Authority trading incomes.

In each part of the table the figures on the left-hand side are statistics of outlay; those on the right-hand side are in the main obtained from wage statistics and returns of income assessable to income tax. In the first table the figures of outlay on the left-hand side include some items of expenditure which we do not reckon as entering the National Income—*e.g.*, the indirect taxation which enters into the prices of consumed goods and that part of expenditure on capital goods ('investment') which is offset by depreciation. For this reason on the right-hand side of the first table there have been included, in addition to the total of incomes which makes up the National Income of £3303m., transfer incomes and the total of money put aside for depreciation by firms and public authorities.

The figures in the second table are in effect the same as those in the first table, with the omission of those that do not enter into the National Income. The right-hand side is, of course, the National Income directly measured.

In each table the totals on the two sides differ by £118m.; this figure measures the discrepancy due to time-lag, statistical error, a possible insufficient allowance on the right-hand side for tax-evasion, and the difference between income as reckoned and cash income.

II. Business Income

The following tables show the profit-and-loss account and balance-sheet of a firm, somewhat simplified:

Profit-and-loss Account for October 1, 19— *to September* 30, 19—

Dr.		£	*Cr.*	£
To upkeep of buildings, plant, etc.	20,837		Profit on trading	121,216
Auditors' fees	367		Income from investments	3,904
Directors' fees	3,000			
Amount written off for depreciation on buildings and furniture	5,000			
Amount written off for depreciation on plant, machinery, fixtures, and fittings	15,000			
Reserve for income tax	15,000			
	59,204	59,204		
Balance to Balance-sheet		65,916		
		£125,120		£125,120

Balance-sheet as at October 1, 19—

Dr.		£
Capital authorized: 700,000 Ordinary Shares of £1—£700,000		
Capital issued:		
373,763 Ordinary Shares of £1 each		373,763
General Reserve Account as per last Balance-sheet		350,138
Sundry creditors and credit balances, including reserve for income tax		59,171
Profit-and-loss Account:		
Brought forward from last account	109,200	
Less transferred to General Reserve	23,891	
	85,309	85,309
Add profit from Profit-and-loss Account	65,916	
Less interim dividend for current year, less income tax	8,552	
	57,364	57,364
		£925,745

Cr.		£
Freehold land and buildings (at cost, less amounts written off for depreciation) as per last Balance-sheet	35,783	
Less amount written off for depreciation from Profit-and-loss Account	5,000	
	30,783	30,783
Plant and machinery and utensils (at cost, less amount written off) as per last Balance-sheet	415,567	
Additions for the year	8,798	
	424,365	
Less amount written off for depreciation from Profit-and-loss Account	15,000	
	409,365	409,365
Stocks in hand, work in progress, stores, etc., at cost or under as certified by the management		238,177
Sundry debtors		51,031
Investment Account (market value at September 30, £157,039):		
Government securities at cost	98,647	
Other investments at cost	51,895	
	150,542	150,542
Cash at bank and in hand		45,847
		£925,745

It will be seen that the firm include their income from invested reserves in assessing their profits; since the investments are worth more than they cost (as is shown in the balance-sheet), no writing-down is necessary. But substantial sums are set aside for depreciation of plant and buildings (£20,000 in all), in addition to a heavy payment from current (income) receipts for their upkeep. Actual renewals of plant would not have been paid for out of current profits, but from depreciation reserve.

III. Fluctuations in the Money Income of a Modern Community

The factors governing the fluctuations in the money income of a modern community can be illustrated in outline by following the position in Great Britain [1] and the United States during the series of five years covering the decline from the peak of the boom of 1929 to the depth of the following slump (1932 in Great Britain, 1933 in the United States).

The total National Income, net of depreciation and of indirect taxation, varied as follows:

Year	Great Britain (in £m.)	United States (in $m.)
1929	3869	81,034
1930	3817	67,917
1931	3383	53,584
1932	3303	39,545
1933	3416	41,742

It will be seen that the depression of 1932–33 as measured by the proportionate fall in the National Income was very much more severe in the United States than in Great Britain.

It is of interest to see how far falls and rises in income reflect themselves in changes in the quantity of money, and how far in a changed rate of spending. The following table relates the amount of money in existence in Great Britain to the National Income as measured before deducting allowance for the depreciation of plant and buildings:

Year	Total Money [2] (in £m.)	National Income (in £m.)
1932	1226	3669
1933	1339	3788
1934	1321	4040
1935	1437	4316

While, broadly speaking, during these years an increasing quantity of money was required to support the rising National Income it will be seen that there is no automatic or arithmetical connexion between the two. In fact, between 1933 and 1934 the amount of money actually diminished a little, while incomes rose at an accelerated rate.

[1] The British figures are derived from Mr Colin Clark's work already cited.

[2] As estimated on p. 54, ignoring balances in non-clearing banks.

The following figures illustrate the connexion in the United States:

Year	Total Money (in $m.)	National Income (Net) (in $m.)
1929	26,404	81,034
1933	19,947	41,742
1934	22,946	48,397

The fall in income between 1929 and 1933 was out of all proportion to the shrinkage in the volume of money, the growing loss of confidence in the banks having brought about currency hoarding on a large scale.

The following table shows the division of the National Income of Great Britain during certain years between wages, salaries, profit and interest, and rent, income from overseas investment and also Government income being ignored:

Year	Wages (in £m.)	Salaries (in £m.)	Profit and Interest (in £m.)	Rent (in £m.)	Total (in £m.)
1911	728	288	623	203	1842
1924	1399	841	834	246	3320
1929	1486	944	821	302	3553
1932	1333	890	590	325	3138
1935	1520	937	949	339	3745

The very large increase in salaries in Great Britain in the post-War years as compared with the pre-War position is of interest. Returning to the 1929–35 period, the figures show the severity of the drop in profits during the slump and their rapid recovery: the fall and rise in wages, though less proportionately than the fluctuations in profits, were very substantial. Rent, on the other hand, increased steadily throughout the slump, but at no time rapidly; it had, however, increased much less proportionately than the other forms of income since the pre-War period.

The position in the United States presents an interesting comparison, as shown by the following table:

Year	Total Compensation of Employees[1] (in $m.)	Profit and Interest (in $m.)	Rent and Royalties (in $m.)
1929	51,487	23,721	3,424
1932	30,920	15,972	1,470
1933	29,420	14,275	1,245
1935	36,057	16,004	1,526

[1] Includes both wages and salaries and some other minor items.

It will be seen that while the fall in profits and interest between 1929 and 1932–33 was not much heavier proportionately than in Great Britain, the fall in wages and salaries (employees' compensation) was far greater. Moreover, rent, etc., far from remaining stable, fell off even more violently in the slump than profits and interest.

Separate figures are published for the United States of profits earned as distinct from distributed. They are as follows:

Year	Profits Earned (in $m.)	Difference between Profits Earned and Distributed (in $m.)
1929	26,123	+ 2,402
1932	7,155	− 8,817
1933	11,077	− 3,198
1935	15,376	− 628

A comparison of these with the income figures in the profit and interest column in the preceding table illustrates the stabilizing effect of the policy of firms in putting profits to reserve in good years and maintaining dividends in bad years by withdrawing from reserve.

CHAPTER IV

DISPOSAL OF MONEY

THE alternative ways of disposing of money are spending on the one hand and accumulating the power to spend on the other. Apart from using it to pay off previously incurred debt, there is nothing else that can be done with money.

Spending is the exchange of money for goods and services. When people have very little money they regard spending on goods and services for immediate consumption as the only alternative open to them. As they get richer they tend to spend a smaller proportion of their income and to accumulate more and more the power to spend at some future date. For money—and, at second remove, claims to money—represents claims on goods and services which may be exercised at any time, and which (unlike the goods and services themselves) keep, or seem to the owner likely to keep, indefinitely.

Even spending may have the aspect of accumulation of claims. The more durable the goods—services, of course, are never durable—the more likely it is that people buy them with the idea of parting with them later for money if it should be convenient to do so. The cases of pure accumulation in the form of goods are, it is true, the exception and not the rule. Generally people buy goods for enjoyment, even those that are durable. But they may have the idea at the back of their minds that the purchase is also an 'investment.' The sellers of durable goods—*e.g.*, houses and automobiles—certainly assume that this is so, and endeavour by their advertisements to

persuade the customer that in buying their goods he will have not only an opportunity for enjoyment, but also a store of wealth.

So soon, then, as essential needs are satisfied people begin to think of 'saving' as an attractive alternative to spending; and the more they have the more as a rule they like to 'save.' But saving is not a convenient term to cover the disposal of money by other means than spending. The idea it conveys is a negative one—that of not spending money on consumption. It therefore overlaps with spending in so far as spending is on anything other than consumption. Moreover, the term is usually related only to money income. The method of disposal of money which is truly alternative to spending is accumulating—*i.e.*, the retention of money idle or the acquisition of money claims. Whether the money was income or capital is in this connexion irrelevant. It is important, however, not to forget that capital, as well as current income receipts, can be spent, and that some of it is being spent all the time. We include in money capital the cash balances of individuals and firms; it must be remembered that these may consist partly of sums borrowed from the banks.

For private persons with small incomes the distinction between spending and saving comes to much the same thing as the distinction between spending and the accumulation of money capital, since the part of their income which is not spent on immediate enjoyment is usually held in the form of money or money claims. For larger spenders, however, and in particular business firms, spending includes much 'capital outlay,' on such things as houses in the case of the private person and factories or plant in the case of the business firm; and such expenditure, from the point of view of the community as a whole, is generally regarded as a form of saving. To

avoid confusion between the terms, we shall use 'saving' only in the sense of abstaining from consumption, and keep 'accumulation' for the disposal of money otherwise than by the purchase of goods and services.

Business firms, as well as private persons, practise accumulation. Their accumulations consist, as we saw in the last chapter, of reserves against depreciation of plant and other contingencies. A substantial proportion of the money income earned in production is put aside in this way, and not distributed in dividends to the owners of the business. We should dismiss from our minds the idea that in a modern community the bulk of our accumulation has in it any element of sacrifice. Most private persons, indeed, can save only by pinching; but half our accumulations are made by business firms, and most of the rest by the comparatively small number of well-to-do people out of their superfluity.

When the choice between accumulating and spending has been made in favour of accumulation there remains still an option between different ways of accumulating the power to spend. The saver need not, in a modern community, keep his accumulations in the form of money. He has the alternative, which he usually chooses to adopt, of investing them—that is to say, of parting with his money without spending it, by lending it to others. And he does this as a rule by buying with it a title to future money in one of the many forms of such titles which are on sale in a market open to him as a purchaser. This choice between different ways of dealing with money one does not wish to spend is of vital importance to the working of our financial and economic system. Together with the prior choice—to spend or not to spend—it will form the subject of our next three chapters.

In thinking of the disposal of money we should consider the first disposal only after it has come into the holder's

hands. After that it is indistinguishable from the other money in the hands of the next holder. It is impossible to trace the history of a single unit, any more than that of a bucketful of water after it has been thrown into a river. It has sometimes been argued that in assessing for income tax a particular sum, as it passes from hand to hand, the Government may end by getting the whole of it. But, of course, in taxing different individuals who make payments to one another the Government is not taxing a particular sum at all; it would be impossible to track one down. What the Government is taxing is incomes, and a series of payments consequent on the expenditure of one sum of money can create an addition to any number of incomes, and the larger the number of incomes it affects the greater is the taxable income, as well as the tax.

Each act of disposal of money causes it to become part of a particular flow, and the answer to the question whether it is desirable at the moment to increase that flow determines the social usefulness of the disposal. We may list the various flows as follows:

(*a*) The flow into the purchase of new goods and services.
(*b*) The flow into the purchase of property and second-hand goods.
(*c*) The flow into the Exchequer in Great Britain and the State and Federal Treasuries in the United States.
(*d*) The flow into the purchase of money titles, new or old.
(*e*) The flow out of the system altogether (by repayment of loans to banks).

As an alternative to all these there is the absence of flow—or we might call it a flow into a reservoir—that mere

retention of the immediate power to spend, which consists in keeping money (whether currency or bank balances) immobile.

In our chapter on income we gave some account of the formation of income, from which it appeared that income was produced by spending on new goods and services, except for those incomes which were merely transferred from the true income-receivers to a beneficiary independently of new production. We must now consider, in the order shown above, the various ways of disposing of money from the point of view of whether they produce income or not. This is very nearly the same thing as considering whether they remunerate economic activity or not; nearly, but not quite, because of the transfer incomes. If we find that they do not directly remunerate economic activity we must consider how and to what extent they may stimulate it.

To begin with the first of our 'flows'—spending on new goods and services. It constitutes the remuneration, and therefore the income, of every one concerned in the production of the goods and services. We have spoken of 'new' goods, and by new we mean goods of which the process of production is completed by the purchase. In the 'process of production' we include distribution by wholesalers and retailers, who derive an income from their services. The goods may be purchased either by consumers for enjoyment or by producers for use as 'fixed capital' in making other goods. The whole of this spending on new goods and services has been well called 'final buying.'[1] It does not include the intermediate purchases of material and labour which traders make from their cash balances, and which are necessary for the manufacture of their product for sale. Such purchases we have called 'pre-final' buying, and the

[1] See above, p. 78.

goods bought are 'working capital,' as distinct from 'fixed capital.' The income which is distributed in respect of them is in anticipation of the payments made by final buyers. We exclude also, of course, from the purchase of new goods and services all those transactions constituting the flow which we have numbered (*b*) above—*i.e.*, the purchases of goods whose production and initial distribution have previously been completed; these we have called 'post-final' buying, and the distinction between this and final buying is roughly that between the second-hand and first-hand markets.

Final buying is the motive force of industry. This is true of any economy based on profit, not, of course, of an economy in which the motive force of production may be obedience to the orders of the State—that is to say, it is true of a capitalist as distinct from a communist society. It follows that in a capitalist society production is undertaken only if producers expect a sufficiency of final buying. There is no need to distinguish here between buying of consumption goods and buying of capital goods (what is sometimes called 'investment' by economists, though it is quite distinct from the purchase of money titles which is usually meant by that word). So long as sufficient purchasers are expected for any class of goods or for classes of goods mixed in any proportion those goods will be made. The proportion in which consumption goods and capital goods are mixed makes all the difference to the standard of living of the population; it determines whether most of their resources are devoted to present enjoyment or to building up increased resources for the future. But it does *not* affect the total of production and employment, except in so far as an attempt to change the proportion may encounter difficulty in the way of moving labour from one occupation to another, and so lead to a temporary stoppage at some point. So long as

there is full demand—or perhaps we should say if there were ever full demand—there is full employment on production. In so far as demand fails in one direction and is not compensated by demand in another direction production falls off. The problem of the management of money is, therefore, so to direct its various flows that a sufficient amount of it flows into spending on new goods and services to keep production at the level which is best in the national interest. And since a large part of spending—namely, the 'pre-final' spending of producers, on stocks and raw material and working capital generally —depends on anticipation of further spending, this is done to a great extent by keeping up anticipation, as well as by directly undertaking or stimulating 'final' spending. Some of the final buying also depends on anticipation—namely, that of the producers buying capital goods for use in industry, who fix their requirements in accordance with their expectation of the demand for their product—*i.e.*, in the last analysis, the demand for consumption goods to which their product directly or indirectly ministers. It is in this sense that, as Mr Keynes has put it, "all production is for the purpose of ultimately satisfying a consumer."[1]

Let us turn now to the other possible ways of disposing of money, beginning with (*b*) above—the purchase of existing durable goods, the production of which has already been paid for once by a final buyer. This we have called 'post-final' buying. If the flow into this channel is regular, and if the prices remain stable, there is no reason to think that the exchange of ownership of the goods has any effect on production. It creates no income beyond that of the persons rendering services as

[1] *The General Theory of Employment, Interest, and Money*, p. 46. *Cf.* Adam Smith in another connexion: "Consumption is the sole end and purpose of all production" (*Wealth of Nations*, Book IV).

buyers and sellers. This is very small in proportion to the size of the transactions, as we see if we consider the proportion of the payments for land and houses which becomes income of agents and lawyers, and the proportion of the payments for second-hand furniture which becomes income for the dealer. The main bulk of these payments neither constitutes income nor stimulates activity. When it is suggested that an individual 'wastes' money on a diamond necklace which would have kept a poor family for years it should be remembered that he is only exchanging wealth in one form for wealth in another, and that the same is true of the person who sold him the necklace. They have changed positions, that is all, the person who had the necklace now having the money, and being presumably just as likely as the other to keep a poor family with it. Neither of them, unless he is a dealer, has made any income out of the transaction. If, however, the flow of spending towards a particular type of second-hand commodity increases so that a higher price is offered for it, and if the production of such commodities can be increased, activity in producing supplies of it will be stimulated. Conversely, if the demand for that particular type of durable commodity falls off the production of it is discouraged. The state of the second-hand market affects the first-hand market. An example is the great increase in the profits, and therefore the activity, of the gold-mining industry as a result of the recent increase in the value of gold in terms of the principal currencies of the world. Thus these post-final purchases, though not directly remunerating economic activity, do stimulate it at one remove. The effect on prices and production of changes in their flow must always be borne in mind. They have the further importance that a proportion of the available stock of money necessarily circulates in this channel; if it is a growing amount this may reduce the

amount available for the purchase of new goods and services, and if it is a diminishing amount the opposite result would follow.

Payments to the Government or local authorities (our (*c*) above) may follow several courses. They may represent the purchase of services, either direct, like those of the dustman, or indirect, like those of the Whitehall official who devises regulations resulting in the services of dustmen being available. In this case they remunerate activity and create income. Or they may be transferred to debt-holders, Old Age Pensioners, etc., in which case they remunerate no activity, but create income of the 'unearned' kind. Or they may be used to pay off debt, in which case they create no income at all.

The next item (*d*) on our list is the flow into the purchase of money titles. The transfer of such titles (whether they are fixed-interest securities or shares in enterprise carrying a variable dividend) from seller to purchaser corresponds closely to the post-final purchase and sale of durable goods. The only activity it remunerates is that of the persons who facilitate the transfer—for example, stock-brokers and jobbers and their clerks—so that it does not in itself create much income proportionately to the amount of money changing hands, though the aggregate income earned in the trades and professions concerned may be large, as it is in the City of London, and the Government may get a considerable revenue from the taxes it imposes on the transactions. There is, however, a continuous flow through this channel, and if it increases and prices of securities rise the offer of *new* money titles is stimulated. Now the new offers generally, though not always, involve some economic activity. It all depends on what those who offer them—in other words, the borrowers—intend to do with the money. If they are merely going to use it for repaying a debt

incurred at a higher rate of interest, as often happens, production is not, of course, affected. In so far as they spend it on fixed capital for use in production, as again often happens, activity is promoted. This is, however, no part of the original holders' disposal of the money. What *they* have bought is not labour or goods, but merely a title to interest or profits, as the case may be.

Net repayment of loans to banks (our (*e*) above) not only does not create income, but actually cancels some of the money in existence, and, assuming that the money which remains will continue to circulate only at the same rate as before, it has a depressing effect on the creation of income. *Ceteris paribus*, the less money there is the less will be effectively spent.

Finally, there is mere accumulation of money in the form of money, which clearly in itself adds nothing to activity or to income. Its effect is necessarily negative. To take the simplest case, it is easy to see that no activity and no income result from a mere addition to a hoard of currency. On the contrary it cuts down activity and income if it involves abstaining from a purchase which the holder would normally make. The hoarding which takes the form of retaining immobile bank balances in current accounts is not so easy to classify, since the depositor is not at all events in physical possession of the money, and assumes that his bank is doing something 'with' it. As we have seen in Chapter II, however, the disposal of money by banks does not depend on their depositors' rate of expenditure from their current accounts.

To sum up, activity and employment are directly and immediately proportional to spending on *labour* (assuming for the moment that wages are relatively steady, as, indeed, they are apt to be); and spending on labour alone creates new values. Spending on *new* goods stimulates activity—*i.e.*, spending on labour—at one

remove, the effect often following very closely. Other methods of disposing of money may stimulate spending and activity indirectly or they may not. Hoarding, whether of currency or of bank balances, is certain to depress activity.

We have arrived from the disposal side at the same conclusion which we reached when we were considering the formation of income—namely, that variations in the National Income as between one period and another are caused by changes in the rate of spending of money on new goods and services. For our present purpose there is no need to distinguish between income, money capital, and money loans. Whatever the source of the funds, if they are disposed of in one way they will generate income, if in another they will not. Moreover, the more quickly they circulate against new goods and services the more income they will generate. Further, since, as we saw, production in societies of our type is undertaken only in the expectation that there will be a sufficiency of spending to remunerate it, if money is disposed of in one way it will encourage production, if in another it will discourage it. And the longer the holders keep it in their possession before parting with it the less income it creates and the less production it stimulates. Finally, the larger the total stock of money—and the stock is always varying—the more income is likely to be created.

What we have just said relates to *money* income. *Real* income, as we know, keeps pace with money income provided that prices remain steady. But it may happen (and, indeed, it has happened) that money income continues to increase after real income has come to a standstill. Production has been stimulated until there is no more spare plant or labour available; unless, therefore, the exploitation of new inventions is reducing the need

for plant or labour,[1] all further additional spending goes into raising prices. In such a situation there is overspending. Though it has generally come about by a process—for example, war expenditure—which has involved a large increase in the quantity of money, it is not primarily the quantity of money which needs correction, but the disposal of it. Some means has to be found —for example, taxation for the repayment of Government debt—which will restrict the expenditure of individuals. Otherwise there is a danger of an unmanageable boom, in which, as we have seen, people may lose confidence in the currency altogether.

Since the flow of spending on goods and services at any time may be greater or less than the flow of money which has previously come into people's hands as income, it is worth while to look at some possible courses which the relation of income received, expenditure, and income created may take.

(*a*) All the money received as income, and no more, may go back at the normal rate into the purchase of new goods and services. The result of this would be that production and income would remain steady at whatever point had been reached—*not* necessarily the point of full employment.

(*b*) Less than the whole of money income may go back into the purchase of new goods and services, the remainder being hoarded, paid back to the banks, or diverted into other channels—for example, the second-hand market. In this case producers find that their stocks of finished goods are not sold at the expected

[1] The new inventions may either save labour by the use of more fixed capital (what some economists call more 'roundabout' methods of production) or merely cause old plant to be scrapped and new (because more economical) plant to be installed. An example of the labour-saving invention is an automatic telephone exchange, which saves operators; an example of a capital-saving invention is radio-telephony, which saves cables.

rate, and they restrict their production, thus lowering incomes.

(*c*) Less than the whole of money income may go back into the purchase of new goods and services, but the deficiency may be made up by spending from capital or loans, one set of people spending less than their income and another set spending from loans or capital. In this case income and production would remain steady, though production might alter in character. Expenditure from income is normally on goods and services for consumption, whereas expenditure from loans (except those to consumers—*e.g.*, traders' credits to customers) is more likely to be on capital (instrumental) goods.

(*d*) More than the whole of money income may go into the purchase of goods and services, the difference being made up by expenditure from loans and/or capital. In this case production expands, and when it has done so to the full extent possible in particular industries, if not before, prices must rise.[1]

We have discussed the results of variations in the rate of spending. It remains to consider how these come to occur. The two main divisions of spending on goods and services are spending for enjoyment ('consumption') and spending for use in production—*i.e.*, ultimately with a view to profit. We may ignore here spending on goods for speculation, since, as we shall see in Chapter VI, most speculation in a modern community is not in goods, but in money titles. Speculation exists in the goods dealt with in the specialized commodity markets—wheat, cotton, metals, rubber—and also in land; but this is of economic rather than of monetary importance. It is in any case pre-final and post-final rather than final buying.

Spending for enjoyment is done by all, spending for use in production only by producers. The causes which may

[1] See Chapter IX, pp. 237–238.

lead to an upward or downward change in consumption expenditure (apart from changes in the amount of income, which itself is dependent on spending) are:

(i) Windfall changes in the value of money titles. The knowledge that the capital value of money assets has gone up makes people much more ready to spend their income, though this may be counterbalanced by the withdrawal of money from the industrial to the financial circulation which is actually causing the rise in values. The effect largely depends on whether the monetary authorities are increasing the quantity of money sufficiently to cover both requirements. If they are, consumption expenditure will inevitably increase.

(ii) Changes in the distribution of income, due to fiscal expedients. The rich may have had more than they wish to spend, but, transferred to the poor, the money is at once used for the purchase of new goods and services.

(iii) Thrift campaigns, on the one hand, and, on the other, some national change of mood in the direction of free spending (as yearly at Christmas, for example, or as in 1933 in Great Britain by comparison with 1932).

(iv) Changes in the financial policy of producers in regard to the proportion of their current profits which they put to reserve, and so withdraw from the stream of spending on goods and services, instead of distributing them to the owners of the business, who would have spent a good deal of them on consumption.

The causes of an increase or decrease in the spending on goods for use in production are more complex. In the first place such spending is affected by the actual changes in the demand for consumers' goods and by the producers' anticipations of future changes in that demand; the anticipations may be partly consequent on the actual changes or may be entirely independent—as, for example, those arising from an expected increase in the population.

If the demand for the final product is falling off, or if the producer thinks it is going to fall off, it is not very likely that he will extend his business. Nor will he wish to build up his 'working capital'—*i.e.*, his stocks of finished goods and goods in process. There is, however, the possibility, telling in the opposite direction, that he may endeavour in such circumstances to reduce the cost of his product, in order to lower its price and increase its sale, and that one of the most hopeful methods of doing this may be to add to his capital equipment in order to employ a labour-saving or otherwise more economical process. But this tendency is limited by the fact that many such processes are economical only on a large scale, so that producers hesitate to embark on them, and financiers hesitate to finance them, when demand for the product is falling.

The next factor which interests the producer is the current rate of interest. He will not make a permanent addition to his capital equipment unless he believes that the new plant will ultimately bring him in an increase in profit in excess of what he has to pay, or could earn, as long-term interest on the purchase price. The short-term rate of interest, at which he can borrow from the banks, also enters into his calculations as affecting the cost of carrying stocks (which are often so financed), but only to a minor extent in most cases, since a producer's stocks must be mainly governed by the volume of business done and anticipated. Interest, it must be remembered, is a cost to the producer—the cost of using money—just like the cost of labour or anything else he uses. It must not be supposed, however, that money for expenditure on capital goods can always be obtained at this cost. While labour and raw material are normally always obtainable at the market price, producers may, and frequently do, find themselves unable to borrow money on any terms

for schemes which they judge profitable and would like to undertake. This applies to both long-term and short-term borrowing.

Next, the durability of capital goods is an important factor influencing their sale. It means that at a pinch they can be made to last a little longer if necessary. If consumption falls off, or if confidence is shaken by commercial or banking failures, the rate of replacement of capital goods may slow down or almost cease, even though consumption expenditure still remains at a level not much below normal. This does not, however, go on without limit. As the old equipment wears out there comes a point at which, notwithstanding general slackness of business, it seems likely to pay to put in fresh, and spending starts again.

Finally, there is the possibility that by deliberate policy on the part of the Government and public authorities expenditure on fixed capital for public use may be slowed down or accelerated.

It must be noted that expenditure on consumption does not tend to depress expenditure on goods for use in production, nor *vice versa*. The mistaken idea that an increase in the community's consumption expenditure is an alternative to an increase in its investment expenditure seems to have been derived, like many other erroneous notions about economics, from a false analogy with the case of the individual. Each, in fact, tends to stimulate the other, though in a different way. A highly developed industrial community generally has a much larger capacity for producing fixed capital goods than can be occupied merely by the repair and replacement of existing plant. Particularly is this the case if it has undergone the experience of a large-scale war, which necessarily intensifies the development of this kind of capacity. Consequently the 'heavy' industries—steel, for

example—are apt to expand and contract, not in proportion to the total expenditure on consumption, but in proportion to its rate of increase or decrease, which causes producers to raise or lower the rate at which they add to their capital equipment. Now the fluctuations in the rate of increase or decrease in consumption are, of course, much larger than the fluctuations in the *total* amount of consumption expenditure. We may have consumed very little more this year than last year or the year before, and yet the difference in consumption between this year and last year may be twice as great as the difference between last year and the year before. Since it is this difference which is a main factor in influencing expenditure on new capital equipment, there may be in the absence of other influences nearly twice as much employment in the industries supplying such equipment this year as there was last year. Hence the industries making instrumental goods are relatively very unstable as compared with those manufacturing for consumption.

The effect of an increase in capital outlay on consumption expenditure is much more simple. Assuming that it is paid for from sources other than income—*i.e.*, that it is an *addition* to total expenditure—it necessarily increases income, and a large part of the additional income is naturally spent on consumption. The increase in consumption reacts further on capital outlay, and there is a 'snowball' effect to the extent that the enlarged incomes are spent on home-produced goods. It is for this reason that additional expenditure on capital outlay may have an influence on employment far in excess of the wage payments represented by its money value.

It is the balance of all these factors tending to induce some kind of expenditure which determines whether on the whole at any time industry is on the upward or the downward swing. Modern industry has so far always

been on the one or the other, the movements approximating to a regular rhythm or cycle. A clearer understanding of the forces at work may possibly enable the monetary authorities of the future to apply a counterpoise at the right moment. It is, broadly speaking, always true that a boom is stopped and a slump begun owing to some failure in spending, and that a slump is stopped and a boom begun by some stimulus to spending; but this does not, of course, mean that the facts in any one case are not infinitely complicated. The United States boom in 1929 was probably broken partly because wages had not risen sufficiently with prosperity to enable the purchasers of consumption goods to spend enough to produce profits on a scale to satisfy the producers; partly because a large part of the incomes of all classes, including wage-earners, had been drawn off into the financial circulation as a result of the speculative boom, and there was not enough left in the industrial circulation to provide remuneration up to producers' expectations; partly, perhaps, because of excessive saving by business firms.[1] In any case, it was an insufficient total expenditure on new goods and services which disappointed the expectations both of producers and of the people who were speculating in titles to profits. If the monetary authorities had been willing to increase the quantity of money to an extent sufficient to satisfy the requirements both of trade transactions and transactions in stocks, industry might have continued to function; they were, however, anxious to decrease it in order to check speculation. As things were, not only did the money value of the titles to profits fall heavily, which itself depressed spending by making people feel less rich, but producers cut down employment, which depressed spending still further.

[1] See Chapter V, p. 128.

In Great Britain in the years before 1931 the main difficulty was chronic underspending due to the maintenance of a high rate of interest designed to protect the gold standard;[1] this kept production depressed because producers could not see ahead of them a profit large enough in relation to the rate of interest to induce them to expand their enterprises. In 1931 a shock to confidence due to banking failures abroad and a drain on the Bank of England's gold reserve intensified the situation, and when one obstacle to expansion was removed by the departure from the gold standard, a thrift campaign, accompanied by a suspension of spending on fixed capital goods by public authorities, supervened. On the other hand, advantage was taken of the low point of the slump to convert the 5 per cent. War Loan, and so to accustom the investing public to a lower rate of interest than they had known since before the War. This stimulated producers' enterprise, particularly in housebuilding, so that spending once more increased. In 1936 a powerful additional flow of spending arose from the Government's decision to rearm.

The question of how far deliberate additional expenditure by the Government of a country in time of slump might serve to induce recovery is one which has been discussed as a matter of theory by publicists and economists for many years past, and the great slump of 1930–33 offered extensive opportunities for testing the theory in practice. The two arguments that had been most strongly advanced against it were, first, that the Government could not increase expenditure without absorbing funds required for the surviving private enterprise, and, secondly, that it would not be practicable by this means to initiate a sufficient volume of work to absorb an appreciable proportion of the unemployed. The weakness of the first argument is that it suggests that there is a

[1] See Chapter X, p. 270.

fixed limit to the supply of money for enterprise, which, as we have seen, is not the case, while the second ignores first the effect which any additional spending, particularly if it distributes income to the poorer classes, has in giving rise to more spending, and secondly the effect which any fillip to producers' expectations has in stimulating private enterprise. The objections have, in fact, the defect of proving too much, since they would apply equally to new enterprise undertaken by private producers. In the event, the pressure of economic necessity caused the arguments against the 'public works policy' to be ignored by Governments in dire need of some means of restoring activity, and the results fully justified the experiment. Though in Great Britain it was found possible to induce recovery by a policy of keeping down interest rates and so stimulating private enterprise, the alternative of deliberate Government expenditure on public works was tried, with acknowledged success, in Italy, Germany, Belgium, Sweden, and the United States. And in 1936, when recovery in Great Britain was well advanced, it was noticeable that commentators on the monetary position were looking round for objects of Government expenditure to take the place of private expenditure on housing and State expenditure on armaments when these should fall off. The doctrine that the maintenance of spending is essential to prosperity, and that in certain circumstances expenditure by the Government can be increased without lessening expenditure by other sections of the community, had, it seemed, been generally accepted. If the recommendations of the Cunliffe Committee, published in 1919 —"Increased production, cessation of Government borrowings, and decreased expenditure both by the Government and by each individual member of the nation are the first essentials to recovery"—had been published in

1936 there would have been more likelihood of the recognition, not only by the expert, but by the layman, of the complete incompatibility of the first item in the prescription with the other two. It does not, of course, follow that the direct stimulation of private enterprise, if it is practicable, may not remain the more desirable course.

It is necessary here to point out that deliberate Government expenditure for the purpose of inducing recovery defeats itself if it is not accompanied by the appropriate monetary measures. It is obvious, of course, that it is of no use to finance Government works by taxation on expenditure—for example, by excise duties—as that would merely reduce private spending. To some extent idle funds left unused by private holders can be brought into use by direct taxation or by loans from the public. But it is probable that any successful campaign of the kind will also involve an addition to the quantity of money. If a community is to spend *much* more it must have more to spend; it cannot go on indefinitely spending its existing money faster and faster. The increase in the quantity of money itself has sometimes been held to be the prime factor in recovery. The *Monetary Review* of the League of Nations Economic Intelligence Service for 1936 pointed out that so far as nations had emerged from the slump (otherwise than by currency depreciation) they had done so by an expansionist internal monetary policy, the machinery being either an increase in bank credit or Government finance on a loan basis. This account of the matter does not lay sufficient stress on the steps necessary to get increased money into circulation. There must be *acts of spending*, either by private enterprise or by public authority; and the crucial point with regard to the quantity of money is that it must not be so limited as to constitute a check on the process of increased spending. Fears of rising costs (as in France in

1937) or of the effect on foreign exchanges (as in Great Britain in 1929–30) have sometimes operated to keep the rate of interest high and to prevent a policy of deliberate Government expenditure from being successful in relieving depression. For, as we have seen, the initial effect of such expenditure is less important than the consequential effect it should have in stimulating private borrowing and spending.

Direct Government expenditure is not, of course, the only means open to the authorities—nor, generally speaking, even the most satisfactory means—of keeping up the level of spending to the desired point. A Government which succeeded in creating a conviction in the minds of producers that it *would* step in to fill any gap would probably never have to do so, since the producers would in that case feel confident enough to embark on increased expenditure themselves. An unusual abundance of new inventions is also an occasion, though unfortunately one which cannot be deliberately created, for fresh capital expenditure.

Consumption expenditure, on the other hand, has been stimulated by a reversal of thrift propaganda and the encouragement of spending by, for example, enlarged pension schemes. The development of the instalment credit system is another means of increasing consumers' expenditure at the existing level of incomes. And here again new inventions may be effective as directly stimulating consumers' expenditure (and through it capital expenditure) by offering consumers something they did not previously know they wanted. (Radio broadcasting and the cinema are examples.) It may be pointed out here that the gradual economy of labour which is effected by what are known as technological improvements means broadly that labour is set free from the work of making the necessities of life and made available for making

luxuries. Unless the public as a whole is prepared to extend its expenditure on luxuries as industrialization proceeds there must be a danger of failing to employ the working population.

It is tempting to carry the argument further, and to ask whether the *direct* transfer of money—*i.e.*, transfer without transactions—to those who will spend it on new goods and services may not be at times advisable in the national interest; whether, that is to say, a Government would be justified in a time of slump in giving money away to sections of the public. It may be replied that this is already done. The payment of Old Age Pensions, Widows' Pensions, and public relief in Great Britain undoubtedly prevented consumption expenditure in the last slump from falling so low as it would otherwise have done, and it would be fairly generally agreed that the absence of such provisions in the United States was one of the features which accounted for the extreme severity of the slump in that country. This effect of 'social-service' grants holds good even in so far as they are paid for by taxation, since the transferred income comes into the hands of persons more likely to spend it all on new goods and services than the previous holders. In so far as it is financed by borrowing the effect is still more valuable. The view commonly held in Great Britain in 1931, when the public was appalled by the knowledge that extra-insurance benefits to the unemployed were being met by borrowing, is now regarded by economists as exactly the reverse of the correct one. How far a system of correcting under-expenditure by free grants of new money to those who will spend it can safely be carried is in part a social and political question with which we are not concerned here. From the economic point of view the limitations are, first, that it must not impair public confidence (which depends on the degree of public

enlightenment, as well as on the scale and nature of the particular measures adopted), and, secondly, that it must be carefully adjusted so as to cease at the moment when full employment is reached. One of the most direct remedies which could be applied to a condition of unemployment (though it might not in all circumstances be a sufficient remedy) would be to provide all maintenance benefits to the unemployed from sources other than income, in order that by spending this new money they might themselves provide the additional demand required to draw them back into employment. This method would be self-controlling, since as employment increased the payments would naturally be reduced until they ceased altogether. Its usefulness would, however, depend on the previous education of the public mind on the effects of spending otherwise than out of income. Without such preparation, as we have implied above, it might lead through the resulting Budget deficit to a crisis of confidence and do more harm than good. Recovery schemes in France have been greatly handicapped by the lack of confidence in the franc produced by the repeated failures to balance the Budget.

