The role of the Bank of England in the money market

As main banker to the Government and ultimate banker to the banking system, the Bank of England is necessarily involved in day-to-day operations in the sterling money market. During the past eighteen months there have been a number of changes to the Bank's operating techniques: the Bank has ceased to announce a minimum lending rate, and its dealing arrangements now permit market forces to influence the structure of short-term interest rates to a greater extent than before. Nevertheless, the authorities continue to hold firm views on the appropriate level of very short-term rates, and seek to keep these within an undisclosed band. The Bank now publishes each day its estimate of the cash position of the money market, and details of its own operations.

After sketching the historical background to these changes, this article describes how the present arrangements evolved, and provides a detailed account of the Bank's daily procedures for deciding what action to take in the money market and for executing it. Finally, these money market arrangements are placed in the context of overall monetary policy.[1]

Introduction

In order to understand the context in which the Bank of England operates, it is important to recognise certain distinctive features of the UK financial framework:

- There is in the United Kingdom a highly centralised banking mechanism for central government receipts and payments: the Bank of England acts as the main banker to the Government, maintaining a major group of official accounts—for example, those of the National Loans Fund, the Consolidated Fund, the Paymaster General (including the Exchange Equalisation Account) and the National Debt Commissioners. Meanwhile, the Issue Department of the Bank is itself part of central government for national accounting purposes.[2] The Government does not hold balances, other than working amounts, with other banks. This centralised system provides the Bank with an up-to-date picture of much of the Government's financial position, and enables it to minimise government balances by employing any surplus cash to reduce the amount of official debt outstanding, thus avoiding unnecessary interest payments by the Government.

- The final daily cash settlements within the banking system, and between the banking system and the Bank (embracing the Government), take place principally across a small number of accounts—those of the London clearing banks—at the Bank. These banks therefore need to hold sufficient balances at the Bank to cover such settlements. The Bank maintains accounts for other customers too—including, for instance, other domestic banks and overseas central banks—but these normally play only a minor part in determining the daily flow of funds between the Bank and the banking system. The clearers' accounts bear the final daily adjustment of the system, as explained in greater detail below.

- There is a facility for same-day settlement in London through what is known as the town clearing. A cheque for more than a certain amount (at present £10,000), drawn on an office of a London clearing bank located within a specified central area of the City of London, may be presented by any other such office at the town clearing for settlement the same day. The settlement takes place after the banks have closed their counters for business, and until it has been completed no participant can be sure of its final cash position for the day.

Because it is banker to the Government and to the clearing banks, the Bank is necessarily involved in the day-to-day transactions between these parties. Government transactions with the rest of the economy are usually several hundred million pounds in each direction each day, and fluctuate widely from day to day. Substantial daily net flows between the banks and the Bank can result. A net flow of funds from the Government is, in the absence of intervention by the Bank, reflected in the accumulation of balances by the clearing banks at the Bank; a net flow to the Government results in a drain on them. Through its operations in the money market,[3] which are mainly conducted through the discount houses as intermediaries (see below), the Bank can offset these flows. The rates of interest at which the Bank deals are likely to have implications for interest rates more generally.

(1) This article supersedes much of the article, 'The management of money day by day', in the March 1963 *Bulletin*, but it does not go into the detail of the Bank's internal statistical and accounting procedures: these are incidental to the present article and in any case have not changed much over the years.

(2) The Bank Charter Act 1844 divided the Bank's accounts into those of the Banking Department and the Issue Department. The Issue Department's accounts record the Bank's liabilities in respect of notes issued and the assets which back them. The distinction is not important to the main theme of this article, and is mentioned only when of significance.

(3) The term 'money market' is taken by some to embrace virtually all markets which deal in wholesale sums for same-day settlement, and by others to cover, more narrowly, only those markets where the Bank is itself directly involved. The narrower sense is used in this article.

Historical background

Normally, that part of the Government's borrowing requirement which is not financed by the sale of debt outside the banking system is met by the sale of debt—in particular Treasury bills—to the banking system, which thus acts as the residual source of borrowing for the Government. Historically, holders of Treasury bills valued them for their liquidity, since the Bank generally stood ready to purchase them, at rates in line with, or close to, prevailing market rates, when the banking system was short of cash.

