

5. 7.79

see 6.7.79

Pepper on the Monetary Base

1. Greenwell's have replied in a special bulletin to the QB article on the Monetary Base. This note summarises Pepper's proposals and comments briefly on them.

2. For the first time Pepper has presented his ideas in sufficient detail for a full assessment to be possible. The main proposals are:-

(a) The reserve asset ratio and the corset should be abolished.

(b) In their place all banks should have to observe a minimum ratio of their balances at the Bank to deposits. The requirement should be uniform between banks and between types of deposit. Interest should be paid on balances at the Bank so that domestic banks are not penalised relative to near-banks and off-shore banks. Although the reserve requirements could be the same irrespective of the type of deposit, the rate of interest paid could vary as between reserves held against sight and time deposits.

(c) The Bank should announce a desired rate of growth of the base (ie, bankers' balances) for, say, the next year, and therefore relinquish control over interest rates in the longer term. There should be no attempt at day-to-day, or even perhaps month-to-month, regulation of the base. Pepper therefore implicitly accepts that at least in the short term the authorities should seek to influence interest rates.

(d) Lifeboat operations, when needed, should continue as before, taking precedence over the target for the base.

(e) The authorities should seek to influence all the monetary aggregates, including the monetary base (MO) and a broad aggregate which includes the non-bank private sector's holdings of Treasury bills, so that all the aggregates grow "at rates which are consistent with the desired behaviour of nominal income".

Common ground

3. Pepper seems to accept that no strict form of base control should be adopted and it may be hoped that discussion of monetary control

can now proceed without further reference to such proposals. Both the BEQB and Pepper's paper make a case for defining the base solely in terms of bankers' balances, although the exclusion of vault cash from the definition of the base might - in the absence of restrictions - induce the banks to incur unnecessary transaction costs by frequently returning relatively small quantities of excess vault cash to be credited to their balances at the Bank. Theoretically there is a good case for saying that interest should be paid on banks' balances with the Bank so that domestic banks are not penalised vis-à-vis other institutions, but this, of course, raises a number of important technical and institutional issues, particularly if the size of reserve ratio envisaged was to be significantly larger than at present. However, if banks' vault cash was to be excluded from the definition of the monetary base it is difficult to follow Pepper's argument that there is need to pay differing rates of interest in order to maintain equity between banks with differing types of business. Nevertheless, other problems may arise if the monetary base is defined as only banks' balances at the Bank of England (See Appendix 1).

Points at Issue

4. Many of us would feel sympathy with Pepper's desire to control a number of monetary aggregates so that they grow at rates which are consistent with the desired rate of growth of nominal incomes. However, if monetary targets are to be a central feature of policy, there is a strong case for having a single target aggregate for simplicity and therefore there is the risk that the projected path for the base would be taken by outsiders as that single target. Further - given that the authorities are concerned about the growth of a variety of aggregates - it is for Pepper to show that the link between MO and these aggregates is stronger than the present one from interest rates to these aggregates (which is, of course, for policy purposes supported by direct observation of the movement of such aggregates). (See the footnote to para.5 for a related point.) The case remains to be demonstrated that the alleged 'multiplier' relationship between MO and other monetary aggregates can be used to facilitate improved control over broader aggregates. In order to achieve their reserve requirements under a monetary base régime the banks have to adjust their balance sheets by varying their interest rates. Rather than set an MO target, the interest rate implications of which are uncertain, it may be preferable for the authorities to set interest rates, thereby influencing the rate of growth of the monetary aggregates directly.

5. A further central point of disagreement is over the risk that interest rate movements under a base control scheme would be rendered unacceptably large by the banks practising liability management. If the banks were short of reserve assets, they could respond by bidding for funds (liability management), by selling assets or, if there were a lower reserve requirement on time than on sight deposits, by persuading depositors to switch from current to time accounts. This third option is ruled out by Pepper's assumption of a common reserve requirement and the result would seem to be to increase the risk of liability management⁽¹⁾. Only if short-term assets markets developed to the point where it was less costly for banks to sell, say, Treasury bills than to bid for funds would the danger of liability management be reduced. Pepper believes such markets would develop but this is an act of faith.