In the opposite condition of affairs, the unhealthy boom, the first requisite is a check on spending, and to a large extent the corresponding remedies apply. Governments can economize, subject to their political commitments, and can cause local authorities to put the brake on expenditure. Social services can hardly be cut (which is one of the arguments against increasing them as a remedy for a slump); but there is at hand an easy and unfailing remedy for excessive private expenditure—the remedy of increased taxation not accompanied by increased Government spending. It is probable that by a skilful and courageous direction of communal spending the worst extremes of both slumps and booms could be avoided.

APPENDIX TO CHAPTER IV

THE following tables illustrate the volume of some of the 'flows' which we have referred to on p. 91.

I. FLOW INTO THE PURCHASE OF NEW GOODS AND SERVICES

Mr A. E. Feavearyear has prepared[1] an analysis of the British aggregate consumers' expenditure for the years 1924–1927 and 1932, from which we extract the following figures:

	1924–27) (AVERAGE (IN £M.)	1932 (IN £M.)
Food	1239	1107
Maintenance of the home	513	580
Clothes	452	314
Liquor	308	232
Smoking	116	143
Travel	215	261
Entertainments	85	82
Sickness	65	65
Religion	42	33
Reading	44	47
Furniture	22	25
Miscellaneous	150	150
Totals	3251	3039

Mr Colin Clark[2] gives the following estimate of capital outlay for 1924 and 1932, including houses, roads, electricity, transport, and Post Office, industrial, and commercial capital. With Mr Feavearyear's figures this represents the outlay on new goods and services. It must be remembered that Mr Feavearyear's figures are subject to considerable deduction in respect of indirect taxation included in the selling price, and that expenditure on renewals and replacements must be deducted from Mr Clark's in order to arrive at the expenditure which constitutes income. (See above, pp. 63 *et seq.* and 78.)

[1] *Economic Journal*, March 1934.
[2] *National Income and Outlay*, pp. 86, 185, and 193.

Capital Outlay

	1924 (IN £M.)	1932 (IN £M.)
Houses	80	80
Roads	18	21
Electricity	13	23
Other municipal outlay	33	39
Post Office	10	7
Industrial and commercial	422	356
Totals	576	526

It is interesting to note how much greater the percentage drop in expenditure on industrial capital was than the drop in expenditure on consumption as between the relatively prosperous year (1924) and the depressed year (1932). Non-industrial capital expenditure was a stabilizing factor. Mr Clark estimates that after allowing for renewals and replacements there was actually a fall in the value of industrial and commercial fixed capital in 1932—*i.e.*, that not enough was spent to make good depreciation.

The following figures for the United States illustrate the same point. They indicate broadly the movement of 'investment' and consumption expenditure respectively, taking the period 1923–25 as the standard. The 1923–25 *average* = 100.

YEAR	CONSTRUCTION CONTRACTS	DEPARTMENT STORE SALES
1929	117	111
1930	92	102
1931	63	92
1932	28	69

II. FLOW INTO THE EXCHEQUER

The amount of money paid over to the British Government as taxation direct and indirect during the years 1929–35 was:

YEAR	DIRECT TAXATION (IN £M.)	INDIRECT TAXATION (IN £M.)	TOTAL (IN £M.)
1929–30	389	287	676
1930–31	422	282	704
1931–32	445	288	733
1932–33	404	323	727
1933–34	382	326	708
1934–35	377	332	709
1935–36	392	346	738

It will be observed that this particular flow did not decrease in Great Britain in the slump years.

Some taxation figures for the United States[1] are:

Year	Federal (in $m.)	State (in $m.)
1929	3328	1612
1932	1789	1642
1934	2892	1732
1935	3714	—

III. Flow into the Purchase of New[2] Money Titles

The new money titles representing investment in home industry in Great Britain and the United States respectively in 1929–35 (excluding those for the conversion of existing titles—see pp. 96-97) amounted to:

Year	Great Britain (in £m.)	United States (in $m.)
1929	134·7	8002
1930	92·9	4483
1931	32·9	1551
1932	77·5	325
1933	70·2	161
1934	91·0	178
1935	141·1	404

Note the enormous decline in the flow of United States funds into enterprise between the height of the boom (1929) and the bottom of the slump (1933). The fall in Great Britain was serious, but not nearly so great, industrial expectations not having risen so high nor received so severe a shock.

[1] Cited from *The Recovery Problem in the United States* (The Brookings Institution).

[2] This, of course, represents only a part of flow (*d*) mentioned on p. 91.

CHAPTER V

ACCUMULATION OF MONEY CAPITAL

We dealt briefly in the last chapter with the effect on activity and income of the accumulation by individuals of money as money and of the purchase of money titles. Our emphasis there was, however, mainly on spending on goods and services. In this chapter we propose to justify and add to what we said on the subject of accumulation by examining more closely the different methods of disposing of money which involve, for the individual, accumulating money capital. We shall examine critically the theory—still widely accepted in spite of recent economic writing—that the accumulation of money capital by individual firms and persons is somehow related (as cause to effect) to the accumulation of real capital by the community—in other words, that it is saving which makes the community rich.

Saving is the name given to the decision not to spend income on the purchase of services or goods for immediate consumption. This is the decision which for the individual results in accumulation. But when we come to look closely at the connexion between saving and the accumulation of money capital we find that it has a certain vagueness. For every one who does not spend his money on goods and services as soon as it comes into his hands has some accumulated money—*i.e.*, money capital. Money capital, in fact, includes all the cash, as well as all the money titles, held by anyone. Now, the private person who makes additions to his cash balance in a period merely by spending less than his income may regard

himself as having 'saved' in that period. But both private persons and firms may do the same thing for a time for reasons of convenience without the idea of 'saving' in their minds. They may, that is to say, prefer to hold a larger balance in hand because they are engaging in larger or more numerous transactions. Yet the effect so far as the circulation of the whole stock of money is concerned must be exactly the same. There is no real distinction between one sort of addition to balances and another—only a notional distinction. Claims on labour or commodities which might—and under the ordinary practice of the firms or individuals would—have been used forthwith are instead stored up for a longer time. The owner has not, generally speaking, the intention of never spending his money at all: he merely intends to spend it later on instead of now. Time, it appears, is somehow a vital aspect of the matter. Saving in this sense is not a single, definite act like spending. It means simply holding money longer, and cannot be understood or measured except in relation to a period. At the end of a particular year *A* and *B* may each have a cash balance larger by £50 than they had at the beginning of the year, but *A* has had the £50 idle since February, whereas *B* has had it idle only since November. *A* and *B* may be said each to have saved £50 in the year, but when the saving is looked at from the point of view of its effect it is clear that *A* has done more saving than *B*. The economic effect of saving a particular sum in a particular period varies with the time for which it is saved within the period.

We see, then, that saving in the sense of holding on to ready money—'hoarding' is the short name—is merely a means of slowing down the circulation of money. More of the money stock being idle, the whole of it goes round, other things being equal, on the average more slowly—*i.e.*, changes hands fewer times per unit.

What of the accumulation side of the matter? The individuals who have increased their balances have stored up money claims. Has the community done so, to the extent represented by the total of these individuals' hoards? Not at all. The claims are represented by money balances, and the acts of the 'saving' individuals have not increased the amount of money in existence. Unless the quantity of money has been increased by some other cause the total of all the balances of the community must therefore be the same as before. If those of the savers are larger those of others must be smaller. And this is easy enough to understand when we reflect that the non-spending of the money has meant a falling-off of incomes, and if people's incomes fall off they are very likely to draw upon their money capital.

To say that the total *balances* remain the same is not the same thing as to say that the total of *spending* remains the same. It does not follow that because when one set of balances goes down another goes up, therefore it is also true that when one set of people spends less another set must spend more. The second set may have spent from their balances in order to keep their expenditure at its normal level. This distinction must be very carefully kept in mind. Accumulating money in the form of money reduces spending, and therefore income, without affecting the total of balances. It transfers balances to the hoarder from those who lose by his not having spent his income. In the appendix to this chapter we give a very simple illustration (much more simple than the reality) of how this may work in a particular period. Income, as we have seen, is created by money as it changes hands. Though money may pass from hand to hand without creating income, income cannot be created otherwise than by the passing of money from hand to hand. If in the course of a period some people hold

money for longer than usual—*i.e.*, for longer than *their* normal time—and no one else is compensating by spending money more quickly than usual, then the number of times money changes hands and enters into income is reduced, and though all the community together has as much money as before, income falls.

If the community has not added by hoarding to its money claims, still less has it added to its real wealth. We mean literally 'still less,' because the addition is actually negative. Less has been produced through the slowing down of spending.

If this were all that saving amounted to—if there were no other way of holding stored-up claims than to keep them idle—all saving would have the effect of a mere depression of activity, and accumulation would clearly be a misnomer so far as the community is concerned. Actually, however, hoarding is not the most attractive way of saving to private persons, nor is holding idle balances as a rule attractive to traders and financiers. There are more profitable alternatives. Modern society has invented various ways in which the owner of money capital can continue to own it (with more or less risk of its varying in value) and at the same time make more money out of it. The forms in which the claims may be held vary according to the readiness with which they can be realized in cash. Their realizability may arise either through their being readily marketable (though they can, of course, be marketable only at some risk of loss) or through repayment at full value being due under the terms of a contract (though this may be only after a long term of years). If we examine them broadly in the order of their 'liquidity' [1] (the case with which they can be turned into cash *at full value*) we find that they vary also

[1] Liquidity is a complex as well as a very important conception, and it must not be supposed that a single order can be arrived at in accordance with both its components of marketability and stability of value.

according to another characteristic—namely, the extent to which the owner, by virtue of holding the claim, becomes entitled to a yearly income.

(*a*) Legal-tender notes and coin. These are immediately exchangeable for goods and services. Holdings of them carry no claim to income.

(*b*) Bank balances which can be drawn upon by cheque. These are rather less readily realizable, because some creditors may hesitate to accept a cheque in settlement of a debt. They sometimes, but not usually, carry a claim to a small income.

(*c*) Bank balances which are held on time deposit—*i.e.*, have to be turned into current account balances before they can be used for payment. These carry a claim to a small variable income.

(*d*) Savings Bank balances which are turned into cash before being used. These carry a fixed yearly income.

(*e*) Savings Certificates, which are cashable on demand, and carry a small cumulative addition to capital.

(*f*) Mortgages, which bring in a substantial yearly income, but are not easily turned into cash before the date of repayment.

(*g*) Government stocks (bonds) with a redemption date. These are realizable at their full nominal value at the fixed redemption date, but before that date are realizable only with a risk of loss (and, of course, a chance of gain). They carry a yearly claim to income normally larger than any of those so far mentioned except (*f*).

(*h*) Government stocks without a redemption date, realizable only for what they will fetch at the time of sale, and carrying a claim to a fixed yearly income for ever.

(*i*) Industrial bonds, realizable for what they will fetch, and carrying a claim to a fixed income, payable so long as the business is solvent. The incomes run at a higher level than under (*g*) or (*h*) because of the additional risk involved.

(*j*) Preference and ordinary shares in industrial enterprise ('equities'), which are realizable for what they will fetch, and carry a claim to income which varies according to the profits of the enterprise and to the degree of priority of the shares in ranking for dividend, the income on the preference shares being paid before anything becomes due to the holder of ordinary shares. A larger expectation of income is usually attached to these than to the others.

Assuming that a holder of money decides to accumulate rather than to spend, it is open to him to hold any of these assets. What determines his choice between them? The first difference is that (*a*) and (*b*) are money, whereas all the rest are something that can be turned into money. The second is that all except (*a*) and (usually) (*b*) involve some benefit, or possibility of benefit, to the holder besides the possession of his capital. It would appear, therefore, that it is to some one's interest that he should choose assets (*c*) to (*j*), in the opposite of that order, and that the benefit, or possibility of benefit, is the payment which some one else is prepared to make in order to induce him to do so.

There is a further distinction. The holders of assets (*c*), (*d*), and (*e*) can get their money in legal-tender form, without diminution, as and when they want it. The holders of (*f*) and (*g*) can get it, but only at a future date which may be very distant. The holders of (*h*), (*i*), and (*j*) have no assurance that they can get it in full at any

time, though, on the other hand, they may get more than the purchase price of the assets by selling them. It is therefore reasonable to expect that the *income* benefit necessary to induce cash-holders to acquire the latter assets will be greater than that necessary to induce them to acquire (*c*) to (*e*). And so it normally is, though in the case of (*j*) the income benefit is often of minor importance, and it is the rise and fall in saleable value to which the wealth-holder seeking employment for his money pays most attention. The inducements to turn money into some form of money asset other than cash are thus a compound of income attraction and speculation attraction. The income attraction in the case of old titles was originally offered by the persons who desired to have placed at their disposal the money which purchased the titles in the first place, and it has remained attached to the titles. The speculation attraction is offered by the market conditions. The gains, if there are gains, of speculation do not represent recompense for anything given up by the speculators, except the possibility of further gain. If equities, once acquired, were held continuously with a view to dividends they would closely approximate to the expenditure of producers with a view to profit. Since, however, they are bought largely with a view to resale, they approach more nearly to the category of a gamble. The individual wealth-owner thus balances the advantage of the availability of ready money against the income or profit obtainable from holding money capital in other forms—*i.e.*, claims to money—and his decision depends on the urgency of his need for ready money and on the degree of his confidence at the time in other forms of claims.

We must now inquire to whose interest it is that holders of cash should be induced to turn it into one of the other types of money asset, and who is therefore prepared to

give them an income for doing so, either by handing over an existing security which he possesses or by creating a new one in exchange for the loan. Obviously the demand must be provided to some extent by people who desire to use the money. This means employers generally, including the Government, and in addition the private person—for example, the mortgagor who wishes to turn his real capital temporarily into something he can spend. Some free cash is wanted for any kind of production which does not bring in an immediate return (or, as sometimes in the case of the Government or municipalities, brings in no money return at all—for example, armaments and highways). It is true that the Government can obtain cash in other ways, but taxation to the amount required is not always politically practicable, and borrowing from the banks or printing currency would increase the amount of money in circulation, and, except in slump conditions, would raise prices and might impair confidence. Private producers also can borrow from the banks, within the limits which the banks impose upon their own liabilities; but these do not admit of large advances for long or indefinite periods for the purpose of acquiring additional capital equipment, and it is for such purposes, therefore, that producers must go to the public. Looking at the matter broadly from the economic point of view, it is clear that in a community where much of the spending is in anticipation of claims on goods—*i.e.*, is spending of borrowed money—it is desirable that much of the lending should be of money saved from income—*i.e.*, by suspension of claims—for otherwise consumers' demands would continue in full strength alongside of the increased producers' demand, and unless there were large quantities of idle resources readily absorbable the pace of expansion would be too rapid. The total rate of spending would be too great, and, as we shall see in Chapter IX,

prices would rise so fast as to impair confidence in the currency.

Assuming a limitation on the supply of money, a situation arises in which it is not enough that some claims should be suspended: they must be put at the disposal of others, and a monetary inducement is the only means of securing this end. It would be possible for enterprise to be conducted without the transfer of the suspended claims, but only by means of a steadily increasing volume of money. There is a limit to the extent of such expansion which business confidence will stand. It may be pointed out, however, that a good deal of borrowing in the past has not been offset by saving, as appears in the increase, over centuries, in the volume of money.

At this point we may observe that it is not the saving but the borrowing which results in the creation of more money titles. As we saw in Chapter II in relation to war finance, money titles may be largely increased without much, if any, money saving by the public; while, on the other hand, saving could increase without any change in the supply of money titles.

One motive, then, for offering the accumulator of ready money an income attraction for parting with it is the desire to spend the money. This is normally the motive of a borrower. But it is not the only possible motive behind such an offer. The offer may be made, not by a borrower creating a new title, but by the seller of an old one. Most of the money titles which the saver acquires are old titles, and the seller who is parting with these for ready money may or may not desire to use the money. Possibly he may be moved by a desire to have it in hand—to increase, in fact, his cash balance. In so far as this happens on a large scale the net effect is the same as if the bulk of the new savings coming forward were held idle by the savers.

The need to direct accumulated funds into the channel of enterprise is of fundamental importance in modern monetary systems. It arises from the fact that people save for security, and is bound up with the existence of alternative ways in which the holder of wealth can keep his power of spending. He can hold his money in the form of cash or he can buy with it debts to which little or no risk is attached. These ways he chooses because he is afraid of the loss of his capital or the fall in his income which may follow if he hands his money over to those who will spend it on the direct promotion of production. It may be objected that it should be the function of income attraction to coax money into the channel in which it has the most direct effect in stimulating activity and creating income. In our list of the forms which money claims may take we have ended with loans to enterprise and shares in enterprise, and have pointed out that they normally carry the assurance or the expectation of a larger income than money titles to which a smaller risk is attached. May it not be supposed, then, that this offer of income will be raised to the point necessary to attract savings to the channel of production? The answer is that this may not be practicable. If it were necessary to offer wealth-owners higher and higher terms for the use of their money for industrial purposes a point might be reached at which the charges on industry were more than it could bear. Such a situation would lead to the repudiation of some of the money titles and a default on the income payments due on others. Then other wealth-owners would be more than ever inclined to play for safety. And if so high a payment were necessary to attract loans, the interest on which is among the costs of business, it is unlikely that business would be able to earn profits sufficient to tempt wealth-owners to take shares in an enterprise. A widespread disposition to hold money

capital in forms involving little or no risk is necessarily, therefore, a check on production expenditure.[1]

This dilemma has caused some commentators on the monetary system to suggest that there is a gap in it in the absence of *negative* inducements to keep money in productive use. Some have advocated schemes like those of Silvio Gesell for taxing the holder of a unit of money if he does not pass it on within a certain limit of time. Others desire at least to remove the positive inducement to keep money out of circulation which is given by the allowance of interest on time deposits. Another possible expedient which has suggested itself is an increased tax on the transfer of *old* money titles. At all events it is one of the tasks of monetary management to devise a way of preventing the diversion of the money stream either into the reservoir of inactivity or—which may be the same thing at one remove—into the channel in which it serves merely to finance the exchange of debts. At present such management operates mainly through control of the rate of interest, with which we deal in our next chapter. The rate of interest has to be high enough to induce people to part with their money, but not so high as to destroy the inducement to risk money.

It will have occurred to the reader that this account of the matter is at variance with the commonly accepted view that there is some self-adjusting machinery by which saving—abstention from spending on present consumption—is inevitably and automatically translated into expenditure on provision for larger production in the future, so that saving is in effect another form of spending. This idea will not stand examination. The steps by which the misapprehension arose appear to be these. Saving is commonly described as being a preference for future rather than present enjoyment, which is an approximation

[1] See further on this important point Chapter VI, p. 160.

to the truth, but not the whole truth: saving only proves that the people who save the money prefer not to use it on immediate consumption. Then, because provision for future enjoyment would, if resources in the community as a whole were fully employed, demand the withdrawal of resources from the making of goods for immediate consumption and their transfer to the making of more durable goods, it is argued that *savers prefer* that the resources of the community shall be so used. Actually they make no such connexion in their minds, the motives for saving being a desire for security or increased convenience, a hope that spending may be done more advantageously in the future than in the present, and a hope of profit by trading in titles to money. The next and most erroneous step in the argument is taken when it is inferred that the saver's abstention from spending on present enjoyment actually *results* in spending by other people on provision for future enjoyment—in other words, in expenditure on real capital.

This idea would have some force in a state of society in which production of capital goods could not be undertaken without partial suspension of the existing production of consumption goods, and in which when such a suspension took place the released resources were diverted directly to the alternative employment. It may be questioned whether such a state of society has ever existed, and, however this may be, in present conditions, as we have seen, saving, though a valuable adjunct to the financing of capital outlay, is not in theory essential to it. The productive capacity of a modern industrial community is seldom so fully occupied that some capital construction would not be possible without the suspension of other activities; the channels by which unspent income can flow into expenditure on capital goods are broken and uncertain; and it is not essential (under a loan and

cheque system) that *pre-existing* money should be obtained for all purchases of capital equipment, the injection of new money into the system by means of bank advances (which bear no relation to savings) serving some purposes equally well. Consequently it is on the face of it unlikely that there is any direct or inevitable connexion between voluntary saving on the one hand and the production of durable or instrumental goods on the other.

As Mr Keynes has put it:

> An act of individual saving means—so to speak—a decision not to have dinner to-day. But it does *not* necessitate a decision to have dinner or to buy a pair of boots a week hence or a year hence or to consume any specified thing at any specified date. Thus, it depresses the business of preparing to-day's dinner without stimulating the business of making ready for some future act of consumption. It is not a substitution of future consumption demand for present consumption demand—it is a net diminution of such demand. Moreover, the expectation of future consumption is so largely based on current experience of present consumption that a reduction in the latter is likely to depress the former. . . . In this event . . . the act of saving . . . may reduce present investment demand as well as present consumption demand.[1]

A good example of the possibility to which Mr Keynes refers is that of the funds set aside by firms, or by individuals owning durable assets, to meet depreciation of their assets—*i.e.*, to effect such repairs and renewals as are necessary in order to maintain their value. If these funds are expended as fast as they are accumulated on the purposes for which they are set aside, then 'saving' from income and 'investment'[2] (capital outlay) are going hand in hand, and there is no drag on spending, employment,

[1] *The General Theory of Employment, Interest, and Money*, p. 210.

[2] 'Investment' here means the purchase of capital equipment. The number of senses in which this word is used by economists and in ordinary parlance is unfortunately large. We have endeavoured to make it clear in what sense we are using it in any context.

or income. If, on the other hand, they are merely allowed to accumulate they depress employment during the period of accumulation—though they will stimulate it when finally they come to be spent. The practice of making an excessive allowance for purposes of meeting depreciation, particularly if it is begun well in advance of the actual need for replacement or repair (as, for example, under the 'straight-line' system of making equal annual allocations to depreciation reserve throughout the estimated life of the plant), may constitute a serious danger of depressing incomes in a community which is both well equipped with durable assets and inclined to a high degree of providence. Mr Keynes[1] attaches great importance to this feature as a contributory factor to the American slump following 1929 and to the depression in Great Britain in 1931–32.

It is true generally, as in this example, that the community only 'saves' and 'invests' (in the sense of adding to its *real* capital) at the same time in so far as its members *spend* their accumulations without delay on instrumental or durable goods. It is unsafe to assume that there is any automatic connexion between the money hoarded or exchanged for money titles by one set of people and the money spent on durable or instrumental goods by another set. When it is maintained by economists that 'savings' and 'investment' are necessarily equal this should be accepted only as applying to *things*—the unconsumed part of the output of the period in each case, looked at respectively from the points of view of the individuals who do not consume it and the producers who cause it to be produced. Even then it must not be supposed that the result is a miraculous coincidence between the views of these two sets of people. The proposition does not mean

[1] *Op. cit.*, pp. 100–101. See also *The Economic Journal*, September 1936, pp. 540–546.

that *deliberate* saving is equal to *deliberate* investment (additions to unconsumed wealth). Some of the saving is involuntary, because if producers decide to make fixed capital instead of consumable goods the public has no choice but to 'save' it. Some of the investment is involuntary because if the public decides not to buy certain consumable goods the producer has no choice but to add them to his stock, and an addition to stocks comes within the definition of investment as unconsumed output—though it is clear that from the point of view of economic activity an increment of wealth due to people going without is on quite a different footing from an increment of wealth due to more production.

In terms of *money*, the subject with which we are concerned in this book, the proposition that saving equals investment—*i.e.*, investment expenditure—does not hold good at all.[1] That can be shown very simply by pointing out that if the amount 'saved'—*i.e.*, the money income not spent—by one set of people were all spent at the normal rate (and no more were spent) on additions to unconsumed output by another set of people, there would be no reason why total incomes should change, though the distribution of incomes among workers in different industries might change. But we know to our cost that total incomes do change, and in the last chapter an attempt was made to demonstrate that this was due to variations in the total rate of spending.

Looking at the matter from the side of 'investment,' it is clear that money may be spent on capital outlay which has in no sense been saved—which has, in fact, been newly created for the purpose. After it has been spent on capital outlay it may or may not be saved by the next recipients, but it is no more and no less likely

[1] It is at this point that we part company with Mr Keynes' doctrine of the equality between saving and investment. (See Preface.)

to be saved than the other money coming into the hands of income-receivers, from which, indeed, it is indistinguishable. There is nothing in the fact of increased capital outlay to increase the public inclination to save except the effect, doubtful in its extent, of the increase in incomes due to the increased spending.

Looking at the matter from the side of savings, the reader should consider the actual disposal of his accumulated savings, and ask himself to what extent it is probable that it will be associated with spending on instrumental or durable goods, if he does not spend the savings on such goods himself. The case of hoarding—currency and bank balances held idle—we have already dealt with. It would be accompanied by spending on capital only if it were placed directly at the disposal of the spenders, and this is not in fact done. True, the banks lend, and their loans may be for the purpose of capital equipment. But often they are for other purposes—*e.g.*, speculation on the Stock Exchange. And in any case the banks' advances, as we have seen, are regulated in the main by other considerations than the extent to which their depositors are keeping their balances stationary, though this may have a limited effect upon their volume in so far as it is reflected in a change in the ratio of time deposits to demand deposits.

The purchase of money titles, the next main means of accumulation, is more complicated. The money coming into the investment market, of which savings form part, is used largely for the purpose of buying *old* money titles, and it is clear that a change in the ownership of these implies nothing as to the probability of spending on capital outlay. The direct purpose the savings have served is to enable the previous owners of the titles to turn them into cash. Without the new savings coming forward the old titles would very soon lose their value, and it may be that

there is some unconscious realization of this fact at the back of much of the common insistence on the value of saving. Indirectly, indeed, they have served the purposes of production. By maintaining the desirability of the old titles they have enabled similar *new* titles to be offered with a smaller income attraction than would otherwise be necessary. There is, however, no automatic means by which the money coming into the investment market, over and above what is spent on old titles, flows into the hands of people offering new titles. It may, for instance, if conditions are unfavourable, be held inactive for a time in the cash balances of the dealers in securities.[1] If it is paid to the offerers of new titles this may mean that it comes into the hands of the Government, who may require it to pay off previous debts, or into the hands of an industrial concern which is converting its obligations to a lower rate of interest. Only in a variable proportion of cases, which may at some times be large and at others small, is the money passing directly to borrowers who will use it for expenditure on capital goods.

It seems, then, that all that can safely be said about accumulation of money wealth is that it involves abstention from spending on goods and services by the accumulator, and, if it is not spent at all, consequent abstention to an unknown extent by others whose income has been reduced by his abstention. The money saved may be withheld altogether from expenditure in the period under consideration, or it may be passed into other hands in exchange for claims. It is not associated (as cause with effect or by arithmetical equality) with expenditure on goods of any kind by anyone else, though there are certain channels which would normally connect it with expenditure on durable goods. The connexion is subject,

[1] Mr R. G. Hawtrey has dealt fully with this possibility in *Capital and Employment* (1937), Chapter VI.

however, to a considerable time-lag, during which other factors may intervene to impede it. This being so, it seems that no effective automatic corrective can be expected for any depressing effect which an increase in the savings of a community may be having on its aggregate income.

Partial correctives, of course, there will be, but some of these may be on the side of consumption, not on the side of capital outlay. While *A* is choosing to accumulate, *B* may be unlocking his hoards or buying furniture on the instalment system. A large proportion of the deposits in a Savings Bank is counterbalanced each year by the withdrawals of depositors who wish to spend the money, and insurance systems are based on the principle of joint saving for individual spending. Traders may be drawing new money into existence by borrowing from the banks and spending the loans on equipment. All these may make up any deficiency in the spending of the current income on the goods in respect of which it was distributed—may counterbalance, that is to say, the withheld savings. It is obvious, however, that they may not make up the balance completely, or they may more than make it up. There may therefore remain an uncompensated residue of saving or an uncompensated residue of new spending, and if this is so nothing can prevent aggregate income being reduced or increased.

The actual measurement of the accumulation for which compensation—*i.e.*, counterbalancing expenditure—is required at any time is not an easy task. Statements of the type, "The savings of the British public amount to £400m. per annum," should be examined very carefully before any argument is based on them. If they are itemized it will generally be found that the figure given includes a heterogeneous combination of the sums expended on new money titles in the period under

consideration and the sums expended on such durable assets as new houses—sums which might more properly be called investment expenditure, which requires no counterbalancing. Another item generally included is "profits not distributed by companies, but invested in their own businesses," which may represent either accumulation or investment expenditure, according to whether the sums are spent on new goods or not in the period under consideration. Bulk totals of this kind have very little significance, and are useless as a guide to the degree of compensating expenditure called for. A total of the amount spent on real net investment, such as that prepared for Great Britain by Mr Colin Clark,[1] is valuable as showing to what extent the nation is increasing its durable possessions. The ascertainment of a total of accumulated money and money titles to compare with it is, we consider, impracticable for the reasons already given. The following separate totals (not all of which are readily ascertainable) are or would be interesting as showing the increase in the accumulated claims in any period:

New issues for investment.
Increase in time deposits in banks.
Increase in undisturbed balances in current accounts.
Increase in Savings Banks balances.
Increase in currency hoards.

Each figure would, however, have to be considered in relation to changes in the total supply of money.

It should hardly be necessary to warn those who have read so far against supposing that accumulation by individuals adds to the total of bank deposits. The aggregate effect of it on money balances is bound to be zero, since, as we have said, the increases in the balances of the savers is set off by the reduction of the balances of

[1] *National Income and Outlay*, p. 185.

those whose incomes have been reduced by the savers' abstention from expenditure.

The only satisfactory means of evaluating net accumulation, however, is to watch the total of *expenditure* on goods and services. A fall in this will give, not, indeed, the exact amount which individuals have added to their money capital, but the *effect* of the accumulation, whatever form it has taken. We must remember that private saving is by no means the most important form of accumulation. All forms of disposal of money, as we saw in our last chapter, whether by consumers or producers, can be graded as they affect employment and income, from expenditure on labour, which at one end of the scale stimulates them directly, to accumulation in hoards, which at the other end of the scale does not stimulate them at all.[1] The rest affect employment at one or more removes—*i.e.*, after some delay and to an extent not precisely determinable—and consequently it is not only accumulation in hoards which calls for compensating expenditure. Any increase in the method of disposal of money involving a more remote contact with employment of labour, *at the expense of* those involving a more direct contact, needs compensation in the form of extra spending somewhere. For instance, if the price of durable real assets were raised, through a change in people's attitude towards the desirability of holding them, and transactions in them became more frequent, a larger part of the money stream would be diverted into that channel, and the compensation would have to take the form of an enlargement of the money stream. The same is true of a Stock Exchange boom, except in so far as the borrowing of speculators itself draws new money into existence and finances the boom without encroaching on the industrial circulation.

[1] See Chapter IV, pp. 97-98.

The indices of final buying in relation to the state of employment provide—or would provide if they were more fully developed—the best means of judging how far there is need to counteract the damaging effects of excessive accumulation of money capital.

APPENDIX TO CHAPTER V

I. Aggregate Savings

This, as appears from the foregoing chapter, is a very difficult subject for statistical measurement. The detailed estimate of national savings in Great Britain given in the *Report of the Colwyn Committee on National Debt and Taxation* is shown below. It relates to the year 1924.

	£m.
(1) Internal new issues for investment in the United Kingdom	89
(2) Internal new issues for investment abroad	135
(3) Addition to National Savings Certificates	3
(4) Increase in Treasury holdings of bonds tendered in payment of Death Duties	9
(5) Investments sold by the banks	35
(6) New houses	35
(7) Profits not distributed by companies and private traders, but invested in own businesses; and miscellaneous.	194
	500

This table illustrates the difficulty of relating the total of individual savings to the idea of aggregate national savings. The items given would, for the most part, be regarded as savings by the individuals or firms concerned; but there are exceptions—for example, (4) and (5). The former is a taxation payment from the point of view of the individual. The latter represents only a change in the distribution of the banks' liabilities (assuming that the investments are replaced by loans); the purchase price of the investments is not necessarily paid out of savings. Further, the whole of what the individual would regard as savings is not accounted for—in particular the holding of money immobile. There are also savings in the form of payments to building societies and insurance companies and deposits in Savings Banks, though to arrive at an aggregate it would be necessary also to know the 'dis-saving'—*i.e.*, the spending in excess of normal spending from income—of funds from these sources.

For reasons given in the text we do not regard a total of this kind as a useful one. The discussion of aggregate savings is generally related to an idea that the sums individuals withhold from spending on consumption are equivalent to the sums available for capital outlay (*Colwyn Committee Report*,

p. 22). But they may or may not become so available, and they are not in any case the only source of funds for this purpose. The income withheld from consumption expenditure falls into two categories, according to whether it is devoted directly or indirectly to investment expenditure or is withheld from expenditure altogether. Some figures of investment expenditure (not all of which, of course, is necessarily made out of income) have been given in the appendix to Chapter IV.

II. Withheld Savings

For reasons given in the text a measurement of withheld savings for any period simply as an amount is impracticable. The variation in the extent to which bank money was held immobile in the period is, however, to some extent measurable. The following tables indicate this variation for Great Britain and the United States respectively in 1929–35, so far as it is represented by the transfer of bank balances from current accounts to time deposits:

Great Britain

Year	Demand Deposits (in £M.)	Time Deposits (in £M.)	Demand Deposits as Percentage of Total
1929	940	798	54·1
1930	921	820	52·9
1931	895	804	52·7
1932	867	883	49·5
1933	978	930	51·3
1934	953	886	51·8
1935	1051	904	53 8

United States[1]

Year	Demand Deposits (in $M)	Time Deposits (in $M)	Demand Deposits as Percentage of Total
1929	22,744	28,795	44·1
1930	22,038	29,504	42·8
1931	20,118	29,152	40·8
1932	15,871	24,762	39·1
1933	15,163	21,401	41·5
1934	18,262	22,473	44·8

In both countries a tendency for transfer from demand deposits to time deposits makes its appearance *before* the worst point of industrial depression.

[1] Lauchlin Currie, *op. cit.*, p. 70.

III. Table to illustrate Consumers' Hoarding[1]

	(A)	(B)	(C)	(D)	(E)	(F)	Total Expenditure and Income	
Expenditure (1)	10	20	30	10	20	10	100	
becomes income (1)	9	18	25	10	21	17		Net hoarding here 10 (for 2 periods)
Expenditure (2)	9	17	25	9	20	10	90	
becomes income (2)	10	16	24	10	20	10		Net hoarding here 10 (for 1 period)
Expenditure (3)	10	14	22	8	18	8	80	
becomes income (3)	9	15	21	9	17	9		
Total expenditure	29	51	77	27	58	28	= 270	(5 per cent., say, investment)
Total income	28	49	70	29	58	36	= 270	
Effect on balances	− 1	− 2	− 7	+ 2	—	+ 8	= 0	

Note that the aggregate income, if spending had continued throughout the period as in the first circulation—*i.e.*, if all income and no more than income had been spent—would have been 300 units (3 times 100). As 10 units were hoarded for 2 circulation periods and 10 more for 1 the aggregate income was reduced by 30 units—*i.e.*, to 270.

It would be easy to amplify the figures to show that if there were net expenditure from sources other than income or balances at any point it would increase aggregate expenditure, income, and balances, but would have no effect on hoarding. Dishoarding (an increase in expenditure financed from balances) would also increase expenditure and income. If the number of circulations within the income period were increased the effect would be an increase of expenditure and income leaving aggregate balances unchanged; hoarding would in that case be valued at a higher figure because it is measured by an amount multiplied by the number of circulations.

The investment expenditure indicated is savings as well as investment, but it does not represent the whole of the savings of the period.

[1] Reproduced, by permission, from the *Quarterly Journal of Economics*, August 1937.

CHAPTER VI

INTEREST ON MONEY

The rate of Usury is the measure by which all men Trade . . . or any other ways bargain.—SIR J. CHILD, *Discourse of Trade* (1690).

INTEREST may be described as the link between present money and future money. A claim on goods and services which can be exercised *now* is worth more than a claim of the same nominal amount which can be exercised only at some future date, and interest, which is the amount paid to those who sacrifice the immediate power of spending by those who obtain it, measures the difference between the two values.

The man who keeps in hand a sum of money for a period has the same sum at the end of it as at the beginning. The man who lends it has a larger sum at the end than at the beginning. This fact pervades the whole of our monetary system. Not only is interest something we pay when we borrow money; it is something we lose when we don't lend money. The holding of cash balances idle when interest might be earned on them is regarded as involving just as much of a monetary charge as borrowing the same amount and paying interest on it. Some accountants, in assessing the cost of manufacture of a particular product, show as part of the costs the interest which is 'lost' through money being 'locked up' in the plant and material used, even though it has not been borrowed at interest, but paid out of the firm's cash balances.[1]

The current rate of interest acts as a measuring-rod for

[1] *Accountant*, December 5, 1936, p. 770.

business and private gain. It sets a standard determining what economic activity is regarded as worth while—a standard which is approximate, but nevertheless effective in limiting activity, since it is in the background of every one's mind in all business relations. It measures the minimum return which producers expect to get from enterprise, the minimum return which speculators hope to get from stock transactions, and the minimum return which owners of durable goods like houses expect from letting the use of them to others. At least that much must be obtained, or the wealth-owner is losing by the particular way in which he has chosen to employ his resources; for each individual regards himself as having the alternative of simply lending at the current rate of interest.

It is important to realize that the power of earning interest belongs to money as such. If we usually associate interest with savings that is because we are apt to think of money not spent by its owner as having been saved. But savings earn no interest while they are held in the form of ready money. And money which the owner has not saved—*e.g.*, which he has inherited or acquired by selling some of his capital—earns just the same interest, if he is willing to lend it, as his savings. Money newly created by banks earns interest too; as we have seen in Chapter II, banks live mainly by creating money to lend at interest. Thus, savings are only one of the factors which play a part in the phenomena of interest.

