RESISTING A RISE IN INTEREST RATES

Introduction

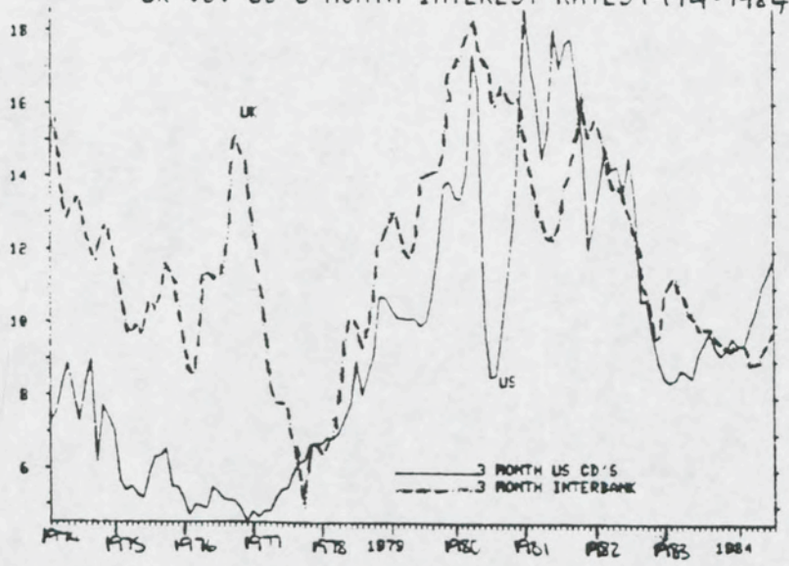
The scope for official influence over the level of short term interest rates was discussed in some detail in a series of papers by Andrew Turnbull just over a year ago (influencing interest rates, January 1983, and Monetary Control Revisited, April 1983). He concluded that present control arrangements were at their most effective in exerting upward pressure on short term interest rates, ie. initiating a rise, or moderating market pressures for a fall. Putting downward pressure on rates is more difficult, whether the authorities want to initiate a fall or resist an upward move. Holding rates down in the face of strong upward pressure was identified as the most difficult operation of all. The January paper argued that techniques for operating in the money markets are less important than whether the authorities' actions succeed in shifting market expectations. It pointed to the danger that massive open market operations, to hold rates down by making the system more liquid, may not only fail, but may adversely affect expectations.

2. This asymmetry in the authorities' ability to influence short term interest rates was foreshadowed in the Bank's paper on the new arrangements, prepared for the Prime Minister's seminar in July 1981. This said:

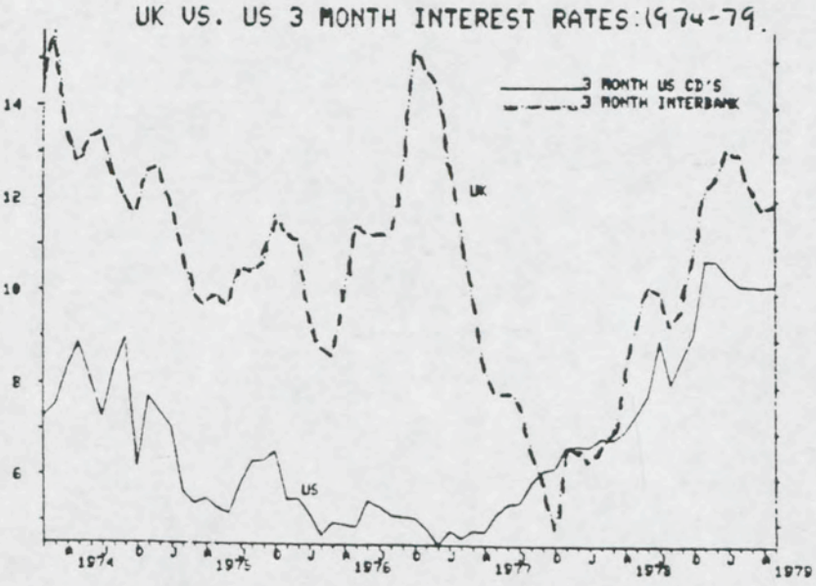
> "In general, the Bank feel more confident about their ability to achieve an upward movement through money market operations than they do about leading the market downwards."

3. This paper tests these propositions in the light of the experience of the past 2 weeks. It analyses the nature of the problems that arose and considers how we might have set about holding base rates at 10 per cent, and the possible consequences of such an attempt. The concluding sections offer some general thoughts on the implications for our approach to monetary policy, and monetary

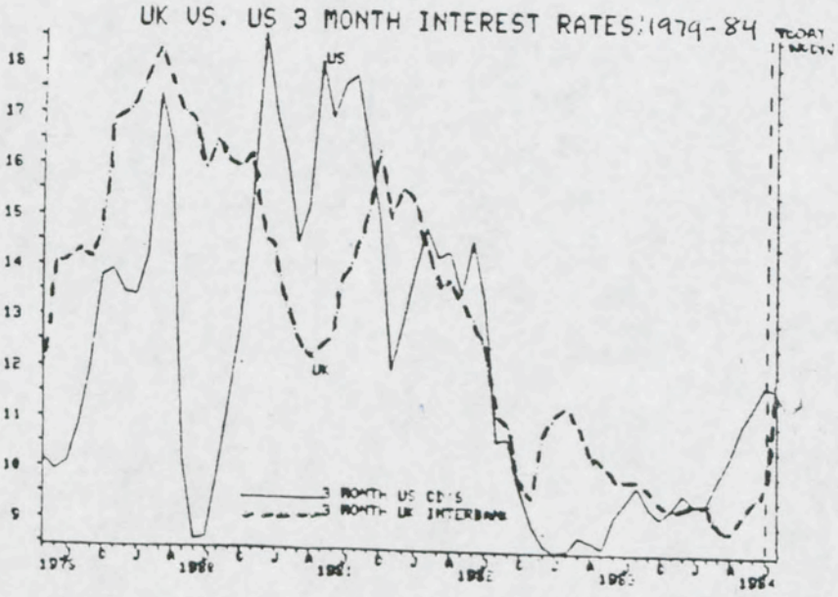
UK VS. US 3 MONTH INTEREST RATES 1974-1984



UK VS. US 3 MONTH INTEREST RATES: 1974-79.



UK VS. US 3 MONTH INTEREST RATES: 1979-84



control in particular. The Annex sets out technical aspects of our present system of control and compares them with MBC, and the pre-1981 arrangements.

