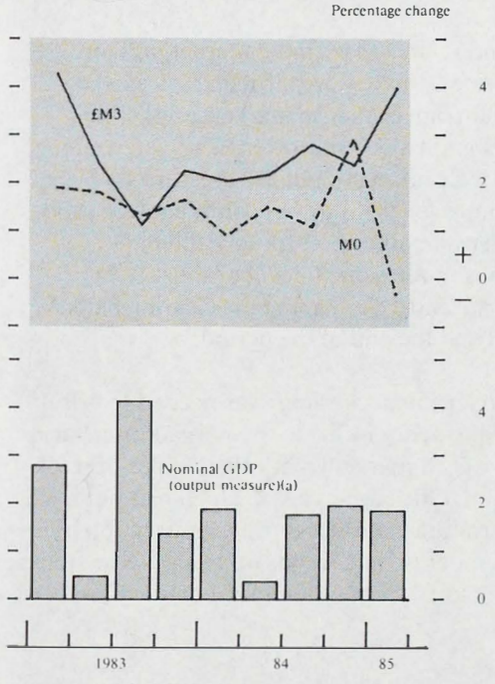
Operation of monetary policy

This article covers the three months from mid-February to mid-May.

Growth of money and nominal income



(a) 1985 Q1 figure is an estimate.

Review

The pace of broad monetary growth increased during the period under review, though growth in M0 remained modest. Sentiment in financial markets continued to be dominated by foreign exchange developments, and, with the dollar weakening generally, UK interest rates fell back somewhat from the high levels they had reached at the end of January.

M0 continued to grow steadily during the period under review, so that by mid-April it was just below the middle of its 1984–85 target range; its twelve-month growth rate as at mid-May was comfortably within its target range for 1985–86. £M3 exceeded its target range for 1984–85 and although its twelve-month growth rate has since declined, it remains well above its 5%–9% target range for 1985–86.

Among the counterparts to the rise in £M3, the PSBR for 1984/85 turned out at £10.1 billion, exceeding the 1984 Budget forecast by a substantial margin. Moreover, the pace of bank lending in sterling to the private sector increased yet further during the period under review. The increase, which was in lending to businesses rather than persons, seems likely to have included a substantial amount of lending to borrowers wishing to take advantage of the capital investment allowances for 1984/85 before the lower rate for 1985/86 became effective. This will have exaggerated the short-term rate of growth of bank lending but the underlying pace of lending remains uncomfortably high despite the apparent strength of corporate finances. The external counterparts to £M3 were also unusually expansionary: this may have reflected in part the switching of funds into sterling by the private sector as sterling appreciated.

Among the other aspects of the assessment of monetary conditions, the sterling exchange rate strengthened, not only against the weakening dollar but also against other currencies. Moreover real interest rates in the United Kingdom remained high by recent standards. These factors taken on their own suggested that some easing in interest rates from their very high levels would be appropriate. Moreover, although the equity market remained extremely buoyant and industrial confidence remained very robust, there was some expectation of a more moderate pace of growth of activity later in the year.

Price developments, on the other hand, were not altogether reassuring. Pay settlements were a little higher than a year earlier and productivity growth appeared to have slowed down. And although the twelve-month growth rate of producer prices fell sharply following sterling's recovery, the twelve-month growth rate of the retail price index, which had for some time been steady at around 5%, rose as high as 7% in May (partly reflecting higher mortgage rates).

Time/yield curves of British government stocks
flattened somewhat as short yields fell

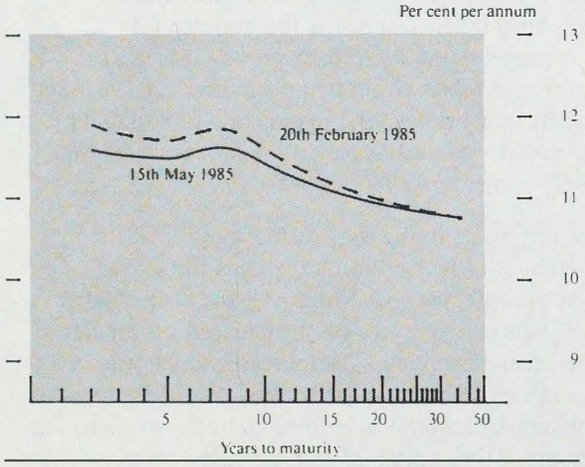


Table A
Growth of the monetary aggregates
Percentage increases (annualised where appropriate); seasonally adjusted

Banking months (inclusive)	Dec. 84–Feb. 85	Mar. 85–May 85	1984–85 target period	12 months to May 85
M0(a)	3.1	4.4	5.7	5.5
Non-interest-bearing M1	3.9	5.2	6.1	4.1
M1	5.8	34.9	17.2	15.8
M2(b)				8.0
				8.2
£M3	2.8	19.0	11.9	11.6
PSL1	1.6	18.1	12.6	11.9
PSL2	10.0	13.3	15.8	14.4
M3	11.6	7.8	11.2	12.9

(a) Based on averages of weekly figures.

(b) Not seasonally adjusted. The figure excludes increases arising from changes in the terms of existing accounts which bring them into M2; a figure including those increases is shown in *italics*.

In the United States, where interest rates had fallen in the latter part of 1984, economic growth slowed in the first quarter of 1985 despite above-target growth in M1. Moreover, a number of prudential problems in the US financial system came into prominence after the collapse in March of an unregulated firm dealing in US government securities. These developments weakened the earlier expectation that the next move in US monetary policy would be in the direction of tightening and thereby contributed to the general softening of the dollar exchange rate. Nevertheless there remained considerable uncertainty about the prospects for the US economy and the outlook for monetary policy, and this was reflected in continued volatility of the dollar.

Against this background there was periodic market pressure for lower UK interest rates. In view, in particular, of the persistent volatility of foreign exchange markets and of the behaviour of the PSBR and bank lending to the private sector, the authorities responded cautiously, but the pressure was sufficiently strong at times for them to feel confident that modest falls in rates would be sustainable. Accordingly, the Bank acquiesced in reductions in the general level of short-term interest rates totalling around $1\frac{1}{2}$%, leaving the clearing banks' base rates at $12\frac{1}{2}$%–$12\frac{3}{4}$% at the end of the period.

