

Recent Changes in London's Money Market Arrangements *

Despite numerous changes over the past 20 years, there can be little doubt that the 12 discount houses ¹ still constitute the core of money market arrangements in London. They form the London Discount Market Association and they have accounts with the Bank of England, which give them access to the Bank of England as lender of last resort to the banking system. The two largest houses are Union Discount and Gerrard & National, followed some way behind by Cater Allen. In the past some houses had diversified their activities by establishing subsidiary companies engaged in gilt-edge fund management, or broking activities (operating, for example, in the inter-bank and related markets). Latterly, most have concentrated their resources on discount business proper and this has been consented to by the Bank of England, which would wish to see the discount houses major profit centre highly sensitive to short-term monetary policy. Each of the houses in the Association is required to have a paid-up capital and published reserves of at least £1 million. In fact, all have capital resources well in excess of that sum.²

* Much assistance has been given in the preparation of this article by all sections and many members of the London money market complex. To all of these, the author wishes to express his most grateful thanks. But the author alone remains responsible for the particular interpretations outlined here whether of policy or practice.

¹ Alexanders Discount; Cater Allen; Clive Discount; Gerrard & National; Gillett Brothers Discount Company; Jessel, Toynbee & Company; King and Shaxson; Seccombe, Marshall & Campion; Smith, St. Aubyn; Union Discount Company; Page & Gwyther; and Gerald Quin, Cope & Co. The last two houses, which are smaller, were admitted to the Association in 1980. There have latterly also been a number of mergers. The most recent were between Gerrard & Reid and National Discount to form Gerrard & National in 1969; Norman & Bennet and Jessel, Toynbee in 1974; and Cater Ryder and Allen Harvey and Ross to form Cater Allen in November 1981. The other thing to note is that the money trading departments of certain banks, which departments competed for discount market-type business, are now less significant than they were. They are not included in the 'club money' arrangements. (See text). At the time of writing, a further merger has been proposed — between Gillett Brothers and Jessel Toynbee, the new house to be known as Jessel Toynbee and Gillett. (See *Financial Times* and *The Times*, 19/10/1982 and 5/11/1982).

² See *The Banker*, February, 1982, p. 31.

Shareholders funds (capital and reserves) are only a small proportion of total funds employed, the remainder being borrowed primarily on a secured basis from the other financial institutions, mainly overnight or at call.³ The bulk comes from a variety of banks in London and most of the remainder from large business corporations with surplus liquidity, with a little from overseas.⁴ The resources of the market are then invested in commercial and other sterling bills; Treasury bills; local authority bills;⁵ other public sector; other local authority; certificates of deposit; inter-bank money; and British Government stocks (mostly from one to five years) plus a number of 'other currency assets'. The most important single item is commercial and other sterling bills (excluding local authority and other public sector). For the rest, the figures tend to move around quite a lot.⁶

Essentially, what the discount houses borrow (and subject to the 'club money' arrangements detailed below) are the temporarily surplus funds of banks and similar institutions mostly operating in or through the City of London. These institutions must keep available liquid resources adequate to meet sudden demands for cash. At the same time, they cannot afford to keep their funds idle. Hence the need for both an investment outlet and a form of investment that is highly liquid — and

³ After the introduction of Competition and Credit Control, of the money borrowed at call, something over 50 per cent was in the form of 'callable fixtures' with terms ranging from one day to as long as a year, with the majority running up to 3 months. See J.S.G. WILSON, *The London Money Markets*, SUERF, 1976, p. 3(n). Although the Reserve Asset Ratio is a thing of the past, 'callable fixtures' still exist. In the statistics, call and overnight money are shown together and the total represents well over 90 per cent of the total sterling borrowing of the discount houses. In fact, of this borrowing in the form of 'call and overnight' money, a sizable (but varying proportion) would be in the form of 'callable fixtures'. 'Fixed fixtures', on the other hand, are small in number, though the several discount houses do in fact run their books in different ways.

⁴ Formerly, there was something called 'privilege money', which was small, but which could be taken up at the end of the day to balance the books. After Competition and Credit Control, it still existed, but its nature changed. See J.S.G. WILSON, *loc. cit.*, pp. 27-28 and 27(n). After the end of Competition and Credit Control, it virtually ceased to exist. The main Clearing Banker of a discount house would still be prepared to assist, but the rate could be quite penal. The 'privilege' would now be that one could still go to him late in the day, but if a discount house was to go to his Clearer every day "he would get pretty annoyed with them". Another view was that "one could lean on the Clearer if necessary", but not for a fixed amount as formerly. These days, the main means of adjustment late in the day would be the inter-bank market, where incidentally direct deals may be done (i.e., not through a money broker) — e.g., with the big U.S. banks.

⁵ Under current circumstances (the latter part of 1981 and in 1982), there are a lot more Corporate (local authority) bills around than Treasury bills; if anything, they are also getting longer. Local authority bill tenders can take place on any working day, though, in practice, local authorities will not infrequently invite tenders for bills on Friday afternoons after the results of the Treasury bill tender have been made known. As a consequence, local authorities from time to time obtain cheaper finance than H.M. Government. The discount market also maintains an interest in local authority bonds.

⁶ See Table 4, BANK OF ENGLAND *Quarterly Bulletin*, June 1982.

nothing could be much more liquid than call and overnight money that is formally secured.⁷ In addition, there is a monetary ebb and flow — the available supply of money must be held somewhere in the system; if it has left the tills of one bank, it will generally be found in the hands of another. In other words, there is a revolving fund of money, which may be added to or subtracted from (e.g. by the authorities) from time to time, but which always remains substantial, though subject of course to important seasonal movements (e.g. at holiday times and at Christmas). It is this that provides the discount houses with the bulk of their resources. Day by day, they are continuously borrowing, repaying, and re-borrowing, and keeping this revolving fund more or less fully employed.

