Financial change and broad money

In the Loughborough University Banking Centre Lecture in Finance,[1] *the* ***Governor*** *examines the reasons why broad money has grown faster than expected in recent years, and the implications of this rapid growth for inflation.*

The targeting of broad monetary aggregates is itself an intermediate objective, the fundamental aim of policy being to squeeze out inflation progressively and create a strong and growing economy: and this objective has been chosen in the belief that there was a reasonably stable relationship between the rate of growth of broad money and the rate of growth of nominal incomes. Since 1980, however, this relationship in the United Kingdom has become increasingly unpredictable, with the velocity of broad money falling by 4% a year, and that of £M3 falling at an accelerating rate.

The implications for inflation of the rapid growth of broad money depend on why it has occurred. In addressing this question, the ***Governor*** *reviews the main influences on the changing behaviour of financial intermediaries since 1980 and the partly related changes in the behaviour of the other sectors of the economy; and identifies therein a number of ways in which broad money is likely to have been increased by financial change.*

In conclusion, the ***Governor*** *raises the question whether, given these problems—essentially technical and related to the form, not the substance of policy—it might not be better to dispense with a target for broad money.*

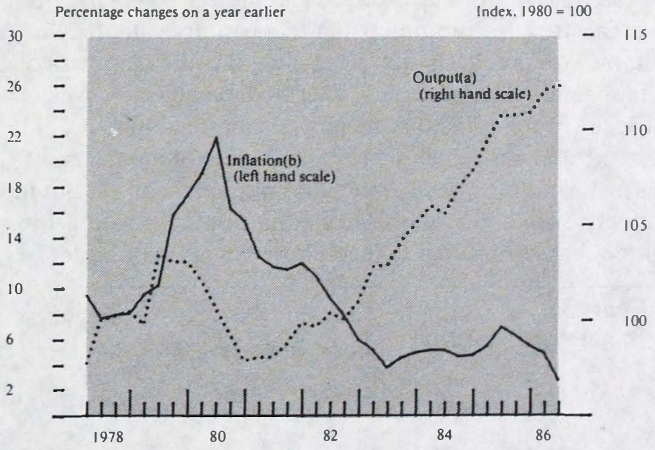
The broad aims of economic policy are clear. There is, moreover, little disagreement about what they are—the creation of a strong and growing economy. This is essential if we are to have any chance of satisfying our aspirations, for example, for higher levels of employment, higher living standards and higher standards of social care.

There has equally been a growing consensus over the last ten years or so that the control of inflation is a necessary prerequisite of meeting these more fundamental aims. There may be different views as to the methods by which inflation can best be controlled; but even here there is a general recognition of the desirability of a stable monetary framework. The foundations of our present monetary policy were in fact laid in 1976, under a different government from the one we have today.

The fundamental objective of policy was then, and remains now, to squeeze out inflation progressively and to create a stable basis for the operation of the economy. That is the contribution towards the achievement of wider national economic goals that is to be looked for from monetary policy.

The progress made against inflation has been substantial, though more remains to be done. As measured by the twelve-month growth rate of retail prices, inflation at its peak was over 20%. It came down below 10% in April

Chart 1
Inflation and output



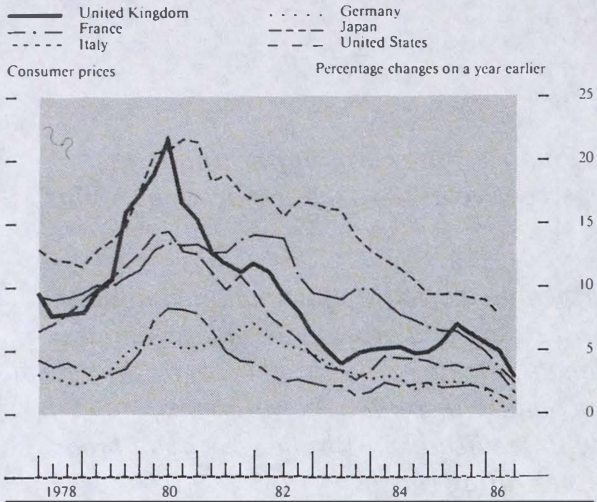
(a) Average 1980 prices.
(b) Retail prices.

1982 and below 5% in March of this year. It is currently around 3%, though it must be said that part of the recent decline is attributable to unsustainable weakness in the prices of imported commodities, so that the retail price index may somewhat understate the underlying rate of inflation.

At the same time as inflation has been falling, output has been recovering. After initial recession, real GDP has risen, since 1981, at an annual rate of almost 3%, close to

(1) On 22 October.

