# Operation of monetary policy

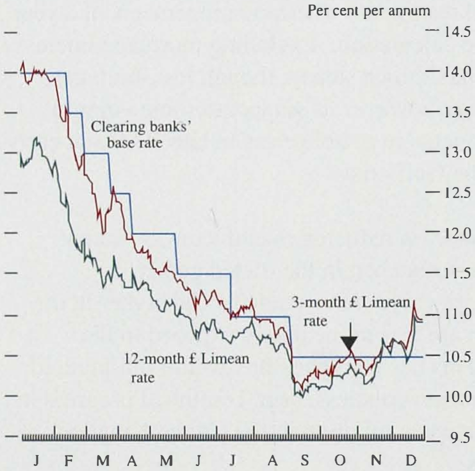
*This article covers the period from October to December 1991.*

## Introduction

During the fourth quarter it became evident that, although the economy was no longer contracting, the more encouraging survey evidence published in the third quarter had not yet been translated into a sustained recovery in output or demand. The monetary data were consistent with this picture: while the rate of growth of M0 continued to rise, that of M4 continued to fall. The period of below-potential growth and reduced inflationary pressures had enabled short-term interest rates to be cut to within 100 basis points of German rates by the beginning of the fourth quarter, while sterling remained comfortably within the ERM. In the fourth quarter, however, as the rate of decline of the underlying measures of inflation slowed, it became clear that further policy easing would be dependent upon a further sustainable reduction in inflation and convergence towards the best ERM performance.

Against this background, money-market operations sought to maintain interest rates in line with existing base lending rates of 10½%, initially by resisting market expectations of a further cut in base rates and latterly by countering upward pressure on market rates.

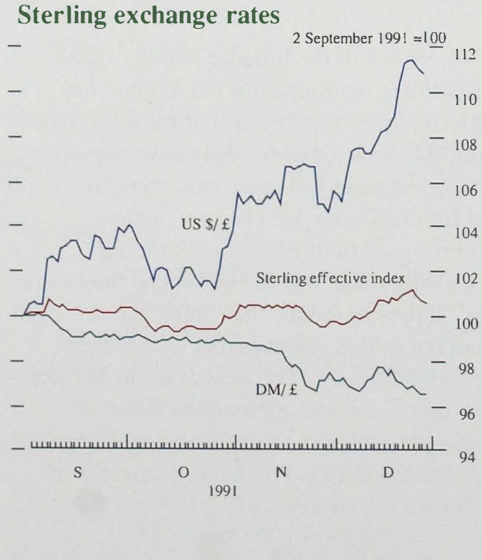
**Short-term interest rates in London**[a]




(a) Close of business rates.

Money-market expectations of official interest rate movements during the quarter largely reflected sterling's movements within the ERM. The widening of the short-term interest rate differential between Germany and the United States, and the easing of interest rates in Japan, led to a general strengthening of the deutschemark, particularly against the dollar, but also within the ERM. Sterling was relatively stable in effective terms, however, as weakness against the deutschemark was offset by appreciation against the dollar: the anti-inflationary stance of policy was not therefore endangered by the deutschemark's strength. Sterling was able to use the greater flexibility afforded by membership of the wide band and came less close to its effective lower limit than some of the narrow band currencies. At no time during the quarter did the market seriously question the commitment to sterling's ERM parity. As a result, when narrow band member countries raised interest rates in the period of greatest tension following the rise in German official rates in mid-December, sterling did not encounter sustained pressure, and official operations sought to reduce the most extreme pressure on short-term interest rates, which rose briefly above 11%.

**Sterling exchange rates**




The rally in the gilt-edged market which ran through the third quarter was not sustained in the fourth, although in early December gilts benefited from expectations of a more pronounced international slowdown and, as domestic recovery was delayed, from some switching away from equities. The market was relatively unmoved by sterling's weakening in November, which was recognised as a reflection of general deutschemark strength, but, when sterling fell below DM2.84, yields rose briefly to levels last seen in August. Gross official sales in the quarter as a whole, at £4.6 billion, were virtually unchanged from the previous quarter, despite more difficult funding conditions.

## Monetary aggregates and credit

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

Although the twelve-month growth rate of broad money continued to fall in the fourth quarter, the three-month growth rate suggests that broad money may no longer have been decelerating. The private sector as a whole deposited more sterling with the banks and building societies in the fourth quarter than it borrowed from them. This is consistent with flow of funds data in suggesting continued adjustment in spending, particularly by companies, whose deposits rose sharply.

**Table A**
**Growth rates of the monetary and credit aggregates** (a)

Percentages; *seasonally adjusted (financial year constrained)*

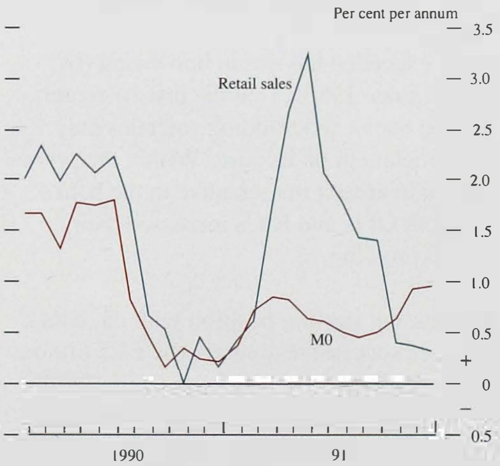
| | 12 months to end-Sept. 91 | 12 months to end-Dec. 91 | 1991 Q3 | Q4 |
|---|---|---|---|---|
| M0(b) | 2.4 | 2.8 | 0.7 | 0.8 |
| M2 | 11.1 | 9.4 | 1.6 | 1.0 |
| M4 | 6.5 | 6.2 | 1.2 | 1.9 |
| M4 lending | 7.4 | 5.8 | 1.1 | 1.3 |

(a) See the statistical annex for definitions.
(b) Data are based on end-month figures, except M0, which is an average of Wednesdays in each month.

### Components of money

The twelve-month growth rate of M0 rose from 2.4% to 2.8% between September and December, consolidating its position in the upper half of its target range (0–4%). But the underlying growth of narrow money, as measured by the twelve-month change in notes and coin, remained unchanged over the quarter. Although the value of retail sales had been growing more rapidly than M0 in the spring and early summer, this had been reversed by the end of the year. Over the long run, the value of retail sales tends to grow 3% (per annum) faster than M0. In the short run, however, other factors come into play. In 1990, and possibly to some extent towards the end of last year, the difference in the growth rates remained well below the long-term trend as the slowdown in personal sector spending resulted in cash expenditures (largely on necessities) growing more rapidly than retail spending as a whole. The strong growth of retail sales values during the spring relative to M0 reflected the impact of the April VAT increases, which will have disproportionately affected prices of items for which cash is less likely to have been used.

