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HAROLD ROSE'S PAPER ON "CONTROL OF THE MONEY SUPPLY"

Professor Harold Rose has written a note on the "Control of the Money Supply" in the latest issue of Barclays Review. It is a short paper, and I attach a copy.

In this paper Professor Rose argues for the adoption of a cash ratio, and a move towards monetary base control, somewhat along the lines of variant (c) in our own paper. Professor Rose, however, fears that an objection to the abolition of the present reserve asset ratio, and its replacement by a cash ratio, that the authorities might find persuasive would be that the authorities might think that this would imperil the existing institutional arrangements for the discount market covering the Treasury bill tender. In order to try to meet this objection, Professor Rose floats the idea that there might be a half-way house between a cash ratio system and the present reserve asset ratio system in which the present reserve asset system might be "strengthened". Exactly what that strengthening might involve is not set out at all in the Barclays Review article, and is indeed only touched on obliquely in the penultimate paragraph. Nevertheless the comment on the paper in the "Financial Times", on Wednesday, 14th November, passage attached, gave rather more emphasis to this particular suggestion. This may well reflect accompanying briefing given by Professor Rose to Peter Riddell who wrote the FT piece. Certainly it might be seen as a curtain-raiser for the longer and more carefully worked out piece dealing with this set of proposals for a "strengthened" reserve asset system which was contained in the LCB Economists' Report to the Chairman of the London clearing banks, which we have seen, but has not yet been made public. I attach a copy of the relevant pages for those who are interested. Professor Rose does himself, I know, have some parental attachment to the suggestion made in paragraphs 7.26 and 7.27, in which the reserve assets consist only of cash and a specified form of Treasury bill, with the latter limited only to bank holders.

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Our own assessment of these latter schemes suggests that their effectiveness actually lies in the degree of penalty imposed on the banks in having to buy these additional specified reserve assets, and therefore runs into all the objections raised against that variant of monetary base schemes, as set out in variant (a) of our own paper. To the extent that the "strengthened" reserve asset system does not act through such discriminatory penalisation of the banks, it seems to me only to add confusion to the monetary base approach without any significant advantages.

CAEG

14th November 1979.

C.A.E.Goodhart

CONTROL OF THE MONEY SUPPLY

The Crux of the Cash Ratio Debate

The Background of the Debate

Although the pendulum of economic argument has swung to controlling the quantity of money as the centrepiece of economic stabilisation policy, the debate on monetary measures continues even among those who can broadly be called 'monetarist'. There is, for example, disagreement as to how rigid monetary targets should be and even on whether the monetary aggregate to be controlled should include instruments like building society shares and deposits, which, although not used as a medium of exchange, are almost as good as bank deposits as a liquid store of value. Nevertheless there is general agreement that if the level of bank deposits, the main component of the quantity of 'money' as at present defined, is to be controlled at all – and even non-monetarists would probably concur – it is desirable to have a technique of control that is effective rather than one that is not. Opinions differ, however, as to whether and how existing techniques should be changed.

So far the technical record of money supply control in Britain has not been very impressive. The growth of sterling M3 has tended to exceed the upper target figure, and successive target ranges have been set so as to accept the previous over-run. When the growth of sterling M3 has been successfully restrained, the reason has been either investors' reactions to a sharp cut in the public sector borrowing requirement, as in 1977, or the artificial creation of money substitutes like commercial bills as a result of the 'corset', as for short periods in 1978 and 1979.

It may well be the case that the difficulty of restraining the growth of the quantity of money in recent years stems from the size of the public sector borrowing requirement. Whereas in the 1960's this ranged between 0 and 4 per cent of gross domestic product, in the 1970's the corresponding range has been between 3 and 11 per cent. Interest rates have been forced to high levels in nominal terms, and the authorities have been reluctant to see a further rise to produce the level of short-term rates in *real* terms that may be needed to curb the demand for bank loans. Nevertheless, the view has been growing that, even with a lower public sector borrowing requirement, present techniques of monetary control are not commensurate with the burden now placed upon them. The valid point has been made that the present system was designed – or redesigned – in 1971, before monetary targets were made explicit and before the economy became subject to violent shocks in the form of sharp increases in oil prices and intense trade union pressures, as well as to a high P.S.B.R.

The particular point at issue is whether the present reserve asset ratio system to which banks have to conform should be replaced by a narrower 'cash ratio' or 'monetary base' system which would be more closely under the control of the Bank of England.

