## Sterling certificates of deposit and the inter-bank market

### Introductory

The market in sterling certificates of deposit was described in an article in the *Bulletin* last December. It was, however, then possible to give only a limited amount of information about the maturities of these instruments, as the returns made regularly by the banks at the end of each month relate only to the maturities of the certificates that they have issued, and not to those that they hold. The only information normally available concerning the maturity distribution of holdings of certificates is limited to those of the discount houses and a few banks which together make the secondary market. This information also relates to the month's end, and is published by the Bank, along with some other information concerning the maturities of issues and of certificates traded in the secondary market, in a series of monthly press notices.

As a result of a special inquiry made by the Bank last April, some further information is now available. The inquiry was undertaken partly in the aftermath of the difficulties which had overtaken the Scottish Co-operative Society, to some extent as a result of dealings in this market. But it seemed desirable on more general grounds, also, to improve the Bank's knowledge of operations in the market; and to extend the inquiry at the same time to cover the somewhat larger 'parallel' sterling market in (mainly) unsecured inter-bank funds. For a broad comparison, about £5,500 million is committed in this unsecured inter-bank market; and there is about £5,000 million in sterling certificates of deposit outstanding, of which about £4,000 million is held by banks and the discount houses. Total issues and holdings of certificates, and commitments in the inter-bank market, are shown by groups of banks in the regular banking statistics (Table 8) in the statistical annex to the *Bulletin.*

As regards the inter-bank market, it was hoped that the inquiry would also throw some light on the reasons for the discrepancy which commonly occurs in the monthly statistics between the figures for total borrowing and total lending within the banking sector. On occasions this discrepancy can be very large — around £300 million; and the change in the discrepancy from one month to the next can be as much as £100 million. This is not only unsatisfactory in itself; it casts doubt upon the accuracy of other items within the banking sector balance sheet, or which are derived from it, such as the monthly estimates of money stock and of bank lending, which are important for monetary policy. Some mention of this 'inter-bank difference' was made in the Deputy Governor's speech to the Lombard Association last April, which was reproduced in the June issue of the *Bulletin*.[1]

The special inquiry covered all 'listed' banks, that is, all banks and discount houses on the list of those contributing to banking sector statistics, numbering about 280;[2] and it related to their positions as at the close of business on 18th April, the normal mid-month reporting date. The banks were asked to provide:

1 Page 199.

2 See the list on page 573 of the December 1972 *Bulletin,* and amendments in March and June.

(i) a detailed maturity analysis of outstanding sterling certificates of deposit issued and held, and of outstanding sterling borrowing from, and lending to, other banks;

(ii) information concerning 'agency' funds, that is, customers' funds lent to, or deposited with, other banks in the name of the reporting bank but not included in the reporting bank's balance sheet: this to help in the elucidation of the 'inter-bank difference';

(iii) details of forward commitments to issue, sell, or buy, sterling certificates of deposit; commitments to issue certificates were also analysed to show how much was at rates of interest fixed at the time of commitment, and how much at rates to be decided later;

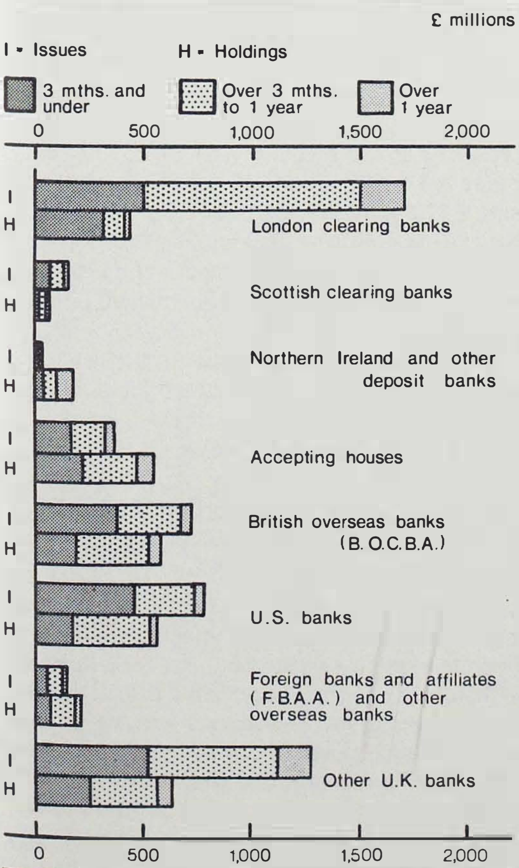
(iv) information about the numbers of banks whose certificates they held, or with whom they were doing business in the inter-bank market; and

