10. Monetary Base IV
Part C

Comments on Green Paper

22/10/1980 – 30/10/1980

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HER MAJESTY'S TREASURY

MONETARY CONTROL CONSULTATIONS

PAPER BY THE COMMITTEE OF LONDON CLEARING BANKS

Note by the Secretaries

The attached paper on "Money Market Intervention Techniques' is circulated for information.

H J DAVIES
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22 October 1980

MCC

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3rd October, 1980

Coleby,

MONEY MARKET INTERVENTION TECHNIQUES

You will know that the Governor wrote to Sir Jeremy Morse on June 26, suggesting that the Clearing Banks might prepare a paper on this subject which would develop the various points made in their submission on the Green Paper on Monetary Control.

This has now been done, and I have pleasure in enclosing a paper which expands on paragraphs 12 and 13 of our original submission and sets out in greater detail the Clearing Banks' views on the problems arising under the present arrangements and the scope seen for reform.

Rather than propose a single alternative set of rules, we felt it would be helpful to indicate a range of possibilities. However, we would emphasise our conclusion that unless fairly fundamental changes are made to the present arrangements, we would not expect the problems we have identified to be resolved.

We look forward to the opportunity of discussing our paper with you and your colleagues in the near future.

Yours sincerely,

Leslie Priestley

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Money Market Intervention Techniques:
The Scope for Reform

1. This note describes the technical problems that can arise under the Bank of England's present arrangements for absorbing surpluses and relieving shortages in the sterling money markets, and considers the scope for resolving these problems - notably by extending the Bank's range of intervention techniques.

2. In considering both the problems and the possible solutions, the main criteria employed have been the technical efficiency and stability of the markets themselves and the effective conduct of monetary policy. Judged by these criteria, the clearing banks would regard an ideal system as one in which the Bank acted to neutralise daily surpluses and shortages without either causing short-term rates to depart from the level desired for monetary purposes or requiring excessive holdings of settlement balances and liquid assets by the banks. Although the Bank needs to bear in mind institutional and other factors as well when considering its intervention techniques, the banks hope that these are not given undue weight.

The Problems

3. Most of the problems identified in this note have been in evidence for a considerable time. However, there is little doubt that they have increased in severity in recent months. The periodic need for sale and repurchase arrangements and the erratic movements in market rates on certain make-up days are two obvious symptoms.

4. The present intervention arrangements involve the Bank in routing most of its daily assistance to the banking system via the discount houses up to 2.30 p.m. and refraining from dealing directly with banks. The problems that arise under these arrangements are essentially of two types. In the first place, the arrangements are not conducive to the flow of information that all markets need if they are to operate efficiently. In the second place - and more specifically - the arrangements are defective for handling shortages* which are larger than anticipated or beyond the capacity of the discount market to accommodate. Let us start by considering the informational problems.

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* This note refers to the problems of relieving shortages, but most of the arguments apply at least as much to the absorption of surpluses. However, some particular problems with the absorption of surpluses are discussed where it is appropriate.

5. The present arrangements create particular informational problems both for the Bank of England and for the banks. Because the Bank routes all its assistance to particular institutions at particular times of the day, it needs to know to a high degree of accuracy what the size of each day's flows to or from the banking system will be. The banks for their part need adequate information on which they can not only forecast their own position but also take a view on interest rate movements.

6. When deciding on the appropriate scale of its daily intervention the Bank relies on the following:-

(i) its own information about the likely level of net flows;

(ii) information received from commercial banks;

(iii) the discount market position;

(iv) the Bank of England balances of the clearing banks at the close of business the previous day.

7. The Bank's estimate of the likely flows is communicated to participants in the discount and interbank markets early in the day. It is sometimes revised during the day, but even so it frequently proves inaccurate: some clearing banks find that their own estimates of the day's shortage prove at least as good as the Bank's. It is possible that improved arrangements for exchanging information and views between the Bank and the market as a whole could be to the benefit of all parties.

8. Given that such estimates of the flows can never be completely reliable, the Bank is heavily reliant on the signals it receives from the discount market. Yet the discount market's position is by no means a reliable guide to the overall market position since banks also adjust their books through the interbank market. Thus, the discount market may be long or short but its position may be more than offset by opposite positions in the interbank market. (Such a situation can be created, for example, by those non-clearing banks which do not maintain their reserve asset ratio throughout the month but increase their loans to the discount market for reserve asset purposes only on or over make-up day, so that even if there is an overall market shortage the discount market will be full of funds.) Indeed, in an attempt to avoid misleading the Bank, some clearing banks make a practice of calling the discount market for their full pro rata share of the estimated overall shortage, even if they have no need to do so for the purposes of squaring their own books. They then endeavour to lend the excess money back to the discount market later in the day. This is clearly an absurd situation.

