Composition of monetary and liquidity aggregates, and associated statistics

There is no single correct definition of money and there are many liquid assets which are not included in any of the conventional monetary or liquidity aggregates, but which nevertheless need to be taken into account on occasions when interpreting monetary conditions. This article describes the characteristics of twenty-four classes of assets, some of which are included in the aggregates and some not; it also briefly discusses the counterparts of two of the main aggregates, sterling M_3 and PSL_2.

Introduction

The definition and interpretation of monetary aggregates is a complex subject, whose difficulties have become increasingly apparent in recent years. While it is clear that there are special qualities attaching to 'money' as a means of payment, it is much harder to define precisely what should actually count as money for the purposes of analysis and policy. When one comes to the second main attribute of money, a store of readily accessible wealth, it is equally hard to draw clear distinctions.

The Green Paper on *Monetary Control*, published in March 1980,[1] stated that:— 'No single statistical measure of the money supply can be expected fully to encapsulate monetary conditions, and so provide a uniquely correct basis for controlling the complex relationships between monetary growth and prices and nominal incomes. A degree of substitutability between forms of money or liquidity just inside or outside their respective measures means that it is insufficient to rely on one measure alone.'

The longstanding monetary aggregates in this country such as M_1 or sterling M_3 comprise notes and coin plus different classes of bank deposits. It has long been recognised that, on the one hand, the largely institutional definitions of these aggregates do not distinguish clearly between bank deposits which are held for making payments and those held as a store of value; and that, on the other hand, they omit many highly liquid assets which, whether held in order to make payments, or as a store of value, have similar characteristics to some kinds of bank deposits. In interpreting the behaviour of the monetary aggregates, in order to implement monetary policy, the authorities pay attention to what is happening to other indicators. To help this process, the wider measures of private sector liquidity (PSL_1 and PSL_2) were assembled and first published in the September 1979 *Bulletin*. And in the last year, M_1 and PSL_2 have been included in the target for monetary growth.

The line of demarcation among assets is not precise, and there are many kinds of liquid or fairly liquid[2] assets which are not included in any of the aggregates, but which nevertheless need to be taken into account on occasions when interpreting monetary conditions. These assets may differ from those included in the aggregates in respect of the currency of their denomination, the sector of their holders, their function, and the institutions whose liabilities they represent.

For instance, most of the aggregates on which attention is focussed in this country are confined to sterling items only. There are good reasons for this in practice—see *(ix)* below—but, with UK residents now free to hold foreign currency assets, changes in such assets are relevant to interpreting the movements of the sterling-denominated aggregates. Also, movements in overseas residents' deposits may be relevant to the extent that these may be used for transactions in the United Kingdom. Among the assets of UK residents, those of the public sector, which are not related to macro-economic behaviour in the same way as those of the private sector, are included in some aggregates but not in others. Moreover, competition on the one hand, and technological change on the other, are eroding some of the distinctions which formerly existed between banks and other financial institutions, and between the short-term and long-term liabilities of some institutions.

A further dimension is the use of credit facilities such as overdrafts or credit cards as a means of payment: when these are used there is no reduction in the buyer's assets at all; instead he temporarily increases his liabilities. So far no aggregate has been compiled to include unused credit facilities, although these have long been recognised as important; to a large extent this exclusion is because suitable data are not available.

It may help public understanding of the issues involved to summarise the various statistical series which either are included in the monetary and liquidity aggregates in the United Kingdom, or need to be borne in mind when interpreting particular aggregates and their relationship to economic behaviour. This article sets out the basic statistical information, and outlines some of the

(1) HM Stationery Office, Cmnd 7858, March 1980.

(2) A liquid asset is one which may be realised at short notice, with little actual or potential financial penalty (resulting from the forfeit of interest or from capital uncertainty).