Market Developments

4. The longer term background to the pressure on market rates that developed at the beginning of July included:-

(i) a generally satisfactory performance of the UK real economy, and actual and prospective inflation;

(ii) a very unsettled situation in the US, with worries about the US banking system and international debt problems alternating with concern about the strength of the US recovery and credit demand, against the background of the forthcoming Presidential election;

(iii) the opening up of a significant differential between £ and $ interest rates during the first half of the year, as US rates moved up. Rates in other major countries remained fairly steady. In January £ rates were ¼-½ per cent below eurodollar rates, and on a par with the weighted world basket; By late June, with little net change in £ rates, the differential was 2¾ per cent against the dollar, and ¾ per cent against the world basket - a fairly unusual situation by past standards (see chart);

(iv) a gradual decline in the £ effective exchange rate - about 1 per cent between January and the Budget, as sterling tended to follow the dollar down against other currencies, and about 2½ per cent between then and late June, as the dollar strengthened against all major currencies;

(v) periodic market anxiety about the UK domestic monetary situation, largely focussed on bank lending and PSL2 and, latterly, the validity of our claim that the PSBR was unusually front-end loaded. But the target aggregates performed well, and unexpectedly good May money figures were reassuring. The

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INTEREST RATES AND EXCHANGE RATES: SINCE LAST CUT IN UK BASE RATES IN MARCH 1984

Closing Rates	Exchange Rates			Short Term Interest Rates					Long Term Interest Rates	
	£ effective	£/$	DM/£	UK Base Rate	US Prime Rate	3 month £ inter-bank	3 month Eurodollar	Uncovered Differ-ential	UK 10 year Gilt	US long T-bond
14 March (UK base rate cut)	81.1	1.47	3.76	8½-8¾	11	8 13/16	10 3/8	-1 7/16	10.28	12.29
19 March (US prime rates up)	80.8	1.44	3.79		11½	8 13/16	10 7/16	-1⅜	10.32	12.42
6 April (US prime rates up)	79.8	1.43	3.74		12	8 7/8	10 5/16	-2 1/16	10.43	12.5
4 May	80.5	1.41	3.83		12	9⅛	11 1/16	-1 3/16	10.85	13.02
8 May (US prime rates up)	80.0	1.38	3.85		12½	9⅜	11½	-2 1/8	11.23	13.05
9 May (UK base rates up)	80.0	1.38	3.84	9-9¼		9 7/16	11 5/8	-2 3/16	11.33	13.14
10 May	80.1	1.38	3.85			9 7/16	11⅝	-2 3/16	11.33	13.25
1 June	79.5	1.40	3.76			9 5/16	11 1/16	-1¾	11.94	13.53
Mon 4 June	79.5	1.40	3.74			9⅝	11 7/16	-1 3/16	11.77	13.27
Mon 11 June	79.6	1.40	3.76			9 7/16	11 9/16	-2 1/8	11.73	13.45
Mon 18 June	79.5	1.38	3.75			9⅜	11 9/16	-2 5/16	11.83	13.15
Wed 20 June	79.4	1.37	3.79			9⅜	11⅝	-2 5/16	11.84	13.46
Mon 25 June (UK base rate realigned)	79.2	1.35	3.79	9-9¼*	13	9 7/16	12 3/16	-2¾	11.93	13.55
Tues 26 June (UK base rate realigned)	79.0	1.35	3.78	9¼**		9½	12 1/16	-2 9/16	11.98	13.41
Mon 2 July	79.0	1.35	3.77	9¼		9 7/16	12 1/4	-2 11/16	11.98	13.64
Tues 3 July	78.6	1.34	3.77			9 11/16	12 3/8	-2 11/16	11.94	13.59
Wed 4 July	78.6	1.34	3.77			9 9/16	12 1/4	-2 5/8	11.98	PH
Thurs 5 July	78.3	1.33	3.75			9⅜	12 5/16	-2 9/16	11.92	13.74
Fri 6 July (UK base rates up)	77.9	1.32	3.74	10		10 11/16	12⅜	-1 5/16	12.00	13.66
Mon 9 July	77.6	1.31	3.72			11 1/16	12⅜	-1 3/16	12.04	13.38
Tues 10 July	77.2	1.31	3.70			11 3/8	12 1/8	-3/4	12.19	13.30
Wed 11 July (UK base rates up)	77.6	1.31	3.72	12		11 15/16	12 1/16	-1/8	12.40	N.A
Thurs 12 July	77.7	1.31	3.73	12		12 1/8	12 1/8	0	N.A	N.A

*Lloyds base rate up

**National Westminster base rate up

gilts market has been unsettled for some months, in the shadow of a volatile US bond market, but adroit tactics allowed us to achieve a satisfactory level of gross sales in most months;

(vi) industrial and political problems, though the miners' strike was taken calmly by domestic markets until well into June, the Budget was well received, and the public expenditure Cabinet went the Treasury's way;

(vii) A weakening trend in spot oil prices, and growing fears of an OPEC price cut in July; but PRT forecasts for this year have been revised up.

5. Factors precipitating last week's events seem to have included:-

(i) the Bank's statement about monetary conditions, in the context of the technical change in its dealing rates towards the end of June. In conjunction with recent Ministerial statements, this may have dampened hopes of higher UK rates;

(ii) a growing belief that US rates would not peak in July, as expected, but could rise much further, inspired by evidence of continued rapid growth in the US economy. There was, however, little movement in eurodollar rates during the first week of July;

(iii) fading hopes of an early settlement of the miners' dispute;

(iv) signs of a general move out of sterling during the week beginning 2 July, with the rate falling against other currencies as well as the dollar, from an effective of 79 on Monday, to touch a new low (on the new index) of 77.4 on Thursday night;

(v) a rise in base rates to 10 per cent on Friday, rapidly endorsed by the Bank in an attempt to pre-empt the money figures

(vi) a sharp deterioration in the industrial situation following the announcement of a National Docks strike, which pushed £ market rates up to around 11 per cent and above on Tuesday, and caused sterling to weaken further;

(vii) poorer than expected June money figures on July 10, which, according to one report, were received with a "sigh of relief" because, in the market view, they removed any doubt about the authorities' ability to resist a further rise in interest rates. Evidence for this view came from sterling, which had dipped below $1.29 in overnight Far East trading, but opened steadier on Wednesday, in anticipation of an imminent move in UK rates.

Tuesday 10 July and Wednesday morning, 11 July

6. Closing rates on Monday were:

	7days	1 mth	3 mths	12 mths
£ interbank	9 7/16	10 3/8	11 1/16	11½
Change on day	+ 1/4	+3/16	+ 3/4	+ 7/16

At the Chancellor's meeting on Tuesday, there was considerable reluctance to contemplate a further rise in base rates. But it was accepted that the banks could not be prevailed on to hold their base rates at 10 per cent for more than a few days, if the current structure of market rates was maintained. The Bank suggested that it might be possible to give the market a lead by doing an early (10 o'clock) dealing round on Wednesday morning. By convention, this is only done when an unusually large shortage (over £500m) is expected. With an anticipated shortage of only £300m on Wednesday, the market would have recognised early dealing as a clear signal of the Bank's views. The hope was that this would modify expectations and, in that way, take some of the pressure off market rates.

