Monetary operations

- *UK official interest rates were increased twice in the second quarter. The first move, from 6% to 6.25%, followed the Monetary Meeting between the new Chancellor of the Exchequer and the Governor of the Bank of England on 6 May. After this meeting, the Chancellor announced that the Bank was to be given operational responsibility for setting short-term interest rates to achieve the Government's inflation target.*(1) *The second increase in official rates, to 6.5%, was announced by the Bank on 6 June following the first meeting of the Monetary Policy Committee. The Bank raised its repo rate again, to 6.75%, on 10 July—after the period covered by this article.*

- *Sterling rose by 3.4% to 102.1 on its effective exchange rate index (ERI) in the second quarter: by the end of June it had risen by 24% from its all-time low of 82.2 on the ERI reached in November 1995, and by 21% since the recent appreciation began in August 1996.*

- *The gilt yield curve flattened markedly in this quarter, with longer yields and derived inflation expectations falling sharply after the Chancellor's announcement on the new monetary policy framework. The yield on the ten-year benchmark gilt fell by 61 basis points to 7.09% during the second quarter as a whole.*

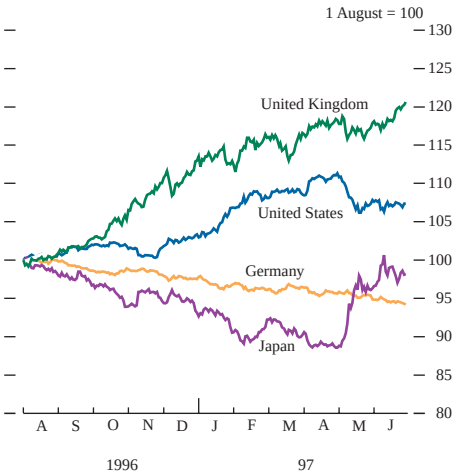
- *Gilt sales of £8.6 billion were made in the quarter, about one quarter of the initial gilt sales target for the 1997/98 financial year. A reduced target for gilt sales was announced in the Budget on 2 July.*

International background

The most significant international developments providing the context for UK financial markets in the second quarter were: the easing in market expectations of the path of US official interest rates; developments within the European Union (EU) which appear to have increased further the confidence of financial markets that Economic and Monetary Union (EMU) will begin in 1999 with a relatively wide membership; and the appreciation of the Japanese yen.

US official interest rates were unchanged in the second quarter. The Federal Reserve's earlier decision to raise its target for the Federal funds rate from 5.25% to 5.50% on 25 March had been almost fully discounted. During the second quarter market expectations of further early rises in US official rates were revised down sharply, as economic data suggested that growth in the economy had moderated from the levels seen in the first quarter, and that price pressures remained subdued. Against this background, US bond yields fell steadily. Although not directly observable, inflation expectations for the United States can be derived at a maturity of ten years from the difference between the yield on a conventional ten-year US Treasury Note and that on the newly issued ten-year Treasury Inflation Indexed Notes. The difference is referred to as a break-even inflation rate, and is an indication of average market expectations of US inflation over the

Chart 1
Effective exchange rate indices: United Kingdom, United States, Germany and Japan



(1) See separate article in this edition of the *Quarterly Bulletin* on pages 241–47, and the August *Inflation Report* for a fuller discussion.

Table A
Interest rates, gilt yields and exchange rates; selected dates[a]

	Interest rates (per cent per annum)					Gilt yields (b) (per cent per annum)				Exchange rates		
	Sterling interbank rates (c)				Short sterling future (d)	Conventionals			Index-linked			
1997	1 month	3 months	6 months	12 months	3 months	Short	Medium	Long	Long	ERI	$/£	DM/£
1 April	6 3/32	6 11/32	6 19/32	7	7.01	7.44	7.70	7.81	3.64	98.7	1.6467	2.7497
2 May	6 17/64	6 31/64	6 43/64	6 61/64	6.87	7.09	7.37	7.53	3.60	99.7	1.6180	2.7964
6 May	6 5/16	6 7/16	6 5/8	6 7/8	6.81	6.92	7.08	7.14	3.52	100.6	1.6368	2.8202
6 June	6 1/2	6 41/64	6 49/64	7	6.86	6.94	7.05	7.10	3.65	99.6	1.6275	2.8143
30 June	6 5/8	6 13/16	6 63/64	7 1/4	7.12	7.05	7.09	7.12	3.63	102.1	1.6636	2.8990

(a) Close of business rates in London.
(b) Gross redemption yield. Representative stocks: short: 7% Treasury 2002; medium: 7 1/4% Treasury 2007; long: 8% Treasury 2021; index-linked: 2 1/2% Index-Linked Treasury 2016 (real yield assuming 5% inflation).
(c) Middle-market rates.
(d) Implied futures rate: September 1997 contract.