Until the last few years, the UK economy was for a long time managed in a way that provided the banking system with a portfolio of government debt, notably Treasury bills, that was large enough to enable the Bank to offset any daily shortages of cash in the money market by buying Treasury bills, although purchases of local authority bills were commonly made alongside those of Treasury bills. When market shortages were such that the banking system's holdings of Treasury and local authority bills became heavily depleted, the Bank would buy eligible commercial bills—that is, commercial bills accepted by names which made the bills eligible for rediscount at (ie sale to) the Bank—but such conditions seldom persisted for long.[1]

The Bank dealt then, as now, primarily with the discount houses (members of the London Discount Market Association) and only to a strictly limited extent with banks.[2] The discount houses are the principal market-makers in bills. Banks typically hold some liquidity in the form of secured callable or very short-term deposits with the houses,[3] which can be withdrawn or run off to meet cash needs; and they can seek to sell instruments such as Treasury and local authority bills, commercial bills and certificates of deposit to the houses to raise cash. The houses, in turn, may expect to balance their position, if a short one, by selling bills to the Bank—and they alone have been able to borrow from the Bank in the course of the Bank's money market operations: the Bank was at times prepared to lend continuously as part of its regular operations to any house failing to square its book by other means; such lending was against security, for short periods.[4]

These were the chief means by which the Bank relieved cash shortages, although exceptionally it employed other techniques, such as the purchase of gilt-edged stocks from banks for resale to them at a future date. In addition, certain institutions had access, as customers of the Bank, to limited private facilities—such as, in the case of the discount houses and some institutions in the gilt-edged market, for borrowing against security. These facilities provided a necessary but limited safety valve for the individual institutions, but on terms designed to discourage their use in preference to normal market channels. They have never formed part of the Bank's main money market operations and are not covered in the detail of this article.

So far, the description has been in terms of daily shortages of cash in the banking system. On days when there was a surplus, the discount houses generally found themselves with excess cash from the banks, and the Bank would, if it wished to absorb the surplus, offer Treasury bills for sale to the houses; occasionally, the Bank would offer Treasury bills to the banks as well.

The Bank operated in the bill markets at known, pre-determined rates, set for a week at a time by a simple formula based on the rates realised at the regular Treasury bill tender the previous week. When the Bank lent to the discount houses, it was only exceptionally other than at minimum lending rate (MLR)—previously Bank rate. Thus the Bank could deal with the daily imbalances which inevitably occurred in the money market in a way that was neutral to prevailing market rates. This was consistent with a monetary policy that usually aimed for periods of stability in short-term rates, interrupted by discrete adjustments by the authorities.[5]

During this period, the Bank aimed to keep the market at least slightly short of cash from day to day, so as to provide the means to bring about a change in the interest rate structure, if that should be judged necessary. The Bank fixed the quantity of Treasury bills on offer at the weekly tenders so as to assist this aim. All bills on offer were sure to be taken up, because of the discount houses' long-standing agreement (still operative today) to underwrite the tender; but because the successful bidder (and not the Bank) selects the days in the following week on which the bills will be taken up, and because of unpredicted developments among the many other factors that determine the market's position, it was not always possible to establish shortages for each day. In any case, the London clearing banks themselves had some room for manoeuvre: from 1971 to 1981, they agreed to maintain specified average balances on their operational accounts at the Bank,[6] and this averaging procedure meant that these banks could themselves occasionally perform, within bounds, the market's daily adjustment, at little or no cost to themselves. Thus, the

(1) Until recent changes in the list, eligible names were mainly restricted to certain British and Commonwealth banks, including the accepting houses. For the purposes of this article, eligible commercial bills and eligible bank bills are therefore treated as synonymous. When the Bank was not purchasing eligible bank bills in its main operations, it regularly bought small sample parcels in order to monitor the bill market (see the December 1961 *Bulletin*, page 28). Periodically the Bank also made sample purchases of trade bills.

(2) For convenience, the term banks is used in this article to describe banking institutions other than the discount houses. In the context of money market activity the London clearing banks are the most important.

(3) Liquidity in this form has to some extent been obligatory: secured money at call with the houses was a reserve asset under the reserve ratio arrangements which lasted from 1971 to 1981; and, under present arrangements, eligible banks have agreed to hold certain minimum amounts of secured money with the houses.

(4) This has often been described as 'lender of last resort' lending: this is misleading since the lending has often been simply a technical alternative to bill purchases. It has also been described as 'discount-window' lending: this is misleading when considering the detail of money market operations, since discounting is not usually involved and there could be confusion with bill purchases, which are conducted on a discount basis.

(5) There were exceptions to this general description in the period 1972–78 when MLR was for most of the time itself determined by a formula relating it to the Treasury bill tender rate. This procedure was suspended partly for technical reasons (at times of general upward pressure on interest rates, the formula tended to set MLR too low relative to other rates) and partly because the authorities wished to re-establish full control over MLR. In other periods Treasury bill rates did fluctuate relative to MLR, but such divergences were not usually large unless there were strong expectations of a change in MLR.