9. If the clearing banks are unable to get this money back into the discount market they will simply finish the day with a higher Bank of England balance, lower loans to the discount market, and hence a higher reserve asset cost on the day. In these circumstances, high Bank of

England balances the next day will not reflect a market surplus, although they may well be interpreted as such by the Bank. Thus the level of the clearers' balances can also be a misleading signal. In any event, the level of balances gives no guide to the banks' reserve asset position: a surplus of cash can mask a shortage of reserve assets.

10. The fact that the Bank's intervention can prove inadequate (or excessive) means that the money markets frequently suffer from periods of uncertainty before 2.30 p.m. and of confusion thereafter. If lenders think that a shortage will not be fully relieved, they will hold back from giving funds in the interbank market. On the other hand, if commercial borrowers think that a shortage will be fully (or more than fully) relieved, they will hold back from taking funds in the market knowing that, if rates are still high at the end of the day, they can always fall back on their overdraft facilities with their clearing banks. There can be equally disruptive effects if it is felt that market surpluses will not be fully mopped up. For all those reasons interbank rates can fluctuate widly throughout the day. These problems would be overcome, and the market could be expected to operate considerably more smoothly, if the banks could count on the correct amount of intervention being forthcoming.

11. Changes in the Bank's intervention techniques could help overcome the Bank's own informational problems in one or other (or both) of two ways. First, by dealing directly with banks it would enhance the quantity of market information it received and should thereby become better able to forecast each day's net flows accurately. Secondly, and more fundamentally, if the Bank adopted a more flexible approach to intervention, it would matter far less if its original estimate proved inaccurate, since it would be better able to take compensatory action during the course of the day. The amount of intervention would not be predetermined by the Bank's estimates of each day's likely net flows, but would be whatever amount was necessary to keep overnight interest rates on their desired course.

12. This leads naturally to a consideration of the more specifically operational problems that can arise under the present arrangements. The characteristics of these problems largely reflect the times of day at which they arise: there are problems that arise before 2.30 p.m.; after 2.30 p.m. but before the close of the town clearing; and (in a somewhat different category) after the close of the town clearing.

13. Sometimes it will be apparent, before 2.30 p.m., that the overall system shortage is larger than the discount market's shortage. In these circumstances, one of the few available expedients is for the Bank to buy additional bills directly from the banks: however, Seccombes often have difficulty in locating the right amount of bills of the right maturities in the right hands. An alternative approach would be for the Bank to provide additional assistance to the discount market, to be passed on to the banks. But this approach is normally impractical since it would involve the houses in exceeding their 20-times multiplier. (In the case of surpluses, the Bank tends not to sell bills to banks via

Seccombes until the discount houses' positions have been squared - a cause of some irritation to the banks.)

14. Further problems are posed by the existence of the minimum reserve assets ratio (RAR), since when restoring the missing cash to the system through the discount market, the Bank does not thereby relieve a shortage of reserve assets. Abolition of the RAR will help, but problems would persist if banks remained subject to an unduly inflexible primary liquidity requirement - a point developed in the latter part of this note. Moreover, even if all 4 billion of the banks' call money was theoretically available to meet large outflows, the results of frequent and heavy calls might prove painful to the houses. (This touches on the more general subject of shortages which are too large for the discount market to accommodate. Whatever system of normal intervention is adopted, the need to deal with abnormal circumstances will always be at least a potential problem. Some of the considerations which the banks feel should be borne in mind here are listed at the end of this note, in paragraph 31.)

15. All the operational problems considered in the preceding two paragraphs may be expected to identify themselves before 2.30. Sometimes, however, the scale of official intervention proves to have been inadequate shortly afterwards. The problem here is the lack of any straightforward means of making good such a shortage. Because individual banks and discount houses will do all they can to square their own books before the town clearing cut-off, overnight rates can move wildly after 2.30 p.m. One effect of sharp movements in overnight rates is to encourage commercial borrowers to increase their clearing bank overdrafts. When this occurs after 2.30 it has the effect of placing the entire responsibility for resolving the unrelieved shortage on the clearers' shoulders. Similarly, if an unexpected surplus materialises and overnight rates fall sharply, commercial borrowers will not increase their overdrafts as expected. In such cases clearing banks which have raised deposits at high rates earlier in the day will find themselves laying the money off at a loss.

16. There remains the question of how to accommodate shortages which come to light only in the town clearing itself. At present the result of such shortages is that the clearing banks fail to reach their target Bank of England balances. More flexible arrangements for dealing with such shortages after they came to light would permit a reduction in the banks' target balances needed for settlement purposes, and should be seriously considered.