(v) as regards the inter-bank market, details of the total amounts borrowed from, and lent to, individual banks by name.

This last request for information about the names of individual banks was exceptional, but was accepted by the banks concerned as essential in order to resolve the inter-bank difference – which would otherwise have called into question any effective analysis of the material.

**Chart A**

Issues and holdings of sterling certificates of deposit at 18 April 1973




### Sterling certificates of deposit

The broad maturity pattern of issues and holdings of certificates by groups of banks is shown in Chart A. This relates – like all the information in this article – to the remaining life of the certificates (or of inter-bank business) at the date of inquiry, 18th April, and not to original maturity.

The total of certificates outstanding last April was £5,195 million. The maturity pattern was very similar to that existing at the end of September 1972, which was commented upon in the article last December: 40% by value of outstanding certificates were due to mature in three months or less; 90% in one year or under. The short-dated nature of the market is clear, even though the shorter categories are inevitably swollen by the inclusion of longer-term certificates coming nearer to maturity and by the fact that banks, rather than issue certificates with several years' life, which are less easily marketable, will often arrange to issue one-year certificates in a series on the understanding that at the end of the year, as one matures, it will be replaced with another or 'rolled over' for a further year or years. There is a difficulty in looking at the position from Chart A. In this, as in other charts in this article, the maturity bands relate to different lengths of time ("over three months to one year", for example, covers a span three times as long as "three months and under") and do not therefore provide a direct comparison of the weight of maturities month by month between one band and another.

There was no great difference in the maturity pattern of issues as between groups of banks. If anything, issues by the London clearing banks were rather longer than the average, with less than 30% due to mature in three months or less; and it is probably true that the clearing banks, other things being equal, prefer to use certificates of deposit to secure funds at longer term than do other groups of banks. But generalisations of this kind are liable to be misleading. Within the general frame of a predominantly short-term market, the precise maturity pattern existing at any one date has less to do with differences between particular groups of banks than with past and present views in the market as a whole about existing and prospective rates of interest.

Given that the banks themselves (without the discount houses) now hold between 60% and 65% of all certificates outstanding, and that the certificates are therefore issued largely to suit their own needs, it is not surprising that the maturity pattern of their holdings followed much the same pattern as issues. Taking the banks as a whole, 40% of holdings, as of issues, had three months or less to run to maturity and close on 90% had one year or under to run. Within the total, the London clearing banks, exceptionally, held a much greater proportion – over 70% – of their portfolio in the shortest category, and 95% were due to mature within a year.

The net positions for most groups of banks show an excess of issues over holdings, as must in any case be true of the banking system as a whole given that the certificates are also held by the discount houses and others outside the banking system. The opposite picture for the Northern Ireland and "other deposit" banks arises partly from the fact that the Northern Ireland banks have not yet issued any certificates, and partly from rather large net holdings by one of the "other deposit" banks. But it is not unusual for the accepting houses as a group, and for the "foreign" and "other overseas" banks, to be contributing funds, net, to the market, as the chart shows them to have been doing at the April reporting date.