The Reserve Asset Ratio System

Since September 1971 all banks[1] have had to keep a *minimum* ratio of 'reserve assets' to 'eligible liabilities' of $12\frac{1}{2}$ per cent. Within this figure a fixed ratio of $1\frac{1}{2}$ per cent has to be held in the form of balances at the Bank of England (other than Special and Supplementary Special Deposits). The remaining minimum of 11 per cent can take the form of Treasury bills, money at call with the discount market, commercial bills eligible for rediscounting at the Bank of England (up to a maximum of 2 per cent of eligible liabilities) and government securities with a year or less to run to maturity.

By contrast a 'cash ratio' or 'monetary base' system would prescribe a minimum or fixed ratio only for 'cash', i.e. the banks' balances with the Bank of England (plus, perhaps, bank holdings of notes and coin, which will be disregarded here). The existing reserve asset system does contain a 'cash' ratio element in the form of required Bank of England balances, but its important characteristic is that it does not act as a constraint on the level of bank deposits it supports.

The reason for this is that, either through its purchases of bills in the money market or through its provision of lender of last resort facilities via the discount houses, the Bank of England is always prepared to provide the banks with the balances which are required to support the level of bank deposits actually in existence. That is to say the authorities act so that the supply of 'cash' is fitted to the level of bank deposits, and not the other way round. However, whereas this means that the authorities are not in control of the supply of 'cash' to the banking system, they do control the terms on which they are prepared to provide it;

(1) There are some exceptions, such as the Trustee Savings Banks.

the system thus gives them a large measure of day-to-day control over short-term interest rates.

One consequence is that it is only the potential restriction of supply of the remaining types of reserve assets, i.e. other than Bank of England balances, which can limit the level of bank deposits through a potential ratio mechanism.

Critics of these arrangements stress the fact, however, that reserve assets like Treasury bills and short-dated government securities are also held outside the banking system. The latter can therefore bid for them when the demand for and return on advances is sufficient to justify accepting the relatively low return which reserve assets normally earn. Even if the authorities succeed in restricting the *total* stock of reserve asset securities, e.g. by replacing Treasury bills in issue out of the proceeds of the sale of long-term gilt-edged securities to non-bank investors, there could still remain too elastic a supply of reserve assets to the banks themselves.

A Cash Ratio System

It is the fact that the supply of reserve assets *to the banking system* is not under the direct control of the monetary authorities that has led to the suggestion that the present spectrum of reserve assets should be replaced by a system in which only balances with the Bank of England would be the crucial asset required of the banks (plus, perhaps, notes and coin held by them). Because such balances are not held to any significant extent by non-banks, their supply to the banking system would be *directly* under the control of the Bank of England. As bank balances with it constitute the Bank of England's main liability, it could change their level by altering the total of its own assets, whether this change took the form of notes and coin, bills, long-term gilt-edged securities or foreign exchange. By selling any of these – even to the banking system itself – the Bank of England could thereby fix the level of bank 'cash' or the so-called 'monetary base'. Through the 'cash' ratio mechanism, it could closely determine the level of deposits and, therefore, the money supply if it so desired. Such a system would require some limitation on the willingness of the Bank of England to use its lender-of-last-resort role to offset a shortage of 'cash', thus forcing the banking system to shed other assets and deposits to restore the 'cash' ratio when it fell below the required minimum.

Some Problems of a Cash Ratio System

That a 'cash' ratio system has not been adopted in Britain, despite its apparent advantages, is due partly to a fundamental dilemma confronting the authorities and partly to the historical forces which have shaped the system.

The dilemma springs from the fact that any market control policy has to choose between controlling *price*, accepting the consequences for the *quantity* which thereby emerges in a free market, or controlling quantity and accepting the consequence for the market price. That is to say, the authorities can choose to control the quantity of 'cash' in the system and accept the consequence for its price – the level of short-term interest rates – or they can control money rates and accept the consequences for the quantity of 'cash'.

In Britain the authorities have chosen the latter alternative as the lesser of evils, originally because of the perceived role of money rates in the operation of the gold standard (and of a fixed exchange rate régime generally) and, after the first world war, because of an emphasis on the flow of lending rather than on the quantity of money.