17. Operational problems have been considered so far mainly in terms of their direct effect on market efficiency. However, they also have wider policy implications, notably for the conduct of monetary policy. If the Bank is to exercise effective monetary control, it must be able to predict accurately the effect of its intervention on the interest rate structure and thence on the monetary aggregates. The present arrangements cause divergencies in interest rates between the discount and parallel markets which can seriously impede the transmission of the

authorities' interest rate policy to the wider market. The problem is currently exacerbated by the RAR, which undoubtedly leads to yield distortions -- notably as between treasury bill rate and other market rates. Once again, the problem will only be eased if the RAR is replaced by a sufficiently flexible liquidity requirement.

18. Yet even if the Bank adopted an extremely flexible approach to liquidity, interest rate divergencies are almost bound to arise as long as intervention is concentrated on a single category of assets, the supply of which cannot adjust with sufficient speed to the demand. Divergencies are particularly likely to arise as long as the Bank uses its intervention in the bill market not only to relieve shortages but also to influence term interest rates. There are those who would argue that it should concentrate on influencing day-to-day rates, leaving other rates to market expectations. But if it does wish to influence the term structure of rate directly, it would surely benefit from the ability to intervene in a wider range of markets and instruments than it allows itself to at present. The Bank's lack of direct control over short-term interbank rates could be a particular weakness in the event of a foreign exchange crisis, since the abolition of exchange controls has greatly weakened its ability to influence the exchange rates by intervening in the eurosterling market: any such intervention would now tend to be neutralised by arbitrage between the offshore and domestic interbank markets.

19. Finally, by restricting its direct intervention to the discount market, the Bank may be limiting the amount of market information which it receives about the circumstances of individual banks. If it were dealing directly and regularly on the interbank market, it might obtain valuable indications of developing problems, to supplement the information it receives by more formal supervisory processes.

Possible Solutions

20. It will be clear from the preceding section that the banks believe that most of the problems they have identified are capable of resolution by a combination of two approaches. One is the avoidance of an unduly inflexible liquidity requirement once the RAR is abolished. The other is a willingness by the Bank to extend its range of market intervention techniques. The remainder of this note considers these two approaches in turn. First, however, a general point should be made which is relevant to each of them.

21. In each case, there is a wide spectrum of possible reforms, ranging from the minor to the radical. The banks strongly believe that the further the Bank is willing to move along the spectrum, the more likely it will be to resolve the problems that have been identified. However, as mentioned at the start of this note, the banks are well aware that the Bank needs to bear in mind institutional and other considerations as well. It is not for the banks to attempt to resolve the policy conflicts that may arise, and it is for that reason that no attempt has been made to recommend a specific set of reforms.

22. This note has identified two problems which arise because of the banks' need to observe the RAR: on the one hand, unintended reserve asset shortages can be created; on the other hand, divergencies can arise between reserve asset rates and other short-term rates. The more the Bank seeks to apply a rigid primary liquidity requirement, the less likelihood there is that these problems will disappear with the abolition of the RAR.

23. The basic question of whether the Bank should seek to apply liquidity 'norms' in general, and primary liquidity requirements in particular, is not a matter for this paper. What is relevant, though, is the degree of flexibility with which any 'norms' would be applied. At one extreme, the banks might be expected to adhere to their norm in all but exceptional circumstances. If the supply of primary assets were not much greater than the demand enforced by such a requirement, the situation would be barely more satisfactory than at present. Greater flexibility would be imparted if the banks were able to maintain their norm on average over a period of time. But this could involve a requirement - which would be entirely unreasonable in the context of prudential control -- that a bank hold excess liquidity at the end of a period to compensate for inadequate holdings earlier on. Moreover, the more rigidly such an averaged requirement were applied the more problems would arise at the end of the averaging period.

24. As a general rule, unless there is enough flexibility to give individual banks a measure of discretion over their holdings of primary assets interest rate divergencies between primary and other assets will continue, and so will the problems for monetary policy considered in paragraphs 17 and 18.

25. It should be stressed that the connection between liquidity and intervention is a two-way one. Not only does the nature of the liquidity requirement influence the effectiveness of different forms of intervention; more fundamentally, the forms of intervention are a major determinant of the banks' functional requirement to hold liquidity in the first place. As a general rule, the more flexible the Bank's approach to intervention is, the less will be the banks' functional need to hold the assets in which the Bank currently intervenes. As stated at the outset of this note, the banks regard an essential attribute of a sound intervention system as one that does not require excessive holdings of settlement balances and liquid assets on their part.

26. Having considered the benefits that should result from replacing the RAR with a sufficiently flexible liquidity requirement, we can now turn to consider the scope for operational reforms in the Bank's intervention techniques. There are five main options which the banks would like to see considered. Starting with the least radical, they are as follows:

(i) Direct assistance by the Bank to the banks between 12.00 and 2.30 if it is apparent that conventional assistance (i.e. via the discount market or through the purchase of bills from banks) will prove inadequate.

(ii) Readier direct assistance in the period after 2.30 (but before the town clearing cut-off) to help banks square their books and meet their target balances.