Chart 2
International comparison of inflation

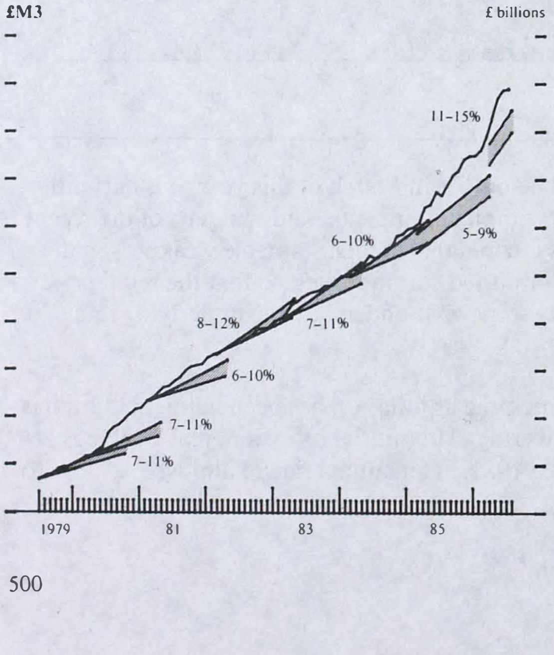


what would have been regarded not so long ago as the limit set by the rate of growth of the economy's capacity.

It is true that the slowdown in inflation, though starting earlier in the United Kingdom and from a higher level, has been accompanied by a similar development in other major countries. But that does not put in question the importance of monetary policy in helping to squeeze out inflation here. Other countries, too, have relied heavily on monetary policy to contain their rates of inflation.

Despite the progress that we have made towards our objectives, it cannot be said that our experience with our chosen framework for operating monetary policy has been satisfactory. In common with other countries, that framework has been one of targeting the rate of growth of a monetary aggregate. This intermediate objective was chosen in the belief that there was a reasonably predictable relationship between the rate of monetary growth and the rate of growth of nominal incomes. But in practice our ability to use an estimate of that relationship for target setting, and to meet those targets, has, quite

Chart 3
Broad money targetry



frankly, been less than impressive. Broad money in particular has all too often grown faster than expected or intended. Targeted aggregates have been periodically redefined, and target ranges revised upwards or even suspended for a period. Only two of the past six annual target rates of growth for £M3 have been achieved and, of those two, that for 1982–83 was achieved only after the target range indicated in the previous Medium-Term Financial Strategy had been raised in the 1982 Budget. In the light of this experience it is necessary to examine the reasons why broad money has behaved as it has—and why, nevertheless, monetary developments have supported counter-inflationary policy. Those are the questions I wish to discuss today.

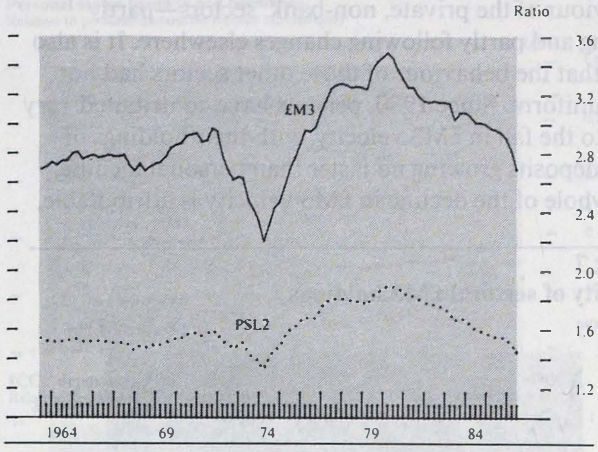
The behaviour of broad money

A consistent thread of monetary targeting, since it began in the United Kingdom ten years ago, has been the use of a broad money target. For almost all of that time this has taken the form of £M3—comprising the UK banking system's total sterling deposit liabilities to the domestic private sector. Much of what I have to say will accordingly be couched in terms of the particular £M3 measure of money. But much of it will also apply to other measures of broad money and private sector liquidity such as PSL2, which also includes the deposit liabilities of building societies; these have become increasingly close substitutes for bank deposits. Starting from a general concept such as broad money or narrow money, any precise definition involves drawing an arbitrary dividing line across a virtual continuum of financial assets. Moreover, a particular measure chosen on the basis of past relationships is liable to be undermined over time by developments in the financial system. Given the recent fast pace of financial innovation and liberalisation, the problems of definition have unarguably become more acute. There is now a vast array of slightly differentiated financial products available to the retail and wholesale depositor or investor, ranging from cash to long-maturity marketable securities. There is no obvious and appropriate criterion for discriminating unambiguously between those which are 'money' and those which are not.

There have clearly been periods when substitution between the financial assets included in £M3 and those excluded from it have distorted its growth. This can, at times, be a help in meeting targets; at other times, as now, it is a hindrance. In either circumstance it is necessary to assess and interpret the growth of £M3 in the light of movements in other measures of broad money. But I do not want to make too much of the problem of statistical definition this evening—my concern here is with the behaviour of broad money on whatever definition.