A substantial rate of government funding was needed to offset the strength of the expansionary influences on broad monetary growth, and in the gilt-edged market gross official sales of stock amounted to £4.0 billion. Gilt-edged yields, which had not risen by as much as short-term interest rates during January, fell by less during the period under review: yields on twenty-year stocks came down by only $\frac{1}{16}$% to $10\frac{7}{8}$% between mid-February and mid-May.

Monetary aggregates

The figures in this section are seasonally adjusted, unless otherwise stated.

M0's twelve-month growth rate increased marginally over the period to 5.5% at mid-May. Among the other aggregates the main development was a very large increase of £3.4 billion, or 21%, in interest-bearing sight deposits with banks, so that M1 rose by 8% over the period. This reflected in part banks' offering of attractive interest-bearing current accounts. These accounts appear to have attracted funds away from non-interest-bearing current accounts (which rose by only £0.4 billion, or 1%, over the period), from time deposits with banks and bank CDs (which rose by £1.0 billion, or 2%) and from building society accounts. The figures for M2 have been subject to substantial revision owing to the discovery of reporting errors; the 12-month growth rate of M2 fell during the period under review from 9.6% to 8.0%.[1]

The shift of funds into interest-bearing sight deposits with banks will have tended to increase £M3 to the extent that the funds were drawn from other institutions. Net inflows of retail funds into building societies were heavily affected: although

(1) Not seasonally adjusted and excluding the effects of changes in the terms of existing building society accounts.

The statistical treatment of banks' foreign currency capital

There has been a substantial increase in recent years in that part of UK banks' capital which is denominated in foreign currencies. For the monetary sector as a whole, such capital has grown from £2.3 billion at the end of 1981 to £8.4 billion at the end of 1984; as a proportion of total capital, the foreign currency element has risen from 11% at the end of 1981 to 24% at the end of 1984 (a period in which the foreign currency part of UK banks' balance sheets has grown by 88%, as against 75% for their balance sheets as a whole). The increase reflects an increase in the sterling value of foreign currency capital and reserves arising from movements in the exchange rate, certain retained foreign currency earnings, and capital issues in foreign currency. These last have much increased recently, with some £2.7 billion announced so far this year (to mid-June).

With the major part of the banks' sterling deposit liabilities (ie those of the UK non-bank private sector), along with cash, comprising the £M3 measure of money supply, it is pertinent to ask how the growth of banks' foreign currency capital affects the monetary statistics. The total of the monetary sector's liabilities (deposits plus capital) is equal to the total of its assets, so it is possible to analyse a change in £M3 in large part in terms of changes in assets and those liabilities in the monetary sector's balance sheet which are not included within £M3. These assets and other liabilities of the monetary sector can be arranged so as to form the 'counterparts to changes in £M3',[1] each comprising a group of related monetary sector assets or liabilities (or some other aggregate such as the PSBR which can be related to items in the monetary sector balance sheet).[2] Thus, for example, the category 'external and foreign currency counterparts' includes transactions undertaken with the banks by the overseas sector and changes in foreign currency deposits and borrowing by the UK non-bank private sector. If a UK resident paid over a sterling bank deposit to an overseas resident, the fall in £M3 would be reflected in a fall in the 'external and foreign currency counterparts', within which an increase in overseas residents' sterling deposits with UK banks is recorded as a negative item.[3] There is a similar effect if UK residents switch sterling deposits into foreign currency, where the counterpart initially may be an increase in the net foreign currency liabilities of the banks. The category 'net non-deposit liabilities' includes changes in the monetary sector's capital; if, for example, £M3 were to fall because a UK resident had run down sterling deposits in order to subscribe to a capital issue by a UK bank, the transaction would be reflected in an increase in net non-deposit liabilities which appears in the accounting identity as a negative item, so balancing the fall in £M3.

In the case of a UK bank's foreign currency capital issue, it seems unlikely that UK residents' sterling deposits will be run down. It is much more likely that UK banks' foreign currency assets will increase, or that their foreign currency deposits, taken from either UK or overseas residents, will be reduced, in each case giving rise to an expansionary influence from 'external and foreign currency counterparts' offsetting the influence of the increase in 'net non-deposit liabilities'.

It is now intended to transfer foreign currency capital from net non-deposit liabilities to external and foreign currency counterparts. This will mean that transactions associated with raising foreign currency capital, which will normally have little or no impact on £M3, may be expected broadly to cancel out within external and foreign currency counterparts. Similarly, changes in the sterling value of the stock of foreign currency capital arising from movements in the exchange rates will cancel out within this item. This change in presentation should make the figures easier to understand.

The figures in Table 11.3 of the statistical annex are on the new basis. Consequential changes to the headings of the relevant columns are explained in the notes to the table.

Effect of the statistical change

£ millions, *seasonally adjusted*

	External and foreign currency counterparts		Net non-deposit liabilities (increase −)	
	old definition	new definition	old definition	new definition
Quarters				
1982 1st	− 5	− 270	− 249	16
2nd	−1,881	−2,053	− 469	− 297
3rd	26	− 191	− 694	− 477
4th	− 338	615	− 764	−1,717
1983 1st	− 745	−1,839	− 572	522
2nd	141	− 536	−1,121	− 444
3rd	33	− 126	−1,016	− 857
4th	− 74	− 823	− 923	− 174
1984 1st	− 41	− 888	−1,768	− 921
2nd	− 702	−1,565	− 922	− 59
3rd	665	− 503	−1,159	9
4th	811	− 632	−2,698	−1,255
1985 1st	1,865	789	−2,430	−1,354
Month ended				
1984 June 20	169	188	− 11	− 30
July 18	− 439	− 774	− 102	233
Aug. 15	433	377	80	136
Sept. 19	− 556	− 800	− 217	27
Oct. 17	− 69	− 215	− 464	− 318
Nov. 21	1,278	362	−1,306	− 390
Dec. 12	249	120	− 760	− 631
1985 Jan. 16	− 54	− 362	− 437	− 129
Feb. 20	− 338	− 635	− 321	− 24
Mar. 20	− 33	− 367	− 836	− 502
Apr. 17	1,397	1,295	− 547	− 445
May 15	729	− 71	−1,559	− 759

(1) See Table 11.3 in the statistical annex; the March 1977 *Bulletin* page 39; and the *Financial Statistics Explanatory Handbook*, 1985 Edition, pages 104–5.
(2) It is important, however, not to make too mechanistic a link between movements in one of the counterparts and a change in £M3 itself, since a movement in one of the counterparts may well be offset by movements in one or more of the others.
(3) See the *Bulletins* for December 1978 (page 523) and December 1983 (page 525).