(iii) Assistance after the settlement of the town clearing if it then transpires that the net shortage has exceeded expectations.

(iv) Assistance early in the day to help relieve part of the anticipated shortage directly (even if the problem referred to in (i) does not apply).

(v) Active participation by the Bank on the interbank market and other money markets throughout the day.

The term 'assistance' subsumes both lending to banks and the purchase of assets from banks. Each of the above options could be further subdivided to reflect such factors as the frequency with which the Bank would be prepared to employ them, the terms (penal or otherwise) that it would seek to impose and the banks with which it would be prepared to deal. The less frequently it was prepared to intervene, the more penal its terms and the more limited its range of counterparties, the less likely it would be to resolve the problems identified in this note.

27. Option (i) would help to deal with shortages for which the only currently available expedient is the purchase of bills from banks by Seccombes: as explained in paragraph 13, this arrangement does not always work satisfactorily. Option (ii) would deal with shortages which come to light only after 2.30; as such, it could have a quite fundamental effect on market conditions. Since the market would be confident that any such shortages would be satisfactorily accommodated, the result should be not only an end to erratic movements in rates in the period after 2.30 but also greater stability beforehand. Option (iii) would have the rather different benefit of permitting a significant reduction in the level of settlement balances held at the Bank by the clearing banks and would ensure that there were no costs to the banking system arising from the Bank's inability to forecast daily flows accurately. This is a subject which could perhaps be pursued in detail after publication of the Bank's proposals for a cash ratio.

28. However, none of these options would fully overcome the problems created by the existence of the interbank and discount markets operating side by side, such as rate divergencies. Only options (iv) and (v) would strike directly at these problems. Under (iv) the Bank would aim to relieve some, most or all of the day's anticipated shortage by lending directly to banks. Option (v) would go a stage further, implying an open-ended willingness on the Bank's part to engage in transactions with banks on the inter-bank market through the day, in pursuit of its objective of orderly markets and control over short-term rates. The Bank could confine its role to responding to bids and offers from the market; or it could take the initiative itself (in which case it might wish to employ brokers).

29. A precedent for such an approach exists in the foreign exchange market, where the Bank has dealt directly with banks for years. Of course, the two markets are different in several important respects - notably in the need to impose individual bank dealing limits when operating in the interbank market. But the Bank's mode of operations on the foreign exchange market could at least provide a possible model for its participation on the interbank market. (Furthermore, now that the abolition of exchange control has effectively linked the two markets, it is somewhat anomalous that the Bank chooses to deal continuously in the one but not the other.)

30. It is impossible to discuss in detail how such a system might operate without specifying all the rules of the game. Among the questions that would arise are:

what limits the Bank would set on its dealings with individual banks, and whether it would seek security;

how far it would deal with banks directly rather than via brokers - and in either case what sort of dealing department it would need;

how far it should deal overnight and how far for other maturities;

how far it could or should seek to impose its views on the term structure of interest rates;

what the relationship would be between the interbank and treasury bill markets;

what role there would be in such a system for the discount houses.

31. Having considered briefly the five main options for reform in intervention techniques, it only remains to consider the problem of how to resolve exceptionally large shortages. Whatever reforms were introduced, there would still need to be a general understanding of how funds might be provided to the banking system under abnormal circumstances, even though (by definition) no precise rules could be laid down in advance. In such abnormal circumstances, the banks would hope that three criteria could be borne in mind. First any arrangements should be capable of speedy and flexible implementation, so as to prevent disruptive market conditions from developing. Secondly, the arrangements should not have burdensome conditions attached to them. Thirdly, the assets that the Bank was prepared to finance in exceptional circumstances should be assets that the banks would tend to hold in adequate quantities in the normal course of business: in other words the banks should not be forced to distort their portfolios in order to hold enough assets of a kind likely to be acceptable to the Bank. However, the banks would hope that the need for exceptional arrangements would be greatly reduced if the Bank's range of normal

intervention techniques were adequately extended. It would also help if the authorities paid more attention to smoothing day to day revenue and expenditure over the financial year. This would reduce market shortages experienced, for example, in the corporation tax period.

September 1980

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HER MAJESTY'S TREASURY

MONETARY CONTROL CONSULTATIONS

PAPER BY BUITER and MILLER: The scope for monetary control in an "open" economy with competitive banks and no exchange control.

The attached paper is circulated to the Committee for information.

Would copy recipients please note the change of Secretary at the Bank of England.