**Three-month growth rates(a) of the value of retail sales and M0**

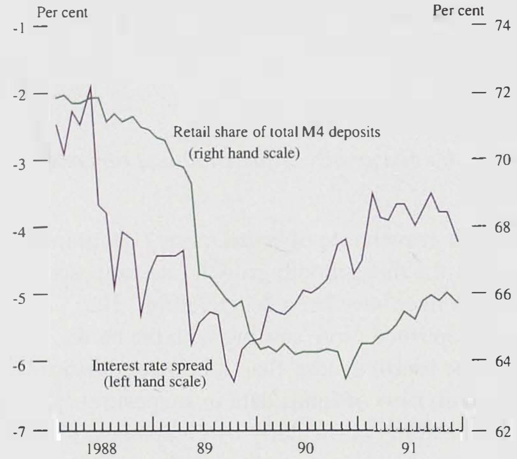



(a) The three-month growth rates are smoothed using a three-month moving average.

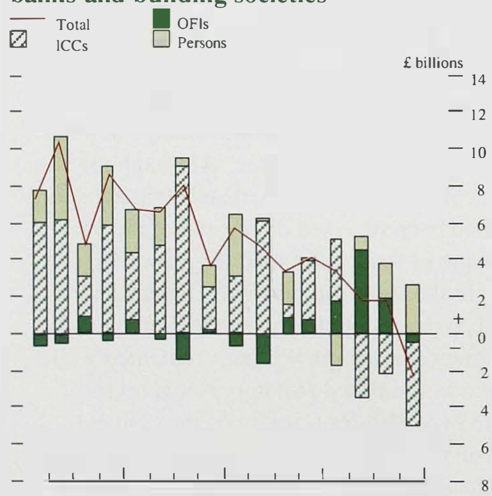
The annual growth rate of M2, which has been on a downward trend since the middle of last year, fell from 11.1% to 9.4% between September and December. Part of the strength in M2 growth in the early part of last year reflected special factors, notably the introduction of TESSAs—the effect of which will also be felt in the early part of this year. The relative weakness of M2 growth in the fourth quarter reflected a shift in building societies' interest crediting (see below) and an increase in the wholesale component of M4 at the expense of the retail component, reversing the pattern seen earlier last year.

The twelve-month growth rate of M4 was little changed in the fourth quarter, falling slightly from 6.5% to 6.2% between September and December. This stability disguised broadly offsetting movements in M4's retail and wholesale components. The quarterly growth rate of retail deposits fell to 1.0% in the final quarter; the figure is still low (around 1.4%) after allowing for a shift of £1 billion of building society interest crediting (mainly into the first quarter of 1992, but also into the third quarter of last year). In contrast, wholesale deposits grew by 3.4% in the final quarter, compared with a fall of 0.3% in the previous quarter. Other

### Retail minus wholesale deposit rate and retail share of total M4 deposits




### Private sector net sterling recourse to banks and building societies(a)




(a) Net borrowing (recourse) is positive, net saving negative.

### Table B
### Sectoral analysis of sterling deposits with, and borrowing from, banks and building societies

£ billions: *seasonally adjusted (calendar year constrained)*

| | | 1991 Year | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|---|---|
| | **Personal sector** | | | | | |
| 1 | Deposits | 23.3 | 8.6 | 6.9 | 4.5 | 3.2 |
| | *of which:* | | | | | |
| | Banks | 5.9 | 3.0 | 1.4 | 0.6 | 0.8 |
| | Building societies | 17.4 | 5.6 | 5.5 | 3.9 | 2.4 |
| 2 | Borrowing | 26.8 | 6.8 | 7.8 | 6.4 | 5.9 |
| | *of which:* | | | | | |
| | Mortgage | 25.5 | 6.3 | 6.5 | 6.8 | 5.9 |
| | Non-mortgage | 1.2 | 0.3 | 0.3 | 0.2 | 0.4 |
| | Unincorporated businesses, etc | 0.1 | 0.2 | 1.0 | -0.6 | -0.5 |
| 3 | **Net recourse (=2-1)(a)** | **3.6** | **-1.8** | **0.9** | **1.9** | **2.6** |
| | **ICCs** | | | | | |
| 4 | Deposits | 6.4 | -1.5 | 2.5 | 0.5 | 4.9 |
| 5 | Borrowing(b) | -0.3 | 2.0 | -1.0 | -1.7 | 0.4 |
| 6 | **Net recourse (=5-4)(a)** | **-6.7** | **3.5** | **-3.5** | **-2.2** | **-4.5** |
| | **OFIs** | | | | | |
| 7 | Deposits | -1.1 | -0.3 | -2.1 | -0.1 | 1.3 |
| 8 | Borrowing(b) | 6.4 | 1.4 | 2.3 | 1.8 | 0.8 |
| 9 | **Net recourse (=8-7)(a)** | **7.5** | **1.7** | **4.4** | **1.9** | **-0.5** |

(a) Excludes notes and coin.
(b) Includes Issue Department take-up of commercial bills.

financial institutions (OFIs) and, in particular, industrial and commercial companies (ICCs), appear to have been the sectors moving most strongly into wholesale deposits.

The relative weakness of retail deposits may partly reflect the personal sector running down deposits to pay for financial assets, although it is not yet clear what these might be. In addition, the recent rise in wholesale deposit rates relative to retail rates may have led to a portfolio switch (by the M4 private sector as a whole) from retail into wholesale funds. There is little evidence to suggest that retail deposits were run down to finance increased spending on goods and services in the fourth quarter.

### Sectoral lending and deposits

As yet, the private sector's financial balance in the fourth quarter can only be inferred from those of the public and overseas sectors. These suggest an improvement in the private sector's financial balance. Certainly the public sector's financial deficit appears to have increased significantly, although partly offsetting this, the current account deficit (ie the external sector's financial surplus) rose in the fourth quarter. The net effect is an estimated rise in the M4 private sector financial surplus from £2½ billion in the third quarter to between £4½ and £5 billion in the fourth quarter.

This implied further improvement in the M4 private sector financial balance is consistent with the monetary data. In the fourth quarter, the increase in sterling deposits of the M4 private sector with the banks and building societies exceeded the rise in borrowing (by £2.4 billion) for the first time since 1983. That the private sector reduced its net recourse to the banks and building societies may possibly suggest further retrenchment on its part. Within the private sector, the personal sector made greater net recourse to the banks and building societies, but both OFIs and ICCs increased their deposits by more than their borrowing.

ICCs have now improved their net sterling position with the banks and building societies for three successive quarters (by £3.5 billion, £2.2 billion and £4.5 billion respectively). The large figure for the final quarter probably reflects both a reduction in real expenditure and financial restructuring. (There was a high level of capital issues over the quarter.) Surveys suggest further destocking by the company sector in the fourth quarter, following a small degree of stock rebuilding in the third quarter.

ICCs' M4 deposits grew particularly strongly in the fourth quarter, perhaps reflecting, in part, some of the proceeds from the increased capital issues. To this extent, the build-up in deposits may reflect planned future expenditures by the company sector.

As in the third quarter, unincorporated businesses reduced their stock of outstanding borrowing from the banks and building societies between September and December suggesting continued real-side adjustment among small businesses.