If temporarily there is an inadequate supply (due to money leaving the commercial banking system and passing into the hands of the authorities as a result of tax payments, gilt-edged purchases by the public from the Government broker, increases in the note issue, payments of oil royalties, foreign exchange settlements, etc.), the Bank of England will either lend on a short-term basis, or buy some of the assets held by the discount houses, or it may be these are held by the Clearing Banks, which then make the relevant moneys available to the discount market. Alternatively, if there is a surplus of money in the market, the Bank of England will sell Treasury bills to the discount market (or to the banks) in order to 'mop up' the excess. These are in the character of 'smoothing out' operations.

Apart from the sums made available from time to time by the Bank of England (for a period, and primarily by buying assets from the market or the banks), which in any event is in the nature of a marginal adjustment, the main sources of liquidity are the London Clearing Banks and their subsidiaries, the Accepting Houses, the Overseas and Foreign Banks, and the Scottish Banks. In all, there are about 450 potential lenders to the London Discount Market (of which about 290 are banks). Of the total number (say) 250 to 300 are active lenders, of which (say) 200 institutions (or more) would be in the monetary section. To a limited extent moneys also come from abroad.

Prior to 1971, applications for funds by a discount house on a last resort basis were made to the Bank of England not later than 2.30 p.m. on any business day. Where the Bank of England insisted on making accommodation available against certain eligible securities (e.g., Trea-

⁷ Of secured money placed at call by banks in the United Kingdom, well over 90 per cent goes into the discount market.

surety bills, first class bank acceptances, and British Government securities up to 5 years maturity) but only at a penal rate, it was often for 7 days. More usually, the Bank of England intervened (e.g. for 'smoothing out' purposes) through the 'special buyer' (a member of one of the small discount houses — the Chairman or his deputy in Seccombe, Marshall & Campion). As agent of the Bank of England, the 'special buyer' (the Bank's broker in the discount market) bought the Treasury bills, local authority bills, or eligible bank bills at pre-announced rates from individual discount houses, thereby providing them with the money they needed by 'direct assistance', or he may have operated (by buying bills again on behalf of the Bank of England) through the Clearing Banks which then passed this money on as loans to the discount houses; this was known as 'made money' or 'help' ('indirect assistance'). In a similar way, the authorities through the 'special buyer' could mop up excess funds whenever necessary (usually by selling bills direct to the individual discount houses).

After Competition and Credit Control was introduced in September 1971, the existing conventional relationships between Bank rate and the Clearing Banks' advances and deposit account rates, also the rate for 'good money' to the discount market, were discontinued. The banks now set their own Base Rates (which reflected movements in market rates) and to which each bank's lending rates were related. Rates charged by the Clearing Banks and other banks to the discount houses became much more competitive, even volatile. Then, on October 13, 1972, the Bank of England introduced its Minimum Lending Rate (MLR) in place of Bank rate. The new rate was calculated by adding $\frac{1}{2}$ per cent to the *average* rate of the accepted Treasury bill tenders and rounding the result up to the nearest $\frac{1}{4}$ per cent. It could also be altered (like old Bank rate) by 'administrative decision'.

Also, some time before MLR was introduced (actually as from October 22, 1971), the Bank of England arranged an *additional* facility at 2.45 p.m. At the same time, the former arrangements were retained and discount houses could still go to the Bank of England up to 2.30 p.m. However, the two facilities were somewhat different both in intention and in character. When a house went to the Bank up to 2.30 p.m., it may have been 'forced into the Bank' because of a policy decision to make money short and push up interest rates. This would have been the result of a conscious decision by the Bank of England. If the Bank did not wish to do this, it could undertake 'smoothing out' operations through the 'special buyer'.

The additional facility, which was entirely at the discretion of the discount house concerned, provided for limited borrowing up to 2.45 p.m. at 7 days (or for other periods). Any such transactions were confidential between the Bank of England and the house concerned and were not reported in the press. These facilities were:

"intended to give houses time — but strictly limited time — for adjustment if fluctuations in short-term interest rates become more frequent and larger than recently; and to make a clear distinction between the use of last resort facilities for this purpose and borrowing forced on the market by the Bank, whether in the interests of smoothing out large fluctuations in money flows or as an act of monetary policy."⁸

More recently, the Bank has stated:

"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..."⁹

On November 24, 1980, the Bank of England announced in the context of its methods of intervention in the money market that:

"it is envisaged that the Bank's intervention will place a greater emphasis on open market operations and less on discount window (lender of last resort) lending. It has been decided that these operations should continue to be conducted in the bill markets rather than through the inter-bank market, and in large part through the existing intermediaries, members of the London Discount Market Association to whom discount window facilities would remain confined."¹⁰

Borrowing at 2.30 p.m., which becomes public knowledge, still takes place and the Bank of England would compel it then, when it was a case of signalling that the rates on bills were too low for the Bank of England's liking. It should be noted, too, that sometimes — even when a discount house has squared its book — it may borrow at the Bank of England in order to pass limited amounts of money on to the banks in the inter-bank market, where funds are unsecured, but only to the extent that houses have free security; alternatively, the banks could lodge security with the discount house against a loan.¹¹

⁸ *Competition and Credit Control* (articles from the BANK OF ENGLAND, *Quarterly Bulletin* 1971-1974), p. 15. The quote is from the text of part of a Sykes Memorial Lecture given by the Chief Cashier to the Institute of Bankers on 10 November 1971.

⁹ BANK OF ENGLAND, *Quarterly Bulletin*, March 1982, p. 87.

¹⁰ See BANK OF ENGLAND, *Quarterly Bulletin*, December, 1980, p. 428.