H J DAVIES
W A ALLEN

The scope for monetary control in an "open" economy with competitive banks and no exchange control

by Willem Buiter and Marcus Miller

Introduction: the current debate

Milton Friedman has of course been highly critical of the techniques actually used to control the broadly defined money supply in the U.K. and of the competence with which these techniques have been applied. He devoted more than a quarter of his response to the Questionnaire to what he calls Monetary Tactics (see paras 10-20) and he made a definite recommendation that Monetary Base Control be adopted as a means of controlling the money supply. In paras 16 and 17 he wrote :

> It would be highly desirable to replace (the present) multiple reserve system by one in which only a single asset - liabilities of the Bank of England in the form of notes or deposits (i.e. base money) satisfies the reserve requirements. This is probably the most important single change in current institutional arrangements that is required to permit more effective control of the money supply ... Control of the monetary base should be exercised through open market operations primarily in short term debt. ... the Bank should decide in advance each week how much to buy or sell, not the price at which it will buy or sell. It should permit interest rates to be determined entirely by the market."

This passage carries the implication that, by a straightforward technical adjustment and correspondingly revised operating procedures, the money supply could be more easily controlled; and, by implication, the embarassments of recent months avoided. Friedman severely criticizes Treasury and Bank officials for looking at the factors affecting the _demand_ for money in their own Green Paper on this topic, and not paying sufficient attention to the details governing the definition and conditions of _supply_ of reserve assets. (An analogy he has suggested on another occasion is that of controlling the output of cars from the domestic car industry; there he suggests that a direct way of doing

this is to control the supply of steel made available to the car industry. For banks, the required input-after appropriate institutional change-would be reserves of base money; and this is what should be controlled.) We examine the prospects for monetary control in the UK and Professor Friedman's proposal in particular.

1. Theoretical Analysis

The demand for money

Despite Friedman's strictures to the contrary, we start by looking at the nature of the _demand_ for money, and for bank deposits in particular. This is perfectly legitimate because at the end of the day the deposits etc. which constitute the money supply must be willingly held (demanded) by those whose assets they are. Thus, to pursue the industrial analogy mention above, it would seem essential to look at the conditions governing the demand for British motor cars when considering the merits of a policy of restricting the supply of steel to the U.K. car producers.

If there are close imported substitutes for British cars available on the market, the restriction of steel will no doubt restrict sales of British cars, but not sales of cars in Britain! Will there be a large expansion of foreign substitutes, and if so should the rise in imports be allowed, or should it be stopped and if so, how (given that one cannot restrict the supply of steel to Japanese producers)? These are questions that one would expect a Department of Industry and Trade to consider in such circumstances, and the analogous questions must be faced by the Bank of England.

We take it for granted that the demand for money balances broadly defined will depend on the domestic price level and on the level of domestic real income or output, but we shall for the present assume these are given in the short-run.

Friedman is critical of the notion that one can control the level of money holdings in the U.K. by raising the rate of interest in this way, and he is obviously correct. To see why, however, one need not look at the details of bank's reserves, but rather to consider what competition between banks will imply for the deposit interest rates paid <u>on</u> money when bank rates and lending rates in general rise. Competitive pressure forces banks, who can lend money at a higher rate of interest, to pass the benefits on to depositors in the form of higher deposit rates - banks who do not do this are losing business to those who do. If all banks tend to move deposit rates in line with the general level of lending rates, then of course a rise in interest rates will <u>not</u> significantly increase the "cost" of holding money, and so will <u>not</u> induce much reduction in the public's willingness to hold money on deposit with such competitive banks. Thus the effect of competition between banks produces a response which offsets the downward pressure that high interest rates might at first be expected to exert on the volume of bank liabilities.

The same point is put in a different form by those who argue that, for a large part of banks' liabilities, it is interest <u>differentials</u> (between deposit rates and bond rates) that affect public demand, rather than the general <u>level</u> of interest rates, and that these differentials will be relatively insensitive to the level of interest rates if there is effective bank competition.

ney Base
ntrol

This discussion of the way interest rates affect the demand for money leads naturally to an examination of how proposals to restrict the money supply must work.

Let us look, first and foremost, at the proposal made by Friedman and several other witnesses, to restrict the total supply of base money (i.e. liabilities of the Bank of England in the form of notes or deposits, which we will refer to as "cash" for short) available to the (private) banking and non-bank sector, and do so with the aid of the industrial analogy Friedman uses, which was to restrict the total supply of steel to the car industry so as to restrict domestic car production.

The Steel Analogy

If such a move were legally and administratively feasible (multinationals would have to be stopped from shipping in the steel components from overseas plants,etc.), there would doubtless be an effect on car production as promised. Even though this pla were to work, however, a moment's reflection reveals that the analogy is not correctly drawn and its implications for the efficiency of Monetary Base Control are misleading. For the analog talks of the control of steel to the car industry but Money Base control does not restrict the cash available as reserves to the banking sector; it restricts cash available to the private sector as a whole. Thus the correct industrial analogue would be that of trying to control car production by controlling the supply of steel to all British industry.