The reason why invested money earns interest—why a claim which is *immediately* convertible by its owner into any goods or services he may require is worth more than a claim to the same nominal amount which cannot be so 'realized' without delay—is twofold. It turns on the diversity of habits, tastes, and circumstances, and on the uncertainty of the future. Because of the first there are

always some people who have more money than they want to spend now or in the immediate future, and other people who want to spend more money than they have got. (It does not necessarily follow that the first are richer than the second: those who lend money for industrialists to spend are often much poorer than the industrialists who borrow from them. It must be borne in mind that spending may be for enjoyment in consumption, for profit in enterprise, or for gain in speculation.) Because of the uncertainty of the future the owner of money not immediately required never knows *when* he may want to spend it, or whether if he parts with it under contract for a period of time he will get it back intact at the moment when he wants it. Thus, the first set of people would naturally prefer to hold their spare money free (not tied up in a loan investment) as a liquid reserve immediately available for spending. But they are prepared to forgo this liquidity, and part with the control of their money for a time *at a price*, to anyone who can offer satisfactory security that it will be repaid. And the second set of people, if they want the use of the money badly enough, will pay the price. Thus interest may be said to be the price of liquidity. It exists because people attach a value to keeping resources in an immediately realizable form, either as a means of financing their current transactions in business or speculation or out of a desire for security; and it is liable to vary with, though it is not entirely determined by, the strength of this desire on an average throughout the community. We may add, so that the picture may not be incomplete, that in a modern community the numbers of both the buyers and the sellers are reinforced by professional dealers in money.

The existence of this means of exchanging ready money for a claim to future money has very large social and economic consequences. So long as opportunities for

lending at interest, or buying claims to interest which were originally created by such lending, continue to exist, the possession of money gives its owner, at his choice, either an income in perpetuity or an indefinite increase in the amount of his capital—on one condition only, that he is prepared to part with immediate control of it. "Money breeds money," but only so long as it is not kept in hand as ready money.

Views on the nature of interest have in the past been coloured by moral preoccupations and influenced by the nature of the use of the money on which interest was most commonly paid. Money is, of course, borrowed to be used; but the use may be for consumption, for enterprise, or for speculation. The relative prevalence of these three uses of borrowed money varies with the conditions and customs of the community concerned; and the economic effects, as well as the social consequences, of the exaction of interest vary accordingly. During the last five hundred years the emphasis has shifted from borrowing for consumption to borrowing for enterprise, and then—in part—to borrowing for speculation. Recently borrowing for consumption, but in quite new forms, has reappeared as an economic factor of importance.

It is obvious that if a borrower at interest does not use the money in a way that brings in more money he will be liable eventually to default on his bargain, or else to lose his substance to his creditor by forfeiting assets pledged in security for the loan. This is the almost inevitable outcome if his desire for immediate spending was due to distress, and he spends the money on consumption. The bargain, though acceptable to both parties when it was made, operates one-sidedly in the long run. For though the lender may gain or lose, the borrower cannot gain. But if the money is borrowed to spend in production, because the borrower thinks he sees an

opportunity in trade or manufacture to earn future profits by spending money now, the bargain takes on a different aspect. The borrower may lose if he has judged business prospects wrongly. So may the lender, by his default. But both may gain together. The bargain may be advantageous to both parties, in the long run as well as at the time, and, moreover, will in general result in an addition to the real wealth of the community. The extent to which the risk is shared will, however, depend on the nature of the bargain, and the proportion in which the additional wealth is shared will depend upon the interest charged. If the rate of interest exacted is too high the lender may secure more than the whole of the profits accruing from the spending of the money. If potential borrowers for enterprise foresee this result they will refrain from borrowing, and the enterprise will not be embarked upon.

In early agricultural communities—as in undeveloped communities to-day—the lending of money at interest, though partly meeting a real economic need, to finance crops between harvests or to help growers over bad seasons, tended on the whole to be associated with the exploitation of distress and with the consequent aggravation of inequalities of wealth. The old English word for interest—usury—meaning originally merely payment for the use of money, acquired an evil significance, which it still retains.

In Europe for many centuries—in England till the time of Henry VIII—interest was actually illegal. But even in the Middle Ages the use of borrowed money for trade was considerable. It could not be obtained without inducement to the lender, and with the necessity the legitimacy of payment for such loans gradually became recognized, after prolonged controversy. A distinction, of real economic importance, emerged between the passive

accumulation of claims and active participation in an enterprise that produced real wealth; and at one stage the view held the field that it was wrong to lend money at interest without risk, but not wrong to take payment for the use of money lent in participation in enterprise (even as a sleeping partner) at the lender's risk. But interest, under the name of usury, was still regarded as open to grave abuse, and as a proper object for strict control by the State, though rather for moral or social than for economic reasons.

With the growth of enterprise and wealth the use of borrowed money for trading increased in importance, and the advantages and disadvantages attaching to the payment of interest gradually came to be seen in a different light. The following quotation from Bacon's essay on "Usury" perhaps represents broadly the attitude of advanced thinkers at the end of the Elizabethan era of expansion:

> The discommodities of usury are, first, that it makes fewer merchants; for were it not for this lazy trade of usury, money would not lie still, but would in great part be employed upon merchandising. . . . The second, that it makes poor merchants; for . . . the merchant cannot drive his trade so well if he sit at great usury. . . .
>
> On the other side, the commodities of usury are . . . that howsoever usury in some respect hindereth merchandising, yet in some other it advanceth it; for it is certain that the greatest part of trade is driven by young merchants, upon borrowing at interest. . . .
>
> It appears by the balance of commodities and discommodities of usury, two things are to be reconciled; the one that the tooth of usury be grinded, that it bite not too much; the other that there be left open a means to invite moneyed men to lend to the merchants, for the continuing and quickening of trade.

It will be seen that here a monetary problem has been envisaged independently of moral considerations—the

control of the rate of interest with the object of making finance serve the economic needs of the community.

But with the enormous extension of capitalized enterprise following on the Industrial Revolution the monetary problem (and perhaps the social problem also) was gradually lost sight of. In spite of Adam Smith, who in the eighteenth century defended the Usury Laws,[1] the right of individuals to strike bargains for the use of money without restriction by authority became associated with the principles of Laissez-faire and Free Trade as an integral part of, or consequence of, the doctrines of orthodox political economy. Eventually, in 1833, the discount rate in England was freed from the operation of a legal maximum (at that time 5 per cent.).

In the course of the century that followed debt reached a new position in the social structure. So far from being immoral, interest became a highly respectable, if not laudable, source of income. This was the attitude satirized by Samuel Butler:

> How blest the prudent man, the maiden pure,
> Whose income is both ample and secure,
> Arising from consolidated three
> Per cent. annuities, paid quarterly.

At the same time borrowing at interest for speculation, which was probably negligible up to the end of the seventeenth century, became a normal feature of the financial system. (The eighteenth century had seen at least two spectacular speculative crises—the South Sea Bubble in England and the episode of John Law's financial administration in France. But these occurred in the early days of banking and were exceptional.) This came about by a change in the nature of speculation. In earlier times pure speculation (as distinct from risking

[1] *Wealth of Nations*, Book II, Chapter IV. In Adam Smith's time current long-term rates of interest in Great Britain stood at much the same level as they do now (1937); but lending at more than 5 per cent. was illegal.

resources in enterprise) was practically confined to buying actual commodities or land for a rise; in the case of commodities even this had been illegal during the Middle Ages. But with the development of the joint-stock company form of organization, following on the invention and extension of the legal privilege of limited liability,[1] markets developed in titles to a share in the profits of enterprise. It thus became possible to buy these titles, not necessarily for the sake of the prospect of receiving the profits if and when they matured, but with the intention of resale at a higher price. The prices of such shares, depending as they do in the first instance on the optimism or pessimism of the market as to the probable returns from the enterprise, were always much more liable to fluctuate than the rate of interest. Thus it was often profitable for those who had, or thought they had, better sources of information about the particular enterprise than the market to buy the shares for speculation with borrowed money. So a new monetary problem relating to interest has emerged—the control of its use to finance speculation in money titles.

At the same time lending at interest for consumption has revived in new forms. The older form of lending for consumption to exploit distress has not disappeared, though in highly developed communities industrial rather than agrarian distress is naturally the victim. In England the courts can set aside moneylending bargains as 'unconscionable' if the interest charged is extortionate in the circumstances. But the cases dealt with relate for the most part not to loans to propertied men, but to bargains with poor people for very small short-period loans often on personal security, at 60 per cent. or 100 per cent. per annum. This is plainly a social rather than an economic or monetary problem. The new forms of

[1] See Chapter VII, p. 172.

lending for consumption to which we refer are, however, very different, and have real economic importance. In the twentieth century, both in Great Britain and the United States, elaborate organizations have been developed for lending through manufacturers to consumers for the purchase of (more or less) durable goods, such as houses, automobiles, furniture, and radio-sets; and the practice has grown up of Government borrowing to pay public relief in money to the indigent. Both developments present fresh monetary problems related to the control of the rate of interest.

In the net result opinion is now veering back to the older view that the lending of money at interest—or at all events the rate at which it is lent—needs control in the public interest. This has come about largely through the influence of Mr Keynes, who says emphatically that "interest to-day rewards no genuine sacrifice."[1] There is a tendency to revert to the distinction between passive accumulation and active participation in enterprise. Present-day writers who would be regarded almost as orthodox will speak of "fictitious wealth," meaning the wealth which consists in claims to interest;[2] the amount of money income which takes this form is, as we saw in our third chapter, a surprisingly large proportion of the total money income of the community.

Interest, we must emphasize, is the return on the *loan* of money; it includes the dividends on bonds and debentures, and must be distinguished from profits and dividends on equities, which are the return on the spending or risking of money in enterprise. The former is fixed, and the lender can be regarded as buying an income. The latter is a speculative reward for taking a risk. The former is one of the costs of industry, deductible before

[1] *The General Theory of Employment, Interest, and Money*, p. 376.
[2] P. Einzig, *Monetary Reform in Theory and Practice* (1936), p. 108.

arriving at the net income of a business; the latter *is* the net income of the business. The difference between the actual current rate of interest and the expected rate of return on enterprise is of primary importance in the economic structure. We must therefore consider what causes govern its magnitude.

The rates of payment for the use of money which are significant for economic purposes are:

(*a*) Bank rate in Great Britain and the Federal Reserve rediscount rate in the United States—*i.e.*, the rate at which holders of good commercial bills can obtain short-term loans against them from the Central Bank. In the United States it is the member banks, rather than the dealers in bills, which borrow from the Central Banks. The British Bank rate is at present (October 1937) 2 per cent., and the New York Federal Reserve rediscount rate 1 per cent. Bank of England advances are usually at ½ per cent. more than Bank rate. Bank rate is said to be effective when transactions are actually taking place at that rate, and ineffective when money can be had readily from the commercial banks at lower rates.

(*b*) The rate at which the money market—*i.e.*, dealers in bills and other money titles—can borrow from the commercial banks at call or short notice. This, which is called the 'call rate,' is in Great Britain always slightly above the rate which the banks pay to their depositors ((*c*) below), and is now (October 1937) ¾ per cent. It is, however, variable, and ranges up to 1 per cent. below Bank rate. In the United States the 'call-money' rate is now 1 per cent.

(*c*) The rate which banks pay to their depositors for funds on time deposit. This is now ½ per cent. in Great Britain so far as it is fixed—*i.e.*, in the County and City of London. Before 1914 it was usually 1½ per cent. below Bank rate. Between then and 1932 it was usually 2 per cent. below. The rate in the United States is governed by a prescribed maximum, but is variable.

(*d*) The rate at which commercial borrowers for short periods can obtain credit from the money market —*e.g.*, on commercial bills. This (known as the market discount rate) is in a sense the reverse of an interest rate, since it is a percentage deduction from the nominal value of the security offered, not a percentage addition to the amount lent. In Great Britain it is somewhere between the rate at which the market can borrow from the banks (rate (*b*)) and Bank rate. It fluctuates, however, according to supply and demand in the market. At present (October 1937) in Great Britain it is about $\frac{9}{16}$ per cent. to ¾ per cent. In New York it is 1 per cent.

(*e*) The rate at which depositors can borrow from the banks. This in Great Britain is normally 1 per cent. above Bank rate, with a minimum of 4 per cent. or 5 per cent., according to the credit of the borrower. But special terms are not uncommon. In the United States it varies greatly according to locality. The 1936 average was 2½ per cent. in New York and about 4½ per cent. in southern and western states.

(*f*) The rate at which the Government can borrow money for short periods (now about ½ per cent. in Great Britain and about the same in New York).

(*g*) The rate at which the Government can borrow money for long periods (now between 3 per cent. and $3\frac{1}{2}$ per cent. in Great Britain and about $2\frac{1}{2}$ per cent. in the United States).

(*h*) The rate at which other borrowers can borrow for long periods from the public at fixed interest. These range from municipalities, which in Great Britain pay about $3\frac{1}{2}$ per cent., to launchers of risky enterprises, who may have to pay three times as much.

Obviously, then, a reference to 'the' rate of interest may mean something widely different according to the context in which it is made. But broadly speaking the rates rise and fall together, though not so automatically in the United States as in Great Britain. When we speak, as we have so often spoken in the years 1933–37, of 'cheap money' we mean that all the rates are lower than they were, for example, in 1929. It is worth while to pause here and consider what else we mean by the phrase. It implies that there is a market in money, of the kind that exists in commodities, and that interest is the price that has to be paid by those who want money to those who have it or to those (the banks) who can make it. This is true if for 'money' we read 'the use of money,' though it is not the whole truth. But it is much nearer the whole truth than the nineteenth-century idea, which we should dismiss from our minds at the outset, that the total supply of money is constant, and that the only way of obtaining it for use in one way (production) is to induce people not to use it in another way (consumption), the rate of interest measuring the inducement necessary for this purpose. This idea has given rise to some singular economic theories—for example, that only an increased readiness to save can cure a slump, since only an increased supply

of savings on offer to producers can bring down the rate of interest to a point consistent with increased production. Actually such an increase in saving, by cutting down purchases, would deter producers from undertaking increased production, and would make the slump worse; and it would require a high rate of interest to induce people to risk their savings at such a time. A *decrease* in saving on the other hand—*i.e.*, an increased expenditure on consumption—would in such conditions not only offer producers an expectation of profit, but would help to place money at their disposal at a reasonable rate of interest; for it would increase incomes, and some part of the increased incomes would flow through expenditure on new money titles into the hands of producers.

It is most important to grasp that the rate of interest is not determined, though it is influenced, by the supply of funds released from consumption and the demand for funds for use in production. The funds which are borrowed at interest for short periods (in the 'short-term market') are not to any appreciable extent savings at all; while, though it is true in the case of the long-term loans that the rate of interest represents the price the saver *actually gets* if he lends his savings for use in production, it does not follow that he and the borrower settle the market price between them. For it might be too low for him to be willing to lend. (It must be remembered that the idea of simply possessing the money saved is attractive to the accumulator; he is not exclusively concerned with the yearly income he could buy or the profits he could make with it.) And, on the other hand, it might be too high for the producer to think it worth while to borrow the money.

This is because a whole series of bargains is going on which affect the rate, besides direct bargains between saver and borrower. The buyers in these other bargains

are all the people who have free cash which they would like to exchange for some monetary asset; they may be, besides private individuals who have withheld part of their incomes from consumption, traders (setting aside money for reserve), financiers (perhaps speculating), and, most important of all (because not subject to the ordinary limitation of scarcity of money[1]), the banks. The sellers are all the people who have monetary assets and who want free cash; and again these may be traders (perhaps in bad times turning their securities into money), financiers, or banks. The bargain between these parties is a different one from that between the saver and the borrower. They are not fixing between them a price in money for the loan of a sum of money; what they are doing is to fix between them a price in free cash for a particular 'investment' (money title) or fixed yearly return on money; and the higher the price they settle for any particular fixed return the lower will be the yearly return on the sum of money the buyers actually pay. It is the latter return which constitutes the 'market' long-term rate of interest, in the light of which savers and producers have to settle the price of loans for enterprise. Since speculators are involved in the market, the rate depends to a considerable extent on expectation—of prices generally, not excluding the price of future money; and since banks are involved in the market, the price depends largely on the supply of money. More money, we need perhaps hardly say, tends to lower the market rate of interest, less money to raise it. But the supply of money for this purpose does not depend entirely on what is forthcoming as new money from the banking system, though this is obviously of the first importance: more of the existing money may become available in the bond market through more rapid

[1] We have discussed in Chapter II the nature of the special limitations to which the banks are subject.

(financial) circulation—*i.e.*, through people deciding to invest money they have previously held idle. Neither of these sources of supply has anything to do with current savings.

With these general ideas in mind, let us see how they apply to the separate rates of interest which we have enumerated. Taking the British Bank rate first, we find that it is not fixed by any process of bargaining, but by the Central Bank at its discretion. The decision is taken in accordance with the monetary situation at the moment, but is guided not so much by what the demand for loans is as by what it is desired that it should be, and, moreover, not by any idea of maximizing the profits of the Bank.[1] When a country is on the gold standard the primary consideration is usually the foreign balance. In such conditions if the home Bank rate is high foreigners will tend to leave their balances in the banks there, instead of converting them into their own currency to spend or to lend in their own countries. The demand for foreign currency being thus reduced in proportion to the demand for home currency, the excess of home currency is paid for in gold. If, on the other hand, the home Bank rate is too low gold will be sent abroad to pay for foreign currency. Dr Leaf, writing in 1926, said: "The policy of the Governor of the Bank of England in raising or lowering his rate is primarily governed, under existing conditions, by the necessity of protecting his stock of gold—that is, by the rate of the foreign exchange."[2] When the country is off the gold standard and manages its foreign-exchange level by such devices as an Exchange Equalization Account[3] the Bank rate can be fixed primarily with a view to internal conditions. The Bank of England, presumably under the influence of the Treasury, has fixed it at a low figure for the last five

[1] See Chapter II, p. 41. [2] *Banking*, p. 208. [3] See Chapter X.

years in the hope of stimulating enterprise. The same conditions apply to the rediscount rate in the United States, and similar measures have been adopted there since 1933.

Rates (*b*), (*c*), (*d*), and (*e*) in Great Britain follow the Bank rate at different distances. Rate (*c*), which is arrived at by agreement among the banks, is at the present day in the nature of a convention. Although at one time it was no doubt necessary for individual banks to attract deposits by this inducement, the British banks seem now as a whole to have little motive for inducing customers to place their money on time deposit, except that as a matter of convenience they tend to keep their advances at seven days' notice to the discount market on a level with their time deposits, also at seven days' notice. The effort which some of the British banks have been making in recent years to attract small savings deposits seems to be related to a policy of reducing the amount of legal tender in circulation, and so increasing their reserves.

It is otherwise in the United States, where a smaller cash reserve is legally necessary for time deposits than for demand deposits, and where, therefore, the banks have a motive (the economizing of cash reserves) for inducing depositors to move their balances from one category to the other.

The effect of paying interest on time deposits is to offer owners of money an inducement to hold it idle, and in times when more spending is desirable it therefore operates to the disadvantage of the community. It is true that the interest falls very low when other short-term rates are low. But in Great Britain and the United States it does not entirely disappear, and any rate of interest not associated with a risk of loss of capital is attractive in a time of slump, which is just the time when more spending is wanted. The abolition of interest on time deposits is

therefore a possible contribution towards recovery at such a time.

As regards rate (*e*) the British banks act in concert. This rate—that at which they make advances to their customers for periods of some length, say, six months upward—is one of the most important from the point of view of industry and from the point of view of the banks, since it is a main charge on one and a main source of profit to the other. When the banks come under criticism, as they have from time to time, for maintaining this rate at a level at least 3 per cent. above the rate they pay depositors for money left on time deposit, they are accustomed to reply by pointing to their balance-sheet and calculating that a reduction of ½ per cent. in their charge for loans would turn their profit into a loss. This argument, though it may be true of a given level of advances, might be weakened if advances were increased, and still more weakened if interest on time deposits and (where this is paid) on current account deposits were abolished. Moreover, it has been suggested that a more satisfactory way of meeting their expenses might be to extend the practice of making a charge for services actually performed—*i.e.*, a commission based on the volume of their customers' transactions.[1] That, however, is by the way. The point we wish to insist on here is that the banks have fixed the rate at the level they believe to be in their best interest, and that there has been little or no effective pressure from borrowers in a downward direction. Even in the United States, where the banking system is less perfectly co-ordinated, competitive lending is limited in extent. The relation between banker and depositor is a 'customer' relation. Borrowers do not go from bank to bank trying to borrow at lower rates.[2] Till lately there

[1] See Hawtrey, *Capital and Employment*, p. 216.

[2] W. W. Riefler, *Money Rates and Money Markets in the United States* (1930), p. 104.

has been no effective competition from non-banking institutions, and failure of demand—which is most likely to occur in a time of slump, when banks are more anxious than ever about their profits—has not operated to bring down the rates. Normally the demand is rather in excess of the supply—that is, there is a fringe of unsatisfied borrowers. This, however, does not force rates up; there is no question of loans going to the highest bidder. The credit-worthiness of the borrowers and the readiness of the banks at the moment to increase or restrict advances in proportion to other assets are the dominating factors in the decision whether loans are to be granted or not. When the banks are not anxious to extend loans the standard of credit-worthiness will be slightly raised, and loans will be 'rationed'; when they are anxious to do so it will be lowered.

Of late years there has been some movement away from the position we have just described. Non-banking lenders, such as insurance companies and building societies, have offered loans to industry in competition with the banks. Still more important, business firms have tended to an increasing extent to finance themselves—*i.e.*, take part of their profits for expenditure on fixed or working capital. It remains to be seen whether these developments will result in a reduction in the banks' charges for loans. The effect may already be showing itself in an increase in the number of cases in which the banks grant special terms, below their ordinary rates, to business.

Rate (*f*) does depend in a sense on supply and demand —the supply of and demand for Government short-term securities. The rate is actually largely decided by tender, a proportion of the Treasury Bills issued going to those members of the discount market who are prepared to advance the money at the lowest rate of interest. It necessarily bears a close relation to the rate at which

operators in the market are able to borrow funds from the banks (rate (*b*)). And it must be remembered that the demand as well as the supply is largely under the control of the Government, acting through the Bank of England, since it can increase the banks' supply of cash, and therefore the funds seeking an outlet in this type of investment. Moreover, the Bank of England itself is a large holder of these securities, and can if it wishes dominate the market. The market is by no means a free one, either in Great Britain or the United States.

Rate (*g*), at which the Government can borrow for long periods, is determined by investors' expectations of the yield of long-term 'gilt-edged' securities—*i.e.*, securities having behind them the credit of the Government. It would obviously be useless to ask for a new loan from the public at 2 per cent. if the public think that they can get 5 per cent. on their money with equal safety. And they can do this if the price of an existing Government security bringing in 4 per cent. is 80. The purchase price of existing securities is thus in the second degree the determining factor. To say that it is high is the same as saying that the long-term rate of interest is low. If it is low the long-term rate of interest is high. Before examining more closely the causes which make it high or low let us point out that rate (*h*), the long-term rate at which borrowers other than the Government can borrow from the public, is governed mainly by the level of rate (*g*). Rates for municipalities [1] in Great Britain are fixed by the Government at a rather higher level than the current rates for new Government loans, municipal lending being rationed to ensure that the money will be forthcoming at the desired rate. Rates at which industrial borrowers can obtain loans are above the rates paid by the Government by an amount sufficient to compensate the borrower for

[1] See Chapter VIII, p. 214.

the extra risk he runs of losing his capital or his interest or both. Similarly, the price of existing fixed-interest securities issued by local authorities and industrial concerns follows the price of existing Government securities at a distance determined by the reliance placed by purchasers on the financial soundness of the authority or business concerned. In the last twenty years British fixed-interest rates on loans to firms of good standing have run parallel with gilt-edged rates, with about 1 per cent. between.

This being so, it is evident that the price of old 'gilt-edged' securities occupies a place of central importance in the interest structure. This, in relation to industrial expectations, appears to determine broadly whether enterprise is judged worth while, and whether our bread and butter shall continue to be produced or not. It is, in fact, this rate among all the rates—*i.e.*, the yield on gilt-edged securities—which is the measuring-rod to which we referred above. What causes determine this crucial price-level? It may be influenced by any or all of the following:

(i) The short-term rate of interest—(*b*) above. If short-term rates are low in relation to long-term rates it is profitable for operators in the money market to borrow at short-term and buy long-term securities for a rise. Their purchases raise the price, and thus lower the yield.

(ii) Purchases by the banks themselves, which may be driven to invest largely in Government securities owing to an increase in the amount of their resources and a shortage of demand for advances. (This is what happened in Great Britain in 1933–34, when the price of gilt-edged securities advanced by about 10 per cent. owing to bank investments.) Conversely, the banks in a period of expansion may sell their gilt-edged securities in order to have resources free for making advances to industry, and may so send the rate of interest up, unless new purchasers

are freely forthcoming to take the securities off their hands. A deliberate increase in the quantity of money is thus one of the most effective ways of bringing or keeping the rate of interest down.

(iii) Purchases by the Government, or the Central Bank under the influence of the Government. It is dealings of this sort by the Central Bank which are known as 'open-market operations.' The existence of Government Departments which accumulate large funds for investment —*e.g.*, Insurance Departments and Savings Departments —and can invest them in short-term or long-term debts according to the position at the moment, affords a convenient means of influencing the long-term market.

(iv) The state of public confidence, both in the Government and in the profit to be gained from industrial enterprise. During the War period, for example, a doubt as to the future solvency of Governments combined with a high expectation of real return from enterprise to make Government securities relatively unattractive, and thus to send the price down very low—*i.e.*, the rate of interest up very high. In every industrial 'boom' this expectation of high profit on shares in enterprise tends to have the effect of sending down the prices of the fixed-interest securities, making the long-term rate of interest high.

(v) Speculation (to a minor extent). Fluctuations in gilt-edged securities are liable to be checked by a belief that owing to the absence of risk the prices are not likely to vary very much in the long run. This belief is thus self-realizing. The price is not much subject to the main cause of booms and slumps in equities—operations by the ill-informed designed merely to anticipate market movements, superimposed on operations by the well-informed designed to anticipate the ill-informed. Further, in the United States, Government bonds are held mainly by institutions, such as insurance companies, banks, etc.,

which are not given to speculative operations; and in Great Britain, where they are largely held by the public, the public is in such matters conservative, and in any case holds gilt-edged stock for the sake of the fixed income, more or less irrespective of variations in capital value. (On the other hand, the high proportion of inactive holdings makes the price rather sensitive in the short run to large operations.)

(vi) The preference of the public for holding 'free,' or 'liquid,' money. This, as we saw in the last chapter, is not wholly a question of hoarding to satisfy the desire for security by means of the possession of ready money. At a time when incomes are rising people want more money in hand for transaction purposes, and wait till their balances are at a higher level before using the surplus to buy securities. The demand for securities is therefore lower, and the price drops. This factor helped to send the rate of interest up during the War. The possibility of hoarding is, however, an important one. It is this which prevents the price of gilt-edged securities going up and the rate of interest down as soon as a collapse occurs in the expectation of reward from industrial enterprise. It might be supposed that as an expectation of high return on enterprise sends the price of fixed-interest securities down, so a slump in confidence would send it up, since there would be a pressure to buy gilt-edged stocks. If the slump is really severe, however, wealth-owners may prefer to sacrifice interest and keep their money either in short-term securities or entirely at their own disposal, in bank deposits or, in extreme cases, hoards of currency. Moreover, the pressure to buy coming from savers turning away from equities may be balanced by the pressure to sell coming from sufferers by the slump who have to 'dis-save' by realizing their assets. In other words, the strength of the desire to obtain ready

money has to be taken into account as well as the willingness to part with it. So it is some time after the onset of a slump before the rate of interest falls of itself. Moreover, the increasing attractiveness of retaining ready money in hand as the long-term rate of interest falls tends to set a conventional limit to the rate, which is by no means easy to overcome.

The point of this long analysis is to draw the reader's attention to the fact that the long-term rate of interest is by no means merely a product of the blind forces of the market. Though causes (iv), (v), and (vi) may be largely beyond control, (i), (ii), and (iii) clearly are not, and monetary authorities seriously desiring to raise or lower the long-term rate of interest have means at their disposal for doing so. Such limitation as exists in the downward direction is a psychological one. But it is none the less real; indeed, it can probably be overcome only by stages spread over long periods of time. Wealth-owners have learned to expect not less than, say, $2\frac{1}{2}$ per cent. for their money: this, it may be remarked, has been for more than half a century the fixed rate of interest for deposits in the British Post Office Savings Bank, while the United States savings system has paid the same rate on its Savings Bonds, though 2 per cent. on its Certificates. It may well be that for some time to come people will prefer, when interest shows signs of falling below that rate, to hold their money freely at their disposal, or to buy annuities with it, to an extent sufficient to check the fall. For a rate much below this might be regarded as not a sufficient yearly return to safeguard them against the possible variation in capital value—that is, against the insecurity of having parted with their ready money.

Subject to this important reservation, however, it is open to monetary authorities to influence the rate of interest in a downward direction. What motive have

they for doing so? To answer this question it is necessary to look closely at rates (*e*) and (*h*), since these affect production directly. The former is the cost of financing working capital, the latter of financing fixed capital. Producers increasing their stocks do so as a rule with money borrowed from their banks, while those enlarging their plant normally seek a long-term loan from the public.

As regards the short-term rate (*e*), it seems probable that production is at least as much affected by the ease or difficulty with which producers can obtain, or renew, loans from the banks as by the actual terms of the loans. But in some cases the terms may be important, as, for example, speculative house-building in Great Britain, which has lately proved itself extremely sensitive to a change in the short-term rate. And when a change in rate (*e*) results from a change in the discount rate of the Central Bank, it has a strong psychological effect, being regarded as an indication of the intentions of the authorities. If these are apparently restrictive, business-men make their plans accordingly. Apart from this, they may wish to borrow at short-term while awaiting a favourable opportunity for appealing to the public for a long-term loan. Or if the short-term rate is high, they may prefer to *lend* at short-term—*e.g.*, by leaving their money on time deposit—rather than risk their funds on enterprise at an unpropitious time.

The long-term rate for borrowing at fixed interest from the public affects industry at several points. Producers of goods for consumption will not expand their equipment for production unless they foresee a satisfactory profit on the use of the new equipment after paying interest at the current long-term rate on its cost price. Producers of capital equipment cannot continue to produce at the current rate if producers of goods for consumption give them no orders, as they will not if the rate of interest is

too high; and they cannot, of course, in such circumstances extend their own capital equipment. These considerations have a double force in the case of consumers' goods of the type that are bought on hire-purchase or mortgage, because interest is paid both by the producer and the consumer; and the recent development of consumers' credit has therefore increased the sensitiveness of production to changes in the long-term rate of interest. It must be remembered, too, that even if producers have funds at their disposal from profits previously earned, the rate of interest enters into their calculations, since they have the alternative of putting their funds out to interest for a time, instead of using them for production and waiting for a doubtful profit.

It must not be supposed that the rate at which producers can borrow at fixed interest for long-term from the public fluctuates with every movement in the price of gilt-edged securities. It follows the gilt-edged rate—or precedes it—sluggishly, and is insensitive to minor shifts reversed within periods of days or weeks. For borrowers from the public watch their time; and enterprises finance themselves temporarily by short-term loans, even for the purchase of fixed equipment, for a varying period of months, in order to take advantage of the best moment to launch a new long-term issue which will commit them to fixed payments for years to come.

The natural result of the maintenance of a high long-term rate of interest is to slow production down, except in circumstances where the expectation of return from enterprise is higher still. Where expectation is low wealth-owners will not take direct shares in enterprise, and they will not lend their money at fixed interest, except at rates which exceed the potential borrowers' expectations of profit. A Government in such circumstances may either endeavour to restore industrial and commer-

cial expectations or may endeavour to restore a lower long-term rate of interest. For the reasons we have given either remedy presents a psychological as well as a technical problem. If the authorities succeed in establishing a long-term rate lower than the expectation of return from enterprise production revives; and with its revival the readiness of savers to purchase a direct share in the profits of industry is renewed.

Here we should perhaps consider, in its relation to the rate of interest, the possible alternative open to a Government of stimulating revival by direct public expenditure. It is held by some people that a Government should be influenced, like the private producer, by the relation between the current long-term rate of interest and the monetary return on enterprise—*i.e.*, that a Government should not undertake business not directly 'remunerative.' This, however, is a false analogy. In the first place, a Government can generally borrow more cheaply than the private person. Not only are the long-term rates at which it can borrow from the public more advantageous, but it has the alternative of expanding its short-term floating debt if it so desires, instead of borrowing at long-term. In the second place, the interests of the entrepreneur in the given circumstances are at variance with those of the community; the interests of the Government, properly understood, cannot be. If it is using on enterprise which adds to the wealth of the nation real resources which would otherwise be wasted, the fact that the expected financial return falls short of the current long-term rate of interest is not a reason for refusing to undertake it, since the loss of national income due to the waste of resources would certainly exceed any slight loss to revenue.[1] Looking at the matter from the

[1] On this subject see Professor Pigou on "Economy and Waste," in *Economics in Practice* (1935).

point of view of real wealth, we may say that direct expenditure on public works of permanent value is a more certain means of achieving real accumulation by the community than any method of stimulating private saving could be. There is, however, some objection (to be dealt with more fully in Chapter VIII) to increasing the amount of Government debt, and unless in the future the whole basis of Government borrowing is reviewed so that it is no longer necessary to create money titles in order to enable the Government to use its credit, it is probable that in a capitalist community stability can best be secured by creating conditions which enable private producers to undertake the largest possible share of the total enterprise.

The fact that the monetary authorities can by the steps indicated lower the rate of interest to a level consistent with the national advantage is illustrated by the course of events in Great Britain since 1932. The public's expectations of the yield of fixed-interest securities were reduced between that year and 1936 from 5 per cent. to $2\frac{3}{4}$ per cent., with immediate effects on private capital enterprise, in particular house-building. Incidentally, it may be remarked that such a movement is extremely convenient to a Government from the budgetary point of view. So long as the currency is free of international influences a Government will naturally prefer to keep the rate of interest as low as possible in order to keep down the amount it has to pay out in interest on its own debts. This is one of the advantages of keeping the currency free from an international metallic standard.

It remains to consider certain objections which may be made to a policy of keeping down the rate of interest. In the first place, it is commonly held to discourage saving, and thus to produce a shortage of loans. But even if monetary savings are to some extent stimulated by a high rate of interest—and it cannot safely be assumed

that they are stimulated on balance, since savers for income would save less if rates were high—capital outlay is not stimulated, but depressed; and it is only by way of capital outlay that monetary savings become *real* accumulation. In any case the idea that it is necessary or desirable for economic (as distinct from social) reasons to stimulate monetary saving by private persons is discredited. It underestimated people's natural propensity to save, irrespective of inducement. Even in Soviet Russia savings are beginning to accumulate. With the existing distribution of income and standards of living in Great Britain and America there is no need in time of peace to fear a shortage of saving. The danger is rather an excess—a greater abstention from present consumption than is justified by current activity in making goods for the future. The purpose served by interest in relation to savers is not to persuade people to save, but to persuade them to part with control over their savings to others. And control over the rate is necessary in order to accustom them to accept a rate low enough for others to be able to afford to borrow their savings for productive enterprise. Its further purpose is to induce the banks to increase their liabilities, and so create more money. This aspect of interest is often forgotten. It should be enough in itself to dispose of the theory that the purpose of interest is to induce savings, since, in fact, the bulk of the money on which interest is paid is not savings at all.

Another argument sometimes urged in favour of a relatively high rate of interest in prosperous times is that it may check misdirection of enterprise. This, however, is only sound as a reason for relatively high rates for enterprises of doubtful soundness. A general high rate would check sound enterprises also. This is the weakness of the policy of using a high rate of interest, as it is sometimes assumed that it should be used, as a corrective

for boom conditions. In a boom expectations of profits are inflated; and unless the volume of money is very rapidly increased the rate of interest naturally follows them as people withdraw their money from fixed-interest securities and take shares in profits. While it lags behind, however, enterprise continues to expand. But *reasonable* expectations of profit would tend to fall as the boom proceeded, for the reason that when much new equipment has already been added the advantage foreseen from further additions must be smaller unless prices are expected to continue to rise rapidly. The rate of interest, therefore, may overtake and pass reasonable business expectations, while it is powerless to check unsound business ventures; and to increase it to a point at which unsound enterprise would be checked would mean suppressing all new activity. As Mr Keynes has put it, "An increase in the rate of interest as a remedy for the state of affairs arising out of a prolonged period of abnormally heavy new investment belongs to the species of remedy which cures the disease by killing the patient."[1] The right remedy is the rationing of loans and the taxation of profits, in conjunction with a rate of interest low enough not to cause the boom suddenly to pass into a slump. The driving-force of industry is the spending of money in enterprise in the hope of profit. It is the paradox of interest that it facilitates the acquisition of money for spending, but diminishes the profit motive for spending the money acquired.

It is important to note in conclusion that although it may appear to be in the interest of dealers in money—*i.e.*, in particular the banks—that the rate of interest should be as high as possible, this is by no means the whole truth. For the dealers in money are the largest holders of marketable debts, and if the rate of interest

[1] *The General Theory of Employment, Interest, and Money*, p. 323.

is high the price of these is low. Should the price fall too low the banks' solvency will be endangered. Thus a deflationary process, as well as an inflationary process, is liable sooner or later to be checked by alarm on the part of the banking authorities.

APPENDIX TO CHAPTER VI

THE interest rates which among all interest rates are of the most fundamental importance are the Central Bank's discount rate and the yield on Government bonds (gilt-edged securities). Our first tables will therefore indicate movements of these during the crucial years since 1924.

I. BANK RATE

YEAR	BANK OF ENGLAND (% P.A.)	FEDERAL RESERVE BANK OF NEW YORK (% P.A.)
1924	4	4½–3
1927	4½	4–3½
1929	5½–6½	6–4½
1930	4½–3	4–2
1931	2½, 3½, 4½, 6	1½–3½
1932	5, 4, 3½, 3, 2½, 2	3–2½
1933	2	3½–2
1934	2	1½
1935	2	1½
1936	2	1½
1937 (to August)	2	1½–1

The high rates of 1929 were due to the speculative boom in New York, which caused a movement of funds, and therefore of gold, from Great Britain. The credit restriction in Great Britain was designed to check that flow, while that in New York was aimed at depressing the speculation. The low rates from 1933 onward reflect the 'cheap-money' policy of the monetary authorities in both countries.