The large increase in the size of the floating debt as a result of the first world war led to a further pre-occupation on the part of the authorities with control over money rates, based on the fear that, without this, there was a risk that the floating debt, mainly in the form of Treasury bills, might not even be refinanced. Later, as in the Bank of England's evidence to the Radcliffe Committee in 1958, this fear narrowed to the view that the limitation of lender-of-last-resort facilities, which a stricter control over the supply of 'cash' would require, would make it impossible for the discount houses to continue the practice of always being willing to take up the residual supply of new Treasury bills if necessary. With the second world war this approach, which involved always being willing to supply the banking system with 'cash' to support a desired level of money rates or, conversely, to mop up any surplus 'cash', seemed to be given fresh point because of the further and vast increase in the scale of government outlays and revenues. Fluctuations in the Exchequer's net

receipts and payments are difficult to predict from day to day and so threatened to make short-term interest rates correspondingly unstable unless the Bank of England acted so as to even out the flow of 'cash' to the system.

The official fear, throughout most of this century at least, has thus always been that to fix the level of 'cash' would mean risking undesirable fluctuations in money rates; for the banks would have to sell short-term paper in the market to reduce their assets and deposits when they had insufficient 'cash' to support them and would use surplus 'cash' to buy in such assets.

This general approach of the authorities has had three consequences. First, as has already been said, the supply of 'cash' has become only a vehicle for influencing money rates and not a close determinant of the level of deposits it supports. Second, it has therefore been the 'second line' of bank liquid assets, now formalised in the reserve asset system, which the authorities have employed for monetary control. Third, the authorities do not use even the 11 per cent minimum ratio of second-line reserve assets to control the level of bank deposits 'directly' through the potential 'multiplier' mechanism which this ratio might provide. The explanation is that even this might cause fluctuations in the pattern of rates which the authorities prefer to avoid and, in any case, it might not be effective in controlling the money supply if the banks can bid for reserve assets.

Although it must be the case that a target level of bank deposits must imply a corresponding level of bank reserve assets, it does not follow that the authorities act so as 'first' to control the supply of reserve assets and then to allow the banks to generate a level of deposits which cannot be more than eight times as much. Instead, the authorities see themselves as using the reserve asset mechanism in order to influence the structure of interest rates. It is the latter which the authorities employ primarily as the means of controlling the money supply, via the effect on such factors as the demand for advances and the public's choice between bank deposits and public sector debt of various kinds.

The two possible types of control, through the reserve asset 'multiplier' and through interest rates, are bound to overlap, even though the availability of reserve assets to the banks is normally a matter of 'price', not of sheer 'quantity'. The authorities might argue, for example, that stricter control over the reserve asset base would in any case necessitate an interest rate policy; but there is a difference of emphasis, and it is one which becomes all the more important if, in the last resort, the authorities choose to control interest rates even if it means giving up some measure of control over the money supply in the short run.

As long as this unwillingness to renounce all control over interest rates endures, even a 'cash' ratio or monetary base system could not be operated so as to guarantee *short-run* control over the level of bank deposits and the money supply. To this extent some critics of the existing system exaggerate the extent to which a 'cash' ratio system would differ from the present, wider, reserve asset arrangements. Against the possible suggestion that the authorities should simply renounce all interest rate targets and fix the level of bank 'cash' in the short run, e.g. from week to week or from month to month, it has to be said that, even in those countries where a 'cash' ratio system operates, central banks have not felt able to exercise such rigid short-term control over 'cash' levels, preferring to avoid the risk of short-term fluctuations in money rates that might threaten the financial system as a whole (and, incidentally, make it difficult for the banks in Britain to operate an extensive overdraft system along existing lines).

A 'Managed' Cash Ratio System?

Even if it is agreed that a system enforcing completely rigid *short-term* control over bank 'cash' is undesirable, it does not follow that a 'managed' or flexible 'cash' ratio system might not be more successful than the present flexible reserve asset system, which the authorities have thought necessary to reinforce by a cumbersome and arbitrary 'corset' as well as by constraints on the direction of bank lending.

A managed 'cash' ratio system would require it to be understood that the banking system – as in the United States – could not always rely on obtaining scarce 'cash' from the Bank of England. The latter's lender-of-last-resort facilities would then become more a standby facility to be used up to a point, beyond which assistance would be given only when the authorities wished to avoid a crisis

that might threaten confidence. The authorities would still have to use their judgment, but the banking system would not be able to take the availability of official assistance for granted. Because the supply of 'cash' balances would be directly under the control of the Bank of England, the decision as to the extent to which 'cash' should be supplied should have a more *predictable* effect on the level of deposits. The authorities, as in the United States, until recently might continue to use an interest rate policy to influence bank demand for 'cash'; or they might move somewhat closer to the use of the supply of 'cash' as a constraint through the deposit 'multiplier' mechanism. The fact that the United States monetary authorities have just announced their intention of moving closer to determining the level of 'cash' and accepting the consequences for American money rates is of considerable interest to the world as a whole.