Table B
Composition of changes in the money stock

£ billions: *seasonally adjusted*

		Banking months Mar. 85–May 85	Level outstanding at mid-May 85
1	Non-interest-bearing M1	+0.4	33.8
2	Interest-bearing sight deposits	+3.4	19.5
3	**M1 (= 1+2)**	**+3.8**	**53.3**
4	Private sector holdings of time deposits with banks and bank CDs	+1.0	61.5
5	**Sterling M3 (= 3+4)**	**+4.9**	**114.8**
	Non-bank private sector holdings of:		
6	Building society shares and deposits(a)	+1.3	77.9
7	Building society wholesale liabilities(b)	—	1.3
8	Other components of PSL2	—	6.4
9	**PSL2 (= 5+6+7+8)**	**+6.2**	**200.4**
10	Building society term shares(c)	+1.4	18.6

(a) Other than term shares: including interest credited.
(b) CDs and time deposits.
(c) Including interest credited.

Table C
Changes in £M3 and its counterparts

£ billions; *seasonally adjusted*

	Banking months	3 months Dec. 84–Feb. 85	3 months Mar. 85–May 85	12 months June 84–May 85
1	Central government borrowing requirement(a)	+ 0.1	+2.7	+ 8.7
2	Other public sector(a)	+ 0.3	+0.2	+ 1.3
3	Purchases (−) of central government debt by the non-bank private sector	− 3.1	−3.0	−13.3
	of which:			
	Gilt-edged stocks	*− 2.7*	*−2.1*	*− 9.3*
	National savings	*− 0.3*	*−0.6*	*− 3.1*
	CTDs	*− 0.1*	*−0.2*	*− 1.0*
4	External finance of the public sector(b)	− 0.9	−0.5	− 1.8
	of which, gilt-edged stocks (purchases −)	*− 0.6*	*−0.9*	*− 1.4*
5	Sterling lending by the banking system to the UK private sector(c)	+ 5.1	+5.8	+19.0
6	External finance of the monetary sector(d)(e)	—	+1.3	+ 0.9
7	Net non-deposit liabilities (increase −)(e)	− 0.8	−1.7	− 2.8
8	**Change in £M3**	**+ 0.8**	**+4.9**	**+11.9**

(a) The sum of rows 1 and 2 is the PSBR, *less* net purchases of local authority and public corporation debt by the non-bank private sector.
(b) Net overseas purchases of public sector debt, *less* the public sector's net acquisition of claims on the overseas sector.
(c) Including Issue Department's holdings of commercial bills and of promissory notes relating to shipbuilding paper guaranteed by the Department of Trade and Industry.
(d) The net external sterling liabilities of the monetary sector (increase −) *plus* the net foreign currency liabilities of the monetary sector to all sectors (increase −).
(e) These items have been redefined: see the note on page 185.

they increased after the rise in building society interest rates which became effective on 1 April, over the period as a whole they may have amounted to only about £2.7 billion. This included £1.5 billion of interest credited; the bulk of the remainder represented an inflow into term shares, reflecting their improved attractiveness, and reversing the earlier steady decline in the total of such shares outstanding. These shares are not included in PSL2, which increased by a smaller percentage amount than £M3, partly as a result of this shift into term shares; adding building society term shares to PSL2 gives a growth rate rather closer to that of £M3 in the three months under review. It is unlikely that the flow of funds associated with the sale of shares in British Aerospace, the allocation of which was announced shortly before the end of banking May, had any major effect on the monetary aggregates.

Among the counterparts to the rise in £M3, the PSBR for 1984/85 turned out at £10.1 billion, thus exceeding the 1984 Budget forecast by a substantial margin. During the three months under review the PSBR, less net purchases of local authorities' and public corporations' debt by the non-bank private sector, was £2.8 billion.

Bank lending in sterling to the private sector was again very strong, increasing by as much as £5.8 billion. Of this, only about £1.2 billion was to persons. Some part of the increase of £4.6 billion in business lending will have reflected the bunching of capital investment expenditure at the end of March to take advantage of capital investment allowances for 1984/85 before the lower rate for 1985/86 became effective. To this extent the short-term rate of increase of lending will have been exaggerated, but the underlying rate of lending remains high. This continues to be puzzling in view of the apparent strength of corporate finances and in particular the recent very high rate of new equity issues. Possible reasons for the strength of loan demand were discussed in the March *Bulletin* (page 26): in particular it may reflect in part the increased scale of takeover activity and unrecorded investment abroad by companies, as well perhaps as greater diversity of financial experience among companies. A note on page 189 suggests that bill arbitrage is unlikely to have been a significant factor.

External and foreign currency finance of the public sector was contractionary by £0.5 billion; this was more than accounted for by overseas purchases of gilt-edged (£0.9 billion). However, the external and foreign currency transactions of banks (as newly defined—see the note on page 185) were strongly expansionary by £1.3 billion. This may have been in part attributable to the switching of funds into sterling by the private sector as the pound appreciated: foreign currency borrowing by the private sector increased by £0.8 billion more than foreign currency deposits over the period (excluding the effects of exchange rate changes on the sterling value of outstanding loans and deposits).[1]

Net non-deposit liabilities were contractionary by £1.7 billion, reflecting in part sterling capital issues by the monetary sector amounting to £0.5 billion.

(1) Some of the foreign currency borrowing may, as in the preceding three months, have represented nothing more than the routing by UK banks of foreign currency loans to non-residents through their non monetary sector subsidiaries in the Channel Islands.

Table D
Official transactions in gilt-edged stocks

£ billions: *not seasonally adjusted*

Banking months	June 84–Aug. 84	Sept. 84–Nov. 84	Dec. 84–Feb. 85	Mar. 85–May 85
Gross official sales(a)	+4.6	+3.4	+3.5	+4.0
less				
Redemptions and net official purchases of stock within a year of maturity	−2.0	−0.7	−0.7	−0.6
Equals net official sales(b)	+2.6	+2.7	+2.9	+3.4
of which, net purchases by:				
Monetary sector(b)	*+0.4*	*+0.4*	*−0.4*	*+0.5*
Overseas sector	*−0.3*	*+0.3*	*+0.6*	*+0.9*
Non-bank private sector	*+2.5*	*+2.0*	*+2.7*	*+2.1*

Note: Sales are recorded on a payments basis, so that payments made on partly-paid stocks are entered when they are paid rather than at the time of the commitment to make the payment.