Chart 2
International ten-year bond yields

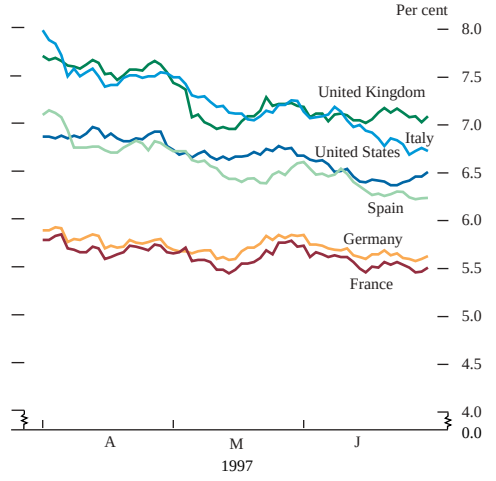
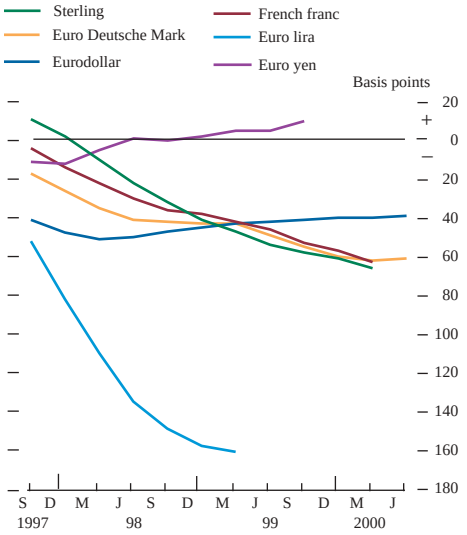


Chart 3
Changes in three-month interest rates implied by futures contracts[a]



(a) The chart shows the extent to which the term structure implied by futures contracts has moved up or down in the quarter from 1 April to 30 June.

next ten years.[1] Chart 4 shows the ten-year break-even inflation rate for the United States and for the United Kingdom, and shows that the US rate declined through the quarter. The UK rate also fell, largely associated with the Chancellor's announcement of 6 May (see below). The dollar appears to have been little affected by the revisions to expectations of the prospects for US monetary policy: it maintained the same range as it had since early February against the Deutsche Mark of DM 1.66–DM 1.72 throughout the quarter.

Two main developments influenced market expectations of EMU. In France the election of the new Socialist government, which stated its intention to make employment its main priority, caused markets uncertainty as to whether—given France's budget position—this could be reconciled with a strict interpretation of the Maastricht fiscal deficit criterion. At the meeting of the European Council in Amsterdam in June, EU Member States adopted a set of guidelines designed to keep employment at the top of the political agenda of the Union. In Germany, the government advanced proposals for a revaluation of the country's gold and foreign exchange reserves sooner than would have been required by the Maastricht Treaty. Though agreement on the issue was subsequently reached with the Bundesbank, it was interpreted by financial markets as raising questions about the attitude of the German authorities towards the Maastricht criteria. These two episodes appeared to strengthen the markets' conviction that the criteria could be interpreted flexibly, and would not therefore necessarily form an obstacle to EMU starting as planned in 1999; and that, if in the event a strict interpretation of the criteria was not applied in the case of France or Germany, it would be difficult to exclude from EMU a wider group of similarly placed countries. The markets' concern that the result might in some sense be a 'soft' euro seems to have been a factor in the appreciation of the dollar and sterling against 'core' ERM currencies. Consistent with this, there was further convergence in money and bond markets in the second quarter, with falls in short and long-term interest rates in Spain and Italy. It should be noted, however, that the convergence in financial asset prices could also be interpreted as being consistent with economic fundamentals, as both Spanish and Italian inflation fell further in the quarter to levels very close to those in Germany and France.

Within the ERM, the French franc weakened from FFr 3.3650 to FFr 3.3750 against the Deutsche Mark after President Chirac's

(1) See the box 'Auctions of US Treasury Inflation Indexed Notes' on page 128 of the May 1997 *Quarterly Bulletin*. The auction by the US Treasury of five-year Inflation Indexed Notes on 8 July means that it is now also possible to calculate a five-year break-even inflation rate.