(6) Each bank agreed to maintain a daily average balance of 1½% of its eligible liabilities.

Bank could not necessarily oblige the market to seek assistance every day; but it could usually rely upon doing so sufficiently quickly to maintain control over the general structure of short-term interest rates.

While these money market operations were the means of implementing interest rate policy from day to day, the principal instruments that reinforced MLR in accomplishing monetary control over a longer period were intended to be the special deposits scheme (which has existed, with modifications, since 1960) and the minimum reserve assets ratio (which applied from 1971 to 1981), together with, on occasions between 1973 and 1980, the supplementary special deposits scheme.(1) Each had direct implications for the money market: a call for special or supplementary special deposits withdrew cash from the banking system, while the reserve ratio arrangements ensured that, continuously, certain of the system's short-term assets were not available to meet cash shortages.

Deficiencies in earlier arrangements and background to recent changes

Certain shortcomings became apparent in the arrangements described above. First, developments such as higher and more variable rates of inflation worldwide and the increased attention given to controlling monetary growth were associated with higher and more volatile interest rates, particularly during the 1970s. If more volatility was inevitable, greater flexibility in the administration of short-term rates seemed appropriate.

Second, the circumstances which had provided the banking system with sufficient holdings of Treasury bills to sell to the Bank on most occasions when cash was short did not persist. Increased attention was given to the control of the stock of money, but a buoyant trend developed in bank lending to the private sector. At least in the short run, unduly rapid monetary growth could most easily be moderated by selling government debt to the non-bank private sector on a larger scale than hitherto in relation to the Government's borrowing requirement.(2) This combination of circumstances created persistent underlying shortages in the money market. The Bank responded in the first instance by reducing the quantity of Treasury bills on offer at the weekly tender. Even so, the Bank still found it necessary to buy Treasury bills—often more than were being issued. Inevitably, the proportion of these in the banking system's portfolio declined(3) and the Bank was then obliged to operate increasingly by purchasing eligible bank bills outright or for future repurchase by the market, or by lending (see box); and it supplemented these techniques during 1980 by providing banks with sale and repurchase arrangements in gilt-edged stocks.

Operations to offset market shortages

The table shows the total value each year of the Bank's operations to offset shortages in the money market by bill purchases and by lending. (Operations to offset surpluses—eg the sale of Treasury bills—are not shown.)

The figures are gross and merely illustrate turnover in the Bank's operations (Issue and Banking Departments). They are not an accurate guide to the relative importance of different operations to balancing the market, because the maturity terms of the operations are not identified. For example, if £1 million is lent to a discount house overnight on each of two consecutive days, a total of £2 million is recorded in the table, whereas only £1 million is recorded if the initial loan is for two days.

Nevertheless, the table illustrates well the increased turnover in commercial bills in the Bank's operations in the last two years, and the relative decline in turnover of Treasury bills.

£ millions

	Purchases of:(a)			Lending
Year beginning 1 March	Treasury bills	Local authority bills	Commercial bills(b)	
1971	5,140	327	114	650
1972	5,245	506	409	1,495
1973	4,216	776	1,503	2,035
1974	5,476	840	437	2,823
1975	9,364	1,125	200	3,868
1976	19,389	1,268	697	29,519
1977	14,740	1,392	47	21,663
1978	16,049	1,509	2,503	9,737
1979	16,337	2,529	3,846	18,217
1980	11,876	2,874	15,863	21,173
1981	3,810	4,349	39,771	4,640

(a) Includes purchases for later resale to the market. Includes purchases by both Issue and Banking Departments.

(b) Almost exclusively eligible bank bills.

Combined holdings of local authority and commercial bills by the Bank (Issue and Banking Departments) reached £4.0 billion at the highest point of the 1981 revenue season (in fact on 16 March), and up to mid-March this year holdings had reached £8 billion on occasion. The greatest amount of assistance given to the market by sale and repurchase agreements in gilt-edged stocks etc with banks (not shown above) was £1.5 billion, in July/August 1980.

Meanwhile, the consultative paper *Monetary control*, issued jointly by HM Treasury and the Bank in March 1980, initiated a major review of methods of controlling the money stock. While leaving many issues open for discussion, the paper firmly concluded that the reserve ratio requirement no longer served a useful function and should therefore end; and that the special deposits scheme should be retained as one means of regulating the liquidity of the banking system. The paper also noted an earlier statement by the Chancellor that the supplementary special deposits scheme should not have a permanent place among the techniques of policy: the scheme ended in the summer of 1980.