Other things being equal, the less accommodating the authorities were to the demand for 'cash', the more would money rates fluctuate in response to periodic 'cash' shortage or abundance. But other things need not remain equal; and the traditional fear of undesirable money rate fluctuations would to some extent be met if a wider *non-bank* market in short-term paper were to develop. This could absorb the inevitable fluctuations in demand and supply on the part of the banks themselves as the latter sought to use transactions in such paper to adjust their deposit-cash ratios. An adequate non-bank market exists in the United States, and it may well be that official techniques in Britain have on the whole had the effect of inhibiting such a development here.

A 'cash' ratio system would have the advantage, not only of providing a greater element of predictability as to the likely results of official operations, but also of lightening the emphasis which the present system requires to be placed on sales of *long-term* public sector debt to non-bank investors. Sales of any asset by the central bank would affect the level of bank 'cash', even if the sale were made to the banking system itself. The present emphasis on long-term gilt-edged sales, possesses the merit of dealing in paper sharply differentiated from 'money'; but it also has the disadvantage of operating in that sector of the capital market where interest rate fluctuations are most troublesome (and least relevant to the demand for bank credit itself). One result is that long-term rates may have to be held at a higher level – at some cost to future taxpayers – than would otherwise be necessary.

As against all this, it can be conceded that a move even to a managed 'cash' ratio system would raise important problems of a transitional kind, and transitions are apt to last a long time.

Apart from the question of the exact form which a 'cash' ratio system should take, there would be problems of consistency of treatment between the clearing and non-clearing banks, which at present hold their 'cash' reserves in the form of deposits with the clearing banks, not the Bank of England. Deprived of automatic access to the Bank of England and of cheap money at call from the clearing banks, the discount houses would have to alter their role (just as they have adapted to past changes in the system, such as the development of the inter-bank market). There might also for a time be some uncertainty as to the implications of a tighter system for London's international operations.

For reasons such as these, as well as the traditional preference of the authorities for building on existing practice, it may well be that even a managed 'cash' ratio system would seem too much of a step in the dark. However, it should not be beyond the wit of man to strengthen the reserve asset system, at least as a first step to a 'cash' ratio system. The existing bundle of monetary policy control techniques, containing as it does a regression to undesirable forms of compulsion, to compensate for its weaknesses, needs to be reformed; and the temptation to evade the issue on the grounds that 1980 may bring a slower growth in advances and, therefore, in the money supply, must be resisted.

Finally, the complete abolition of exchange control, by enabling an otherwise unsatisfied demand for advances to be financed by sterling deposits with 'offshore' banks, creates potential loopholes in the corset. By giving UK residents access to overseas investments it also blurs the effect of interest rate policy. Both factors make a change an urgent necessity.

Harold Rose.

Call for urgent reform to monetary control system

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

EXISTING TECHNIQUES of monetary control need urgent reform, according to Professor Harold Rose, group economic adviser of Barclays Bank.

Writing in the latest issue of Barclays Review, Professor Rose discusses whether the present reserve asset ratio system to which banks have to conform should be replaced by a narrower cash ratio or monetary base system, which would be more closely under the control of the Bank of England.

Professor Rose sees a number of advantages in a change. In particular, "a cash ratio system would have the advantage not only of providing a greater element of predictability as to the likely results of official operations, but also of lightening the emphasis which the present system requires to be placed on sales of long-term public sector debt to non-bank investors."

The future structure of monetary controls is now being considered by the Treasury and the Bank of England and a consultative paper is likely to be published shortly. Some Treasury ministers and officials are known to be sympathetic to proposals for some form of monetary base system, though the Bank of England has had reservations about some of the alleged advantages. Similarly, the clearing banks have differing views on the desirability of reform.

In his article, Professor Rose suggests that the reserve asset system might be strengthened as a first step to a cash ratio system.

"The existing bundle of monetary policy control techniques, containing as it does a regression to undesirable forms of compulsion, to compensate for its weaknesses, needs to be reformed; and the temptation to evade the issue on the grounds that 1980 may bring a slower growth in advances and, therefore, in the money supply, must be resisted."

Professor Rose also notes that "the complete abolition of exchange control, by enabling an otherwise unsatisfied demand for advances to be financed by sterling deposits with offshore banks, creates potential loopholes in the corset. By giving UK residents access to overseas investments, it also blurs the effect of interest rate policy."