The striking feature about the recent performance of all the broad money aggregates is the contrast between their behaviour in the post-war period, including much of the 1970s, on the one hand, and their behaviour since 1980 on the other. From the end of the war until 1979, with only a

Chart 4
Velocity of £M3 and PSL2



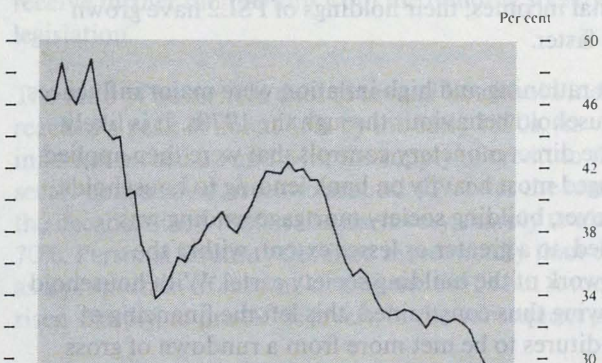
brief, though sharp, interruption in 1971–73, broad money grew less fast than nominal GDP; in other words, its velocity of circulation rose fairly consistently. Since 1980, the velocity of broad money has *fallen* by an average of 4% a year, with £M3 falling at an accelerating rate. How is this to be explained? Has it to be attributed largely to developments expanding the *supply* of money? Or is it explicable in terms also of changing influences on the *demand* for broad money, with the enlarged stock willingly held at the prevailing pattern of interest rates? The implications for future nominal income growth and future inflation of the rapid broad money growth of recent years essentially depend upon the answer to this question.

The behaviour of financial intermediaries

I shall approach my answer to it by examining the behaviour of financial intermediaries since 1980, looking in particular at the reactions of banks and building societies to changes that were largely external to them.

A major influence was the removal of controls around 1980. The ending of exchange control in the United Kingdom, towards the end of 1979, quickly made ineffective the direct domestic monetary controls of the time, notably the 'corset'; and these too were removed in the following year. It was to be expected that there would

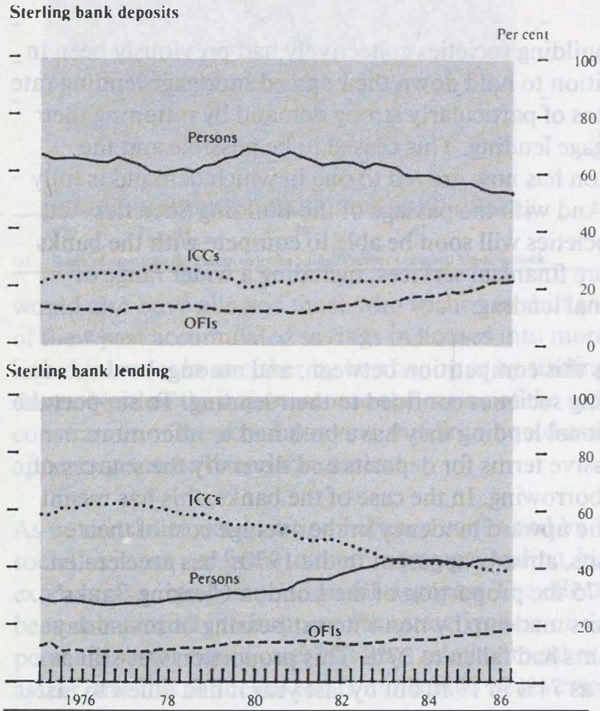
Chart 5
Share of non-interest-bearing M1 in £M3



be an immediate surge in banking intermediation as the banking system took advantage of its new freedoms. But that is not the whole story. What was not so easily predictable was that the response would go far beyond a simple stock adjustment to contribute to an entirely new dynamic in competition between financial intermediaries.

Already, through the 1970s and indeed earlier, the banks were coming under various pressures. Their traditional corporate customers—faced by high and variable interest rates—moved away from raising fixed-rate finance through the capital markets and looked increasingly to the banks for their external finance; while, on the liabilities side, the banks had increasing recourse to relatively more expensive wholesale market funds to supplement their traditional retail deposits. Total personal sector liquid

Chart 6
Sectoral shares



asset holdings, which were vulnerable to erosion by high inflation, grew more slowly than incomes through this period, and building societies succeeded in increasing their share of the total.

These pressures intensified after 1980. Initially, as the economy went into recession and the financial position of the company sector worsened, the need for traditional bank intermediation increased—though its profitability was affected by the quality of some of the additional lending to companies which did not survive the recession. Meanwhile, and as the financial position of the company sector recovered, the banks' own position was weakened by the ldc debt crisis of 1982. This shift in the relative credit-worthiness of the banks and their higher-quality corporate customers both here and abroad was associated with the development internationally of an increasing array of competitive financial instruments. I shall have more to say about this development later. The relevant point here is that these new sources of finance put significant pressure on the margins that could be obtained on more traditional 'on-balance-sheet' bank lending to the highest-quality corporate credits.

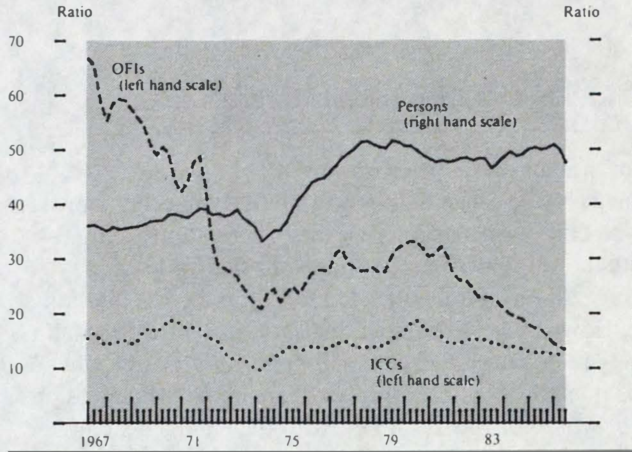
This competition, and the need for banks to strengthen balance sheets in the light of their experience of the domestic recession and indeed of the international debt problem, gave considerable impetus to various forms of 'off-balance-sheet' bank activity. This included securitisation, which could generate fee and commission income for the banks. But it also encouraged the banks—now freed from the constraint of direct monetary controls—to expand their 'on-balance-sheet' business through higher margin lending to the personal sector and more particularly through a sustained drive into mortgage lending which, historically, has been extremely low-risk business.