¹¹ It has been said that the Bank of England now makes help available "on a market totality basis". In other words, the Bank of England is prepared to put in what the market as a whole

Consistent with the changes introduced at the time of Competition and Credit Control, the syndicated bid at the Treasury bill tender was abandoned, i.e., the market would no longer tender for Treasury bills at a price agreed amongst themselves. At the same time, the Bank of England asked the market to continue to apply each week for an amount of Treasury bills sufficient to cover the amounts of bills offered at the tender, when they would be prepared to continue to confine to the market their extension of last resort facilities in the form of lending or purchase of eligible paper (apart, of course, from the usual direct purchases of bills from the Clearing Banks in the day-to-day management of the money market and any facilities accorded by the Bank to Stock Exchange money brokers). (It should be noted that while there were discount brokers outside the Association they continued to participate in the Treasury bill tender.) The Bank of England also stated that, when they extended last resort facilities by lending, "they would require the houses to provide part of the collateral, up to a minimum proportion to be agreed, in the form of Treasury bills". There was a genuine understanding that "the market would be prepared to take up the bills if there was nobody else there to take them up". The share to be taken up, if necessary, by each of the houses would be "according to their capital and their size". However, as one would expect, if houses were to undertake that bills be taken up by the market at an underwriting price, this price would necessarily be lower (i.e., the rate of discount would be higher) than for bills that were tendered for. (It was disclosed to a House of Commons Select Committee in March, 1976, that the rate of interest for underwriting purposes was "running at about 1 per cent higher than the then Treasury bill rate".) Basically, these arrangements to underwrite the Treasury bill tender still obtain.

Originally, with the introduction of Competition and Credit Control, the discount houses were required to hold a minimum of 50 per cent of their funds in public sector debt, but experience with the 50 per cent public sector debt ratio was not wholly satisfactory and the requirement "tended to complicate the Bank's task of securing adequate

needs, with the Bank buying bills at the best rates on offer. But that does not necessarily mean that a particular house will in this way obtain what it requires and the Bank may well leave it to the discount houses "to sort it out amongst themselves". In other words, some houses may well be more successful in obtaining moneys than other houses, which in the result are still left short, but there is nothing to stop the houses that have done rather better in terms of amount from on-lending at an appropriate margin some of the moneys that they obtained because of their more favourable bids. This can happen because the houses have become very much more competitive, also amongst themselves.

influence over credit extended by the discount market, and produced distortions in short-term money markets."¹²

In order to alleviate these difficulties, the public sector debt ratio was replaced, with effect from July 19, 1973, by a multiplier, which limited the aggregate holdings of each house of assets other than those defined as public sector assets to a maximum of 20 times its capital and reserves. The Bank of England also remained concerned that the size of each house's total business should continue to bear "an appropriate relationship to their capital and reserves". This multiplier (relating to a house's total business) was about 30. This was described as a 'guideline' and was essentially in the character of a prudential control, whereas the new multiplier of 20 applied to the holdings of private sector debt was in the nature of a credit control. The overall multiplier of 30 reinforced the 20 times multiplier in restricting the creation of reserve assets through the discount market. The Bank attached considerable importance to this limit and monitored it closely. Comparable limits were imposed on discount brokers outside the London Discount Market Association and to the money trading departments of certain banks.

Although the 20 times multiplier gave the houses considerably greater flexibility in managing their books, it did not weaken the authorities' influence over credit extended by the discount market, nor represent an easing of credit control. For although the multiplier was large enough to accommodate occasional temporary movements by individual houses, it was in no sense to be regarded as a norm. Furthermore, though the obligation to hold a proportion of their assets in certain forms of public sector debt had formally been lifted, market practices continued to require houses to include in their portfolios a substantial proportion of such assets, particularly those that provided liquidity.

A very important ingredient in Competition and Credit Control was the decision to "restrict the extent of the Bank of England's operations in the gilt-edged market". More particularly, the Bank would no longer be prepared to respond to requests to buy Government stock outright, except in the case of stocks with one year or less to run to

¹² For example the requirements that a house should hold 50 per cent of its funds in certain forms of public sector debt placed a premium on these public sector assets, particularly those such as Treasury and local authority bills which were bought by the Bank when providing assistance to the market. For more details see J.S.G. WILSON, "An Experiment in Competition and Credit Control — The U.K. Experience Post-1971", *Geld en onderneming* (Leyden, 1976), as reprinted by SUERF, p. 13.

maturity, which stocks featured in the Clearing Banks' Reserve Assets Ratio. The Bank of England reserved the right to make outright purchases of stock with more than a year to run solely at its discretion and initiative. The Bank would be prepared to undertake, at prices of its own choosing, exchanges of stock with the market, except those that unduly shortened the life of the debt; and it would be prepared to respond to bids for the sale by it of 'tap' stocks and of such other stocks held by it as it might wish to sell.

This was part of the new policy accompanying changes in credit control and which were intended to allow greater freedom of competition with a smaller degree of intervention by the authorities in the gilt-edged market "so as to leave more freedom for prices to be affected by market conditions ..." This did not mean that the Bank of England had discontinued its normal operations of selling longer-dated gilt-edged against purchases of short-dated stocks "as a technically efficient way of re-financing maturities". But it did mean that the Bank would "not generally be prepared to buy stock outright". "Thus," they said, "we shall not normally be prepared to facilitate movements out of gilt-edged by the banks, even if their sales should cause the market temporarily to weaken quite sharply".