Relationships among the monetary and liquidity aggregates and their components

Notes and coin in circulation with the public

plus Banks' till money

plus Bankers' balances with the Bank of England

equals **Wide monetary base**

plus Private sector non-interest-bearing sterling sight bank deposits

equals **Non-interest-bearing component of M_1**

plus Private sector interest-bearing sterling sight bank deposits

equals **M_1**

plus Private sector sterling time bank deposits —original maturity of up to two years

plus Private sector holdings of sterling certificates of deposit

plus Private sector interest-bearing retail sterling bank deposits

equals **M_2**

plus Private sector sterling time bank deposits —original maturity of over two years

plus Public sector sterling sight and time bank deposits

equals **Sterling M_3**

plus Foreign currency bank deposits of private and public sectors

equals **Total M_3**

plus Private sector holdings of money-market instruments (bank bills, Treasury bills, local authority deposits) and certificates of tax deposit

equals **PSL_1**

plus Private sector holdings of building society deposits (excluding term shares and SAYE) and national savings instruments (excluding certificates, SAYE and other longer-term deposits)

less Building society holdings of money-market instruments and bank deposits etc

equals **PSL_2**

considerations bearing on the use of the various statistics. It ends with a brief discussion of the counterparts of two of the main aggregates, sterling M_3 and PSL_2.

Categories of assets relevant to the interpretation of the monetary aggregates

This section describes the categories of cash, deposits and other instruments included in the conventional aggregates, and the various other statistical series which may usefully be considered alongside them. The table on page 537 indicates the sources of statistics, where published, and gives their levels at end-March 1982, and quarterly changes since then. (It also indicates which series are available in seasonally adjusted form.) The relationships among the different monetary aggregates and their components are set out in the diagram on page 531.

In what follows, *banks* refers to the whole of the UK monetary sector,[1] and the *private sector* is the non-bank private sector, comprising industrial and commercial companies, unincorporated businesses, persons, and other financial institutions (ie other than banks, and for some series other than banks and building societies).

(i) Notes and coin in circulation

Notes and coin are the most liquid of all assets. Those held by the private sector are included in all the conventional monetary aggregates. The published figures in fact include holdings of the public and overseas sectors as well, but overseas holdings are thought to be very small and separate accurate statistics of changes in public sector holdings—the level of which is known to be fairly small—are not available.

(ii) Till money and bankers' balances

Till money consists of notes and coin held in the banks' tills and vaults, and provides the means of ensuring the immediate convertibility of deposits. Bankers' balances are the balances held by the banks with the Bank of England (excluding cash ratio deposits[2]): they can readily be converted into till money. These two items, together with notes and coin in circulation, are liabilities of the monetary authorities and constitute the wide monetary base.[3] Till money and bankers' balances are not included in any other aggregate, however, since they are assets rather than liabilities of the banks, and represent the immediate liquidity held against the banks' deposit liabilities.

(iii) Private sector sterling sight deposits with UK banks: non-interest-bearing

Sterling sight deposits with the banks (deposits withdrawable without notice) are close substitutes for notes and coin, in that they provide customers with access to a means of payment. Those sight deposits that are non-interest-bearing may be assumed to consist of current (chequable) accounts and to exclude investment balances. Such deposits are therefore retail in nature and are included in all the conventional monetary aggregates except the wide monetary base. Together with notes and coin in circulation, they constitute the non-interest-bearing component of M_1, amounting to nearly four-fifths of total M_1.[4]

(iv) Private sector sterling sight deposits with UK banks: interest-bearing

Interest-bearing sterling sight bank deposits of the private sector include some small personal balances, such as savings accounts with trustee savings banks, but are mainly large overnight balances belonging to companies or financial institutions. In many cases, such balances are likely to be primarily awaiting investment in other instruments such as gilt-edged stocks. Together with notes and coin in circulation and non-interest-bearing sight deposits—items *(i)* and *(iii)* above—they constitute M_1. (When that aggregate was first compiled it was not possible to distinguish the interest-bearing component.)

(v) Private sector sterling deposits with UK banks: interest-bearing retail[5]

An article in the June 1982 *Bulletin* explained that M_1 is unsatisfactory as a measure of the transactions balances of the private sector, because it includes some large and volatile investment funds. A new aggregate M_2[6] was introduced, which excludes certain large interest-bearing sight deposits, but includes those retail deposits (sight and time) on which cheques etc may be drawn or which are small (under £100,000) and short-term (under one month). At present statistics are supplied by the larger banks, accounting for over four-fifths of total private sector sterling deposits.