II. YIELD ON GILT-EDGED SECURITIES

YEAR	GREAT BRITAIN[1] (CONSOLS) (% P.A.)	UNITED STATES (TREASURY BONDS) (% P.A.)
1924	4·39	4·06
1927	4·56	4·53
1929	4·60	3·60
1930	4·48	3·28
1933	3·39	3·31
1937	2·89	2·70

[1] Barclays Bank *Monthly Review*, April 1937.

The falling long-term interest rate in this period represents a return to the pre-War level, which in Great Britain was under 3 per cent. for the whole of the period 1886–1909.

It is noticeable that Bank rate, which is directly under the control of the monetary authorities and was altered to meet temporary, often external conditions, fluctuated much more widely than long-term rates until the last few years, when it became stable under the influence of a definite policy of internal expansion.

III. Short-term Rates for Government Borrowing

Year	Great Britain (% p.a.)	United States (% p.a.)
1929	5·2	4·38
1930	2·5	2·23
1931	3·5	1·15
1932	1·7	·88
1933	·6	·52
1934	·7	·26
1935	·5	·14

Note that the short-term rate at which the Government can borrow is not always lower than the long-term rate. It is influenced to some extent by the other associated short-term rates.

IV. Other Short-term Rates

	Great Britain			United States	
Year	Market Rate (Three Months' Bills) (% p.a.)	Deposit Rate (Banks) (% p.a.)	Short Loans (% p.a.)	Call Loans (% p.a.)	Commercial Paper (% p.a.)
1929	5·3	3·5	4·6	7·61	5·85
1930	2·6	1·4	2·5	2·94	3·56
1933	·7	·5	·8	1·16	1·72
1935	·6	·5	·75	·56	·76

CHAPTER VII

MARKETS IN MONEY TITLES

WE pointed out in our first chapter, and again emphasized in our discussion of the fixing of the rate of interest, that claims to money are continually bought and sold, payment being made in money. This feature of the modern monetary system we are in the habit of taking for granted, though it is really a curious phenomenon deserving close contemplation. It means that money in a modern community has a tendency to take to itself the characteristics of durable goods. The reason why claims to money can be bought and sold like commodities is that it is in existing conditions worth some people's while to give a smaller sum of money now for the certainty, or even the chance, of a larger sum in the future, or to surrender a sum temporarily in order to receive an annual percentage of it as income until it is repaid, or to buy with a sum of money now the chance of a future income of unknown size which may prove to be very large in relation to the sum expended; and at the same time it is worth some other people's while to obtain the use of the money on these terms.

Transactions in money and money claims corresponding to all these, and, indeed, many other, descriptions can be carried out provided that there exist organized markets easy of access in which money claims can be transferred from one holder to another. Both Great Britain and the United States have highly developed markets in all transferable titles. (There are titles acquired by contract—*e.g.*, time deposits in banks, insurance policies, mortgages, and

annuities—which are not dealt with in the markets.) The markets may be divided into three, largely but by no means wholly independent of one another: the short-term or 'money' market, the market in long-term securities carrying fixed interest, which we can conveniently call, after the American style, the 'bond' market, and the market in long-term 'ordinary' shares, or titles to a share of whatever profits may be forthcoming in the business which has issued them; this may be called for short the 'equity' market. The last two are often referred to together as the 'investment' market.

The development of a market in which long-term industrial securities can be freely transferred has taken place only during the last hundred years. Markets existed before the nineteenth century both in short-term commercial debt and in short-term and long-term Government securities, but too much risk was attached to industrial shares for a wide market to be possible. Before the invention of limited liability the person who wished to enjoy an income from a business without activity could do so by in effect buying a sleeping partnership; but he thereby risked not only the purchase price, but his whole fortune, since he was personally liable without limit for the debts of the concern, and might be ruined by its failure. Assets of this kind could obviously not be readily transferable. On the other hand, financing by means of bonds was limited by the operation of the Usury Laws to concerns with exceptionally good credit. With the repeal of the Usury Laws in 1854 and the passing into law of the Limited Liability Act of 1855[1] the amount of industrial borrowing by both means enormously

[1] During the previous century the privilege of limited liability had been conferred by special Acts of Parliament on a number of companies promoted for the purpose of constructing canals and railways—highly capitalized utilities which could hardly have been developed otherwise.

increased in Great Britain, and a wide market became possible in both types of security.

It may seem surprising that the market in equities should be classed equally with the market in bonds, as a market in 'money titles,' and, indeed, in some respects the two classes of security are sharply distinct from each other. From the point of view of the owners of a business bond charges are part of its costs, while ordinary shares carry a title to part of the profits. The ordinary shareholder is, in fact, part-owner of the business, whereas the bond-holder is one of its creditors. But since the ownership is of a kind which involves no responsibility for management, the two types of claim occupy much the same position in the mind of the investor. The fact that most companies offer shares of both types—often at the same time—also has its effect in putting the two on the same level from the investor's point of view. What he considers himself to be buying when he acquires part-ownership of a business in this way is not its capital equipment, nor a share in its power of earning, but a claim to money income—which he differentiates from the bond claim by the greater degree of risk that the income may not be forthcoming, and a chance of profit—which he differentiates from the bond claim by the greater possibility of variation in its money value. The price he is willing to pay is, in fact, made up of several elements—the purchase price of what he thinks to be the normal dividend plus or minus the allowance he makes in his mind for a possible variation in the amount of the actual dividend, and a further allowance for his probable profit or loss on resale. As we shall see, however, the values of claims to a fixed rate of return and claims to a speculative rate are very differently affected by changes in market conditions, particularly the expectations of investors.

Another sharp distinction which must be drawn in the

case of the long-term markets is that between the market in old titles and the market in new titles. The market in new titles constitutes such means as exist of directly compensating for the net money savings of the community by expenditure on enterprise. In so far as savings actually flow into this channel, the money which savers pay for new titles becomes the capital of the business concerns which offer the titles, and is spent, at all events to a considerable extent, on real capital equipment, so creating income in substitution for that which the savers would have created if they had spent the money on goods and services. The market in old titles clearly serves no such purpose, transactions in it merely constituting the exchange between money claims held in the form of money and money claims held in the form of 'securities.'

It may be a little difficult at first sight to understand what *economic* purpose it does serve; its convenience to the persons concerned is, of course, obvious. Why, it may be asked, should not an investor in War Loan or the shares of a tooth-paste company be expected to hold his claim indefinitely? What is the advantage from the point of view of the community of allowing such claims to be freely transferable? The answer is, first, that the knowledge that such claims can be readily exchanged for cash (though at varying price-levels) makes the investor much more willing to acquire them in the first instance, and this readiness is essential to a free flow of spending on new enterprise. The investor is undertaking one risk already, arising from the nature of the concern in which the money is invested. If there had to be added the risk that he might find himself burdened with an unrealizable security at a time when he needed cash, it is clear that a much higher rate of reward would be necessary in order to induce wealth-owners to part with control of their

cash; and a high rate of expectation of return on the loan of money is a serious drag on production, and therefore on employment. The existence of widespread, easily accessible markets in fact greatly increases the liquidity of the assets which are dealt with in them; and, as we have seen in the last chapter, people attach a value to liquidity in an asset. This is equally true of bonds and of equities. Secondly, the free market offers the technical convenience of enabling borrowers to gauge what in fact are the expectations of lenders at any given moment, the price they are prepared to pay for old titles being a measure of the return they expect on new ones. Finally, the intervention of the monetary authorities in the market, by influencing prices, can influence investors' expectations, and this is an important part of monetary management. Before we examine the process more closely, however, it is advisable to look at the working of the short-term market, which, as will appear, influences to a considerable extent the conditions in which the other markets function, since many transactions in the other markets are carried on with money borrowed at short-term.

The 'commodities' which are bought and sold in the short-term market are, looked at from one side, money balances, returnable on demand or at very short notice, and, from the other, claims to cash payment at an early fixed date (without interim dividend payments). One set of people regards itself as buying money balances, paying for them with short-term money claims; the other as buying money claims, paying for them with ready-money balances. If for once we are able to think of money itself as the commodity, instead of as merely the medium in which transactions are carried through, it is because the demand for money balances, quite as much as the demand for claims, settles prices in this market;

and, indeed, prices are expressed, not in terms of the lump sum to be paid for a claim at such and such a rate of interest, but in terms of the rate of interest required to secure such and such a sum of money. The claims to which we refer normally take the form in Great Britain of three months' bills—*i.e.*, orders for payment at the end of three months—drawn on commercial debtors or on the Treasury, though long-term Government securities nearing the date of repayment may also be dealt in, the essential thing being that the claims can be turned into a specified sum of money at a fixed and early date. In the United States there are corresponding claims of various periods in the form of commercial promises to pay and Treasury Bills and certificates of indebtedness.

The chief operators in the market—the bill-brokers and discount houses—act as intermediaries between parties having spare-money balances and parties requiring increased money balances for a short time. They do this by buying the bills—*i.e.*, the obligations—of the latter and selling them to, or borrowing on them from, the former. The Government, for example, may want money to meet its obligations, possibly on bills previously issued and now due for repayment, possibly for expenditure which will ultimately be covered by the proceeds of taxation. It creates and puts on sale Treasury Bills for which it receives from the money market the nominal value, with a larger or smaller deduction according to the current short-term rate of interest. Similarly, a trader who has sold goods to another and expects to have to wait for payment can get his money at once, or rather the full amount of it less a payment for the accommodation, by discounting in the discount market a bill drawn on the buyer. The bill-broker makes his profit out of the difference between the rates of interest he pays to the banks, or to any other parties who may lend him the buying price of the bill

—these may be commercial concerns or financiers, as well as banks—and the rate earned during the time for which he holds the bill. Or, of course, he may make his profit on selling the bill if some one is ready to pay him what amounts to a commission for his knowledge of the market, or if rates of interest change during the bill's currency.

The whole working of the money market hinges on this possibility of making a profit out of the difference in value between money on the spot and money to be handed over in the near future, and out of the different rates of interest which are charged for different purposes. Money which can be spared for even the shortest time—*e.g.*, overnight by banks which find at the end of the day that their liabilities are not up to what they consider the full allowable limit—is continually flowing from point to point, according to where it can earn the greatest profit, after the manner of water finding its own level. And there is always more of it to be had, at a price. In Great Britain if all other sources fail the Bank of England itself, by long-established custom, will discount bills at its official Bank rate, or lend money to dealers in the market at ½ per cent. over that rate, as it generally does at the end of each half-year. In the United States the member banks of the Federal Reserve system, when they cannot otherwise meet their customers' needs, will borrow from the Federal Reserve Banks. When this happens the short-term money market is a means of drawing more bankers' cash—the money basis—into existence, though it may be only for a short time to meet the seasonal pressure which ordinarily occurs at regular times throughout the year. At other times the existence of the market may facilitate a reduction in the quantity of money. Suppose a bank wishes to reduce its liabilities. It calls in money balances which have been lent to the bill-brokers at call or short notice, is paid with a cheque on

itself, cancels the corresponding balance held by the broker in its books, and the desired end is achieved. At such a time—at all events if the process is applied by a number of banks simultaneously—money is said to be 'tight.' At times when the banks are using loans to the bill-brokers as a means of increasing their liabilities money is 'easy,' or plentiful.

The nineteenth-century money market in Great Britain dealt largely with commercial bills, both internal and external. Now the internal bill has fallen largely into disuse, bank loans and overdrafts being found a more convenient way of financing internal commercial requirements, and its place in the discount market has been taken by the Treasury Bill; the amount of Treasury Bills outstanding has risen since 1913 from £105m. to £674m., after reaching during and after the War much greater heights (£1207m. in 1921), from which it has since fallen. The effect of the issue and redemption of these securities is constantly to vary the amount of money available in the market for loans. When, for example, a consignment of Treasury Bills is taken up by the market there is a transfer of money from the bill-brokers to the Exchequer, and consequently from the bankers' balances at the Bank of England to 'Public Deposits.' This, until the bankers' balances are replenished by the spending of the money, means a reduction in the amount of cash available for the market. If the bills are paid off as they mature the opposite process takes place. If, however, it is the Bank of England which takes up Treasury Bills the *immediate* effect is to make money more plentiful, since the resources of the commercial banks are released for other purposes; while if the Bank of England sells these (or, indeed, any other) securities it denudes the market of funds, since the purchase price is deducted ultimately from the bankers' balances at the Bank of England. By

similar purchases and sales of securities in the United States the Federal Reserve Banks control the volume of money in the balances of the member banks.

It is evident that by these various means the monetary authorities in each country can do much, subject always to their own need for funds, to regulate the short-term rate of interest. All shortages and excesses of available money are reflected in fractional changes in the rate of interest the bill-broker has to pay for his loans, and therefore in the rate he charges for discounting. He also has to take into account possible changes in the Bank rate and other associated rates during the term of currency of the bill, and the effect that these would have on the profit he could make by selling it, or on the difference, if he holds it, between the rate of interest he is earning on it and the rate he is paying elsewhere. On a nice calculation of all the probabilities he decides on the price he is prepared to offer for the bill.

The importance of his decision is partly budgetary, since the rate of interest in the short-term market for Government short-term securities varies the cost at which the Government is able to anticipate its revenues, and partly commercial, since the market facilitates payments which would otherwise, owing to time or distance, be difficult to make. So far as the short-term market itself is concerned, a very low rate of interest is for the good of every one except the discount dealers, who in Great Britain took action in the cheap-money period of 1934 to limit competition by agreeing upon a minimum rate for Treasury Bills. (So low had the rates fallen that the discount houses were obliged to replace a proportion of their assets with Government bonds with a short time to run, since on these higher rates could be earned.) The importance of the short-term rate of interest, however, is not limited to the short-term market,

for the reason that operations in the long-term market, to which we must now turn, are carried on to a considerable extent, though, of course, far from exclusively, with borrowed money.

The long-term market deals in stocks, shares, and bonds—*i.e.*, in claims to a part in the profits of an enterprise (stocks or shares), claims to a share in the debt due from an enterprise to those who have lent it money (bonds), and claims to payments in respect of loans to the Government (also bonds, but confusingly called in Great Britain Government 'stocks'). On the borderline between shares and bonds are the various types of preference share which secure that the holder will be paid his interest before profits are distributed to the holders of ordinary shares. Shares have a nominal money value on which a percentage dividend is periodically declared, but this is not necessarily the amount they sell at, even at the first time of selling, and bears no fixed relation to the amounts they change hands at on subsequent occasions. The shares of a well-known multiple store, for example, the nominal value of which is 5*s.* per share, sold at £4 10*s.* per share on the occasion of a recent new offer. The American market has recognized the comparative meaninglessness of the nominal value by permitting the issue of shares of 'no par value'—*i.e.*, merely proprietors' units of capital, without any nominal money value assigned to them.

The long-term markets, which constitute the investment market, differ from the short-term market—the *personnel* of which is professional—in that the operators in them include large numbers of private persons, not operating directly, since the formal transactions are carried through on their behalf by stockbrokers, but furnishing a large part both of the demand and the supply. The rest is furnished, so far as the bond market is concerned, by

commercial and financial concerns of all kinds, banks, trustees, and speculators, and, so far as the share market is concerned, by commercial and financial concerns and speculators.

Two things should be grasped at the outset in thinking of the investment market. The first is that buying is not confined to people disposing of spare money balances accumulated out of income. If it were the market would be immediately and efficiently, as it is, in fact, sluggishly and imperfectly, a means of balancing the requirements of some savers against those of parties wishing to realize their savings, and directing the remaining savings into the channels of new enterprise. But in actual practice the banks, operating in the Government bond market, make their purchases largely with money created for the purpose, and, further, in the working out of the process of disposing of savings a good many people find means of making a profit by operating with borrowed money. Speculators buy, perhaps, with balances borrowed on short-term from the banks, hoping to be able to sell at a profit before the loan has to be repaid; they may even carry the whole transaction through without actual borrowing, if they have effected a sale by the settling day on which they have to pay for the purchase. Similarly, they may sell, and be paid for, stock they have not got, in the hope that the price will be lower when they have actually to buy and deliver. For both these operations, however (those of the 'bulls' and 'bears' of the market respectively), it is necessary to be assured of bank or other credit in reserve in order that the speculators may be able to effect a settlement, if necessary with borrowed funds, at the time fixed, and so gain time to make their profit. Settlement must be effected on the day of the transaction in the United States, but in Great Britain there is a fixed settling day which may be anything up to

three weeks after the transaction; in practice, however, the speculators' transactions in either market are frequently reversed on the same day. It is unlikely that the higgling of such a market will in itself induce the flow into production of just the amount of money, not wanted for consumption, which is required to maintain employment. All it can be relied upon to do is to produce satisfaction as between money-holders and title-holders by variations in the price of titles.

The second thing is that owing partly to this element of borrowing for market operations and partly to other causes noted below, the price of industrial money titles fluctuates constantly, and is sensitive (particularly, of course, in the case of equities) to every slight change in expectation. The professional speculators, it is true, provided that they hold diverse views, tend to steady the market by reversing their original action; for the bulls buy when the price is low and sell when the price rises, and the bears sell when the price is high and buy in when it falls; but the private person operating with borrowed money merely intensifies the movements. There is no brake on the price-level, as there is in the case of ordinary commodities, provided by the cost of production, for apart from book-keeping money titles cost nothing to produce. The conditions on which new funds are being currently obtained in the market may influence the price of old titles, particularly when the new titles are bonds issued by the Government, but in general are far more likely to be influenced by that price. The question is largely one of relative bulk. The conversion of the British 5 per cent. War Loan affected all long-term money rates indirectly because it directly lowered the return on holdings with a nominal value of about £2000m.

Apart from such events and the imposition of deliberate checks, the price-level in the share market goes its

own way under the influence of changing expectations of profit and expectations of changing prices, falling to nothing, perhaps, in the case of particular shares which become unsaleable, and rising sometimes to heights which appear to bear no reasonable relation to the profits likely to be forthcoming from the enterprise. There is no known or conventional price for shares: every transaction is strictly a bargain. The truth is that every speculative buyer expects to be able to pass on the shares to some one else before expectations are disappointed. In a rising market the buyers are those who expect prices to go still higher, the sellers those who are content with the profit they have already made on the price at which they bought. The stock-dealer or jobber acts as intermediary; the fact that as a rule he is prepared to offer prices in any stock for buying and selling respectively, which take into account the variations in the attitude of buyers and sellers as he appraises them, is another factor accentuating the sensitiveness of prices, since it causes the expectations of the dominant party to realize themselves. Like a dealer in commodities, he holds stocks of the goods in which he deals, and is generally ready either to buy or to sell. His object is to equalize his buying and selling offers, and this he does by modifying prices according to the demand. If he receives more buying offers he puts the price up to attract more sellers; if he receives more selling offers he lowers it to attract more buyers. While it is true that for every buyer there must be a seller, in a rising market the initiative comes from buyers, and in a falling market from sellers, the other parties having to be tempted to sell or to buy.

It must often puzzle the unversed reader to see that industrial shares can be depressed by public events that appear to have nothing whatever to do with the capacity of the enterprise for earning a dividend, which, after all,

is the justification for their being treated as a saleable commodity at all. Why should fear of the death of a ruling monarch lower the price of rubber shares? The explanation is that in the transactions that take place at moments of excitement—transactions which, of course, affect only a small proportion of the total number of shares—speculators are likely to be predominant. They think less of the yearly income which the shares might produce than of the price at which the claim to this income may be sold to some one else; and they therefore consider not what they themselves think of the effect of the news, but what other people are likely to think of it. Markets move ahead of events, for speculators have no intention of waiting for the actual occurrence of the events which they anticipate. Other people being generally ignorant and easily influenced, it is reasonable to act on the assumption of a rise or fall of prices which would not in itself be reasonable, and the speculators' mode of acting on their assumptions tends to bring about the very result which the dominant party among them anticipates. For offers to purchase alone, without any increase in the returns, will raise the price of a share temporarily. The movements of the market depend on the participation in it of two grades of people, the one calculating ignorantly on the chances and the other calculating knowingly on the calculations of the ignorant, the latter class being strengthened by those of the former who arrive at the general view a little in advance of their fellows. There must, of course, be divergent views at any moment if any considerable volume of transactions is taking place. If opinion is unanimous prices are often marked up or down by the jobbers; but it does not follow that many holdings will change hands at the new price-level.

The effect of rising or falling industrial expectations

on the bond market is different. The yield of the security being fixed, it naturally becomes less attractive if there is a prospect of a higher return on the same capital elsewhere. Subject to a limitation on the total supply of money, therefore, as the price of equities goes up the price of bonds falls. This is not, however, the end of the story. For, normally, increased quantities of money are drawn into existence by a boom in the equity market (owing to borrowing from the banks by operators in shares), and sooner or later the price of fixed-interest securities begins to rise also, stimulated by the speculation to which expectation of this course of events gives rise. There is, however, a check on the rise of bond prices which does not exist in the case of equities. The annual payments attached to a bond were fixed when the titles were first offered for sale, at a level then thought sufficient to secure the offer of a specific purchase price. It was, in fact, the current rate of interest on the purchase price. As the title passed from hand to hand, however, the selling price may have been more or less than the original purchase price, and the fixed annual yield would therefore be, for a new holder, a smaller or larger percentage of his purchase price. As we explained in Chapter VI, the percentage of the purchase price currently paid which the yield represents tends to be the rate attached to new titles, but there is a lower limit below which buyers and sellers realize that the rate attached to new titles is not likely to fall, owing to the difficulty of persuading wealth-owners to part with control of their money for a lower reward. If for this reason it is not expected that the rate of interest on new fixed-interest securities will fall below, say, $2\frac{1}{2}$ per cent. the price of old securities does not rise above the level which in the case of particular securities would produce that percentage yield on the purchase price. A rise in bond prices is, therefore, normally

checked while a rise in equity prices is still proceeding, and, indeed, the usual course is for it to be reversed, and the rate of interest accordingly raised, as equities approach boom heights.

If we look at the economic significance of the relations between the two yields we shall see that the check on bond prices should in itself, if investors were reasonable, have some tendency to check a boom in equities. Since, as we said before, the yield on industrial bonds represents a cost to new enterprises borrowing at that rate, and the yield on equities a share in profits, and a large proportion of business enterprises issue both types of security, it is obvious that if the yield on bonds does not drop below a certain level there is a check on probable profits, and therefore there should be a limit to the amount that it is worth while to pay for a share in the profit. If the price of fixed-interest shares is relatively low and the price of industrial shares relatively high it is probable that the expectations of buyers of industrial shares will be disappointed in any period long enough for the actual dividends declared on the shares to have their effect on the market. Mr Keynes pointed out in February 1936 that this situation then existed in the London stock market. As *The Economist* paraphrased him,[1] he believed that the current rate of interest was not low enough to induce the volume of new constructional work necessary to bear out the present earnings-expectations of investors. The remedy Mr Keynes proposed was in effect an increase in the price of fixed-interest securities, to be brought about by an increase in the quantity of money. Actually his pronouncement had the effect of checking for the moment the rise in the prices of industrial shares. So sensitive is the market to the opinion of anyone who appears to speak with authority on the justification for prices.

[1] *The Economist*, May 9, 1936.

It may be observed here that the proportion in which financing by fixed-interest bonds and financing by ordinary shares is combined in the same enterprises is of considerable importance both to the individual enterprise and to the market. For a high proportion of shares on which a fixed rate of return has to be paid ('high gearing,' as it is called) means that a large proportion of the gross receipts is absorbed in interest charges before income is arrived at. The income will thus constitute a return on ordinary shares varying much more widely from good times to bad than if the enterprise had been wholly financed by ordinary shares. This position is risky for the enterprise, and makes the ordinary shares a highly speculative security.

The effects of an extravagant boom in equities are generally regarded as wholly pernicious. In the first place, money is drawn away from the industrial circulation into the financial circulation, with the result that the genuine enterprise necessary to justify the expectations which have led to the boom is starved. The banks, as we have seen, cannot extend their liabilities beyond a certain point, and though loans for speculation may not be a large part of their total advances, a marked increase in them would add to the number of unsatisfied industrial borrowers and depress activity accordingly. In the second place, the judgment of investors is unsteadied, and unsound enterprises obtain funds which in times of sober judgment they would be unable to attract. In the third place, such a boom introduces a most serious element of instability into the monetary structure. The fact that the high prices are based on a mere estimate of other people's opinions, and not on anything real, places them at the mercy of every fluctuation of confidence, and causes them to fall, if they do fall, in the same unreasoning manner as they rose. And although no real wealth is

destroyed by a drop in Stock Exchange prices, a failure to *create new* real wealth follows upon it. People feel poorer and spend less. Producers expect them to spend less and cut down production.

But, it may be asked, does not the boom in ordinary shares encourage the issue of new titles of this kind, and thus facilitate the flow of savings into new enterprise? It is doubtful whether any such merit can be claimed for it. Activity in promoting new enterprise is, indeed, a symptom of the same state of mind as finds expression in the speculative boom—a wave of confidence in the future and an assurance that money will be easy to obtain from the public. But this state of mind is induced by rising prices of *fixed-interest* securities and the consequent lowering of the long-term rate of interest. Low interest rates encourage the financing of new enterprise on the basis of the issue of fixed-interest securities by making it possible to offer the public a comparatively low rate of return, and encourages the financing of new enterprise on the basis of the issue of ordinary shares by making it more probable that a satisfactory margin of profit will be forthcoming on whatever capital is received. The feverish passing from hand to hand of *existing* ordinary shares, with resulting speculative profits which bear no relation to the commercial position of the industrial enterprises which the securities represent, seems to be irrelevant to the healthy process by which new enterprise is stimulated, and it is not surprising that the Government of the United States, where the phenomenon occurs in its most acute form, has been endeavouring to find means of controlling it. Before the 1929 collapse of the American stock market the only method of controlling a speculative boom which was regarded in any country as orthodox was to raise the Central Bank's rate of interest in the hope of checking the flow of borrowed money on which the

boom was sustained. But, as we explained in our last chapter, the rates of interest are all interrelated, and a rate high enough to check borrowing for speculative purposes is far too high for any other purpose. The taxation of capital gains, which suggests itself as another possible deterrent, has the disadvantage that it emphasizes the boom by causing some holders of shares to hold on for higher and higher prices, instead of coming into the market with selling offers; it takes a higher price to satisfy them, since the Exchequer is to take part of it. On the other hand, if there is a heavy speculative position in the market the mere announcement of such a tax may check the boom by squeezing out speculators who cannot afford to hold on for long. It has also been suggested that additional taxation should be imposed on contracts of sale as distinct from the actual transfer of the stock. A simple expedient is that introduced as part of the 'New Deal' legislation, by which borrowers from the banks have to put down a large cash margin for every security transaction—*i.e.*, to find a large part of the purchase price themselves. It is, however, arguable that this measure is double-edged, since it may check the stabilizing influence of the professional speculator as well as the unstabilizing influence of the private gambler.

It may now be useful, in order to bring out the importance of the market in money titles to the state of employment (the criterion of economic health), to follow the actual course of events in a period of recovery from a slump, observing to what extent the natural movements of the market help matters and to what extent 'management' is necessary. At the bottom of a slump the issue of new money titles has ceased or fallen very low, owing to the absence of confidence. The long-term rate of interest is relatively low, but not low enough to stimulate enterprise, because expectations of profit are lower still.

One reason is that people who are alarmed by the situation prefer to keep their wealth in the form of money, so keeping down the demand for bonds. Another is that the supply of bonds for sale is increased by the securities which business-men are parting with in order to finance their losses. There may, therefore, at this point be a deadlock, which has to be broken by a deliberate lowering of the short-term rate of interest (in the first place the Bank rate, or in America the rediscount rate). This will lead to a certain movement back into fixed-interest securities, both on the part of people holding money idle who are dissatisfied with the deposit rates they are getting from their banks and on the part of speculators with borrowed money. It is possible that recovery might proceed from this point by its own momentum, the rising prices of fixed-interest securities lowering the rate of interest and encouraging new capital issues. If it does not, however, the authorities have other resources. They can, through the Central Bank, increase the upward tendency of the bond market by entering it as a purchaser with newly created money. They can deliberately break down to a lower level the expectations of wealth-owners as to the returns on fixed-interest securities by conversion of existing money titles to a lower rate of interest, using, perhaps, a patriotic appeal to make the conversion acceptable. Where the stock market is, as in Great Britain, very much under the influence of the Central Bank, they can control the flow of new issues coming on to the market, thereby increasing the price by reducing the supply in relation to the demand. All these methods were adopted in Great Britain in the years following the crisis of 1931; the last-mentioned was soon dropped as regards domestic issues, but is still (in 1937) enforced as regards foreign issues. The result was undoubtedly to bring down the rate of interest to a level at which enterprise slowly and hesitatingly resumed an

upward movement. The actual flow through the market into new home issues, excluding those merely for the conversion of existing debt into another form, increased from £77m. in 1932 to £141m. in 1935.

The absorption by the investment market *in new issues for purposes of capital outlay* of all net funds on offer (allowing for those absorbed in payment for existing securities) is the market's ultimate *raison d'être*. A perfectly free market does not, however, always achieve this result: there are other influences, apart from control, which tend to obstruct the channel. Though the funds may be on offer, the new money titles to absorb them may not be. New issues are placed on the market by company promoters, and the sale price of the issue is to some extent guaranteed by underwriters who, if the issue is a failure, will be left with the stock on their hands. Both parties will wish to avoid injurious competition with other recent offers of stock for which they have been responsible. A low general expectation of profit will therefore deter them from placing the issue on the market, however bright the prospects of return of the particular enterprise. In the case of bond issues the expectation of higher rates of interest—*i.e.*, of a fall in the price of bonds—has the same effect: it tends to make firms of good credit reluctant to take advantage of the existing relatively favourable conditions for launching a new bond issue. If this occurs funds may be held immobile in the balances of the dealers in securities, with effects on spending which are indistinguishable from those of the retention of money idle in private hands.

APPENDIX TO CHAPTER VII

I. Bond and Share Prices

The following tables illustrate the course of bond and share prices in relation to short- and long-term rates of interest and the volume of new capital issues.

Great Britain

Year	(1) Bank Rate (% p.a.) (Average for Year)	(2) Treasury Bill Rate (% p.a.) (Average for Year)	(3) Yield on Consols (% p.a.)	(4) Price of Fixed-interest Business Securities as Percentage of Price in December 1921 (December of each Year)[1]	(5) Price of Ordinary Shares as Percentage of Price in December 1921 (December of each Year)[1]	(6) Volume of New Capital Issues (Home Industrial) (in £m.)
1929	5·5	5·25	4·60	108·5	147·1	134·7
1930	3·4	2·5	4·48	112·5	118·5	92·9
1931	3·9	3·5	4·39	102·2	90·7	32·9
1932	3	1·7	3·74	116·1	95·8	77·5
1933	2	·6	3·39	122·0	108·4	70·2
1934	2	·7	3·10	132·7	113·5	91·0
1935	2	·5	2·89	129·5	120·1	141·1
1936	2	·6	2·94	130·9	137·7	165·6

Note that, starting from the bottom of the slump (1931–32), as the rates in the first three columns fall—(1) and (2) may be taken as representing the short-term rate of interest and (3) as representing the long-term rate—the prices in the next two columns and the volume of new capital issues as shown in the last column all rise. But the rise in the price of fixed-interest securities (column (4)) is checked, while the rise in the price of ordinary shares continues, as recovery proceeds.

[1] Barclay's Bank *Monthly Review*, April 1937, quoting the *Banker's Magazine* Index.

Comparable figures for the United States are:

United States

Year	Short-term Rate on Commercial Paper (% p.a.)	Yield on Long-term Treasury Bonds (% p.a.)	Yield on Fixed-interest Securities (High-grade Bonds) (% p.a.)	Price of Ordinary Shares as Percentage of 1926 Price	Volume of New Capital Issues (Home Industry) (in $m.)
1929	5·85	3·60	4·73	190	8002
1932	2·73	3·65	5·01	48	325
1933	1·72	3·31	4·49	63	161
1934	1·02	3·10	4·00	72	178
1935	·76	2·70	3·60	78	404
1936	·75	2·47	3·24	111	1188
1937 (April)	1·00	2·74	3·42	125	85 (for month)

The *yield* of fixed-interest securities is given in this table, instead of the price, as in the previous table. The variations are therefore in the same direction as those of the rates of interest shown in the first two columns, instead of in the opposite direction.

II. Recent Course of 'Gilt-edged' Security Prices in Great Britain

Price of 2½ per cent. Consols

1934:	Average January–June	78·0	
	Average July–December	83·8	(90·5 in December)
1935:	Average January–June	88·3	(92·8 in January, then falling)
	Average July–December	84·6	
1936:	Average	85·1	
1937:	January	83·7	
	February	79·6	
	March	76·6	
	April	76·7	
	May	76·4	
	June	75·0	

This table shows the effect of the increase of buying offers for gilt-edged securities by the banks as their cash basis increased, and by investors as they moved idle balances into securities. The peak of the rise in prices was reached in January 1935. During the rest of that year there was a slow fall as the popularity of ordinary (variable-dividend) shares

improved in the investment market, and the pressure of investors' buying offers was transferred to them. At the same time reviving prosperity caused an increased demand for bank advances, which offered the banks an opportunity other than investment in Government securities for increasing their liabilities. The price was fairly steady, with a slight downward tendency, in 1936. In February 1937 a new factor intervened—the increase in the expected supply of Government securities due to the announcement of a Defence Loan. This caused an expectation of a fall in gilt-edged prices which led to an actual fall through the consequent predominance of selling offers, reinforced by the issue of the Defence Loan three months later.

CHAPTER VIII

PUBLIC BORROWING

As a general rule the more solvent a borrower and the more regular his payments of interest the less anxious is the lender to have the debt repaid. In the extreme case, that of a Government whose credit is good, the lender often does not want his loan repaid at all, but regards his claim against the Government, with the resultant yearly income, as a desirable form of property. In a private person, to incur debts which he will never be able to pay off is regarded as profligacy; in a Government this is perfectly normal. Not only does no one expect or desire a Government to pay off all its debts, but a move in that direction may be regarded as a positive injury by its creditors. This attitude was very noticeable in England at the time of the conversion of the 5 per cent. War Loan in 1932, when many holders were aggrieved that the Government should exercise its legal right to repay the loan if they were not prepared to convert it into a security bearing a lower rate of interest.

Though the grievance was unreasonable, there is truth in the view that the debt is a form of wealth. The evidence of Government debts has, in fact, acquired a status approaching that of money. A shortage of Central Bank notes or coinage in circulation may be met, as it was in Great Britain in 1914, by the use of evidence of claims against the Government (in 1914 postal orders) as a circulating medium. Evidences of *interest-bearing* debt cannot conveniently be used for circulation purposes, but they are so readily accepted by the banks as

security for loans that a reduction in the outstanding amount tends to reduce the amount of money in existence by reducing the amount of 'collateral' which borrowers have to offer. Borrowing from the banks often amounts in practice to a pawning of such securities—that is, a purchase of them by the bank, the client retaining the option to redeem them.

The outstanding (internal) debt of the British Government amounted in April 1937 to £6883m., and that of the United States Government to 34·941 billion dollars. The British amount is nearly eight times the normal Government annual revenue, the American amount nearly seven times the revenue. That these huge liabilities excite no special anxiety is a proof that the citizens of the two countries do not expect their Governments seriously to tackle the business of paying the debt off. When any anxiety is expressed it is with regard to the 'service' of the debt—*i.e.*, the interest which must be paid year by year and the relatively small payments into the Sinking Fund if one has been set up to redeem it. Though there are some fundamental objections, as we shall see, to a rapid increase in the volume of outstanding Government securities, and though Governments generally claim it as a financial virtue to have reduced the outstanding debt, the general public is apt to regard the National Debt as a part of the financial structure which is not in itself a thing to deplore, apart from any inconveniences attached to raising the money to pay the interest. Even the small regular payment to Sinking Fund can be suspended in time of depression without causing alarm. So long as the debt is an internal one, owed by the Government to certain of the citizens (largely those who would have to be taxed to raise the money for its repayment), this view has undoubted force, and in itself suggests that, whatever we find to be the principles which should

govern the incurring and repayment of public debt, they are not likely to be the same as those which should guide the conduct of private debtors. Debt owed to foreign Governments is in a different category, and falls to be dealt with in Chapter X.

The primary justification for borrowing is, it is true, the same for public authorities as for business firms—that production is in hand which will occupy some time before the product is available for sale, so that wages and other payments must be distributed in advance of the receipt of remuneration for the product. If we regard the Government as 'producing' the services it supplies—though it does not for the most part sell them—this conception can be extended without difficulty to Government borrowing in anticipation of revenue. This was all that the old 'Exchequer tallies' and 'Exchequer orders' (the original form of Government borrowing in England) amounted to—a claim against the taxes as they came in by persons who had advanced money to the King on the strength of them. Public borrowing at the present day has, however, gone far beyond this conception. So far as the Government is concerned, it is divided into two parts:

(*a*) The short-term, or 'floating,' debt, taking the form in Great Britain of the proceeds of the sale of Treasury Bills or Ways and Means Advances from the Bank of England. The former are claims on the Exchequer repayable at the end of three months, offered for sale by tender in the money market, except in so far as they are taken 'on tap'—*i.e.*, at a rate of interest fixed by the Treasury—by Government Departments; the latter correspond to a private person's overdraft. In the United States, Treasury Bills of varying maturities are put on sale.

(*b*) The long-term debt, taking the form of fixed-interest securities. These may be either 'funded' or 'unfunded'—*i.e.*, strictly without or with a fixed date for repayment; the term 'funding' is, however, used loosely to apply to all conversion of short-term into long-term debt.