In retrospect, it would seem that the discount market did not appreciate the full implications of what the Bank of England had said and the discount houses, which over a period of years had been dealers in short Government bonds, went on much as before, some of them continuing to hold large amounts of Government stocks either for the running yield or in the hope of making capital gains as well as providing a basis for dealing. But when in 1972 the Bank of England intervened to the disadvantage of the discount houses and then in July 1973 failed to support the market, the discount houses burnt their fingers very badly and made heavy losses.¹³ As a result, some gilt-edged holders now preferred to stay shorter than hitherto and, latterly, this has been true of both the discount houses and the banks. In the result, the discount market, after making some very heavy losses, became "very much more wary" of gilt-edged, though latterly they had "put their toe back in the water" and were now jobbing the market "more professionally than

¹³ The situation was complicated by the fact that the discount houses had been observing the 50 per cent public sector debt ratio and therefore had virtually had to hold gilts. This requirement was now removed somewhat suddenly instead of being phased out more gradually and at a time when MLR was being increased quite substantially.

they had done before". (Evidence to the House of Commons Select Committee.) But, if there was thought to be an opportunity of capital gains because of an expected fall in interest rates, the discount houses (or some of them) were still prepared to chance their arm and move again (if only for a time) significantly into gilts.¹⁴

Under Competition and Credit Control, the Clearing Banks (as well as other 'statistical banks') were required to maintain a minimum of 12½ per cent of their eligible liabilities (primarily sterling deposits of up to 2 years maturity, including sterling certificates of deposit) in reserve assets, which consisted mainly of Treasury bills (and gilts with a life of up to one year) and secured money at call with the London discount market. (In practice, banks tended to move into slightly longer gilts in anticipation of their becoming Reserve Assets.) For the Clearing Banks, a balance of 1½ per cent of eligible liabilities (included in the 12½ per cent) had to be held in interest-free deposits with the Bank of England. (Notes and coin held in banks' tills did not count as reserve assets, nor did Bank of England notes and coin held as cover for notes issued by the Scottish and Northern Ireland banks in excess of their authorised, i.e., fiduciary issues.)

By 1980, the authorities already believed that the requirement to maintain a minimum 12½ per cent reserve assets ratio was no longer necessary and it was proposed that it should end. It was reduced to 10 per cent in early January 1981 as a step on the road and for most of March and April it was reduced to 8 per cent for technical reasons. But it was realised that it would be necessary to have some cash requirement

¹⁴ Under new multiplier arrangements (see below), there are now limitations imposed by the added risk weightings.

During the period of the 50 per cent public sector debt ratio, of course, the discount houses virtually had to hold some gilts. Latterly, holdings of gilts have been smaller than they used to be. The market is more volatile and the risks are greater. Hence, the time horizon is also shorter than it once was. But houses still take a position from time to time and they may therefore expose themselves to losses; at other times, they may make big profits. On the whole, except for small holdings of index-linked gilts, gilts are not today held by the discount houses as an investment. But at least some of them hold a lot of variable rate stocks. It should be noted, too, that discount houses (and gilt-edged jobbers), if they do not have a particular Government security to sell, may borrow it — e.g. from banks, insurance companies, and some pension funds. Discount houses would borrow stock up to a seven-year maturity; gilt-edged jobbers for any length of maturity. These deals are arranged through certain stockbrokers, who pay the lender ½ per cent on borrowed stock and charge the borrowers ¾ per cent. This is one way of avoiding hold-ups — e.g. if stock has been bought, but has not yet been delivered, a sale of that stock can still be effected on the basis of borrowed securities, though these — or similar stock — will have to be returned in due course.

More recently, the Bank of England has introduced a degree of flexibility by issuing existing stocks in *tranches* — issues in 3, 4, or 5 "little slices" which are available in the portfolio of the Bank of England to be sold at its discretion. By this means, the authorities can keep funding going without making too much of an impact on the market.

and it was proposed that the existing requirement (1½ per cent of eligible liabilities which had to be held by the London Clearing Banks with the Bank of England) should be replaced by one that applied more generally. But the Special Deposit Scheme would be retained "to guard against the possible effects of excess liquidity in the banking system as a whole".

In the result, the minimum reserve asset ratio including 1½ per cent of eligible liabilities (held by the Clearing Banks with the Bank of England) was replaced in August 1981 by (1) a voluntary holding of operational funds with the Bank of England by the London Clearing Banks ("for clearing purposes"); (2) a uniform requirement of ½ per cent of an institution's eligible liabilities that would be applied to all banks and licensed deposit-takers with eligible liabilities averaging more than £ 10 million; this was the non-operational requirement and was to be set twice a year in relation to average eligible liabilities in the previous 6 months.¹⁵ In calculating eligible liabilities, inter-bank loans and secured call money placed with discount houses, money brokers, and gilt-edged jobbers in the Stock Exchange were treated as an offset. Window dressing was to be avoided, since it would be "contrary to the objective of these agreed arrangements for any institution to reduce its eligible liabilities deliberately or artificially on reporting dates". The Bank of England accordingly reserved the right to make spot checks.

This had implications for policy with respect to the gilt-edged market. As a consequence of abolishing the minimum reserve asset ratio requirement, the Bank of England — as from August 20, 1981 — decided to modify the basis on which it dealt in the gilt-edged market in stocks *within* 12 months of maturity. The Bank of England would continue to buy stock offered to it within 3 months of maturity, but at prices of its own choosing. Outright purchases of stock with more than 3 months to maturity would be solely at the Bank's discretion, though it was expected that the Bank would exercise this discretion more liberally for maturities between 3 and 12 months. In measuring and assessing the liquidity of banks, the Bank of England would take into account the resulting readier marketability of gilt-edged stocks within 12 months of maturity. As before, the Bank of England was prepared to operate in gilt-edged stock approaching maturity in order to smooth out the distortions in the money markets which would occur if the whole of

¹⁵ "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)." BANK OF ENGLAND, *Quarterly Bulletin*, March 1982, p. 89.

each maturing stock were left in market hands and redeemed on one day.¹⁶ In addition, it facilitated the efficient operation of the secondary market in gilt-edged stocks. For example, it helps holders to switch into longer-dated gilts. These transactions are done through the Government broker.