As noted above, the increase in personal deposits was abnormally small in the fourth quarter. At the same time, the flow of individuals' borrowing from the banks and building societies fell by £0.7 billion in the fourth quarter, to £6.3 billion. This principally reflected a fall in the flow of lending by banks and building societies for house purchase. Modest borrowing for house purchase confirms the picture given by the price and transactions data which show a subdued housing market. The flow of bank and building society lending for consumption remained depressed in the quarter.

OFIs were net depositors (of £0.5 billion) with banks and building societies in the fourth quarter, breaking the pattern of net borrowing over the previous five quarters. This, at least in part, may reflect a portfolio switch by OFIs into (wholesale) M4 deposits, and also their exceptionally large (£5.9 billion) net borrowing in foreign currency. To the extent that OFIs are primarily concerned with portfolio management, the direct implications of these transactions for economic activity are likely to be slight.

Despite the large PSBR, the public sector repaid £1.7 billion of net debt to the banks and building societies in the fourth quarter. Given net sales of Treasury bills, the PSBR was overfunded by £700 million.

**Table C**
**Counterparts to changes in M4**(a)

£ billions; *seasonally adjusted figures (financial year constrained)*

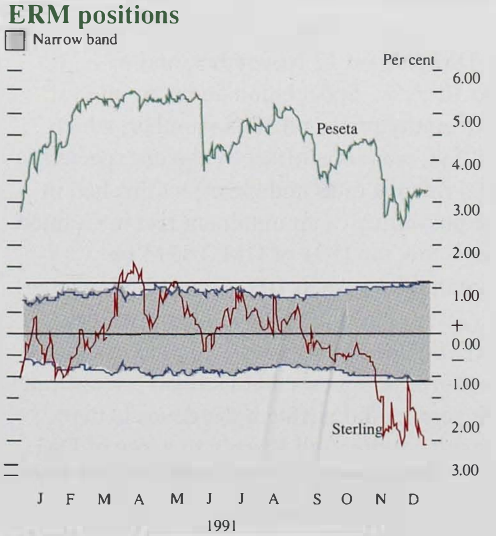
| | | Counterparts to M4 1991 | | 12 months to end-Dec. 91 |
|---|---|---|---|---|
| | | Q3 | Q4 | |
| 1 | PSBR (+) | 2.4 | 3.2 | 7.3 |
| 2 | Net purchases (-) of public sector debt by the M4 private sector | -2.3 | -2.7 | -6.2 |
| | *of which, central government debt* | *-2.2* | *-2.3* | *-5.9* |
| 3 | External and foreign currency finance (-) of the public sector | 0.1 | -2.3 | -3.1 |
| 4 | Public sector contribution (=1+2+3) | 0.2 | -1.7 | -2.0 |
| 5 | Sterling lending to the M4 private sector (b) | 6.5 | 7.5 | 33.5 |
| 6 | Other external and foreign currency flows | -0.4 | 5.2 | 1.6 |
| 7 | Net non-deposit sterling liabilities of banks and building societies(-) | -0.6 | -1.7 | -3.8 |
| **8** | **Total** (=4+5+6+7) =change in M4 | **5.7** | **9.3** | **29.3** |

(a) See the statistical annex for definitions.
(b) Including changes in Issue Department's holdings of private sector commercial bills and promissory notes relating to shipbuilding paper guaranteed by the Department of Trade and Industry.

## Market developments

In the United States, following a return to growth in the third quarter, the recovery appeared to falter in the fourth. In response, official interest rates were eased further; the Federal funds target was apparently cut by 125 basis points during the quarter to 4%, and the discount rate by 150 basis points to $3^1/_2$%, the final cut being by 100 basis points on 20 December. As a result, the dollar weakened, falling by around 4% against the deutschemark in the week following the first cut in the Fed funds target on 30 October, and weakening further thereafter as the German-US interest rate differential widened.

**ERM positions**




The zero line represents the middle of the narrow band.

The deutschemark benefited from inflows from other European currencies and the yen, as well as from the flow of funds from dollar assets. There were heavy flows out of the Finnish markka which resulted in the devaluation of its parity against the Ecu on 14 November, and encouraged flows out of other Nordic currencies. As a result, tension within the ERM increased markedly; the guilder, Belgian franc and punt appreciated with the deutschemark against the other currencies and by 15 November the narrow band had widened to 2.06%. The lowest currency in the narrow band, the French franc, fell to its weakest level against the deutschemark for five years on 18 November and the Banque de France raised official interest rates, thereby restoring the positive differential with German short rates which had been eliminated by the lowering of French rates in October. The Banca d'Italia also raised its repo rate on 18 November as the lira continued to weaken. Expectations of an imminent rise in German official rates and the continued weakening of the dollar maintained pressure on the narrow band thereafter. The 50 basis points rise in the German discount and Lombard rates which occurred on 19 December was larger than had been generally expected and, coupled with the cut in the US discount rate on 20 December, caused the deutschemark to appreciate sharply against the dollar. As the narrow band was stretched further, the German move was followed on 20 December by similar increases in Dutch, Irish, Belgian and Danish rates and on 23 December by Italy and France. The Banco de Espana also moved to raise its overnight rate, but by only 25 basis points, while

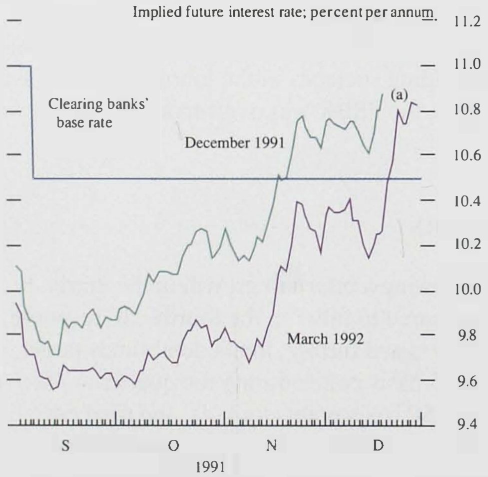
UK three-month interbank rates rose briefly to a peak of $11\frac{1}{8}$%.[1] Sterling did not test its ERM wide band limit, however, and ended December 5.8% below the peseta, well within its permitted divergence.

## Official operations in financial markets

*The figures in this section are not seasonally adjusted.*

Against this background, the conduct of daily money-market operations was consistent with the prevailing level of banks' base lending rates, which remained unchanged at $10\frac{1}{2}$%. During the first half of the period, there was intermittent downward pressure on rates which required resistance in official operations but, following sterling's softening within the ERM in mid-November, a more accommodating stance was adopted to offset upward pressure on rates.

**Sterling 3-month futures contracts**




(a) The December contract expired on 18 December.

The quarter began with sterling steady around DM 2.91, and with the short sterling futures contract reflecting expectations that interest rates might ease further before the end of the year. However, the mixed results of opinion polls and uncertainties ahead of the Maastricht Summit unsettled sterling and it fell below DM 2.91 on 8 October to become, briefly, the weakest currency in the ERM. Although it soon recovered, sterling's weakening eliminated market hopes of a cut in interest rates until much nearer the Election—by then not expected until after the turn of the year—and enabled the Bank to return to a more neutral operating stance in the money market. The market was quiet during the second half of October, with three-month interbank rates around $10\frac{1}{2}$%.