7. The early dealing round proposal was abandoned on Wednesday because, by then, market rates, in both bill and interbank markets,

MARKET DEVELOPMENTS JULY 2-12

	Assistance		£ Interbank			US Interest Rates		Bill Market		Exchange Rates		
								Differential*				
	Expected Shortage	Help	O'night	1 mth	3mths	3 mth Euro$	Differential	(Market-dealing) Band 1	Band 4	£/$	£/DM	Effective
	£millions											
July 2	550	597	9	9 1/16	9 9/16	12 1/4	-2 11/16	-1/32	-1/32	1.3495	3.7697	79.0
3	400	433	4	9 3/16	9 11/16	12 3/8	-2 11/16	-	+1/16	1.3360	3.7665	78.6
4	400	317	10	9 5/16	9 5/8	12 1/4	-2 5/8	-	+3/32	1.3360	3.7635	78.6
5	600	522	7	9 5/16	9 3/4	12 5/16	-2 9/16	-	+1/4	1.3260	3.7527	78.3
6(Base rates to 10)	550	564	10	10 3/16	10 5/16	12 1/4	-1 15/16	-1/8	-1/16	1.3190	3.7347	77.9
9	300	409	3	10 3/8	11 1/16	12 1/4	-1 3/16	-	+3/16	1.3095	3.7216	77.6
10	300	324	2	10 15/16	11 3/8	12 1/8	- 3/4	+3/4	+3/4 to 1/4	1.3090	3.7018	77.2
11(Base rates to 12)	150	142	6	11 7/8	11 7/8	11 7/8	-	+7/8 to -1/2	+1/4 to -	1.3092	3.7207	77.6
12	500	426	12 1/2	12 1/16	12 1/8	12	-1/8	-1/16	-1/16	1.3091	3.7313	77.7

* discount rates

Source: Daily Market Reports; closing rates.

had risen further, substantially reducing the chances of successfully holding base rates to 10 per cent. At 10.30 am on Wednesday the structure of rates in the interbank market was as follows:-

	7 days	1 mth	3 mths	12mths
£ interbank	10¾	11¼	11 3/16	11 7/8

The firmness of shorter period rates limited the clearers' scope to fund themselves for a time by borrowing from wholesale markets at 7 days or 1 month - a technique which, on other occasions, has enabled them to postpone a rise in base rates.

8. One technical consequence of the rise in market rates was that it would not have been possible, in the Bank's judgement, to demonstrate convincingly a "stop" rate of 10 per cent without, in effect, declaring posted dealing rates. Even by close on Tuesday, market bills were standing well above the Bank's dealing rates in all 4 bands (11-10¾ per cent across the board). A technical complication was that the expected shortage had been revised down to £150m, as a result of buying-in of next maturities in the gilts market on Tuesday afternoon.* This reduced the scale of official operations which the market would have anticipated.

9. If the 10 o'clock round had gone ahead in this situation the chances are that the Bank would have been flooded with offers of bills, vastly in excess of the expected shortage. Individual houses, convinced that rates were set to rise, and looking at the rates available in the market, would have been anxious to clear their books at the best price possible. By convention, the Bank acts commercially - ie. it buys cheaper/higher rate bills first, and either rejects or scales down more expensive/lower rate bills to take out the remainder of the shortage. Especially with rather

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* The Bank accepts the obligation to make a price for gilts maturing within 3 months. This is usually done by reference to the Bank's bill dealing rates. Where these are well below market rates, investors have a clear incentive to off-load next maturities on to the authorities, if they can.

a small shortage in view, houses offering bills at 10 per cent would therefore run a high risk of getting their offer rejected, and having to clear their books at the higher rates prevailing in the market. With a margin of nearly 1 per cent between dealing and market rates, and knowing how other houses would react, an individual institution would be likely to pitch its bid just far enough above 10 per cent to be reasonably confident of getting a good alotment.

10. The flatness of the short term yield curve was rather unusual. Typically when the markets expect interest rates to rise shorter period money rates soften as the 3 and 12 month rates rise, producing a steeply upward sloping yield curve. Lenders want to place funds at short maturities, whilst borrowers look for longer term money, possibly bringing forward future borrowing, to take advantage of low rates while they last. The supply of funds at short maturities increases, while the demand for funds may increase in total and is concentrated in the longer maturities. The structure of rates on Tuesday evening may have reflected a view that a rise in base rates was imminent.

The Options

11. By Wednesday morning, therefore, it looked as if both domestic and external markets were convinced that the authorities would accept an immediate further rise in interest rates. At the Chancellor's meeting there was general agreement that:-

(i) neither the underlying performance of the economy nor the domestic monetary situation justified a further rise in base rates;

(ii) the exchange rate had not reached a level where it posed a real threat to domestic inflation objectives. But the Bank warned that if hopes of a rise in interest rates were dashed, the exchange rate could easily fall to levels that might be worrying. No-one attempted to put a figure on this rate;

(iii) market pressures were a response to external and domestic problems which might be temporary but were unlikely to be short-lived, and could well get worse before they got better;

12. At that stage, the options considered were:-

(i) acquiescing in a decisive move in rates to 12 per cent, in the hope that this would settle the markets, and set up expectations that the next move would be downwards;

(ii) accepting a limited rise to 11 or 11½ per cent, avoiding overkill, but accepting the risk that the market would remain unsettled for a time;

(iii) digging-in at 10 per cent.

No-one felt convinced that (i) would definitely succeed. It was chosen because:

(i) the second option was thought to combine the worst of both worlds - a politically damaging and economically unnecessary rise in rates that could well fail to settle the markets;

(ii) there seemed to be a high probability that all-out resistance would fail and, by so doing, create conditions in which an even larger rise in rates would be needed to restore orderly markets.

However, considerable scepticism was expressed about the validity of the last proposition. The rest of this paper therefore discusses the form that all-out resistance might have taken, and some of the possible consequences.

The Scope for Influencing Base Rates

13. The clearing banks are still open to a degree of moral suasion from the authorities. But they have also become increasingly dependent on wholesale money to fund their lending activities. The wholesale money markets are not a new development, but they

Table 1: Sterling inter-bank deposits (£ billions)

As at mid June

1975	14.9
1976	13.8
1977	15.8
1978	20.1
1979	23.6
1980	27.5
1981	27.8
1982	38.1
1983	46.5
1984	53.6

The table shows the size of the sterling inter-bank market over the last 10 years, as measured by deposits taken by banking/monetary sector institutions from other members of the sector

Table 2: London Clearing Bank Groups

(amounts outstanding £ billions)

Mid-December (unless stated)	Inter-bank Borrowing (+)	Inter-bank Lending (-)	Net
1975 (November)	+4.2	-6.2	-2.0
1976	+4.6	-6.6	-2.0
1977	+7.0	-8.5	-1.5
1978 (November)	+7.6	-9.9	-2.3
1979	+10.4	-15.7	-5.3
1980	+7.9	-13.7	-5.8
1981 (November)	+10.4	-13.5	-3.1
1982 (November)	+20.7	-19.2	+1.5
1983	+21.8	-19.5	+2.3
1984 (June)	+24.8	-20.8	+4.0

SOURCE: Monthly Statement of the Clearing Banks
(Banking Information Service)

have grown rapidly in recent years. The M2 statistics imply that about £40 billion of the monetary sector's deposits from other sectors are now on wholesale terms. In addition, there is a large interbank market in sterling wholesale deposits and CD's which, at mid-June 1984, amounted to about £54 billion. Table 1 shows the size of the sterling interbank market over the past 10 years, as measured by deposits taken by banking/monetary sector institutions from other members of the sector.

14. The clearers have always been active in these markets, originally (prior to 1971) through special subsidiaries. In recent years, however, they have become increasingly dependent on wholesale money, as their retail lending has expanded and their retail deposit base has been eroded. The position varies from bank to bank; according to its last annual Report, Barclays, the clearer thought to be most dependent on wholesale funds, took 53 per cent of its domestic deposits on wholesale terms last year, compared with 45 per cent in 1981, and only 36 per cent in 1979.