Hearing on domestic air fares to open today

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

THE CIVIL Aviation Authority today starts three days of public hearings in London into applications by various airlines for rises averaging 10 per cent in domestic air fares.

The applications for the rises were made some time ago, with the aim of introducing them on November 1. But because of pressures on the authority — including the lengthy public hearings into the bids for new routes at ultra-cheap fares from Gatwick to the Continent, which are still in progress — it has not been possible to study the domestic fares plans until now.

Most of the airlines flying internal routes are involved, including British Airways, British Caledonian Airways, British Island Airways (now part of Air UK), Brymon Airways, Dan-Air, and Intra Airways.

Several hundred fare rises are involved, but the most significant increases sought are those from the present £37 single to £41 in the fare on the trunk routes between London (Heathrow) and Edinburgh, Glasgow and Belfast.

The rise sought in the fare between London and Manchester is £2.70, from £25.30 to £28 single.

The authority is expected to make up its mind quickly on the applications, and decisions could be announced in two weeks.

7. POSSIBLE ALTERNATIVES TO THE CORSET

7.1 This brings us to the question whether there are alternatives which would better serve the purpose of the corset, so as to make any such device clearly unnecessary. To the extent that the authorities still believe that the corset may lower the level of interest rates consistent with control of the money supply, it is difficult to find other acceptable options which might have the same putative effect. It is possible to improve the trade-off between the level of interest rates and monetary control by reducing the public sector's appetite for finance, but this raises wider issues than those of monetary policy.

7.2 Currently, however, the stated purpose of the corset is to act as a precautionary device lest the conventional instruments fail to prevent undue monetary expansion. In addition, it may be thought to have a psychological impact on the expectations of financial markets. If market-orientated techniques to control monetary expansion via interest rates have to be supplemented by semi-administrative measures such as the corset, a variety of alternative direct controls can be imagined. But their basic shortcomings would, in essence, be similar to those of the corset; and some might be worse. As we believe that mere technical modifications to administrative controls do not offer a worthwhile solution to the problems which they cause for the banks and for the efficiency of the financial system as a whole, we now consider the possibility of more fundamental changes to the arrangements for monetary control adopted in 1971.

7.3 The problems of money supply control are in many ways more difficult than they were when the the regime of Competition & Credit Control (C.C.C.) was instituted eight years ago. Greater weight is now placed on monetary restraint. Tighter and more continuous control over the money supply is now attempted, within a stated range even temporary breaches of which may produce reactions that are hard to deal with. C.C.C. and its reserve asset system were designed for less rigorous tasks in a period in which inflation rates were lower and less variable and when external shocks, such as those emanating from the actions of the oil cartel, were less frequent.

7.4 The size of the P.S.B.R., as already stated, has come to present difficulties for monetary control, and views as to what levels of interest rates and exchange rates are 'acceptable' have also played their part. However, there remains in addition the technical question of whether the present system of reserve asset requirements provides a sufficiently firm foundation for the weight now placed upon it. A potential source of weakness, at least, lies in the

fact that the present range of reserve assets, which originates in past practices, is to some extent in elastic supply to the banking system, which can bid them away from the non-bank sector if the demand for advances favours this.

Monetary Or Cash Base Control

7.5 The possibility of replacing the existing reserve asset system by other arrangements directed at control over what has become known as the 'monetary base' or the level of bank 'cash' has therefore been advocated in various quarters in recent years. Definitions of the group of assets to be controlled vary, but all such schemes advocate the narrowing of the set of banking assets subject to compulsion to some variant of the liabilities of the central bank itself, as in most other countries. Under a monetary base or cash ratio system the crucial asset for monetary control purposes would be the banks' balances with the Bank of England. The basic argument is that the supply of these to the banks is under the much closer control of the authorities than are existing reserve assets, which are also held outside the banking system.

7.6 Whereas there is a wide measure of agreement among the advocates of such a change on this central point, it ends when it comes to the question of just how a cash-based system should be operated by the authorities. In particular, views differ on such matters as whether the authorities should set very short-term targets for the cash or monetary base, whether the cash base should bear interest and, if so, at what rate, how the targets should be achieved and, perhaps most of all, on how rigid such a system should be in terms of the time allowed to the banks to adjust their deposits to the level of required assets. Indeed the question of rigidity may be as important as that of the assets to be controlled; for it is already open to the authorities to make even the existing reserve asset system a tight one by sufficiently aggressive open market operations, if they were prepared to accept the full consequences for interest rates and the supply of bank finance to the private sector.