**Chart B**

Maturities of holdings of sterling certificates of deposit at 18 April 1973

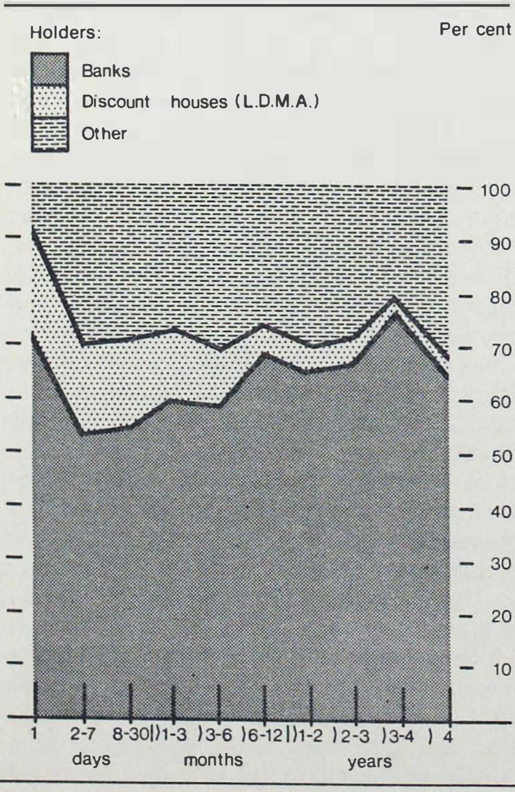
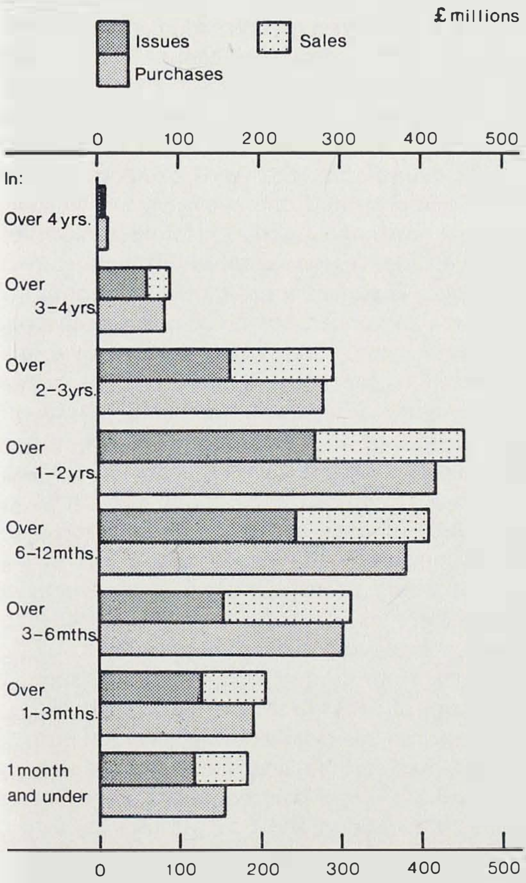



Chart B offers a more detailed analysis of holdings, showing the proportion of total issues, by different maturities, held by the banks, discount houses, and – by residual – others. These "others" in April held about £1,435 million, or a little over one quarter of all certificates in issue. Not very much is known about who these holders are. But at the end of March 1973, when they held altogether about £1,480 million of certificates, it was estimated that about £110 million (7%) was held by overseas customers and a further £260 million (18%) was identified as held by financial institutions (notably building societies and insurance companies). This left £1,110 million (75%) unidentified, presumably largely in the hands of industrial and commercial companies and persons. For many of these there were tax advantages to be gained from selling in advance of maturity any certificates bought before the last Budget, when a loophole was closed. And this no doubt explains the very small percentage shown in the chart as being in "other" hands just before maturity. Apart from this, "other" holdings were a fairly constant proportion (25% to 30%) of all other maturities except the longest – where the figures are very small and cannot be taken as representative.