Also, as from August 20, 1981, the date when the new changes came in, all banks that were eligible acceptors were normally required to hold an average equivalent to 6 per cent of their eligible liabilities either as secured money with discount houses or as secured call money with money brokers and gilt-edged jobbers, but the amount held in the form of secured money with a discount house was not normally to fall below 4 per cent of eligible liabilities. This was to be monitored by the Bank of England, to which banks would make monthly returns of daily figures.¹⁷ This money became known as 'club money'.¹⁸ It is probable that this arrangement will not continue indefinitely, given the authorities' emphasis on market forces in the operation of monetary control, though its removal will no doubt be gradual. Indeed, some of the discount houses already feel that it would have been better not to have this requirement. They feel that call money with a discount house represents such excellent liquidity for a bank that the banks would deposit money with them anyway (at the right price) and enable them to finance as big a bill book as they — and the Bank of England — could require.

In addition, as from August 20, 1981, MLR was suspended. Linked with this were certain changes that affected discount market arrangements. It seemed that the Bank of England wishes to give the money market more say in the determination of interest rates rather than themselves to impose a structure. Under the new system then intro-

¹⁶ Formerly, the discount market absorbed short bonds (say up to 2 years maturity) and held them until the authorities were ready to take them in. (See Wilfred King quoted in J.S.G. WILSON, *The London Money Markets* SUERF, 1976, p. 12). But, because of the banks' Reserve Assets requirements, it ceased to be attractive to hold gilts up to 2 years maturity and it has not really been done by the discount houses since the introduction of Competition and Credit Control in 1971.

¹⁷ In order to maintain a 6 per cent moving average over 12 months, a large Clearing Bank in England, may have to run a figure of over 6 per cent of eligible liabilities over long periods. Only when money is very short would it be run down to near the minimum. The Scottish Clearing Banks probably maintain a figure around 6 per cent more or less all the time. If a bank's liquidity is satisfactory and the 'club money' requirement is being met, where a bank puts its temporarily surplus money would depend on the rate of return — if inter-bank pays more, it will go there instead of direct into the discount market. Also, one should note that the London Clearing Banks believe the 6 per cent is too high, and it is known that in this context representations have been made to the Bank of England.

¹⁸ The 'club money' pool is of the order of £ 3,000 million; market holdings are (say) £ 5,500 million. Much of the balance would come from secured bank loans to the discount houses over and above the 6 per cent 'club money', as well as from commercial corporations.

duced, short rates (say up to 7-14 days) are to be kept by the authorities within a range — the so-called “unpublished band”; longer rates are to be allowed to fluctuate more freely. “Decisions as to the band will be taken in accord with the same range of considerations as would have determined decisions about MLR, so that the new arrangements imply a change in techniques, rather than in the objectives of monetary policy”.¹⁹ This meant scrapping the old structure of Treasury bill dealing rates whereby the Bank of England were not only ready to lend overnight at MLR (which had now been suspended), but also to buy Treasury bills of different maturities at pre-determined levels. (Incidentally, since the Bank of England had hardly lent to the market since November 1980, MLR though perhaps retaining a psychological influence had virtually ceased to have any operational effect on rates.) The announcement of bill dealing rates a week ahead was one of the first things to go. The next stage — in terms of day-to-day operations — was the decision in November 1980 to shift the emphasis from lending to open market operations especially by dealing in bills. In practice, this meant primarily eligible bank bills, i.e., bankers’ acceptances issued by accepting houses, the Clearing Banks, some Commonwealth banks, and (from August 1981) certain foreign banks. Actually, there was no deliberate decision to shift from Treasury bills to bank bills — it was really an accidental by-product of a sharp increase in the size of operations needed to balance the banking system’s cash and a decline in the stock of Treasury bills available in the market to meet it.²⁰ When there is a shortage of credit and discount houses are obliged to sell bills to the Bank of England, they are now required to name a price; if the Bank of England does not like it, it may turn them down. The Bank of England still sets the rates, but it is the market that proposes them.

What the Bank of England is now trying to do is to:

“smooth out day-to-day shortages or surpluses of cash by means of open-market operations, rather than by direct lending to the discount market. In dealing with shortages, the Bank has usually either bought bills outright or, if the shortage was to be followed before long by a day of prospective surplus, it has bought bills for resale on that day. When the market has been in surplus, the Bank has sought to sell Treasury bills set to mature on a day of prospective shortage. Where large transactions could be estimated in advance — notably oil tax payments or calls on part-paid gilt-edged stocks already sold — operations have been framed accordingly ... All these operations were conducted within the context of a general objective for very short-term

interest rates. Where the Bank dealt in longer-term bills, it did so to change the market’s cash position on the day of the transaction and hence to influence very short-term interest rates. The Bank did not aim to affect rates on longer-term bills themselves but, rather, operated at appropriate market rates to avoid giving a signal which could otherwise have had undue influence on the market.”²¹

Foreign banks have been allowed to join the club of eligible acceptors, provided they fulfil certain requirements; this has had the effect of greatly enlarging the bill market, making it easier for the Bank of England to supply liquidity through the purchase of bills and to influence the inter-bank market.

Under the new arrangements,²² the Bank of England maintains running forecasts of the cash position in the money market; it does this daily for several weeks ahead and also 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”.²³

Needless to say, there is inevitably considerable uncertainty in these forecasts.