6. Furthermore there is no need to adopt a monetary base régime in order to control £M3 by encouraging banks to sell short-term debt to the non-bank private sector. The abolition of the present reserve asset ratio alone would provide sufficient test for the proposition that such a market in Treasury bills would develop. Moreover as Pepper points out (page 2) "if sterling M3 is behaving appropriately but the non-bank private sector's holdings of Treasury bills are growing rapidly to produce an excessive M4, the relative interest rates should be adjusted to persuade holders of Treasury bills to switch into gilts". Thus, he recognises that the control of M4 or any broader monetary aggregate depends in part upon the authorities' ability to sell gilts to the non-bank private sector, a problem which is quite separate from that of influencing the deposit-taking behaviour of financial institutions.

(1) If reserve requirements did differ by type of deposit, this would greatly reduce the strength of any link between the base and broader aggregates. A uniform requirement for all deposits counted in £M3 would mean that, notes and coin apart, a ceiling on the size of £M3 at any time would be set by the size of the base. With differential requirements, a given base could be associated with a wide variety of values for M1 and £M3, depending on how far banks could persuade customers to switch from current to time deposits. Multiple targetry (ie of, say, M1 and £M3) could not therefore be done with any more accuracy under a monetary base system than at present, whether or not there were a common reserve requirement for all types of deposit.

7. Irrespective of whether monetary base control is adopted, the abolition of the reserve asset ratio would have important implications for the discount houses. The loss of reserve asset status for money at call would remove one of the privileges at present enjoyed by the discount houses. Pepper argues that the discount houses would have the chance to become intermediaries in the broader market for short-term government debt; but it is not clear whether the discount houses could continue in their present form in these circumstances. (There is also the problem noted at the end of Appendix 1.)

8. Pepper argues that the banks ought to be able to forecast the behaviour of their own assets, and therefore be able to fulfil their reserve requirements under a monetary base régime without undue trouble. While it may be true that the banks could control their balance sheets in this way, it would require the curtailment of (formal or informal) unused overdraft facilities, which can be used at the discretion of the customer. Pepper appears to underestimate the importance of this function of the banks.

Conclusion

9. Pepper's proposals are significantly less strict than those which have appeared in the more academic literature in the UK and the US. Nevertheless, he still appears to be preoccupied with devising mechanical means to control the deposit-taking behaviour of financial intermediaries (though still taking inadequate account of the problems of liability management), whereas we in the BEQB paper focussed rather on the need to set interest rates so as to achieve desired rates of growth of the monetary aggregates. It may be the case that sales of short-dated government debt to the non-bank private sector might improve the authorities' ability to control some of the monetary aggregates, but such an innovation - if it is possible at all - does not require the adoption of a monetary base régime. Furthermore, even if sterling M3 could be successfully targeted using monetary base control, such control might be largely cosmetic if M4 and other broad measures of liquidity grew excessively instead. Control of these broad measures of liquidity depends primarily upon the authorities' ability to sell gilts rather than upon their capacity to control the deposit-taking behaviour of the banks.

Economic Intelligence Department,
5th July 1979.

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If banks' balances at the Bank of England alone were defined as the monetary base a number of problems might arise. The tendency for the banks to incur unnecessary transaction costs has already been alluded to in paragraph 3. Also, if the reserve ratio were set as low or lower than the $1\frac{1}{2}\%$ currently adhered to by the clearers, small - perhaps unintended - changes in the banks' balances at the Bank of England might require the banks to make large changes to their overall balance sheets. The instability inherent in such a monetary base system could be reduced if the required reserves ratio were raised. If a market-related interest rate were paid on required reserves the deleterious effect of a high reserve requirement on bank profits would be reduced, but the banks' flexibility might still be impaired. Further, the higher the ratio required, the larger the funds accruing to the Bank for reinvestment and the greater the potential implications for the present form of the money markets.