In theory short-term debt is incurred in order to enable the Government to meet expenditure while revenue from taxation is coming in, in particular to cover such seasonal needs as those due to the payment of dividends and (in Great Britain) to the practice of collecting most of the revenue during the last quarter of the financial year. If the Treasury receives funds which it does not need to use immediately the amount of the floating debt is reduced. If other departments are in the same position they invest the funds in Treasury Bills or otherwise lend it to the Exchequer. If this were all, however, the floating debt would be extinguished by the revenue as it comes in, and would not show, as it does, a tendency to vary greatly from year to year. A good deal of it is, in fact, anticipation of permanent long-term borrowing.

Long-term debt is incurred either to meet existing obligations as they fall due or to meet unproductive expenditure which is too heavy for the necessary taxation to be acceptable to the public.

Broadly speaking, long-term public borrowing has been for definite purposes authorized by Parliament (or Congress in the United States), whereas the Treasuries have borrowed at short-term to meet temporary exigencies. Of late, however, the distinction in Great Britain has ceased to be so sharp, an increase in the short-term debt being regarded as a possible means of raising money for purposes —*e.g.*, expenditure on armaments—which would previ-

ously have been thought suitable only for long-term borrowing. Short-term debt is convenient as being readily variable in total amount, but may be inconvenient on account of the variable interest charge which it involves; normally, however, though not always, the rate of interest is considerably lower than that on long-term debt. The fact that it matures quickly makes it attractive to the banks and other agencies requiring an asset which can be relied upon to be redeemed in cash in a short time without loss of capital value: such agencies are therefore willing to lend at short-term at a relatively low rate of interest unless an abnormal amount is required by the borrowing Government. In deciding which market to borrow in, the Treasury would naturally be influenced by the rates of interest at the moment and expectations of future movements. It may be the most economical course to borrow at short-term with a view to converting the debt later on into long-term securities. On the other hand, as we shall see, a large volume of short-term debt is a source of some anxiety to the monetary authorities.

The immediate effect of borrowing at long-term on the Budget position is to relieve it for the moment while imposing a yearly charge on it for the future. The effect of short-term borrowing is to introduce a desirable elasticity into Government finance, providing a margin beyond the incomings which can be used for outgoings. But the influence on the whole economy of the country of variations in the scale and method of Government borrowing goes much deeper. It is, in fact, a major factor in the economic situation, and is capable of being used with marked effect to influence employment and incomes in one direction or another.

At first sight it seems obvious that a Government should always pay its way from taxation as far as possible, since if it borrows, the mounting charges for interest may

ultimately amount to a larger yearly sum than the necessary taxation would have done. But even on this we must reserve our judgment; for the borrowing may have the effect of increasing the national income to a level at which the charge is not in fact so burdensome. The history of 'New Deal' finance in the United States has illustrated this point.

It has to be remembered that Government borrowing, unlike private borrowing, need not draw upon existing monetary resources. In association with its Central Bank a Government can to a large extent create the resources on which it draws. In so far as it borrows, from the public, funds which public the would otherwise have spent, spending is merely diverted from one channel to another. But there are two different possibilities:

(*a*) That the money—or part of it—would otherwise have been held idle, in which case the borrowing gives rise to a net addition to expenditure, and therefore to national income, and therefore to Government revenue, which is a percentage of national income. Even the interest on the loan itself is an addition to taxable income, though this is only another way of saying that the interest is not so great a charge as would appear from its nominal amount.

(*b*) Provided that the necessary cash basis is available, the borrowing may be from the banks, and in that case an increase in the total quantity of money is brought about. Now even if the Central Bank is not at the moment able to extend its liabilities, the Government is in a position (or with public support may by suitable legislation place itself in a position) to increase the cash basis.[1]

[1] See Chapter II.

A striking though not altogether a typical case of this was the finance of the War of 1914–18. The British Government decided that it could not meet the whole cost from taxation. It therefore issued not only a huge quantity of short-term securities, but also a number of War Loans in succession, each at a higher rate of interest than the last, which were taken up partly by the banks and partly by the banks' customers borrowing from the banks (often with existing Government securities as collateral, so that one loan bred other loans). All the money borrowed that was not merely withdrawn from other channels was new money, and it could not have been created if the banks had not been provided with the necessary cash. This was done, not by releasing the Bank of England from the obligation to hold gold against all but a fixed amount of the note issue, but by means of a separate note issue from the Treasury against which no gold had to be held. These Treasury notes could be acquired at any time by the banks in return for a credit to the Government, and they removed any risk of a stringency of credit due to a shortage of cash. The banks were exchanging credit at the Bank of England for currency, but were not reducing the Bank's 'proportion.' When the Bank of England itself bought the Treasury notes from the Treasury an addition to the cash basis was created. The sale of these notes was, of course, a form of Government borrowing, and the notes, which were promises of the Government to pay, did not greatly differ from other evidences of Government debt, except that as they bore no interest they were convenient, as other forms are not, for purposes of circulation.

This progressive emission of new purchasing power enabled the Government first to bring into use all resources not employed at the outbreak of war, and then, when the nation was producing to capacity, to divert to itself the

supplies it required by means of the rising prices which restricted the purchases of consumers generally. It is because this process is possible that it is true to say that shortage of *money* will never be an obstacle to a Government undertaking or prosecuting a war. It can always find the necessary money for all the supplies the country itself produces: its difficulties begin only when it has to obtain supplies from other countries.

The difference between the effect of the policy actually adopted by the British Government and that of financing the War out of taxation was not great so far as consumption at the time was concerned (especially as equality of restriction was imposed by rationing in the case of essential foodstuffs). But whereas taxation would have ended with itself, borrowing left behind an obligation on the community to pay interest to a section of itself in perpetuity (or until the whole of the debt was paid off—a time remotely distant). In so far as the money to pay the interest was raised by income tax levied on incomes derived from the loan this was, of course, of no moment, but it could not be—or at all events is not—entirely so raised. Actually, therefore, the loan method operated to relieve the larger income-receivers of part of the contribution which they would have had to make under the taxation method. Another consequence was that prices of consumption goods were raised to a level at which there was a strong impulse to force them downward. The prejudices of people of the generation which had been adult before the War, who thought the post-War prices inherently wrong, reinforced the arguments based on the hardship inflicted on recipients of incomes which had remained fixed in money. This state of opinion created an unstable economic situation.

The connexion between the method of financing the War and the high level of prices was unfortunately at the

time not well understood. The high level was thought to be due to scarcity of the commodities concerned. In so far as it was due to this cause it was corrected as resources were released after the War for ordinary production. The main cause was, however, the creation of new money for loan to the Government, and as this continued after the War the net result was that prices continued to rise till 1920. As it was spent, this new money had automatically reduced the value in goods of itself and all the other money in existence. To force prices down again by withdrawing the extra money from circulation, while leaving the debt interest at the same *monetary* amount, meant greatly increasing the share of the new production of the community which was being paid to those who had lent money to the Government during the War. Moreover, all attempts to reduce the burden of the debt by reducing its total nominal amount were vain so long as the process of reducing money and prices was going on. Money incomes were being reduced by the reduction in spending by which the fall in prices was brought about, and the amount available for debt repayment was not sufficient to overtake the rise in value of the debt in terms of goods, or the increase of its value in money as a proportion of the total national money income. The position was that a huge number of additional money claims to commodities had been created by war finance. The courses which were open were:

(*a*) To allow them to remain, and to stimulate production till their value in terms of goods diminished to a bearable level.
(*b*) To wipe some of them out.
(*c*) To try to reduce them.

Only the first two, as is now clear, were consistent with the maintenance of industrial prosperity. But the normal

attitude of resignation towards the National Debt was upset at this time by the extraordinary increase in its size in a short period; and the prevailing view was that the State was in the position of a private debtor who cannot regain a sound position except by strenuous efforts to pay off his obligations. Since this involved the reduction of expenditure, both public and in consequence private, it naturally led to a fall in prices, and so to an increase in the real burden of the debt. A passage from the *Report of the Cunliffe Committee* (1918)[1] well illustrates the point of view of the time:

> A primary condition of the restoration of a sound credit position is the repayment of a large portion of the enormous amount of Government securities now held by the banks. It is essential that as soon as possible the State should not only live within its income, but should begin to reduce its indebtedness. We accordingly recommend that at the earliest possible moment an adequate sinking fund should be provided out of revenue, so that there may be a regular annual reduction of capital liabilities, more especially those which constitute the floating debt. We should remark that it is of the utmost importance that such repayment of debt should not be offset by fresh borrowings for capital expenditure. We are aware that immediately after the War there will be strong pressure for capital expenditure by the State in many forms for reconstruction purposes. But it is essential to the restoration of an effective gold standard that the money for such expenditure should not be provided by the creation of new credit, and that in so far as such expenditure is undertaken at all it should be undertaken with great caution. . . . This caution is particularly applicable to far-reaching programmes of housing and other development schemes.

A method of dealing with the British National Debt which was much advocated immediately after the War was the 'capital levy'—a tax upon capital which would have had the effect of handing over to the Government

[1] *First Interim Report*, par. 17.

large quantities of Government securities for cancellation. Such a levy could not, however, equitably have been confined to Government securities, and the problems involved in including other forms of capital, and the fear of disturbing confidence by an expedient so novel, stood in the way of the adoption of the scheme. Many authorities hold that it would have been a success if adopted immediately after the War. In any case the attempt, on the misleading analogy of the private person, to pay off the debt by 'economy' was fruitless, as that course meant reducing the national income, and so increasing the burden.

From this large-scale illustration it is easy to see why a shortage in Government revenue made up by borrowing —*i.e.*, a Budget deficit—is regarded as inflationary, while the repayment of debt from taxation is regarded as deflationary, in the literal, not the condemnatory, senses of these words.[1] The former normally (though not always) brings new money into existence, and in any case adds to the stream of spending. It is therefore generally advocated as a means of inducing recovery from slump conditions. The latter takes away from the public money which it regards as income and would naturally have spent on consumption, and uses it to exchange some of their monetary assets for money which they then regard as capital and do not use for consumption spending. Unless other gilt-edged investments—*e.g.*, loans to municipalities—are available they may hold it immobile. In so far as repayment is to the Central Bank the cash basis, and therefore the money in existence, is reduced. In so far as it is to the commercial banks it increases their cash resources; but even if this results in an expansion in their loans it may be accompanied by a repayment of loans to the Central Bank, which again would have a deflationary effect.

[1] See Chapter I, pp. 18–19.

Thus a Government, in deciding at any time whether to raise money by loan or taxation, and if by loan whether at long- or at short-term, has to consider not only the immediate effect on the management of Government revenue and expenditure, but also the effect on the economic welfare of the country. Taxation for spending purposes is neutral from the monetary point of view unless it depresses the public and impairs confidence in the future; for the money is kept in circulation. The idea that certain forms of taxation—*e.g.*, death duties—are a tax on capital is meaningless from the national point of view. They may take a part of what the individual considers to be his capital, but so may any tax if the individual's expenditure happens to be outrunning his income; and they necessarily leave the national capital (consisting as it does of real resources) just what it was, though its ownership may have changed. Such taxes are assessed on capital, but, as Professor Pigou points out, "Nobody maintains that a tax assessed on beer is necessarily paid out of beer, or even out of resources which would otherwise have become beer."[1] As regards the argument that taxation depresses enterprise, this can happen only if it has the psychological effect referred to above, or if it discriminates against profits as compared with interest. An increase in the proportion of his profits which the producer has to give to the Government would not on any rational ground deter him from making as much profit as the circumstances permit. But it might lead the investor to prefer an investment in fixed-interest securities to buying a share in profits, since a part of the attraction of the latter asset is the prospect of very great returns.

Taxation beyond a familiar level is, however, politically difficult, whereas loans enable the same amount of money

[1] *A Study in Public Finance* (1929), Part II, Chapter XIII.

to be raised without any section of the community being conscious of hardship. The lenders are merely making a good investment, whereas the section of taxpayers who, though not lenders, will have to help to pay the interest on the loan seldom appreciate this at the time when the decision is taken. Nevertheless, apart from the fact that it may finance a particular operation at the expense of the poorer classes rather than the rich, there are disadvantages, of a very broad kind, in increasing largely the liabilities of the Government to the public. These are:

(*a*) It increases the proportion of unearned to earned income.

(*b*) By increasing the amount of Government securities coming on the market it keeps their price down, and therefore the rate of interest up.

(*c*) The more Government costs are fixed in terms of money the more difficult it is for the Government to adjust its expenditure to changing conditions.

(*d*) The increase in Government securities in the markets tends to instability in international monetary relations, since the holdings of foreigners are apt to expand and contract with slight movements of confidence.

These considerations apply whatever the state of industry at the time, but they may be completely counterbalanced by the fact that loan expenditure is, as we have indicated above, a weapon of revival at a time when industry is depressed, since it may put additional money into circulation and increase employment and incomes without necessarily causing any appreciable rise in prices.[1] Conversely, if industry is running to full capacity it is advisable for Government revenue to be raised by a means which restricts other expenditure, and not by a

[1] See Chapter IX, p. 237.

means which adds to the circulating money. What constitutes full capacity may be difficult to determine in any particular case. Some industries may be running to full capacity and others may not, and it has to be considered to which the additional expenditure is likely to be directed. But, broadly speaking, if it seems probable that the effect of additional spending will be more to send up prices than to increase activity, the course most conducive to national welfare is to raise by taxation any additional revenue required.

As between long- and short-term borrowing, the deciding factors largely belong to technical monetary management. Short-term borrowing (increasing the 'floating' debt) is normally the more economical, as we have said, though a sudden crisis might send up the Bank rate, and therefore all the associated short-term rates,[1] above the long-term rate as determined by the price of gilt-edged securities. The short-term rate is, however, subject to much greater uncertainty from the point of view of the monetary authorities. The Treasury Bills issued run for a short period, and are then paid off, to a large extent from the proceeds of the new bills issued. If at any time the market were to be distrustful of prospects —*e.g.*, to suppose that the Bank rate was likely to rise— the rate at which new bills would be taken up would be very much higher, thus increasing the charge upon the Budget; or there might even be a difficulty in getting the amount taken up which the Treasury desired[2]— though this is difficult to imagine in Great Britain or the United States. The only resource (under existing conventions) would then be for the Government to obtain an advance from the Central Bank, which would reduce

[1] See Chapter VI.

[2] See Sir Otto Niemeyer's evidence before the Colwyn Committee on National Debt and Taxation.

the Bank's proportion of reserve to liabilities, and (again under existing conventions) might cause it to put up its discount rate. Compared with these possibilities, the definite prospect of making the fixed provision necessary for long-term loans gives the monetary authorities much less anxiety, and from time to time they use not only their free balances, but the proceeds of long-term borrowing, to reduce the volume of floating debt. It must, however, be remembered that the problem is not so great as it may appear at first sight. A large proportion of the floating debt is held at any time by Government departments, or (in Great Britain) by the Bank of England Issue Department, which is an agent of the Government, and such debt is in a sense fictitious, being merely a matter of State book-keeping: while a large part of the rest is held by the banks, to which an asset of this kind is practically a necessity.

We may point out here with regard to the reduction of long-term debt that either the height of a boom or the bottom of a slump may afford a convenient opportunity for reducing the burden—the boom because the price of the securities is then low and they can be bought in, the slump because satisfactory alternative investments are hard to find and the debt can be converted (if legal provisions permit of its redemption) to a lower rate of interest. The one advantage of allowing a slump to run its course is that debt charges can be reduced by conversion and a lower expectation of interest rates induced. It was in this way that Great Britain made a first step to recovery in 1932.

We have looked at the debt question so far from the point of view of the monetary authorities and the community at large. But there is still another point of view from which it has to be considered—that of the banks and the money market. Government securities are to the

money market commodities. They are, that is to say, to the discount houses a commodity for which it is always worth while to exchange any surplus funds, because of its universal acceptability, and to the banks a very desirable means of extending their liabilities, provided the dates of redemption are convenient.[1] They have in addition the advantage of being *earning* assets—*i.e.*, of bearing interest, as a commodity such as gold would not do. Now, since the banks and discount houses deal with supplies of money in the future, a flow of securities of various dates, with which the varying desires for realization in cash can be accommodated, is obviously very desirable from their point of view. It is, of course, for the market to adapt itself to supplies, not *vice versa*. But monetary management will take into account the question whether the redemption of a particular variety of securities largely held by the banks will be likely in the circumstances of the moment to lead, for example, to a reduction in bank deposits because the banks prefer to hold unused their power to create money, rather than to invest in securities inconvenient for their purposes. In both Canada and Australia—communities in which a modern banking system is in process of development—it is recognized to be desirable that there should be an open market in Treasury Bills and a sufficient volume of such securities to constitute a second-line reserve for the banking system, next in liquidity to its cash reserve.[2]

It is worth noting that the business of the dealers in money (the banks and discount houses) is becoming more and more that of dealers in Government debt, as distinct from other forms of money title. The inland trade bill has almost died out, in spite of some attempts to revive it, and owing to reduced international trading foreign trade

[1] See Chapter II, pp. 45 and 48.
[2] See the Midland Bank *Monthly Review*, July–August 1937.

bills are far less numerous than they were. A very large part of the assets of the banks and discount houses thus consists of Government securities; they are tending to become agents of the Government for manipulating the market and controlling the amount of money in circulation. Their private loans tend, moreover, to run on stereotyped lines. Part of the nineteenth-century monetary machinery is thus becoming redundant to the needs of commerce; and so far as the other part is concerned, there may be some substance in complaints which are heard from time to time that banks are less anxious to meet the needs of industry at a price which industry can afford to pay so long as they have no difficulty in placing their funds on loan to the Government. A similar development in the functions of the commercial banks is taking place in the United States, where a very large change-over in their assets from loans to the public to loans to the Government has occurred as the result of the recovery programme which began in 1933.[1] It may be noted that the position of Government securities as being 'near-money' is much more firmly established in Great Britain and the United States than elsewhere. One of the difficulties of monetary control in France, for example, is that even its banks are not always willing to buy Government debt.

We have been discussing this subject on the basis that Government borrowing must normally be conducted on the usual terms—*i.e.*, that interest must be paid on the debt. But it is as well to remember that this, like many other things we have noticed in the monetary system, is to a large extent a matter of convention. In so far as the Government wishes to divert to its own use the savings of the public, and is not prepared to tax them, it naturally offers them interest. But there is *in theory* no

[1] League of Nations Economic Intelligence Service *Monetary Review*, 1936, p. 33.

reason why interest should be payable on loans of the type contracted during the War period, when the additional claims to goods supplied to the Government involved no suspension of claims by anyone else who had to be remunerated for suspending them. For these 'inflationary' loans from the banks the Government supplied the cash basis, and thus enabled the banks to make the loans. The cash basis was, as we have seen, issued as a non-interest-bearing debt, and there was no economic reason why the loans also should not have been free of cost, other than the cost of collection and book-keeping. It is, in fact, unsound in principle that the reward for the function of providing new money required for the needs of the community should be governed by the rate which is paid to induce people to part with the existing money which they own. The expedient of printing notes and using them directly for Government expenditure was adopted by several belligerent Governments in the War of 1914–18. If this plan had been followed in Great Britain far more Treasury notes would have had to be issued than actually were issued, but the surplus notes would have been cancelled as they found their way into the Bank of England. Another alternative would have been to sell all the notes to the Bank of England in quantities sufficient to place the desired sums at the disposal of the Government. Under either plan the final result on credit would have been the same as under the plan actually adopted, provided that the policy had been acceptable to public opinion, so that confidence remained undisturbed. The only difference would have been that no interest would have been payable by one section of the public to another.

In Great Britain and the United States, however, the direct manufacture of money by the Government is not acceptable to public opinion. It is true that a great part of

the existing currency of Great Britain—the fiduciary issue —is 'backed' by Government debt, *i.e.*, Bank of England promises to pay are regarded as resting on the Government's promise to pay; and in the United States the Federal Treasury actually guarantees the Federal Reserve notes. Nevertheless the Governments prefer to work through an agent, or to persuade the public that it has lent the money from its own resources. Should this attitude ever change, and the Governments be placed in a position to make a more direct use of their own credit, the issue of Treasury notes taking the place to some extent of the issue of Treasury Bills and long-term securities, the working of the money market, and, indeed, of the whole monetary system, would be fundamentally changed. The change would be all to the good so far as distribution of incomes between earned and unearned is concerned, but there might well be disadvantages in a state of affairs in which no intermediate asset existed between risky industrial securities and actual cash, so that the public in a distrustful mood would tend to hold their cash uninvested. The practice of borrowing from the public at interest and the maintenance of a free market in the securities so created are in any case hardly likely to disappear from the monetary system. But the Government's power to raise money by other means, if it were ever to be acknowledged and in some degree utilized, would enable it to exercise a powerful control over the rate of interest. A beginning has already been made in this respect in the United States, where the resources required by the Government for financing the 'New Deal' were largely raised by loans subscribed at medium term by the banks, rather than from the private capital market, and the rate of interest was kept relatively low.[1]

[1] League of Nations Economic Intelligence Service *Monetary Review*, 1936, p. 42.

In conclusion we must mention another class of borrower in Great Britain whose loans are under Government control—that is, the municipalities. Together they borrow at the rate of about £50m. per annum. The larger municipalities borrow in the market, but only with the consent of the Government, which fixes the rate at which the loan is offered. The smaller authorities draw upon a fund created by a Government security (Local Loans stock). In addition loans are arranged through the joint-stock banks and from private lenders such as insurance companies, and a few municipalities are permitted to borrow at short-term rates on bills. Like the Central Government, local authorities regard borrowing as a normal means of financing requirements, and the total outstanding debt for which they are responsible is steadily growing. The interest on it absorbs a large proportion of their total revenue. The considerations governing the enlargement of municipal debt are, however, different in some respects, though not in all, from those we have set forth in relation to Government finance.[1] In the first place, a local community may have economic interests at variance with those of the nation as a whole. Further, the municipality has no power of increasing the monetary resources of the community, and (apart from any financial returns from its enterprises) must rely for purposes of meeting its obligations on the capacity to pay of the ratepayers in its area—whose incomes are determined by causes over which it has no direct and little indirect control. Doubts as to the ability of the authority to maintain interest payments are therefore much more likely to arise than in the case of the Central Government, and this is reflected in the higher interest which it would normally have to pay for its loans. Municipal debts are usually incurred for the purpose of

[1] See Chapter VI, pp. 164–165.

acquiring real (tangible) assets, but this does not mean that the assets would be realizable in the event of insolvency.

The question of municipal finance raises some interesting if still rather speculative problems of management. At present the borrowing of local authorities is at the mercy of the market rates of interest, with the result that in a time of high interest rates no public works are undertaken by the local authorities, though unemployment may be heavy and desirable schemes numerous, whereas after a period of cheap money has continued for long enough to bring plant and labour into full use the local authorities are apt to announce that they are now in a position to embark on a programme making large demands on the constructional industries. In other words, the finance of their enterprise is governed largely by the same considerations as that of private producers.

Now the expenditure of public authorities is generally recognized as having a peculiar character in that on the one hand much of it is postponable in a sense in which Government expenditure is not, while on the other hand it can be organized and controlled in a way that individuals' postponable expenditure on durable goods (of which, of course, there is a vast quantity) can not. From the point of view of monetary control it is therefore an ideal channel for regulating the flow of money into expenditure on durable additions to the wealth of the community. Swimming-baths and public libraries can and should be acquired and schools be rebuilt and modernized at a time when resources are available for the purpose without undue competition with production-expenditure by private enterprise—in other words, when the community has a disposition to save. This is now commonplace doctrine, but the problem has generally been envisaged as one of coming to the rescue of local

authorities, by means of grants in aid or guarantee of interest, at a time when real resources are plentiful—*i.e.*, a time of slump—but investment-market conditions are unfavourable. It has not yet been attacked as a standing monetary problem—that of making borrowing conditions favourable or unfavourable to borrowing by public authorities as the general situation appears to require, by means of action which would not necessarily affect general money rates. Such a development could occur only if there were a general change of attitude towards the machinery of Government borrowing such as we have sketched above on p. 213, and only then if Government lending also became part of the picture. The various lending activities of the United States Government in the course of its recovery programme suggest, however, that it is not out of the question that action of the kind might in some future period be regarded as part of the armoury of monetary management.

APPENDIX TO CHAPTER VIII

I. National Debt (Great Britain)

The growth of the National Debt in Great Britain in relation to the national money income is indicated in the following table:

Financial Year	Total Dead-weight Debt Outstanding at End of Year (in £m.)	Interest and Management of Debt (in £m.)	Interest and Management as Percentage of the (estimated) National Money Income
1913–14	650	19	0·9
1922–23	7742	324	8·4
1928–29	7500	311	8·0
1930–31	7413	293	8·7
1933–34	7822	216	5·3
1935–36	7796	212	5·0

It will be observed that since the War period the debt has remained of much the same order of magnitude. The reduction shown in this table is only about 4 per cent. and was followed by an increase. Till 1932 the interest charge remained almost equally obstinate. Moreover, it increased in value in terms of goods as prices fell. This comes out clearly in the following table given by the Colwyn Committee[1] for the years 1918–26:

Year	Internal Debt Interest (in £m.)	Internal Debt Interest at Pre-War (Wholesale) Prices (in £m.)
1918–19	219	97
1919–20	284	109
1920–21	309	114
1921–22	286	166
1922–23	266	172
1923–24	270	175
1924–25	273	164
1925–26	274	176

[1] *Colwyn Committee Report*, p. 66.

As the Committee pointed out, "despite a small decrease in the internal interest charge since 1919–20, the absolute burden measured in pre-War prices (wholesale) had increased by nearly 61 per cent. in 1923–24, 51 per cent. in 1924–25, and 61 per cent. in 1925–26." By 1935–36 the debt charge had fallen to £210m., but the wholesale price-level was still lower (though it had then begun to rise), and the equivalent in pre-War prices was £198m. During 1937 wholesale prices have continued to rise, and the burden of the interest charge is reduced, since it means less in terms of goods and services.

A table showing separately changes in the floating debt since 1931 is given in the Appendix to Chapter X, p. 297.

II. National Debt (United States)

The following table shows the large increase in the United States Government debt as the result of Government borrowing during the recovery period of 1933–37:

End of Period	Total Interest-bearing Debt (in $m.)
June 1932	19,161
„ 1933	22,158
„ 1934	26,480
„ 1935	27,645
„ 1936	32,756
April 1937	34,295

It will be observed that even so the total has not reached so high a level as in Great Britain. The debt per head of the population is still only about one-third of the British debt.

III. Banks' Holdings of Government Debt (U.S.A.)

The holdings of direct Government obligations by the 'reporting' member banks in relation to their total loans and investments varied as follows from 1929 to 1936:

Year	Annual Average Holdings of Direct U.S. Government Obligations (in $m.)	Total Loans and Investments (in $m.)
1929	2865	22,599
1932	4413	19,080
1933	5228	17,505
1934	6856	18,672
1935	7989	19,997
1936	9080	22,064

The percentage of their earning assets consisting of Government debt thus went up in this period from 12·7 per cent. to 41·2 per cent., and at the end of it they owned no less than 27·7 per cent. of the total Government debt. (See p. 211.)

IV. Local Authorities' Debt (England and Wales)

The growth in the twenty years following 1913 of the debt incurred by local authorities in England and Wales is shown below in relation to their annual receipts (from rates, Government grants, etc.) other than fresh loans:

Year	Outstanding Loan Debt (in £m.)	Receipts (other than Loans) (in £m.)
1913–14	563	149
1928–29	1175	413
1929–30	1225	429
1930–31	1304	449
1931–32	1357	447
1932–33	1394	442
1933–34	1404	447

CHAPTER IX

MONEY AND PRICES

Theorists take a table of prices as facts settled by unalterable laws: a stockbroker will tell you such prices can be made.—WALTER BAGEHOT, *Economic Studies* (1880).

PRICES are the link between money and real wealth. It is obvious, for example, that if a man's money income is doubled and at the same time the prices of all the things he buys with it are doubled he is not really any better off. More generally, for the community, what matters is the volume and kinds of real things—goods and services—produced and consumed, and the volume of effort required to produce them; and the study of the causes which influence these is the subject-matter of economics. Money is, indeed, important, but not for its own sake. If to-day more and more people are taking an interest in monetary phenomena—the subject-matter of this book—that is because it is being more and more realized that they influence our real wealth in ways which are all-pervasive, and none the less vital in that their working is not obvious; so that if our money is not properly managed no skill, hard work, or enterprise will avail to prevent our suffering from the evils of unemployment and unnecessary poverty. For it will not be possible to bring these qualities to bear. The causes of 'poverty in the midst of plenty' are monetary, though it does not follow that there is any simple monetary remedy. The object of this chapter is to relate what we have been saying about money to the realities which lie behind it and justify its study.

But it is necessary to preface what we have to say about prices with a warning. We have instanced the truism that no one is the better off for the doubling of his money income if all the prices in which he is interested are doubled at the same time. Similarly, no one can be worse off if his income and the prices of what he buys are halved simultaneously. But in reflecting on this the reader will probably feel a qualm. The point, if obvious, seems unreal. Prices do not behave in that way in the real world. They may be generally rising or falling, but in practice the prices of different things always vary unequally: some prices seem in normal times hardly to vary at all, at least within the order of time with which we are concerned in the everyday decisions of real life. We can say broadly, for example, that an income of £1000 or 5000 dollars a year is 'worth' less now than it was before the War; but we cannot measure the difference precisely. This is true not only in practice, but also in theory. It is impossible to separate out changes on the side of money from changes on the side of real things—from the consequences of such things as new inventions, or changes in taste, in the ages and types of the population, in the degree of competition or monopoly in industry, and so on.

But we can distinguish from the other shifting factors those changes which *originate* in monetary phenomena, and which are therefore capable of direct control by monetary methods. And in doing so we shall have to glance at, without studying in detail, a number of factors which are not, perhaps, strictly monetary at all. For, to repeat, monetary theory, like monetary practice, is bound up with the general study of economics. So, incidentally, this chapter should link up the book with other works of wider scope.

Since real wealth depends on production, we have

first to consider, in very broad outline, the part which prices play in production.

In a capitalist community production is undertaken only when the producer thinks he is going to get something out of it. Assuming that his costs, including wage-rates and the sums necessary to keep his equipment up to its full value, are given, he can make something out of his production only if the price at which he sells his product is high enough to cover these and leave something over for his profit. Obviously, then, prices—and not only actual but anticipated prices—are of the first importance to production in a capitalist *régime*. Not only does any particular price determine whether a particular product shall go on being produced on the existing scale or not; but it has a further function as affecting the consumer. Being fixed at a point which represents the amount likely to be paid by enough people to make it worth while for the producer to begin or continue production, it has the effect of cutting out the demand of the people who are not prepared to pay that rate. Movements of prices relatively to one another thus operate to encourage the type of production for which there is the greatest money demand. In addition they obviate any difficulty in distributing the product, since it will naturally be distributed only to those who offer the price in the expectation of which production was undertaken—or at all events the price which is acceptable at the time of sale. Thus, the producer who raises the price named in his selling offers, though he is no doubt thinking of his own profit, is also using the price machinery to reduce demand to a level at which it can be satisfied. So long as the price system is working satisfactorily we may expect to escape shortages on the one hand (of the kind which result in queues at retailers' shops) and gluts on the other hand (as, for example, the waste of fruit or dairy produce which has

been produced but cannot be marketed). The alternative to the control of distribution by price movements is rationing by authority.[1]

It is not suggested that the price system necessarily produces and distributes products according to the purchasers' true needs, but only that it produces and distributes them in accordance with the public's preferences, their money incomes being given. Whether the distribution of incomes enables particular classes of purchasers to obtain supplies in the proportions corresponding to their needs is a separate question; and whether consumers will purchase enough to keep up production, and with it incomes, in a healthy cycle, or will save so much as to cause production and incomes to fall in a vicious spiral, is yet another question.

The effect of changes in prices in stimulating or restricting production is complex. We provisionally assumed above that the producer's costs were 'given.' But in fact they are not given. They, as well as his returns, depend on prices—the prices of the things he buys, labour, raw materials, tools, fixed equipment, and, finally, as we have seen, on the 'price' of securing ready money for a time—the rate or rates of interest at which he can borrow the necessary money to carry on his production until it is completed with the sale of his final product. His profits, the expectation of which governs his decision as to what and how much he will produce, are thus influenced in one direction by a rise in some prices (those of his products) and in the opposite direction by rises in other prices (those entering into his costs).

But if we look at the nature of these latter prices it is clear that all except two are the prices of other producers' products. A rise in them will therefore stimulate those

[1] For a fuller treatment of this subject see Barbara Wootton, *Plan or No Plan* (1934), Chapter I.

other producers' production, while tending to restrict the output of the producers buying them. A rise in the price of any particular kind of commodity has thus in general a double effect on output: it stimulates it at one point, but depresses it at another. The two exceptions are the price of labour—that is, wages—and the price of the use of money—that is, interest. Hence these two prices, the levels of wages and the rates of interest, play a unique part in influencing production.

Labour and money capital are generally called by economists 'factors of production,' and their prices are regarded as 'earnings.' But since they are determined by buying and selling offers, there is no reason for treating them differently in this context from the prices of commodities.

It may be said that rent—or the price of land, another 'factor of production'—is also a formal exception to our generalization, since land cannot be produced. But this, of course, applies only to ground-rent (strictly only to the ground-rent of unimproved land), usually a relatively small item in production costs; and in modern conditions the point is not of much practical importance.

It is worth noting in passing that at one stage in the development of economic thought a theory was entertained that the supply of labour rose and fell in response to changes in real wages—*i.e.*, that the production of population was subject to a kind of non-monetary economic law of supply and demand. Whether or not this quaint notion ever had any relation to reality, it certainly has none now.

It must not be assumed that a rise in wages always restricts production. For most of the money paid out in wages is spent—on the products of some producers; and a rise in the rate of wages usually, though not necessarily, involves an increase in the total of wages paid out. Thus

a rise in wages, like a rise in the price of goods, may have a double effect on production, stimulating it at some points and restricting it at others. The net effect is therefore not simple. We shall return to this later.

A rise in the rate of interest, indeed, does always operate to restrict production. It is true that some interest is spent; but interest-incomes are fixed by past contracts, and do not rise when the rate rises. What is unique about interest is that it is not merely a cost to some and a source of income to others: it is, as we saw in Chapter VI, the yardstick by which producers decide whether production at any time is worth while or not. An increase in the price of money will therefore inevitably deter some producers from enterprise, without encouraging any others.

The functions of prices—or rather of the movements of prices—being to regulate production and distribution, how are prices at any particular moment determined? At the outset it should be noted that prices are the outcome of bargains resulting from buyers' and sellers' offers. When it is said that the price of a commodity is fixed by the supply and demand it must not be supposed that this means that the price is unalterably determined by the amount of the commodity in existence, or even in the market at the time, and the resources and tastes of the purchasers. 'Supply' and 'demand' are merely shorthand terms signifying the aggregate of offers to sell and to buy; some of these offers result in business being done at a price. The offers may be, and in practice are, influenced by all sorts of intangible motives, such as habit on the one hand and expectations as to the future on the other; and these things therefore influence prices. Prices must not be thought of as determined in a mechanistic way by the physical conditions of production, though, of course, these influence them greatly.

The price of an individual product is the result of a

process of bargaining between the producer and an imaginary body of purchasers, corrected with reference to the views of the actual final purchasers as shown in current transactions. The producer works on an estimate of his costs, to which he adds something which represents what he thinks the market will stand (bearing in mind the probable offers of his competitors), and which becomes his profit, if he gets it. (Where there is no cost of production, as we have pointed out in the case of money titles, the calculation becomes simply one of what the market will stand.) The profit addition will, of course, vary from time to time according to whether the purchasing power of the public is expanding or contracting, and according to whether the costs are rising or falling. It will also vary as between different products according to the amount of competition which the producer has to meet. If he is a monopolist he may exact a higher price than he would have to be content with as one of a number of competing producers. But this is not inevitable, as he may prefer to exploit the conditions of monopoly by producing on a very large scale at a lower price, which, assuming that his costs do not rise as rapidly as his scale of production, may pay him even better, especially on a long view. A practical consideration telling in favour of the latter choice is that it reduces potential competition or obviates potential attack on the existence of the monopoly. In modern conditions in Great Britain and the United States this factor is of real importance in influencing the price structure.

The purchaser, for his part, will pay for a particular article what he thinks it is worth to him, relatively to the size of his income and his desire for other things. If the price is raised or lowered he will adjust his consumption of the product accordingly, except when he regards a certain amount of a product as a necessity, and has that amount, and no more and no less, whatever the price,

in which case he has to adjust elsewhere. He will not as a rule be willing to continue his purchases on the existing scale if the price of the product is so much raised as to move it, from his point of view, into a different category of commodities. For example, if the price of tinned salmon suddenly rose to the same level as that of caviare the purchases of tinned salmon would fall to vanishing-point. On the other hand, there are possible price changes which would leave his consumption almost unaffected: not much more bread would be bought if the price fell to a fraction of its present level. But in the case of most commodities the price does make a difference to consumption, and it is through such adjustments that the consumer brings pressure to bear on his side of the price bargain.

If the purchaser is a producer and is buying capital equipment or raw materials for the purpose of his enterprise, he limits the amount he is prepared to pay by consideration of the price he expects to obtain for his own product. For example, in the year 1935 an increase in the price of British coal, to cover an increase in miners' wages, was in contemplation. There was no question that the market would stand it, so far as individual consumers were concerned. So far as purchases for production were concerned, the point of doubt was whether the large gas companies could afford to increase their costs by paying more for their raw material without raising their price in turn to a level which would reduce demand for their product.