(a) Gross sales of gilt-edged stocks are defined as net official sales of stocks with over one year to maturity apart from transactions under purchase and resale agreements.

(b) Apart from transactions under purchase and resale agreements.

Table E
Influences on the cash position of the money market

£ billions: *not seasonally adjusted*
Increase in the market's cash +

Banking months	Dec. 84–Feb. 85	Mar. 85–May 85	June 84–May 85
Factors affecting the market's cash position			
CGBR (+)	−1.6	+3.6	+ 8.7
Net sales (−) of central government debt(a)	−3.1	−4.4	−15.5
of which:			
Gilt-edged	*−2.9*	*−3.4*	*−11.6*
National savings	*−0.6*	*−0.7*	*− 3.1*
CTDs	*+0.3*	*−0.2*	*− 0.8*
Currency circulation (increase −)	—	−0.3	− 0.7
Other	—	+0.5	+ 0.9
Total (A)	**−4.7**	**−0.5**	**− 6.6**
Official offsetting operations			
Net increase (+) in Bank's holdings of commercial bills(b)	+1.5	+0.7	+ 3.6
Net increase (−) in Treasury bills in market	−0.1	—	+ 0.1
Securities(c) acquired (+) under purchase and resale agreements with banks	+3.2	+0.2	+ 3.4
Other	+0.1	−0.3	− 0.4
Total (B)	**+4.6**	**+0.7**	**+ 6.7**
Change in bankers' balances at the Bank (= A + B)	−0.1	+0.1	+ 0.1

(a) Other than Treasury bills.

(b) By the Issue and Banking Departments of the Bank of England.

(c) Gilt-edged stocks and promissory notes related to guaranteed export credit and shipbuilding paper.

Official operations in financial markets

The figures in this section are not seasonally adjusted, unless otherwise stated.

Although the CGBR was seasonally large, the heavy volume of government funding that was needed to restrain broad monetary growth meant that there was a net drain of cash from the money market during the three months under review, so that a further increase was needed in the total of official assistance to the money market.

Gross official sales of gilt-edged during the three months under review totalled £4.0 billion (Table D). After redemptions and purchases of stock near maturity, net official sales to all sectors were £3.4 billion. There were unusually large net purchases by overseas residents—£0.9 billion—perhaps reflecting the appreciation of sterling and, possibly, increased overseas interest in gilt-edged associated with the continuing discussions of changes in the gilt-edged market structure. Banks and discount houses bought £0.5 billion, so that net purchases by the non-bank private sector were £2.1 billion. In addition, the non-bank private sector bought (net) £0.6 billion(1) of national savings instruments and £0.2 billion(1) of certificates of tax deposit. As a result, the PSBR (seasonally adjusted) was overfunded through debt sales to the non-bank private sector by £0.1 billion.

The effect of this funding on the cash flows in the money market (Table E) more than offset the expansionary effect of the CGBR (which was £3.6 billion). Further net official assistance to the money market was therefore provided in the form of additional purchases of bills by the Bank from discount houses, both outright and under purchase and resale agreements, and through an increase in the amount of funds provided directly to the banks through purchase and resale agreements in gilt-edged stocks and against promissory notes related to export credit and domestic shipbuilding paper. The effect on the cash shortages in the money market of this net increase in the need for assistance was compounded, particularly after mid-March, by market expectations of lower interest rates, which meant that the discount houses were unwilling to offer longer-dated bills to the Bank, so that the average maturity of outstanding assistance fell. Consequently, the daily average shortages, which had been £570 million between mid-November and mid-February, were sharply higher—£800 million in banking March, £990 million in banking April and £1,050 million in banking May. Details of the Bank's daily money-market operations are given in Table 10 of the statistical annex.

The total stock of assistance outstanding (other than that supplied through operations in Treasury bills) rose to £17¼ billion at mid-May from £16½ billion at mid-February and £10½ billion at mid-May 1984. Of the £17¼ billion, £8¾ billion consisted of bills held outright by the Bank, £5 billion of bills held under purchase and resale agreements with discount houses and £3½ billion of securities held against funds provided directly to banks.

(1) Seasonally adjusted.

The money market

At the beginning of the period under review bank base rates stood at 14%, to which level they had been raised on 28 January as described in the March *Bulletin*. The Bank was buying bills in the four maturity bands[1] at discount rates of $13\frac{7}{8}$%, $13\frac{3}{4}$%, $13\frac{5}{8}$% and $13\frac{1}{2}$% respectively, implying a roughly flat bill-market yield curve. In the interbank market the yield curve from a month out to a year had a pronounced downward slope—on the morning of 21 February, the one-month rate was $14\frac{3}{16}$%, the three-month rate 14% and the one-year rate $12\frac{5}{8}$%—indicating a market expectation that interest rates would fall, though perhaps not in the immediate future.

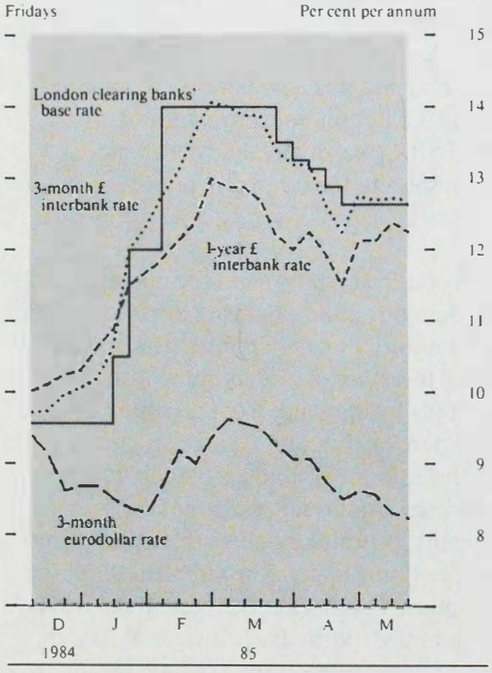
Early in the period, market sentiment remained very nervous and was dominated by the volatile worldwide fluctuations of the dollar exchange rate. Thus as sterling's exchange rate index (ERI) fell from 71.4 at the beginning of the period to 70.2 on 26 February, almost entirely reflecting a movement of the sterling/dollar rate (which at one point fell below $1.04) the three-month interbank rate rose from 14% to $14\frac{5}{32}$%. On the following day, when there was co-ordinated central bank foreign exchange intervention to restrain the dollar, the three-month interbank rate fell back sharply to $13\frac{5}{8}$%. The dollar's subsequent recovery, which took sterling's ERI back down to 70.6 on 5 March, pushed the three-month interbank rate back up to $14\frac{1}{16}$%, but as the dollar then eased again, taking sterling's ERI to 72.2 early on 12 March, the three-month interbank rate fell briefly as low as $12\frac{7}{8}$%.