In early November, following the 'Mansion House' speeches and the cut in the US discount rate to $4\frac{1}{2}$%, expectations developed that there might be a cut in base rates as early as 15 November when the RPI data were expected to show headline inflation below 4%. As a result, three-month interbank rates fell to $10\frac{9}{32}$% on 8 November; to resist this downward pressure, the Bank did not accept in full the offers of bills received in that day's operations. The decline in rates was quickly reversed, however, as sterling again slipped against the deutschemark, to below DM 2.90 on 12 November, and three-month rates rose to $10\frac{11}{32}$%. Speculation about an interest rate response to the fall in equity prices on 18 November, which followed the Dow Jones' fall, was soon offset by the unexpected increase in French official interest rates and the effect this had in focusing attention on the possibility of an imminent rise in German rates; sterling fell to a new low for 1991 of DM 2.8715 on 19 November. Three-month rates rose to $10\frac{9}{16}$% on 19 November before falling back to $10\frac{1}{2}$% as the Bank relieved some of the pressure on rates by supplying most of the day's liquidity in the early rounds of bill operations. The news that German interest rates were not to rise on 21 November did not stem the deutschemark's general strength. As a result, sterling fell sharply to a low of DM 2.8395 during 25 November and three-month interbank rates rose to $10\frac{3}{4}$%; they remained above $10\frac{1}{2}$% thereafter. The Bank continued to operate at unchanged rates and the market accepted that no upward adjustment to base rates was required.

Tensions within the ERM eased towards the end of November as the deutschemark suffered from rumours of a coup in the former

(1) All rates quoted are middle-market London interbank rates.

# The cash position of the money market

There was a net outflow from the market of £4.3 billion in the fourth quarter (see Table 1), rather less than in the fourth quarter of recent years despite the resumption of gilts sales in 1991. The main reason was the excess of central government expenditure over receipts which resulted in a CGBR of £0.1 billion, unlike the usual CGBR surplus seen in the fourth quarter. Central government outlays were some £5.5 billion greater than in the fourth quarter of 1990 despite higher privatisation receipts: £1.8 billion was raised from the first instalment of the sale of part of the government's remaining shareholding in British Telecom, and £1.5 billion was received in October from the second instalment of the privatisation of the regional electricity companies. Receipts rose only modestly, however, with corporation tax receipts some £1 billion lower than in the fourth quarter of 1990.

### Table 1
### Influences on the cash position of the money market

£ billions; *not seasonally adjusted*
Increases in bankers' balances (+)

| | 1990 Q4 | 1991 Q3 | 1991 Q4 | 12 months to end-Dec. 91 |
|---|---|---|---|---|
| **Factors affecting the market's cash position** | | | | |
| CGBR (+) | -3.7 | +3.4 | +0.1 | +7.7 |
| *of which, on-lending to local authorities and public corporations* | *+0.1* | *-0.1* | *+0.2* | *+1.2* |
| Net sales (-) of central government debt (a) | +1.0 | -5.0 | -2.8 | -11.4 |
| *of which: Gilt-edged* | *+1.4* | *-4.2* | *-2.2* | *-9.2* |
| *National savings* | *-0.3* | *-0.7* | *-0.6* | *-2.2* |
| *CTDs* | *-0.1* | *-0.1* | — | — |
| Currency circulation (increase -) | -0.8 | +0.6 | -1.2 | -0.2 |
| Reserves etc | -0.2 | -0.1 | -0.1 | +1.1 |
| Other | -1.1 | +0.4 | -0.3 | +1.0 |
| **Total (A)** | **-4.8** | **-0.7** | **-4.3** | **-1.8** |
| **Offsetting official operations** | | | | |
| Net increase (+) in Bank's commercial bills (b) | +1.8 | -0.8 | +2.6 | +0.1 |
| Net increase (-) in sterling Treasury bills in market (c) | +2.4 | +2.9 | +1.9 | +1.8 |
| Other | +0.2 | -1.4 | -0.4 | -0.2 |
| **Total (B)** | **+4.4** | **+0.7** | **+4.1** | **+1.7** |
| Changes in bankers' operational balances at the Bank (=A+B) | -0.4 | — | -0.2 | -0.1 |

(a) Other than sterling Treasury bills.
(b) By the Issue and Banking Departments of the Bank of England.
(c) Excluding repurchase transactions with the Bank.

Offsetting the flow to the market arising from the CGBR were gilt sales. Gross official sales of gilts worth £4.6 billion were partly offset by redemptions worth £2.2 billion (see Table G) and the flow from the market resulting from net official sales was only £2.2 billion compared with £4.2 billion in the third quarter, when a similar volume of gross sales were made. Table 2 shows the effect of the return to funding in 1991 in generating an overfund in the fourth quarter of £3.8 billion, despite the much lower public sector surplus.

These influences on bankers' balances were offset by a decline of £1.9 billion of Treasury bills outstanding in the market. This resulted from the reductions in the size of the weekly Treasury bill tenders made in August and September (see Table 3) which were made in anticipation of the rise in the stock of assistance during the fourth quarter (see Table E). There was also a net increase in the Bank's holdings of commercial bills of £2.6 billion, acquired through daily bill operations. The Bank's holdings of commercial bills therefore rose to £6.6 billion at the end of December, increasing the stock of assistance outstanding to £6.9 billion, but well below the peak of £8.7 billion reached on Christmas Eve.

### Table 2
### Alternative presentation of factors affecting the market's cash position

£ billions: *not seasonally adjusted*
Increase in bankers' balances (+)

| | 1990 Q4 | 1991 Q3 | 1991 Q4 | 12 months to end-Dec. 91 |
|---|---|---|---|---|
| **Factors affecting the market's cash position** | | | | |
| Under/overfunding (+/-) | -1.9 | -0.6 | -3.8 | -3.8 |
| Central government net debt sales to banks and building societies (a) (-) | -1.0 | -0.8 | +0.4 | +1.3 |
| Other public sector net borrowing from banks and building societies (-) | -0.1 | -0.3 | +0.2 | -0.3 |
| *of which, local authorities' deposits with banks and building societies (+)* | *+0.1* | *-0.5* | *+0.3* | *-1.0* |
| Currency circulation (-) | -0.8 | +0.6 | -1.2 | -0.2 |
| Other | -1.0 | +0.4 | +0.1 | +1.2 |
| **Total** | **-4.8** | **-0.7** | **-4.3** | **-1.8** |

(a) Other than sterling Treasury bills.