The discount houses held £525 million, or 10%, of all issues last April. These houses are responsible for making the greater part of the secondary market in certificates, and their holdings therefore represent their stock-in-trade for dealing as well as their own – predominantly short-term – investments. This was reflected in the make-up of their portfolio, of which close on 60% was in certificates of three months or under (compared with 40% for the banks) and just over 95% was in certificates of up to one year (compared with 90%). The actual amounts of all certificates outstanding in each maturity band are shown later on, in Chart E.

**Chart C**

Forward commitments to issue, sell and purchase sterling certificates of deposit at 18 April 1973[a]




a By banks and discount houses.

## The forward market

Although most banks issue or hold certificates, only a comparatively small number – at 18th April – reported forward commitments. Out of the 280 reporting banks and discount houses, about sixty had commitments to issue certificates forward, and about eighty were committed to forward purchases or sales. The amounts involved, and the forward periods in which the commitments fell due, are illustrated in Chart C; here, again, there is considerable distortion in the presentation, to the extent that the categories include the 'roll-overs' described earlier. Very few forward commitments to issue were in fact for long-dated certificates. As an example, forward commitments to issue certificates in the twelve months from mid-April 1974 to mid-April 1975 totalled £270 million, and of these all but £0·2 million had a tenor of less than two years.

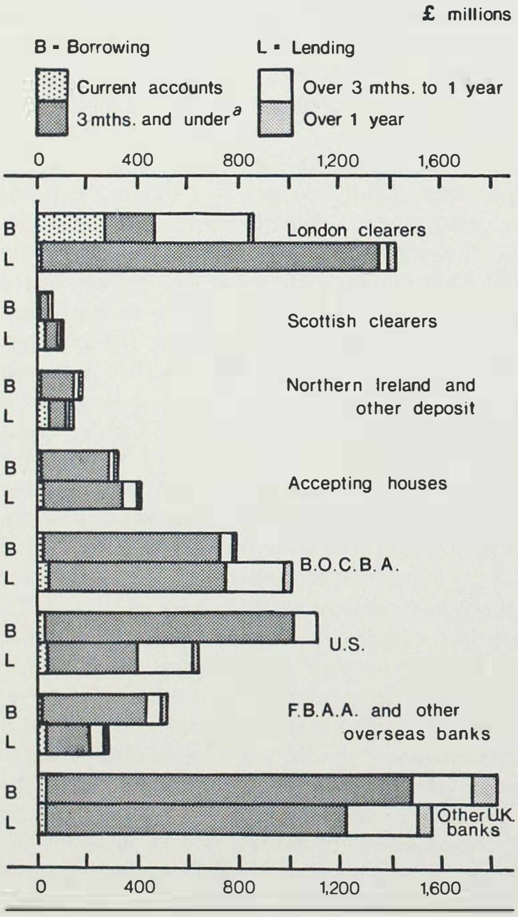
In all, forward commitments to issue certificates totalled £1,150 million on 18th April, of which £730 million was accounted for by the London clearing banks and their subsidiaries. Almost all forward certificates were to be issued at rates fixed at the time of commitment; only about £10 million related to business where the rate was to be agreed at the time of issue, and for about £25 million the rate was variable, for example, related to a bank's base rate. Forward sales totalled just over £820 million, divided equally between banks and discount houses; and forward purchases came to £1,820 million, with the discount houses accounting for about one third (among the banks, the clearing bank groups were not so prominent in sales and purchases as in issues). Taking the forward market as a whole, there was an excess of issues and sales over purchases of £150 million, representing commitments from outside the banking sector to provide funds at some future date.

Few individual banks had sizably unbalanced forward books; and in such cases the net forward position was often clearly linked to the maturity of existing holdings of certificates and may thus have been a sign of prudence rather than the reverse. It is also possible for an unbalanced position in forward certificates to be related to forward liabilities or assets under other heads in the balance sheet – possibly to take ordinary term deposits or to make advances at some known future date. Again, although the practice of issuing certificates at rates fixed in advance leaves a bank apparently vulnerable to changes in interest rates, much will depend upon the nature of a bank's lending commitments and the degree to which it is depending upon forward certificates to provide the funds to meet them.