In view of the continuing volatility of market sentiment the Bank continued throughout the first month or so of the period under review to buy bills at the rates established at the end of January.

From the middle of March, the dollar began to weaken persistently. As a result, and despite the publication on 12 March of UK money figures for banking February which commentators regarded as disappointing, sustained downward pressure on short-term interest rates emerged, which became stronger after the Budget on 19 March, when expectations developed of a fall in base rates of as much as 1%. By 20 March, sterling's ERI had reached 75.2, reflecting an appreciation not only against the dollar but against the generality of foreign currencies.

Following announcements that morning of reductions in clearing bank base rates from 14% to $13\frac{1}{2}$%, the Bank accepted offers of bills at $\frac{1}{2}$% below the rates at which it had bought bills earlier, but declined offers at rates below that level. In addition the Bank invited the discount houses to use the 2.30 borrowing arrangements for the first time since August 1982, and lent to them for a fortnight at an interest rate of $13\frac{3}{4}$% (consistent with a $\frac{1}{2}$% fall in the general level of rates), in order to restrain market optimism about further declines in rates. The Bank's cautious attitude at this time reflected in particular continuing volatility of foreign exchange markets and the associated concern that market sentiment might quickly reverse, so that

Short-term interest rates in London



(1) Band 1: up to 14 days to maturity; band 2: 15–33 days; band 3: 34–63 days; band 4: 64–91 days.

Bill arbitrage

There have been a number of suggestions in the press and in stockbrokers' circulars that a large part of the sustained increase in the rate of bank lending in sterling to the private sector in recent years and especially since the autumn of 1984 can be attributed to bill arbitrage—in other words borrowing on bills in order to place the funds on deposit with banks at the same maturity as the borrowing (thereby avoiding interest rate risk) at a profitable margin. In this way, it is suggested, both £M3 and bank lending to the private sector have been artificially inflated.

The Bank has carefully investigated reports made to it of particular instances of bill arbitrage. In many cases it has transpired that the transactions involved 'soft' arbitrage—ie switching of existing loans into bills from, say, overdraft—rather than 'hard' arbitrage of the kind described above; 'soft' arbitrage transactions do not affect the total of bank lending or £M3. In nearly all cases where 'hard' arbitrage was involved the amount which actually took place proved to be much smaller than the reports suggested: in some cases there was none at all. Partly for this reason the Bank has considered some of the published estimates of the amount of 'hard' arbitrage likely to be grossly exaggerated.

In addition the Bank monitors continuously the profit opportunities theoretically offered by one and three-month bill arbitrage (see table). The calculations assume an acceptance commission of $\frac{1}{8}$%: this is the lowest rate a 'blue chip' company could normally expect to get.

For one-month bills, there have been arbitrage possibilities in each of the banking months covered in the table. The opportunities did not become any more frequent or attractive between banking September 1984 and February 1985, so that one-month bill arbitrage cannot readily be held responsible for any increase in the amount of bank lending outstanding during the period. In banking March, however, there were a number of days when arbitrage possibilities were particularly sizable (on the nine days when possible profit exceeded £100 per £1 million of bills, the average was £194, higher than in earlier months covered). And in banking April—both before and after the end of calendar March—one-month arbitrage opportunities were again numerous, and substantially more profitable even than in banking March.

Nevertheless, the total of bills outstanding fell in banking March, and in April it rose only modestly, by £440 million. Other evidence that bill arbitrage was not a major factor in banking April is that half the increase in £M3 that month was in interest-bearing sight deposits, which cannot be explained by bill arbitrage. Moreover bank lending in banking April was heavily concentrated in late calendar March: similar arbitrage opportunities—in size and in number of days—persisted in the first half of calendar April, yet bank lending actually fell.

Statistics on possible three-month arbitrage present a rather different picture. Here again, arbitrage opportunities were available each month up to and including banking January. But the frequency and profitability of opportunities decreased thereafter. There were almost none in banking March, and significantly fewer in banking April—both before and after the end of calendar March—and in banking May than in banking January. If the amount of three-month bill arbitrage had been significant, it should have fallen quite markedly in banking March and again in banking April.

In addition, the Bank has investigated econometrically the relationship between weekly bank lending figures and bill arbitrage opportunities available since August 1982. There is evidence of statistically significant bill arbitrage at both one and three month maturities (assuming $\frac{1}{8}$% acceptance commission), but the implied scale of such transactions is small in relation to the overall increase in bank lending. The results are not precise, owing in part to the volatility of the weekly banking figures. Alternative equations yield estimates of the net contribution of arbitrage transactions to bank lending between mid-August 1984 and mid-April 1985 varying between nil and £500 million, out of a total increase in bank lending of £15 billion. There is no sign of any increase during the course of the period in the sensitivity of bank lending to arbitrage opportunities.

Although the Bank is for these reasons confident that 'hard' arbitrage has not been a major source of distortion to bank lending and £M3, it is concerned that reports of such arbitrage, even though not firmly based, can damage the credibility of policy and lead market commentators to misinterpret £M3. Accordingly the Bank has indicated to banks whose bills are eligible for purchase by the Bank that it regards the promotion of artificial transactions of this kind as an abuse of eligibility.