### Table 3
### Size of the Treasury bill tender, from 1990

£ millions

| Period beginning | 63 days | 91 days | 182 days | Total |
|---|---|---|---|---|
| **End-1989** | **—** | **300** | **100** | **400** |
| **1990** | | | | |
| 2 February | — | 500 | 200 | 700 |
| 28 September | 200 | 250 | 200 | 650 |
| 30 November | — | 250 | 200 | 450 |
| **1991** | | | | |
| 15 February | — | 350 | 200 | 550 |
| 19 April | — | 500 | 200 | 700 |
| 10 May | 200 | 500 | 200 | 900 |
| 12 July | — | 500 | 200 | 700 |
| 2 August | — | 300 | 200 | 500 |
| 6 September | — | 300 | 100 | 400 |

In anticipation of a further rise in the stock of assistance in the early months of 1992, during which there would typically be large revenue receipts, the Bank on occasion invited offers of bills in bands 3 and 4 (with residual maturities of between one and three months) for the first time since May 1989. This was a technical measure, designed to spread maturing assistance over a longer period so as to avoid adding to the already large daily shortages caused by existing maturing assistance. In addition, by increasing the amount of eligible bills that could be sold to the Bank, the move helped to reduce the upward pressure on short-term interest rates in December following the rise in other ERM members' interest rates.

## Table D
## Sterling interest rates, gilt yields and exchange rates; end-month and selected dates (a)

| | Interbank interest rates(b) (per cent per annum) | | | | Gilt yields (c) (per cent per annum) | | | | Exchange rates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Conventionals | | | Index-linked | | | |
| Date (1991) | 1 month | 3 months | 6 months | 12 months | Short | Medium | Long | Long | ERI | \$/£ | DM/£ |
| 1 October | 10 9/16 | 10 9/32 | 10 3/32 | 10 3/32 | 9.60 | 9.73 | 9.31 | 4.18 | 91.1 | 1.7475 | 2.9140 |
| 31 October | 10 17/32 | 10 7/16 | 10 9/32 | 10 5/16 | 9.73 | 9.84 | 9.49 | 4.21 | 90.8 | 1.7380 | 2.9089 |
| 8 November | 10 13/32 | 10 9/32 | 10 3/16 | 100 5/32 | 9.63 | 9.79 | 9.46 | 4.21 | 91.2 | 1.7695 | 2.9037 |
| 18 November | 10 1/2 | 10 1/2 | 10 13/32 | 10 13/32 | 9.82 | 9.88 | 9.51 | 4.19 | 91.3 | 1.7962 | 2.8811 |
| 25 November | 10 9/16 | 10 5/8 | 10 5/8 | 10 5/8 | 10.11 | 10.18 | 9.75 | 4.24 | 90.6 | 1.7975 | 2.8481 |
| 29 November | 10 11/16 | 10 5/8 | 10 9/16 | 10 9/16 | 10.01 | 10.07 | 9.64 | 4.26 | 90.6 | 1.7630 | 2.8702 |
| 23 December | 11 1/8 | 11 1/16 | 11 1/16 | 10 15/16 | 10.10 | 9.97 | 9.49 | 4.39 | 91.8 | 1.8760 | 2.8478 |
| 31 December | 10 13/16 | 10 31/32 | 10 31/32 | 10 29/32 | 10.10 | 9.98 | 9.51 | 4.41 | 91.4 | 1.8678 | 2.8404 |

(a) Close of business rates in London.
(b) Middle-market rates.
(c) For representative stocks: short—12% Treasury 1995, medium—12% Exchequer 1998; long—9% Treasury 2008; Index-Linked—2 1/2% Treasury Index-Linked 2024 (5% inflation assumed).

Soviet Union, but sentiment continued to be affected by the expectation of a rise in German rates before the end of the year, compounded by speculation about a possible realignment following the Maastricht Summit, beginning on 9 December, and by concern about the domestic economy. In the event, the outcome of the Summit was seen to be positive for sterling and, as the deutschemark was weakened by rumours of President Gorbachev's resignation, sterling rose back above DM 2.86.

Sterling rose further following the Chancellor's comment on 13 December that its central rate would not be changed when it joined the narrow band of the ERM. It weakened again in the following week, however, and fell by a further 1 1/2 pfennigs in response to the 50 basis points rise rise in German Lombard and discount rates on 19 December, before steadying at around DM 2.86. The subsequent rise in other ERM countries' interest rates and the dollar's further weakness following the 100 basis points cut in the US discount rate on 20 December weakened sterling further, to below DM 2.84 on 23 December, although in effective terms it reached its highest point during the quarter on Christmas Eve. Sterling remained around DM 2.84–2.85 in thin trade over the Christmas and New Year period and strengthened at the turn of the year when official statements made clear the government's intention to maintain its ERM parity. In effective terms, sterling ended the quarter 0.3% higher than at the beginning of October, as strength against the dollar offset weakness against the deutschemark.

## Table E
## Average daily money-market statistics

£ millions; *not seasonally adjusted*
Increases in the market's cash (+)

| | 1991 Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|
| Average daily figures | | | | |
| Influences (excluding maturing assistance) | + 100 | - 100 | - 90 | - 10 |
| Maturing assistance(a) | -1,070 | - 830 | - 980 | -1,190 |
| Surplus (+)/shortage (-) before daily operations | - 970 | - 930 | -1,070 | -1,200 |
| End-period levels | | | | |
| Stock of assistance | 4,660 | 5,780 | 7,180 | 6,860 |
| Sterling Treasury bills outstanding(b) | 10,710 | 9,560 | 9,230 | 8,840 |

(a) Including net issuance of sterling Treasury bills and the level of bankers' balances above or below target from the previous day.
(b) Other than those held outright by the Bank and government accounts but including those purchased by the Bank on a repurchase basis.

Large daily shortages, which averaged £1.2 billion, added to the upward pressure on money-market interest rates through much of December. The effect on short rates was at times exacerbated by the fact that market participants sought to retain bills over the end of the year, so that few bills were offered for sale to the Bank. As a result, much of the shortages remained to be relieved through late lending, which caused overnight lending rates to rise. Further pressure stemmed from banks bidding for deposits as the end-year approached. The pressure on short rates extended out to three-month rates which by the morning of 19 December had risen to 10 27/32%. Immediately after the rise in German interest rates, they rose by an 1/8% and following rises elsewhere in Europe peaked at 11 1/8% during 23 December. The Bank responded to these temporary strains by supplying funds to relieve the shortages as early in the day as possible, thereby reducing upward pressure on rates. The Bank also began to invite offers of bills in bands 3 and 4 (with residual maturities of between one and three months) for the first time since May 1989 and on 19 December unusually offered a choice of two repos (one short-dated and one longer-dated) to emphasise its willingness to be accommodating. By Christmas Eve,

## Table F
## Issues of gilt-edged stock, 1991 Q4

| Stock | Amount issued (£ million) | Date announced | Date issued | Method of issue | Price at issue (per £100 stock) | Details of payment | Yield(a) at issue | Yield(a) when exhausted | Date exhausted |
|---|---|---|---|---|---|---|---|---|---|
| 9% Conversion 2011 'B' | 1,500 | 19/11/91 | 28/11/91 | Auction | 93.5 | Part paid (b) | 9.75 | 9.75 | 28/11/91 |
| 10% Conversion 1996 | 200 | 29/11/91 | 29/11/91 | To Bank | 100.2813 | In full | 9.92 | 9.86 | 5/12/91 |
| 10% Treasury 2001 | 200 | 29/11/91 | 29/11/91 | To Bank | 100.5625 | In full | 9.89 | 9.86 | 4/12/91 |
| 9½% Conversion 2005 | 100 | 29/11/91 | 29/11/91 | To Bank | 97.6875 | In full | 9.81 | 9.81 | 2/12/91 |
| 8½% Treasury 2007 'A' | 1,000 | 13/12/91 | 13/12/91 | To Bank | 93.25 | Part paid (c) | 9.33 | 9.28 | 9/1/92 |

(a) Gross redemption yield, per cent.
(b) With 33.5 payable at issue and remainder on 18/12.
(c) With 20 payable at issue, 40 on 13/1 and remainder on 14/2.