7.7 Rigid short-run control of a cash or monetary base would have a number of important implications of which the most obvious is the likelihood of considerably greater variability of short-term rates of interest. The mode of control would imply that the authorities, having determined the appropriate size of the base, would immediately offset any drain or surplus of cash inconsistent with it that might arise from transactions between accounts with the Bank of England and accounts with the commercial banks. Unforeseen fluctuations in their lending by the commercial banks collectively would force the banks into an immediate

adjustment of other assets in their portfolios, perhaps even day-to-day. Alternate short-term liquidations of and additions to their marketable assets would undermine the stability of financial markets, and in the extreme case the financial system itself could be threatened. For the clearing banks any rigid system of liquid asset control would probably make it impossible to operate an overdraft system as at present.

7.8 Because of the instability it would cause in financial markets, a rigid system of short-run cash or monetary base control would probably be impracticable; and it is surely significant that nowhere in the world does such a system operate, even where only the liabilities of the central bank are the control asset.

7.9 This still leaves open the important question of whether a less-than-rigid but new system should be developed, replacing the reserve asset ratio basis by a narrower one that might be more effective than the present arrangements, so making the corset less appealing to the authorities. A cash reserve ratio basis is clearly the most radical variation that needs to be considered.

7.10 The authorities do not see the role of reserve assets as determining mechanically the level of eligible liabilities that can be supported, at least in the short run. Even apart from the fact that banks hold some variable margin of excess reserve assets, the authorities do not regard the level of deposits as being the consequence of the level of reserve assets and the appropriate 'multiplier'. Instead, reserve assets, together with the use of Special Deposits, are seen by the authorities as providing a fulcrum on which control over short-term rates of interest is based; and it is primarily through interest rates that control of the money supply is sought. Although from time to time comment is made concerning a 'shortage' of reserve assets, the system really operates through their 'price'.

7.11 The reserve asset system incorporates calls for Special Deposits as a form of variable reserve asset ratio. If the demand for advances is strong, however, it will pay the banks to bid reserve assets away from the non-bank sector, even though the cost of financing Special Deposits amounts to an increase in the 'tax' imposed on them by reserve asset requirements. It is this possible reaction to the Special Deposit instrument that has been directly responsible for recourse to the corset.

7.12 Apart from the size of the P.S.B.R. and inhibitions concerning high interest rates, one reason why the present system of reserve assets is rarely successful is that under present policies the authorities need to know what complex

pattern of interest rates is required to affect such matters as the demand for advances, the public's choice between bank deposits and gilt-edged securities and the willingness of the banks to bid for reserve assets. The wider the set of reserve assets the more information is needed by the authorities to influence the system; and misleading interest rates signals may even be given to them under the present arrangements, such as a tendency for the yield on reserve assets to fall when the banks are bidding for them.

7.13 The replacement of the present variety of reserve assets by a single cash reserve ratio would reduce the information needed by the authorities. The authorities would not need quite such a wide range of understanding of interest rate effects if they continued to operate the system via interest rates, as there would be less uncertainty as to what pattern of interest rates was needed to keep the supply of cash at a level consistent with the target money supply. Alternatively, the authorities could if they wished move closer to a system in which the supply of cash, at least over a period of months, became the direct instrument of control, leaving interest rates to be determined entirely by its consequences.

7.14 The key factor is that the terms on which the banking system could obtain the crucial asset - a balance with the Bank of England - would be under the close control of the authorities. There would be no significant alternative supply of cash in this form, as balances with the central bank are not held to any significant extent by the non-bank sector. (A possible qualification to this statement exists, depending upon whether till money were included in the cash base; but the general point would still stand.)

7.15 The basic change that would be required, if such a system were introduced, is that the authorities would have to place some degree of constraint on the supply of 'cash' to the banking system in the form of the level of balances with the Bank of England. This would require modifying the long-standing arrangement whereby the banking system, through the discount market, can always and without limit turn eligible paper into a Bank of England balance, though at a price determined by the authorities.

7.16 In other words, although lender-of-last-resort facilities could - and should - always be made available at times of undesirable strain, a cash reserve ratio system would require some further inhibition on the extent to which the banking system could turn eligible assets into cash in normal circumstances.

7.17 In some countries where balances with the central bank are the control asset there are, as in Germany, explicit ceilings on commercial bank borrowing from the central bank.