It is recognised that the statistical coverage of M_2, at present restricted to the liabilities of the banks, has some shortcomings, because many building society deposits offer comparable transactions facilities. It is therefore intended that statistics of equivalent deposits with building societies will be compiled in due course. (The private sector, in this context, would exclude the building societies.) Figures for the equivalent retail bank deposits of the public sector and overseas sector are also published, but they are excluded from M_2 for the reasons discussed under items (*x*) and (*xii*).

(vi) Private sector sterling time deposits with UK banks: original maturity up to two years

Time deposits (deposits withdrawable on notice) cover a spectrum of degrees of liquidity, and ideally it would be desirable to have statistics of deposits analysed by maturity. In fact the only maturity breakdown available on a frequent and comprehensive basis is between bank deposits of

(1) As defined in the December 1981 *Bulletin*, page 531: essentially it comprises recognised banks, licensed deposit takers, trustee savings banks, National Girobank and the Banking Department of the Bank of England.

(2) Cash ratio deposits, which recognised banks and licensed deposit takers are required to keep at the Bank of England, are non-operational, are fixed for six months at a time, and cannot normally be withdrawn.

(3) See the March 1981 *Bulletin*, page 59.

(4) When these deposits are included in the conventional aggregates, they are adjusted to exclude 60% of net debit transit items on the banks' balance sheets. See additional notes to Table 6 in the March 1982 *Bulletin*.

(5) This item, unlike the others discussed which are mutually exclusive, overlaps with items *(iv)*, *(vi)* and possibly *(vii)*.

(6) Compilation of an earlier, different aggregate, which was also labelled M_2, was discontinued in 1971, as explained in the June 1982 *Bulletin*.

original maturity up to two years, and those over two years: this distinction was originally drawn for credit control purposes. Those of original maturity under two years account for the great bulk of time deposits. They include both seven-days-notice deposit accounts of a retail nature, and also larger and sometimes longer-term money-market deposits of a wholesale nature. But most are within ninety days of maturity and are sufficiently short-term to be regarded as liquid and included in all the conventional broad aggregates.

(vii) Private sector sterling time deposits with UK banks: original maturity over two years

Time deposits originally placed for over two years are clearly closer to investment and savings than to money or liquidity. They have conventionally been included in the aggregates sterling M_3 and total M_3 which measure total UK residents' deposits with banks, but excluded from the liquidity aggregates PSL_1 and PSL_2. They have hitherto been a relatively small part of sterling M_3 (about 1 per cent at present). Also, under normal conditions they have hitherto changed very little in level, although they were influenced by the operation of the supplementary special deposits scheme (the 'corset'). When that scheme was in force they grew strongly (because such longer-term deposits are excluded from eligible liabilities), and they fell again when it was removed; this suggests that in those circumstances these deposits were substituted for other deposits. These deposits may be viewed as becoming more liquid when they approach maturity, but there are no statistics analysed by residual maturity available on a frequent and comprehensive basis.

It is possible that, as inflation and interest rates fall, longer-term deposits will become an increasingly important investment medium, particularly if banks should seek to attract such deposits to match a move by their customers out of medium-term variable-rate borrowing into medium-term fixed-rate borrowing.

(viii) Private sector holdings of sterling certificates of deposit

Sterling certificates of deposit (CDs) are very similar to time deposits, but are more liquid in the hands of the holder because they are negotiable. They are therefore included, regardless of maturity, in all the conventional broad aggregates. (CDs are mostly issued at ninety days or less.)

(ix) Private sector foreign currency deposits with UK banks

These deposits are included in M_3, but the other conventional aggregates are all restricted to sterling assets. These deposits amount at present to some 11 per cent of M_3 (though the figures are uncertain because of possibly incomplete coverage of holdings by UK residents of foreign currency certificates of deposit).

The reasons for paying less attention to these deposits, and for switching emphasis from total M_3 to sterling M_3, have been set out in previous issues of the *Bulletin*.[1] The argument that exchange controls prevented UK residents from retaining foreign currency deposits other than for approved purposes no longer applies. It is still probably true that changes in foreign currency deposits reflect in large part transactions by the holders in goods and services of other countries rather than those of the United Kingdom. But in addition, UK private sector residents have used such deposits as a store of value on a significant scale at times since exchange controls were removed, being partly influenced by movements in exchange rates and interest rate differentials.[2]

Because the deposits are denominated in foreign currency, unless they are covered in the forward exchange market their sterling value is not certain at any particular time on account of potential movements in the exchange rate; and indeed, if a substantial number of holders chose to switch large amounts into sterling they could generate a movement in the exchange rate against themselves. That capital uncertainty reduces the liquidity of these deposits in relation to use within the United Kingdom; and increases the volatility of an aggregate which includes them: recently, valuation changes may have amounted to as much as $1\frac{1}{2}$ per cent of M_3 in a single quarter.