Another complication which should be mentioned on the side both of purchasers and sellers is that the price of new goods is necessarily affected by people's valuation of the old goods of the same kind which exist, and that that valuation is affected by their expectation of the future course of prices during the period for which the durable

goods will last. If house property, relatively to other things, seems likely to go up in value a purchaser will be ready to give more for a new house than if he settled the matter merely on the considerations we mentioned above —his desire for a house in relation to his resources and his desire for other things. The same considerations will influence both producers and other sellers to hold out for a higher price. All possessions that will last have attached to them the possibility that they may be exchangeable for other things, and this possibility may cause wider fluctuations in their prices than would occur in the prices of goods immediately consumable. This consideration applies largely to the prices of capital goods (especially fixed plant) which are necessarily more or less durable. Prices, even relative prices, of durable goods must not be thought of as fixed entirely by the conditions of their production and by their purchasers' tastes and resources. For there is always a stock of previously produced goods in existence, and this influences the market by furnishing a source of supply, actual or potential, alternative to new production. We have already seen that in the case of long-term money titles this source of supply is paramount.[1]

The factors we have mentioned, generally grouped under the term 'supply and demand,' settle the prices of individual products. But we are accustomed to speak and think also of changes in the general level of prices. Though it is not possible to measure this precisely or to compare exactly the general price-level at two given dates which are a considerable distance apart, since the quality and variety of the goods on sale will have altered too much in the interval, we find no difficulty in making a sufficiently precise comparison for dates, say, ten years apart; and even when it comes to intervals of centuries we can form some conclusion as to whether the

[1] See Chapter V, p. 123.

level of prices was higher or lower than at present. Actually, if we take a very broad view of history, we see over the centuries a tendency of prices to rise. If we take any large group of goods in general use common to the periods we shall find prices higher now than they were in the eighteenth century, and very much higher than they were in the thirteenth. If we could follow a representative set of prices right through the centuries we should find that notwithstanding temporary setbacks the trend was upward.

What is the explanation of this? It does not appear at first sight to be explained by what we know of the basis of bargaining between the producer and the consumer. From observation of that we should say that the general level of prices, as distinct from the relative prices of individual products, is largely a matter of habit. There are reasons both on the side of supply and on the side of demand which make the price of a cheap automobile thirty or forty times that of a bicycle. But it seems to be only habit that makes the prices, say, £100 and £3 respectively. They might just as well be £1 and 7*d.*, provided that the prices of all other things exchangeable for money, now in existence or believed to be producible, were scaled down proportionately (including the interest on fixed debts incurred in the past, which forms a part of actual or prospective costs), and provided, in particular, that a man's wages, instead of being, say, about £3 a week, were about 1*d.* a day, as in fact they were in the early Middle Ages. But our bargains are governed by the habits of our lifetime, or even of the last ten years. Neither employer nor employee is interested in the level of prices which existed centuries ago. The one expects to give what he gave last week, or a little less if he can; the other to get that amount, or a little more if he can. So a wage bargain is struck round about the same figure—*i.e.*, at the same *rough* price-level. Similarly for the bargains

which settle all the other elements that make up the money costs of the cycle and automobile manufacturers whose prices we are considering. Still more does habit operate on the retail prices charged for the articles of everyday use; these are much more stable than those of wholesalers. Thus, on a secular view, prices seem to stay, on the whole, *roughly* where they are, in the absence of such special disturbing causes as war, but tend over long periods to move upward.

But why, on a basis of habit, should there be a secular upward trend? The facts cannot be accounted for by supposing that in the long run the employee tends to get a little bit the better of the employer. The explanation is rather that from time to time the producer has reason to believe that his customers have more to spend—that the market, in fact, will 'stand' more. He raises his charges accordingly, and though they may afterwards fall back a little, they do not fall back the whole way.

Nevertheless the price of labour does hold a special position in the price structure. It stands for the producer between the interest on his loans and the price of his materials, being more subject to bargaining than the one and less so than the other. The higher the wages (given the other costs of an enterprise) the smaller the margin between costs and total receipts. This is true of any particular industry. But, looking at industry as a whole, the higher wages are the greater spending is likely to be, and therefore the larger are the total receipts. None of these entities is independent of the others. Costs grow with wages, and profits tend to fall as costs increase; but profits grow with prices, and these with spending, and this with wages. So it is possible to argue, as different economists do, either that lowering wages will increase profits or that it will reduce them.

This dilemma crops up in most wage discussions. At

the bottom of a slump it is argued by one party that it will be fatal to raise wages, because costs will thereby be raised, and enterprise will become even more unprofitable, and by the other party that raising wages is a means of increasing purchasing power and will restore profitability. At the height of a boom it has to be admitted that profits would bear some diminution; but at the height of a boom the one thing that must not be risked is a further rise in prices, and an increase in wages, it is argued, would necessarily have that effect. For in a boom the market will stand higher prices; and the producer will therefore, as a matter of course, demand them if his costs are raised. Further, in that case the increase in wages will be of no use to the workers, for their cost of living will rise as much as their wages.

There is no easy general solution of this problem. Every particular case deserves separate examination. In one industry a rise in wages in a period of general prosperity will transfer part of the gross receipts from the profit category to the cost category, leaving the price of the product untouched; its effect will then have been to give the worker in the industry a share in its increased earning-power, or at least to prevent his real income falling through the rise in the cost of living which accompanies a boom. A factor which facilitates this process is the much greater stability of retail as compared with wholesale prices. It has been found in the course of the recovery following 1932–33 that a considerable increase in the wholesale prices of primary commodities can be effected without appreciable change in the cost of living. In another industry the increase in cost might take effect at once in an increase in prices which, if the industry were widely linked with others, might communicate itself to prices generally, and ultimately deprive the increase in wages of any value.

We have not in the above account of the matter distinguished between the rate of wages (per hour or per day or per job) and the aggregate amount paid out in wages. It is always, of course, *possible* that a reduction in the rate of wages may so increase employers' anticipations of profit that they will enlarge their scale of production so much as to distribute more, not less, in aggregate wages. The general economic problems involved are complex, and cannot be discussed here; but it is safe to say that in a modern community an expansionary effect is scarcely ever, if ever, realized in practice when wages are cut all round. On the other hand, it must not be assumed that all-round increases in wages by any means always lead to industrial expansion. The effects of wage changes—in either direction—are not governed by rigid mechanical relations, but depend on the psychological consequences to employers' expectations of profit or loss; these, in either case, tend to realize themselves.

It is clear that a direct and automatic connexion between wages in general and the cost of living, such that when prices of consumption goods rose or fell wages would rise or fall with them, would tend to aggravate any fluctuation in prices, whether in an upward or downward direction; but in particular industries the share of wages as compared with profits can be and is adjusted with advantage. These piecemeal adjustments have resulted in a secular upward movement of wages following the movements of prices. In the main, however, the benefit of industrial prosperity to the wage-earners as a body is likely to lie in:

(*a*) The absence of unemployment, which benefits everybody, not only those newly employed.
(*b*) The greater amount of national income available to be taxed for social services.

For it is the paradox of a profit economy that, on the one hand, it is essential to encourage profit-makers to make profits, while, on the other hand, the economic necessity of keeping up spending, as well as social justice and expediency, make it necessary to take away a good deal of their profits from them by taxation. The free services and amenities which it is thus possible to provide are the means of giving wage-earners the increment of benefit from increased production which they cannot under the profit system take directly in the form of higher wages without upsetting the system.

We have attributed the producers' power to raise prices to the fact that their customers from time to time have more to spend. This in itself seems to call for some explanation.

Taking again a long view over the centuries, we find that the long-period rise in prices has been accompanied by a long-period increase in the available quantity of money, and we can safely conclude that the one would not have been possible without the other. Prices are related to the money resources of individuals, and the money resources of individuals are related to the quantity of money in existence, which, indeed, at any moment constitutes the aggregate amount of the community's money resources. In so far as people regulate their expenditure, and therefore their price bargains, by their yearly income rather than by their total resources, the quantity of money still largely affects the position, since, as we have seen, except in so far as people vary their habitual rate of circulating their money—and there are limits to the extent to which they will do this—the quantity of money governs incomes. It is plain that if the public were suddenly to alter its valuation of existing goods and goods coming on the market to a much higher level in terms of money, the valuation could not be

maintained—or rather transactions on the usual scale could not take place at that level of prices—unless either the quantity of money were increased to correspond or the available supply were made to circulate at a much faster rate.

Before the development of modern monetary devices the initial impetus to expand production often seems to have come from the side of money. New sources of supply of the precious metals were discovered, and an increased quantity of money got into the hands of those who spent it rapidly. But at least for the last century in the United States and Great Britain the impetus has to an increasing extent come from producers, who, in the exploitation of new inventions for the use of a growing population, anticipated that people would have more money to spend, and adopted some artificial device to bring about the increase they desired in the volume of money. A great and general rise in prices in Europe followed on the Spanish acquisition of gold from Central and South America in the sixteenth century. A substantial rise followed the discoveries of gold in Australia and North America in the middle of the nineteenth century. More important than any additions to the stock of precious metals, however, has been the gradual development of the use of credit as purchasing power. The various devices —notes, bills of exchange, cheques—for enabling claims on the future to be used to purchase goods in the present have gradually increased both the offers of consumers and the demands of producers, and since, as we saw in Chapter II, notwithstanding cancellation of credit by repayment of debt, there is a tendency for the amount of money created by these means to increase steadily, the new level to which it raises prices can, if left alone, be maintained.

We say 'if left alone,' but this condition is not always fulfilled. The element of habit in our attitude to prices

—especially wages and the long-term rate of interest—is so strong as to assume sometimes the character of a superstition; and a general belief arises that some particular level of prices is the ideally 'right' one. Any marked departure from it due to special circumstances, such as a war, must, it is felt, be reversed at the earliest opportunity. And the credit instrument can be used to restrict as well as to expand. Repay debt, raise the rate of interest so that producers cannot borrow with advantage, ration loans, restrict generally the means of drawing on future wealth for present spending, and prices will fall as inevitably as they rose in the sixteenth century under the impact of a stream of new gold.

The most recent important instance of this policy was mentioned in the last chapter. In Great Britain during the War of 1914–18 there was a large increase in Government expenditure from borrowed funds. This swelled the stream of money in circulation, and combined with a shortage of consumption goods in the market to produce a rise of the order of 150 per cent. in the cost of living. Incidentally, we may point out that this rise in prices helped to effect, what would otherwise have had to be achieved wholly by other means, the restriction of consumption among the general public so as to release the goods required by the Government. It might have been thought that after the War the new price-level (and the money stream that supported it) would have remained in existence so far as it was not modified by changes in the supply of commodities. Clearly further expansion of the money supply was not called for, in view of the resources released for private industry. But actually the monetary authorities felt it their duty not only to check further expansion, but also by a process of credit restriction to force prices back as nearly as possible to the level at which they had stood in 1914.

This was partly due to a desire to return to the old rates of exchange with other countries; but not entirely, for other countries in Europe and America were in much the same position, and arrangements might have been made to preserve roughly the new price-level by agreement. There were very serious maladjustments between countries, but this does not affect the point; their correction would have been easier, not harder, if it had been attempted without at the same time bringing about a drastic all-round reduction. The main motive for this was the belief that it was healthy for the nation to get back to its old level of prices—that there was something detrimental to society about paying two and sixpence, instead of one and threepence, for a pound of butter, or four pounds, instead of two, for a ton of coals. The lessons of the rising price-level of history had not been learned; and this was the more curious, as it was just a hundred years since a similar situation had arisen and a similar downward adjustment had been made, with results in the shape of poverty and suffering which were well remembered.

If, as we have suggested, the general level of prices is merely a convention formed by habit, not of itself of much importance, it may be asked why it should be a mistake deliberately to force it from one position to another. To answer that question we shall have to look more closely at the connexion between a moving price-level and employment (employment being the final criterion of monetary management). Let us take rising prices first and see how they actually begin. We are too apt to oscillate between talking of the movements of prices as if they were forces of nature for which no human being is responsible and going to the other extreme and abusing those who benefit from rising prices as 'profiteers,' a term which if used as a mere description might reasonably

be applied to any trader at any time in a profit economy. It may be pointed out that when prices fall so low as to leave no profit for the producer the buyer is not inhibited by any compunction from taking advantage of them.

In regard to the origin of rising prices, we may say in the first place that the *opportunity* for them is given by an increased demand for goods not accompanied by an increased supply. But we must add that they do not necessarily follow immediately on such an increased demand. Suppose in the case of a particular article demand has been stimulated by the weather, a caprice of fashion, or an advertisement campaign. Or suppose that there is a general quickening due to reduced taxation or increased expenditure from borrowed funds. Whatever the cause, the first effect is a depletion of stocks —first of retailers' stocks, then, as the retailer increases his orders from the wholesaler and the manufacturer, of their stocks in turn. This is an indication to all concerned that the market will stand a higher price, but it does not follow that anyone in the chain will at once raise prices. Rising *costs* accompanying rising demand are followed almost automatically by a rise in prices, but rising demand by itself is not. For rising prices attract more competitors into the business, and it may pay producers better to make and sell more goods at the same prices. Part of a manufacturer's expenses (premises, upkeep of machinery, and loan interest) are 'overheads,' remaining the same up to a point even though the scale of production is increased. Provided, therefore, that there is plenty of labour available at existing rates, *and that he can keep pace with the demand*, it may be more to his interest to expand production than to get a rather higher price for the same amount of his product as before. Consequently, we find that at a time when employment is low some increase of production is always possible without an increase of

prices. The moment comes, however, when particular employers have to bid against one another for extra labour, or find it necessary to check demand in order to prevent their stocks from falling to too low a point. It is at this stage that the producer's interest and the exigencies of the management of his business combine to induce him to raise his prices. The market will 'stand' it because of the increased incomes which have been created by the previous increase in spending, and the process spreads from one industry to another. Since most industries will begin to require new equipment and buildings, which are slow and costly to produce, prices are likely to rise fastest and highest in the industries producing such goods.

Now we must notice two effects of rising prices of commodities. In the first place they cause a new stimulus to production, reinforcing in this respect the effect of the original increase in demand. For producers who would have judged production unprofitable at the previous level now enter into competition. In the second place—and this is very important—they create an expectation of a further rise. Any price movement so marked as to be noticeable in the short periods during which the scale of industrial production is changed is regarded as part of a much greater movement in the same direction. And rightly, because the movement, after a certain stage has been reached, feeds upon itself. Costs (as wages go up and new equipment is required) tend to overtake prices, and prices have to be raised again to restore the margin over costs. This results in a position being reached in which a proportion of producers are depending for their profits not on a calculation of demand, costs, and prices as they stand, but on the continuance of the rising movement. And assuming, as it is safe to do, that they have borrowed on that expectation, any check to the movement will destroy their motive for producing, and at once create

enough unemployment to shake the general confidence. Such a check in Great Britain has in the past come from the application of the legal limit on the issue of legal-tender currency. The commercial banks, seeing their cash ratio in danger, have stiffened their terms for lending. That in itself, it might be thought, need not cause an actual *reversal* of an expansionary movement. But it has done so, for the reason that in certain circumstances to put a stop to further expansion is fatal to the calculations of so substantial a number of traders that the adjustments they have to make are sufficient in themselves to reverse the general expectations. This applies especially to the producers of industrial equipment (including buildings), for which a great part of the demand may be not for mere replacement, but to enlarge capacity; their sales may therefore cease altogether when their customers' production stops rising, even though that may not actually have fallen off at all.

When a country's currency is not maintained at a fixed gold value, or, if it is so maintained, when its gold stocks are ample, the supply of legal tender can be made much more elastic, and expansion is not likely to encounter any automatic check. What, then, if expansion is allowed to continue beyond the stage at which it is ceasing to stimulate production and beginning merely to inflate prices? Any expansion beyond this stage is bad because of the hardship it occasions to persons with fixed incomes. But if it proceeds unchecked the danger arises of a collapse of confidence in the country's money as an asset, or, putting the same thing in another way, a violent increase in the velocity of its circulation. It begins in a small way —"Buy now. Prices will be higher soon"—and ends in a state of affairs in which no one is willing to hold for an hour a sum of money which he can exchange for goods. For the rise leads the public to expect a further rise, and

a further rise will make their holdings of money less valuable and their holdings of goods more valuable. So they hasten to change money for goods, thereby precipitating the very rise in prices against which they are taking precautions. Prices, under the influence of this feverish demand, rise at a pace which destroys all the old price-level conventions, and there is no fixed basis for any industrial calculation. People with fixed incomes are plunged into penury. This is what is known as a vicious inflation of the currency; it happened in Germany in 1923.

Such a process is not uncontrollable, as is shown by the fact that after proceeding some way in France in 1926–27 it was brought under control in 1928 without destruction of the currency. Though it begins with a more rapid circulation of existing money, it continues only for so long as the monetary authorities are able and willing to issue the necessary additional legal tender to support it, transactions at the higher level of prices naturally requiring correspondingly larger supplies of pocket and till money. The length of time for which a Government lets the process run on may not be uninfluenced by the effect it has in reducing the burden of the National Debt. The Government cannot, however, indefinitely tolerate the progressive destruction of the basis of commercial bargaining both internal and international, nor can it ignore the increasing and overwhelming hardship caused by the rising price-level to bondholders and others whose income is fixed in terms of money. In the end, therefore, it steps in, firmly restricts credit, imposes heavy taxation to repay debt and secure reduction of final buying, and revalues the currency in terms of gold, or possibly, as in the case of Germany, starts afresh with a new currency. In the meantime, however, great misery has been caused by the change in the basis of debt, and a shock has been given to

confidence which may take years to wear off, if, indeed, it does not lead to a political revolution. For even after prices have settled down in the new or revalued currency, so that the flow of earned income is again normal, the income derived from debt, which is a large part of the total in a modern community, cannot be restored, and the relative position of the debt-owners is permanently changed for the worse. This is what is meant by saying that "savings have been wiped out."

Our conclusion as regards an upward movement of the price-level is that *gently* rising prices are a natural consequence of the gradually increasing monetary resources of a community which is accustomed to borrow on its assets and is constantly acquiring more assets to borrow on; that so long as they are practically imperceptible for current purposes they do no harm, and, indeed, maintain a cheerful confidence in the future which secures a continuous expansion of production; that they have, moreover, one great merit—that they secure a gradual and painless reduction of the real burden of all fixed debt, offsetting the tendency, inherent in the phenomena of interest, for permanent claims to an unearned share in the current proceeds of production to accumulate; but that sudden and large increases in prices at a time when they can serve no purpose in stimulating an expansion of employment can be nothing but disastrous. This is the conclusive argument against all schemes—*e.g.*, 'Social Credit'—which involve a large, rapid, and continuous increase in the buying power of consumers. Finally, we note that for want of proper control a healthy upward movement may turn into a vicious one, but that control must not be of the kind which reverses commercial expectations; so that an increase of taxation is a more wholesome remedy than a restriction of credit. The test of a healthy upward movement is the rate of absorption in industry of

unemployed or new labour in relation to the rate at which prices are rising. The essential symptom of a vicious inflation is the growing prevalence of the practice of employers' bidding against one another for labour.[1]

A falling price-level presents the reverse picture, with some notable points of difference. The reduction of demand, whether as a result of deliberate Government action, a wave of economy, or the operation of an automatic check upon expansion, throws unsold goods on traders' hands, so that stocks can be reduced to normal only by lowering the price, and prudence enjoins a lower scale of production for the future. (Note that the stimulus to lower prices is more immediate than the stimulus to increase prices.) Since every producer has some fixed costs, the lowered price drives out of business a number of those producers who found it barely profitable to produce at the previous level, while the output of the rest is reduced to the amount likely to be absorbed by the public. Employment, of course, falls as production is reduced, and this in itself reduces demand to a yet lower level, so that the process renews itself again and again. As in the case of an upward movement, the original cause of a change in employment is the change in demand, and not the change in prices; but falling prices aggravate the drop in demand by creating the expectation of a further fall and depressing the expectations of producers—and therefore their readiness to give employment—below what current demand would justify. Moreover, people are unwilling to part with money which is likely to rise in value, and this depresses spending below the normal even where incomes are maintained.

The modern monetary system imposes no automatic check on a movement of this kind corresponding to the legal-tender limit on an upward movement. Attempts

[1] See Joan Robinson, *Essays in the Theory of Employment* (1937), pp. 3–39.

are sometimes made by the Governments of countries in the slough of a depression to raise particular prices by restricting supplies of the commodity; but these naturally prove fruitless when the trouble is a failure in general demand, which can be made good only by giving the public the means of, or some stimulus to, an increase in their final buying.

The initiation of such a falling-price movement in the years immediately following the War is generally regarded as having been a mistake. It is now recognized that the misery caused by a deflation exceeds that caused by an inflation, though it is a different set of people who suffer. However dislocating the effect of inflation on distribution, it at least permits the production of something to distribute; whereas deflation lays a cold finger on the very impulse to produce. It is surprising, therefore, to find that inflation has rarely if ever been the confessed policy of a Government, and that it is regarded with horror by the public, whereas deflation is often adopted as a policy, regarded with resignation by the public, and even vaguely associated with a high standard of financial virtue. In 1920 it was orthodox policy in Great Britain, founded on the expert advice given to the Government. As Dr Leaf said in a striking passage of his book *Banking*:

> The great restriction of credit and fall in prices which took place in 1920–22 was brought about in this manner. The banks were approached, and received an intimation that the Government had adopted a policy of deflation, and the banks were invited to support it by curtailing their credit facilities. The banks gave the authorities to understand that . . . it was not in their power suddenly to cancel advances which had been already made for specific periods, nor did they consider themselves justified in refusing credits which appeared to them to be necessary for the maintenance of trade. The rate of interest which they

charged for advances was, with hardly an exception, fixed in relation to Bank rate; they could not suddenly raise the rate themselves, though the Bank of England could always oblige them to do so. There was, in fact, little that they could do. The Government, however, took the matter in hand. They deflated rapidly by very large repayments of public debt, involving reduction in the outstanding issues of Treasury notes and in the floating debt generally, and the Bank of England on April 15, 1920, raised its rate of discount to 7 per cent. The effect was immediate: prices dropped, every one rushed to realize assets, the value of securities pledged to the banks fell.

A similar policy has been followed more recently by the Governments of Belgium and France between 1931 and 1936. In order to maintain the value of the belga and the franc in terms of gold it was necessary that the value of these currencies in terms of commodities generally should be as high as possible—*i.e.*, that internal prices should be as low as possible. As this aim could be achieved only by reduction of spending and consequent business depression and unemployment, it had ultimately to be abandoned because the conditions created by its pursuit were intolerable. It is worth noting that it created very serious difficulties for the Governments concerned, as well as for the business communities and private persons. Both inflation and deflation, if at all violent, are apt to land Governments in budgetary difficulties, the former because their expenditure is constantly increasing, so rapidly that it outruns the rising proceeds of the taxation decided on when prices were lower; the latter because, though Government expenditure may be falling, incomes, and therefore revenue, are falling faster. The difficulties arising from deflation are, however, the more serious of the two, particularly in a community which makes provision from public funds for the unemployed, since that burden is reduced as prices rise and employment increases, while in

a period of deflation it grows heavier, and thus offsets any relief on the expenditure side of the Budget.

As we have said before, the events of the last two decades have driven home the lessons of a deflation as well as those of an inflation, and it is unlikely now that any Government of the main commercial countries would deliberately inflict the miseries of a deflation on its citizens, though it might not be skilful enough to avert the downward movement that the monetary machine in certain circumstances generates of itself, particularly if it is necessary seriously to restrict Government expenditure in order to maintain confidence in the currency.

The reader will have noticed that throughout our discussion we have implied that the price of one thing—namely, labour—does not move at the same pace as other prices. It is a matter of common experience that wages do not move upward or downward so rapidly as prices and profits. They tend to be 'sticky,' and 'sticky' in terms of money, not of real things. For the worker goes on accepting the same money income without protest for some time after it has ceased, owing to rising prices, to buy so many goods; while, on the other hand, he would resist an attempt to reduce a money income which owing to falling prices has come to buy more goods. The result of this characteristic, reinforced by unemployment insurance, which, in effect, introduces a minimum acceptable money wage, is that movements of prices affect wage-levels less, and the volume of employment more, than they otherwise would. Indeed, without this relatively fixed element in the price structure and the large volume of outstanding debt which tends to stabilize the rate of interest, there would appear to be nothing but deliberate interference or psychological changes to put a brake on rapid price movements in an upward or downward direction —towards the inevitable result in the one case of loss of

confidence in the currency, with inflationary overspending, and, in the other, of loss of confidence in the banks, with hoarding of currency. On the whole, then, in modern conditions (which must be distinguished from those of the nineteenth century) the rigidity of the wage structure exerts a stabilizing influence on prices.

This is easier to see, perhaps, in relation to the boom than to the slump. Apart from the teachings of some economists that all that is required to end a slump is that labour should accept lower wages, it seems a common-sense view that if labour did so the margin between costs and prices, and therefore the level of profits, would be restored, and production would be stable again. The argument, however, overlooks the effect of reduction of wages on aggregate demand. Wage-earners receive about half the money income of the country, and represent a larger proportion of its flow of spending, because they habitually spend the whole, or almost the whole, of their earnings promptly. A general reduction in wages, unless fully offset by a simultaneous proportionate increase in employment, would therefore involve a huge reduction in spending, and thus in the *money* income of the community. If every producer could rely on the reduction of his own costs exactly balancing the fall in his money receipts it is possible that he might continue production at the same rate notwithstanding the fall in prices, though, as we have seen, this would only mean an indefinite declension of prices and a 'hoarding' crisis. As it is he can be sure of nothing of the kind, and the effect of a general and simultaneous reduction of wage-earners' spending power would certainly be a depressing one. The sporadic and piecemeal reductions which in real life are all that can be achieved are still less likely to tend towards the maintenance of production, since some producers must see their receipts going down while their costs remain at the

old level. Finally, it must be remembered that a reduction in wages increases still further what is already increased by falling prices—the proportion of the real income of the community which falls to the share of the rentier.

There is one commodity which calls for separate discussion, because its price has always caused particular concern—that is, gold. The reason is that until recent years gold was a basic part of the currency in even the most modern monetary systems, though after the War of 1914–18 it ceased to circulate in the form of coin. Even now it is the position in Great Britain and the United States that an addition to the gold holdings of the Central Bank means that the amount of money in existence can legally be increased, though it is no longer the case that it automatically is so increased. When a country's currency is based on gold, in the sense of varying in amount according to the gold holdings of the Central Bank, the price of gold—the amount of the country's money to which a unit of gold is equivalent—measures the effect of gold imports (which naturally find their way into the Bank) in increasing purchasing power, and consequently increasing prices.

There are, therefore, two possible means of checking an expansion resulting from an increase of gold in the Central Bank's possession. One is to prevent the currency expanding on the basis of the new gold holding: this was successfully attempted in America between 1920 and 1927, but was not much practised in Great Britain when the gold standard was in operation. The other is to reduce the price of gold in the country's currency. The second involves a much more drastic change than the first. Conversely, there are two ways of counteracting a contraction of the currency due to a reduction in gold holdings: one to increase the supply of currency permitted on a given gold basis, the other to increase the

price of gold in the country's currency. The latter plan, which is called devaluation when a new price is fixed, depreciation when gold is left to find its own level, was carried out in various ways by all the chief industrial nations in 1931–36, as we shall explain more fully in our next chapter, in order to meet a general shortage of gold emphasized by its maldistribution. The result was that these countries could face with equanimity an export of gold which would previously have caused them serious concern, for it no longer involved them in a restriction of their currencies.

But there was another consequence. The price of the gold in existence was raised in all countries; the production of new gold thus became a more profitable undertaking, and the supplies have largely increased. Not only that, but hoards have been brought out of private hiding-places, in India in particular, and deposited in the banks. The position which led to devaluation is therefore reversed. Instead of a shortage of gold, there is now (in 1937) something like a superabundance. As we said above, gold can be prevented from exercising its full effect in expanding the currency; but some countries, in particular the United States, which still undertakes to buy gold at a relatively high fixed price, have so much gold that they are finding the plan of 'sterilizing' it embarrassing. The alternative of reducing the price of gold—so that every unit of it which is received represents less of the country's currency—therefore came under discussion early in 1937. The idea caused great alarm, because it was assumed that the result would be a contraction of the currency and a fall in all other prices. This is not, however, a necessary consequence. There was a similar misapprehension in 1934 when a fruitless attempt was made to *raise* American internal prices by *raising* the price of gold. The causal factor is not the price of gold, but the volume of money.

The previous 'sterilization' afforded a margin for expansion even on the basis of a lower value for gold. In other words, it is possible to combine the two methods by fixing a lower price for gold, but allowing it, at that lower value, to have its full effect in expanding cash. Another possibility is to fix no new price at all, but to leave gold to find its own market value, which would necessarily be lowered by the increased supply in relation to the demand. Either plan could be carried through without deflation, though not without disturbance. The real danger of reducing the price of gold is not to the currency, since the monetary authorities have assumed full control over the relation between the two, but to the industry of producing gold. A change might give a violent shock to the existing prosperity of the gold-producing countries, which might well transmit itself to confidence elsewhere.

The position in Great Britain is even farther removed from the old automatic connexion between holdings of gold and currency expansion than that in America. There is no fixed price at which the Bank of England undertakes to buy gold. The price is allowed to vary freely according to market conditions (which are, of course, very much influenced by the prices fixed in other currencies, particularly that of the United States); by a book-keeping device, however, the value for purposes of currency expansion has been kept fixed at the level at which it stood before the gold standard was abandoned. Since in any case the automatic connexion between gold holdings and the volume of the currency has by recent developments been reduced to little more than a convention, a change in the sterling price of gold is a matter of minor importance in Great Britain, except to the market —an important one—in titles to profits from gold production.

It cannot be too much emphasized that there is no necessary specific relation between gold and the currency. In Great Britain and the United States the relation of the two is already quite different from what it was a few years ago, and it differs entirely as between the two countries. In both the existing relation between gold and the currency is in the nature of a concession to conventional sentiment. This concession may be necessary for the present, and perhaps for a long time to come, because, as we have seen, the maintenance of confidence is the first essential to the success of any kind of monetary management. Nevertheless conventional sentiment about gold, based as it is on a somewhat confused attempt to apply to present-day conditions considerations which held good only in the conditions of the past, is not an unalterable factor in the situation. Our prosperity is at the mercy of the chances of gold-mining only so long as we choose to think it so.

We suggested in Chapter IV as a desirable object of monetary policy the maintenance—or where there is unemployment the increase—of the volume of spending. Subject to the criterion of full employment, the monetary authorities, acting on this policy, would not concern themselves primarily with the movement of prices, though they would regard as a secondary objective the maintenance of an acceptable degree of stability in the purchasing power of the currency. This does not mean that it is either necessary or desirable—even if it were possible—to keep the 'purchasing power of money in general' fixed, or even to keep fixed the price of one commodity—*e.g.*, gold—or group of commodities. Some tendency of prices to rise is helpful and, at least in the absence of a non-monetary stimulus to activity, such as a flow of new inventions or a rising population, even necessary.

Rising prices, therefore, so long as labour was still available to be absorbed in employment, and was in fact being increasingly so absorbed, would be regarded with equanimity as a stimulating factor. Only after the point had been reached at which employers were bidding against one another for labour would rising prices be a symptom of overspending, and therefore to be checked temporarily. At that point, if there were still a large body of unemployed labour, the remedy would not be monetary, but the taking of steps to bring together unemployed labour and the employers requiring it. If prices are rising rapidly while the price of labour is steady this can only be through a failure of competition. The remedies for this, though they may be in part fiscal, lie outside the scope of this book.

Falling prices, if the total expenditure were maintained and employment did not shrink, might in theory mean only that invention had lowered costs so that the public were getting much more for their money than before without the producer suffering. This situation is, however, unlikely, since the natural result of such a development would be a great increase in borrowing for productive purposes, and the consequent maintenance of prices, accompanied by an increase in spending and incomes. In practice falling prices are accompanied by dwindling activity and incomes.

In no circumstances, except the overspending condition referred to above, would the monetary authority be called upon to attempt to *reduce* spending. In no circumstances whatever, even when it was necessary to restrict spending, would the authority deliberately induce a fall in the price-level. For it is extremely doubtful if any technique is known by which this can be done without not merely restricting spending, but causing an actual slump.

Subject to what we have said above, whenever there was

unemployment the monetary authority would normally attempt to increase spending. The means at its disposal would be either direct Government expenditure of borrowed funds or a lowering of the rate of interest sufficient to induce traders to borrow and spend; either would involve an increase in the quantity of money. In theory any quantity of money could support any level of prices and spending, provided that it moved fast enough; but in practice the amount of work each unit of money does is governed by the habits of the public. Any sharp change in those habits would mean that the public's attitude to the reliability of money as an asset and a medium of exchange was altering, and that would mean that prices had begun to change, and would soon change faster, with all the consequences we have described earlier in this chapter. While the monetary authority aiming at the maintenance of spending may not attempt the direct control of prices, it will prefer to see them stable, in the sense of being slow to move, but moving, when they do move, very gently in an upward direction. What is essential is to secure stability in the sense of avoiding fluctuations in the price-level which are rapid enough either to disturb confidence or to cause overwhelming hardship.

APPENDIX TO CHAPTER IX

In framing a rough outline picture of the history of prices, as a background to the study of the behaviour of money, it is convenient to distinguish between the nineteenth century (in the broad sense of the period between the Napoleonic wars and the Great War) and the times before and after it.

I. Before the Nineteenth Century

No reliable index numbers of prices are available; indeed, owing to the great changes brought about by the Industrial Revolution in the *nature* of the goods produced and consumed, precise measurement even of individual price changes is impossible. The following figures, from different sources, though very rough and by no means in agreement, suffice to illustrate the course of events in England.

Period	Wages of Unskilled Field Labour per Day [1]	Average of Prices of a Dozen Commodities in Common Use as Percentage of the Figure for 1550 [1]
14th and 15th centuries	2*d.* to 3*d.*	56
1550	4*d.*	100
1600	6*d.*	—
1650	6½*d.*	240
1700	8*d.*	—
1740	1*s.* 10½*d.*	434
1795	1*s.* 5½*d.*	752

Period	Wages of Unskilled Field Labour per Day [2]	Average Price of Wheat per Quarter [2]
1261–1350	2⅝*d.*	5*s.* 9½*d.*
1351–1400	3⅞*d.*	6*s.* 1½*d.*
1401–1540	4*d.*	5*s.* 11¾*d.*
1541–82	6½*d.*	13*s.* 10½*d.*
1583–1641	9½*d.* (4*s.* 10*d.* per *week*)	36*s.* 1*d.*
1642–1702	1*s.* 1*d.* (6*s.* 4¾*d.* per *week*)	41*s.* 11*d.*

[1] Sir G. S. Evelyn (1798), cited from J. L. Laughlin, *The Principles of Money* (1926).

[2] Thorold Rogers, cited from Palgrave, *Dictionary of Political Economy*, under "History of Prices."

Broadly speaking, prices in England were always rising—though by no means at a constant pace—from the end of the Middle Ages till 1815. For the greater part of the time wages also rose, but neither steadily nor in step with prices. The corresponding daily wage-rates in the twentieth century would be rather less than 3*s.* in 1914 (pre-War) and about 5*s.* at the present day (1937).[1]

From 1550 onward, especially between 1550 and 1650, prices rose very rapidly under the influence of new supplies of gold; and since in England money wages, though rising, did not keep pace with them, profits were high and enterprise active.[2] Monetary conditions did not remain so expansionist as this in the late seventeenth and in the eighteenth centuries; but no serious *fall* of prices took place in England until after the Napoleonic wars.

II. The Nineteenth Century

The period between the French Revolution and the Great War presents a sharply contrasting picture. On the average there was no great change in the price-level at all; the secular rise of prices (but not that of wages) ceased to operate. During the Napoleonic wars prices in England rose sharply, but after the peace they were brought down to their previous level, the fall being accompanied by a prolonged period of bad trade and unemployment. Between 1820 and 1850 the tendency was still downward; after 1850 a quarter of a century of rising prices till 1875 was followed by twenty years of falling prices till 1896, when prices began to rise again, and continued to do so till the War. The following figures illustrate the position:

English Wholesale Prices (Jevons' Index-number: Percentage of 1845–50)

1782–84	97	1810–14	125
1785–89	87	1815–19	111
1790–94	93	1820–24	92
1795–99	120	1825–29	88
1800–4	126	1830–34	79
1805–9	138	1835–39	85

[1] G. G. Coulton, in *The Meaning of Mediæval Moneys* (1934), estimates that a multiplier of forty converts English fourteenth-century prices into something roughly comparable with present prices.

[2] See J. M. Keynes, *A Treatise on Money* (1930), vol. ii, Chapter 30, on the rise of prices relatively to costs in this period.

Year	Wholesale Prices: Great Britain (Percentage of 1845–50) [1]	Wholesale Prices: United States (Percentage of 1900) [2]	Cost of Living: Great Britain (Percentage of 1850) [3]
1860	123	111	111
1875	126	126	113
1896	91	82	83
1914	113	122	102

Money Wages

Year	Great Britain (Percentage of 1850) [4]	Year	United States (Percentage of 1913) [5]
1860	114	1859	39
1875	154	1874	67
1896	163	1894	67
1914	190	1914	102

The nineteenth-century figures bring out the point that money wages rose greatly in the course of the century, in spite of the complete suspension of the secular rise in the commodity price-level—this, of course, was only possible because of the great increase in the productivity of a man's labour, brought about by technical developments. It is important to note that in spite of these developments falling prices in the nineteenth century tended to be accompanied by sluggish trade and high unemployment. The facts are, however, too complex to lend themselves to summarization; the reader is referred to Mr D. H. Robertson's book *A Study of Industrial Fluctuation* (1915).