Theoretical bill arbitrage opportunities

Number of days in period when theoretical profit on bill arbitrage exceeded stated amount per £1 million of bills. *Figures in italics give average profit per month on days when the theoretical profit exceeded the stated amount*

Profit exceeded:	One-month bills £100	One-month bills Nil	Three-month bills £100	Three-month bills Nil	Working days in month
Banking month					
1984 Sept.	21	22	22	22	24
	165	*161*	*223*	*223*	
Oct.	8	19	17	20	20
	128	*96*	*189*	*167*	
Nov.	6	21	20	25	25
	142	*70*	*159*	*142*	
Dec.	2	15	15	15	15
	116	*58*	*197*	*197*	
1985 Jan.	2	8	16	19	22
	132	*66*	*274*	*238*	
Feb.	13	20	5	7	25
	171	*127*	*173*	*132*	
Mar.	9	17	—	1	20
	194	*134*	—	*14*	
Apr.	12	15	6	13	18
	286	*237*	*195*	*126*	
Of which:					
21/3–29/3	7	7	3	6	
	290	*290*	*214*	*145*	
1/4–17/4	5	8	3	7	
	281	*191*	*176*	*109*	
May	16	18	6	16	19
	181	*171*	*142*	*103*	

too sharp a reduction in interest rates might prove unsustainable.

In the event the dollar continued to weaken, partly reflecting the unexpectedly low 'flash' estimate of US GNP growth in the first quarter, so that there was market pressure for a further fall in rates. On 28 March, when the ERI had reached 78.2, National Westminster and Lloyds banks announced that they were cutting their base rates to 13%; the Bank endorsed these moves by accepting offers of bills at rates $\frac{1}{2}$% below those established after 20 March. Markets then became a little more subdued, and Barclays and Midland banks left their base rates unchanged for a few days; when they did come down, on 3 April, it was by only $\frac{1}{4}$%, to 13$\frac{1}{4}$%.

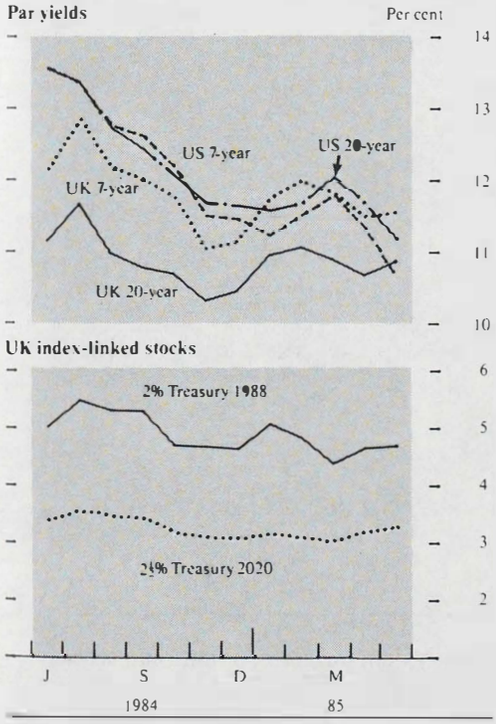
After Easter, the rise in the exchange rate resumed and further downward pressure on interest rates developed, helped by the money figures for banking March (published on 10 April). On 12 April, the ERI having reached 78.5 that morning, Barclays and Midland banks announced that they were reducing their base rates to 12$\frac{3}{4}$%, thereby 'leapfrogging' over the other two large clearing banks. Because of the behaviour of the PSBR and bank lending, the Bank was still cautious about the pace of decline in interest rates, and refused offers of bills at lower rates. The Bank again invited the discount houses to borrow under the 2.30 arrangements, and lent to them at 13$\frac{1}{4}$% for a week.

The dollar's weakness continued, following publication of a still lower figure for US GNP growth in the first quarter, taking sterling's ERI to 79.9 on 18 April. On the following day National Westminster and Lloyds banks took their turn at 'leapfrogging', reducing their base rates by $\frac{1}{2}$% to 12$\frac{1}{2}$%. The Bank endorsed their move in its bill dealings but again used the 2.30 arrangement to lend to the discount houses at 12$\frac{3}{4}$% for eleven days to signal continuing caution.

There followed a gradual though erratic recovery in the dollar, which saw sterling's ERI fall back to 76.2 on 7 May. This did not generate any market pressure for higher interest rates, but it did cause expectations of further declines to be deferred. The provisional money figures for banking April, published on 7 May, showed an increase in £M3 which was very much larger than had been expected, and although the figures were received calmly, they may have prevented any pressure for a fall in rates in response to the renewed weakening in the dollar between then and the end of the period under review.

Over the period as a whole, interest rates fell. Interbank rates fell by 1$\frac{5}{32}$% at the one-month maturity, 1$\frac{13}{32}$% at three months and $\frac{7}{16}$% at one year, so that the downward slope of the yield curve from a month out to a year became less pronounced. Bank base rates fell from 14% to 12$\frac{1}{2}$%–12$\frac{3}{4}$%. Building society interest rates, which had gone up with effect from 1 February, were increased again with effect from 1 April: base annuity mortgage rates were raised by 1% to 13$\frac{3}{4}$%–14%. Ordinary share account rates went up by $\frac{3}{4}$% to 8$\frac{1}{4}$% (net) on 1 April; in addition there was increasing competition in premium rates offered on particular kinds of accounts.

Gross redemption yields on government stocks



The gilt-edged market

The authorities began the period having secured £0.2 billion through earlier sales of 11% Exchequer 1990 in partly-paid form, but facing the redemption of 15% Treasury 1985 and 12% Exchequer Convertible 1985, of which a total of £0.5 billion remained in market hands. There was still a large amount of 11% Exchequer 1990 available for sale to the market as well as supplies of the small tranche of 2½% Exchequer 1987 issued in December.

With market sentiment dominated by volatile movements in the exchange rate of the dollar, the authorities made substantial use of issues of small tranches of stock, to take advantage of the additional flexibility which this technique allows, and with a view to evening out the schedule of maturities by issuing stock maturing in years with relatively low amounts of stock due to be redeemed.

As noted in the March *Bulletin*, the tender for 2½% Index-Linked Treasury 2013, the issue of which had been announced on 15 February, took place on 21 February, the first day of the period under review: a substantial amount of the stock was allotted at £88, implying a real yield of 3.11%.(1)

During the first month of the period, sentiment in the gilt-edged market fluctuated with the exchange rate, but there was particular demand for index-linked stock, reflecting a market expectation that the Budget might tax pension funds' investment income. On 28 February, following sterling's rally against the dollar, there were heavy sales of stock, exhausting official supplies of both 2½% Exchequer 1987 and 2½% Index-Linked Treasury 2013. Amid continuing demand for index-linked stocks the Bank announced on 1 March the issue of £150 million each of 2½% Index-Linked Treasury Stock 2009 and 2½% Index-Linked Treasury Stock 2016; a substantial amount of the latter was sold in the first day's trading on 4 March.