On the other hand, a holder of these deposits may be able to sustain a higher level of expenditure in the United Kingdom because he has them in reserve. But from a macro-economic point of view, the effect on the domestic price level of a switch of foreign currency into sterling, via its effect on money and hence expenditure, is likely to be damped by the consequential exchange rate movement.

Finally, foreign currency deposits with banks abroad—item *(xv)*—are not included in any of the aggregates even though, to the holder, there may be little difference between the two kinds of deposit, except that deposits held abroad may be even less likely to be used for transactions in UK goods and services, and would be vulnerable to exchange controls or other administrative action abroad.

(x) Public sector sterling deposits with UK banks

Public sector sterling deposits are at present included in sterling M_3 and total M_3 (but not in the other aggregates) except for the traditionally very small deposits held by the National Loans Fund (NLF) and Paymaster General with the Bank of England; also excluded are any NLF deposits which may be built up as a result of funding operations following the revisions to Section 12 of the National Loans Act enacted in the Finance Act, 1982.

The level of public sector sterling deposits is relatively small (at present about 2 per cent of sterling M_3). The monthly changes, however, can be large, though they are erratic and tend to be reversed over a fairly short period.[3]

(1) See especially the March 1977 *Bulletin*, page 39.
(2) See the March 1982 *Bulletin*, page 24.
(3) If public sector deposits generally were excluded from sterling M_3 and total M_3, it would be logical also to exclude them from the PSBR, as explained in *Economic Trends*, August 1980.

Changes in these deposits are not likely to be related to changes in economic activity (and the ratio between the expenditure of the public sector and its holdings of sterling M_3 is much greater than that for the private sector). That is clear in the case of central government deposits, which are likely above all to reflect fluctuations in the transfers of funds from local offices to the Exchequer; and similar considerations apply to local authority deposits. The case of public corporations' deposits is perhaps less clear, for many public corporations, though by no means all, are just as much enterprises in the economic sense as private sector companies. But the public corporations' guaranteed access to central government funds means that they have less need to hold liquid balances than private companies.

(xi) Public sector foreign currency deposits with UK banks
The public sector's foreign currency deposits are included in M_3 only. They are very small—about $\frac{1}{4}$ per cent of M_3. The same considerations apply as to public sector sterling deposits—item *(x)*—and private sector foreign currency deposits—item *(ix)*.

(xii) Overseas sector sterling deposits with UK banks
The overseas sector's sterling deposits with UK banks are excluded from all the conventional aggregates. At present they are equivalent to about one-fifth of sterling M_3, and have been rising particularly rapidly over the last year. Their rise has been largely matched by an increase in sterling lending by UK banks to overseas. A sizable proportion of this business—deposits and lending—is with banks abroad (partly with overseas offices of the UK bank concerned); this largely reflects the growing integration of the eurosterling market with the London inter-bank market, and probably has limited direct relevance to domestic activity.[1] Some of the overseas sector's sterling deposits may be held for investment, and some for trade (international as well as in the UK) financed in sterling.

(xiii) Overseas sector foreign currency deposits with UK banks
Overseas sector foreign currency deposits are perhaps even less likely to be used to a significant extent to finance economic activity within the United Kingdom. They reflect London's role as an international financial centre, and represent two-thirds of the UK banks' total liabilities, but they are almost wholly matched by the banks' foreign currency lending to the overseas sector.