Chart 4
US and UK ten-year break-even inflation rates

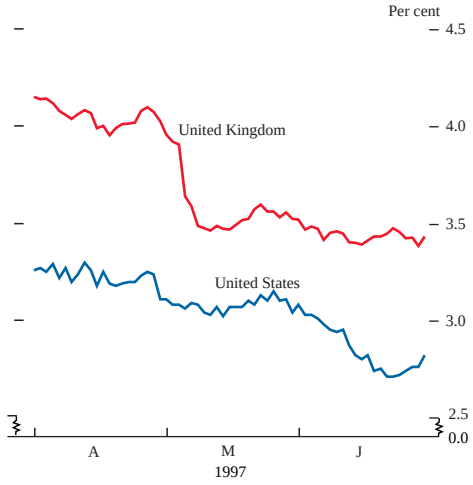


Chart 5
Deutsche Mark exchange rates

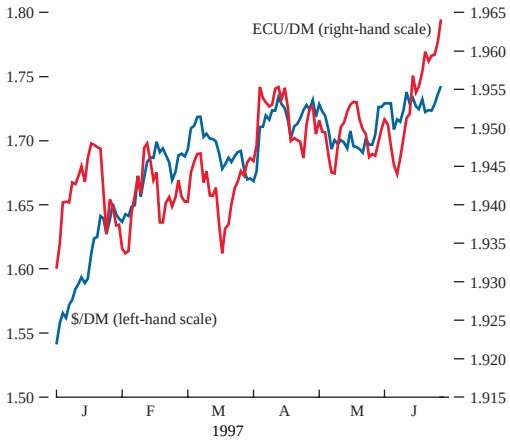
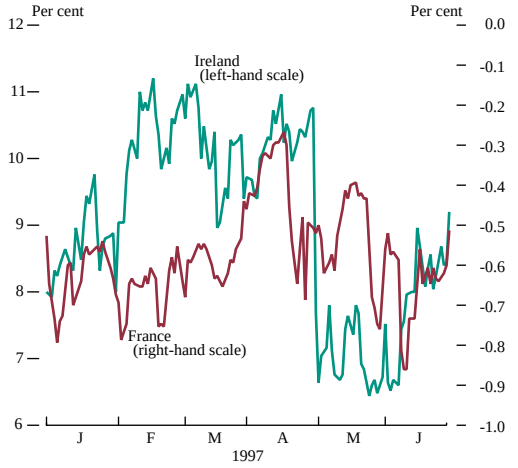


Chart 6
ERM exchange rates: divergence from the Deutsche Mark central rate



announcement on 18 April that a General Election would be held. In the immediate aftermath of the Socialist Party's victory, the franc fell to FFr 3.3860 on 2 June before recovering. The Irish punt continued to strengthen with sterling during April and reached a high at DM 2.6776 on 28 April, an increase of 13% since 2 August 1996. But the punt fell sharply against the Deutsche Mark following a comment from the Irish Finance Minister, who said that a downward move, towards its central parity at DM 2.41105, would be desirable. A tightening of Irish monetary policy on 30 April had no supportive impact on the exchange rate, which continued to weaken. In a two-day period the punt fell by nearly 3% against both the Deutsche Mark and sterling, from DM 2.67 to DM 2.59 and from £0.95 to £0.92 respectively. But the punt was subsequently aided by market anecdote that an upward revaluation to its Deutsche Mark central rate was now more likely and it strengthened with sterling, finishing the second quarter where it began, at around DM 2.65. Elsewhere in the ERM, interest rates were reduced further, as expected, in Italy and Portugal.

Another major development during the second quarter was the appreciation of the Japanese yen, which rose by 9% in effective terms. The appreciation of the US dollar, which rose by 6% from ¥116 to ¥123½ during the first quarter of 1997, was fully reversed; indeed, it fell below key technical support at ¥115. Moreover, currency option prices implied that the market expected further, and pronounced, yen appreciation as it reached ¥110–113 during June. Some possible explanations are discussed below.