Lacking conventional stock in its portfolio, the Bank announced on 8 March the issue of £200 million each of 9% Treasury Loan 1994, 10½% Treasury Stock 1999 and 10% Conversion Stock 2002. In addition £100 million of 10½% Exchequer Stock 1997 was issued directly to the National Debt Commissioners. There was very heavy demand for stock on 11 March, both reflecting the firm exchange rate and in advance of the money figures to be published the following day; large amounts of conventional stock were sold including the whole of the 1999 tranche. This demand continued the following day when the 1990 tap stock and the 2002 tranche were also exhausted.

The money figures for banking February, when published, were viewed as disappointing, and with the exchange rate falling back a little, market sentiment became less enthusiastic. Nevertheless, demand for index-linked stock persisted and the 2016 tranche was exhausted on 15 March.

On 18 March, the day before the Budget, the Bank announced further issues of conventional stock: £250 million of 11% Exchequer Stock 1991 and £500 million of 9¾% Conversion

(1) Calculated on the basis of retail price inflation at 5% a year.

Table F
Issues of gilt-edged stock

Stock	Amount issued (£ millions)	Date announced	Method of issue	Date issued	Price per £100 stock (£)	Payable per £100 stock: Initial payment (£)	Payable per £100 stock: Further instalments (£)	Redemption yield (per cent)	Date exhausted
2½% Index-Linked Treasury 2013	400	15/2	Tender, no minimum price	21/2	88.00(a)	—	Fully paid	3.11(b)	28/2
2½% Index-Linked Treasury 2009	150	1/3	Direct to Bank	1/3	—	—	Fully paid	—	16/5
2½% Index-Linked Treasury 2016	150	1/3	Direct to Bank	1/3	—	—	Fully paid	—	15/3
9% Treasury 1994	200	8/3	Direct to Bank	8/3	—	—	Fully paid	—	15/4
10½% Treasury 1999	200	8/3	Direct to Bank	8/3	—	—	Fully paid	—	11/3
10% Conversion 2002	200	8/3	Direct to Bank	8/3	—	—	Fully paid	—	12/3
10½% Exchequer 1997	100	8/3	Direct to National Debt Commissioners	8/3	—	—	Fully paid	—	
11% Exchequer 1991	250	18/3	Direct to Bank	18/3	—	—	Fully paid	—	27/3
9¾% Conversion 2001	500	18/3	Direct to Bank	18/3	—	—	Fully paid	—	22/3
10½% Exchequer 1997	250	29/3	Direct to Bank	29/3	—	—	Fully paid	—	12/4
9½% Conversion 2004	500	29/3	Direct to Bank	29/3	—	—	Fully paid	—	18/4
3% Treasury 1989	400	4/4	Minimum price tender	11/4	79.00	—	Fully paid	9.28	6/6
12¼% Exchequer 1990	250	19/4	Direct to Bank	19/4	—	—	Fully paid	—	13/5
10¼% Exchequer 1995	250	19/4	Direct to Bank	19/4	—	—	Fully paid	—	13/5
11¼% Treasury 2001–4	150	19/4	Direct to Bank	19/4	—	—	Fully paid	—	29/4
11% Exchequer 1989	100	19/4	Direct to National Debt Commissioners	19/4	—	—	Fully paid	—	
2% Index-Linked Treasury 1990	100	17/5	Direct to Bank	17/5	—	—	Fully paid	—	13/6
2½% Index-Linked Treasury 2001	150	17/5	Direct to Bank	17/5	—	—	Fully paid	—	—
2½% Index-Linked Treasury 2011	150	17/5	Direct to Bank	17/5	—	—	Fully paid	—	13/6
10% Treasury 1992	150	21/5	Direct to Bank	21/5	—	—	Fully paid	—	30/5
10½% Exchequer 2005	250	21/5	Direct to Bank	21/5	—	—	Fully paid	—	30/5
11% Exchequer 1990	200	31/5	Direct to Bank	31/5	—	—	Fully paid	—	3/6
10¾% Conversion 1999	200	31/5	Direct to Bank	31/5	—	—	Fully paid	—	3/6
11¾% Treasury 2003–7	200	31/5	Direct to Bank	31/5	—	—	Fully paid	—	3/6
10% Treasury Convertible 1990	150	31/5	Direct to National Debt Commissioners	31/5	—	—	Fully paid	—	
10% Treasury 2004	900(c)	4/6	Direct to Bank	4/6	96.75	30.00	66.75(15/7)	10.40	—

(a) Price at which the stock was allotted at the tender.

(b) Real yield, calculated on the basis of a 5% annual rate of increase in the retail price index.

(c) Of which £100 million was reserved for the National Debt Commissioners.

Stock 2001. There was heavy demand for conventional stock after the Budget as the exchange rate appreciated, helped by the 'flash' estimate of first quarter US GNP growth, and the 2001 tranche was exhausted on 22 March, followed by the 1991 tranche on 27 March. Index-linked stocks fell after the Budget, however, as the expectation that pension funds' investment income would be taxed proved unfounded. On 29 March, the Bank announced more conventional stock to replenish its portfolio, £250 million of 10½% Exchequer Stock 1997 and £500 million of 9½% Conversion Stock 2004.

The mainstream market was subdued early in April but there was persistent demand for low-coupon stocks and on 4 April the Bank announced a new issue of this kind of stock—£400 million of 3% Treasury Stock 1989 at a minimum tender price of £79—in order to meet this demand and to provide stock against the forthcoming maturity of 3% Treasury 1985; the tender took place on 11 April.

The strengthening of the exchange rate after Easter and the money figures for banking March (published on 10 April), provoked further demand for stock, and the 1997 tranche was exhausted on 12 April, followed by the 1994 tranche on 15 April. After a pause, demand re-emerged, reflecting particularly the downward revision to US GNP growth in the

first quarter, and the 2004 tranche was sold out on 18 April. The following day the Bank announced further tranches of stock— £250 million each of 12½% Exchequer Stock 1990 and 10¼% Exchequer Stock 1995, and £150 million of 11½% Treasury Stock 2001–04. In addition £100 million of 11% Exchequer Stock 1989 was issued direct to the National Debt Commissioners.