In November 1980, the Bank released a Background Note 'Methods of monetary control',(4) which set out, in general terms, certain changes that would be introduced. The Background Note envisaged that the Bank's intervention in

(1) For a technical description of these arrangements, see the *Bulletins* for September and December 1971 and for March 1974. For an analysis of how they related to interest rate policy and of the shortcomings that emerged, see the consultative paper *Monetary control* (HM Stationery Office, Cmnd. 7858), in particular Chapters 2 and 3 and Annex A, and also the immediately preceding article in this *Bulletin*.

(2) The sterling money stock could also have been contained if funds had flowed into other currencies as a result of intervention in the foreign exchange market, but, in the period being considered, action of this kind on a substantial scale would have been contrary to prevailing policy on intervention.

(3) For example, the ratio of Treasury bills held by the banking system (excluding the Banking Department of the Bank) to its total sterling assets fell from an average of about 6% in 1975–77 to 1% in 1981.

(4) Reproduced in the December 1980 *Bulletin*, page 428.

the money market would in future rely less upon direct lending and place greater emphasis than hitherto on open-market operations; intervention should continue to be conducted in the bill markets and not, for instance, in the inter-bank market, and principally through the existing intermediaries, members of the London Discount Market Association, to whom any general lending facilities would remain confined. The Note also indicated that the Bank's initial aim would be to keep very short-term interest rates within an unpublished band, set by the authorities by reference to the general monetary situation. Any lending would normally be at a rate somewhat above comparable market rates, but within the band. The Bank might cease to announce a minimum lending rate. Finally, the Bank would operate with the broad intention of offsetting daily cash flows, in either direction, between the Bank and the money market and would no longer seek to create initial shortages by the deliberate over-issue of Treasury bills.

Behind these proposals lay the desire to introduce a system which, while preserving the Bank's ability to influence short-term rates, would generally permit market forces a greater role in determining their structure. To allow such play for market forces, the system of pre-determined dealing rates had to be abandoned.

The Background Note also promised consideration of the future of the average balance arrangements observed by the London clearing banks (described above), with a view to establishing arrangements more equitable across the banking system as a whole and leaving the clearing banks greater freedom in managing their operational balances at the Bank.

In his Budget speech in March 1981 the Chancellor reported on the progress of the consultations on monetary control. At the same time the Bank issued a further paper, *Monetary control: next steps.*[1] Here, among other matters, the Bank let it be known that it was willing to add to the list of eligible banks (ie those whose commercial bill acceptances it was prepared to buy): the Bank was seeking to broaden the base for its future bill operations and to widen competition. The Bank was prepared to admit any recognised bank as eligible (in addition to those already on the list) which had, in the Bank's judgment, a substantial and broadly-based existing sterling acceptance business in the United Kingdom and which could command the finest rates in the market, provided, in the case of a foreign-owned bank, that British banks could enjoy comparable opportunities in its domestic market. The Bank also wished to explore the possibility of a link between eligibility and an undertaking to make funds available to the discount houses in such a way as to help them fulfil their role as market-makers in bills.

Present arrangements

Following consultations with those concerned, various changes have now been put into effect.[2] The Bank's operating techniques in the money market were changed in stages, beginning in October 1980, and the formal arrangements set out in the Bank's paper *Monetary control—provisions*[3] began to take effect on 20 August 1981. They included an extension of the list of eligible banks;[4] accompanying undertakings by all eligible banks—notably to hold a minimum proportion of their eligible liabilities in secured deposits with the discount houses, in order to underpin the houses' function in the bill markets; the ending of the reserve ratio requirement; and the introduction of the cash ratio scheme, applicable to all institutions in the monetary sector.[5] The purpose of the cash ratio scheme is to provide resources and income to the Bank; it is of no relevance to the day-to-day management of the money market since the deposits placed with the Bank are fixed for some months at a time (the period will be six months when the scheme is fully established). The introduction of the scheme did, however, mean the end of the agreement with the London clearing banks on average balances. These banks are now free to maintain their operational balances at the Bank at whatever level seems appropriate to their clearing needs. To assist the Bank in its daily forecasts of the money market's cash position, the banks advise the Bank of their targets for these balances.

Also with effect from 20 August 1981, the Bank ceased to post a minimum lending rate continuously; but it reserves the right to announce in advance the minimum rate which, for a short period ahead, it will apply in any lending to the discount houses.