One only has to consider this, more correctly drawn, analogy to realise that there are many possibilities of slippage. With a global restriction on supply, the price of steel will rise and th will encourage substitution away from steel in all industries. The effect of say a 5% reduction in steel supplies will, as far as the car industry is concerned, simply appear to be a rise in t price of steel, and it will get all it wants at this higher price by bidding steel away from other users. Domestically produced car prices will have to rise to reflect the higher cost of steel input, and the effects on production will come from whatever effe this price increase has on car sales.

Controlling the Base

What does this (corrected) analogy imply for the effects of Monetary Base Control when the government tries to restrict the output of the banking industry by a global restriction on the supply of "cash"? The answer is that there will be a rise in th "cost"of cash and that bankers will (after economising on their own uses of cash) proceed to bid for what cash they may need from the non-bank private sector. The "cost" of non-interest bearing cash is simply measured by the interest rates (explicit or implicit) paid on non-cash assets (e.g. the explicit interest on bills, bonds and deposit accounts or the implicit interest on current accounts); so, as Friedman said in his evidence, interes rates will have to rise. This rise in "cost"of reserves is like the rise in the price of steel, and its function is the same, to allocate the scarce supply among potential users so that thos who are not willing to pay the extra cost release supplies to others who will.

But how will this reduce the money supply? The answer has to be "by so raising the costs of banking in Britain that people will switch to other forms of financial intermediat When the cost of reserve holding goes up, then the costs of banking will go up (because the costs of keeping loanable funds "idle" are higher). But the "cash content" of an English sterl deposit is very small. Thus the Clearing Bankers at present hol less than 5p as a cash reserve against each pound deposited wi them. So the costs of reserve holding will have to rise by a g deal in order to have any significant effect on the average cos of banking in Britain. If only 1/20th of a £ deposit goes into cash, then a rise in interest rates by 10 percentage points wou be necessary to widen the spread between deposit rates and loan

[illegible] half a point [illegible] British cars were cut twenty percent then the price of steel would similarly have to vary by 10 times any variation in the price of cars thought necessary to reduce car production).

nclusion

Careful analysis of Money Base Control leads to the conclusion that, as it is not a direct control on the volume of banks' reserves, it has to work by rationing cash between banks and non-banks via higher interest rates. But the fluctuation of interest rates which will be necessary to significantly affect the costs of banking in Britain and so (and thus the demand for deposits in Britain), would be very great. This is illustrate in the Figure attached at the end of this Note.

2. Developments in UK banking

a) petition d Credit ntrol' 71

In launching its monetary reforms with the title of Competition and Credit Control in 1971 the Bank of England (under Sir Leslie O'Brien) was implying that it could somehow square this particular circle, that it could achieve control while encouraging competitio The result, however, was a monetary explosion, which was only brought to a halt by the imposition of the "corset" an innovation that took place soon after the present Governor assumed responsibility.

e Corset

The corset works by imposing a <u>successively</u> <u>greater</u> mandatory cash reserve requirement on new deposits the further any bank proceeds into the "penalty zone". At it highest the reserve requirement does in fact reach 50% so that there has to be a very wide differential between deposit and loan rates if banks are to break-even on new business. (Allowing for the typical distributior of assets held by a commercial bank it has in fact been calculated that when deposit rates are 16%, the break even loan rate might need to go as high as 42½%, see Greenwell's circular No.19, December 1973).

No one denies that the corset works, it works indeed rather like a very high mandatory cash requirement; but it was removed because it checked the expansion of efficient banks within the banking sector, and because it hindered domestic banks from compeing with other non-banks and overseas banks. If the corset is abolished to be replaced by a low cash requirement then one will have restored competition, but will have to face the consequence that interest rate variations will not significantly affect the "cost" of holding domestic deposits and so will not be much help in achieving monetary control.

odhart's Law"

From what has been argued so far it would appear that, given the will to control the money supply, the way would be easy, namely to increase the size of the mandatory non-interest-bearing reserve requirement enough to make resident banks unable to compete agains their own non-bank and overseas rivals. But this conclusion is to facile, for financial intermediation is a flexible, fast-moving business ("money is fungible" as the Americans put it) so one must expect profit-seeking financial intermediaries to emerge <u>outside</u> the bank sector strictly defined which will supply good substitute for the bank activities that are being restricted by the reserve requirements. So prevalent is such behaviour that it has been described by a "law" (called Goodhart's Law, after Charles Goodhart of the Bank of England). This law asserts that when the authorities attempt to control any monetary total (by reserve requirements say) then the activities of the financial system in

creating substitutes will so effect (reduce) the demand for it, that its behaviour will cease accurately to reflect the course of banking business. So those monetary aggregates being controlled have a tendency to become "meaningless" (as the real business of banking moves elsewhere)!