The direction of the moves in the US dollar/yen exchange rate in the first half of 1997 was broadly consistent with changes in relative yields. Interest rate differentials moved in favour of the dollar in the first quarter, with market expectations of the path of US official rates being revised up while those for Japanese rates were revised down, and the dollar rose from ¥116 to ¥123. In the second quarter the downward revision to US interest rate expectations appears to have been influential in terms of explaining the US dollar's depreciation. Nevertheless, changes in relative yields(1) only account for around one third of the dollar/yen exchange rate movement during both quarters.

Exchange rates are also influenced by trade flows. Japan's current account surplus continued to increase steadily in the first half of 1997. But this trend was largely anticipated by the market, since the monthly data were generally in line with market consensus forecasts. More generally, however, the perception that US and Japanese policy makers were becoming concerned about the increase in Japan's bilateral trade surplus with the United States helped to underpin the yen.

Another factor is that the yen may have been boosted by safe-haven flows from South East Asian currencies, in particular the Thai baht. The baht came under speculative attack in the first half of May and, though this was successfully resisted by the Bank of Thailand, diversification flows were triggered into other Asian markets such as Japan (and to a lesser extent Singapore). The Bank of Thailand announced on 2 July that the baht's currency basket would be abandoned and that it would be allowed to float, subject to certain

(1) Implied paths for exchange rates can be calculated by comparing relative bond yields across countries. It is possible to estimate the part of an unanticipated exchange rate movement that is consistent with changes in relative yields. The methodology is set out in the box on page 16 of the February 1997 *Inflation Report*.

Chart 7
Japanese yen exchange rates

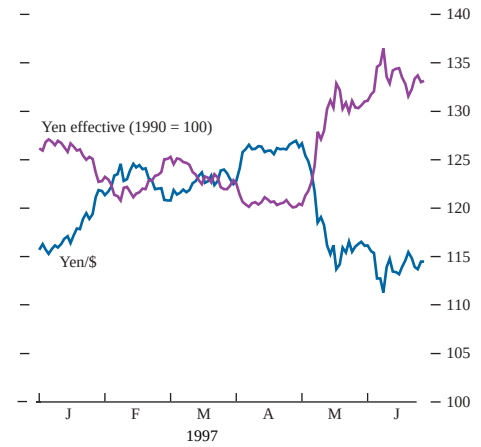


Chart 8
US dollar/Thai baht exchange rate

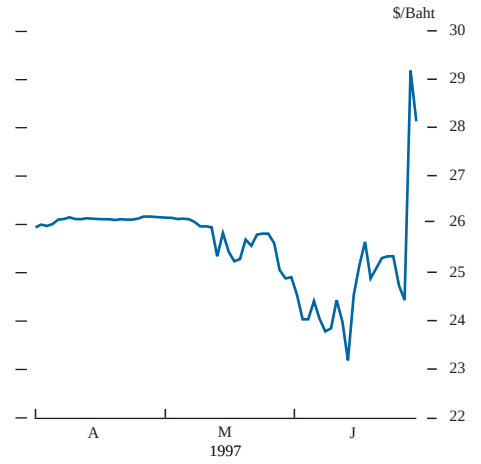
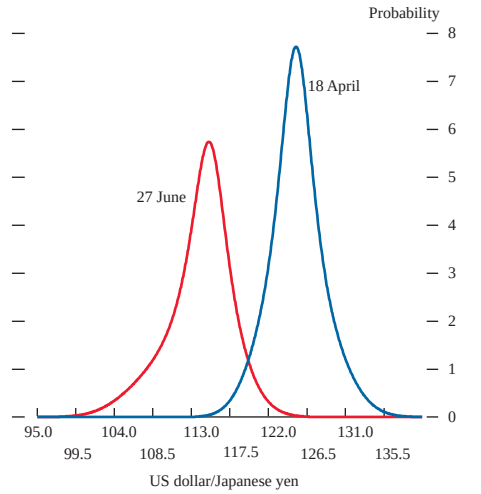


Chart 9
Implied probability density function for US dollar/Japanese yen exchange rate, 18 April 1997 and 27 June 1997



provisions. Chart 8 shows that the baht fell by 11½% against the US dollar from Thb 26.1 to Thb 29.1 between 5 May to 2 July. In contrast the yen strengthened by 9½% from ¥126.7 to ¥114.5.