Market conditions became more subdued as the dollar recovered, though the 2001–4 tranche was exhausted on 29 April and there was steady demand for index-linked stocks at the higher yields which had been established as a result of their post-Budget price fall. With sterling's exchange rate turning up again, however, sentiment in the conventional market improved sharply in the last few days of the period, despite the money figures for banking April, which showed an unexpectedly large increase in £M3, and the 1990 and 1995 tranches were sold out on 13 May.

Over the period as a whole, yields on conventional gilt-edged stocks fell modestly—on five and ten-year stocks by ¼% to 11⅝%, and on twenty-year stocks by 1/16% to 10⅞%. Longer-dated index-linked yields rose: the real yield on the 2020 stock went up by 3/16% to 3¼% but the real yield on the 1988 stock fell by 3/16% to 4 5/16%.(1)

On 28 February, the government announced a change in the basis on which income from gilt-edged and other stock and bonds would be taxed. From 28 February 1986 sellers of such securities would have the accrued interest since the last payment date treated as income for tax purposes; purchasers would be allowed a deduction for this amount. Accrued interest would be excluded from the calculation of capital gains. This change was made in order to counter the practice known as 'bond washing'—ie the conversion of interest income arising on securities into capital gain in order to take advantage of the lower rate of tax for some investors on capital gains than on income. In addition, the government announced transitional arrangements to apply in the period up to 28 February 1986.

This announcement was received calmly in the gilt-edged market and led to some increases in the prices of lower-coupon stocks—including index-linked—relative to those of higher coupon stocks. It has not as yet had any perceptible adverse effect on turnover in the gilt-edged market, as might have been feared.

Other capital markets

In the *domestic fixed-interest market* there was only one issuer during the period under review (Table G), who placed two separate amounts of stock on the same date. Local authorities made no new issues and, as in the preceding period, no stock was issued under droplock arrangements by local authorities or other borrowers. (Droplock arrangements currently outstanding remain as shown in the June 1984 *Bulletin*.) Overseas issuers also showed less interest in the domestic fixed-interest market with only one 'bulldog' issue being made.

By contrast, there was considerable interest in borrowing fixed-rate funds in the *eurosterling market*. A total of

Table G
Debt issues announced on the London capital market, mid-February to mid-May 1985(a)

Date of Announcement	Issuer	Nominal amount (£ millions)	Coupon (per cent)	Maturity
Domestic borrower				
4 March	Mid-Kent Water Company	3	12¾	1995
4 March	Mid-Kent Water Company	4	12¼	2005
Overseas borrower				
22 April	Malaysia	75	10¾	2009

(a) The issues by the domestic borrower were placed. Issues of convertible loan stock and issues of less than £3 million are not included.

(1) These real yields are calculated on the basis of retail price inflation at 5% a year.

£1,325 million was raised in this way by 21 issuers, who included five UK companies borrowing a total of £300 million. In the floating-rate market there was only one borrower, Royal Bank of Scotland, which raised £100 million; since the end of the period, however, Standard Chartered has made a £300 million issue, which is both the largest single issue of eurosterling floating-rate notes made so far and the first issue of perpetual notes in this market.

The *equity market* was generally firm throughout the period under review with investors taking encouragement from a steady stream of excellent results from leading UK companies. Although exchange rate considerations and concern over interest rates exerted a dampening influence from time to time, the FT-Actuaries all-share index rose overall by 4.6% over the period.

During the second half of February the market was fairly subdued and, despite optimistic forecasts from the CBI and the London Business School, prices tended to drift gradually lower. This trend was reversed at the beginning of March as share prices on Wall Street reached a new record high and the coal strike came to an end; some weakening of the dollar and the announcement of good results by leading companies gave further encouragement to investors, and prices moved upwards with the FT-Actuaries all-share index reaching a new record high of 630.16 on 15 March. The market showed no immediate response to the Budget, or to the subsequent reduction in base rates. On the other hand, the announcement on 20 March of a 1% rise in the mortgage rate was discouraging, while the subsequent publication of a Treasury forecast which was taken to imply that the mortgage rate would remain at the new level for most of 1985, together with tax-loss selling before 5 April, caused prices to drift lower.

After the Easter holiday, trading remained subdued and prices fluctuated within a narrow range until 12 April when Barclays and Midland banks announced $\frac{1}{2}$% cuts in their base rates. This caused the market to advance strongly on hopes of further falls in interest rates. The subsequent strengthening of sterling, however, cast some doubts over the prospects for exporting companies while the market was further unsettled by the announcement on 19 April of the March retail prices index. Consequently, investor demand weakened again and share prices, after falling initially, showed little movement during the remainder of April.

At the beginning of May investors drew encouragement from the latest CBI survey and renewed prospects of lower interest rates. Share prices revived and the new firmer trend was little affected by the announcement of the April money supply figures on 7 May. After it became known on 10 May that the offer of British Aerospace shares had been over-subscribed, share prices continued to rise, and the FT-Actuaries all-share index ended the period on 15 May at a new record level of 642.93.

The buoyancy of share prices was accompanied by a record level of new equity issues (Table H), which raised as much as £1.9 billion during the three months under review, more than in the whole of the preceding year. Several leading UK companies announced rights issues to raise very large amounts of new

Table H
Amounts raised in the capital market
£ millions: *not seasonally adjusted*
Net cash raised +

Banking months	June 84–Aug. 84	Sept. 84–Nov. 84	Dec. 84–Feb. 85	Mar. 85–May 85
UK private sector				
Loan capital and preference shares	+109	+ 69	+ 84	+ 159
Equity capital(a)	+497	+535	+322	+1.916
Unit trusts(b)	+275	+294	+503	+ 230(c)
Issues on the unlisted securities market	+ 41	+ 48	+ 10	+ 67
Local authorities				
Stocks	—	− 11	− 47	− 14
Negotiable bonds	− 61	− 88	−116	− 122
Overseas	+216	+296	+159	+ 164

(a) Net issues by listed UK public companies.
(b) Calendar months.
(c) March and April only.

share capital. These included Trafalgar House (£180 million) in the latter half of February, Fisons (£94 million), Barclays (£507 million) and United Biscuits (£98 million) during March and Saatchi and Saatchi (£99 million), Tesco (£145 million) and Bank of Scotland (£81 million) during April. The first half of May was dominated by the public offer (at a price of 375p per share) of 146.9 million shares in British Aerospace, comprising 50.0 million new shares and the government's residual holding of 96.9 million shares in the company. Gross proceeds from the sale totalled £550.7 million, of which £293.7 million was payable on application, with the balance due on 10 September this year.