15. Another significant development has been a change in the LCB's position in the more narrowly defined interbank market, from being traditionally a net supplier of funds to the rest of the system, to being large scale net borrowers. Table 2 traces this development over the past decade. In 1981, LCB Groups were net lenders, by just over £3 billion; at June this year, their net £ borrowing from other banks was £4 billion. Even LCB parents, traditionally less dependent on wholesale money, were net borrowers (by £¼ billion) on the interbank market at mid-August last year (the latest date for which figures are available); in 1981, their net lending to the rest of the system was £4½ billion.

16. These developments have understandably made the clearers more sensitive to fluctuations in money market rates. The only surprising feature of Barclay's decision earlier this year to move to something akin to a market related formula for setting base rates is that it did not come earlier. Sooner or later the other clearers are likely to follow suit.

17. This greater sensitivity of bank base rates to market rates

is entirely in the spirit of the 1981 arrangements. One objective in abolishing MLR was to break the remaining link between base rates and an official posted rate (though market forces were anyway working in that direction). The result has been, however, to produce:

> "a significant switch of emphasis away from a structure of interest rates centred around a central bank rate, set and controlled by the government of the day, to a situation where bank base rates and most conspiculously clearing bank base rates appear to have become almost the fulcrum of the system."*

18. Preventing a rise in interest rates presents itself nowadays in terms of forestalling a rise in bank base rates. And that in turn depends, to a significant extent, on bringing about a structure of wholesale money market rates with which the banks can live without unacceptable damage to their profitability. Despite Barclay's decision to attach particular significance to the 3 month interbank rate, it is not clear that this is necessarily the crucial rate for all the clearers. In the Bank's view, the one month interbank rate may often be the best indicator of the marginal cost of funds. Nor is there any fixed formula for computing a tolerable margin between base rates and money market rates; that will vary according to an individual bank's overheads, its desired return to capital, its provision for bad debts and so on.

19 The Turnbull paper suggested that banks are likely to be under pressure once 3 month interbank rates exceed base rates by about ½-¾ per cent. Judging by recent experience the market takes a similar view. But it also clear that a margin of this size is more tolerable the lower the shorter period money rates. (Relatively low 7 day and 1 month rates enabled Lloyds and NatWest to hold their base rates at 9 per cent for over a month when 3 month interbank rates were usually above 9½ per cent).

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* Peter Dunkley manager group funds, NatWest Banker Feb 1984.

Techniques for Influencing Market Rates

20. How, on Wednesday morning, could we have set about achieving a reduction of 1 per cent in 3 month rates (and probably more than that in the shorter maturities)? It is useful to distinguish between two sorts of operations:-

(i) those primarily designed to influence expectations;

(ii) those which have a significant effect on the overall liquidity of the system.

In practice, the distinction is not hard and fast, since operations of the first sort may be helped by modest 'overdoing of the help". But there is a conceptual difference which has parallels in foreign exchange market intervention. In that context, we draw a line between tactical "smoothing" intervention, which is primarily intended to establish an official presence and give the market a lead, and sustained intervention, which attempts to prevent the nominal exchange rate rising by techniques that affect monetary conditions. The latter operation involves an open ended commitment to supply sterling on whatever scale is necessary to establish the target exchange rate. The same sort of commitment may be required in money market operations that rely on influencing rates by varying the supply of funds to the market. The risk in both cases is that the market's perception of the Government's monetary objectives may be affected, with damaging consequences for inflationary expectations.

Giving the market a lead

(a) Techniques

21. In the circumstances of Wednesday morning, the Bank could have maintained its dealing rates, but only, in the Bank's judgement, by high profile action. Rejecting offers of bills at rates above 10 per cent would certainly have come into that category. That would have been tantamount to reverting to the old system of posted dealing rates, and it would have been more straightforward to do

just that. A similar strong signal could have been given by rejecting all offers of bills, and announcng a rate at which it would be prepared to lend through the discount window. In effect, reinstating MLR. Another high profile technique is to over-assist on a significant scale. This last option is considered in detail in the above section.

(b) Would it work?

22. There is no technical problem about giving a signal of whatever strength is deemed necessary. The issue is whether holding the Bank's dealing rates would succeed in bringing down market rates. As long as the Bank's operations are confined to relieving the expected system shortage (based on the difference between the forecast net Exchequer position and target operational balances at the Bank of England), the answer is that such a tactic can only work if it succeeds in changing the expectations of at least some participants in the market.

23. The fact that, by convention, the Bank only buys bills that have been in existence for 7 days and have changed hands at least once means that significant differences can open up between market bills rates, and the Bank's dealing rates. (This was why the convention was established, so there would be a degree of market risk in writing bills). No-one is going to take the risk of accepting or buying a bill at 10 per cent, if he is convinced that the Bank is about to raise its dealing rates, or if he sees a significant chance that he will have to dispose of his holdings at higher market rates. By Wednesday morning, market bill rates were well above the Bank's dealing rates, offering no scope for arbitrage between market bills and the interbank market. Bank dealing rates of 10 per cent would have provided arbitrage opportunites, but as long as the Bank was only supplying a few hundred million a day to relieve the shortage, the sums involved would not have been enough to produce a significant impact on the vastly much greater wholesale money markets.

24. Large scale arbitrage can only take place, in these circumstances, if there are other institutions besides the Bank prepared to buy bills at high prices. The most likely candidates

are the discount houses. But even if they are quite convinced that the Bank intends to maintain unchanged dealing rates, they have every incentive to limit their purchases to amounts they can confidently dispose of to the Bank within a short period - unless they can be persuaded that market rates will fall back. For this reason, the 7 day rule is not crucial - and indeed it could be suspended if necessary; more important is the likely scale of the Bank's operations in bill markets, and the effect of official action on expectations.

25. A high profile signal might have encouraged the clearers to delay putting up their base rates, and this could possibly have had a useful effect on market expectations. But in terms of the flow of funds in the market, the consequences are not necessarily helpful. Relatively low base rates give companies an incentive to switch borrowing on to overdraft terms, and increase total borrowing, redepositing the proceeds on the interbank market. "Round - tripping" can inflate £M3 - as it has in the past; by increasing the supply of wholesale funds it may also help to depress market rates, probably in the shorter maturities. But the effect on the banks' liquidity may have an offsetting effect on rates by forcing them to bid more heavily for funds, possibly at longer maturities where funding is more expensive. The yield curve may steepen, and there may be downward pressure on shorter term rates, but there is no obvious reason why the whole structure of rates should move down, or why the banks' immediate funding problems should be significantly eased.

26. In a situation where the market is uncertain whether a rise in rates is needed, or how large it ought to be, and where the exchange rate is firm, a clear lead from the Bank can have a helpful effect in steadying the market, or limiting the rise in rates that takes place. The effect is largely psychological, and the tactic is most likely to work if the authorities have prior knowledge of news to come, which will help to validate their stand, in the market's eyes. That was not the situation last week. One immediate consequence of a firm lead by the Bank would probably have been a sharp fall in the exchange rate. While the rate might not have fallen to levels which we found worrying, it could well have

reinforced the market's view that rates would indeed have to rise. Outsiders have generally taken a more pessimistic view of the inflation prospect than the Treasury, and the market could well have reasoned that we would be forced to step in to stop a slide. The fact that, in the public perception, that is precisely what we had done the previous Friday could have added to this conviction.