In summary, changes in relative interest rates during the first half of 1997 account for only one third of the US dollar/yen rates movements. It is more difficult to quantify the contribution of other explanations. Currency option prices suggest that a pronounced shift in expectations of the US dollar's future value accompanied the yen's appreciation during the second quarter. It is possible to infer the probabilities that investors attach to an exchange rate being at different levels from a combination of currency options prices; indeed it is possible to construct an entire probability distribution (or probability density function, 'PDF') for future exchange rates. Chart 9 shows that the implied PDF on 18 April was slightly positively skewed; intuitively, a greater probability was attached to a large appreciation of the dollar than to a large depreciation. But this changed as the yen appreciated rapidly, and by June expectations of a further large dollar depreciation dominated the probabilities.

Canada was the only G7 country (other than the United Kingdom) that raised official interest rates during the second quarter. The Bank of Canada raised its operating band for the overnight interest rate on 26 June by 25 basis points to 3.5%, citing a need to counter an excessive easing in monetary conditions and to provide support for the currency, which had depreciated in the previous weeks. The currency then strengthened from C$1.3950 to C$1.3765 against the US dollar. The Australian dollar depreciated by 4% against the US dollar, from US$0.7861 to US$0.7539, in this period. Australian official interest rates were reduced further on 23 May, from 6.0% to 5.5%, in response to subdued inflationary pressures. More generally, the Australian dollar was affected by the weakness of commodity prices and the gold market. Australia is a major commodity exporter, and is also the world's third-largest gold producer. During the second quarter of 1997 the gold price, at the London fixing, fell by more than 4.5% from $350 to $334, continuing its fall from its peak at $418 on 2 February 1996. The sensitivity of the gold market to announcements of central bank sales of gold (and also proposed revaluations) appears to have increased during 1997.(1) Sharp price declines of around $6 per ounce accompanied announcements by several central banks during 1997. For example, the gold price fell to its lowest level since March 1985 at $314 on 7 July, following the Reserve Bank of Australia's announcement that it had sold 167 metric tons of gold during the previous six months.

UK markets

Sterling

Sterling rose by a further 3.4% to 102.1 on the effective exchange rate index (ERI) in the second quarter. By the end of June sterling had risen by 24% from its all-time low on the ERI at 82.2, on 20 November 1995, and by 21% since August 1996. Sterling's strength during the second quarter was again most pronounced against ERM currencies, and it reached its highest level against the Deutsche Mark since June 1992 at DM 2.8990 on 30 June. The US

(1) Since March 1989, the Belgian National Bank has issued four press communiqués announcing prior gold sales and the Netherlands has issued two. Price declines averaging less than $1 per ounce accompanied these announcements.

Chart 10
Sterling exchange rates

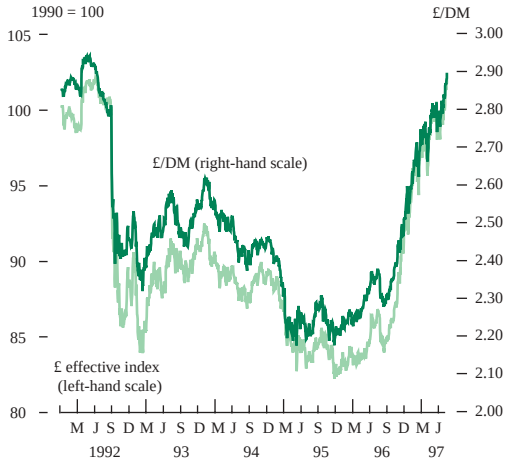
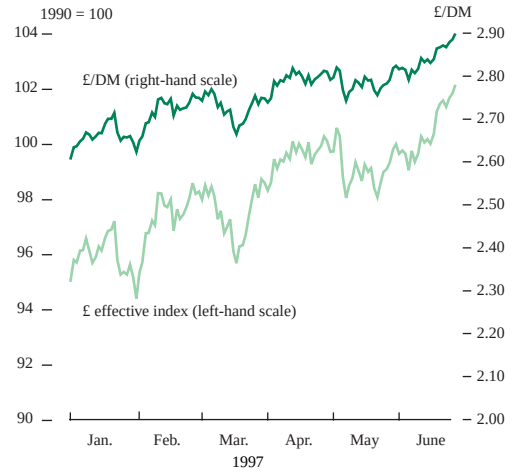


Chart 11
Sterling exchange rates



dollar also rose against the ERM currencies, and sterling spent most of the quarter trading in a range between $1.62 and $1.66 against the dollar. Sterling closed at $1.6636 on 30 June, up 1.1% over the quarter.