On the basis of the information available, the Bank of England then makes known to the market simultaneously (by an announcement on a screen which will be transmitted to each of the relevant dealing rooms) its estimate of the day’s position. This goes out at about 9.45 a.m. As an example, the announcement might take the form that a shortage of around £q million is expected today. Among the main factors are likely to be the following:

Exchequer transactions	— £x million
(which include the effect of gilt-edged and Exchange Equalisation Account settlements)	
Decrease in note issue	+ £y million
Bills maturing and take-up of Treasury bills	— £z million

²¹ BANK OF ENGLAND, *Quarterly Bulletin*, September 1981, p. 333.

²² See the excellent article in BANK OF ENGLAND, *Quarterly Bulletin*, March 1982: “The Role of the Bank of England in the Money Market”, pp. 86 ff.

²³ *Ibid.*, p. 90.

¹⁹ See BANK OF ENGLAND, *Quarterly Bulletin*, September 1981, p. 312.

²⁰ See BANK OF ENGLAND, *Quarterly Bulletin*, June 1982, p. 181.

The total is rounded to the nearest 50. Only exceptionally is the position of bankers' balances relative to target disclosed, while that of other customers is never revealed. Bills being resold to the market would usually be disclosed if significant, as would the repayment of any published lending. As would be expected, many of the factors (as above) will be subject to revision as the day proceeds. If by noon the overall estimate has changed greatly, the Bank releases a revised figure. Meanwhile, in addition to its own estimates of the market's position, the Bank of England will have taken into account information assembled by its broker relating to the aggregate position of the discount houses, indications with respect to their positions from the major banks, and the state of the market as evidenced by the behaviour of short-term rates. After considering these factors and any special operational objectives it has for that day, the Bank of England will decide shortly after mid-day whether or not it is to operate in the money market.

The banks themselves will have withdrawn any funds required from the discount houses. This they will have done before noon, though they may offer surplus funds to the houses right up to the close of business in the afternoon. (They may continue to deal for same-day settlement up to the town clearing, where in practice dealings cease at 3.30 p.m.) So any shortage in the system should show up by noon in the position of the discount houses. Actually, the banks may make precautionary withdrawals from the houses in the morning, some of which may turn out to be surplus to their needs later in the day. Hence, the shortage reported by the houses may be larger than the Bank's estimate. Moreover, any overall surplus is unlikely fully to show at this time. Before lunch then the Bank of England normally acts — if at all — only to relieve a shortage and, at this stage, its dealings with the discount houses are confined to operations in bills. The Bank, operating through its brokers (Secombe, Marshall and Campion) 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".²⁴ There are 4 such bands — Band 1: 1-14 days (to which the Bank of England interest in "very short rates" would generally relate); Band 2: 15-33 days; Band 3: 34-63 days; and Band 4: 64-91 days. All periods are defined in terms of the remaining, not the original tenor of the bills. If possible, the Bank of

²⁴ *Ibid.*, p. 92.

England will probably prefer to operate in Bands 1 and 2, but when money is very short the Bank of England has to go into Bands 3 and 4, even though the Bank is normally reluctant to go out to the longer end. The Bank would not usually purchase bills with more than 3 months remaining to maturity. On this basis, each discount house:

"may then offer quantities of the bills to the Bank, specifying a discount rate 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 ... 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;²⁵ more commonly, it may reflect a rather modest amount of offerings ...; alternatively, the Bank may have other reasons..., and may therefore restrict its operations at this session."²⁶

Formerly, it was the Bank of England's practice to keep a watchful eye on the quality of bills being discounted in the market by regularly buying in — through its broker — samples of the bills that were currently circulating. If, therefore, the market wished to sound out Bank views on a particular type of bill, some of this paper might well be included in the next sample submitted.²⁷ Under the existing arrangements, the Bank sees so many bills that sampling is no longer necessary²⁸ and, indeed, from time to time for similar reasons the Bank had suspended its sampling of bills in the past. Nevertheless, the Bank will not infrequently discuss 'acceptance clausuring' with banks, discount houses, even sometimes with drawers of bills before the bills are drawn; alternatively, a discount house may still slip in a bill that they want to try out in order to test the 'clausuring', which determines what type of bill it is; this may be necessary because even a bill with an eligible name will not be eligible if the 'clausuring' is ineligible.

An alternative technique in providing the houses with money is for the Bank to invite them to enter into a sale and repurchase agreement in bills (a Repo), when the Bank will specify a terminal date (or dates) for the repurchase by the discount houses and the rate of discount used to calculate the proceeds of the bills. The houses then bid a rate of interest

²⁵ This may be deliberate policy on the part of the discount houses. In effect, the probing time (in order to test Bank of England reactions) is mid-day. If the houses find they cannot get the money they want then, they know they must offer more for it at the next round in the afternoon.

²⁶ *Ibid.*, pp. 92-93.

²⁷ J.S.G. WILSON, *The London Money Markets*, pp. 36-7.

²⁸ The last sample was in August 1980.

that they will pay to the Bank on the proceeds for the specified period. This rate the Bank may or may not accept. When the Repo is 'unwound' the houses repay the proceeds to the Bank by repurchasing the bills. The rate of interest on the proceeds is the cost to the houses of their money. In effect, the operation is a secured loan for a fixed period. This technique may be chosen to enable the market position on future days to be smoothed out — e.g., a day of expected surplus could be offset by choosing it as a repurchase date. They may be used on days of large shortage when houses are unable to sell sufficient 'outright' to 'take out' the shortage. On some days, the Bank may be prepared to 'repo' bills, which because they are not within 90 days of maturity would be ineligible for outright purchase. Again, 'repos' 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 — e.g., switching between techniques to prevent a particular rate structure from becoming too firmly entrenched.