27. Would an attitude of hardened official indifference to a falling exchange rate have helped to bring market rates down, in this situation? Just conceivably, if it succeeded in convincing the market that there was, in reality,no threat to inflation from a lower rate, and/or if the rate did not in fact fall all that far. But there were two risks:-

(i) that the fall in the exchange rate would be so sharp as to worry us about its implications for inflation (though even so, we might have argued that a large fall was likely to be temporary);

(ii) that the market would misinterpret our indifference to what it regarded as an alarming fall, and conclude (as some brokers have been arguing) that the Government's priorities have changed, and that it is more interested in keeping interest rates down than in reducing inflation

If the gamble had not come off, inflationary expectations would have deteriorated, pushing up period money market and longer term rates and, in the worst case, requiring an even larger rise in interest rates to undo the damage (to the exchange rate, or to credibility, or both).

Operations that Influence Liquidity

(a) <u>Techniques for varying the supply of cash</u>

28. None of the discussion so far should be taken as implying that the Bank is powerless to hold down short term interest rates, if that is the <u>overriding</u> priority. Providing the authorities are prepared to supply liquidity to the system on whatever scale

is necessary, they can always effectively determine very short term money market rates. Nor is there any technical difficulty about increasing the supply of cash. Under present arrangements, the Bank could announce itself willing to buy bills at below market rates. There would be no shortage of offers, and it could accept them all. If the supply of bills proved inadequate it could announce itself ready to buy in public sector paper (eg Treasury bills, gilts close to maturity, even longer term assets), monetising the entire National Debt if necessary. Offers of next maturity gilts would certainly be forthcoming without prompting if the Bank was prepared to offer prices in line with its bill dealing rates. Supportive as this would be of money market operation, however, it would involve de-funding if non-bank private sector sellers were involved, thus adding to £M3. Sales by overseas holders would tend to push down the exchange rate.

29. Depositing funds in the interbank market would achieve the same end result. (So would putting money into the LA short term deposit market - a tactic which has been used in the past). While the Bank have always been reluctant to deal directly in the interbank market - because they think it would, in practice, mean dealing with the big clearers - there is no technical problem about doing so. The Bank would simply place funds though its money brokers, in the same way as other market participants. In the circumstances envisaged, the Bank would probably want the operation to be visible; but it is difficult to believe that even an anonymous large scale operation could go undetected for any length of time.

30. In the rather extreme circumstances in which we found ourselves last week, at least, there is, however, no obvious reason why depositing funds with the interbank market should be a technically superior way of operating to conventional dealings through the Discount Houses. There can be other occasions when it might be helpful; if, for example, the system shortage does not get positioned in the discount market, or if purely technical factors are raising interbank rates in a way that is threatening to unsettle the market. In practice, however, this is unlikely to be the problem if there is strong upward pressure on rates; market participants

will be only too anxious to offload bills, to avoid future capital loss; and the Discount Houses are likely to find themselves offered too much paper rather than too little.

31. If expectations of higher rates are firmly held - as they were last week - significant differentials between market bill rates and interbank rates are unlikely to open up. Funds can move very freely between different parts of the London money markets - between bills and wholesale deposits, and between the interbank market and the discount market - and the participants in these markets overlap. What may cause market rates to diverge is uncertainty - for example, the possibility of a difference of view about future rates between the discount market, on the one hand, and the rest of the market on the other, as suggested earlier. Official operations in the interbank market would then reinforce arbitrage activity that is likely to take place anyhow in such circumstances.

32. If the Bank has already taken a high profile stand, and has announced itself ready to buy bills or other paper at posted rates without limit and for an indefinite period, it is effectively supplying funds for arbitrage anyhow. There should be no need to take the further step of acting in both markets simultaneously. The investors from whom it has bought paper can be relied upon to deposit cash in the interbank market for as long as there is any interest advantage in doing so, forcing interbank rates down in the process.

(b) Possible Consequences

33. The significant feature of a liquidity operation is not the paper in which the Bank deals, nor its maturity, but the fact that the supply of funds to the market is increased. Providing funds are supplied on a sufficient scale, market forces will ensure that all very short term interest rates will be depressed. The overnight rate would approach zero. If the market believes that a rise in interest rates is imminent, investors will be prepared to sell their assets and hold the proceeds overnight even at the risk of being stuck with non-interest bearing balances at the Bank. Longer term deposits even at low interest rates will also be acceptable, espeially if the Bank makes it clear that it is prepared to go on operating in this way indefinitely.

34. It is, however, debatable how far, if at all, this tactic would reduce 3 month rates, and beyond that probability is that period money rates would rise sharply. Liquidity operations on any significant scale would not go unnoticed. Details of the Bank's daily operations, relative to the expected shortage, are shown on the Reuter's screen. Even if they were not, they would be evident to the market and, unless rapidly reversed, would show up in the published monetary statistics, most obviously for MO. They would certainly be perceived as a significant change of stance by the authorities.

35. Even if the market sees the Bank pursuing a deliberate policy which, in a technical sense, can be sustained almost indefinitely, the belief that, in practice, they will have to call a halt may still force up rates at maturities as short as 3 months. The most immediate constraint is likely to be the exchange rate which would probably fall sharply, for two reasons:

(i) if the market concluded that the authorites had abandoned monetary discipline, there could be a "fundamental reappraisal" of sterling;

(ii) low short term money rates would make it cheap to sell sterling short, (after all, flooding the market with cash is precisely what is involved in "unsterilised" foreign exchange market intervention to depress the exchange rate).

The market would no doubt be influenced by the fact that few Governments have had the stomach to weather a really severe exchange rate crisis without reacting - partly for political reasons, but also because the UK is a very open economy, and exchange rate movements do have a significant effect on prices even in the short term. Even if the Bank persisted, and allowed the exchange rate to find its own level, this would probably affect inflationary expectations, raising long term money rates and still more gilt prices. In time, the effect on inflationary expectations might be reinforced by the behaviour of the broader monetary aggregates which, as a result of funding difficulties, a highly liquid banking

system and possible round-tripping would almost certainly be inflated like MO.

36. How bank base rates would be affected is a matter for conjecture. But the chances of them being depressed, along with shorter period interest rates may be less than they would have been five or ten years ago, if only because the banks' response may be conditioned by past experience of inflation and more volatile interest rates. Their interest rates, like market rates, may now be more sensitive to inflationary expectations.

37. Clearly an operation of this kind would need very careful handling if it was not to backfire. Arguably, in the present situation, where MO is well within target, there is some scope for expanding liquidity without unduly damaging credibility. But there is no guarantee that a limited liquidity operation would succeed in holding down interest rates to the required extent, and the more sustained market expectations of a rise in rates are, the larger and more prolonged a rearguard liquidity operation would need to be.

Why was it so difficult?

38. This paper has suggested that it would have been extremely difficult to resist an upward move in interest rates last week, without running significant risks of making matters still worse. Nonetheless, on an objective appraisal of the situation, none of us could see any economic justification for higher base rates. The decision to acquiesce was a tactical one, and there can be no assurance that it was correct. There seemed a high probability that the sourcess of pressure would persist, possibly for several months. This meant that the chances of influencing expectations by esssentially holding operations (leaning on the clearers, "showing" an official rate) seemed small. But equally, there was a real risk that the external and industrial situation would deteriorate further. By giving in to pressure so quickly, we may have made it more difficult to resist next time, succeeding only in ratcheting interest rates up by two points.