The building societies collectively had previously been in a position to hold down their agreed mortgage lending rate at times of particularly strong demand by rationing their mortgage lending. This ceased to be possible and the position has now moved to one in which demand is fully met. And with the passage of the Building Societies Act, the societies will soon be able to compete with the banks in more financial services, including a wider range of personal lending.

Nor is this competition between, and among, banks and building societies confined to their lending. To support the additional lending they have both had to offer more aggressive terms for deposits and diversify the sources of their borrowing. In the case of the banks, this has meant that the upward tendency in the average cost of their deposits, already apparent in the 1970s, has accelerated. By 1975 the proportion of the London Clearing Banks' deposits made up by non-interest-bearing or seven-day accounts had fallen to 77%. This proportion was still as much as 71% in 1980 but by last year it had fallen to just 41%—and the main impact of the introduction of high-interest chequeing accounts had yet to be felt. In the case of the building societies, though the rates paid to depositors have also risen in relation to market rates generally, much of the improvement in terms has taken the form of enhanced liquidity of building society deposits, which in many cases may now be drawn upon, with no interest penalty, on demand and even by cheque. All of these changes, of course, tend to increase the attraction of liquid assets generally relative to other financial assets, and may at different times distort the growth of any one measure of money or private sector liquidity at the expense of another.

These then have been some of the important influences on the behaviour of the key financial intermediaries since 1980, and their responses to them. But their impact on monetary developments depends also on the reactions and behaviour of the other sectors of the economy. It is clear that the changes in the behaviour of the banks, and of the building societies, interact with changes in the behaviour of the private, non-bank, sectors—partly leading and partly following changes elsewhere. It is also clear that the behaviour of those other sectors had not been uniform. Since 1980, persons have contributed very little to the fall in £M3 velocity, with their holdings of bank deposits growing no faster than personal income. The whole of the decline in £M3 velocity is attributable,

Chart 7
Velocity of sectoral £M3 holdings



in almost equal part, to the faster growth of deposits held by industrial and commercial companies on the one hand and other (non-bank) financial institutions on the other. I should like now to look briefly at the behaviour of these three sectors in turn.

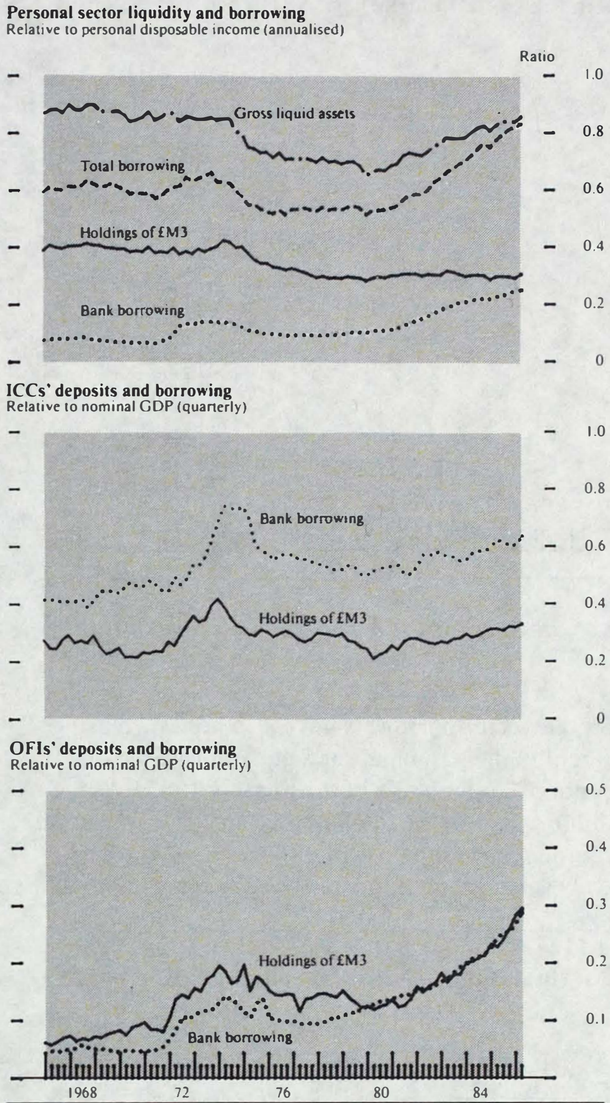
The behaviour of the non-bank private sector

(a) Persons

For the personal sector the increasing convergence between the services offered by banks and building society accounts means that it may in fact be more helpful to look at the behaviour of a broader aggregate than £M3 such as PSL2 which includes private sector deposits with building societies while excluding the societies' own bank deposits. The development of personal sector holdings of £M3 and PSL2 was similar up to 1980; but since then, while persons' £M3 holdings have more or less kept pace with personal incomes, their holdings of PSL2 have grown much faster.