Under the new arrangements, the Bank continues to conduct its operations with the market chiefly through transactions in bills with the discount houses. Direct dealings with the banks would involve predominantly the clearing banks, by virtue of their central function in the settlement of daily flows between the banking system and the Bank: in the Bank's view, the resulting concentration of official money market operations on direct dealing between the clearing banks and the Bank would greatly reduce the scope for market forces to determine interest rates.

For the Bank to have a reasonable chance of balancing the market, it is important that the system's overall daily surplus or shortage of cash should be channelled through to the discount houses before the Bank's final operating decisions are taken. Whether this happens is greatly dependent upon the ability of the major banks to estimate accurately and in good time their daily cash position; to do this, they need to know about expected large movements of funds by their customers.

(1) Reproduced in the March 1981 *Bulletin*, page 38.

(2) The evolution of the Bank's techniques in the money markets and the implementation of the new monetary control provisions have been described in successive issues of the *Bulletin*.

(3) Reproduced in the September 1981 *Bulletin*, page 347.

(4) The Bank also issued guidelines on its practices (regarding, for instance, the types of transaction to which acceptances should relate) when buying eligible bills.

(5) The newly defined monetary sector consists of all recognised banks and licensed deposit-taking institutions, the Banking Department of the Bank of England, the trustee savings banks, the National Girobank, and certain banks in the Channel Islands and the Isle of Man. The cash ratio scheme requires nearly all such institutions above a certain size to hold non-operational, non-interest-bearing deposits with the Bank.

Pre-determined dealing rates having been abandoned, the discount houses compete to sell paper to the Bank,[1] or buy from it when in surplus, through their choice of the rates at which they offer to do business. The Bank can influence interest rates by its reactions to these offers. If the Bank is content with the pattern of rates implied by the offers, it is generally prepared to accept sufficient to balance the market. But if the rates which are offered conflict with the Bank's interest rate objective, all or part of the offers may be rejected; in this case, if the houses are short of funds, they may have a chance to submit further offers (eg if the rejection came at the morning session—see next section), and the Bank again decides which offers to accept.

In addition to, or separately from, any bill operations, the Bank may let the houses know that it is willing to lend, at an interest rate of its own choosing. Such occasions are exceptional, and are in contrast with the earlier arrangements under which the houses could at times borrow continuously. Two examples of when the Bank may decide to lend are:

- When there is an isolated or unexpected shortage—perhaps on a large scale—arising for technical reasons, such as an oversubscription to a new issue of stock by the Government or a half-yearly payment of petroleum revenue tax. In such circumstances the Bank may not wish to relieve the shortage entirely by bill operations, for fear of causing unnecessary distortions to interest rates, and may therefore choose to lend—in which case the rate charged may be close to market rates.
- When the Bank wishes to see very short-term interest rates higher but believes that the discount houses will not offer—or discovers, having invited business, that they have not offered—sufficient paper at high enough rates for the upward adjustment to be effected quickly through bill operations. The Bank may then decline to deal in the bill markets, or may limit its dealings, and thus force those houses that are short of cash to borrow; the Bank then sets a lending rate consistent with the higher level which it is seeking to establish in the market.

The special deposits scheme remains available, with some adjustment of coverage. This scheme enables the Bank to call non-operational deposits, which earn interest at a rate close to the Treasury bill rate, from most institutions above a certain size in the monetary sector, as a means of withdrawing cash from the money market. Administratively, a call for or repayment of special deposits requires a period of notice, so the scheme is best suited to occasions when there is the prospect of a protracted period of surplus cash which the Bank wishes to offset. Once special deposits have been called, their release can be timed to suit the expected pattern of market flows—in particular, to match an expected shortage. Special deposits were last called in December 1979.

Another method, which the Bank used on three occasions during 1981 to remove cash from the market for release at a specific future date, is a special tender for Treasury bills of less than three months' term, set to mature on the desired date.[2]

In the past few months, the Bank has also revived an earlier practice of placing some funds directly into the local authority short-term deposit market. This has been carried out in order to help relieve the extreme pressure on bill resources caused by very large money market shortages.

No other special facilities—such as the purchase and resale agreements in gilt-edged stocks with the banks, the last of which expired in December 1980—have been employed in the mainstream of market management during the past year, although the possibility of their future use cannot be excluded.

Although the Bank does not intend, under the new arrangements, to over-issue Treasury bills in order to create shortages in the money market when none would otherwise exist, it is concerned to preserve the market in Treasury bills. Thus the Bank has continued to offer Treasury bills for tender each week, even though, on occasions, sizable market shortages have been in prospect.