For reasons of this kind, a statistical inquiry cannot by itself be a complete guide to the soundness of the market as a whole or of particular banks' positions; but it provides a starting point. In the event, the overall picture that has emerged – and, indeed, the discussions which the Bank have had with individual banks – have been generally reassuring. Perhaps the main risk in the forward market arises because issuing banks may well not know the ultimate source upon which they are depending for funds, as there may be a chain of commitments in which only the first link is known to them; and too many such claims may end up with one institution which – if it has been imprudent – may not have the resources available to meet them all and could not afford to acquire them, particularly if there has been a large adverse movement in interest rates. Failure to take up a commitment might

**Chart D**

Inter-bank borrowing and lending in sterling at 18 April 1973




a Include funds placed at short notice.

have repercussions throughout the chain. No doubt the very low level of new business in the forward market in recent months reflects a realisation of these risks. Effective means of regulation to minimise them, short of prohibition, are very difficult to find.

**Inter-bank deposits**

Chart D shows the maturity pattern of borrowing and lending in the sterling inter-bank market by groups of banks. The maturity bands are the same as those shown in Chart A for sterling certificates of deposit, with the addition of current account balances. Such balances amounted to about £300 million, or some 5% of the total of inter-bank deposits at 18th April of about £5,600 million. Most of these represented the working, or clearing, balances of other banks with the London clearing banks. The London clearing banks themselves held relatively little on current account with other banks. They lent a substantial amount in the category of three months and under, but more than one third of this represented lending — mostly overnight — to their own subsidiaries; this is reflected in the corresponding receipts of the "other U.K. banks" and the British overseas banks. If current accounts are excluded, 80% of all inter-bank funds was in this under three-month category with a further 17% repayable in over three months to one year. In contrast, the London clearing banks had only about one third of their borrowing in the shorter of these two categories, compared with nearly two thirds in the longer. Beyond this, it would probably be wrong to generalise about the maturity patterns of particular groups of banks' borrowing or lending from the position revealed on one day.

Looking more broadly, from the regular monthly statistics, at the net positions of groups of banks in the market as a whole, it is fair to say that the American banks collectively generally borrow more in the inter-bank market than they lend; and the same is true of the "foreign banks", "other overseas banks", and "other U.K. banks". Equally, the London and Scottish clearing banks, the British overseas banks, and the accepting houses are usually, on balance, channelling funds into the inter-bank market. To this extent, the picture as revealed at 18th April can be regarded as typical. The net positions of the Northern Ireland and "other deposit" banks are more variable from month to month.

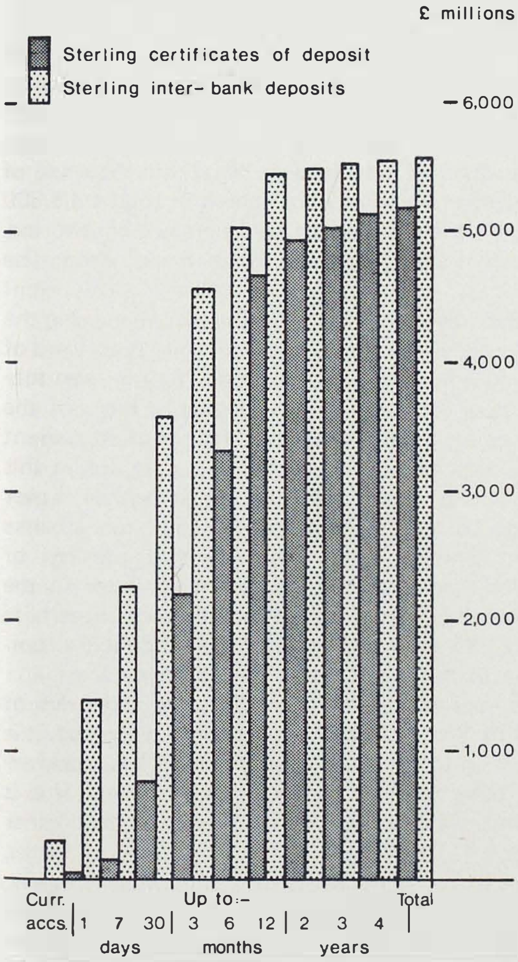
Chart E compares the pattern of maturities of all sterling certificates of deposit and inter-bank deposits outstanding at 18th April. Certificates of deposit cannot, of course, be issued for periods of less than three months; but the chart shows clearly the shorter-term nature of the inter-bank market over the whole range of maturities. Even after excluding current accounts, the median maturity of funds in the inter-bank market can be estimated at nineteen days compared with 124 days for certificates of deposit.