Credit rationing and high inflation were major influences on household behaviour through the 1970s. It is likely that the direct monetary controls that were then applied impinged most heavily on bank lending to households. Moreover, building society mortgage lending was rationed, to a greater or lesser extent, within the framework of the building society cartel. With household borrowing thus constrained, this left the financing of expenditures to be met more from a rundown of gross liquid asset holdings than by incurring debt. Inflation accentuated this process by eroding the real value of the existing stock of both debt and liquid assets.

Chart 8
Sectoral £M3 holdings and borrowing

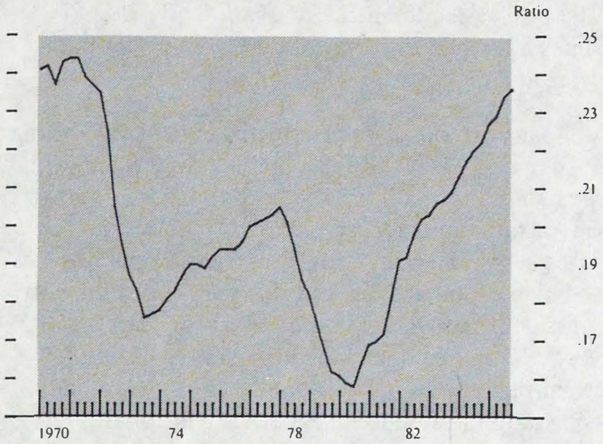


The 1980s have seen the end of credit rationing with the strategic decision of the banks to enter the mortgage market. This resulted in increased access for homeowners to long-term credit. The removal of hire purchase terms controls provided further impetus to the growth of consumer credit. The process of adjustment to these developments, affecting the availability of credit to the personal sector, is still far from complete, and it will receive further momentum from the building society legislation.

The ratio of household debt to annual household income reached a peak of about 45% by the early 1970s. As inflation picked up and with the supply of credit to this sector constrained, it fell to around 40% over the rest of the decade. Since 1980 it has risen very sharply to almost 70%. Personal liquidity declined more rapidly than debt as a proportion of income during the 1970s but it too has risen sharply, to pre-1970s levels, in the subsequent period.

This simultaneous buildup of personal sector debt and personal sector liquidity could be explained by households rearranging their portfolio of liabilities and assets in response to the freer availability of personal sector credit, particularly at low cost and long term. In this new circumstance, homeowners might well choose to hold less of their total assets in the form of equity built up in their house, which could be released by mortgage borrowing, and more in the form of financial assets. Housing market activity is likely to have been restricted by constraints on the availability of mortgage finance. The removal of these constraints would have allowed those who wished to borrow and trade up in the housing market to do so, but it

Chart 9
Capital gearing in the housing market[(a)]



(a) Stock of mortgage debt relative to the value of owner-occupied housing stock.

would also have allowed those who wished to shift some of their past accumulated savings in houses into more liquid form to do so either by borrowing or by trading down. Neither the adjustment to the easing of the credit constraint nor the accompanying shift into liquid assets appears yet to have come to an end.

As noted earlier, competition between banks and building societies is not confined to their mortgage lending, but extends also into competition for deposits. The effect has been substantially to improve the attractiveness of personal sector liquid asset holdings relative to other assets; and this influence too is unlikely to be reversed.

These factors together suggest that a good part of the increase in personal sector liquidity since 1980, which is held largely with building societies rather than banks, can be attributed to a redistribution of personal sector assets as a response to changes in the behaviour of financial intermediaries. To this extent it does not carry the same threatening message about future inflation as the same increase in liquidity would in the absence of the change in financial behaviour. In interpreting the statistics, therefore, it is important to understand why they behave as they do and not to react, mechanistically, to the fact of any particular statistical change. The difficulty is to know how much of the growth in personal sector liquidity one should explain in this way and how much does reflect a buildup of money holdings for purely transactions purposes. For although one can make a qualitative assessment, as I have tried to do, the separate influences cannot easily be quantitatively distinguished.

(b) Industrial and commercial companies

Let me now turn to developments in the industrial and commercial sector. Here too there has been a parallel movement on both sides of the balance sheet since 1980 with both debt and liquid asset holdings growing very strongly.