The transactions undertaken by the Bank of England in the morning are made public, together with the quantities and rates for each instrument and band. Normally, at about 2 p.m., the Bank will publish any further significant revision to its estimate of the market's position for the day. On the basis of this estimate and other indicators, the Bank will then decide whether to invite business from the discount houses, which may be in addition to business transacted at the earlier session. This could involve further operations in bills as already described. Thus, the Bank can influence interest rates by its reactions to the offers made to it. If the Bank is content with the pattern of rates implied by these offers, it is generally prepared to accept sufficient of them to "balance the market". But if the rates that are offered conflict with the Bank's interest rate objective, all or part of the offers may be rejected. If then houses are short of funds, the Bank may let it be known that it is willing to lend to the discount houses. Such lending is against security, at a rate fixed by the Bank and is generally for a period of up to one week. Such occasions are exceptional and are in contrast to the arrangements that used to obtain where houses could at times borrow continuously.

On the basis of current arrangements, the Bank of England may decide to lend (1) when there is an isolated or unexpected shortage — possibly large — that is technical in character (e.g., an over-subscription to a new issue of Government stock, or a half-yearly payment of petroleum revenue tax). In these circumstances, the Bank may not wish

to relieve the shortage entirely by operations in bills, because it may cause unnecessary distortions to interest rates. It may therefore choose to lend — in which case the rate charged may be close to market rates; or (2) when the Bank wishes to see very short-term interest rates higher, but believes the discount houses will not offer — or finds that they have not offered after being invited to do so — 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."²⁹ Resort would be made to the long-established 2.30 p.m. facility only if the Bank wished to give a definite signal heralding a sharp change in policy. One might also note that use of the 2.45 p.m. facility normally on an overnight basis has under the new arrangements only been spasmodic.

If there is a surplus of money in the market, usually the Bank acts only in the afternoon to absorb it. The Bank will then invite the discount houses and the Clearing Banks to bid for Treasury bills of one or more specified maturities, but first the Bank will want to be sure that an overall surplus does exist and that any discount houses looking for funds have had full opportunity to find them. As will have been noted, the Clearing Banks are also included in the invitation. This is necessary, because otherwise they would be at a substantial disadvantage vis-à-vis the discount houses in finding an outlet for surplus funds. Indeed, it is understood that mopping up operations are more usually done with the banks than with the discount houses. Again, the Bank of England will use its discretion as to which bids for Treasury bills to accept, with lower rates being accepted before higher ones for bills of a particular maturity. Also, the basis for mopping up operations is Treasury bills, not eligible commercial bills, though when the Bank is making money available Treasury bills may be bought, Corporation (local authority) bills, too, at times, but mostly it is commercial bills. For one thing, there are today only a few Treasury bills in issue. The preference for Treasury bills when mopping up is because (a) it is easier to get the right date with a Treasury bill (there is an available supply of different dates) and (b) it would be less easy to sell off private paper rather than Treasury paper; in addition, it could be a nice question as to whose private paper

²⁹ *Loc. cit.*, p. 90.

might be sold back to the market. There is also more work in selling commercial bills. (Incidentally, when the Bank of England is buying local authority or bank bills, these go into the Bank direct and not through Seccombes; Treasury bills go through Seccombe, Marshall & Campion).

The Bank again publishes the details of its market operations in this second (afternoon) 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.”³⁰

The operations that have been described are the principal ones undertaken by the Bank and the daily timetable and procedures outlined above are now well established. But the Bank may alter its arrangements “at any time to deal with specific temporary situations or with underlying changes in market structure”. It should also be observed that transactions within the banking system may continue for some time after the Bank itself has concluded its operations, if any. For example, the inter-bank market in overnight funds may be active until dealing is effectively terminated by the need to present items at the town clearing. Moreover, only when the outcome of this clearing is known will the net money position for the day and the final positions of each of the Clearing Banks at the Bank of England become apparent.

In reorganising market arrangements following the demise of Competition and Credit Control, the next stage was to extend prudential controls (which had already been considerably developed for the banks) to the discount houses. There had long been certain rules. For example, over many years, there had been a principal multiplier (for a long time not publicly disclosed) which established a guideline for a

discount house's total book; this was set at 30 times its ‘resources’ (capital and reserves); and there was a subsidiary multiplier of 8 times ‘resources’, which was applied to a discount house's bond book. From time to time, other multipliers or controls were applied to the operations of the discount houses, for reasons other than those of prudential regulation. Thus, the credit control arrangements which lapsed in August 1981 incorporated a limit on the discount houses' holdings of certain assets; also, principally in order to conserve their capacity to operate in the sterling market, a limit of 3 times ‘resources’ was applied to their books in foreign currency assets when some houses entered that business.

Over recent years, a number of numerical tests had been developed for the prudential supervision of banks; most notably, these have been concerned with capital adequacy. “The central ingredient of that test is the assigning of risk coefficients to various classes of banking asset, so that a suitably weighted measure of each bank's exposure to risk of loss may be compared with its capital funds available to absorb losses.”³¹ But the measurement devised for the generality of banks, the primary emphasis of which was on credit risk, was not suitable for application in that form to discount houses. Nevertheless, it was apparent that a similar approach could be followed “to categorise the degrees of risk of different assets held by Discount Houses so as to arrive at a more discriminate measure of the capital needs of a book of given size and composition” than was provided by the existing — and long-standing — multipliers. Before new arrangements were introduced, there were discussions with the London Discount Market Association and some time was allowed for the new monetary control arrangements of August 1981 to settle down; also there were “uncertainties over the degree of volatility of asset prices that might be experienced.” Even after the new arrangements were introduced, it was “intended that the operation of the new system should be reviewed in the light of experience; and that it be further developed as necessary to encompass new types of activity, for example, trading in futures markets.”³²

³¹ Release by Bank of England on “Discount House Multipliers”, June 1982.