Precisely such objections were raised against the "corset"; that certainly helped to check the growth of measured £M3 but only at the cost of rendering £M3 a bad monetary indicator. This same po is sometimes expressed by saying that devices such as the corset work to control banks but result in "disintermediation". This li of discussion leads to the fundamental question of how money shou be appropriately defined in the first place, and leads one to wonder how stable the demand for money, however defined, is likel to be, if it is as easy to create substitutes as Goodhart's law implies.

(b) Ending of Exchange Control

One only has to consider the consequences of ending exchange control to see how pressing these questions have become. When exchange control ended it became legal to hold deposits in financial centres other than London (Zurich, Paris etc.) in banks which are not subject to domestic controls. Hence restrictive controls operating on domestic banks must be expected to drive deposits (and so lending business) to these overseas banks. But deposits held there (especially at branches of U.K. banks) are doubtless very good substitutes for £M3 and there is no proper measurement made of such overseas holdings; so the relevant aggr of £M3 plus overseas deposits is unknown, and the £M3 component will become an increasingly doubtful monetary indicator. In thi content Goodhart's law warns one that £M3 would become a progressively more meaningles if it were to be controlled by devices which hobbled resident banks to the benefit of their non-resident competitors. And certainly now the corset has ende there has occurred a significant amount of "reintermediation", a much of it appears to have come from overseas (which would expla the recent sharp increase in PSL1 and PSL2 described in Professo Rose's report of 24 September). It is moreover, the absence of these funds overseas that may have rendered the £M3 figures misleading over the preceding year or so.

We thus conclude that the demand for money should in the current UK context be thought of as depending much more on the differentials between lending and deposit rates and (since the ending of exchange control) between (sterling) deposit rates here and those overseas rather than on the level of the

rate. What does the combination of competition in banking and the ending of exchange control imply therefore about attempts to control the monetary aggregates? The answer is that it is relatively easy to control any particular aggregate like £M3, bu it may not be very meaningful to do so if the same financial intermediation takes place via Zurich, or wherever. It is easy because the existence of close substitutes means that regulati which raise the costs of financial intermediation drive such business into other channels or offshore - as the example of the Euro $ market has testified.

3. Problem for present policy

resent policy dilemma

What if one wishes to control the money supply <u>without</u> reducing the ability of British-based banks to compete -if one wants competition along with monetary control? This is presumably the problem facing current policy makers. We have examined Friedman's "solution" and found that it does not have much effect on the costs of banking "on shore". So it appeared to be ineffective as a device for control unless [illegible] to rise alarmingly. That conclusion was, however, conditional on an assumption which we must reconsider, namely that prices and output are fixed. If the pound is floating and high domestic interest rates raise the external value of the currency, then it is highly likely that both prices and output will vary, so the demand for money will be affected for those reasons.

nter- tional metarism

If we were to assume, as do the so-called International Monetarists, that the price level will fall very quickly to offset any upward movement in the exchange rate then of course interest rates will not need to rise much to ration the demand for money (or reserve assets) since the demand for money will fall automatically in line with the price level.

This would be a nice outcome; and there were several economists who predicted that tight money would work in this way in Britain under floating exchange rates. But their numbers are dwindling as the sterling exchange rate soars and inflation falls slowly (leaving £ 30% to 40% overvalued).

netary ntraction a world floating tes but icky ices.

One has to consider what the effects of trying to control money will be when prices are <u>not</u> flexible. With internationally mobile capital it is difficult to see how interest rates can be raised high enough to control money unless the market expects £ to fall soon (so the high interest rates will be offset by a forward discount on the currency). But if the pound is overvalued this will tend to both cut prices (to some extent) and also to reduce income (as exports fall off and imports expand). If prices are "sticky", therefore, one can see how efforts to control money will tend to work: via high interest rates, an overvalued exchange rate, with some effect on prices but a major effect on real incomes and output.

The description just offered seems to correspond more closely to what we observe than the International Monetarist account. What it brings out is the way in which the authorities who try to control money without "hurting" the banking industry will tend, in a world of floating rates and mobile financial capital to control money by damaging non-banking (largely manufacturing) industry. In order to control money while preserving the international competitiveness of banks, one ends up reducing the competitiveness of manufacturing industry.

4. Conclusion and Policy options

Friedman's proposals and evidence appear to take inadequate cognisance of the effects of interbank competition or of the degree to which the British banking system is now free to move offshore. Monetary base control, if applied with a high non-interest bearing reserve ratio, is capable of restricting domestic money (rather like the "corset" did) but in present circumstances this would be symbolic. If the reserve requirement is low (or reserves bear interest) then the consequent need for high interest rates to achieve monetary control will also lead to overvaluation and a cutback of manufacturing industry as the "transmission process".

Tactics

In present circumstance, where the overvaluation is already present and output and inflation are falling faster than many had expected, one obvious tactic is to avoid further efforts to cut the money supply (essentially by 'rebasing' the money suppl figures to allow for the summer's reintermediation). Apart from that, the options appear to be

Strategy

either to continue to pursue the (rebased) monetary targets while

(1) not effectively limiting the ability of banks to compete; with whatever consequences for the exchange rate may be necessary.

