Does the money supply really matter?

A speech given by the Deputy Governor at the Lombard Association on 11th April 1973

Introductory

It was, I believe, from you, Mr Chairman, that the proposal originated that I should talk this evening on the subject "Does the money supply really matter?" Now that I come to embark upon it, I experience something of the feelings of an explorer who finds himself compelled to wade across a river full of crocodiles. For it is a question which has been, and remains, a subject of so much academic controversy, that the layman venturing upon it is only too likely to find that some remark, which he thought innocent enough, has produced a sudden snap of jaws, and he is on his way – bleeding copiously – back to the bank. With a small 'b', that is.

Despite this risk, however, I can hardly seek refuge by answering the question you posed with a simple and confident "yes", and then sitting down. All other considerations apart, that would be a poor return for your hospitality, and a poor response to the interest that members have shown in coming here tonight – no doubt to discover what form of words I shall find to embody the qualifications that must be made once one goes beyond that first monosyllable.

I concluded that, having first made it quite clear that my answer to the basic question is "yes", the most helpful line to pursue might be for me to offer you some observations about the money supply which reflect our practical experience in the Bank of England in the last year or two. It is a time in which the Bank's attitude to monetary policy has undoubtedly changed. The new arrangements for competition and credit control introduced in 1971 allowed a greater rôle for interest rates and also made it clear that we were to some extent shifting our attention from what had previously been a narrower – though certainly not an exclusive – concentration upon bank lending to a broader view of bank liabilities. This change in emphasis reflected partly a recognition of the practical point that tight and prolonged controls over bank credit are bound to have some unfortunate consequences, inimical to competition and innovation within the banking system. But it was also consistent with the new rôle seen for interest rate policy that we should pay rather more attention than before to broader monetary aggregates, including the money supply under one or more of its many definitions.

Definitions of money

And here perhaps I may make a start by reminding you that there can, indeed, be many different definitions and different computations of the money supply. I suspect that a number of people who make confident pronouncements about the money supply have never stopped to ask themselves which version they have in mind, and why. Yet it does make a difference. The Bank of England themselves publish a 'narrow' and a 'broad' version, M_1 and M_3 as they are called in the favoured motorway terminology. And in the banking month of January, for example, M_3 rose, after seasonal adjustment, by $2\frac{1}{2}\%$ while M_1 fell by $\frac{3}{4}\%$. There were good reasons for, at least, some of this divergence, which I shall touch on later; but the existence of such a divergence is a warning against the uncritical use of any single figure, particularly in relation to short-term changes.

Our narrow version, M_1, consists of the notes and coin held by the general public, together with the sterling current accounts of the U.K. private sector with banks. The broader version, M_3, takes in additionally deposit accounts and accounts denominated in foreign currencies; and it includes deposits owned by the public, as well as by the private, sector. For a short time, a few years ago, we had an M_2 as well but (like the second-class on the pre-war railways) it disappeared, leaving only a first and third.

M_1 and M_3 do not, of course, exhaust the possible combinations of bank liabilities which might well be included in a monetary aggregate. In particular, neither M_1 nor M_3 includes the sterling deposits of overseas residents. This seems obviously right if we consider that changes in such residents' sterling balances may reflect international capital movements whose causes may not be very closely connected with developments in the U.K. economy. It is less obviously right, if we remember that some of those balances may well be destined for investment in this country or for the purchase of U.K. exports. It is in recognition of this kind of problem that, in publishing information about the money stock in our *Quarterly Bulletin*, we are careful to set out the various components of our two aggregates, and also to give – as a memorandum item – the total of overseas residents' sterling deposits with banks. This provides the equipment with which researchers in this field can construct their own, different, aggregates if they wish. One item which is notably missing from our money stock table is any indication of unused bank advance facilities. These are an obvious candidate for inclusion in any aggregate which is concerned with potential spending power; but unfortunately we have very little information about them.

Moreover, the deposit components of a monetary aggregate are not necessarily limited to liabilities of the banking system. Share and deposit accounts with building societies are used by many people in much the same way as they might use a deposit account with a bank. And had these been included in M_3, last year's increase would have been reduced from about 26% to about 23%; on the other hand, in each of the previous three years from 1969 to 1971, the increase in M_3, with the building societies added in, would have been about two percentage points greater than it was. A recent article in the *National Westminster Bank Quarterly Review* has suggested that an even wider definition, to include deposits with the national and trustee savings banks in addition to those with banks and with building societies, would give a better picture of the liquidity and spending power of the private sector. This jumbo aggregate would have given slightly different results again.