(xiv) Public and private sector sterling deposits with banks abroad
Public and private sector eurosterling deposits (sterling deposits held with banks outside the United Kingdom) are probably not very large. The only available statistics are those for deposits at banks in certain of the larger countries; they are collected quarterly and published some four months in arrears by the Bank for International Settlements (BIS). In the three quarters following the lifting of exchange controls in October 1979, these deposits rose from less than £$\frac{1}{2}$ billion to £1 billion (another factor encouraging the growth was the corset until its abolition in June 1980). They have remained at about that level ever since, ie equivalent to only about 1 per cent of sterling M_3 at present.[2] Because they are held abroad their purpose is probably future investment, or a store of value, or to finance external trade, rather than to finance immediate domestic economic activity.

(xv) Public and private sector foreign currency deposits with banks abroad
Many of the same considerations apply to these deposits as to the eurosterling deposits of these sectors, including the statistical limitations. The amount outstanding, some £3$\frac{1}{2}$ billion[3] (BIS reporting area only) at end-June 1982, is rather larger, being equivalent to some 3$\frac{1}{2}$ per cent of M_3 or one-third the amount of such deposits with UK banks. They have risen fairly steadily since exchange controls were removed in 1979.[4] (See also the discussion of item *(ix)*, private sector foreign currency deposits with UK banks.)

(xvi) Overseas sector sterling deposits with banks abroad
Eurosterling deposits held by the overseas sector amounted to around £7 billion (BIS reporting area only) at end-June 1982, or 40 per cent of the total of overseas sector sterling deposits with UK banks. They have fallen from a peak in mid-1980 (which—perhaps significantly—marked the end of the corset). They are likely to have little relevance to domestic activity; and the same statistical limitations apply as to UK residents' eurosterling deposits.

(xvii) Unused credit facilities
Unused overdraft, credit card and trade credit facilities are not included in any aggregates. They represent resources that can be converted into liquidity, and in many cases they are more likely to be used to supplement cash than are certain short-term assets. An article on page 519 describes the increasing importance of credit cards in particular as a means of payment, and this trend may continue. But there are major difficulties in measuring such facilities and suitable statistics are not available (partly for reasons of confidentiality). Some statistics on credit cards (the number issued) were published in the report of the Monopolies and Mergers Commission in 1980[5] but there are no estimates of the unused credit facilities outstanding: such estimates would in any case probably be meaningless since a customer's credit limit may well be increased when his use of credit approaches that limit.

(1) See the December 1981 *Bulletin*, page 532.
(2) See table on page 494. Also, pages 50–52 in the March 1982 *Bulletin*.
(3) Includes about £$\frac{1}{2}$ billion of US Treasury bills, commercial paper and bankers' acceptances.
(4) See pages 51–52 in the March 1982 *Bulletin*.
(5) HM Stationery Office, Cmnd 8034, 1980.

(xviii) Private sector holdings of other money-market instruments

The private sector liquidity aggregates PSL_1 and PSL_2 include private sector holdings of certain other money-market assets with original maturity of under one year (in fact mostly three months or less). These comprise local authority temporary debt (including local authority bills), Treasury bills (both of these are public sector liabilities) and bank bills.

Bank bills are commercial bills accepted (guaranteed) by banks; they do not appear on the accepting bank's balance sheet except as a contingent liability. Private sector holdings are generally of acceptances on behalf of private sector companies, and therefore might seem a rather strange component of a measure of private sector liquidity. But the bank's acceptance means that the holder of such a bill has an instrument which is generally as liquid and secure as a certificate of deposit issued by a bank. At times when the corset was in operation, there was substantial disintermediation of lending out of advances, which are on the banks' balance sheets, and into bank bills held by the private sector, which are not.

(xix) Private sector holdings of certificates of tax deposit

Certificates of tax deposit are included in PSL_1 and PSL_2, because they are sometimes used as a short-term investment alternative to items that are clearly part of liquidity. When held as an investment, however, they are liable to be held for longish periods on occasions, since the interest rate is fixed—until recently for two years but now for one year only. Moreover, they are not transferable and are subject to an interest penalty if surrendered for cash rather than in payment of tax; but that probably does not seriously limit their liquidity since most holders make tax payments fairly frequently.

(xx) Private sector holdings of building society deposits other than term shares and SAYE

Deposits with building societies share many of the monetary and liquidity characteristics of bank deposits, though at present the only aggregate which includes them is the wide measure of private sector liquidity, PSL_2. (The private sector is accordingly narrowed in this case to exclude building societies as well as banks, so that for example the building societies' deposits with banks are excluded in calculating PSL_2.)