Official operations since the introduction of the new arrangements have, as intended, aimed to maintain very short-term rates in an unpublished band set by the requirements of monetary policy as a whole. The flexibility within this band—and, indeed, the fact that the band can itself be shifted without the direct publicity that used to accompany changes in MLR—generally allows the authorities to alter very short-term interest rates more promptly than before. In determining rates for longer maturities the Bank has normally been content to allow market forces to be the predominant influence, and to follow such rates if it deals in such maturities; but it recognises that its own presence in the market may itself influence market rates.

Daily procedures

The Bank maintains running forecasts of the cash position of the money market—daily for several weeks ahead, and on a weekly or monthly basis over a longer horizon. In effect, these forecasts estimate the likely level of the London clearing banks' operational balances at the Bank, after taking into account all transactions between the Bank (on its own behalf or for customers such as the Government) and the banking system (acting for all other sectors), but before any new official money market intervention by the Bank. By relating these projected balances to the aggregate of the targets which the individual clearing banks view at the start of business each day as the central objective for their closing balances, the Bank produces forecasts of expected surpluses or shortages in the money market. (See the box for an illustration of these and other procedures during a typical day.)

(1) The principle is the same whether bills are being offered for outright sale to the Bank, or on a sale and repurchase basis. There are, however, technical differences, which are explained in the next section.

(2) See the September 1981 *Bulletin*, page 332, and the December 1981 *Bulletin*, page 471.

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'.

		£ 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	−220
	Proceeds of net official sales (−) of gilt-edged stocks	− 20	
	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	−140
	Local authority and commercial bills maturing in the Bank's hands	−120	
	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.

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.

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.

There is inevitably considerable uncertainty in such forecasts. The factors which contribute to the market's position are known with varying degrees of certainty at varying stages in advance. By the morning of a particular day, the picture for that day is usually as follows:

- The Bank has a reasonable estimate, obtained from various government sources, and confirmed in advance in some instances by the receiving or paying banks, of the flows to and from the money market in respect of the various government accounts at the Bank.[1] Some uncertainties remain, however—for example, over the timing of the clearing of expected tax payments—and these may sometimes result in very large swings in the estimate during the day. The picture can never be complete until the outcome of the town clearing is known, which is after the conclusion of normal business.
- The Bank also has a reasonable estimate, based on banks' declared requirements and on past experience of daily and seasonal patterns, of the net change in the circulation of bank notes for the day, which is matched by movements on the clearers' balances at the Bank. The clearing banks may adjust their note movements during the day, so the initial daily estimate is subject to revision.
- The impact of the sterling settlement of any foreign exchange transactions by the Bank, arising from its management of the Exchange Equalisation Account as agent for the Government, is usually known, since most such transactions are settled two business days later.
- Likewise, the impact of official dealings in the gilt-edged market can usually be predicted with reasonable accuracy, since these are normally settled on the next business day after the transaction. New issues are an exception: payment in full or in part is lodged with applications and the extent to which the issues are subscribed, and how much of the payments will be cleared that day, are only known with certainty in the course of the day. Redemptions also create some uncertainty, because it is not possible to predict exactly when recipients will present their redemption warrants.
- The day's take-up of Treasury bills, tendered for the previous week, and maturities of Treasury bills in market hands are known. So too is the value of any local authority or commercial bills maturing in the Bank's portfolio, or of any bills due for resale to the market, which give rise to cash flows from the market to the Bank. Any repayment to the Bank of earlier assistance to the market in the form of lending is also known.
- Other customers of the Bank, such as overseas central banks, assist by giving advance notice, where possible, of likely movements on their accounts.

Morning operations

On the basis of the available information, the Bank makes known to the market, at about 9.45 am, its estimate of the day's position. A figure is given (currently to the nearest £50 million) along with a summary of some main factors. As noted above, many of the factors are subject to revision as the day proceeds. If the overall estimate has changed greatly by noon, the Bank releases a revised figure. The Bank does not base its operational decisions during the day solely on its own estimates of the market's position. It takes account of collective reports on their position from the discount houses, indications of theirs from the major banks, and the state of the market as evidenced by the behaviour of short-term rates. Having considered these factors, together with any particular operational objectives that it has for the day, the Bank decides shortly after midday whether it is then prepared to operate in the money market.

Conventionally, banks withdraw any funds which they require from the discount houses before noon, but they may offer surplus funds to the houses right up to the close of business in the afternoon.[2] So any shortage in the system as a whole can be expected to show in the discount houses' position by noon; indeed, because the banks often make precautionary withdrawals from the houses in the morning which may turn out in part to be surplus to their needs later in the day, the houses tend to report a shortage larger than the Bank's estimate. But an overall surplus is unlikely to show fully at this time.