Choice of definition

I am sure I have said enough to make it plain that there is no absolute answer to the question "What constitutes the money stock?". In practice, our choice of definition in trying to find a monetary aggregate that we can put to practical use must be governed firstly by the availability of adequate statistical information – and its availability for a long enough period in the past to allow its behaviour to be studied in relation to other developments in the economy. And secondly, we need to find, from these studies, reasonably stable relationships between our chosen monetary aggregate and other variables such as the national income and levels of interest rates. It is only in the light of such knowledge that we can make much practical use of a money figure, whether as an objective or instrument of monetary policy or as an indicator – perhaps an early indicator – of the impact of monetary policy upon the economy.

Demand for money relationships

Let me elaborate upon this a little. Underlying the search for these relationships is the belief – which seems reasonable enough – that as the multitude of transactions within the economy expands over time, so too will the size of bank balances required to support these transactions. It is suggested further that changes in the stock of money may bear some predictable relationship to changes in the pace of economic activity. Thus, we can refer to the demand for money as the response of companies and persons to an increase in their buying and selling activities. In this sense money is no more than a convenient medium of exchange, and a price has to be paid for this convenience because money – in the ordinary way – pays either no interest or less interest than would be available on other assets. When interest rates are generally low, this convenience cost is also low: in other words, the yield forgone by failing to switch from money into interest-bearing assets is relatively small. It follows that the higher the rate of interest, the higher will be the convenience cost of money, and so there will be a greater incentive to economise in the use of money. In these simple terms, therefore, we would expect the demand for money to vary directly with the pace of economic activity, but inversely with the level of interest rates.

Accordingly, and again to put it simply, if we could find a stable relationship of this kind it would give us some guidance about the rise in the money supply that would be consistent with the rate at which the economy was expanding, given a particular interest rate structure. We would still have problems in deciding just what rate of expansion for the economy was, in fact, desirable and in selecting the interest rate structure that would best contribute to it. But, having made our choice, a stable demand for money relationship – always, as I say, assuming that we could find one – would indicate the monetary growth that would be consistent with what we had chosen. Then, if the money supply was seen to be growing persistently more slowly than expected, there would be some presumption that economic policy generally was being more restrictive than was intended. And vice versa if money was seen to be growing more rapidly than forecast. We would, I hope, never use such relationships wholly automatically; but, if money seemed to be going off course in the sense that I have just described, it would at least be a warning to us to pause and consider whether the economy was, or was not, behaving as intended.

Partly because it is a well-established and long-running statistical series, most of the work that we have done in the Bank to study these relationships has been with M_3, the broader of our two published versions of the money stock; and more particularly, within the total of M_3, with the money held by the company and personal sectors. We have studied the changes in these sectors' holdings of money in relation to changes in certain interest rates, real incomes, and prices; and we have looked at the apparent time lags in these relationships. These studies have yielded some useful results, and some report of the work has been given in our *Quarterly Bulletin*, notably in the issues for June 1970[1] and March 1972.[2]

This is not the time or place to repeat the substance of these articles in detail, but there is one feature of our findings which I would like to draw to your attention. It is often suggested that – given the right rate of interest – it is 'appropriate' for the money stock to increase in the same proportion as the national income in money terms. Our researches suggested that in the past this may have been broadly what happened, in so far as the rise in the national income reflected increased prices: but in so far as it reflected real growth in the economy, money held by companies could be expected to grow rather faster than the national income; and that held by the personal sector could be expected to grow very much faster. So that when any real growth in the economy is taking place there is a tendency for the money stock to grow more than proportionately, after taking some account of the time lags involved.

Practical experience

That said, I have to admit that the relationships that appeared to be established in the past have not held good more recently; although, given the changed circumstances, that is not perhaps very surprising. In fact, during 1972, the growth in M_3 greatly exceeded what might have been expected on the basis of past experience, given the configuration of interest rates, prices, and the real growth in the economy. If I give you some reasons for this, I hope you will not think that I am arguing that the increase can be treated as a matter of indifference or that it has not been at least in some senses 'excessive'. I am merely amplifying my point that we are not able to say with any precision what rise would have been 'appropriate' or, in other words, by how much the rise has exceeded that 'appropriate' figure.