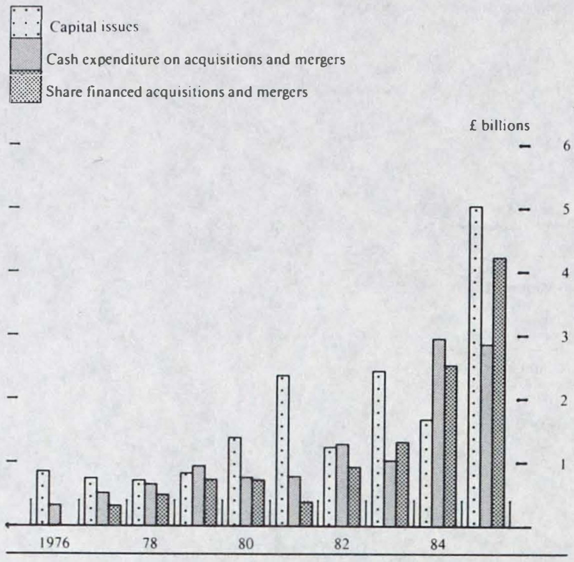
The behaviour of the industrial and commercial company sector is perhaps the most difficult of all to judge. In part this is because of major deficiencies in the financial data and in part because it is the sector most affected by changes in the tax regime and by the ending of exchange control, as well as by financial innovation offering companies a bewildering array of new facilities for both borrowing and the investment of liquidity.

As is well known, considerable impetus to bank borrowing was given over the last two years by the bringing forward of investment to forestall the effects of changes in company taxation introduced in the 1984 Budget and by the related surge in leasing activity, most of which was financed by bank borrowing. But this may not be the only effect of tax changes on broad money. Three years ago the United Kingdom had one of the highest corporation tax rates in Europe. It now has one of the lowest. It would be surprising if, in the absence of exchange control, this change had not had some effect on cross-border company financing, or on decisions about which country to borrow in, or where to hold financial assets, including money. One small example of this happening is the growth in back-to-back leasing across national borders whereby mismatching the income streams in a leasing chain can enable the companies concerned to maximise the potential tax allowance in the country with the highest tax rate. This example serves to illustrate the kind of distortion to portfolios, and to broad money, that can occur when tax rates differ and money is free to move between countries.

Even more difficult to assess is the monetary impact of the almost infinitely varied menu of financial assets and liabilities that has become available to many companies over the past five years, and which is becoming more and more diverse, with new instruments and techniques being added all the time.

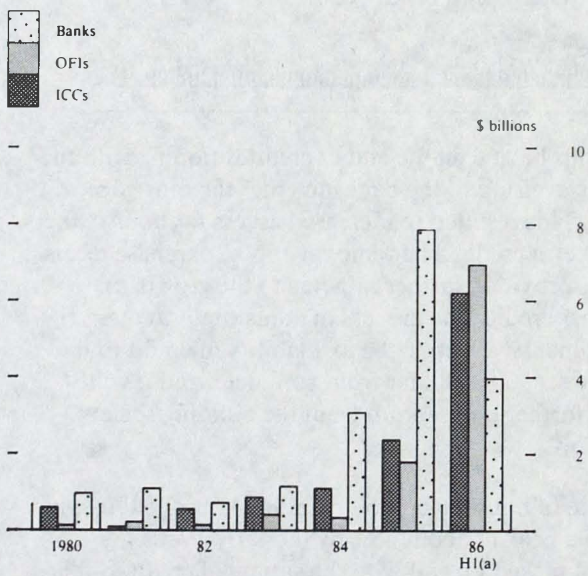
Some of these instruments and techniques are of course very familiar. There has, for example, been substantially greater recourse to traditional sterling bill finance since 1981, when the Bank changed its method of intervention in the money market. This has probably had very little effect on total bank borrowing, since the bills have mostly been held within the banking system in place of ordinary advances. More significantly there has been a welcome resurgence of industrial and commercial company borrowing from the domestic capital market, including an increasing volume of debt issues, in the past few years, which might have been expected to make company bank borrowing less than otherwise. But on the other side there has been an even greater upsurge in takeover and merger activity, much of it involving the cash purchase of shares, some of which in turn will have been borrowed from banks.

Chart 10
ICCs in the capital market



UK private sector borrowers have also been increasingly prominent in the eurobond market, with issues rising from under $2 billion (5% of the total) in 1980 to some $12½ billion (7½% of the total market) in 1985. Industrial and commercial companies initially accounted for a relatively small share of the total UK issues, but have latterly become more active, raising some $2½ billion last year and over $3 billion in the first half of 1986, much of it in sterling.

Chart 11
UK private sector euro-issues (bonds and FRNs)



(a) At an annual rate.

What is the impact on the monetary data of all the new instruments and their related techniques for transforming one kind of risk into another? By no means all of these financial transactions contribute to the growth of sterling lending by UK banks or to other factors expanding the stock of broad money. Some may equally be depressing influences.

Abstracting rather heroically from the diverse and multi-faceted nature of the new instruments, one can perhaps usefully identify three broad groups. First, there are those which allow economic agents to transfer among themselves the price or credit risk inherent in financial positions—options and futures being perhaps the clearest example. Second, there are those that enhance liquidity—the securitisation of existing debt, Note Issuance Facilities or Revolving Underwriting Facilities would fall into this category. And third, there are those which broaden access to credit—such as swaps, which have the effect of enabling a relatively good credit rating in one part of the currency/maturity matrix to be translated into relatively cheap borrowing in another.

In very broad-brush statistical terms, risk-transferring developments tend not to affect £M3, whereas credit-generating developments (in the second and third categories), often will do. This is only a rough rule of thumb however: much depends upon who are the counterparties to the transaction—that is whether they are domestic or foreign, or from the bank or non-bank private sector—and we often have too little information to tell.