39. The episode is a revealing example of how our present system of monetary control works. It is an over-simplification to regard short-term interest rates as an instrument of policy. The authorities rely heavily on telling the market what they are trying to achieve, (eg. via the MTFS), and trusting it to produce an appropriate level and structure of rates. We have deliberately aimed at a very light touch both in money market operations and in the gilts market. At a technical level, the scale of the Bank's liquidity operations is closely related to the size of the expected daily shortage, and this is not sensitive to short term changes in the market's demand for liquidity. The Bank seeks to influence interest rates by varying the terms on which it is prepared to relieve the shortage. It does not automatically repond to unwanted pressure on short term rates by varying the supply of liquidity - or, at least, not to any significant extent. This sets limits on the degree of influence that can be exerted over even very short term market interest rates.

40. The difficulty of resisting a rise in interest rates is, however, much more than a matter of technique. There is a lot of truth in the argument that a commitment to monetary rather than interest rate targets severely constrains the authorities' freedom to determine interest rates. If the market becomes convinced that interest rates must rise for the authorites to achieve their stated objectives (even fairly broadly defined), there will always be a risk that a refusal to acquiesce in higher rates will damage the credibility of policy, with unwelcome consequences both for inflationary expectations and those longer term interest rates that are less susceptible to immediate official influence. The problem exists whatever the scale of the Bank's liquidity operations. Successful resistance will depend critically on changing the market's perception of what level of interest rates is consistent with its avowed policy aim.

41. Last week's decision essentially reflected a view that this would not be possible, even though we ourselves did not think there was a real threat either to monetary conditions, or inflation. Was the market simply being irrational, or were we deluding ourselves?

The case for going even to 10 per cent was debatable, though many people in the markets probably felt it was justified by the underlying monetary situation. But it is difficult to believe that many seriously thought that 12 per cent was necessary, in these terms. If they did, there is an alarming gap in thinking, which suggests either a wilfull refusal to listen on our part, or some serious misconceptions on the market's.

42. The critical factors were probably worries about the effect of higher US interest rates on the £ exchange rate, and about the effect of industrial disputes on the Government's ability to sustain its policies. It is never easy to protect domestic interest rates from exchange rate pressures in a highly open economy; but our public stance may have added to the problems. On the monetary policy side, we have acknowledged that the exchange rate is a factor to be taken into account in determining short term interest rates; and, on the external side, our reluctance to engage in visible intervention in the foreign exchange markets, coupled with the relatively small size of our liquid foreign currency reserves, has been practical evidence of a belief that interest rates are the most appropriate and effective means of influencing the nominal exchange rate. There is much to be said for both lines of argument. But, against this background, it is not entirely surprising that the market's instinctive reaction to downward pressure on the exchange rate is to mark up domestic interest rates.

43. In the circumstances of last week, it was not at all clear that higher interest rates were the appropriate response to the weakness in the exchange rate; but we have been pretty vague about what we mean by "taking account of the exchange rate", and the exact circumstances in which it is or is not appropriate to respond to sharp movements in the rate. Last week's events may, in part, be the price of that vagueness.

44. The response to industrial unrest is more difficult, but industrial problems have thrown previous UK Governments off course, and it is not surprising if the market requires some risk premium to compensate for the uncertainties created by the present situation.

If the Government could be fully confident of a successful outcome, there might be a good case for taking the strain on the exchange rate (as there was before the election). If not, there may be something to be said for buying orderly markets; if the miners' strike ends badly for the Government, there may be a price to be paid on interest rates anyhow, since the objectives in the MTFS may be that much more difficult to achieve. But, at bottom, the immediate judgement is a political one. Is it easier to convey the message that the Government is not to be deflected against the background of a crisis rise in interest rates, than it would be in the face of another wave of headlines about the sinking pound?

45. **Implications for Monetary Control**

Even if the central problems are not technical, it is still worth asking whether the 1981 arrangements have made monetary management unnecessarily difficult. As the Bank warned at the time, it is fairly clear that they have not made it any easier to resist upward pressure on interest rates. There was always a tension between allowing market forces a greater influence over the structure of rates, and maintaining an adequate degree of control. It is worth asking if we have got the balance right.

(i) High profile techniques are still available if the authorities want to give the market a lead. But the fact that they have fallen into disuse makes it more of an event to employ them. On the other hand, in the face of strongly entrenched expectations, simply posting an official rate might not have been worth much. A 1½ per cent rise in rates would still have been politically damaging and under an MLR system it would have been even more difficult to distance Ministers from responsibility for it.

(ii) If expectations are strongly held, however, the terms of limited intervention will not be crucial; scale will also matter (as it does in the foreign exchange market). A more important question is whether the Bank should conduct liquidity operations so as to underwrite some particular level of short term rates; precisely how it seeks to do this is secondary.

(iii) it is worth noting that if we did succeed in reducing the bill mountain, the scale of the Bank's daily operations would be much reduced. If, in the circumstances of last week, we had wanted to show a rate and there had been no shortage, the Bank would have needed to artificially create one first (by selling domestic bills, or by intervening in the foreign exchange market to support sterling - ie. selling foreign currency assets). But whether that would have significantly added to the disadvantages of posting a rate - the option on offer - is debatable.

(iv) The ending of MLR and the rhetoric surrounding the 1981 arrangements have accelerated the effective severing of the link between base rates and officially determined interest rates. But the clearers growing reliance on wholesale funds goes back much further than 1981, and the erosion of their retail deposit base has pushed them in the direction of more flexible market related base rates anyhow. Inconvenient as this may be at times, this greater sensitivity has been seen as the necessary price for attempting to depoliticise interest rate movements (though, ultimately, depolitisation may depend on the clearers adopting an even more flexible pricing structure, less dependent on base rates. This still seems some way off). But Barclay's decision to focus on 3 rather than 1 month interbank rates may have added to the problems. The degree of official influence at this maturity is less, and expectations are relatively more important. Even a Government committed to an avowedly expansionist monetary policy might find its influence over base rates rather restricted in practice - at least in the absence of a panapoly of controls.

46. A serious deficiency of present control arrangements is their lack of clarity. Even informed observers find it difficult to decide what current control arrangements amount to. If short term interest rates are the main operational instrument, how can we argue that market forces have a key influence and that pressures on the most politically sensitive short term rates are sometimes

irresistible? If control over short term rates is so imperfect, what monetary policy instruments are available for meeting the monetary targets? Sceptics may recall the 1980 Green Paper which argued: "The short term interest rates generated by the markets are not necessarily those needed to achieve the monetary target."

47. There is a general problem in devising a means of monetary control likely to be effective in a highly developed and relatively unregulated financial system. Influencing expectations is certainly likely to be important - hence the need for clearly formulated monetary policy objectives (and the problem caused by our lack of clarity about the role of the exchange rate). But influencing expectations may depend ultimately on the market believing that the authorities have the means - and the will - to achieve their objectives. A completely "hands off" approach to monetary control may simply not be credible.