The article on sterling certificates of deposit in last December's *Bulletin* referred to the rapid growth of the market in sterling certificates and inter-bank funds between December 1968 and September 1972, when they together accounted for 29% of all sterling deposits. The proportion at mid-April 1973 was 33% (though it has since fallen a little: the figure at mid-July was 31%).

Chart F shows issues and holdings of sterling certificates of deposit, and inter-bank borrowing and lending in sterling, by groups of banks, expressed as percentages of total sterling current

**Chart E**

Maturities of sterling certificates of deposit and inter-bank deposits at 18 April 1973




and deposit accounts at 18th April. Dealing in these parallel markets constituted an important part of the total sterling business of many groups: for half of them, funds borrowed in these markets accounted for 50% or more of their total sterling deposits; and they lent some 40% (or more) back into the same markets. The chart also shows that for most groups an unbalanced position in, say, the market in certificates of deposit was partly or wholly offset by an unbalanced position in the opposite direction in the inter-bank market.

Not surprisingly, the deposit banks obtained a much smaller proportion of their resources in this way. The London clearing banks, for example, obtained 16% of their deposits from the two markets, and lent the equivalent of 11%. These are, nevertheless, sizable percentages when it is remembered that the clearing banks only started operating in these markets in their own names in September 1971.

**Note on the inter-bank difference**

Some comment may be of interest concerning the causes of the sterling inter-bank difference referred to earlier, though the interest lies mainly in the illustration they provide of the difficulties which may be involved in collecting apparently simple statistics.

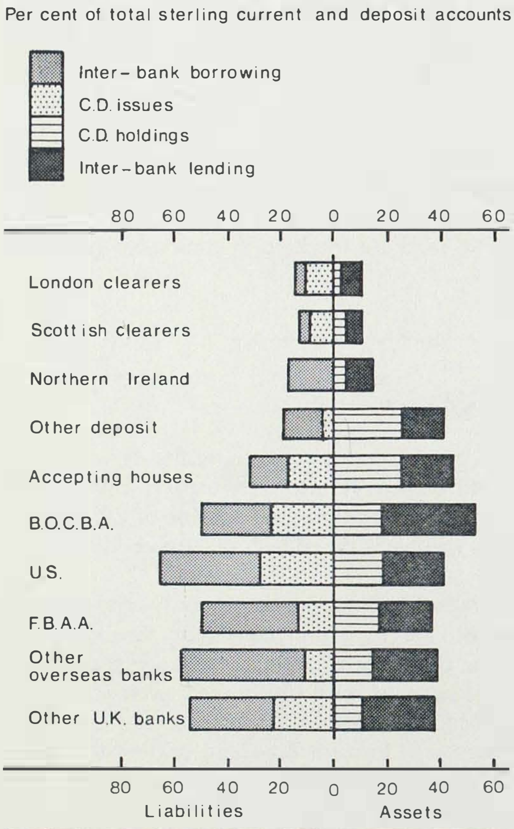
Conceptually, the inter-bank difference can only arise through errors on the part of the reporting banks, or through some structural faults in the design of the statistical returns, or in the definitions used in them, which give rise to error even when they are correctly completed. That some such structural faults exist has for some time been well known. To a large extent they arise from the historical development of the banking returns over many years; from compromises which have been adopted in order to minimise the statistical burden on different groups of banks, for example, by accepting information in forms most readily available to them from their own books; and from piecemeal amendments to the returns which have been made from time to time as new needs arose for different kinds of information. Consequently the Bank are at present engaged, together with the commercial banks, in a comprehensive review of the statistical reporting system which should — among other improvements — eliminate such structural inconsistencies.