What are, then, some of the reasons why the relationships observed in the past have not held good in the last year? The first thing we need to remember, I think, is that during the time when these statistical relationships were observed, the banking system was subject to considerable controls and constraints which have since been abolished. In particular, the amount that banks could lend to the private sector was subject to official ceilings and to qualitative guidance. This meant that they lost some business which would normally have come their way but which was, because of the restrictions, diverted into other channels. We saw evidence,

1 "The importance of money" (Goodhart and Crockett).

2 "The demand for money in the United Kingdom: a further investigation" (Price).

for example, of a developing intercompany market in which loans might be made direct between one bank customer and another. The ugly word 'disintermediation' has been used as a label for this process. At the same time, the clearing banks' borrowing and lending rates were linked, by mutual agreement, fairly closely to Bank rate; and the range of deposit facilities offered by these banks to their customers was, again by agreement, pretty severely limited. As a result, the interest rates and the assets and liabilities of these banks were less free to respond to market forces than they have been more recently.

When the new approach to credit control was introduced in September 1971 and freer conditions were restored, it was to be expected that some of these distortions would be unwound; that the banking system, freed of its competitive shackles, would set on foot a process of 're-intermediation' as it recaptured the business it had lost; and that it would indeed go even further than that in extending its rôle into new fields. In such circumstances it was surely natural that bank liabilities, alias the money supply, should grow faster than the increase in economic activity would – on earlier experience – appear to warrant.

Again, the development by the banks of new deposit facilities with which to attract funds has provided a new home for what I may call, in a technical sense, speculative money. There is now more scope than there used to be for investors, awaiting what they judge to be the favourable moment to buy gilt-edged for example, to lend their funds temporarily to the banks at attractive rates of interest and, in doing so, to give an incidental boost to the money supply. Under the old régime such funds might well have bided their time in, say, the local authority market, which would have left them outside the money supply.

It is also very possible to believe that in a year of some uncertainty over business prospects, companies may have wished to hold more liquid resources than they normally would. Indeed, in one respect the rapid rise in the money supply may have fed on itself, if it has led companies to fear that bank lending might be placed under new restraints. In such circumstances some of the banks' customers may well have decided to take up some of their unused advances facilities while the going was good, and redeposit the money against a rainy day.

Let me give you one further instance of a slightly different kind. At least twice in the last year – last summer, in the period leading up to the floating of sterling, and again more recently – we have seen rates of interest in some short-term markets rise temporarily out of line with the base rates to which the banks' lending rates are related. At these times it has been possible for those with unused overdraft facilities to make a profitable turn by borrowing from the banks and reinvesting the funds in, say, sterling certificates of deposit. Until recently, of course, there were also tax advantages to be had in such an operation. This produces a temporary build-up of both sides of the banking sector's balance sheet: a sort of merry-go-round effect which, incidentally, causes an erratic rise in the money supply. I see that Mr. Wilde of Barclays Bank has recently suggested that this rise may in the recent past have been of the order of £600 million, equivalent to over 2% of M_3.

I hope I have said enough to show some of the difficulties that have faced us in the past year in trying to put a money supply figure to practical use. We have never, of course, suggested that it could or should be our only indicator; but we have regarded it as one, and potentially an important one, among the whole range of financial indicators.

We cannot assess how much should be allowed for the various distorting factors which I have mentioned. Some of them, we may hope, are of a transitional nature, reflecting the adjustment of the banking system from the old to the new régime. To the extent that this is so, we may hope that new, more stable, money relationships will become observable in due course. It may be, too, that when we look back over this period in a few years' time, and see it in a longer perspective, we shall see that the old relationships had a more continuing validity than now appears. But knowledge is never perfect; and in the meantime we have to live from one month, or indeed from one day, to the next, making the best use we can of the evidence immediately available.

M_1 potentially more useful?

Now it will no doubt have struck you that some, at least, of the distorting elements which I have described particularly affect deposit accounts (including therein sterling certificates of deposit), as distinct from current accounts. And this suggests that M_1 which, you will remember, is confined to current accounts, might be a better indicator than M_3. In principle, it may be that this is so.