The requirement in Britain, like that in the United States, need only be that of an informal understanding between the Bank of England and the banks; and it would remain open to the authorities as at present to inject cash into the money market through their purchases of bills - or, indeed, of any asset - if they thought that conditions were too tight.

7.18 A cash reserve ratio system, even though operated along lines similar to that of the present reserve asset system, with interest rates rather than the level of cash as the proximate instrument of control over the money supply, would therefore remove some of the elements of 'slippage' present in the present system.

7.19 The official objection to a cash ratio system in Britain has traditionally been that the removal of support of the money market would make fluctuations in short-term interest rates much more violent. The extent to which this is true would depend on whether the market in short-term paper developed sufficiently to absorb the short-term transactions of the banking system. As in the United States and other countries where a cash ratio system operates without excessive interest rate movements, one would expect a wider and more elastic market in Treasury bills and commercial paper to be created in time. It has also been argued that although a monetary base system will show greater volatility in short-term interest rates from technical causes, it could remove one of the present causes of volatility. We have recently seen large movements in interest rates because of uncertainty, changing expectations and doubt over the effectiveness of monetary control. It by no means follows that the final result of a move to a monetary base system would be greater volatility than at present.

7.20 In any case the authorities could still decide, as at present, how to respond to short-run liquidity pressures; but the effects on the money supply of such decisions should be more predictable than at present. Even if it were the case that day-to-day fluctuations in short-term rates would be rather greater, movements in long-term rates, which are more troublesome, would presumably be smaller if control over the money supply were made more effective. There would certainly be less need for the present weight of official sales in the gilt-edged market.

7.21 Apart from the implications of a cash reserve ratio system for interest rates, there would undoubtedly be other problems to be faced. An appropriate cash ratio would have to be selected; and the inducement on the part of the banks to hold excess reserves, which might be relatively great until sufficient experience of a new system were obtained, would have to be allowed for. To be equitable a common scheme would have to be applied throughout the banking system; and we assume that interest would be paid on required Bank of England balances, possibly at a variable rate.

7.22 If the authorities were to enforce closer control over the supply of cash, the discount houses would face special problems. If automatic provision of cash to the houses was withdrawn those institutions would probably not be able to guarantee to cover the Treasury bill tender. This particular consequence lies at the centre of the published objections to a cash ratio system that have been made by the Bank of England ever since its evidence to the Colwyn Committee of 1927; but it is one that would be unimportant if, as might be hoped, a broader market for Treasury bills could be developed so as to minimise bill rate fluctuations.

7.23 Apart from the possible change in the discount houses' role in the Treasury bill market, the move to a cash ratio system would also, of course, signal the end of the reserve asset status of call money. This would make borrowing by the houses more expensive and could lead to considerable modifications in their operations. Given the nature of our Committee it was not possible to obtain outside views on the extent to which the discount houses would still need protection by the authorities from full market pressures. We would expect the houses to adapt to new circumstances and to develop a new role, free from existing restrictions, in a wider market for short-term paper that, we suggest, might be the consequence of a change in the system. In general we believe that the special privileges - and obligations - of the discount houses should not in themselves be allowed to obstruct reform of the reserve asset system if the case for this were shown to be strong.

7.24 Nevertheless, it is clear that a change as profound as that to a cash ratio basis would raise new problems for the United Kingdom's financial system, and the difficulties of transition might be considerable.

Possible Modifications to the Present Reserve Asset System

7.25 We have outlined a cash ratio system because that is the most frequently mentioned path of possible change, and the most radical one. An alternative and less drastic reform would be to work within the existing reserve asset system but tighten it up. One way of doing this would be to plug three loopholes through which it is possible for the banks collectively to supplement their reserve assets. The first of these, the purchase by banks of commercial bills from non-bank holders, is already limited in that commercial bills can only be included in reserve assets to a maximum of 2 per cent of eligible liabilities; but the maximum could be reduced. The effect, however, would be very small. Secondly, it is possible for the banks to acquire from the discount houses gilt-edged securities with less than a year to maturity, which are reserve assets, and release to the houses gilt-edged securities with 1-5 years to run, which are defined assets for the houses. To remove the banks' incentive for 'swaps' of this kind, the discount houses' defined assets could be restricted to gilt-edged securities of the same short maturity as qualifies them as reserve assets for the banks.