(2) Restricting British banking significantly (by tough control corset, high reserve rations etc) to reduce £M3 but allowin substitution "off-shore".

(3) Restricting British banking significantly, but preventing substitution by reimposing some sort of exchange controls.

or alternatively

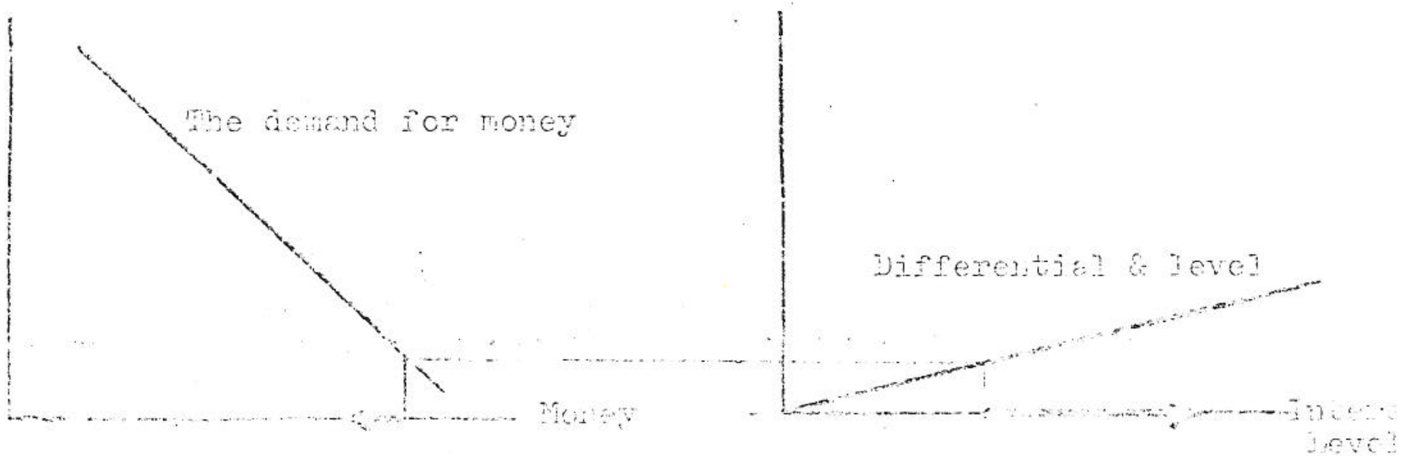
(4) The stated monetary targets can be progressively eased as necessary to avoid overvaluation.

Thus the policy dilemma faced by the authorities involve a choosing between (a) competition in banking (b) competitiveness in manufacturing and (c) credibility in controlling the money s

(An interesting historical parallel is provided by the return to gold when Montague Norman recommended the restoration of Britain financial position by a policy of high interest rates and a high exchange rate: Churchill went along with this but wrote, in a letter to O. Neimeyer, "I would rather see Finance less proud a Industry more content.")

22nd October 1980

Figure: Competition, Monetary Control and the Volatility of Interest Rates



A small reduction in the money stock ... requires a large rise in the level of interest rates

Explanation

The left hand panel shows how the desire to hold money (in the form of bank deposits) falls as the interest differential (between lending rate and the rate on bank deposits) rises. The right hand panel shows how under competitive banking small movements in the interest differential are associated with large movements in the level of lending rates.

To reduce the money supply (shown by the arrow in the left hand panel) may not require a large rise in the differential but will require a much bigger rise in the level of interest rates, as shown in the right hand panel by the large arrow).

London Discount Market Association

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Hon. Sec.
P. L. Shepherd

30th October, 1980

The Rt. Honourable Gordon Richardson M.B.E.,
Governor,
Bank of England,
Threadneedle Street,
LONDON EC2R 8AH

Copies to The Deputy Governor
Mr Fforde
Mr Dow
Mr Page
Mr Loehnis
Mr Coleby
Mr Cooke
Mr Flemming
Mr George
Mr Goodhart
Mr Walker

Dear Mr. Governor,

The Members of the London Discount Market Association have written the enclosed papers in response to your invitation to submit contributions to the discussion on monetary control. The papers are as diverse as are the companies in the Association. However, three themes recur:

1. That the present system is being condemned without a fair trial.

2. That major structural changes in the banking system, at the present time, may lead to a break down in the credit markets.

3. That the discount houses play an important role as intermediaries between the Bank of England and the banks and that any reduction in that role will lead to an imbalance between different types of banks to the detriment of the City of London as an international financial centre.

The Members of the Association will be pleased to have an opportunity to develop their ideas with officials of the Bank.

Yours sincerely,

Richard [illegible]

Chairman.