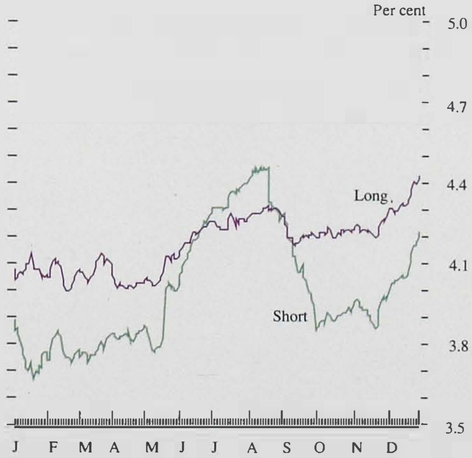
## Table G
## Official transactions in gilt-edged stocks

£ billions: *not seasonally adjusted*

| | 1990 | 1991 | | | |
|---|---|---|---|---|---|
| | Q4 | Q1 | Q2 | Q3 | Q4 |
| Gross official sales (+) (a) | +0.5 | +2.0 | +3.3 | +4.7 | +4.6 |
| *less* | | | | | |
| Redemptions and net official purchases of stock within a year of maturity | -2.0 | -1.7 | -0.8 | -0.5 | -2.4 |
| Equals net official sales (b) | -1.4 | +0.3 | +2.5 | +4.2 | +2.2 |
| *of which, net purchases by:* | | | | | |
| *Banks* (b) | *+0.7* | *-0.8* | *+0.2* | *+0.6* | *-0.4* |
| *Building societies* | *+0.3* | *-0.9* | *-0.2* | *+0.1* | *-0.1* |
| *Overseas sector* | *-1.5* | *+1.5* | *+2.1* | *+0.5* | *+1.2* |
| *M4 private sector* | *-0.9* | *+0.5* | *+0.5* | *+2.8* | *+1.5* |

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

## Yields on representative index-linked gilt-edged stocks




Representative stocks:short-2%Treasury Index-Linked 1996; long-2 1/2% Treasury Index-Linked 2024

the most extreme pressure on rates had been eased and both one and three-month rates had fallen back to just below 11%. Over the Christmas period, the Bank maintained its stance and market rates eased further; as sterling steadied, three-month rates ended the year at 10³¹/₃₂%.

Gilt-edged market conditions were subdued in October. By the end of September the rally in the third quarter appeared to have run as far as was justified by the fall in inflation. The market was further unsettled by sterling's weakness and, with the onset of the party conferences, by uncertainty regarding the timing of the General Election. Three tranchettes, which had been placed in September, remained on tap, namely 9% Treasury 1994, 2½% Index-Linked 2013 and 2% Index-Linked 1996. The 2% Index-Linked 2013 tranchette, which was placed on 30 September, was exhausted on 11 October, but subsequently the market was set back by the higher-than-expected PSBR in September of £2.9 billion, which led to concern that a substantial increase in the PSBR for 1991/92 might be announced in the Autumn Statement. Gross official sales of £930 million were made in October, largely accounted for by the second call on September's auction stock and sales of the 1996 and 2013 index-linked tranchettes.

The market held up well in November, with the higher PSBR of £10½ billion and the prospect of a larger PSBR in 1992/93 announced in the Autumn Statement calmly received. The cut in US interest rates on 6 November encouraged the market, and the 9% Treasury 1994 tranchette, which had been issued on 9 September, was exhausted on 8 November. Against this background, the Bank announced that an auction of stock in the 2006–2011 range would be held on 27 November. The auction announcement was well received and there was immediate demand for stock enabling the Bank to make sales from holdings in Issue Department. Thereafter, however, the market was subdued by the higher-than-expected October RPI data, the rise in French interest rates and subsequent speculation about a possible rise in German rates, and sterling's weakening in the ERM. There was some demand for index-linked gilts, nevertheless, as equity prices fell.

Details of the auction—£1.5 billion of 9% Conversion 2011 (partly paid)—announced on 19 November were well received despite the nervousness in financial markets, with the amount at the lower end of expectations and the longer maturity attractive to domestic investors. When-issued trading in the auction stock was initially less active than before previous auctions because of the uncertain background, but this was reversed by the day of the auction. The auction itself was 2.28 times covered with an average yield of 9.74% and a tail of one basis point. Following this successful result, a package of three tranchettes was placed on tap on

**Yields on representative conventional gilt-edged stocks**


Representative stocks: short-12% Treasury 1995; medium-12% Exchequer 1998; long-9% Treasury 2008.

**Table H**
**Changes in UK official reserves**

$ millions

| | 1991 Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|
| **Changes in reserves** | - 98 | - 341 | -337 | +211 |
| *of which:* | | | | |
| Net borrowing(+)/payment (-) of public debt | - 108 | - 35 | - 19 | -171 |
| Valuation change on rollover of EMCF swap | — | - 347 | — | — |
| Underlying changes in reserves | + 10 | + 41 | -318 | +382 |
| **Level of reserves** (end of period) | **44,593** | **44,252** | **43,915** | **44,126** |

29 November to take advantage of strong demand following the auction. Gross official sales of £1.4 billion were made in November, including the final call from the auction in September.

Substantial demand for gilts emerged early in December, enabling gross official sales of £2.3 billion to be made. The bulk of sales were made in the first half of the month as the market rallied strongly, encouraged by sterling's relative stability before and immediately after the Maastricht Summit. The three tranchettes issued on 29 November sold out in the first week and, as the market rallied strongly on 13 December following the Chancellor's confirmation that sterling's parity would be unchanged when it ultimately joined the narrow band, £1 billion of 8½% Treasury 2007 was placed with Issue Department. This met with immediate demand, but the market lost ground subsequently as sterling weakened again. The rise in German interest rates on 19 December was larger than expected by the market and short gilts fell back on concern that UK rates might also have to rise. Prices drifted off further over the Christmas period leaving short yields at 10.10%, 50 basis points higher than at the start of the quarter.

## Official reserves

The level of reserves was $44.1 billion at end-December, compared to $44.6 billion at end-September. The underlying change over the quarter was a rise of $105 million, including $100 million of contributions in November and December from countries not engaged in hostilities in the Gulf. There were also non-sterling receipts of $335 million in December from the further sale of British Telecom shares and $33 million of part-payment proceeds from the regional electricity companies' privatisation.