When the PSL aggregates were introduced in 1979,[1] the definition of liquidity chosen was, generally speaking, those assets with an original maturity of one year or less (for bank deposits the only maturity breakdown generally available is two years). At that time there was a clear distinction between building society deposits of under one year original maturity (ordinary accounts and certain other accounts) and those of longer maturity (term shares and SAYE). In practice, for some purposes ordinary accounts are like sight deposits with the banks, and high-interest accounts—which have developed since 1979—are similar to seven-day deposit accounts (with a period of notice generally varying from seven days to a month); both are clearly liquid assets, and hence are included in PSL_2. Together they are at present about one and a quarter times as large as personal bank deposits.

(xxi) Private sector holdings of building society term shares

A building society term share is defined as having an original maturity greater than six months, but until recently there were virtually no shares in the six months to one year maturity range, and at end-June 1981 over two-thirds of term shares had a residual maturity of two years or more. Also, until recently term shares could not generally be withdrawn before maturity; at end-March 1981, the earliest date for which such estimates are available, £7$\frac{1}{2}$ billion of term shares had no early withdrawal facilities, compared with less than £1 billion with withdrawal facilities (generally involving an interest penalty). The term shares—together with small amounts of SAYE deposits placed with building societies—were thus not very liquid (and were excluded from PSL_2: residual maturity statistics were not regularly available, and so term shares near to maturity could not be included).

Since March 1981, however, there have been some significant changes in the composition of building society liabilities. Among the short-term liabilities, ordinary accounts have declined, though interest credited has lessened the impact of the withdrawals, and high-interest accounts have increased rapidly (see table). Among term shares, those without withdrawal facilities have declined (except for a temporary increase up to July 1982 in open term shares without withdrawal facilities, which are no longer made available). But term shares with early withdrawal facilities have increased rapidly from a level of under £1 billion to £7 billion at the end of September 1982.

The earlier gap in the maturity range of building society deposits has thus largely disappeared. The period of notice to be given for early withdrawal of the term shares with such facilities is generally three months. There is also generally a loss of interest for the period of notice. Thus, although these shares have become more liquid, there is still a significant penalty for early access. Continuing competition among financial institutions may yet change further the nature of building society deposit instruments.

(xxii) Private sector holdings of shorter-term national savings

Holdings of short-term national savings are included in PSL_2 and amount to about 5 per cent of the total. These now comprise ordinary and investment accounts with the National Savings Bank (which are similar to the ordinary and high interest accounts of the building societies), premium bonds and gift tokens. They are clearly liquid though investment account deposits, which amount to nearly half the total holdings of national savings in PSL_2, can only be withdrawn at one month's notice.

(1) See page 278 of the September 1979 *Bulletin*.

(xxiii) Private sector holdings of longer-term national savings

The remaining national savings instruments are longer-term and excluded from PSL_2. The indexed savings certificate is fairly liquid after one year, for then it is indexed monthly though there is a penalty on withdrawal in the loss of bonuses. Fixed-interest (conventional) certificates are less liquid, for there is in general a greater loss of interest if withdrawn before maturity (though the loss varies with each issue and the timing of the withdrawal), and interest is credited three-monthly after the first year (four-monthly on earlier issues). The new income bonds have an initial term of ten years and require six months notice for withdrawal without penalty (in the first year there is some loss of interest even if six months notice is given). SAYE is illiquid because indexation is not available before maturity.

(xxiv) Private sector holdings of gilt-edged stocks

Gilt-edged stocks may be regarded as fairly liquid instruments when they are within one year of maturity. Before that, although marketable, they can be subject to considerable capital uncertainty. But a statistical series based on residual maturity would contain humps as individual stocks, issued in large amounts, moved to within one year of maturity. The underlying change in liquidity, as it affects behaviour, is probably much smoother.

In any case, there is the practical difficulty that accurate monthly statistics of private sector gilt holdings, analysed by residual maturity, are not available (and there are problems of valuation).