48. Both MBC and the old MLR system are certainly easier to understand. There is much truth in the observation that our behaviour last week would not have been very different under MBC (M0 was on track, and there would have been no reason to expand liquidity to resist a rise in interest rates). If our freedom to influence interest rates is as restricted as last week's experience seems to suggest, would it not be better to go the whole way, and formally espouse MBC?

49. There are two counter arguments. First, as argued in the Annex, there would be more difference between MBC and present arrangements in other situations. Monetary base control implies a willingness to allow interest rates to fluctuate in order to keep M0 on track, irrespective of what other indicators suggest. We are not yet powerless to control interest rates - notwithstanding last week's events - and the present framework of policy does allow us to exercise that freedom on wider grounds than the behaviour of M0. It was precisely because the market was worried on wider grounds that the pressures on interest rates was so difficult to resist.

50. Under a credible MBC system these worries might well not have mattered. The fact that they did points to another difficulty with moving further in the direction of MBC. It would not enhance credibility. The main issue is not the authorities' ability to control the monetary base - though some commentators would question that too. The main worry has been whether controlling the base would give the authorities an adequate degree of influence over monetary conditions and inflation. For most commentators, MO still has some way to go before it proves itself in these terms.

51. Unless and until it does, it may be unwise to downplay the degree of official influence over short term rates. The Bank's influence over, say, 3-month rates is certainly not what it was in the days of Bank Rate and the clearers' cartel, when the "traditional" money markets were dominant. But the 1981 arrangements involved deliberately de-emphasising some of the techniques still available for influencing interest rates. There have been some important gains to set against the loss of control that has, on occasion, been involved. There is a greater understanding that interest rates are not solely the result of official decisions. But these gains may not be seriously jeopardised if the authorities do, on well chosen occasions, sometimes show themselves ready to take a clear line on interest rates, and back that up with more extensive operations in the money markets - preferably before the market has made up its mind.

HF3
July 1984

Table The London Sterling Money Markets, 1957-1979

(end-year, £ million)

	1957	1962	1967	1972	1977	1978**	1979
Money at call with discount market	903	1,186	1,662	2,530	3,513	4,004	4,435
Treasury bills	3,388	3,042	3,156	1,719	3,950	2,813	2,480
Commercial bills*	250	400	725	1,188	2,169	3,393	5,588
Local authority bills	-	-	-	240	443	499	599
Other local authority temporary debt	450	1,071	1,750	2,145	2,896	3,788	5,135
Deposits with finance houses	99	337	591	437	921	967	1,117
Inter-bank deposits	..	508	1,309	5,068	11,407	13,205	16,433
Sterling certificates deposit	-	-	-	4,934	4,546	3,678	3,692
Other market loans by the banking sector	..	..	..	..	4,296	4,581	5,314
Total	5,090	6,544	9,193	18,261	34,141	36,928	44,793

*This excludes acceptances held outside the banking sector:

**A sectoral breakdown of these holdings at end 1978 is shown in table 4.

Source: Wilson (1980) Appendix 3, p 510

ANNEX

MONETARY CONTROL: NEW ARRANGEMENTS, MBC and MLR

The Radcliffe Report draws attention to:

"the principle that, except in so far as its views influence market expectations (an important exception) the Bank cannot choose both a rate of interest and a quantity of debt to be held at that rate.... An important technical manifestation of this principle appears in relation to the control of the liquid assets "credit base" of the clearing banks. Because the Bank wants reasonable stability in the Treasury Bill rate.... It follows that the Bank cannot restrain the lending operations of the clearing banks by limiting the creation of cash, without losing its assurance of the stability of the rate on Treasury bills...."

2. Any form of monetary base control involves directing official money market operations at regulating the supply of cash (or the banking system's reserve assets). It is the antithesis of the approach described in the Radcliffe Report, under which the Bank stood ready to vary the supply of cash to whatever extent was necessary to sustain a particular level and structure of short term interest rates. The Bank's methods of operation have clearly changed very substantially since the Radcliffe Report; but nor would we usually regard them as a version of monetary base control. The Annex briefly summarises present control arrangements,and compares them with the arrangements under which the Bank operated prior to 1981, and with a "fully fledged" MBC system.

<u>The 1981 Arrangements</u>

3. Present methods of operation are described in some detail in a BEQB article on "The role of the Bank of England in the money market" (March 1982). Key features include the following:-

(i) The Bank's operations in the market are conducted chiefly through transactions in bills with the discount houses, with the objective of "keeping very short term rates within an

TABLE 1

The Bank's money market operations

The figures are illustrative of a typical day on which, prior to any operations by the Bank, there is a market shortage.

The daily arithmetic
The items listed are explained in the main text, in particular in the section 'Daily procedures'.

What is published
The Bank releases information in the course of the day to the main press agencies and by direct input to the Reuter Monitor service.

	£ millions		
1 Morning estimate of the day's position (before taking account of any official operations that may be in prospect during the day):			
Clearing banks' operational balances at Bank, above (+) or below (−) assumed target last night	+ 30		Not usually disclosed
Exchequer receipts (−) net of disbursements (+)	−210		
Proceeds of net official sales (−) of gilt-edged stocks	− 20	−220	
Net receipts (−) of sterling on Exchange Equalisation Account (EEA)	+ 10		
Increase (−) or decrease (+) in note issue	+ 30	+ 30	
Take-up (−) of Treasury bills by market, less maturities in market hands	− 20		
Local authority and commercial bills maturing in the Bank's hands	−120	−140	
Bills being resold by the Bank to the market	—	—	
Repayment (−) to Bank of earlier lending by it	—	—	
Other, including other Bank customers	− 10		Not disclosed
	−310		
2 At about noon the Exchequer figure is revised to −190, and that for the note issue to +40. The revised total is	−280		
3 Soon after midday the Bank purchases bills from the market (see opposite) totalling	+260		
4 At about 2 pm the Exchequer figure has again been revised, to −160; and the figure for 'other' items has been revised to +10. The revised total, before taking account of the operations in (3), is now	−230		
5 If the estimate of −230 is correct, the bill purchases of 260 will leave the market with a net surplus of 30 on the day. The Bank decides to undertake no further operations.			
6 When the town clearing has been settled it becomes apparent that the actual Exchequer figure was −170. Thus the true position for the day was:			
Total market shortage	−240		
Bank's operations	+260		
	+ 20		
The clearing banks' operational balances will be 20 above the assumed target overnight.			

1 The following announcement is made at about 9.45 am:
'A shortage of around £300 million is expected today. Among the main factors are:

Exchequer transactions	−220
Decrease in note issue	+ 30
Bills maturing and take-up of Treasury bills	−140'

The overall figure is rounded to the nearest 50. The position of bankers' balances is only exceptionally disclosed, while that of other customers is never revealed. 'Exchequer transactions' include in this context the effect of gilt-edged and EEA settlements. Bills being resold to the market would usually be disclosed if significant, as would the repayment of any published lending.

2 The revision is not large enough to warrant publication.

3 Details of these operations are published. Thus, when the operations are complete. the following announcement is made:
'The Bank has undertaken operations, making the following purchases totalling £260 million:

Band 1	Bank bills, £75 million at $13\frac{1}{4}\%$
Band 2	Treasury bills, £12 million at $13\frac{5}{16}\%$
Band 2	Local authority bills, £18 million at $13\frac{5}{16}-\frac{3}{8}\%$
Band 2	Bank bills, £155 million at $13\frac{5}{16}-\frac{7}{16}\%$.'

