

The stock of money

This note describes a new quarterly analysis of the stock of money, a term which is used in this article as being synonymous with the money supply. The table which follows shows separately the different types of deposits held with banks in the United Kingdom, together with notes and coin in circulation with the public. The table classifies these deposits according to:

- a* the group of recipient bank;
- b* the currency (sterling or non-sterling) in which deposits are denominated;
- c* the form of deposit, whether on current (sight) or deposit (time) account; and
- d* the sector of the holder, whether private, public or overseas.

It is possible to select different types of deposits, plus notes and coin in circulation, to form various totals which can each be described as the stock of money. There are, however, no clear rules for deciding which of these totals is most appropriate: there can be alternative definitions of the stock of money, encompassing a wider or narrower set of components.

The first, narrow definition, presented in this table as the total M_1 ,¹ consists of notes and coin in circulation with the public plus sterling current accounts held by the private sector only (*i.e.* excluding those held by the public and overseas sectors). An article on *The importance of money*² noted that "The distinguishing characteristic of that set of assets which may be described as money is that they perform the function of a medium of exchange . . . Cash and cheques drawn on banks are the means of payment for transactions which are generally acceptable in most developed economies, and this fact has led many to conclude that cash and demand deposits in banks are the only real monetary assets."

A second possible definition of the stock of money (M_2) includes not only the cash and current accounts covered by M_1 , but also private sector sterling deposit (time) accounts with the deposit banks, and similar accounts with the discount houses. The definition of money as a medium of exchange presupposes a clear-cut distinction between those assets which are used for this purpose and those which are not; in practice such a distinction is difficult to achieve. For example, a holder of a time deposit may be able to draw a cheque on his current account even when he has insufficient funds there to meet that cheque.³ More fundamentally, if it is easy to switch between short-notice time deposits and sight deposits the two may be regarded as interchangeable, so that a definition incorporating both types of deposit may be of interest as well as the narrower definition. But it is possible to draw a somewhat arbitrary division between deposit accounts held with deposit banks and discount houses, and those held with other banks; the former are held mainly at seven days' notice – a constraint on their use which is rarely enforced in practice – but the latter are more

¹ Although not elegant, this terminology, denoting alternative definitions of the stock of money as M_1 , M_2 or M_3 , is already quite common. It was foreshadowed in an article in the June 1970 *Bulletin* on "The importance of money" (in which the figures for bank deposits in M_1 and M_2 were limited to those of the London clearing banks), and is widely used in the United States, where there are similar difficulties in defining the stock of money.

² June 1970 *Bulletin*, page 159.

³ These issues were discussed in "The importance of money" in the section "Definition and function".

commonly of longer maturity, are less easily withdrawn at will, and are not therefore included in M_2 .

The third definition of the stock of money (M_3) presented in this table is rather broader and includes all deposits, whether denominated in sterling or non-sterling currency, held with the U.K. banking sector by U.K. residents in both the public and private sectors, together with notes and coin in circulation with the public.

The main reason for excluding public sector deposits from M_1 and M_2 is that the public sector can pool its cash resources more easily than the private sector, and the central government can create additional cash if necessary; this means that changes in the total of public sector deposits usually bear little relation to the size or frequency of public sector transactions. However, the broader M_3 definition, which has already been in official use for some years, is less closely based on the concept of money as a medium of exchange. It is more institutional in character, depending not so much on the nature of the asset as on the fact that the financial intermediary with which the deposit has been made is a member of the banking sector. It is useful for many purposes to be able to retain this more comprehensive definition. For example, it is easier to relate analyses of bank lending, and the expansion of domestic credit, to broader, rather than to narrower, definitions of the stock of money, for all deposits can be lent whatever the nature of the initial liability.

Perhaps the most difficult conceptual questions in this field are whether even a broad definition of money such as M_3 should include non-sterling balances held by residents; and whether sterling balances held by overseas residents with the banking sector should be added. (Overseas residents, unlike private domestic holders, may run down or build up their money balances as their confidence in the exchange rate varies and as the need to finance trade with third countries changes.) The procedure of different nations in these respects varies. Whatever the answers to these questions, it is useful for some purposes to analyse the movements in the grand total of sterling deposits, including those of overseas residents.⁷ The table therefore includes this total in addition to the three definitions described above; and it also shows separately the private sector's non-sterling accounts with the deposit and other banks (which are included in M_3).