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A MONETARY BASE FOR THE U.K.

A PRACTICAL PROPOSAL

*A supplement to our Special Bulletin of 2nd March
proposing changes to the present monetary system*

We welcome the publication of the special article on "Monetary base control" in the latest Bank of England Quarterly Bulletin.

The authors of the article, M.D.K.W. Foot, C.A.E. Goodhart and A.C. Hotson, start by explaining that the various proponents of monetary base control often have widely differing proposals in mind. Most of their subsequent criticisms are about the more extreme and impractical proposals. What follows is, we believe, a middle-of-road and workable proposal.

The broad features of our proposed scheme are that the present control system of reserve asset ratio supported by the corset should be abolished and, in its place, banks should be required to hold deposits with the Bank of England. A clearing bank should be allowed to hold the deposit on behalf of a non-clearing bank if the latter so wishes.

The monetary base is the name given to the total of these bankers' deposits with the Bank of England. Foot, Goodhart and Hotson appear to argue that an undesirable feature of monetary base control would be that only the authorities could determine the size of the monetary base. For example, banks would not be able to increase their reserves by selling Treasury bills unless the Bank agreed to buy them. It is not clear to us why this might be thought undesirable; it seems a positive advantage for a control mechanism.

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Monetary control

There is general agreement that the money supply should be controlled. If the authorities succeed in doing this, they cannot simultaneously control either interest rates or the level of sterling by direct intervention in the markets. Fluctuations of these in the short term (but not in the longer term) will inevitably be larger than under a regime where the money supply is not controlled. Foot, Goodhart and Hotson point out this disadvantage, but it applies to all methods of controlling the money supply, i.e. whether monetary base control is used or not. In our opinion, however, the short term fluctuations in interest rates will probably be smaller under our proposed system than is the case under the present system, because of the artificialities of the latter.

Firm foundation

Our objective in advocating a monetary base method of control for the U.K. is not to replace the published target for sterling M3 by one for the monetary base (M0). Instead, it is to replace the present quagmire with a firm foundation on which to build monetary policy. With M0 controlled, relative interest rates should be altered and other weapons used (e.g. fiscal policy, bank lending policy, gilt-edged policy) so that retail M1, sterling M3 and the broader definitions of the money supply all grow at rates which are consistent with the desired behaviour of national income in nominal terms. For example, if sterling M3 is behaving appropriately but the non-bank private sector's holdings of Treasury bills are growing rapidly to produce an excessive M4, then relative interest rates should be adjusted to persuade holders of Treasury bills to switch into gilt-edged stock. Both liquidity, in the Radcliffe Committee's sense, and the narrower definitions of the money supply ought to be controlled.

Our aim is to improve the authorities' control over the whole financial system. This is in contrast to the intention of those commentators who are in favour of publishing monetary targets only because it helps to reduce inflationary expectations. Whilst it is certainly desirable to reduce inflationary expectations, it is also essential to secure financial discipline. Further, if a central bank tries to control just one monetary aggregate, that aggregate very often becomes distorted; as Goodhart's Law states, the previous relationships between the aggregate and other variables break down. Paradoxically, the behaviour of the monetary aggregates which the central bank is not trying to control is often a better measure of the underlying stance of monetary policy than the behaviour of the aggregate which it is trying to control. Our focus, therefore, is the control of the whole system and not something which may become cosmetic. We repeat that retail M1, sterling M3 and the broader aggregates should all grow at rates which are consistent with the desired behaviour of national income.

The details of a monetary base system should be chosen so as not to penalise the domestic banking system relative to near-banks and off-shore banks. A horrible example of what can happen is currently occurring in the U.S., where no interest is paid on the reserves which banks who are Members of the System must deposit with Federal Reserve Banks. This prevents Member Banks from competing with near banks, non-Member Banks and off-shore banks when interest rates are very high. Member Banks have started to defend themselves aggressively. The result is a proliferation of money substitutes. The growth of these substitutes is swamping the growth of the money supply as officially defined. Currently, the official monetary indicators in the U.S. are not merely distorted; the monetary barometer is broken.

