THEORY OF MONEY

W. T. NEWLYN & R. P. BOOTLE

Third edition

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BY

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AND
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PREFACE

In venturing on a third edition of this book I was conscious of three major considerations. Firstly that the revisions made in the second edition were unsatisfactory. Secondly that the subject had developed so much as a result of escalating interest by academics and policy makers that a radical revision was required. Thirdly that the extent of my involvement in another major area of economics put the task beyond my capacity unaided. I have been most fortunate in finding in Roger Bootle a collaborator who has borne the main burden of the revision, which we have been able to base on close agreement on fundamentals and presentation. It is appropriate therefore that the rest of this preface should reflect the joint authorship of the book.

W.T.N.

The principal function of a preface to a book which is intended as a text for use in higher education is that of explaining how it fits into the existing literature. We believe that *Theory of Money* has a distinct role in covering rigorously, but non-mathematically, the whole of the theory of monetary behaviour and policy. We see it as a bridge between the simple treatment in an undergraduate course in macro economics, and specialist study.

In our revision we have retained the basic structure of the book but have increased the generality of the theory by reference to different monetary systems, confining consideration of the United Kingdom system to the final chapter, which, as in previous editions, deals with application. Consistently with the desirability of starting by establishing basic principles, the first five chapters remain substantially unaltered except for some pruning and clarification. The rest has been largely rewritten and extended so as successively to remove simplifying assumptions and incorporate new theoretical developments. In particular we have attempted differentiation and integration of the 'Keynesian' and 'monetarist' approaches as appropriate.

Although there has been a great increase in empirical work since the lack of it was noted in the second edition, it is still true to say that econometrics has not yet succeeded in giving convincing answers to the major empirical questions on which there is *a priori* disagreement among monetary economists. We hope that, at least, we have put these empirical differences into a theoretical context in which the greatly exaggerated opposition between 'Keynesians' and 'monetarists' is reduced to a minimum.

Finally we record our gratitude to Anthony S. Courakis (Brasenose College, Oxford) and John Brothwell (University of Leeds) for useful discussions on many issues dealt with in the book, but no responsibility for what we have written attaches to either.

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I

WHAT IS MONEY?

THE essential function, which enables us to identify money, is that it is generally accepted as a means of payment. The necessity of having something to perform this exchange function lies in the fact that, in the absence of such a medium, exchange requires a double coincidence of wants. Thus, in a barter system, a seller of an article must not only find someone who is willing to give value for it but someone who is also willing to give in exchange some article which the seller wishes to acquire. Alternatively he must arrange a multilateral series of barter transactions having the same final result. The complications of such barter arrangements clearly restrict the opportunity for exchange so severely that little progress could have been made towards a complex exchange economy without the introduction of a common medium of exchange.

Once such a medium is introduced, the single transaction of barter becomes decomposed into separate transactions of sale and purchase, and the double coincidence is eliminated. But this separation into two transactions involves more than a simple separation of two elements which were previously implicit in the barter transaction; the introduction of money also necessarily separates the transactions in time. The only circumstances in which the interval between the sale of goods and the use of the money obtained for them could be zero would be circumstances in which the double coincidence of wants is present, either in a bilateral or a multilateral arrangement, and a medium of exchange would therefore be redundant. The general acceptability of anything as a medium of exchange thus necessarily implies that, to some extent, it will be held over time.

In a modern economy incomes consist of wages, salaries, interest, rent, and profits, which are payments for the services contributing to the manufacture and sale of goods. Such payments are received discontinuously and spent discontinuously, and the dating of expenditures does not coincide with that of income receipts. No one pays out the whole of his weekly or monthly income the moment it is received, though many of us may think this is very nearly true in our own case. Similarly the multitude of intermediate transactions which are involved in the production of goods involve intervals between payment and receipt. To a considerable extent therefore, money must necessarily act as a store of value by virtue of its use as a medium of exchange.

In fact, as will be shown in a later chapter, money is actually used as a store of value to a much greater extent than that which is necessarily involved in its exchange function. We shall distinguish this additional function of money as its asset function. For the purpose of analysis it will be necessary to treat these two functions separately, but it will subsequently be argued that they are not distinct. The asset function of money is of crucial importance in monetary theory, but the performance of this function is not necessary to a definition of money. A medium of exchange is money even though it serves as an asset to no greater extent than is necessarily implied in its exchange function.

Two other functions are generally performed by money, that of acting as a unit of account and that of acting as a standard of deferred payment. Neither of these is either a necessary or a sufficient condition. It is possible to have a unit of account which does not exist in any monetary form; the guinea is an example; generally, however, the unit of account will correspond with the monetary unit. Again, money, by virtue of acting as the medium of exchange, will generally be used as a standard for deferred payment, but this is not necessarily the case; the use of money as a standard of deferred payment is very closely related to its asset function, but such use is not a necessary characteristic of money. This does not mean that it is a matter of no importance whether or not money acts in this way; indeed this will be a major issue in the subsequent analysis.