Publication

The statistical annex will in future include the details of money supply given in the accompanying table. A similar table is also being published in *Financial Statistics*, and an introductory article has already appeared in the August issue of *Economic Trends*.

A technical appendix to the table describes the methods used to calculate some of the components, the assumptions that have had to be made, and the treatment which has been applied to transit items. A similar appendix was also included in the article in *Economic Trends*.

⁷ For example, official policies may impinge differently upon the total of sterling deposits as compared with non-sterling deposits.

Money supply

£ millions

	Money supply				Banking sector sterling liabilities e	Notes and coin in circulation with public f	Resident private Deposit banks and National Giro h		
	M ₁ a	M ₂ b	M ₃ c				Sterling current accounts	Sterling deposit accounts	Non-sterling accounts i
			Unadjusted	Seasonally adjusted d					
	1	2	3		4	5	6	7	8
End of period									
1963 Mar.	6,505	9,698	10,309	10,367	9,791	2,248	4,394	3,121	21
June	6,718	9,992	10,698	10,612	10,135	2,290	4,525	3,202	19
Sept.	6,746	10,008	10,801	10,727	10,561	2,228	4,752	3,180	22
Dec.	7,110	10,503	11,304	11,035	11,085	2,251	5,091	3,281	22
1964 Mar.	6,886	10,180	11,011	11,136	10,961	2,309	4,924	3,197	22
June	7,019	10,455	11,332	11,345	11,198	2,326	4,897	3,347	22
Sept.	7,174	10,661	11,563	11,483	11,446	2,325	5,047	3,425	25
Dec.	7,289	10,969	11,887	11,632	11,642	2,451	5,156	3,568	26
1965 Mar.	7,096	10,748	11,652	11,797	11,400	2,401	5,008	3,576	28
June	7,238	11,099	12,114	12,119	11,726	2,476	4,974	3,790	28
Sept.	7,327	11,245	12,293	12,316	11,888	2,533	5,011	3,851	26
Dec.	7,557	11,645	12,792	12,511	12,529	2,636	5,243	4,011	26
1966 Mar.	7,464	11,504	12,692	12,924	12,498	2,633	5,282	3,955	26
June	7,460	11,604	12,896	12,972	12,522	2,699	5,088	4,078	22
Sept.	7,527	11,699	13,033	13,058	12,434	2,713	5,211	4,088	24
Dec.	7,610	11,958	13,321	13,038	12,660	2,695	5,172	4,252	27
1967 Mar.	7,434	11,731	13,075	13,306	12,786	2,751	5,194	4,188	27
June	7,613	12,084	13,539	13,635	13,065	2,793	5,196	4,324	29
Sept.	8,025	12,496	14,070	14,097	13,253	2,760	5,413	4,373	29
Dec. ^k	8,243	12,968	14,625	14,344	13,781	2,815	5,725	4,622	54
	8,172	12,897	14,733	14,452	13,895	2,815	5,648	4,622	36
1968 Mar.	7,965	12,651	14,503	14,708	13,556	2,851	5,337	4,603	42
June	8,106	12,997	15,020	15,120	13,951	2,910	5,384	4,782	43
Sept.	7,770	13,026	15,118	15,247	14,399	2,804	5,314	5,170	51
Dec.	8,492	13,562	15,800	15,561	14,804	2,859	5,882	4,968	58
1969 Mar.	7,961	12,997	15,412	15,731	14,543	2,914	5,515	4,925	67
June	7,844	12,926	15,393	15,546	14,400	2,909	5,353	4,990	73
Sept.	8,013	13,053	15,635	15,773	14,459	2,857	5,418	4,955	68
Dec.	8,471	13,643	16,255	16,028	15,143	3,006	5,807	5,079	67
1970 Mar.	8,038	13,073	15,700	16,018	14,964	3,042	5,702	4,950	52
June	8,489	13,745	16,570	16,718	15,514	3,082	5,752	5,119	59

a M₁ equals columns 5 + 6 + 9 - 15.

b M₂ equals M₁ + columns 7 + 12.

c M₃ equals M₂ + columns 8 + 10 + 11 + 13 + 14.

d Seasonally adjusted figures for M₁ and M₂ are not yet available.

e Column 4 equals columns 6 + 7 + 9 + 10 + 12 + 13 + 14 + 16.

f The amount of coin within these figures includes an allowance for wastage, hoarding, etc.

g Gross deposits before deducting transit items; private sector excludes banks.

h The National Giro opened in October 1968.