Thus before lunch the Bank normally acts, if at all, only to relieve a shortage. At this stage, dealings are confined to operations in bills with the discount houses. The Bank, operating through its brokers (Seccombe, Marshall & Campion plc —one of the discount houses), informs the houses that it will consider buying bills—there is usually no distinction at this point between Treasury, local authority and eligible bank bills—in some or all of certain maturity bands.[3] Each house may then offer quantities of the bills to the Bank, specifying a discount rate[4] for each combination of instrument and band which it offers—or, if it so wishes, different rates for separate amounts within each combination. The Bank decides which offers to accept. The decision is often the straightforward one of seeking to buy paper, up to the amount of the shortage as estimated by the Bank, at the best rates offered within each combination of instrument and band in which the Bank chooses to deal. Sometimes, the amount bought may fall well short of the Bank's estimate of the shortage. This may be because the Bank considers some or all of the rates offered to be unacceptably low; more commonly, it may reflect a rather modest amount of offerings, indicating that

(1) The flows relate to tax receipts, government spending, transactions in national savings and certificates of tax deposit, etc. These are referred to as 'Exchequer receipts net of disbursements' in the box.

(2) Although banks in the City close their counters at 3.00 pm, they may continue to deal for same-day settlement until the deadline implied by having to present items at the town clearing, which normally closes at 3.50 pm.

(3) Band 1: 1–14 days; band 2: 15–33 days; band 3: 34–63 days; band 4: 64–91 days. All periods are defined in terms of the remaining, not the original, tenor of the bills. The Bank does not usually purchase bills with more than three months remaining to maturity.

(4) Bills are traded on a discount per annum basis. If a bill with a face value of £100,000, due to mature in 91 days, is sold today at a discount rate of 10% per annum, the discount is:

$$£100,000 \times \frac{10}{100} \times \frac{91}{365} = £2,493.15$$

so that the proceeds are £97,506.85. The true yield (interest rate) to the holder is:

$$\frac{2,493.15}{97,506.85} \times \frac{365}{91} = 10.26\% \text{ per annum}$$

The true interest rate always exceeds the discount rate, by a greater amount the longer the period to maturity.

the perceived shortage among the discount houses is small in relation to the Bank's estimate, and casting some doubt on the accuracy of that estimate; alternatively, the Bank may have other reasons for believing its estimate to be more than usually uncertain, and may therefore restrict its operations at this session.

An alternative technique is for the Bank to invite the houses to enter into a sale and repurchase agreement in bills. In this case the Bank specifies a terminal date (or dates) for the repurchase by the houses and the rate of discount at which the proceeds of the sale of paper to the Bank will be calculated; the houses then submit offers of bills, each accompanied by the bidding of a rate of interest which the house will pay on those proceeds for the specified period. The Bank responds to the bids in the same way as with outright operations.[1]

This technique is usually chosen so as to enable the market position on future days to be smoothed out—a day of expected surplus could be balanced by choosing it as the repurchase date; or it may be used when the market is particularly reluctant to sell bills of certain maturities to the Bank because of interest rate expectations. Occasionally there may be a policy purpose: for example, switching between techniques may help to prevent a particular rate structure from becoming too firmly entrenched. It may be noted, however, that a repurchase agreement obliges the houses to take back bills at a future date; the houses may therefore be less willing to restock their bill portfolios from the bill market while the obligation exists than they would be if the Bank had bought bills from them outright.

Afternoon operations

The transactions undertaken by the Bank at the morning session are then made public, together with the quantities and rates for each instrument and band.[2] Normally at about 2.00 pm, the Bank will publish any further significant revision to its estimate of the market's position for the day. Once again, the Bank weighs its estimate together with other indicators in deciding whether to invite business with the discount houses, which may be in addition to business transacted at the earlier session. This could involve further operations in bills, in the ways described above. In addition, or instead, the Bank may, as outlined earlier, let it be known that it is willing to lend to the houses. Such lending is against security, at a rate fixed by the Bank, and is generally for a period of up to one week.

If there is a surplus, the Bank usually acts only in the afternoon session to absorb it, for the reasons given above. To do so, the Bank invites the discount houses and the clearing banks to bid for Treasury bills of one or more specified maturities. The Bank does not issue such an invitation unless it is satisfied that an overall surplus exists and that any discount houses still looking for funds have had full opportunity to find them. The inclusion of the banks in the invitation is necessary because they would otherwise be at a substantial disadvantage *vis-à-vis* the houses in finding an outlet for surplus funds. In these operations the Bank again uses its discretion about which bids for Treasury bills to accept, with lower rates being accepted before higher ones for bills of a particular maturity.