Very broadly speaking, nineteenth-century conditions represent a combination of abnormally flexible money-wages with an unprecedentedly rapid growth both of population and of individual output (technical efficiency); and nineteenth-century price-history is the result of the interaction of these factors, under the gold standard (see Chapter X), during a long period disturbed both by gold discoveries and by the invention of new monetary devices (in particular, the cheque system), but undisturbed by major wars. The extreme im-

[1] *The Economist* Index, cited from W. T. Layton and G. Crowther, *Introduction to the Study of Prices* (1935).
[2] Bureau of Labour Index, cited from Layton and Crowther, *op. cit.*
[3] G. H. Wood, cited from Layton and Crowther, *op. cit.*
[4] Layton and Crowther, *op. cit.*
[5] *Encyclopædia of Social Sciences*, article on "Wages."

probability of a recurrence of all these special factors together should be noted.

III. Post-War

The following figures, illustrating the argument of Chapter IX in its application to post-War conditions, should be read in conjunction with the outline account given in Chapter X of the actual course of events:

	Cost of Living		Wages		
Year	Great Britain (Percentage of 1924)	United States (Percentage of 1925)	Great Britain (Percentage of 1924)	United States (Industrial) (Percentage of 1913)	United States (Farm) (Percentage of 1913)
1913	—	—	—	100	100
1914	57	—	58	—	—
1920	142	—	150	234	230
1929	94	99	99	233	161
1932	82	80	95	186	81
1937	87	82	101	—	—

CHAPTER X

INTERNATIONAL MONETARY RELATIONS

In the earlier chapters of this book we have treated the question of managing the money of the country as if it were independent of the commercial relations of the country with other countries. So to a large extent it is in Great Britain and the United States in present conditions (1937). But present conditions may not last, and it is well to have a clear picture not only of our existing arrangements for settling debts between nations, but also of the arrangements of the past and those to which we may conceivably come in the future.

It is, however, desirable not to exaggerate the relative importance of international, as compared with national, finance. In Europe at least 'finance' is, indeed, proverbially an international activity: for more than a century the leading financial centres have been largely preoccupied with foreign loans for the development of new or backward countries and with the financing of international trade and the necessities of foreign Governments. Yet no country—not even Great Britain, with its crowded industrial population dependent on imports for cheap food—lives mainly by international activities. The total value of imports into Great Britain has never amounted to more than about 20 per cent. of its net aggregate production, which constitutes, as we have seen, its national income. Essential as these imports are, and necessary as it is to market sufficient exports to pay for them, and material as is the income derived by the population of Great Britain from financial services rendered by the

City of London to producers overseas, the maximization of international trade is not an object in itself, nor can its development, to any extent which is practicable, compensate for a serious shrinkage in the main constituent of the national income—namely, home production for home use. This is still more true in the case of most other leading countries; and the growing realization of this fact—caricatured as it is in many countries by the excesses of 'economic nationalism'—constitutes one of the most important and remarkable differences between the economic outlook of the nineteenth and that of the twentieth century.

In thinking of international monetary relations the first thing to grasp is that each country has its separate currency, and that the currencies are not spendable in the territories of countries to which they do not belong. This is so even in countries which have once had the same unit and have kept its name in use, but are now under separate Governments. Only a Government can make a monetary unit legal tender, and then only in the territory for which it is responsible. Monetary units with the same name issued under the authority of different Governments have no other connexion than name with one another. The Swiss franc, the Belgian franc, and the French franc are as independent of each other as the pound and the dollar. An English pound would not be accepted as the same thing as a New Zealand pound in New Zealand, nor a New Zealand pound as the same thing as an English pound in England. Consequently, to send a cheque or a sum in home currency to a creditor in another country does not cancel the debt unless the creditor either wishes to spend the money in the home country or is willing to leave it on deposit there. In any other event it must be exchanged into his own currency before he can be satisfied. Even if his bank in his own country will receive the

foreign currency on deposit, what the bank credits him with is a deposit in his own currency in exchange for it, which means that the bank effects the exchange of one currency into the other.

It follows that at any time in countries which trade with each other there is a demand in each for the currency of the other for the purpose of paying debts. By currency here we mean not notes or coin (though these may at times be in demand), but simply claims on units of the foreign money. And the demand does not arise only out of commercial transactions. The currency of country *A* may be wanted in order that some one in country *B* may pay back a loan, or pay interest on a loan, or lend money to the people in country *A*, or merely because the people in country *B* with money to spare think that in the near future it will be more advantageous to them to hold country *A's* currency or money titles than their own. As the currency can be obtained only by way of exchange, it follows that if the transaction is to take place a corresponding set of demands must be arising in country *A* for the currency of country *B*, possibly because *B*, the country making the loan, say, is exporting more to *A* than she is receiving from that country.

Now, there are obviously various ways of dealing with this situation. One would be—and this is actually in operation between some countries at the present time—for all payments *to* foreigners to be paid into a central office in each country, and for the two offices to use the sums received to pay the debts due *from* foreigners to their own nationals. Thus, each debt would be settled in the currency of the country to which the creditor belonged, the two authorities (in agreement between themselves) settling the rate of exchange which determines precisely the amount due from the foreign importer. This method, which is known as Exchange Clearing, would work

satisfactorily only if the amounts due in the two directions were approximately the same at any time. Otherwise payments to the one country or the other would get increasingly into arrear. Normally, however, payments between any *two* countries, if they can be measured in a common unit, are by no means equally balanced, a more usual state of affairs being, for example, for country *A* to buy more from *B* than it sells to *B*, and less from *C* than it sells to *C*, the balance being adjusted by *B* buying more from *C* than it sells to *C*. In short, international trade is to an important extent 'multi-lateral.' The only way of keeping the payments under the Exchange Clearing system constantly up to date would be either to vary the rate of exchange—*i.e.*, in effect, the price which creditors would be entitled to claim for sales to, and buyers would have to pay for their purchases from, citizens of the foreign country—or to restrict imports or exports according to the circumstances. The Exchange Clearing method has been used only as a means of reviving, on a limited and equally balanced basis, trade between countries whose transactions had fallen to a very low ebb. England now (1937) has Exchange Clearing agreements with Italy, Roumania, and Turkey.

Another method of proceeding would be for each debtor to send his creditor something—if there is such a thing—which can be absorbed into the money stream of the other country. Home currency is of no use for the purpose. A cheque on a home bank is normally of no use either. But if there is something—as there has over several decades been gold—which most countries use as part of their monetary system, and which can readily be obtained in any country for export to another, then it affords a way of settling debts abroad. Not an altogether convenient way, however, if actual gold has to be sent, or if there is doubt as to whether the amount of gold

which a unit of country *A's* currency will buy will go on being worth the same amount as at present of *B's* currency.

Under the gold-standard system, as practised in Europe and America from about the middle of the nineteenth century till 1914, the maximum of international convenience was attained by each country fixing the amount of gold which a given amount of its legal-tender currency would buy, and *vice versa*, and arranging for its Central Bank to convert gold into currency and currency into gold whenever it was asked to do so. A debtor could therefore settle a debt in a foreign country almost as easily as in his own country. Since the debts could all be taken as representing a definite amount of gold, gold did not actually have to be sent from place to place, except when there was a balance on one side or the other, and not then if it could be settled by a small rise in the price of the currency most in demand, not exceeding the cost of transporting a corresponding amount of gold. So debts could be set off against each other in a free market in which the documents representing them (bills of exchange[1]) were bought and sold, the use of the common unit enabling a creditor with a claim on country *A* to use it to settle a debt in, say, country *C*. The process has some analogy with the setting off of internal debts against each other by means of the clearing of cheques, except that there is nothing in internal cheque-clearing to correspond to the settlement of small balances by variations of the rate of exchange within the gold points (the excess or deficiency over the normal rate represented by the cost of transportation of gold). This amounted in effect to slightly writing down the value of the debts in one direction, or writing it up in the other, in order to effect an immediate settlement.

[1] See Chapter I, p. 22.

As we have said, the gold-standard system had great advantages from the point of view of international trade. It might, indeed, be said to have had no disadvantages so long as it was not necessary for any country actually to part with gold. Unfortunately movements of gold were constantly necessary. When they happened on any considerable scale internal difficulties began to appear, since the countries' domestic currencies were based on gold, and large losses threatened them with restriction of credit and falling prices, while large additions might lead to undue expansion and an undesired rise in prices. We will return to these disadvantages later, only pointing out here that they ultimately led to the general abandonment of the system. Meanwhile let us look at some other possible means of settlement.

The debts in all directions might simply be set off against each other in a free exchange market (as under the gold-standard system), but with nothing to limit the fluctuations in their value. The debtor—or his broker for him—would go into the market and buy with his own home currency at the best price he could a document representing a claim on foreign currency which his creditor would accept in settlement of his debt. Clearly what would happen then would be that any two currencies would exchange according to the demand in each at the moment for the other. If the nationals of *A* wanted to make payment of 70,000,000 francs to *B*, and the nationals of *B* wanted to make payments amounting in all to £1,000,000 to *A* on the same day, the only way of getting an immediate settlement would be for francs to exchange for pounds at 70 to the pound. On the next day only 50,000,000 francs might be on offer, and the same number of pounds as before, and the exchange would fall (or rise, according to the point of view) to 50 to the pound. The objection to this system is that traders

would not know from day to day what prices to quote or to offer to foreigners for goods for future delivery, since they would have no idea whether when the day of payment came the price they received or had to pay in their own currency would be profitable or ruinous. Some stability of expectation is necessary for trading purposes, though variations within a certain range can be suffered without much difficulty. There is a highly specialized market in 'forward' exchange, in which, through the banks and other dealers, the trader can acquire a claim to purchase foreign currency at a given future date at the present rate of exchange. The risk of a change in the rate is thus transferred from the traders to the dealers in foreign exchange, who acquire and hold deposits in foreign banks sufficient to enable them to meet their liabilities when the time comes, and charge their customers a premium which covers not only the cost of the service, but also any difference in interest which deposits can earn in the two centres. When exchange rates are moving widely and rapidly, the resources of the market are increased by the buying and selling offers of speculators who hope to make a profit out of the changes in value between the currencies at the times of purchase and sale. When the variations are too wild, however, neither speculation nor any form of insurance can cover the risk. No private persons would have the necessary resources. And actually no important commercial country has put up for any length of time with a wildly fluctuating exchange.

The system under which since 1931 the British monetary authorities have been working, and from various dates between then and 1936 the United States, Belgium, Holland, and France have been working also, is that of a free exchange market in which the Governments intervene as speculators on a large scale, not for profit, but to

preserve the stability of the exchanges. Using an Exchange Stabilization Fund with enormous resources (now £575m. in Great Britain, $2000m. in the United States, in each case plus or minus the profits or losses which have accrued since the inception of the Fund), the Government holds itself ready to buy up foreign currency when it is offered in excessive supply, or to sell it when it is short. Thus the supplies left to be exchanged between the operators in the market are just sufficient to keep the rate at the level where the Government wishes to keep it. What happens, it may be asked, if a Government has bought more foreign currency than it thinks it can get rid of? Here gold comes into the picture again. Though gold is no longer the universal currency, and domestic currencies are to some extent freed from it since gold coins are no longer in circulation, it is still acceptable to the monetary authorities of the different countries in the sense that it is exchangeable for their currencies, though in some countries not at a fixed rate, but at the market rate of the moment. If, therefore, an Exchange Stabilization Fund purchases gold in a foreign country with its excess holdings of that country's currency it has an asset which it can turn at will either into its own currency (by arranging with its Central Bank for the Bank to purchase the gold) or into any foreign currency it desires to acquire. It is not necessary for the gold to be moved from place to place: it can be 'earmarked' at the foreign centre. If the Fund has too much of its own currency—*i.e.*, too large a balance at its Central Bank—the remedy is easier still. The currency may have been acquired, say, by the sale of Treasury Bills—*i.e.*, an advance to the Fund by the Exchequer of securities on which money can be borrowed from the market—and these were purchased by the discount market and ultimately by the banks. The Account's holding of home currency can be reduced by the reverse

process of investing in Treasury Bills—*i.e.*, lending the excess to the Exchequer—or by buying gold from the Central Bank.

By these devices a country on what we may perhaps call the 'Exchange Stabilization standard' can, it is suggested by recent experience, maintain a high degree of stability with other currencies, not by means of keeping its own currency steady in terms of gold, as when on the gold standard, but as it were directly. The fact that the United States and (till 1936) France have had fixed prices for gold has meant that Great Britain, in keeping her currency steady in terms of the dollar and the franc, has also kept it steady in terms of gold; but there is no reason in theory why, by mutual arrangement and suitable purchases and sales either of each other's currencies or of gold, countries should not keep their currencies steady in terms of each other, even though the price of gold might be fluctuating in each country in accordance with the demand.

Before we go into the question of what determines the rates of exchange on which the countries work we must go back a little and examine what were the difficulties to which the gold standard actually gave rise, and in what way the present arrangement is an improvement.

The essential features of the gold standard are:

(*a*) Fixed value of gold.
(*b*) Free movement of gold.

While it was in force the public could exchange their money for gold at the Central Bank at a fixed rate, and could send the gold abroad if they wished.

In the first place, therefore, it was necessary for all the participating countries to possess ample supplies of gold. In theory this meant that each country should have a margin sufficient to cover any probable debit balance,

the margin being built up again when necessary by its credit balances. In practice a larger supply was required because of the convention that the country should maintain *permanently* the reserve thought sufficient to meet its needs. If it had to keep that amount, or any fixed amount, and never use it, it was necessary to have in addition a reserve which it did use. Now the amount of gold in the world is limited, and if all the participating countries put their reserve requirements at a disproportionate figure it would not go round. Moreover, with increased international trade the reserves thought satisfactory tend to rise. It may be objected that if the countries could be imagined to start from a position in which each held a margin adequate to cover fluctuations in trade, there should be no difficulty in maintaining it, *on an average*. But this overlooks the possibility that a drain might occur through causes independent of trading transactions, *e.g.*, desire to hold foreign capital, payments of debt abroad—German reparations are an example of this—or lending abroad in excess of the balance of exports. All these things may cause a drain of gold from the Central Bank not corresponding to trade transactions, and therefore *not likely to be redressed* by trade transactions. It is this that causes a drop in confidence and, when all the country's gold is gone, except the 'reserve' which it is unwilling to use for the purpose of a reserve, the taking of drastic measures to reverse the flow.

The nature of the measures taken may be either national or international. Take the latter first. A country by means of tariffs may deliberately shut out some of the imports it has been receiving in order to have fewer payments to make to other countries. By this means it may retain its gold stocks. But if all countries act thus together, though they may retain their gold stocks, they will assuredly kill international trade. The other means

normally adopted when the gold standard was in operation was to restrict imports by the simple expedient of restricting the population's power to purchase them. The basis of credit was narrowed, and expenditure, and therefore the flow of incomes, was reduced. This caused money prices to fall, which in itself discouraged imports. At the same time it encouraged exports by making home goods cheap to foreigners. The trend of gold movements was thus reversed, provided always that complementary measures were taken elsewhere which made it easy for gold to return. But the power to buy imports could not be reduced by this method without at the same time reducing the power to buy home products. Prices having fallen, employment and prosperity fell also.[1]

This meant, of course, that the state of home prosperity was, under the gold standard, at the mercy of the measures taken to maintain international currency stability. During the latter half of the nineteenth century, however, the system worked moderately well, though prolonged spells of bad trade were by no means unknown. The 'capital' movements were not so great as to cause a demand for impossibly large reserves, and from time to time adequate supplies of new gold were coming into use. If, however, any attempt had been made to cure unemployment otherwise than by time and emigration the pitfalls of the system would have been discovered. The War of 1914–18 upset the system in various ways:

(*a*) The gold standard having been suspended during the War, each country's prices had moved independently of the others'. A new start had therefore to be made by deliberately fixing values for the currencies in terms of gold, a process which obviously left considerable scope for error.

[1] See Chapter IX.

(*b*) Prices everywhere had moved upward to a huge extent, so that to fix new values in terms of gold meant either lowering the values of the national currencies or lowering the prices. One was repugnant to national pride, the other disastrous to national prosperity.

(*c*) Owing to the feeling of insecurity caused by war conditions, the desire of financiers to hold deposits or of investors to hold bonds in foreign countries for security purposes was very much stronger than usual, so that the margin of gold required for meeting possible fluctuations was very much greater.

In consequence of these changes in the situation there was general uneasiness about the possibility that stocks of gold might be insufficient to provide the gold reserves required. The one factor telling in the opposite direction was that during the War the practice of using gold coin for actual circulation purposes had been superseded by the use of notes. This automatically made the Central Banks' holdings some hundreds of millions of pounds larger than they would otherwise have been. When, therefore, Great Britain—the first of the great Powers concerned to take the step—decided in 1925 to return to the gold standard she did not return to the use of gold coin in circulation. Unfortunately, however, she fell into the error indicated above under (*a*)—*i.e.*, she fixed her currency at the wrong value in terms of gold.

At this point we must stop to consider what makes a value 'wrong.' Ultimately the only 'right' level of exchange between currencies is the one which makes the purchasing power of the unit as nearly as possible the same as that of the amount for which it is exchanged—*e.g.*, the number of French francs obtainable for five

pounds should pay a hotel bill in France covering the same items as a hotel bill for five pounds would cover in England. The comparison could never be relied upon to work out exactly, because, for two reasons among others, the *relative* cost of hotel accommodation might be higher in one country than the other, and the bill might include certain items not obtainable at all in the other country. But, taking his expenditure as a whole, the individual exchanging money should be able to buy roughly the same commodities with it in each country. This does not necessarily mean that if the position described were once reached the countries' exchange would remain steady, because, as we have seen, there may be fluctuations having nothing to do with prices. But if this condition of equality of purchasing power is not fulfilled the country's currency is said to be overvalued or undervalued. If it is overvalued—*i.e.*, if it exchanges for more of the other currency than the relation of prices justifies—then that means that foreign purchasers in the home market will be, so to speak, disappointed when they come to spend their money. It will not buy so much as they expected. They are therefore unwilling to spend their money there. On the other hand, home purchasers in foreign countries can buy more than they expected. This encourages imports into the home country, which compete with home-manufactured goods, and discourages exports, which are too expensive for foreign countries to buy them; 'invisible' imports and exports, such as the tourist traffic between the countries and the services they perform for each other—*e.g.*, shipping or finance—are similarly affected. Hence a pressure on the home authorities to reduce home prices. Undervaluation has the opposite effect: it encourages exports and discourages imports, other things being equal. The 'other things' may, however, in either case be very important. They consist

of the payment of loans and interest and capital movements of all kinds. Were it not for such payments the trade transactions would tend to correct any under- or over-valuation of one currency in terms of another, owing to the tendency of purchasers to buy in the cheapest market and of sellers to sell in the dearest.

Great Britain went back to the gold standard in 1925 at the old pre-War parity—*i.e.*, with £3 17*s.* 9*d.* as the buying price of the standard ounce of gold; 85*s.* as the price of the fine ounce. This is now generally considered to have been an overvaluation of the pound, and the resulting pressure to reduce incomes in order to lower prices led at once to industrial trouble. Moreover, in order to maintain the exchanges at the rates so established it was necessary to keep Bank rate at a high level, and so attract foreign capital—in other words, to induce foreigners either to hold balances in British banks or to buy British short-term securities. This proved to be a source of grave embarrassment at a later date, when a temporary loss of confidence in the stability of the British currency caused foreign holders in a body to exchange their large British balances for their own currencies—*i.e.*, in effect, to take them away in the form of gold.

The next country to go back to gold was France, for whom the old parity was impossible, as the inflation of the War and post-War period had raised her prices to a level incompatible with that parity. Instead of having to reduce internal prices by about 10 per cent., as Great Britain had to do, in order to get back to the old relation with the American dollar (still exchangeable for gold), she would have had to do so by about 75 per cent., even in 1928, after the franc had recovered somewhat from its worst collapse. She actually adopted in that year a level which undervalued her currency, thereby stimulating her export trade and protecting her home manufactures to

an extent which made her for some years afterwards conspicuous among industrial countries for her low unemployment figures. This step, however, made Great Britain's position worse, and the course of her balance of payments was such that in three years' time the maintenance of the gold standard became impossible. For France, by increasing exports and restricting imports, necessarily took a large balance in gold from countries on the gold standard.

The United States at the same time was exporting much more (in terms of gold values) than she was importing. These two countries between them were therefore absorbing all the new gold produced in the world, and were enormously increasing the size of their gold reserves, relatively as well as absolutely. On the old theory of the gold standard they should have absorbed the gold into their monetary systems by relaxing credit and raising prices, so setting in motion a process which would have led to gold exports in due course. But the United States were then engaged in the experiment of stabilizing internal prices (an experiment not strictly compatible with the maintenance of an international metallic currency unless all other nations are doing the same thing at the same time and at the right levels of prices); while France was definitely under the influence of a desire to increase her gold reserve simply for the sake of increasing it—*i.e.*, for the sake of the sense of security which a heavy gold backing for her currency produced in the country. Her Central Bank was not, as other Central Banks are, empowered by law to hold its reserve partly in the form of Government securities.

For a time (1925–28) the process of absorption of gold into the United States reserve was checked by loans to foreign countries (in particular Germany and South America); but the Stock Exchange boom of 1929 stopped

this outlet by attracting funds to the home market, and the collapse of the boom in the autumn of that year destroyed the confidence of investors, and therefore their willingness to lend abroad. This was a very serious matter, not only from the point of view of gold distribution, but also because the considerable degree of renewed prosperity which had been attained in Europe in the decade since the War was largely dependent on the flow of fresh lending from America, this being one of the main means by which the enormous structure of international indebtedness created by the War had been maintained. With the cessation of lending, the ability of Central European countries to meet their liabilities was shaken, and a crisis of confidence began which started in Austria, but became more acute in the case of Germany. Short-term advances to that country by foreign banks were called in, but were found not to be immediately recoverable. Great Britain was largely involved, and since she had large short-term liabilities of her own to foreigners which her gold reserve was not in itself sufficient to meet, a doubt arose in foreign countries as to the solvency of the British banking system and the stability of the British currency.

Foreigners began to exchange their holdings of British currency for their own currency in huge quantities. The Bank of England feared the loss of all its gold reserve, and Parliament authorized a departure from the gold standard in the sense that the Bank of England was no longer obliged to sell gold for currency, so that the currency ceased to be convertible at a fixed rate. Note that the Bank did not use the gold it had (by getting authority for a large increase in the fiduciary issue, and so freeing its reserve), but first borrowed foreign currency (thereby making it possible for a short time to satisfy the foreign holders of British balances without giving them gold),

and then stopped gold payments when it still had about £130m. in gold. The reason was that the authorities could not feel sure that the gold, once parted with, would return. The foreign liabilities of London had been estimated in the year before at more than three times the gold reserve in hand in August 1931.[1] Still, it has been said with some truth [2] that it was considered more important to retain the gold itself than to retain the convertibility of British currency into gold. As the only purpose served by the gold itself is in theory to maintain the convertibility of the currency, this was a somewhat topsy-turvy situation. It was, however, duplicated later in other countries.

Just as Great Britain had started the movement among the main industrial countries[3] back to the gold standard, so she was the leader in a movement away from it. She was at once followed by the British Dominions and the Scandinavian countries, Spain, Portugal, and most of South America, and a 'sterling area' was formed within which the exchanges were kept stable in terms of sterling, holdings of sterling by the monetary authorities of the countries concerned (other than Great Britain) taking the place of holdings of gold. The pound depreciated immediately in terms of gold by about 20 per cent. (and in the course of the next five years by about 40 per cent.), but as the immediate result of the depreciation was to remove a handicap on British trade, and as confidence in the British currency was restored by the change, there was soon a tendency for its value in terms of gold currencies to rise again. It may be that if it had been left to itself its value in terms of gold would first have fluctuated violently, and then have settled at a level higher than that

[1] *Report of the Macmillan Committee on Finance and Industry.*
[2] Gustav Cassel, *The Downfall of the Gold Standard* (1936), p. 65.
[3] Sweden went back to the gold standard in 1924.

reached in the first year after the abandonment of the gold standard. Some economists are of opinion that a higher level would have been correct.

It was not, however, left to itself. The authorities were determined to avoid the injury to trade due to unpredictable movements in the exchanges, and the British Exchange Equalization Fund, the first of its kind, was set up in 1932 for the purpose of preventing fluctuations arising out of capital movements, as distinct from those arising out of trade transactions. In practice this meant, in the years 1932–36, keeping the pound in moderately stable relations with the franc—in other words, since the franc was still convertible into gold, keeping it at the level in terms of gold at which it had settled down after the 1931 crisis. It may be mentioned that as a result of the return of confidence in the British currency the first task of the Fund was not to keep the exchange value of the pound up, but to keep it down—*i.e.*, to satisfy the buying offers, not the selling offers, of foreigners. After five years of the Fund the total stocks of gold in the possession of the Bank of England and the Exchange Equalization Account, valued at the current market price, amounted to no less than £700m.

But just as Great Britain from 1928 to 1931 had been put at a disadvantage by the low value of the franc, so now both France and the United States were put at a disadvantage by the low value of the pound. In 1933 the United States abandoned the gold standard (though she had an enormous gold reserve), and then returned to it at the beginning of 1934, with a provisional devaluation about equal to that of Great Britain. (In the United States the price was fixed, and the Treasury bought at that price all that came into the country, whereas in Great Britain gold was bought by the Equalization Account, at market prices, only when necessary to meet an undue

demand for sterling. The Bank of England bought from the Account, at the pre-1931 price, only when a cash basis for additional currency was required.) This isolated France, Holland, Belgium, and Switzerland as the 'gold bloc' countries with overvalued currencies, and their prosperity began rapidly to deteriorate. They had before them the choice between lowering their costs—in particular their wage rates—so as to bring down their prices to a competitive level, or devaluing their currencies, or losing gold. They tried the first alternative, succeeding only in getting themselves into budgetary difficulties, which led to a lack of confidence in the currency, hence to a demand for foreign currency, and so to the very drain of gold they were trying to avert. It was only a question of time before all the gold bloc countries (except Italy and Germany, which could control their wage-levels as they liked) were forced to abandon the connexion with gold at its existing value. Belgium made the change in 1935, France, Holland, Switzerland, and Italy (following the rest in spite of the difference in position) in 1936.

So was the change completed by which the valuations of the different currencies in terms of gold were modified to suit the change of circumstances resulting from the War. It may be described shortly in this way. During the War all the countries had increased largely the number of units in their currency, so that each unit would buy less. Gold had not increased to the same extent. If, therefore, the countries proposed to exchange their currencies for gold at the same rate as before the War it was necessary to reduce their prices so that each unit of currency would buy as much as before the War. The only other alternative, if they desired to retain the gold standard, was to exchange their currencies for a different amount of gold—the amount corresponding to what the currencies would buy in the new conditions. As we

suggested above, something of the kind might have been done by agreement soon after the War if the countries concerned had seen the necessity for it. As it was, each nation went its own way, and the later suffering was largely caused by their being out of step with one another —and by a false idea of the proper aim of policy. For the acquisition of gold, the only purpose of which is to facilitate the international exchange of goods, came to be looked upon as desirable even at the expense of killing international trade. Because an excess of exports over imports brought in gold, each country made it its policy to export as much as possible and import as little as possible—a policy which necessarily defeated itself for the world as a whole, since every seller requires a buyer. Tariffs and exchange restrictions were used to the utmost to prevent the loss of the gold that might have gone out of the country to pay for imports, the gold being, of course, of very much less value to the country than the imports would have been.

At the back of the dread of losing gold was the fear that the country's currency would depreciate; and the error was made almost everywhere of confusing external depreciation with internal depreciation. This was largely because in the great German inflation of 1923 the two had been associated. As we have seen in our chapter on prices, internal depreciation, when it reaches the stage of vicious inflation, causes a great deal of suffering to people with fixed incomes, and much injustice as between debtor and creditor. There was consequently a great dread of a repetition of the French and German inflations either in those countries or in others. It was assumed that if a currency fell to a lower level in terms of gold and foreign currencies the country's own citizens would lose confidence in it for the purposes of their internal transactions. This did not however follow, in countries which had reserves

of labour and plant which could be brought into employment without raising money wages. In such circumstances, apart from a certain rise in the prices of imported goods and raw materials, there is no reason why the price-level of a country devaluing its currency should rise. Great Britain left the gold standard reluctantly because she thought it would mean a rise in her price-level. The United States left it with the intention of engineering a rise. The expectations of both were falsified by the event.

The renewed prosperity which came to the devaluing countries was primarily due to the fact that they were no longer anxious about their gold reserves. These became more valuable to the extent of the change (though Great Britain has not adopted a revised valuation of her stocks for book-keeping purposes, but still keeps in reserve this vast potential means of increasing the cash basis of her currency—a fact which illustrates the conventional nature of the gold basis). Apart from that, however, there was the great relief of the fact that the Central Banks could not be obliged to part with the reserves, the machinery of departure from the gold standard being to relieve the Central Banks of the obligation of selling gold at a fixed value (or, indeed, at any value). This left the authorities free to reduce the rate of interest to a level appropriate to the encouragement of home expansion. Further, a profit margin was restored as between the costs of the countries' manufactures and their selling prices in terms of foreign currencies.

During the period 1931–36 the lesson was learned that it does not pay any country that other countries should be unprosperous, and that it was not merely absurd that expansion in one country should have to be accompanied by restriction in others, but also indefensible that the pace of expansion in one country should be automatically limited by the pace set in others. The emphasis on

exporting as the main end of commerce waned in those countries which had ceased to feel the need of attracting gold, and it began to be realized that each country should aim at the utmost internal expansion of which it is capable, subject only to the maintenance of the confidence of the country's people in their own currency and the retention of the power of buying such imports as it required; in short, that the end of exporting was to acquire imports, and not to acquire gold or a 'favourable' balance. At the same time, the truth began to emerge that the proper primary objective of finance was not lucrative foreign lending, but service to industry by enabling it to borrow cheaply. As Mr Keynes wrote in 1936:[1]

> It is the policy of an autonomous rate of interest, unimpeded by international preoccupations, and of a national investment programme directed to an optimum level of domestic employment which is twice blessed in the sense that it helps ourselves and our neighbours at the same time. And it is the simultaneous pursuit of these policies by all countries together which is capable of restoring economic health and strength internationally, whether we measure it by the level of domestic employment or by the volume of international trade.

The final break-up of the gold bloc in 1936 thus found the nations ready for a new policy of expansion in step with one another. It was agreed between Great Britain, France, and the United States that no one of them should lower the gold value of her currency merely in order to obtain a competitive advantage over the others, and on that basis a provisional value, or rather range of values, for each currency in terms of the others was established, and the task of maintaining them was entrusted to Stabilization Funds. The actual values are of some interest, though in the case of France the level proved not to be final. Great Britain and the United States returned to

[1] *The General Theory of Employment, Interest, and Money*, p. 349.

something very near the old value of their currencies in terms of each other, with a margin for small fluctuations, a level justified by the fact that the two countries had departed by about the same percentage from their gold values since 1931. The franc, on the other hand, was fixed at a higher level in terms of pounds than before Great Britain left the gold standard, thus correcting the undervaluation effected in 1928. As regards gold, the United States and Belgium fixed their prices for gold, France and Switzerland fixed maximum and minimum prices, while Great Britain and Holland left the price free to vary; now (October 1937) France is in the same position as Great Britain and Holland. Though the arrangements are thus still to a considerable extent provisional, the assumption is that these values are such that the monetary authorities of at all events most of the countries concerned foresee no difficulty in maintaining them by means of their Stabilization Funds, allowing for capital movements as well as for trade payments. There is not, indeed, the same fear of violent fluctuations of short-term debts in conditions where speculators have small reason to expect that one of the currencies will appreciate or depreciate in terms of the others. It is one of those cases where a danger can be averted merely by the readiness to deal with it. Moreover, speculators of the kind who deliberately engineer fluctuations in the exchanges have to operate, if at all, with the knowledge that at any moment the enormous resources of the Exchange Equalization Funds may suddenly be brought to bear against them. It is in order to keep this most effective psychological weapon sharp that the current operations of the Exchange Equalization Accounts are, with the approval of the legislatures of their respective countries, kept shrouded in secrecy.

If, however, there is deep-lying want of confidence in

the currency of a country, and its Government, owing to budgetary difficulties, is not prepared indefinitely to increase the resources of its Stabilization Fund, there may be persistent buying of other currencies for motives either of security or of speculation. This process (generally called a 'flight from the currency') must sooner or later result in the exchange moving against the country concerned. In France it has already considerably undermined the provisional arrangements of 1936.

The success of the stabilization experiment is thus still (1937) in doubt. If it turns out that stability can be secured in this way it means that the best of both worlds will be attained, since those engaged in international trade will enjoy steady rates of exchange, while internal commerce will be insulated from the results of the measures taken to secure the stable exchanges. The exchange equalization device is a most ingenious invention, for it makes use of gold as an international currency in the sense that each Fund is prepared to buy it from the others in exchange for its own or foreign currency, and also uses gold as in a sense part of the domestic currency (since the amount of the domestic currency is limited by the gold holdings of the Central Bank), while contriving that gold shall flow in and out of the country without upsetting the domestic credit structure. This is done in Great Britain:

(*a*) By keeping the gold reserves used for international purposes separate from those used for domestic purposes, yet allowing for an interchange between them when convenient.

(*b*) By regulating the note issue primarily with a view to the needs of home industry (within the limits allowed by law), and not in direct relation to the movements of gold in and out of the country.

Gold coming into the country which would formerly have gone to the Issue Department of the Bank of England, and automatically caused the printing of additional notes, so increasing the Bank's proportion and the basis of bankers' credit, is now caught and held in the Exchange Equalization Account. Its effect might even be restrictive in relation to industry, since the banks expand their holdings of Government securities (without necessarily any increase in their cash) in order to provide the Account with the sterling to buy the gold, and may therefore have to restrict their loans to customers; this, however, can be counteracted by the Bank taking over just so much of the gold as is required to maintain the credit basis. On the other hand, the Bank can take over more gold (if the Account should need to be relieved of it), and it still would not follow that the note issue would be correspondingly enlarged. A counterbalancing reduction may be made in the fiduciary issue, as was done at the end of 1936. To take the opposite case, suppose that gold flows out of the country—for example, because French holders of sterling are exchanging it for their own currency and the transaction is financed by a sale of gold from the British to the French Stabilization Fund. So long as the resources of the Exchange Equalization Fund last—and they could at any time be expanded with the consent of Parliament—the outflow of gold is at the expense of the Fund, and not of the credit structure; indeed, since the banks would be losing deposits and not cash, the effect if uncorrected would be to increase the cash ratio, and therefore their power to expand credit.

Thus, gold movements under the 'Stabilization System' have in Great Britain opposite, but much less serious, effects on home credit to those they had under the gold standard. Less serious because they are normally corrected and controlled. Even under the gold standard

more regulation of the effect of gold movements would have been possible than was actually attempted, given a greater elasticity in the note issue. A very grave difficulty was, however, the narrow margin of gold available, which meant that one country could not hold it inactive, for the benefit of home conditions, without causing an acute shortage elsewhere. The greater flexibility of the new system arises from the fact that the resources of the Stabilization Funds for counteracting fluctuations consist primarily not of gold, the supply of which, though more plentiful than before, is still physically limited, but of the countries' own currencies, the supply of which cannot fail. Nevertheless it must be remembered that though there are no physical limits to the supply of a country's own currency, there may be very real limitations imposed by the budgetary position in relation to the state of public confidence.

Some progress has thus been made in putting gold in its proper place as a convenient *international* currency for the purpose of settling occasional debit balances, the bulk of the international transactions being, of course, simply set off against one another. Its place in the domestic currency is no longer a controlling one. Gold 'backing' merely gives a guarantee of respectability to the currency in the eyes of those who are unable to believe that a purely paper currency can maintain its internal purchasing power, and incidentally sets an upper limit to currency expansion. Though this limit is no longer rigid, but by various devices can be circumvented, it might, if there were any real shortage of gold, be still a serious inconvenience. But at the present time, when

(*a*) all the country's gold is held by the Treasury or the Central Bank, either in the Stabilization Fund or in its own reserves,

(*b*) the revaluation of gold has made the gold reserves of the principal countries more than large enough to cover the margins of debt arising out of trading transactions,

(*c*) the new production of gold has at the same time been stimulated by its increased value in terms of money,

there is no disadvantage in the locking up of a certain amount of gold as backing for domestic currencies, always assuming that the monetary authorities prove themselves when necessary as resourceful in removing obstacles to desirable expansion as they have been in finding means of restricting an 'automatic' expansion to the amount they consider safe. Monetary conventions do no harm so long as the responsible authorities are not enslaved by them.

The danger at the present time (1937) is, as we saw in the last chapter, not so much a shortage of gold as a plethora of gold. As in the case of a shortage, however, the inconvenience is made acute by maldistribution. Whereas in the period of shortage the fact that one country—the United States—had more than its share intensified the difficulties of the rest, now the same position embarrasses the United States Government itself. The inconvenience is a budgetary one, since the country absorbing the gold is paying for it by borrowing at short-term rates of interest, and then holding it immobile. This is, of course, not so serious a matter as an industrial strain. The difficulty is, moreover, possibly rendered more manageable in that gold accumulates in the United States not only (though partly) because of its fixed value there in terms of the currency, but also because of the high tariffs which restrict the receipt of payments from abroad in the form of imports into the United States, and because of the acquisition by foreigners of

deposits and securities in the United States. A modification in the conditions of international trade or an improvement in political conditions in Europe may therefore have the effect of transferring some of the United States surplus gold to countries which could more readily absorb it. Or, if the monetary authorities of the countries now pursuing a common policy decide that the values of their currencies are out of adjustment, a rise in the exchange value of the dollar may operate to reduce the flow of payments (and therefore the flow of gold) to the United States. Ultimately, no doubt, if that does not happen and no change in the direction of demand takes place, the price of gold will have to be allowed to fall, like that of any other commodity which is being produced in greater quantities than are required.

There is on the whole reasonable ground for hope that under a development of the 'Stabilization System,' which relegates gold still further to the background, commercial relations can be conducted on a basis of reasonably steady exchange rates. The necessary conditions are:

(i) that internal stability is maintained in each country;
(ii) that no excessive capital movements are taking place;
(iii) that the rates have been fixed in the first place at levels which balance the values of each country's normal imports and exports, visible or invisible.