## Bill turnover

Discount houses' transactions in eligible bills[1][2] averaged £2.3 billion per day in the fourth quarter, thus maintaining the record level of the third quarter. Transactions in eligible bank bills rose to £2.1 billion per day, from £1.8 billion in the previous quarter, and averaged £2.5 billion in December. Purchases and sales of eligible bank bills in maturity bands 3 and 4 rose in December, as the Bank renewed operations in these bills.

(1) Figures for discount houses cover only those money-market dealing counterparties which are authorised under the Banking Act 1987.

(2) See the Bank's monthly press notice, *Bill Turnover Statistics*.

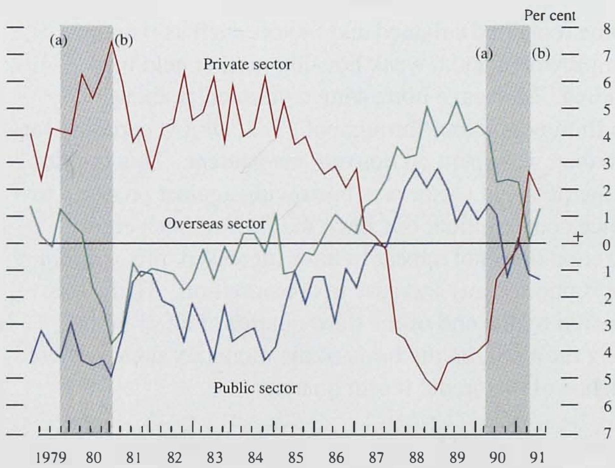
# Recent sectoral financial behaviour (1)

## Introduction

Because it takes time for monetary policy to have an impact on the real economy, the movements of sectoral financial balances over the last year may largely reflect the effects of earlier policy tightening (in 1988–89) rather than the more recent easing (in 1990–91).

Chart 1 shows that the the private sector moved into very large financial deficit in the late 1980s and that its subsequent financial adjustment has been more pronounced than in the early 1980s. In 1991, the counterpart to the private sector adjustment has been the public sector's move into deficit and a substantial reduction in the financial surplus of the overseas sector.

### Chart 1
### Financial balances as a percentage of nominal GDP




(a) Peak
(b) Trough } of level of real GDP.

## Public and overseas sectors

The economic downturn, through reducing tax revenue and increasing some expenditure outlays (particularly related to unemployment), resulted in the re-emergence in 1991 of a public sector borrowing requirement, despite much larger privatisation proceeds than in the previous two years. This moved the public sector financial balance back into deficit following several years of surplus. The financial surplus of the overseas sector fell considerably from the high levels seen in the late 1980s as a fall in domestic expenditure relative to that overseas reduced the UK current account deficit.(2) By implication, the domestic private sector moved towards surplus, to the extent that the figures are correctly measured.

## Industrial and commercial companies

The personal sector was first to react to the tightening of monetary policy from 1988; but in 1991, the largest contribution to the improvement in the private sector's financial balance was made by industrial and commercial companies (ICCs). In the first three quarters of 1991, corporate saving remained broadly unchanged. In the face of the recession, however, the ICCs' unprecedented financial deficits in 1989–90 were unsustainable, and companies reduced investment expenditure to cut back the size of their financial deficit (see Table 1).

### Table 1
### Industrial and commercial companies' financial transactions

£ billions, *seasonally adjusted*
*Increase in assets/decrease in liabilities +*

| | 1988 | 1989 | 1990 | 1991 Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|---|---|---|
| Financial surplus/deficit (a) | -7.9 | -23.4 | -26.0 | -4.1 | -1.9 | -2.8 | .. |
| *of which:* | | | | | | | |
| M4 borrowing | -24.9 | -28.4 | -16.9 | -2.0 | +1.0 | +1.7 | -0.4 |
| M4 deposits | +4.5 | +8.7 | +3.8 | -1.5 | +2.5 | +0.5 | +4.9 |
| Sterling capital issues (b) | -7.9 | -7.3 | -5.3 | -1.6 | -5.2 | -3.3 | -4.3 |
| Others (c) | +20.9 | +3.6 | -7.6 | +1.0 | -0.2 | -1.7 | .. |

.. not available.

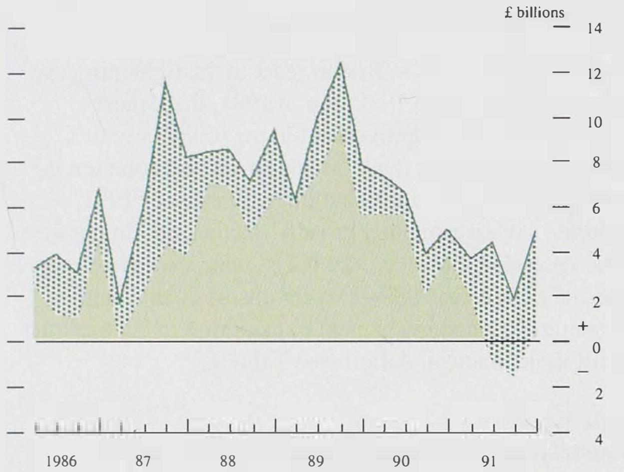
(a) Seasonal adjustments were last revised before data for 1991 Q2 and Q3 were available.
(b) Not seasonally adjusted.
(c) Including balancing item.

Within the ICCs' financial balance, the reduction in expenditure was reflected mainly in lower borrowing, specifically from banks and building societies.(3) There were net repayments of outstanding bank debt in both the second and third quarters. However, this also reflects, in part, larger companies switching their source of finance from banks to the capital markets. Banks appear to have widened interest rate spreads in response to the increase in bad debt provisions resulting from the recession. This made capital issues a relatively more attractive source of funds for those companies able to borrow from the capital markets (see Chart 2). Net sterling capital issues by ICCs increased from £5.3 billion in 1990 to £14.3 billion in 1991.

Unlike larger companies, small businesses are less able to borrow from the capital markets. In 1991, borrowing from banks and building societies by unincorporated businesses—including many of the smallest businesses—was at its lowest for at least fifteen years. Debt repayments may have risen, in part because of higher levels of bankruptcies during the recession.

(1) The data in this note are seasonally adjusted unless otherwise stated. In principle, a real side sectoral financial surplus should equal the sector's identified net accumulation of financial assets. Errors and omissions are captured in a residual balancing item. In the first three quarters of 1991, with the exception of the overseas sector, these balancing items have not been especially large compared to previous quarters, suggesting that the broad trends are not due to errors and omissions in the data. The sectoral balances referred to in this note are those measured from the real side, which are widely thought to be more accurate than the financial data.
(2) The overseas financial surplus in the second quarter of 1991 was erratically low, partly because Gulf War contributions from overseas' governments improved the current account position considerably.
(3) In practice, ICCs' borrowing from building societies is very small.