7.26 The third way in which banks collectively can add to their reserve assets is by buying Treasury bills, directly or indirectly , from non-bank holders, who account for a significant proportion of the total issue. This loophole could be closed by replacing the existing issue of Treasury Bills by two classes of similar paper, one of which would be eligible for purchase by banks and discount houses only and would also rank as a reserve asset. The confinement of the first type of Treasury Bill to the banking system would give the authorities closer control over the total of reserve assets available to the banks, while leaving them individually free to choose how many of these they wanted. The second class of bill could also be held by the banking system but would not rank as eligible paper. A narrowing of the definition of call money for reserve asset purposes might also be required.

7.27 It would be possible to apply any or all of these three modifications to the existing system. The third is the most far-reaching, but could probably be achieved fairly simply by redesignating Treasury Bills in issue as 'A' bills or 'B' bills. No new assets would be introduced into the existing reserve asset system; although Treasury Bills of each category would have more limited marketability than the single category now. Nor would any existing reserve assets be displaced; and the twelve and a half per cent minimum reserve asset ratio would remain. This amounts to a less redical change than advocates of a cash or monetary base usually seek, but a piecemeal or step-by-step approach would have the advantage of a greater degree of continuity with the existing system, which came into operation only eight years ago.

7.28 Many of these advantages would also attach to an alternative approach, in which the composition of the present twelve and a half per cent reserve asset ratio of all banks would be more closely defined, with minimum requirements possibly as follows:

6% interest-bearing cash at the Bank of England
6½% other reserve assets (such as those at present)

There are many possible variations of such a hybrid scheme. For example, as is the case with commercial bills at present, certain types of asset might not rank as reserve assets beyond a stipulated limit. The exact composition of the required non-cash reserve assets would depend on the encouragement the authorities might wish to give to particular markets and institutions, such as the discount houses.

7.29 The essence of the system would be the six per cent held in cash at the Bank of England, making it partially a cash-based system. The system would preserve the position of the discount houses. The authorities' control over total reserve assets would be relatively tight, depending on their willingness to make cash available to the banking system so

as to ease or not to ease the banks' ability to satisfy the six per cent ratio. At times rather artificial interest rates might occur on call money, Treasury bills and commercial bills, but this would be the consequence of giving these markets special encouragement. If applied mechanically such a system could cause strong volatility of short-term interest rates at times; but even if the authorities were to smooth the availability of cash in the short term, the system could strengthen their overall control. The impact on the relative profitability of different classes of banks and of operators within the short-term money markets should be relatively slight, bearing in mind that balances with the central bank would carry an appropriate rate of interest.

7.30 Yet another possible alternative to a pure cash reserve ratio would be to require a minimum of 1 per cent to be held in non-interest-bearing balances at the Bank of England and 7 per cent in call money. The willingness of the discount houses to accept call money would have to be inhibited by restrictions on its growth. This system could give the authorities substantial control over the availability of reserve assets, and at least has the merit of preserving for the discount houses a central role in the system. As against this there would be several disadvantages. For example, the scheme would still retain some of the rigidities of the present corset; and other problems would be the degree of artificiality in the control over the discount houses, which would lose some of their present flexibility. There would also be the possibility of creating call money by changing the type of asset held with a discount house, much as under the present system.

7.31 These outlines of possible changes to the present reserve asset system, and the comments made on them, have been set out to give an indication of the kind of changes which could be put into effect to replace the corset, providing the authorities with the possibility of tighter control but preserving as much as possible of the best of the present system. There could also be some inhibition on the banking sector's recourse to the Bank of England for scarce cash as experience of a tighter system was obtained. Any of these amendments should make the authorities more capable of getting the results they seek. This leaves open the question how closely they should define these results and precisely how the system should be operated.

7.32 Whatever system was adopted - and even if the present reserve asset system were merely to be operated more decisively - one general point needs to be made. It is that if the result were to limit the total assets of the banks more tightly, the latter would contine to be penalized if they were prevented from responding in their own interest rate policies. If, as a result of official pressure, a more effective control over bank deposits were to lead only to tighter credit rationing, the consequence would be to distort the system to the banks' disadvantage and artificially to stimulate non-bank intermediation as with the corset itself, to the real cost of the community as a whole.

7.33 With a reform such as we have outlined, the corset should not be needed. Much more detailed consideration is naturally needed of the practical consequences of a possible reform of the system, whether along one of the lines indicated above or not. We recommend that the C.L.C.B. urge the authorities to re-examine the present system, taking into account the analysis and the range of possible changes set out in this Report. We also urge the C.L.C.B. to seek participation in any official discussions on a possible reshaping of the system. The focus of such discussions should be not just the case for removing or modifying the corset, but the techniques of monetary control in general.

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