Here, however, we come up against the difficulty that our estimates of M_1 are inherently of poorer quality than those for M_3, and that monthly figures of M_1 have been available in their present form for little more than a year. In other words, the first of the two requirements for a useful indicator which I mentioned earlier – that is, a reasonably long run of reliable figures – is not fulfilled for M_1; and consequently we have not yet been able to make much progress towards fulfilling the second requirement, of establishing useful demand-for-money relationships in terms of M_1 only.

One point, however, I can make. When talking earlier of M_3, I mentioned that our researches suggested that this broad version of money tended to grow faster than the national income in real terms. On the face of it this is an odd result, because it suggests an increasingly wasteful use of money; yet it is a result borne out by similar work done in the United States. However, if M_1 is taken as the measure instead of M_3 the evidence suggests rather the opposite: that the rise in money has in the past been somewhat less than proportionate to the rise in activity. This may reassure us that company treasurers or financial directors are, indeed, doing something to earn their keep.

Measurement of money

At this point perhaps I should say a few words on the question of the compilation of the basic material of this subject, the actual estimates of money supply. As the compilers of the official estimates for the United Kingdom, we in the Bank are very conscious of certain limitations of the material, which are easily overlooked by those not involved in handling it. They do, however, complicate the search for the demand-for-money relationships of which I have just been talking; and they do require one to be distinctly cautious in interpreting current figures.

I have used the word 'estimates' of money supply advisedly. Because, no matter what concept of money we adopt, it cannot in practice be measured direct. This may sound surprising. After all, most of the money stock consists of the sterling liabilities of the banks to other U.K. residents, and one might suppose that these were fairly readily identifiable. But I have only to remind you that on any one day there can be net debit transit items amounting to £1,000 million or more moving around within the banking system – whether from one bank to another or between branches of the same bank – and you will begin to appreciate the difficulty. We have no means of knowing whether these transit items are destined to reduce deposits or to add to advances; and if we are concerned with the money holdings of particular sectors, we do not know whether the transit items – in so far as they affect deposits – should be regarded as affecting the deposits of, let us say, companies or of persons. In practice we have to adopt certain rules of thumb. We allow 60% of transit items as a deduction from deposits, and we allocate all these to the company sector. But the margin for error is great. From one reporting day to the next, the total of transit items may alter by as much as £400 million; and this in itself requires an adjustment to the money figure of as much as £240 million which, in turn, is the equivalent of 1% of the total of M_3. There are other problems of identification also.

Then again, we find instances of incompatibility in the data returned to us by the banks. This is regrettable, and we – and the banks – are constantly trying to improve matters; but some of the problems can be very intractable. I will content myself with just one example. In estimating the money stock, it is obviously necessary to deduct inter-bank liabilities from total liabilities. Yet, as a result of timing difficulties, difficulties in identification, and sometimes, no doubt, plain error, the amount of funds which banks say they have borrowed from each other often differs markedly from the amount they say they have lent to each other. And this inter-bank difference, as we call it, can change by perhaps £100 million from one month to the next. Its existence must cast doubt upon the accurate reporting of other items in the balance sheet, including the deposits of the private sector with which we are concerned in the money context. Errors of this kind tend to correct themselves over time, but they are one reason – along with certain other inherently erratic features liable to affect the snapshot of money taken on one day of the month – why we are always very cautious in interpreting a single month's figure and prefer, so far as possible, to take account rather of what appear to be the developing trends over a longer period.

Seasonal adjustment

This brings me to the last item I propose to mention in what may appear rather a catalogue of difficulties; though they are difficulties which, I suggest, it is important not to overlook if we are not to risk misleading ourselves. This is the problem of seasonal adjustment.

As you will well realise, in so far as the behaviour of money through the year reflects certain influences with a highly seasonal incidence, such as Exchequer receipts or bank lending, we cannot properly monitor monetary developments from one month to the next unless we can make a suitable allowance for these influences. However, seasonal patterns – of tax revenues for example – tend to change from one year to the next and can change markedly; and the seasonal adjusters would themselves be the first to acknowledge that theirs is as much an art as a science, so that there must always be a considerable margin of error in the adjustments made month by month under this head. Yet much of a particular month's movement often depends upon this seasonal adjustment. As it happens, in the banking month of January to which I referred earlier the change in M_3 was not all that different before and after seasonal adjustment: a rise of 2% in the actual figures became $2\frac{1}{2}$% after adjustment. But for M_1 an actual fall of $2\frac{1}{4}$% was reduced by seasonal adjustment to one of only $\frac{3}{4}$%.