We return then to our original definition: anything is money which functions generally as a medium of exchange. The necessary condition for the performance of this exchange function is general acceptability in settlement of debt. General acceptability may come about as a result of a number of different factors operating singly or in combination; it falls within that perplexing but fascinating group of phenomena which is affected by self-justifying beliefs. If the members of a community think that money will be generally acceptable, then it will be; otherwise not.

One of the factors which may contribute to establishing the acceptability of money is its legal status. Money may be made legal tender, that is to say, payment in that money will be deemed by the courts to be full satisfaction of debts. Money which has such a status is called *legal money* while money which has no such status is called *customary money*. This differentiation between legal and customary money is more the concern of the lawyer and historian than the economist; a much more significant distinction from the point of view of the economist is that between *commodity money* and *token money*. Commodity money is a medium of exchange which has a commodity value as distinct from the value which it has acquired by being generally acceptable in exchange for goods and services. Its commodity value is that which it would have if it were not used as money. Token money on the other hand has, in the limiting case of paper notes, no commodity value whatever; its value derives entirely from the fact that it is generally acceptable in exchange for goods and services.

Indeed token money need not take a physical form at all. The vast majority of payments (by value) in a modern economy is made by means of entries in bank ledgers and these are increasingly being effected by computers. Here the payment is made not by the transfer of some physical entity but by the alteration of a financial relationship. A bank customer making a payment instructs his bank, by writing a cheque, to transfer part of his claim on the bank (his deposit) to the payee. Since such transfers of bank deposits are generally accepted in settlement of a debt we must include bank deposits in the category of money in accordance with our functional definition.

In order to see that this statement is correct it is essential that we should have regard to the deposit, not to the instrument which transfers the deposit. A cheque is not money; it is simply a written order to transfer money; only the deposit itself is money. Thus a cheque will not command general acceptability as a medium of exchange simply because the payee cannot be certain that it will be met; he has no means of knowing whether there really is any money (deposit) to be transferred. But once the transfer has been effected there is no doubt that the resulting bank deposit will be acceptable in settlement of debts. Thus the limitation on acceptability which attaches to *bank money* derives not from a lack of acceptability of the bank money itself but from a limitation on the part of the mechanism of transfer.

Over a very wide range of transactions this limitation does not operate because the payee possesses knowledge of the credit worth of the person making payment. Where it does exist, however, it is possible to overcome the limitation. This is done by means of bankers' cheques, confirmed credits, and other more recent devices such as the now familiar credit card, which the financial system has invented for rendering the mechanism of transfer of money more efficient.

Before going any further in the clarification of what money is and what is money, it will help to have some idea of the way in which money and the institutions which produce it have evolved. In order to do this we shall use an analytical framework of four stages starting with commodity money. In the second stage we introduce token money and go on to the third and fourth stages in which the significance of the development of banks and other financial institutions will be brought out.

The analysis will be illustrated by reference to the history of development in England, there being no richer record of the development both of monetary institutions and monetary thought than that in the English literature, which is interspersed with a succession of state inquiries into the operations of the system and great controversies surrounding them. No serious student of these matters can afford to be ignorant of the outlines and it is a fascinating field for those who can be tempted to explore it further.

It must be stressed that the stages do not necessarily follow in strict sequence, nor are they mutually exclusive. The distinctions we are going to make are analytical and will therefore over-simplify actual historical events in order to distinguish the significant pattern.

Stage 1. Commodity Money

Although a great variety of objects have served as a medium of exchange throughout history, there has been a tendency for certain articles to be much more successful than others. If one thinks of the qualities that are required of a medium of exchange it is clear that there are three of particular importance. In the first place the medium of exchange must be limited in supply, for no one would give up goods into which the effort of production had been put in exchange for something like stones which could be acquired by picking them up off the ground. Secondly, it is clearly necessary that the medium should be durable and this links up with the second function of money to which we shall have to give some attention, namely its capacity to act not only as a medium of exchange but as a store of value. Thirdly, it is clear that it is most convenient to have a medium of exchange the unit of which is sufficiently high in value not to require vast quantities for the settlement of normal transactions.

It will be seen that these qualities are possessed *par excellence* by the precious metals, and gold and silver have played the major roles as media of exchange throughout the world, from earliest times.