The third condition implies that the claims in each direction which arise from day to day are, if not equal, at least not so widely discrepant as to strain the resources of the Stabilization Funds in counteracting them, and that the discrepancies lie as often on the one side as on the other. The choice of a wrong rate, or a long-continued falling off or increase in one country's sales to or purchases from other countries, would result in

one of the Stabilization Funds exhausting its supplies of gold and foreign currency and having to be replenished with more funds borrowed from its home banks. The ultimate remedy would have to be a modification in the exchange rates, such that a country which had been importing too much and exporting too little would find it more expensive to buy foreign goods and easier to sell its own goods to foreigners. In the language of economists, the 'terms of trade' would become unfavourable to it. This might in extreme cases end in a position in which essential imports—*e.g.*, wheat to Great Britain—were so expensive in home currency as seriously to endanger the standard of living (the value of the imports in such a case having been adjusted at the expense of their volume); and for this reason the development of an adverse balance of trade in a country not deliberately borrowing from abroad is looked upon with some alarm, under the new system of international payments as it was under the old. It was the development of such an adverse balance—partly owing to the falling off of demand for British exports, partly to the failure of dividends from investments abroad—which made the position of Great Britain so vulnerable in 1931. It is open to a country in such circumstances, if it does not desire its exchange to fall, to use a tariff to direct its importing power towards the most important commodities from the point of view of national welfare; and this is, in fact, the modern technique of management, as opposed to the nineteenth-century plan which would have cut down wages in order to lower the costs of the export industries, and so enable more exports to be sold at the same exchange rate. Both plans have their disadvantages and dangers—the one to international activity and the other to home activity. The modern tendency in all countries is to prefer the former risk, which exposes a nation (provided it is capable

of supplying itself to a considerable extent with both primary products and manufactures) to less violent fluctuations of employment than dependence on an international market has hitherto done. We say 'hitherto' because the possibility must not be ruled out that the technique of managing international payments may be so far perfected (and the prospects of peace become so reliable) that the nations will be content to draw supplies of commodities from whatever quarter of the world can produce them at the lowest relative cost to itself in labour and resources.

We must not leave the subject of an 'adverse' trade balance—that is, a continued excess of the value of imports over the value of exports—without reminding the reader that there is no cause for anxiety in an account in which the excess of payments due *from* the nation in respect of goods and services over those due *to* the nation in respect of goods and services is balanced by payments of interest on loans made by the nation in the past. It was in order to secure such payments that the loans were made, and there is nothing unhealthy in receiving them. Looking at the matter from the point of view of real values, we may say that in the past the lending country deprived itself of the enjoyment of part of its produce in order to put it at the disposal of the borrowing country, and it is now reaping the benefit of that abstention in getting something for nothing.

Even if the account is balanced not by interest payments, but by repayments of the principal—*i.e.*, by sale or redemption of securities held abroad—it does not necessarily follow that the nation can correctly be described (as it usually is in such circumstances) as 'living on its capital.' As Professor Pigou has pointed out,[1] it may be strengthening its capital position at home at the

[1] *Economics in Practice*, pp. 63–64.

same time as it is reducing the amount of capital it holds abroad. It is true, of course, that by so doing it loses some of the advantage of being a creditor country, and must to a greater extent pay for its imports by its exports; but whether this is a serious disadvantage or not depends on the particular circumstances. It need not be so if the change is accompanied by an expansion in home production.

Two-way transactions of the types we have been discussing involve no strain on the resources of the Stabilization Funds. Similarly, the payment of a foreign debt could be arranged without such strain if the debtor country's nationals held securities in the creditor country, for a sale of these would provide the demand for the currency of the debtor country to counterbalance the demand for the creditor country's currency arising from the debt repayment. In the absence of such resources in the creditor country, however, the payment of debt may present much difficulty, as the long-continued struggles over Reparations payments have shown. Similarly, foreign long-term lending, unless it is accompanied by exports of equivalent value, is a one-way transaction, and increases the demand for the currency of the borrowing country, thus putting a strain upon the resources of the Stabilization Fund of the lending country. As a consequence, throughout the period of anxiety about the exchanges foreign long-term lending has been under strict control. In Great Britain all projects for lending abroad have to pass the scrutiny of an official committee. In the United States not only loans by Americans to foreigners, but loans to Americans by foreigners, are looked upon with suspicion. In both cases the fear is that the exchange will be adversely affected, the danger-point of loans from the country being when the loan is first made, and that of loans to the country when the foreign

creditors decide to take payment by selling their securities and exchanging the proceeds into their own currencies. The same considerations apply to transactions in existing securities. Both in Great Britain and the United States the purchase of foreign securities is to some extent discouraged, though effective control of such purchases is hardly practicable in a democratic country except under war conditions.

Assuming it to be unlikely that it will be possible or desirable to maintain indefinitely an embargo on foreign lending, it is worth while to consider the criteria by which it should be regulated. The question can, perhaps, best be approached by asking what the borrowing and the lending country respectively gain by a foreign loan transaction. The borrowing country wants, of course, spending power, but it cannot get that directly from abroad. All it can do is to secure assets exchangeable for its own money. The primary need of the borrowers is, however, for more home money, and this fact sometimes causes the authorities of the borrowing country to overlook the necessity for measures which will facilitate the entry into the country of the assets which *can* be imported. These are:

(*a*) Gold (which may be of use to the borrowing country as a basis for the expansion of its domestic currency, so enabling the demands for credit of the Government or private borrowers to be satisfied without breach of the existing conventions).

(*b*) Goods (which are of use to the borrowing country in so far as they are not made at home or are of a kind which facilitates the making of more goods at home in the future—*i.e.*, instrumental goods).

(*c*) The currency of the lending country (which may be of use to a borrowing country which is in debt

by enabling it to pay its old debts with the proceeds of new debts, or to one whose exchange requires support).

The advantages to the lending country are:

(i) Interest on the loan—*i.e.*, goods, gold, or foreign currency in future years.
(ii) A stimulus to employment in the export trades (if the borrowing country takes the proceeds of the loan in goods).
(iii) Improved political conditions (in the case where reconstruction of a politically unstable nation is assisted by putting foreign currency at its disposal).

The first of these is uncertain, since there is always a risk of default, but is on the whole, over long periods, to be counted as a substantial gain. The last is a genuine advantage, but entirely non-economic. The second is not to be relied upon at all, since, except where it is a definite condition of the loan that the proceeds are to be spent in the lending country, there is no automatic stimulus to export. In any case (assuming that there is no existing export surplus) the change in exports would take some time to effect. What would happen in the interim? *Under a gold-standard system* gold would leave the country (as the only means of acquiring the necessary currency in the borrowing country to pay for that country's securities). As a consequence the home rate of interest in the lending country would be raised, home prices would fall, and exports would be made cheaper. By this deflationary process the effect of the loan would be transferred from gold to goods. *Under a free-exchange system* the whole effect of a loan in the absence of an existing export surplus would fall on the rate of exchange.

The demand for the currency of the borrowing country arising out of the purchase of its securities would be added to that arising out of the purchase of its produce, and more of the currency of the lending country would have to be given in exchange for each unit of it. This fall in the exchange of the lending country would make its own produce cheaper to foreigners, and by this different (and less painful) route the stimulus to exports would be given. But the price of imports would be higher. *Under the stabilization system* the resources of the Stabilization Fund would bear the effect of the transfer of funds in the first instance. If the stream of lending continued the monetary authorities might ultimately have to choose between a fall in the exchange and a rise in the rate of interest.

Thus it would appear that the lending country must pay a price for any advantage it gets from the loan transaction. Further, such economic advantage as it gets is not immediate, whereas the price must be paid at once. And, finally, though we have listed the stimulus to export as an advantage, it is so only if the goods exported are really surplus to home requirements. If they can be utilized at home the greater advantage would be to arrange for their absorption there. The fact that it pays to export goods is no guarantee that their production for export is the most economical course for the country as a whole, save where home resources are already fully employed. Put in monetary terms, this means that though, where there is spare capacity, it is better for the funds of savers to be used to pull down the exchange rate and stimulate export than to lie idle (since home industries would benefit from the secondary employment arising out of the demand of workers in the export industries), it would be better still for the inhabitants of the home country if the idle resources were used for investment at home.

The upshot is, therefore, that the expediency of foreign lending at long-term should be judged by whether it satisfies a genuine need of the borrowing country, either for instrumental goods which it cannot make itself and requires for industrial expansion or as a basis for financial expansion. In applying this criterion it should be taken into account that many loans of the post-War period have been misapplied or wasted, so that in the end no benefit accrued from them either to the borrowing or the lending country;[1] and, in the second place, that appropriate financial measures—*e.g.*, the establishment of a modern Central Bank—will in many cases provide the means of monetary expansion without assistance from abroad. Assuming that the borrowing country has made out a case for assistance, the criterion on the side of the lending country should be the extent to which *surplus* exports are or could be made available. Provided that they can be supplied in sufficient quantities, that the borrowing country is prepared to take them and to produce the necessary enlargement of home incomes to enable them to be purchased, the transaction can be effected without financial difficulty such as fluctuation in the exchange, and is pure gain to both parties. Whether it can actually be carried through must depend on the attitude of private investors in the lending country, who, however suitable the opportunity, may not be prepared to risk their money if their confidence has been shaken. This factor impedes the renewal of American lending to European countries, which if it could be stimulated would greatly relieve the gold situation.

In the past foreign lending has been regarded too much as an opportunity of profit for the investors of the lending country, the return on investment in an under-developed country being usually higher than that in a

[1] See Sir Arthur Salter, *Recovery* (1933), Part II, Chapter II.

highly industrialized country. This benefit, however, is confined to a small section of the community, and is gained at the direct expense of the remainder. Modern monetary management tends to take a wider view of profitability and to apply it to the community as a whole. Judged by this standard, the advantage of foreign lending lies mainly in the prosperity which it fosters in other nations.

APPENDIX TO CHAPTER X

I. Balance of Payments

A country's money relations with other countries can be expressed, like a business firm's relations with those from whom it buys and sells, in the form of a balance-sheet, generally called the 'balance of trade' or the 'balance of payments.' That for Great Britain is shown in the official estimates in the form:

1929

	£M.
Excess of imports of merchandise and silver bullion and specie [over exports]	381
Estimated excess of Government payments made overseas	—
	381
Estimated excess of Government receipts from overseas	24
Estimated net national shipping income	130
Estimated net income from overseas investments	250
Estimated net receipts from short interest and commission	65
Estimated net receipts from other sources	15
	484
Estimated total credit or debit balance on these items: Credit	103
Excess of exports of gold	15

This form of statement has the drawback for our purpose of leaving the impression that the two sides of the account need not balance. In fact they must always balance (after taking into account the 'export' of securities in exchange for cash when loans are made by one country to another). If a balance could not have been effected otherwise the rate of exchange would have moved to bring the two sides into agreement. The relation of the items can be seen more clearly

if the 'Payments Out' are set against the 'Payments In' as shown below:

British Balance of Payments (in £m.)

	Payments Out					Payments In						
Year	For Imports of Goods, including Silver	For Gold Imports	Net Government Payments Abroad	Net Foreign Lending or (after 1932) Exchange Equalization Account Purchases of Foreign Currency	Total	For Exports of Goods, including Silver	For Gold Exports	Receipts for Services, etc. (*e.g.*, Shipping)	Net Government Receipts from Abroad	Interest, Dividends, and Commission	Net borrowing from Abroad, Redemption of Foreign Investments or (after 1932) Sales by Exchange Equalization Account of Foreign Currency	Total
1913	780	13	—	181	974	635	—	104	—	235	—	974
1923	1096	—	25	154	1275	888	14	143	—	230	—	1275
1929	1221	—	—	118	1339	840	15	145	24	315	—	1339
1931	862	—	—	—	862	454	34	90	14	200	70	862
1935	756	70	2	—	828	481	—	85	—	215	47	828

All these figures are estimates, subject to a considerable margin of error. Apart from discrepancies due to errors and omissions, if there is inequality between the totals of the payments in and out for goods, services, interest, and gold, it must be accounted for by some 'capital' transaction—*i.e.*, acquisition of deposits or short-term securities in the investment market, or realization of foreign investments or redemption of home loans abroad. Since the establishment of the Exchange Equalization Account in 1932 the purchase or sale of foreign currency or gold by the Account may be the balancing item. Before that date the unknown item required to make the account balance must have been one of the capital transactions we have mentioned. We have therefore inserted in the 'Net Foreign Lending' or 'Net Foreign Borrowing' column the amount required to make the totals correspond.

Note the large excess of payments due to Great Britain on goods, services, and interest before 1931, and its transformation in that year into a surplus of payments due from Great Britain owing to the falling-off in purchases of her exports and in payments for her services.

The United States Department of Commerce, in estimating the United States Balance of Payments, distinguishes between current items and capital movements in such a way that the balance on capital account should offset, apart from discrepancies due to errors and omissions, the debit or credit on current items. We give below the figures for four of the years shown in the British table, and in addition those for the year 1933, which as the worst year of American depression is of special interest. It is to be understood that the figures are estimates, subject to a considerable margin of error.

United States Balance of Payments (*in* $*m.*)

(+ items are payments in, − items are payments out.)

——	1923	1929	1931	1933	1935
Net mercantile balance	+ 389	+ 734	+ 284	+ 148	+ 255
Interest	+ 417	+ 562	+ 548	+ 389	+ 375
Freight	− 8	− 115	− 72	− 16	− 36
Government payments	− 19	− 92 + 207 (War Debt)	− 98 + 113 (War Debt)	− 53 + 20 (War Debt)	− 55
Tourists' expenditure	− 400	− 565	− 458	− 221	− 292
Immigrants' and charitable remittances	− 360	− 272	− 202	− 132	− 115
Miscellaneous	—	+ 25	+ 57	+ 75	+ 76
Gold	− 294	− 120	+ 176	+ 173	− 1739
Silver	− 2	—	—	—	− 337
Total current items	− 277	+ 364	+ 348	+ 383	− 1868
Capital items allowed for	+ 125	− 373	− 472	− 336	+ 1537
Capital items not accounted for (and errors)	+ 152	+ 9	+ 124	− 47	+ 331
Total capital items	+ 277	− 364	− 348	− 383	+ 1868

The very heavy out-payments in remittances and for the expenditure of tourists are characteristic of the United States even after the 1929–33 slump. Before 1929 tourist expenditure alone practically balanced the large interest payments coming in on American capital invested abroad. In other words, the nation might be said to be taking its dividends in the form of foreign travel. The enormous imports of gold in the later years accompany heavy capital receipts from foreign investments in the United States.

II. Foreign Lending

The following are the figures for new capital lent abroad (through issues in the long-term capital market) by the United Kingdom and the United States respectively in the years 1927–36:

Year	United Kingdom (in £m.)		United States (in $m.)
	(1) Total Abroad	(2) Other British Countries (included in (1))	
1927	150·8	94·7	1337
1928	150·1	79·9	1251
1929	107·3	55·0	671
1930	112·8	73·5	905
1931	49·6	36·9	229
1932	29·4	28·8	29
1933	40·6	33·2	12
1934	42·0	34·0	0
1935	21·3	17·1	48
1936	32·4	28·4	23

These figures illustrate the course of events described on pp. 270–275.

III. Exchange Rates

Year (Average)	French Franc and Pound Sterling in Terms of United States Cents		Pound Sterling in Terms of French Francs
	French Franc	Pound	
1927	3·9	486·1	121·4
1930	3·9	486·2	123·9
1931	3·9	453·5	115·6
1932	3·9	350·6	89·2
1933	5	423·7	84·6
1934	6·6	504·0	76·7
1935	6·6	490·2	74·3
1936 (to Sept.)	6·1–6·6	497·1	76·7
1936 (Oct.)	4·6		105

Note the fall in the dollar and franc values of the pound when Great Britain abandoned the gold standard in 1931, the fall in the pound and franc values of the dollar when the

United States devalued in 1933–34, and the fall in the pound and dollar values of the franc when France devalued in 1936.

IV. Monetary Gold Reserves

The following table shows the changes in the gold reserves in the possession of the monetary authorities of the United Kingdom, the United States, France, and the rest of the world in the years 1929 to 1934. The figures are for the end of each year, and are in million pounds at 85*s.* per fine ounce. They relate to the published reserves of Central Banks and Treasuries, and do not include the gold stocks held after 1932 in Exchange Stabilization Accounts.

	1929	1930	1931	1932	1933	1934
United Kingdom . .	146	148	121	121	192	193
United States. . .	802	868	832	831	824	1000
France	336	431	551	669	620	661
Rest of the world . .	858	831	831	769[1]	834	717[1]

V. The Floating Debt and the Stabilization Fund. (Great Britain)

The following table[2] shows the total amount of the Treasury Bills outstanding in each of the years 1931–37:

	£M.
June 30, 1931	617
,, 1932	719
,, 1933	970
,, 1934	848
,, 1935	877
,, 1936	765
,, 1937	638
July 17, 1937	855

The issues of Treasury Bills to the Exchange Equalization Account were: £150m. in 1932, £200m. in 1933, and £200m. in July 1937.

These additions at once showed themselves in the amount of floating debt outstanding, but it is interesting to note that there has been a strong counteracting tendency to reduce the

[1] Excluding Russia.

[2] Midland Bank *Monthly Review*, July–August 1937.

floating debt by repayments or 'funding,' and that before the last issue to the Account the total was not much higher than it had been in 1931. This method of obtaining funds for stabilization purposes has not, therefore, so far overloaded the market with Government short-term securities.

The floating debt is not affected in the same way by stabilization operations in the United States, where the funds for stabilization were derived from the allocation of a portion of the profit derived from revaluing the monetary gold stock in terms of the dollar.

CHAPTER XI

MONETARY CONTROL

Abondance et non-valeur n'est pas richesse. Disette et cherté est misère. Abondance et cherté est opulence.—QUESNAY, *Maximes Générales.*

AT various points in the previous chapters of this book we have attributed to the 'monetary authorities' in a free capitalist community with a modern monetary system—*i.e.*, to the financial arm of the Executive and the Central Bank—the power to do this or that which has the effect of modifying the quantity, or the circulation, or the value, of the country's money. We have not intended to imply that in such a country, even if it has an admittedly 'managed' currency, the behaviour of money is, or can be, brought under complete control. Its behaviour is the result of the behaviour of a very large number of human units, all of whom use their own or other people's money, or fail to use it, for buying from one another. In using money they are influenced by a complex and varying combination of habit, sentiment, and rational calculation. In particular they are liable to waves of optimism, at the height of which claims to wealth are bought and sold at values embodying the most extravagant expectations of the prospects of future enterprise, alternating with fits of depression in which hardly any economic activity not rooted in mere habit is judged worth while at all.

Such a system is not susceptible of complete control in the sense of the authorities' knowing with certainty that they can divert the money stream hither and thither, increasing or reducing its volume. Two means of directing it are open to them, but neither is infallible. They can

intervene in the markets as one among all the other buyers and sellers—one operating on a larger scale and with very much larger resources; but even so their intentions may be nullified by a considerable movement of other buyers and sellers in the opposite direction. Or they may act by influencing, as they alone have the means to do, the expectations, and therefore the decisions, of the other buyers and sellers; but human minds are of intractable material, and the effort to mould them may be unsuccessful.

It is well, therefore, not to attribute too absolute a power to those who are attempting to control the monetary machine; it is also well in all monetary matters to distrust the type of reasoning which implies that there are constant and rigid mathematical relations between the principal concepts—quantity of money, prices, interest, etc.—with which we have been dealing. It is never safe to argue that if one of these entities changes the others must change too, to a precise degree. The most important factor determining the result of a particular combination of them may be that of public confidence, and confidence is not an entity which can be measured for the purposes of an equation. It should also be remembered that a particular course of action may make one kind of impression on the minds of the instructed public and quite another on the minds of the uninstructed. It must not be assumed that the spread of enlightenment on these topics will necessarily make the task of monetary management easier; it may conceivably make it more difficult. For the conventions on which those in authority now rely as part of the machinery of control may shift and slip, and the reactions of the public to any change of conditions may become unpredictable.

In this chapter we propose to gather together the various possibilities of monetary control which have come under notice in the course of this book, and at the same

time to indicate the non-controllable factors which may and usually do operate in the same field, and may thwart the efforts of the 'managers.' Our object is to give the reader some clue to the kind of reasoning which may lie behind some deliberate action which has been taken with the apparent intention of influencing monetary developments, and to enable him to form a judgment as to why such an action has failed, or has seemed to fail, in its object. It is also a matter of some interest to try to visualize the lines on which monetary technique would have to develop if a successful profit economy on a basis of managed money were to be established in the principal industrial countries. The remarks which follow do not attempt to give more than a mere outline of the material for such conjectures.

The primary object of monetary control—whether by a Government acting directly or a Government acting through, or in conjunction with, its Central Bank—would naturally be to promote the use of money in such a way as to facilitate full production and employment. By that we mean the maximum amount of production obtainable by the employment of all willing and able persons within limits which leave them a reasonable amount of leisure. The amount of leisure considered reasonable would rise, of course, from time to time with an increase in the amount of production possible with a given degree of effort.

Now the mainspring of production and employment is spending—the 'final' purchasing of goods and services. Such spending (apart from that of the Government and other public authorities, which is directly controllable) can be influenced only through the motives of the spenders. These motives are of two kinds—enjoyment and profit; and we shall discuss separately—under the headings of consumers' spending and producers' spending—the ways open to authority for influencing them. There

is always, however, one line of action influencing both—namely, to increase the quantity of money; for, other things being equal, the more money people have the more they will spend, on consumption and on production to satisfy the demand for consumption. The quantity of money is, indeed, basic from the point of view of management, though at any given moment it may not be the most critical factor. It is primarily because they are the providers of money, and only secondarily because they are the holders of large quantities of it, that we regard the monetary authorities as having at least some rudimentary power of control over its vagaries. We will therefore look at the question of the volume of money first, and of its circulation later.

In the first place, it is necessary to distinguish between the control of the volume of legal-tender money ('currency' in the narrow sense of the word) and the control of the volume of bank balances. In Great Britain and the United States, not merely do the bank balances constitute the greater part of the total stock of money, but the causes which govern their variation also control indirectly the variations in the volume of legal-tender currency (in practice mostly consisting of notes of the Central Bank). For the demand for the latter depends largely on wage payments; and these depend on employers' undertakings, which in turn are limited in the aggregate by the credit position. Thus, in the problem of controlling the volume of money the emphasis should be placed on control of the volume of bank credit. Such independent limitations of the note issue as remain are largely concessions to popular sentiment.

In the system we have described, the quantity of money is determined by the Central Banks in conjunction with the Treasuries. The power of these authorities is subject to certain statutory limitations relating to the Central

Banks' holdings of gold and (in the United States) the commercial banks' cash reserves; and subject in Great Britain to the conventional limitations governing the cash ratio. It would not be true to say that the holdings of gold determine the quantity of money, but it may be said that in the United States (and in Great Britain if the existing conventions are taken as given) they set an upper limit to it. When, however, the limit is considerably higher than the amount of currency required or likely to be required it becomes inoperative, and the management has a free hand in fixing the volume of the currency at the level it thinks desirable, subject to any restrictions imposed on its freedom by the behaviour of the public. As we have seen, the principal means of expansion is the purchase of securities by the Central Banks (thus adding to the balances held with them by the commercial banks, and so enabling those banks to expand their own liabilities), and the principal means of restriction is the sale of securities. In such market transactions the Central Banks can act—and in the past generally have acted—on their own initiative. But Governments can intervene to expand or restrict the currency by means of their own finance. If they sell new securities to the Central Bank, and spend the money so obtained, they add to the amount of money in existence; if they use a surplus of revenue over expenditure to repay debt to the Central Bank they wipe some of it out of existence. Collaboration between the two authorities is obviously necessary if one is not to nullify the action of the other, and this is becoming increasingly recognized.

On the other side of the picture, however, we have the power of the public, uncontrollable by the authorities except through their power of influencing confidence, to decrease the quantity of money by their repayments to the banks and to prevent a desired increase in it by

declining to borrow. Note that the public cannot increase the quantity of money beyond the limit desired by the authorities, so that we have here an unsymmetrical feature of the system; this is one of the reasons why the slump is harder to control than the boom. The commercial banks may have been provided by the Central Bank with an ample basis for a large expansion of credit, but if the public does not want the credit the additional money will not be created. Up to a point the banks can offset the public's reluctance to borrow by making use of their resources in other ways, but such a reluctance can always keep the total of bank deposits below the level which would be possible under existing rules or conventions. It is to overcome (or in other circumstances to induce) a reluctance to borrow that the monetary authorities employ their other weapon—that of their discount rate. By lowering (or raising) the short-term rate of interest they can generally affect the disposition of the public to make use of the funds which are or might be placed at their service. Generally, but not always; for if there is a great demand for money for speculation a high discount rate may not avail to check borrowing; while at the bottom of a slump even a very low discount rate may be inoperative, since no one wishes to borrow on any terms.

Here we are on the very thin dividing-line between exercising an influence over the quantity of money and exercising an influence over its circulation. Since, as we said in our first chapter, we do not regard bank deposits as money until they have once been used, it might seem that there is no dividing-line at all. But to bring extra money into existence by a single purchase—*e.g.*, of securities—is not enough if the whole trend of the public mind is towards a reduction, not an increase, of expenditure. The additional money can always be used for the

repayment of existing debts to the banks, and so disappear as soon as it is created; or it can be held idle. To bring additional money into existence by lowering the discount rate, however, generally means stimulating the industrial circulation as well as increasing the quantity of money; for money borrowed from the banks, except when it is borrowed for speculation, is normally spent at once on goods and services. But it is important to remember that if the public mind is set on speculation, additional money, however created, may be absorbed in the financial circulation, and so may fail to stimulate industrial activity and employment.

Another method of stimulating the industrial circulation is to overcome any reluctance to invest in industry which exists on the part of the public. This can be influenced, not through the short-term rate of interest (since private persons do not operate in the short-term market), but through the long-term rate—that is to say, by raising by one means or another the price of gilt-edged securities, so that business equities and new issues become relatively more attractive to the investor. (This, of course, at the same time stimulates producers' expenditure by reducing costs.[1])

If these methods fail, and the Government is not prepared to put new money into industrial circulation by its own expenditure or by using its authority or its credit to stimulate the expenditure of municipalities or other public bodies, there are a number of other expedients for increasing spending, at which we will now look, beginning with those bearing on the expenditure of consumers.

Consumers' spending obviously depends to a great extent on their incomes, and it is through incomes that control can most easily operate. Incomes are raised or lowered through producers' expenditure, to which we shall come presently. But certain other ways of influencing

[1] See below, pp. 311–313.

consumption expenditure are open to the authorities. Deliberate encouragement of such forms of consumers' credit as instalment-buying is one example. A general increase in taxation would tend to reduce consumers' spending unless the proceeds were immediately spent on goods and services. A general reduction in taxation would tend to increase it. What is called 'progressive' taxation—*i.e.*, taxation increasing in relative weight with the size of the income—also has the effect of stimulating expenditure, because it diverts money from the hands of a class inclined to save to the Government, and (through social services) to the hands of a class inclined to spend. The deliberate discouragement or encouragement, as the case may be, of the private hoarding of bank balances by the regulation of the rate of interest allowed on idle balances is another method of control open to the authorities. And there is, of course, the method of propaganda, more actively used hitherto on the side of saving than on the side of spending, but employed to some extent in the latter cause in the later part of the slump of 1931–33.

As regards producers' expenditure, the means of control are more diverse and intricate. The basic principle here is that producers' expenditure depends on their expectation of profit. It is thus both more liable to spontaneous variation and more open to direct influence than consumers' expenditure, which depends on income and, given the level of income, largely on habit. A great deal can be done to encourage or check producers' expenditure by creating the belief that profits are about to rise or to fall, and a great deal could be done to keep it steady if it were possible to create the belief that booms and slumps would not be allowed to happen. The superstition that they are inevitable, and in particular that a period of good trade contains the seeds of a slump, does much harm, and needs to be combated by systematic economic

education. Apart from such methods, control can be exercised only by some action which would have the effect of restoring or reducing, as the case may be, current and prospective profits. Profits are the difference between costs and prices, and as some costs are prices to other producers, this comes, for industry as a whole, to much the same thing as the relation between prices in general and the remaining costs. Profitability can be restored after a collapse by raising the level of prices. It can also in theory be restored by making it possible for new enterprise to be undertaken on a lower level of stable or relatively stable costs—*e.g.*, wages and interest on new loans; but for reasons to be explained the wages method is difficult, if not impossible, to apply in practice.

The extent to which deliberate action can influence prices varies according to whether the prices are external or internal. So far as goods entering into international trade are concerned, the general level of prices in a particular country can as a rule be affected by changing the value of the country's currency in terms of other countries' currencies, or (what may come to the same thing, if the value of gold is steady in terms of other currencies) changing its value in terms of gold. By raising the exchange value of the currency home prices of foreign goods can be lowered and foreign prices of home goods raised. In this way a stimulus is given to imports while a sharp check is given to exports. This naturally depresses the production expenditure of home exporters. By lowering the exchange value of the currency the opposite effects are obtained, and a stimulus is given to the spending of producers who are manufacturing for export. Action deliberately taken for this purpose constitutes what is known as 'competitive currency depreciation,' and its international reactions are too serious for it to be regarded as a normal means of monetary control.

It is contrary to the pledges given to one another by the countries which entered into the Tripartite agreement of 1936 (the United States, France, and Great Britain). In modern conditions an important function of monetary control is the negative one of preventing violent fluctuations in external prices by counteracting, by means of Stabilization Funds, speculation in foreign exchange. In certain circumstances the restriction of foreign lending may also be necessary.

Another way in which the prices of 'international' goods can be raised in a particular country is by tariffs. The amount of the duty on a commodity is added to the price paid by the people of the country for the commodity, except in so far as foreign suppliers lower the price they would normally ask rather than lose their market. In so far as prices are raised there is an immediate stimulus to the activities (and therefore the spending) of producers of goods for the home market in competition with the foreign goods which are now more costly. This will increase aggregate spending in the short run, always assuming that the authorities provide the monetary basis for the expansion; though in time there may be a depressing effect on the spending of those producers who make export goods. This may come about through a resulting rise in the exchange or retaliatory tariffs. The effect of raising a tariff wall differs from that of lowering the exchange in that while both restrict imports, only the latter stimulates exports. The latter, however, does not, like the former, stimulate home production for home use.

Internal prices as a whole are not necessarily affected by any of the methods of modifying external prices. They are determined by the supply of commodities in relation to the amount of money in existence and the public's disposition towards spending—*i.e.*, by the selling and buying offers in the markets. A rise in external prices will

cause *particular* home prices to rise, because, as we have seen, the prices received for one commodity enter into the costs of production of other commodities, and if, for example, the cost of raw material from abroad is raised the price of the final product will tend to rise. But if the commodities are bought to the same extent as before, and if the amount of money in the industrial circulation (and the rate of circulation) in the country is not changed, the rise in the prices of these commodities will mean a counterbalancing fall in the prices of other commodities. If, on the other hand, the amount of money in existence (or its rate of industrial circulation) is increased the higher prices of certain classes of articles can be maintained without a modification in the price of others. The same thing is true of any other method of raising internal prices, except that of producing an artificial scarcity by restricting supplies, a method which may be employed by a Government, and has, in fact, been employed by the United States Government, when the *relations* of certain prices—*e.g.*, those of agricultural goods to industrial goods—are considered to be out of gear. General increases in internal prices can be maintained only if more money is put into industrial circulation, or if some means is found of making the public (consumers and producers) spend its money more rapidly. Given the supply of commodities, if the flow of spending is increased prices will rise; if the flow of spending is decreased prices will fall. The reason why in a time of severe unemployment spending may be increased up to a point without causing prices to rise is that at such a time the supply of commodities within limits varies with the spending.

While internal prices may be unaffected by action taken to modify external prices, the converse is not true, except for so long as the authorities are able to maintain a stable rate of exchange. How long this is possible

depends on the action of other countries, as well as on their own. In the long run they cannot maintain the rate in the face of persistent forces tending to change it, and they are therefore bound, in considering their internal price policy, to take into account the fact that rising prices may force a fall in the country's rate of exchange with foreign countries, while falling prices, if not counteracted, will cause it to rise. Recent developments in monetary technique have enlarged the range within which exchange control is practicable, but in the long run the choice has to be faced between the maintenance of the external price-level and the continuance of internal expansion.

It should be remembered here that the maintenance of a reasonable degree of stability in the price-level is a secondary object of monetary management, but since some upward movement of prices is salutary, and often necessary, monetary authorities should not neglect to educate public opinion to accept it as such. General prices may escape from control, either in an upward or a downward direction, if public expectations are moving so much and so rapidly that the ordinary conventions which govern buying and selling offers are submerged; but the authorities can regain control (though possibly only after a period of severe crisis) by determined action to decrease or increase spending. The typical example of a crisis of rising prices is Germany in 1923, and the typical example of a crisis of falling prices is the United States in 1933.

On the side of costs, we find that there is a very important element in industrial costs which, being fixed in terms of money, is not affected at all in the short run by monetary action. Interest on past loans is the main constituent of this element, but many other charges, such as rents and salaries, are more or less unalterable in the short period. It is through the relation of these fixed

costs to profits that the processes of monetary expansion and contraction have such vital effect on industrial activity. In the case of contraction, even if all the other elements of industrial costs, including wages, are cut simultaneously, falling money demand will reduce profits, and so cause employment and incomes to shrink in a vicious circle. The 'long run,' in which the 'fixed' costs can be cut, never comes, since before one set of money contracts has run out others have been entered into.

Turning to wage costs, we find that *monetary* action affects these only in so far as it is affecting internal prices generally, the price of labour being influenced as one price among others, but as a rule offering a much greater resistance to change. If the circulation of money is restricted, wage costs will tend to fall with other prices, but the relation of costs to prices will not, for producers as a whole, be improved. It will, in fact, be worsened, in so far as wages fail to fall to the same extent as other prices. Experience shows that direct attempts to reduce wages independently of other prices are impracticable without despotic powers.

The other relatively stable cost—interest on new loans—offers control more scope. As we have seen, the part played by the monetary authorities in the determination of short-term rates of interest is first their power to change deliberately the Central Bank's discount rate, which carries with it more or less automatically (less automatically in the United States than in Great Britain) the whole group of associated short-term rates, and, secondly, their power to increase or to decrease the quantity of money, which enables them to offset any factors operating in the money markets which would tend to make those short-term rates ineffective. Further, the Government influences short-term and medium-term rates by the supply of securities of these types which it puts on sale.

The smaller the supply the higher the price paid and the lower the rate of interest. In modern conditions the power of a Government in this respect is very great.

When we come to long-term rates of interest—it is, of course, these rather than short-term rates which can properly be included among the relatively stable costs of industry—we find in the first place that they are influenced to a considerable degree by movements in the short-term rates, and therefore by any action taken to control those rates. In addition the authorities can exercise a certain more direct control by the same methods as in the short-term market—namely, variations in the quantity of money and in the supply of securities put on sale, and intervention in the market as a buyer or seller of existing or new securities.

Limits to the scope of control are set for the Government by its need at the moment for funds, for the Central Banks by their resources (in securities or gold). In the past the Government's demand for funds was made in a market in which an artificial scarcity of money was created by the operation of the gold standard. In present conditions such limitations as remain on the authorities' creation of new money are imposed merely by the necessity of maintaining public confidence in the currency. The fact that the Government comes to the market as a borrower does not therefore hamper to the same extent as formerly its power to influence the rates at which it borrows.

It must not be overlooked, however, that any attempt at control of long-term interest rates has to reckon with the temper of the public. If among those who prefer a store of value to the enjoyment of new consumable goods and services there is a general feeling in favour of cash as the safest store of value, the rate of interest may remain high, notwithstanding attempts to lower it, because only

a high rate can overcome the tendency to hold money in the form of ready money. If, on the other hand, the prospect of returns in interest is valued more highly than the sense of safety conferred by holding liquid money, so that money titles are preferred to cash as a store of value, bidding for them will send up their price and will send the rate of interest down. To take another possibility, the public may be in a mood of extravagant expectations about the future of profits. The resulting buying offers force up the price of shares in enterprise, and through that the price of short loans for speculation. Such movements communicate themselves to other interest rates, and against them the authorities may struggle in vain to prevent long-term rates from going up. In that event, if the expectations of producers, and therefore their spending, are to be maintained, prices must be either allowed or assisted, as the case may be, to rise a little faster. At the same time something can be done to check the rise in the rate of interest by discouraging speculation in equities.

In conclusion we would remind the reader that commercial transactions are based on bargaining. Activity turns on how much people are prepared to pay in costs or final prices. The study of monetary theory is a study of forces which may alter the conditions in which the bargains are made. But no change in conditions can be relied upon to produce a desired effect if the material on which the experiment is made—the mind of the buyers and sellers—alters in the course of the experiments. Monetary rearrangements which are admirable in theory may be rendered of no account because, for example, a host of speculators are alarmed by the new conditions, and on those terms simply will not play. It must always be remembered, therefore, that for purposes of monetary control the study of public psychology is at least as important as the study of monetary theory.

LIST OF BOOKS

THE literature of money is enormous. In compiling the following short list of books we have tried to select, from the works we know, those which seem to us likely to be of most use to the student wishing to proceed beyond the elementary stage covered by this book. The books included expound very diverse views, and are by no means all of equal value or standing, but we have found all of them stimulating and clarifying to thought.

I. THEORETICAL STUDIES

(*a*) ELEMENTARY OR POPULAR

COLE, G. D. H. (editor): *What Everybody Wants to Know about Money* (1933).

EINZIG, PAUL: *Monetary Reform in Theory and Practice* (1936).

PIGOU, A. C.: *Economics in Practice* (1935).

ROBERTSON, D. H.: *Money* (1928).

WOOTTON, BARBARA: *Plan or No Plan* (1934).

(*b*) ADVANCED

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