To stop a similar occurrence in the U.K. the level of reserves which banks should be obliged to place on deposit with the Bank of England ought to be close to the appropriate prudential level, and the Bank ought to pay a commercial rate of interest on most of them. If this were done, the market clearing rate of interest would affect the profit margins of banks, near-banks and off-shore banks equally.

The level of reserves

To prevent banks managing their liabilities to circumvent the control mechanism, there is a strong case for a common reserve ratio for all deposits, whether they are sight or time, large or small. The exclusion of vault cash (till-money) from the official definition of reserves means that sight deposits would in practice need larger reserves; (reserves with the Bank plus vault cash) than time deposits. To secure equity between different types of banks, it would be inappropriate to pay the full commercial rate of interest on reserves backing non-interest bearing deposits. Although the amount of reserves ought to be the same irrespective of the type of deposit, the rate of interest could be different.

Information only

A central bank has up-to-the-minute and accurate information about the behaviour of the monetary base, it does not have to rely on reports from banks. But the central bank should not only use this information when deciding on the appropriate level of interest rates. In certain circumstances it should control the size of the monetary base and allow interest rates to clear at whatever level is necessary. This is one of the main objectives of introducing a monetary base method of control.

U.S. experience

In a speech on 10th May at a seminar organised by the City University, Lawrence K. Roos, President of the Federal Reserve Bank of St. Louis, described the way in which interest rates in the U.S. have not been allowed to alter sufficiently rapidly to control the money supply:

"Let's examine the published history of the behaviour of interest rates and the monetary aggregates in the period since long-term monetary aggregate growth ranges were first announced in 1975. In the 47 months in which short-term policy ranges have been set, the Federal funds interest rate has fallen outside of its target ranges only 5 times; in the same 47 periods, M1 growth has fallen outside of its ranges 23 times essentially 50% of the time.

The monetary aggregates (M1) have tended to exceed their targets during periods of rising Federal funds rates, to fall short of their targets during periods of falling Federal funds rates, while usually remaining within their targets during periods of stable Federal funds rates. For example, from June 1976 to December 1976 Federal funds rate fell from 5.6 percent to 4.5 percent and monetary aggregates fell short of their target ranges 3 out of 7 months. From April 1977 to October 1977, when the Federal funds rate rose from 4.7 percent to 6.5 percent, the monetary aggregates exceeded their targets 5 out of 7 months."

When the money supply is exceeding its target range, a central bank can blame politicians for being reluctant to allow rates of interest to rise sufficiently quickly; neo-Keynesians also frequently argue against such a rise. These excuses cannot be used when the money supply is falling short of its target range, because politicians and neo-Keynesians do not object to interest rates falling. The central bank is then to blame for not altering interest rates sufficiently quickly. The explanation is central bankers' innate caution and hankering after orderly markets. A most important objective in introducing a monetary base method of control is to ensure that the central bank alters interest rates sufficiently quickly to control the money supply.

Practical operation

Short term fluctuations in the money supply have no significance for the real economy. There is no need for day-to-day control of the monetary base.

Suppose for simplicity that the desired growth of M0 is 10% p.a. The banking system would then know that the total of banks' assets could not grow for long faster than 10% p.a. If their assets persisted in growing too quickly, banks would have to act to constrain the excessive growth. There are various possible courses of action. For example, banks might sell assets, e.g. Treasury bills, gilt-edged stock or local authority debt. Alternatively, banks could start to curtail the growth of their lending to the private sector, e.g. overdrafts. A bank knows better than anyone else the behaviour of its own assets. It is also best able to make forecasts about them. Aggregate data are already published monthly and could be published weekly. If bankers understand the monetary base method of control they should not have difficulty in adjusting reasonably smoothly to undesirable trends in the growth of their assets.