³² There is not going to be space in this article to discuss at length the role that might be played by discount houses in the new market for financial futures, but several of the discount houses (including the three largest) have acquired seats on the exchange; some have other additional interests like a participation in a broking company and the Clearing Banks are very interested. The role of the discount houses will be as risk-takers on rates; indeed, the ‘commodity’ dealt in will either be an interest rate or a currency contract (the £, yen, Swiss Franc, or DM

³⁰ *Loc. cit.*, p. 93.

The new arrangements are “conceptually simple and centre on the notion of an ‘adjusted total book’ which is to be limited to a fixed multiple of a House’s ‘capital base’. This ‘adjusted total book’ is calculated by assigning ‘added risk weightings’ to certain classes of asset, and adding to the actual total book the product of the weighting and the amount of assets in each class (the ‘additions’). ‘Additions’ attributable to the length of the maturity term of assets may be reduced if there are liabilities of corresponding maturity. In addition to the overall limit, a subsidiary limit is to be applied to the total net ‘additions’.”

“These arrangements have the effect that a House whose book consists almost exclusively of low risk assets may hold a larger total book than one whose book contains higher risk assets. The actual levels set are 40 for the main multiplier, and 15 for the subsidiary multiplier. The Bank will wish to retain a degree of flexibility in administering the new system so as to allow exceptions which are perfectly prudent (e.g., taking short-dated mop-up Treasury bills even if it means exceeding the 40 x limit) or to disallow unbalanced structures that are permitted by the simple arithmetic, but it recognises that the exercising of such flexibility must not disturb the basis of competition within the market.”

There are three main types of risk inherent in any assets held: (i) credit risk = default risk; (ii) investment risk = risk of changing market value of assets; or (iii) as part of (ii) forced sale risk = risk of additional loss if forced to sell at short notice assets in which the market is narrow. The assets held by discount houses carry principally the latter two types of risk, but there is also some element of credit risk in assets such as trade bills or unsecured loans. Historical experience is that investment risk increases with the term to maturity of the asset and that forced sale risk is less for gilt holdings than for other marketable holdings of comparable maturity. Details of the several risk classes were set out in an annex. Some assets (e.g., inter alia, cash at bankers, deposits with the Bank of England, eligible bills up to 3 months, certificates of deposit up to 3 months, fixed rate British Government securities up to 3 months)

against the U.S. Dollar); interest rate contracts will comprehend 3 months sterling deposits; 3 months deposits in Euro-dollars; and a notional 20-year gilt with a coupon of 12 per cent (in effect, they would be delivering a package of gilts to yield 12 per cent). Under current circumstances, the amount of Treasury bills available means that the market would be too small to deal in Treasury bills. The parties that will participate are the hedger, on the one hand, and the trader (speculator) on the other. The role of the discount houses will probably be partly as hedgers as well as speculators. For a deal to be accommodated, there will need to be equal and opposite views. There is, of course, much more to it than that. For a factual description of some of what is involved, see *The London International Financial Futures Exchange, an Introduction*, pp. 12.

do not attract an added risk weight; others carry appropriate added risk weights. Of these, there are 3 classes — again only examples will be given. Added risk weight = 1 includes eligible bills 3-6 months, ineligible bank bills 3-12 months, trade bills 3-6 months,³³ other trade bills up to 3 months, CDs (both for £ and dollar) 3-12 months, fixed rate British Government Securities 3-18 months (or short positions in such stocks), etc.; added risk weight = 2 includes ineligible bank bills over 1 year, trade bills over 6 months, other trade bills over 3 months, CDs (£ and dollar) 1-3 years etc.; and added risk weight = 4 includes CDs (both £ and dollar) over 3 years, fixed rate British Government Securities over 5 years (or short positions in such stocks), fixed rate quoted assets over 3 years, fixed rate unquoted assets over 18 months, etc. Asset holdings are to be measured for these tests at market values.

It is also necessary to define the capital base. This is intended to provide the best measure of a house's ability to absorb losses in its discount market operations. This means that any capital required to support other activities — whether or not they are conducted in a separate company, e.g., a subsidiary — cannot be counted a second time as part of the capital base in the money market. Subsidiaries should be adequately capitalised in their own right, or may in appropriate cases be consolidated with their discount house parent for the purpose of these measurements. The definition includes inter alia the amount paid up on ordinary share capital (here and elsewhere relating to the discount house only and not to any holding company or subsidiaries) plus items like share premium account, capital reserves, general reserves, profit and loss account, etc. From this would be deducted items like net book value of fixed assets, goodwill, book value of interests in subsidiaries and associated companies, and unsecured loans to parent company or fellow subsidiaries.

Where an ‘addition’ is required because of the length of the maturity term of an asset, the Bank of England will allow a reduction in its amount to reflect the existence of liabilities of comparable term. A discount house matching maturities in this manner reduces the risk inherent in the longer asset. Longer term money liabilities must, to qualify for this alleviation, be totally fixed (i.e., not *callable* fixtures).

This proposed treatment of matching liabilities has relevance for short positions in the gilt market. ‘Matched’ long and short positions

³³ Trade bills must be drawn and accepted by independent names, or bear one public sector name, or be insured.

may be netted out in the reported assets, i.e., where the relevant maturity dates are within 3 months for stocks within 18 months of maturity or within 12 months for longer stocks. Where short positions do not qualify to be netted out, the added risk weighting in each risk class will be applied to whichever is *the larger* of the long positions and the short positions in that class. The 3 x currency multiple will no longer apply under these new arrangements but, since an unmatched currency position can expose a discount house to exchange risk, a house's open position in currency will be included in the framework of added risk classes. In these ways, the Bank of England is attempting to ensure that the discount houses maintain prudent business practices at all times and do not expose themselves excessively to risks that they may not be able to meet if the value of investments falls. On the whole, the new rules are a formalisation of good working practices.

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