Counterparts of sterling M_3 and PSL_2

Monetary and liquidity aggregates are defined in the main as selections of the assets held by UK residents which are the liabilities of certain financial institutions. The total liabilities of these institutions are equal to the total of the claims they hold on the other side of their balance sheets. Therefore, where the aggregate comprises a significant proportion of the liabilities of the institutions in question, as it does in the case of sterling M_3 and PSL_2, it may also be analysed in terms of the assets held by the institutions. Sometimes this can be a more helpful way of examining the relation of the aggregate's behaviour to other aspects of the economy, particularly if the institutions manage their liabilities to accommodate changes in their assets, rather than the other way round.

The relationship between the changes in sterling M_3 and the changes in its counterparts, which is set out in Table 11.3 of the statistical annex, was explained in an article 'DCE and the money supply' in the March 1977 *Bulletin*. Briefly, the main counterpart to a change in sterling M_3 is bank lending in sterling to the private and public sectors. (Bank lending to the overseas sector is broadly matched by overseas sector deposits with UK banks.) But the banks form the residual source of lending to the public sector, so it is usually more helpful to consider bank lending to the public sector in terms of the total borrowing requirement (the PSBR) *less* that part financed from non-bank sources. Thus the main counterparts to changes in sterling M_3 become the PSBR, public sector debt sales to the private sector (funding the PSBR), and bank lending to the private sector.

More precisely, the change in sterling M_3 is equal to the PSBR *less* net purchases by the non-bank private sector of public sector debt, *plus* the change in bank lending in sterling to the private sector (including Issue Department purchases of commercial bills), *less* external and foreign currency counterparts, *less* the change in banks' net non-deposit liabilities.

Care must be taken not to confuse these counterparts with the components of sterling M_3, ie notes and coin in circulation plus the sterling bank deposits of the public and private sectors.

Counterparts to changes in PSL_2, similar in concept to the counterparts to changes in sterling M_3, could also be compiled. However, the sector issuing PSL_2 liabilities would be broadly[1] the larger one of the banks plus the building societies (rather than just the banks). That would make a substantial difference to the size of the issuing sector, and (to a lesser extent) to the size of the remaining (holding) private sector; the relative weights of some of the components and counterparts would be altered. Purchases of public sector debt by the (reduced) private sector, that appear within the counterparts, would be restricted to long-term debt (since holdings of short-term debt are components of PSL_2). On the other hand, long-term bank and building society deposits, and public sector bank deposits, would become (negative) counterparts instead of components. The total of bank and building society lending to the private sector within the counterparts would be significantly greater than the equivalent counterpart of sterling M_3 (bank lending to the private sector), and private sector purchases of bank bills would also have to be added.

(1) The role of public sector liabilities such as national savings and Treasury bills within PSL_2 is conceptually similar to notes and coin in circulation in sterling M_3, so it would probably not be helpful to expand the issuing sector boundary to encompass the balance sheet of the public sector as well.

Categories of financial assets and their relation to the monetary and liquidity aggregates