The rates shown for bill purchases are rates of discount.

4 The revision is now large enough to justify publication, so the following announcement is made:
'The shortage of around £300 million published this morning has been revised to one of around £250 million, before taking account of today's operations.'

5 The following announcement is made, at approximately 2.30 pm:
'The Bank has not operated in the money market this afternoon.'

6 No further announcements are made.

unpublished band which would be determined by the authorities with a view to the achievement of their monetary objectives".

(ii) Daily operations are intended to broadly offset the daily cashflows between the Bank and the money markets. The calculation of the system shortage allows for the monetary base to be demand determined: what this means in practice is that the Bank automatically supplies cash to finance the rise in the note issue, and to allow bankers' operational balances to return to the "target" level agreed with the banks themselves (currently £169m). Errors in estimating the shortage result in fairly small day-to-day divergences in operational balances from target; when these arise, the calculation of the next day's shortage allows for balances to return to target levels (see table).

(iii) Other than through bill operations, the Bank may supply or withdraw cash from the market by late lending to the discount market; by sale and repurchase operations (repos) in gilts or export credit paper; by placing funds directly in the LA short term deposit market; or - at least in principle - by releasing or calling Special Deposits. While the Special Deposit Scheme remains available, Special Deposits have not been called since 1979, and they have been zero since August 1981. (Unlike Supplementary Special Deposits, which were non-interest bearing, Special Deposits earn interest at a rate close to Treasury bill rate).

(iv) The Bank deals in bills in 4 maturity bands, at rates that lie within an unpublished (but readily detectable) band. The bands are:-

Band 1: 1-14 days
Band 2: 15-33 days
Band 3: 34-63 days
Band 4: 64-91 days

where maturity refers to residual, not original, maturity. The Bank does not usually buy bills with a residual maturity of more than 3 months.

(v) Lending through the discount window (in exceptional circumstances) is at rate of the Bank's choosing. Both the amount and the terms of 2:30 lending are published. Late (2:45) lending is usually on penal terms, but these are not published (though the amount is).

(vi) After 20 August 1981, the Bank ceased to post a minimum lending rate continuously. But it reserved the right to announce in advance the minimum rate which, for a short period ahead, it would apply in any lending to the discount houses.

Comparison with Pre-1981 Arrangements

4. The system of monetary control prior to August 1981 was described in the Green Paper on Monetary Control (Cmnd 7858, March 1980). The main instrument for influencing short term interest rates was discretionary variations in MLR, "made effective through money market operations conducted through the discount market". The process of making changes in MLR effective depended on the deliberate over-issue of Treasury bills at the weekly tender to create artificial money market shortages which were subsequently relieved by the discount market borrowing or selling assets to the Bank. The Special Deposit Scheme (first introduced in 1960) offered a means of regulating the liquidity of the banking system. The Reserve Asset Ratio was originally introduced in 1971 as a monetary control that would have the same effect, but it had ceased to serve this function long before 1981; by the end of 1973 it had become apparent that the banks' main response to reserve asset pressure was to bid for wholesale funds, resulting in interest rate differentials that provided incentives for round-tripping.

5. Information on how the Bank conducted its daily operations at times of unwanted interest rate pressure is sparse. Prior to 1971, at least, the Bank's position as jobber of last resort to the gilts market did sometimes put it in the position of supplying additional cash to the market in exchange for gilts, at times of falling prices, thus effectively taking some of the pressure off prices. But it is not easy to say how far, in practice, the Bank

bought in Treasury bills at such times, at posted dealing rates, to reinforce its view on MLR. The 1980 Green Paper implies that liquidity operations of this sort might be employed, though it puts most emphasis on the expectational impact of published official rates. For example:

"Market interest rates beyond the very short term are often heavily influenced by expectations about the future movement of MLR... If there is a strong expectation of any early cut in MLR, it may take persistent penal lending to stem a fall in say 1-3 month rates in relation to MLR: or, if an early rise in MLR is expected, even generous help by the Bank to relieve any shortage of funds, or the deliberate creation of easy conditions, may not be enough to induce the houses to hold on to longer term, say 1-3 month assets, and therefore to prevent the comparable money market rates from rising. Thus, in practice, the Bank's money market operations are intended to influence expectations in a much broader way rather than supply to influence the immmediate cost of money to the discount market."

6. The major changes made in 1981 were the ending of posted dealing rates and a continuously published MLR, both of which gave the Bank's dealing rates a much lower profile. The switch from discount window lending to operations in the bill market was intended to have the same effect and, even at the time, was regarded as being mainly of presentational significance. The ending of the practice of over-issuing Treasury bills has, in the event, been of no real significance, given the growth of the bill mountain. Maturing bills have ensured large and almost continuous market shortages, requiring regular operations even in longer maturity paper (Bands 3 and 4). With a substantially smaller bill mountain, however, the 1981 arrangements would have much reduced the scale of the Bank's daily intervention in the money markets, probably confining it, as originally intended, to Bands 1 and 2.

7. Whatever the practice prior to 1981, or the intention at the time the new arrangements were announced, it is clear that substantial variations in the supply of liquidity are not a

significant part of the Bank's current armoury of techniques for influencing short term rates. Special Deposits may be available in theory, but in practice releasing Special Deposits was not an option in early July (unless we could have contemplated creating negative Special Deposits). Official operations closely matched the ex post system shortage (as they have in previous periods of pressure) and daily deviations of bankers' balances relative to target rarely approached even £100m.

Comparison with Monetary Base Control

8. Does the fact that the Bank would typically scale down offers of bills in excess of the expected system shortage, even at times of unwanted and sharp upward pressure on interest rates, imply that, in practice, our present system is closer to monetary base control, than to a system where short term interest rates are the main operational instrument? Only up to a point. It is true that the Bank's operations in early July might have been very little different had we been operating an MBC system. MO was on target and the Bank's operational aim would have been to keep it there; there would have been no reason to vary the supply of cash to the banking system to damp the rise in interest rates.

9. In other circumstances, however, there could be more significant differences. Compared with our present system, MBC could imply - depending on how strictly it is operating in the short term -

(i) a willingness to move the Bank's dealing rates up or down in response to deviations in MO from target, irrespective of what other indicators were suggesting about monetary conditions. This rather weak form of MBC is what we have tended to regard as the most practical operational option. There is no necessary reason why this should lead to greater interest rate volatility than we have at present. That would depend on the volatility of MO, and the degree of short term control over it that was sought;

(ii) a deliberate attempt to over or under do assistance to the money markets on a daily basis, depending on whether MO is below or above target. If this meant large deviations in bankers' balances from desired levels, it would certainly generate larger fluctuations in rates, at the very short end of the market, at least in the short run. But whether it would mean more volatility in 3-month rates, or in banks' base rates, is conjectural. On the whole, we have tended to think that this is a real risk - partly on the basis of US experience (difficult as it is to interpret). What is clear, however, is that such a system would only be practical if the banks held much larger operational cash balances than they do now; no doubt brief experience of such a system would rapidly encourage them to do so.