### Chart 2
### Borrowing by ICCs



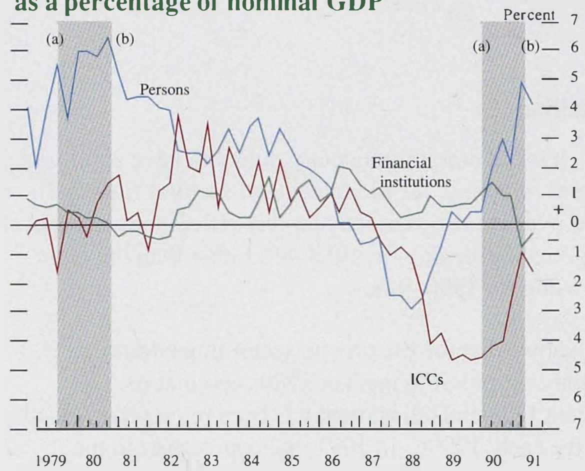

## Other financial institutions

Other financial institutions (OFIs) are a heterogeneous group, including life assurance and pension funds (LAPFs), unit trusts, finance houses and leasing companies. Total funds available to them increased slightly (by £5 billion) in the first three quarters of 1991, after falling by more than 25% (£22.5 billion) in 1990. Bank borrowing by OFIs remained subdued in 1991, the twelve-month growth rate falling to 7.9% in the final quarter from a peak of 28.2% in the second quarter of 1989, probably reflecting the rise in interest rate spreads; and net inflows into LAPFS, the largest single component of funds to the sector,(1) were broadly unchanged from 1990. However, while the funds available to OFIs appear to have remained broadly constant last year, there was a marked shift in the distribution of new investment. Investment in liquid assets fell significantly, as relative rates of return on bank deposits fell, and OFIs shifted their investment back into overseas company securities, after 1990's sharp fall, and to a lesser extent also into UK company securities. This portfolio shift can be seen as the counterpart to ICCs' switch from bank finance to the capital markets as a source of funds.

## Persons

Following earlier policy tightening, the speed and scale of financial adjustment by the personal sector since the late 1980s have so far been more evident than for ICCs and OFIs (see Chart 3). Through the 1980s, financial liberalisation enabled the personal sector to increase the value of its housing stock by increasing its capital gearing (the ratio of outstanding debt to asset value). The onset of the recession and the accompanying downturn in the housing market led persons to restructure their finances, as the burden of accumulated debt rose with higher interest rates.

### Chart 3
### Sectoral composition of financial borrowing as a percentage of nominal GDP




(a) Peak
(b) Trough } of level of real GDP.

By late 1989, the personal sector had moved out of financial deficit into surplus, which in the first three quarters of 1991 averaged £5 billion per quarter (see Table 2). Personal income remained subdued and factors such as rising unemployment and a weak housing market held back spending. Mortgage borrowing continued at about £6 billion per quarter throughout 1991, almost certainly far more than was spent on housing investment. This implies that the personal sector was borrowing against property to finance consumption; but since the flow of such equity extraction does not appear to have increased, this will not have supported any increase in consumption. There was little sign by the end of the third quarter of a fall in the saving ratio nor, on the basis of the monetary data, is there evidence of this in the fourth quarter.

The increase in public sector borrowing (excluding privatisation proceeds) in the fourth quarter was only

### Table 2
### Personal sector financial transactions

£ billions, *seasonally adjusted*
*Increase in assets/decrease in liabilities +*

| | 1988 | 1989 | 1990 | 1991 Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|---|---|---|
| Financial surplus/deficit (a) | -13.7 | -4.2 | +6.2 | +2.5 | +6.6 | +5.5 | .. |
| *of which:* | | | | | | | |
| Net claims on life assurance and pension funds (a) | +24.8 | +34.2 | +37.3 | +9.0 | +11.3 | +8.8 | .. |
| Deposits with banks and building societies | +36.9 | +39.5 | +34.0 | +8.6 | +6.9 | +4.5 | +3.2 |
| *of which:* | | | | | | | |
| Individuals | +32.0 | +34.3 | +32.7 | +8.3 | +6.9 | +4.6 | +3.4 |
| Unincorporated businesses | +4.9 | +5.2 | +1.3 | +0.3 | -0.1 | -0.1 | -0.2 |
| Borrowing from banks and building societies | -48.1 | -45.8 | -39.6 | -6.8 | -7.8 | -6.4 | -5.9 |
| *of which:* | | | | | | | |
| For house purchase | -34.6 | -31.0 | -30.4 | -6.3 | -6.5 | -6.8 | -5.9 |
| For consumption | -5.8 | -5.4 | -3.4 | -0.3 | -0.3 | -0.2 | -0.4 |
| To unincorporated businesses | -7.7 | -9.4 | -5.8 | -0.2 | -1.0 | +0.6 | +0.5 |
| Public sector debt (a) | — | -3.5 | -0.5 | +1.0 | +0.1 | +0.1 | .. |
| UK company securities and unit trusts (a) | -15.2 | -19.4 | -11.6 | -0.2 | -7.4 | +2.7 | .. |
| Others (b) | -12.1 | -9.2 | -13.4 | -9.1 | +3.5 | -4.2 | .. |

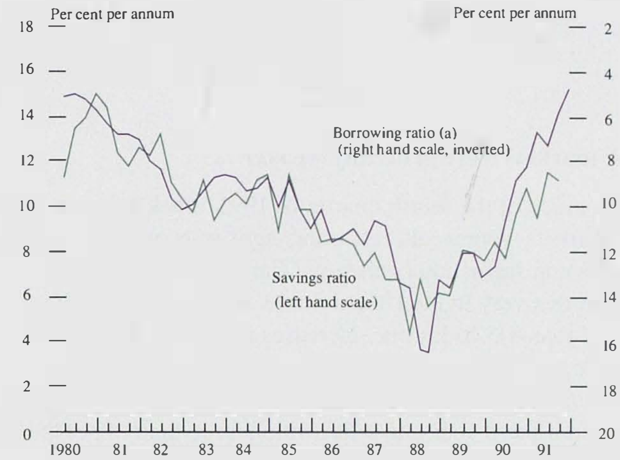
.. not available.

(a) See footnote (a) to Table 1.
(b) Including balancing item.

(1) The CSO have recently published revised figures for pension funds, showing inflows and investments around 40% higher than previously estimated in recent years. However, the broad direction of these investment flows is similar to that previously published.

partially offset by the rise in the current account deficit, suggesting that the private sector surplus also rose further. This is consistent with the fourth quarter monetary data showing a negative net recourse to banks and building societies for the first time since 1983. ICCs built up deposits substantially (possibly a temporary abode for funds raised from high capital issues in the fourth quarter). This may be spent on real assets later. OFIs also built up deposits, but these funds are more likely to be invested in due course in other financial assets. Gross borrowing by persons tends to be more related to the savings ratio than does the change in deposits or net recourse (see Chart 4). This implies that changes in personal deposits are related to shifts within the personal sector's portfolio of financial assets. In the fourth quarter, the smaller flow into deposits is more likely to have been matched by a move into other assets rather than a fall in the saving ratio. Since new borrowing by individuals weakened only slightly, the savings ratio is unlikely to have fallen in the fourth quarter.

**Chart 4**
**Personal sector savings and borrowing**




(a) Borrowing from banks and building societies as a proportion of disposable income.