£ millions, unadjusted
seasonally adjusted figures in italics

Category of assets	Level at end-March 1982	Change in calendar quarter to end-June 1982	Change in calendar quarter to end-Sept. 1982	Aggregates in which assets are included	Published source of figures[a]
Notes and coin in circulation	10,567	+ *90*	+ *162*	All	11.1 and 11.2
Till money	*860*[b]	+ *32*[b]	+ *17*[b]	Wide monetary base	2
Bankers' operational deposits	217[b]	− 17[b]	+ 74[b]	Wide monetary base	2
Private sector sterling deposits with UK monetary sector:					
Sight, non-interest-bearing (including adjustment for transit items)	17,817	+ *652*	+ *201*	M_1 and wider aggregates	11.1 and 11.2
Sight, interest-bearing	7,931	+ 184	+ 80	M_1 and wider aggregates	11.1 and 11.2
Interest-bearing retail[c]	27,741[b]	+ 461[b]	+ 170[b]	M_2	11.1
Time, up to 2 years original maturity	45,710	+ *579*	+ *535*	£M_3, M_3, PSL_1 and PSL_2	11.1, 11.2, 12 and FS 11.6
Time, over 2 years original maturity	967	− 8	+ 86	£M_3 and M_3	11.1, 11.2, 12 and FS 11.6
Certificates of deposit	1,551	+ 313	+ 114	£M_3, M_3, PSL_1 and PSL_2	FS 11.6
Private sector foreign currency deposits with UK monetary sector	*10,950*	+ *264*	+ *687*	M_3	6
Public sector sterling deposits with UK monetary sector:					
Sight	1,254	− *167*	+ *29*	£M_3 and M_3	FS 11.1 and 11.2
Time	392	+ *173*	+ *45*	£M_3 and M_3	FS 11.1 and 11.2
of which Retail	1,140[b]	+ 21[b]	− 97[b]		11.1
Public sector foreign currency deposits with UK monetary sector	268	− 55	+ 78	M_3	6
Overseas sector sterling deposits with UK monetary sector	15,891	+1,286	+ 1,246	None	6
of which Retail	2,422[b]	+ 30[b]	+ 21[b]	None	11.1
Overseas sector foreign currency deposits with UK monetary sector	239,644	−1,321	+15,955	None	6
Public and private sector deposits held abroad:					
Sterling	870	+ 97	..	None	BIS, and US Treasury Bulletin[e]
Foreign currency	3,321[d]	+ 365	..	None	BIS, and US Treasury Bulletin[e]
Overseas sector sterling deposits held abroad	7,751	− 581	..	None	BIS, and US Treasury Bulletin[e]
Unused credit facilities	..	..	..	None	
Private sector holdings of other money-market instruments:					
LA temporary debt	3,329	− 174	− 462	PSL_1 and PSL_2	12
Treasury bills	190	− 28	+ 294	PSL_1 and PSL_2	12
Bank bills	243	− 49	+ 4	PSL_1 and PSL_2	12
Private sector holdings of CTDs:					
Gross holdings	*1,471*	− *92*	+ *589*	PSL_1	
Net of building society holdings	*1,327*	− *89*	+ *514*	PSL_2	
Private sector deposits with building societies:					
Ordinary accounts	38,800	− 300	− 1,500	PSL_2[f]	12[g]
High interest accounts	6,100	+1,300	+ 2,100	PSL_2[f]	12[g]
Regular savings accounts etc	3,000	+ 200	+ 100	PSL_2[f]	12[g]
Term shares with withdrawal facilities	4,600	+1,100	+ 1,400	None	FS 11.6[g], 7.4[g] and S.13[h]
Open term shares without withdrawal facilities	3,800	+ 400	+ 600	None	FS 11.6[g], 7.4[g] and S.13[h]
Fixed term shares without withdrawal facilities	2,400	− 100	—	None	FS 11.6[g], 7.4[g] and S.13[h]
SAYE deposits	254	+ 6	+ 2	None	FS S.13[h]
Private sector holdings of national savings:					
Ordinary and investment accounts	4,693	+ 29	+ 160	PSL_2	FS 3.7 and 3.8
Certificates: *of which* index-linked	5,145	+ 275	+ 156	None	FS 3.7 and 3.8
other	7,188	+ 92	+ 184	None	FS 3.7 and 3.8
Income bonds	—	—	+ 213	None	FS 3.7 and 3.8
SAYE	657	+ 21	+ 19	None	FS 3.7 and 3.8
Other	1,792	− 15	− 3	PSL_2	FS 3.7 and 3.8
Private sector holdings of gilt-edged stocks (market value)	58,141	+ 865	+ 2,631	None	8 and Distribution of national debt article (see page 545)
of which 5 years and under residual maturity	14,500	..	..	None	8 and Distribution of national debt article (see page 545)

.. not available.

(a) Numbers refer to tables in the statistical annex, except those prefixed by FS which refer to tables in Financial Statistics. Where figures are not directly shown in the tables, the tables indicated give sufficient information to derive the data.

(b) Banking month data: levels as at 17.3.82; quarterly changes between 18.3.82 and 16.6.82, and between 17.6.82 and 15.9.82.

(c) This category overlaps with others which are included in other aggregates.

(d) Includes approximately £460 million of US Treasury bills, commercial paper and bankers' acceptances.

(e) See article on International banking markets in 1980–81, in the March 1982 *Bulletin*, and, for sterling deposits, the table on page 494 of this issue.

(f) Building society deposits in PSL_2 are seasonally adjusted in aggregate, using the adjustment for interest credited only.

(g) Split obtained from sample estimates.

(h) Quarterly supplementary table.