I earlier underlined the contrasting movement between M_1 and M_3 in January. It is smaller in the seasonally adjusted figures that I then used than in the unadjusted ones; but we suspect that this is an instance where a 'true' seasonal adjustment, had it been possible, would have reduced the contrast even further. This is because we think our adjustments, which have to be based to a large extent on experience in the past, may not allow enough this year for the amount of half-yearly interest credited to deposit accounts or for the charges levied on current accounts. To this extent, M_3 may have been overstated and M_1 understated. One can think of other factors too which may have worked in the same direction. For example, the merry-go-round effect of which I spoke may have temporarily increased bank advances and deposit accounts, and hence M_3, while leaving current accounts, and therefore M_1, much less affected; and high interest rates may have attracted funds out of current accounts into deposit accounts – thus depressing M_1 but not M_3.

Résumé

As I promised at the outset, I have concentrated in my talk this evening on the practical and have devoted myself in particular to spelling out some of the difficulties that arise in defining, measuring, and interpreting the money supply. I hope I may have convinced you that these difficulties are substantial and that, while the money supply does really matter, they have to be faced and largely overcome before we can put more than limited weight upon any particular measure of money supply as a practical guide to policy in the sense of enabling us to judge what may be taken as the 'appropriate' amount of money to suit a particular set of economic circumstances. I would, however, share in what is probably the general feeling of everybody here that last year's rise in M_3 of 26% was excessive – and one can agree to this without committing oneself to side ideologically either with those who regard a large rise in the money supply as a cause of inflation or with those who regard it as a symptom of the strength of other inflationary influences. Perhaps the truth is, as so often, a bit of both. Research on these questions continues, within the Bank as elsewhere. Meantime, as I have said, we certainly include the money aggregates among the broad range of financial indicators which we reckon we need to watch, as we continue to explore the new territory which competition and credit control has opened up.

On this level M_3, the broader version of the money supply, is, in fact, a particularly interesting quantity to study. This is because it contains so many different strands. And it is a very healthy discipline to try to disentangle these, and to assess the contribution each has made. An unusually large rise in money may alert us to some structural development within the banking system. On a wider horizon, changes in the supply of money reflect developments in a number of different, though interrelated, fields, all of which are of great importance to those concerned with economic or monetary policy. Interest rates, for example, both actual and prospective; the financing needs of the public sector, and the way in which these are satisfied; the country's external position; bank lending; and changes in people's preferences with regard to the form in which they hold their liquid assets: all these affect the money stock. And, if I may put in at this late stage a small – and uncommercial – plug, those who are interested may like to look at the new money stock tables which we introduced in our *Quarterly Bulletin* last December with a short explanatory article. These provide, in what we hope is a convenient form, some of the quantifiable elements which influence the money stock quarter by quarter.

A disclaimer

Finally, Mr Chairman, before I sit down I would like to enter a modest disclaimer. I mentioned a moment ago some of the different areas of policy and activity which affect the money stock. Not all of these, I am sure you will agree, are areas which are wholly and instantly responsive to the central bank's direction. We have certainly a contribution to make. And one of the ways in which we make it is by working, through our operations in the financial markets, to bring about what appears to be an appropriate configuration of interest rates. I am not going to pretend that it is always easy to judge what may be appropriate at any given time, when one may often be faced with conflicting objectives. What I am certain about is that there are limits to what – in the real world – can be achieved by monetary policy alone. To take one example, we in the Bank may believe that in the circumstances of today some form of incomes policy has a part to play in the control of inflation, and hence in checking the growth in the money supply. We do not regard it as our rôle to administer that policy; nor do we believe that we could in practice, by monetary measures alone, make such a policy unnecessary. In other words, we see monetary policy as only one among a number of influences – budgetary, economic, social, and political (in the widest sense of that word) – which together shape the economy. If you do not like the results, we are ready to accept our share of the blame. But remember that while, like the legendary pianist, we do our best, it is only a part of the keyboard that comes within our reach.