i The sterling value of non-sterling deposits is affected by changes in exchange rates.

k At this date, certain companies previously included as part of the private sector were reclassified as "other banks". The two sets of figures show the effect of this reclassification.

sector deposits with : g				Public sector deposits with : g			Overseas sector sterling deposits with banking sector g	
All other banks			Discount houses	Deposit banks and		Transit items		
Sterling current accounts	Sterling deposit accounts	Non-sterling accounts j		National Giro	All other banks			
9	10	11	12	13	14	15	16	
282	217	70	72	299	4	419	1,402	1963 Mar.
247	279	77	72	327	4	344	1,479	June
269	316	85	82	367	3	503	1,592	Sept.
299	351	83	112	340	5	531	1,606	Dec.
303	355	100	97	350	4	650	1,731	1964 Mar.
305	428	65	89	357	5	509	1,770	June
306	453	78	62	342	4	504	1,807	Sept.
351	458	79	112	350	5	669	1,642	Dec.
340	471	80	76	320	5	653	1,604	1965 Mar.
344	536	92	71	352	7	556	1,652	June
334	564	99	67	349	10	551	1,702	Sept.
405	637	90	77	389	5	727	1,762	Dec.
299	685	101	85	370	6	750	1,816	1966 Mar.
343	706	104	66	441	19	670	1,781	June
301	750	110	84	425	25	698	1,550	Sept.
328	807	122	96	383	24	585	1,598	Dec.
337	746	128	109	422	21	848	1,769	1967 Mar.
339	841	144	147	418	23	715	1,777	June
353	972	152	98	385	36	501	1,623	Sept.
380	995	188	103	396	24	677	1,536	Dec. ^k
386	1,158	219	103	396	27	677	1,555	
389	1,231	196	83	357	26	612	1,530	1968 Mar.
436	1,382	220	109	356	22	624	1,480	June
467	1,417	243	86	352	29	815	1,564	Sept.
482	1,513	277	102	363	27	731	1,467	Dec.
478	1,628	282	111	415	23	946	1,448	1969 Mar.
442	1,623	346	92	372	53	860	1,475	June
486	1,681	397	85	372	64	748	1,398	Sept.
512	1,691	397	93	413	44	854	1,504	Dec.
472	1,664	408	85	465	38	1,178	1,588	1970 Mar.
521	1,802	482	137	440	42	866	1,701	June

Appendix

Technical note

The statistical information currently available from institutions classified within the banking sector (summarised in Table 8 of the statistical annex) provides all the components needed for the widest definition of money supply outlined above, but a number of assumptions have to be made in arriving at figures for the narrower definitions. This is because the split between current and deposit accounts for each of the sectors specified is not available, and because it is not always possible to distinguish the sterling from the foreign currency components. The various assumptions are described in detail below. Because of the uncertainties they cause, the quarter to quarter movements in M₁ and M₂ should be treated with some reserve; but the degree of approximation involved is not thought to produce a misleading picture of long-term trends.

Deposits with deposit banks

The available information about deposits with deposit banks consists of separate totals for current and deposit accounts (sterling and non-sterling together) and a division of the combined total according to the sector of the depositor; this division gives separate figures for the deposits of the public, private, overseas and banking sectors. In addition, figures are available for the non-sterling part of total deposits made by U.K. banks, other U.K. residents and overseas residents.

In order to isolate the private sector's deposits (in this context 'private sector' excludes banks) and to divide them between sterling current, sterling deposit, and non-sterling accounts (columns 6, 7 and 8 of the table), the following rules of thumb have been adopted in deciding the allocation of certain items; they are based, as far as possible, on enquiries made of the banks themselves.

- (i) U.K. residents' non-sterling accounts (other than those of banks) which, in the main, are held as working balances by oil, shipping and insurance companies, are counted as private sector current accounts.
- (ii) Overseas residents' non-sterling accounts, the majority of which are known to be deposit accounts, are all counted as such.
- (iii) For similar reasons, overseas residents' sterling accounts (which can be derived by deducting their non-sterling accounts from their total deposits) are assumed to be current accounts.
- (iv) Banking sector accounts, sterling and non-sterling, and public sector accounts [assumed to be all sterling; compare with (i) above] are held essentially as working balances and therefore are all treated as current accounts.