As far as discount houses are concerned, they too should be able to react reasonably smoothly if the new system is fully understood. The total of banks' reserves with the Bank of England could be published daily, if necessary. At times when the total is showing a persistent tendency to grow too fast, discount houses would have advance warning that the Bank might give them less "assistance" than they want sometime in the near future. In normal circumstances the Bank would continue to give whatever quantity of assistance the discount market wants, choosing only the method and the price, as it does at present. But if banks' reserves are growing too quickly, the Bank, and not the discount market, would decide on the quantity of assistance. After due warning, the Bank might give slightly less assistance than discount houses want. The houses would have to raise the missing funds by selling assets. They have a proven record of being able to do so. For example, between mid-July and mid-October 1975 the Treasury bill holdings of the non-bank private sector rose by more than £500m., most of which were sold by discount houses to financial institutions and industrial companies. Under the proposed system, the published data for bank reserves would give discount houses plenty of advanced warning of the need to run down their books.

(Under the proposed system, call money which banks place with discount houses would no longer qualify as a reserve asset and, therefore, discount houses would lose their present privileged position. However, the discount market would retain its historic role of buffer between the banks and the Bank of England, with the ebb and flow of funds into and out of the Exchequer passing through it. Further, discount houses would have the job of widening the market in those assets which at present qualify as reserves for banks.)

Penalties

As with the corset at present, penalties could be set out in advance for any bank whose reserve ratio fell below the minimum. The penalties should be trivial for an occasional offence but should be severe for persistent offenders.

Free reserves and precision of control

To protect itself from an unexpected fall in its reserves, each bank would want to keep a cushion of reserves slightly in excess of the minimum. A modest level of free reserves in the banking system would be desirable because it would help banks to react smoothly to day-to-day events which are unexpected. However, fluctuations in the aggregate level of these free reserves would upset the precision of the relationship between M0 and sterling M3. If the money supply were tending to grow excessively, control of M0 would not provide complete control of sterling M3 in the short run whilst free reserves were falling; afterwards the control mechanism would become tight. In the opposite case of monetary growth tending to be too sluggish, sterling M3 would respond slowly* to control of M0 if banks continued to build up free reserves. A measure which would help to stabilise free reserves would be for the Bank not to pay any interest on free reserves, i.e. on any reserves which exceed the mandatory minimum.

* Interest rates would fall more quickly than under the present system and this would help to avoid substantial downward momentum. A clear signal of monetary policy needing help from easier fiscal policy, e.g. tax cuts, would be sterling M3 continuing to grow too sluggishly in spite of adequate growth of M0.

Lifeboats

It is important to distinguish between the Bank's two roles of lender-of-last-resort. The first, giving "assistance" to the discount market, has already been mentioned. The second is lifeboat operations. There is no question of monetary base control preventing the Bank from organising a lifeboat when an individual bank has an asset deficiency or runs out of liquidity because other banks are reluctant to grant it credit. Any lifeboat would certainly have priority in the short run. Whilst one was being launched, the monetary base might exceed its target range. After the banking failure had been contained, the Bank would act to bring the monetary base back under control. (Another circumstance in which the Bank would modify its target for the monetary base would be a substantial exogenous shock to the system.)

The authors of the article in the Bank's Bulletin warn about one feature of monetary base control which could cause difficulties for banks, but only if it were allowed to occur. In the event of a sudden and unexpected reduction in the monetary base, banks would be able to restore their reserve ratios only by reducing their assets and liabilities by a multiple of the initial shortage of reserves. But such sharp reductions in the monetary base would not occur because the Bank would be controlling it.

Conclusion

Our proposed method of monetary base control has been discussed with various bankers and officials of discount houses; many of them appear to be attracted by the clear cut environment which it would provide. There appears to be a general desire to move away from the present system of doubt about whether the Bank will act or not - with bankers being kept on tenterhooks wondering if the Bank will supply a deficiency in the quantity of reserve assets before a banking make-up, discount houses being forced night after night to go to the Bank for huge quantities of assistance, and both having to indulge in transactions which manufacture reserve assets or destroy IBELs. Many people in the banking sector express a strong desire to be rid of the present highly artificial system and to be left to get on with practical banking.

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