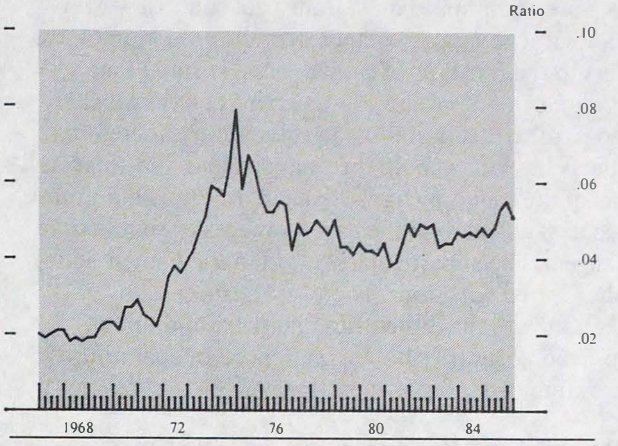
But many of the new arrangements provide routes to lower cost finance and may in this way affect the total amount of borrowing, while others provide a higher return on holdings of liquid funds. And the competition which they provide to the banks on either side of their balance sheets has certainly been an important influence in narrowing the costs of bank intermediation for large companies. This factor in itself would help to explain the simultaneous rise in both borrowing and deposit holding in company portfolios. To this extent what we see in the company sector, too, would represent a different pattern of financing company spending without any necessary implications for company spending itself.

(c) Other (non-bank) financial institutions

Let me finally turn briefly to the behaviour of the 'other financial institutions'. As with companies, both sides of their balance sheet—borrowing and deposits—have risen very rapidly since 1980, and in particular they have contributed much to the accelerated growth of £M3. Their behaviour will have been influenced by many of the same developments affecting companies, including the narrowing of the costs of bank intermediation—to which the competition that they themselves have provided has contributed.

The more rapid growth of household borrowing in the past few years has not just been provided directly by the banking system. It has also come from the building societies and from consumer credit grantors, including retail stores, who in turn have financed themselves in whole or in part through bank borrowing. The banks, for example, lent some £4 billion to OFIs in the last financial

Chart 12
Ratio of OFIs' £M3 holdings to their gross financial wealth



year, of which one quarter went to building societies and maybe a further quarter to other OFIs that specialise in lending to persons.

Perhaps I could also use the building societies to illustrate a further point. As their total balance sheet has expanded, so also have their holdings of liquid assets, including a growing proportion in the form of bank deposits which are included within £M3. More generally there would appear quite reasonably to be a far more stable relationship between OFI holdings of money and total OFI assets than there is between their holdings of money and nominal GDP. As a result, it is scarcely surprising that in a period when the balance sheets of non-bank financial intermediaries are growing more rapidly than nominal income, whether because of a rise in the volume of their intermediation or a rise in the price of their assets, the growth of £M3 in total should exceed that of nominal incomes.

Mr Vice-Chancellor, I have explored these various facets of the behaviour of different sectors of the economy in order to exemplify a number of ways in which the growth of broad money may have been disproportionate to its impact on present and future nominal incomes, and to show how the demand for money is likely to have been increased by financial change. But it is not just financial change which has enhanced the attraction of monetary assets over this period. Another factor of great significance must have been the level of real interest rates. Broad money's average velocity grew faster in the 1970s than in the 1960s and it must be presumed that the emergence of negative interest rates during those periods increased the demand for real rather than financial assets. In the period since 1980 positive real short-term interest rates have been re-established at a substantially higher level than in the 1960s, at comparable rates of inflation, and this in itself will have contributed to the subsequent fall in broad money velocity.

International experience

Changing financial structures are an international phenomenon. Many of the influences making for change—for example, high and variable interest rates and inflation rates in the 1970s, and the slowdown in inflation and emergence of positive real interest rates in the 1980s—are common to most industrial countries. And technological advance, together with the reduction of barriers to the free flow of capital, have ensured that innovations in one country or one market have quickly spread to others. It is not just in this country, therefore, that the behaviour of both the financial and non-financial sectors of the economy have changed. But it would I think be true to say that, over the past five years or so, the pace of change has been particularly rapid in the United States and the United Kingdom. There is, I suspect, a connection with the difficulties that these and other Anglo-Saxon countries have experienced in operating a policy framework of monetary targets.

Canada and Australia, for example, have both given up this approach; and the United States has found it necessary, as we have, to redefine and rebase its monetary targets, and has even so had similar difficulties in meeting them. Some other countries, such as Switzerland and Germany, have been more successful, perhaps in part because their long-established structure of universal banks has sheltered them in some degree from the particular competitive energy released by the process of blurring the distinctions between different types of specialist financial intermediary. Even so, it is not impossible that in Germany too the relationship between money and nominal incomes, which has proved so enviably predictable over a relatively long period, is now beginning to shift.

There are a number of specific elements in international experience which should be familiar to observers of developments in this country.