The Bank again publishes the details of its market operations in this second session, whether in the bill market or by lending; but any use of the limited private facilities, which continue as before, remains undisclosed.

Because the authorities generally wish to allow market forces the fullest possible scope to influence longer-term interest rates, the Bank prefers, other things being equal, to confine its market operations to paper of as short a maturity as is feasible. This may often mean dealing only in bands 1 and 2, but there are many instances where operations in longer-term paper may be appropriate—for example, if the pattern of future shortages and surpluses in the market indicates that it is desirable to operate over a longer span, or if short-dated paper is scarce in the market, perhaps because of recent official purchases. Even so, the Bank may choose to avoid dealing in longer-term paper in the face of such a scarcity by conducting short-dated purchase and resale deals, thereby mobilising longer paper while dealing only at short rates.

The operations described above are the principal ones undertaken by the Bank, and the daily timetable and procedures are well established. The Bank may, however, alter its arrangements at any time to deal with specific temporary situations or with underlying changes in market structure.

Transactions within the banking system may continue for some time after the Bank has concluded its operations, if any. The inter-bank market in overnight funds may be particularly volatile until dealing is effectively terminated by the need to present items at the town clearing. Only when the outcome of this clearing is known will the net money market position for the day, and the final position of the clearing banks individually at the Bank, be apparent.

The Bank's money market function in the context of overall monetary policy

A point of emphasis in this article has been that the Bank is necessarily involved in the daily operations of the money market, not only as agent for central government finances, but also as the ultimate banker to the banking system. In these roles the Bank cannot avoid involvement in money market operations, and so, either explicitly or implicitly, in the determination of interest rates. The authorities have in fact chosen to continue to exercise substantial influence

(1) Any bills of the type and maturity which the Bank is normally willing to purchase in outright deals may be offered for sale and repurchase, provided that they do not mature before the repurchase date. The same rate of discount is used to calculate the proceeds for each bill: this rate is set at least as high as the highest prevailing market rate for any bills that may be used in the transaction; the remainder of the operation involves, in effect, the houses bidding for secured loans. Before October 1980, the method was different: the Bank set a uniform rate of discount at which all bills used in the transaction, regardless of tenor, were sold to it, and subsequently repurchased from it.

(2) See the box for an illustration, and Table 10 in the statistical annex for details of the Bank's operations in recent months.

over very short-term interest rates as a positive element of economic policy. The suspension of MLR and the Bank's revised dealing procedures have, however, permitted greater flexibility in the level and structure of rates, and more scope for market forces to influence them. And banks' base rates, which were generally linked to MLR in the past, now tend to move more flexibly in response to market developments. In consequence, the banks may be less vulnerable than before to the form of 'round tripping' whereby a customer exploits interest rate differentials by drawing on a facility related to a bank's base rate and depositing the proceeds in the inter-bank market. The monetary statistics may therefore be less prone to this particular distortion.

The Bank's principal methods of operating in the money market do not have any direct statistical impact on the stock of money, as measured by notes and coin with the public and bank deposits. For example, when the Bank buys eligible bank bills from the market, there is a switch from bills to cash in the assets of the banking system, but no change in deposit liabilities; there is thus only a shift in the statistical counterparts to the money stock, with the Bank taking over, from the rest of the banking system, bill claims on other sectors.[1] Nevertheless, the operations may be designed to influence the stock of money indirectly, through their effect on interest rates. Indeed, the desire to retain a fairly direct influence over interest rates rests on the view that these may have a significant effect on, for example, the demand for money, the demand for credit and the exchange rate, with consequences for the development of the economy more generally.

The money market arrangements now in place provide a framework within which it might be possible to operate some form of monetary base control, although it is not currently being so used. Control of the monetary base implies giving priority to the amount of official money market intervention rather than to the rate at which it is transacted. In its extreme form, where the control is sought over a very short period, the authorities would be obliged to forgo all control over interest rates. As was made clear following the discussions which led to the introduction of the present monetary control arrangements, the repercussions of changing to such a system in the United Kingdom would be uncertain. Nevertheless, the new arrangements may facilitate study of the relationship between monetary base and other economic developments, in particular by allowing the banks freedom to determine, given the prevailing monetary situation, how much of the stock of monetary base they hold, ie their holdings of notes and coin plus their operational balances at the Bank of England.

(1) If the Issue Department buys the bills, there is a corresponding decline in holdings of such bills by the monetary sector. But if the bills are bought by the Banking Department—itself part of the monetary sector—there is merely a shift of holdings within that sector.