It has not yet been possible to amend the banking figures for April in the statistical annex to take account of most of the corrections which the inter-bank inquiry has shown to be necessary in a number of categories. Hence the 'starting point' of difference shown in Table 8(1) is virtually unchanged from that first published. It appears as an excess of £285 million in the sterling deposit liabilities of U.K. banks to each other (£5,927 million) as compared with their sterling balances with each other (£5,642 million).

Some of this difference can be attributed to two main causes, for which suitable adjustments are made when preparing the banking sector and money stock tables (Tables 11 and 12 in the annex). In the first place, the business of the discount houses — although they are part of the banking sector — is by definition excluded from Table 8, which relates only to banks observing

**Chart F**

Issues and holdings of sterling certificates of deposit and inter-bank borrowing and lending in sterling at 18 April 1973




the 12½% reserve ratio. Funds deposited with, or lent to, banks by the discount houses therefore appear only on one side of the account, that is among the inter-bank deposits of the banks receiving the funds. (No problem arises concerning banks' loans to discount houses, which are reported separately under "money at call and short notice".) Secondly – and this is one of the anomalies to be corrected in the new statistics – some of the former 'finance house' banks obtain funds from other banks by means of bills drawn under acceptance credits which they report as inter-bank receipts; but the banks ultimately supplying the funds include these amounts indistinguishably within their "other U.K. bills". Although the amounts are known in total from the 'finance house' banks, the counterpart banks are not known, and Table 8, which deals with separate groups of banks, cannot be adjusted for this.

After making adjustments of this kind, the difference of £285 million can be reduced to about £100 million. This, however, is a net difference which, it has turned out, can only be eliminated by very considerable gross adjustments on each side of the account. Some examples may be given, though the figures quoted apply only to the position as at 18th April. On that date, inter-bank deposits were swollen by around £60 million of 'agency' funds which the receiving banks classified as inter-bank money, not knowing that the lending banks were in fact passing on customers' funds as agents rather than as principals (and were not, therefore, including them in their own balance sheets). A difference of about £15 million in the other direction arose from the fact that the Northern Ireland banks have for many years, and for special reasons, reported on the third Tuesday in the month instead of the third Wednesday. The growing involvement of some of these banks in the London money market has increased the importance of this particular anomaly and this, again, is one of the problems which it is hoped may be resolved in the current statistical review.

Another 'historical' cause of error, of a somewhat different kind, arises from a longstanding practice of the London and Scottish clearing banks of including certain internal accounts among their reported advances to banks. This was one of the ways in which internal accounts were concealed when a complete balance sheet was published monthly; but it has only given rise to important statistical difficulties since the development of flow of funds analysis by sector.

Timing discrepancies were another source of error, in particular as regards the recording of transactions affecting other banks' balances with clearing banks. The biggest single contribution to the inter-bank difference, however, was probably straightforward misclassification. It is easy to understand how many of these errors occur, in that the 'inter-bank' market, as defined for statistical purposes, is confined to banks on the statistical list of those making regular returns to the Bank of England. And this, by excluding some 'near-banks' and other financial institutions, covers a somewhat narrower range of business than in fact constitutes the market as seen by many of those operating in it. In all, in order to resolve the inter-bank difference of about £100 million mentioned above, it has been necessary to make gross amendments which have increased inter-bank borrowing by £175 million and reduced it by £325 million; and increased inter-bank lending by £250 million and reduced it by £300 million.