First are the problems of definition. In common with the United Kingdom, other countries have found that changes in financial systems have made it increasingly difficult to define a given monetary aggregate. In part, this has been the result of the introduction of instruments with both transactions and investment features—NOW and super NOWs in the United States, Sogokoza accounts in Japan, SICAVs and FCPs in France, interest-bearing cheque accounts in Canada—which have blurred the distinctions between the narrow and broad aggregates in each country. In addition, the emergence of new instruments has broadened the spectrum of available liquid assets, while many existing financial assets have acquired an enhanced degree of liquidity as secondary markets have developed, transactions costs have fallen and maturities at the time of issue have typically shortened. This has meant that the definitions of M2 and/or M3 in some countries have become less meaningful, so that broader aggregates have been introduced or even installed as the main targeted measure, as in the switch from M2R to M3R in France.

A second common experience has been the increased proportion of money earning interest rates, which has in general reduced the sensitivity of the demand for broad and even narrow money (as measured by M1) to changes in rates. In many countries, a change in the general level of rates now appears to have less of an impact on interest rate differentials between financial instruments, and therefore less of an impact on the growth rates of different monetary aggregates.

Third, the policy options for control of money have generally become fewer. As the authorities have come to doubt the administrative feasibility of controlling international capital flows, so too they have come to rely less on credit rationing as a tool of monetary policy. Features such as balance sheet constraints—window guidance in Japan and credit ceilings in France—and also interest rate ceilings on deposit liabilities have typically become less important policy tools; and in many countries—the United States, Canada and Germany, for example, as well as the United Kingdom—non-price constraints on credit availability no longer play any significant role as an instrument of monetary policy.

In the face of greater international capital mobility, the exchange rate, too, has tended to become a major channel of transmission for monetary policy so that policy makers have been forced to take more account of it. This is probably most true of Canada, but it is also relevant for the larger economies of the United States and Japan, as of course for the members of the EMS.

Conclusions

It is clear then that monetary targetry, not only in this country but in many others, has become increasingly complex in recent years as both financial structures and financial behaviour have changed. The choice of target aggregates, the setting of appropriate targets, and the interpretation of the developments in the monetary aggregates have all been made more difficult.

The authorities have never seen these as easy tasks; and deviations of monetary growth from target have not provided a simple automatic policy rule. A whole range of indicators, including the targeted aggregates, need to be taken into account in forming a judgement on the appropriateness of current financial conditions. This pragmatic approach is the one that has been followed in the United Kingdom, as it has indeed been elsewhere.

Of course, the way policy has been presented has changed through time. In the early statements of the MTFS, for example, and earlier, policy was presented solely as a target for broad money growth, an oversimplification but perhaps a necessary one in the inflationary environment at the time. The role of other monetary aggregates as indicators and targets was increasingly emphasised, as was the role of the exchange rate, as an indicator.

In some ways the use of the term target has been unfortunate. It carries with it the connotation that its achievement is an end in itself; that the objective can be identified with precision and hit with certainty if only the marksman has sufficient skill and determination. I hope to have persuaded you that the reality is a good deal more complicated than this. Monetary targetry is only a means to an end. There may be circumstances in which the relationship between the intermediate target and the end objective changes unpredictably—as has indeed been our experience during the 1980s. In that case if the marksman does not have the wit to adjust his aim he may inflict severe injury on the economy. The fact is, as I said at the beginning of this lecture, that we have been a good deal more successful in achieving our ultimate objective over the past five or six years than we have at hitting our intermediate broad money targets.

It is nevertheless perfectly fair to ask whether in these circumstances a broad money target continues to serve a useful purpose. Where there *is* a reliable relationship between money growth and nominal income, a simple, publicly-understood, monetary rule has considerable advantages, serving as an external discipline on the authorities and as a guide to both the financial markets and the wider economy as to the authorities' likely behaviour. In these ways it can provide an important underpinning of confidence in the counter-inflationary thrust of policy. But these advantages are lost if in practice the rule proves to be too facile and, as a result, needs to be frequently adjusted or overridden. Then it can become counter-productive, serving to undermine confidence, with every adjustment to the target or every overshoot—no matter how well justified it may be by changing financial behaviour—mistaken by those with an over-simple approach to these questions for a policy relaxation or as evidence of the authorities' lack of resolve.

Two years ago, in a lecture delivered to the University of Kent, I envisaged the possibility that the unpredictability of the relationship between money and nominal incomes could reach a point—as in some other countries—at which we would do better to dispense with monetary targetry altogether, and I shall be considering with the Chancellor whether that point has arrived in relation to broad money when we come to review the MTFS framework around the turn of the year.

But whatever the outcome of that review, of one thing I am quite certain: it would be just as unwise to pay insufficient regard to the behaviour of broad money—on the grounds that that behaviour can, as we have seen, change through time and is always difficult to interpret and understand—as it would be to place too much or too precise emphasis upon it. The detailed study of liquidity and of the development of credit are essential elements in judging financial conditions, even though they cannot be, and never have been, the sole elements.

Mr Vice-Chancellor, let me conclude by putting all this in perspective. The particular problems we have in operating with a broad money target, and on which I have dwelt at length this evening, are essentially technical problems relating to the *form* of policy. The *substance* of policy on the other hand is quite clear. We will persist in bearing down on inflation, and as our success in achieving that objective is seen to continue into the future many of the present concerns about the form of policy will come to seem less pressing.