It may be convenient here to distinguish two sub-stages in the development of commodity money. We can think of the first sub-stage as being that in which the pieces of the commodity, let us call it gold, which are used as money have no distinguishing marks and command goods in exchange by reason of the intrinsic value of the metal from which they are made. In this situation there would be no distinction between the gold handed around as money and the gold used as ornaments. Indeed there was no difference in various parts of Africa, between the cowrie shells which circulated as money and the cowrie shells worn as necklaces. A significant step is taken, however, as soon as some recognizable design or symbol is imposed upon the pieces of gold. If arrangements are made by a monarch or government to mint coins out of gold then, with reservations which we shall need to deal with later, the coins will be accepted by count rather than by weight. As soon as this happens, the possibility emerges of a divergence between the bullion value of the coin and its purchasing power as a unit of currency. This possibility opened up the opportunity of 'debasing the coinage'—an opportunity of which, historically, kings have not been slow to take advantage.

The use of metal coins in England goes back at least to the

8th century before Christ when it is clear that they were accepted by count and not by weight; that is to say the unit which the coin represented had become a unit of account in its own right. In Saxon England this unit of account was silver, 1 lb. of which was equal to the *pound* which still represents the English unit of account. In William the Conqueror's time it was 240 silver pennies, weighing 1 lb., which constituted the English unit of account and this came to be regarded for centuries as 'the Ancient and Right Standard of England'.[1]

It was not until early in the twelfth century that the unit of account based on silver came to be referred to as *sterling*—a surprise to many people who associate the word sterling with gold. Gold coins did, in fact, circulate alongside silver coins in England from as early as 1257 and this complicated the monetary system a great deal because of the fluctuations in the relative values of the two metals. These complications of bi-metallism together with the efforts of successive monarchs, particularly Henry VIII, to exact funds from the country by debasing the coinage, constituted the major problems of 'monetary policy' during the Middle Ages.

By the middle of the eighteenth century it came to be recognized, more by accident than design, that gold had become the British monetary standard at a value, which persisted until 1931, of £3 17*s.* 10½*d.* per standard ounce, eleven-twelfths fine. At that time the principal gold coin in circulation was the guinea, which had been introduced in 1663, and after many vicissitudes had acquired a value of twenty-one shillings, when it was replaced by the sovereign in 1816. Sovereigns continued to circulate until 1925, by which time revolutionary changes had taken place in the medium of exchange involving the introduction of token money and bank money.

Stage 2. Token Money

In the first half of the seventeenth century, the London goldsmiths, whose trade was traffic in coin and bullion, began to pay interest for deposits of gold or silver coins. The goldsmiths were willing to pay interest because it was, at that time, profitable either to melt down coin and sell it as bullion when its

[1] Morgan, E. V., *A History of Money*, Penguin Books Ltd., 1965.

purchasing power as coin fell, or to export it when its external value exceeded domestic value. There was also profit to be had from the simple device of sifting the coins deposited with them, paying out the thin ones and melting down the fat ones. It was not long before it became clear that depositors, apart from receiving interest, valued the goldsmiths' services as providing a safe-deposit and the practice soon developed of making payments by handing over the goldsmiths' receipts, instead of going to the goldsmiths and withdrawing the gold, in order to make the payment to someone who, as like as not, would promptly redeposit it with the goldsmiths. As this practice developed, it became clear to the goldsmiths that it was unnecessary to continue operating as a safe-deposit. The more their receipts circulated among their depositors, the more were they able to lend out part of the gold or silver which had been deposited with them. This is the first example in English monetary history of token money resulting from the activities of a financial institution. For that was what had in fact happened: the receipts of the goldsmiths were, as a contemporary phrase put it, 'running current'; that is to say they had become a medium of exchange.

It was not long before others followed the goldsmiths in issuing receipts for deposits. While the goldsmiths confined their activities to London, throughout the whole country small independent country banks were springing up issuing their own notes which, as a result of running current, became part of the circulating medium of the country. Now clearly these receipts for deposits, or *bank notes* as they were coming to be called, were tokens; they had no intrinsic value being simply paper. An important distinction about these tokens at this stage in the development of token money was that they were *representative* tokens which were convertible into a *commodity* money. Thus, although for convenience of payment people would settle their transactions in paper money, these pieces of paper were actually promises to pay gold coin on demand.

This fact had important implications. It meant that the banks issuing them had a liability to meet their notes in gold. This situation in which a token money is convertible on demand into a commodity money, gives rise to the need to hold a reserve of commodity money in order that the bank issuing promises in the form of notes shall always be able to meet its liabilities.

During the great expansion of country banking of the eighteenth and nineteenth centuries in England, the method by which the country banks secured themselves against an excessive demand for repayment of gold was that they, in turn, kept balances with the London banks which had developed into specialist institutions and which in their turn kept balances at the Bank of England. The Bank of England, which had been established by charter in 1694 as a private joint stock company, was itself issuing bank notes, so that during this period, which lasted for two centuries, there were the bank notes of the Bank of England, the bank notes of the London and country bankers, and gold coins, all circulating together; all of the notes, being convertible into gold coin, were representative tokens.