Given these assumptions, columns 6, 7 and 8 are calculated in the following way:

Column 6	Sterling current accounts of the U.K. private sector = total current accounts, less U.K. residents' non-sterling accounts (other than those of banks), less overseas residents' sterling accounts, less the accounts of the public and banking sectors, plus private sector accounts at the National Giro (see below).
Column 7	Sterling deposit accounts of the U.K. private sector = total deposit accounts, less overseas residents' non-sterling accounts.
Column 8	Non-sterling accounts of the U.K. private sector = non-sterling accounts of all U.K. residents other than banks.

The deposit banks' contribution to column 13 is reported direct, and their contribution to column 16 is deduced as in (iii) above.

Deposits with the National Giro

All business with the Giro is in sterling and is on current account. As information from the Giro includes separate figures for deposits

of the public, banking and private sectors, no problems arise over the Giro contribution to columns 6 and 13.

Deposits with the accepting houses, overseas banks and other banks

Information available from these banks corresponds more closely to the requirements of the narrower definitions of money supply. They provide separate figures for:

- a* U.K. residents' current accounts in sterling;
- b* U.K. residents' deposit accounts in sterling;
- c* U.K. residents' total non-sterling accounts other than those of U.K. banks;
- d* total deposits of U.K. banks in sterling;
- e* total deposits of the public sector in sterling;
- f* total deposits of overseas residents in sterling;
- g* total issues of sterling certificates of deposit; and
- h* total of sterling certificates of deposit held by the banks for their own account.

In this case the main assumption is that the sterling deposits of the banking and public sectors—items (*d*) and (*e*) above—are all on deposit account. Although the total of U.K. banks' deposits with the accepting houses, overseas banks and other banks is known to include some 'time call' money (interest-bearing, but repayable on demand), the proportion is relatively small and most inter-bank funds are at fixed term. Hence (*a*) above is shown in column 9 without adjustment. It follows from the same assumption that column 10 can be calculated by deducting items (*d*) and (*e*) from item (*b*), then adding U.K. residents' holdings of sterling certificates of deposit. These holdings are calculated by deducting item (*h*), together with similar items reported by the deposit banks and discount houses, and overseas residents' holdings reported separately as part of the banks' external liabilities and claims, from item (*g*).

A second assumption, that total U.K. residents' non-sterling accounts (other than banks') are all private sector, leaves item (*c*) as the figure for column 11: and item (*f*), plus overseas residents' holdings of sterling certificates of deposit (see above), forms these banks' contribution to column 16.

Deposits with discount houses

Deposits from sources other than U.K. banks are reported regularly by discount houses. The figures distinguish overseas residents' deposits and, as these are treated as being wholly in sterling, they form the discount houses' contribution to column 16. The remaining deposits are entered in column 12, the discount houses having no public sector deposits.

Transit items

Banking sector transit items comprise:

- (i) credit and debit items in transit between offices of the same bank; and
- (ii) credit and debit items in course of transmission to other members of the U.K. banking sector.

The figure for net deposits with the banking sector is at present obtained by deducting the excess of debit over credit items in both categories from gross current and deposit accounts, other than those held for other U.K. banks; similarly, the figures for net deposits by U.K. residents with the banking sector are obtained by deducting the same total from the banks' gross current and deposit liabilities to U.K. residents. The entire adjustment is attributed to deposits with the deposit banks and the National Giro. It is recognised that this procedure distorts the money supply figures, which are understated to the extent that any transit items are in course of transmission to overdrawn or loan accounts.

Among recent changes in their accounting practices in connection with disclosure of profits, the principal deposit banks have allocated varying proportions of their items in transit [item (i)] between deposits and advances in accordance with their individual estimates of the extent to which these items are affected. Additionally, research is being undertaken into the appropriate allocation between deposits and advances of items in course of transmission to other banks [item (ii)]. When these investigations are completed the present treatment of total transit items will be revised as necessary to arrive at a more realistic figure for net deposits. It is also hoped that the part of the total which is applicable to deposits can be allocated to sectors within total deposits, so as to allow more accurate estimates to be made of M_1 , M_2 and M_3 . The effect of transit items on the public sector, for example, must at times be considerable, and markedly seasonal, because of the varying pattern throughout the year of payments of interest on government debt, tax payments, etc.

Until this research is completed, however, the present system of deducting all transit items from U.K. residents' deposits with the deposit banks will continue. The additional assumption is made for the purposes of calculating the levels of M_1 and M_2 that the total is attributable to private sector current accounts in sterling. The total of transit items in column 15 is therefore deducted from all three definitions.