The history of this phase of monetary development in England is not a very happy one. The country banks, being confined to partnerships, operated on a small local scale and were highly unstable. Some indication of the instability of the banking structure at this time is given by the fact that in the first quarter of the nineteenth century 265 country banks went bankrupt.[2]

The significant point to note here is that where a token money is convertible into something of real value, that is to say, into commodity money, there arises the problem of ensuring its convertibility. It was the lack of confidence in the multitude of small banks during the eighteenth and nineteenth centuries which led from time to time to 'runs on the banks' which led the bank in question to draw upon the London banks, which led them in turn to draw upon the Bank of England. In this way the Bank of England came to be the *last resort* of the monetary system and of the London money market, which was developing as specialist financial institutions became established.

It is for these reasons that the history of the Bank of England, during the second half of the eighteenth century and the first half of the nineteenth century, was dominated by the possibility of an internal drain on its gold resources occasioned by lack of confidence in monetary institutions which led depositors to demand actual gold in settlement of notes. This situation persisted until the First World War, except for the period of the restriction on gold payments which operated by law between 1797 and 1819. This period of inconvertible tokens, which co-

[2] Pressnell, L. S., *Country Banking in the Industrial Revolution*, Oxford, 1956.

incided with the French wars, produced one of the first major credit inflations and it was followed by one of the most famous inquiries of the many that have taken place in England into the operation of the monetary system. This inquiry, by a committee appointed by Parliament known as the Bullion Committee, reported in 1810, and their report blamed the inflation upon the excessive issues of bank notes by the Bank of England and the consequential excessive issues by the country banks.

It is not possible to go into the interesting sub-plots of this period or into the involved controversies about the way in which the quantity of money affected the level of prices and the exchange rate. What is important to establish is that it was coming to be recognized that the ability of institutions to issue paper money could have an important effect upon the economic situation and that the question of control of this ability to create money was becoming a matter of public concern. There was at this time, however, no clear recognition by the Directors of the Bank of England that they had a responsibility in this matter. The Bank of England was established as a private enterprise and its function was that of an ordinary bank seeking to maximize the profits of its shareholders. Although the bank, with interruptions and deviations, increasingly realized its public responsibilities, it was not until the Bank of England Act in 1946, that the responsibilities of the Bank of England as a central bank were formally recognized by its nationalization; certainly during the suspension period it was acting simply as a commercial bank which happened to have other commercial banks as its customers.

A recommendation of the Bullion Committee for the resumption of cash payments was not implemented until 1819 when, for the first time, England went on to a fully automatic gold standard with gold sovereigns circulating and bank notes payable in gold on demand. This situation, with slight modifications, continued for a hundred years and the token currency was inter-changeable with gold (except during the First World War and the post-war adjustment period) until 1931. In 1931 Britain abandoned the gold standard in a financial crisis in which the Bank of England was unable to meet the demands for gold from foreign financial centres and therefore had to suspend gold payments as it had done in 1797.

This represents an important stage in monetary development. During the nineteenth century, the Bank had been concerned with two kinds of demand for gold. These were, respectively, the internal drain and the external drain. The internal drain was a reflection of domestic lack of confidence which led from time to time to people demanding gold for internal circulation. By the end of the nineteenth century this had become unimportant—confidence in the token money having been completely established. It was appropriate therefore that, from that time, the arrangement for conversion should relate solely to the demands for external conversion for the purpose of settlement of international payments. A modified form of gold standard, known as the gold bullion standard, was therefore introduced in 1925 by which, although sovereigns continued to circulate, Bank of England notes were only convertible into gold bullion. This very sensible system had a very short life since convertibility into gold at the current exchange rate had to be abandoned in the financial crisis of 1931. The termination of the right to obtain even gold bullion in exchange for Bank of England notes rendered these tokens completely fiduciary. Their direct link with gold of a specified weight and fineness was completely broken and the ultimate step in this development was taken when the entire gold holdings of the Bank of England were transferred, in 1939, to an Exchange Equalization Account, whose function was to intervene in the foreign exchange market to maintain the exchange rate.

One further significant difference between the situation at the beginning of the twentieth century and that at the beginning of the nineteenth century was that by the later period the paper currency consisted entirely of Bank of England notes. This was the result of the provisions of the Bank Charter Act of 1844 which had the effect of gradually eliminating the issues of the private banks.

It will be seen that the history of the development of token currency in England has been a complicated one. This has largely been due to three factors. Firstly, the discrepancy between the face value and the commodity value of coins in circulation. Secondly, the divergence between the commodity values of coins, composed of two different metals, circulating together. And thirdly, the problems arising from the conversion