Sterling fell following the announcement on 17 March that the UK General Election would be held on 1 May; it briefly traded below $1.59 for the first time since October 1996, as financial markets focused on the potentially unsettling effects of a long campaign. However, this turbulence proved short-lived, in part because of the perception that UK official interest rates might rise shortly after the Election. As it became clear on 2 May that the Labour Party had won a majority substantially above market consensus forecasts, sterling was rather volatile; but it steadied in afternoon trading and closed little changed at DM 2.7964, $1.6180 and 99.7 on the ERI. Sterling appreciated by 2.5% in effective terms during the six-week campaign, rising against both the US dollar and Deutsche Mark.

Market attention then switched to the prospective Monetary Meeting between the new Chancellor of the Exchequer and the Governor of the Bank of England. The meeting was held on 6 May, and the Chancellor announced a rise in UK interest rates from 6% to 6.25%. He also announced that he was granting the Bank of England operational responsibility for setting short-term interest rates to achieve the Government's inflation target. Sterling strengthened, reaching DM 2.8330 at the close that day.

Sterling came under pressure between 6 May and 13 May, losing 10 pfennigs to fall from DM 2.83 to DM 2.73. There were market rumours that the new Government was considering re-entry into the ERM at around DM 2.50. But this was denied by the Chancellor on 12 May and the currency steadied, strengthening the following day from DM 2.73 to DM 2.77 after the publication of the Bank's *Inflation Report*, which said that a further moderate tightening of policy might be required in the months ahead. Events over the next three weeks were dominated by developments in continental Europe, in particular the outcome of the French General Election and the disagreement between the Bundesbank and the German government over a proposal to revalue Germany's gold and foreign exchange reserves. Against this background sterling and the US dollar both strengthened by nearly 2% against the Deutsche Mark between 13 May and 5 June, to DM 2.8195 and DM 1.7291 respectively.

The first meeting of the Bank's Monetary Policy Committee was held on 6 June. The 25 basis point rate increase to 6.5% that followed had been largely discounted and sterling finished the day almost unchanged. The Chancellor's announcement on 12 June of the revised formulation for the inflation target had no impact on sterling. Sterling traded in a narrow range until the release of stronger-than-expected UK economic data in the second half of June provided support, and it then appreciated against both the US dollar and the Deutsche Mark, moving above $1.66 for the first time since January.

Sterling money markets

During the quarter the term structure of rates implied by short sterling contracts flattened markedly. The rates implied by the nearer-dated contracts rose slightly, and those implied by the

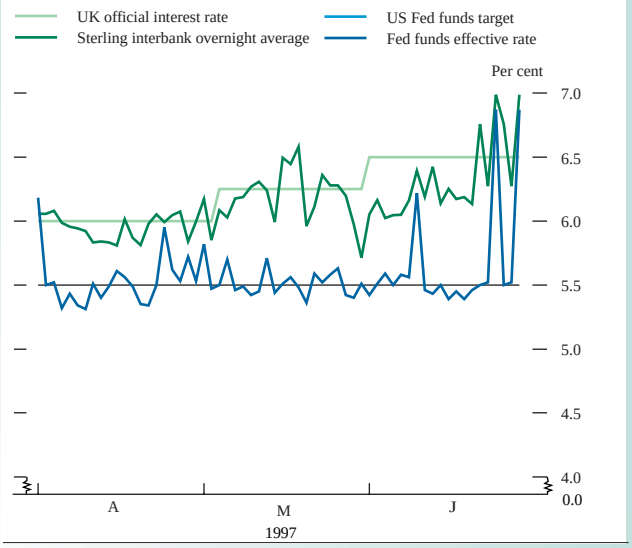
Sterling interbank weighted average overnight interest rate

The weighted average rate here is the Sterling Overnight Interbank Average—called 'SONIA'—that has been developed by the Wholesale Money Brokers' Association. SONIA is the average rate, weighted by volume, on all unsecured overnight sterling trades arranged by seven brokers, in which both counterparties are money-market institutions (or their overseas branches) listed under Section 43 of the Financial Services Act. Eligible trades are those that are arranged between midnight and 3.00 pm on settlement day, where repayment is made on the following business day. SONIA has been developed as part of the introduction of a new sterling money-market instrument called the Overnight Indexed Swap (OIS). A sterling OIS is a short-term interest rate swap against SONIA: the two parties to an OIS contract agree to exchange the difference between the interest accrued at an agreed fixed rate on an agreed notional amount and interest accrued on the same amount by compounding SONIA daily over the term of the swap.

The development of SONIA in the last quarter now allows us to compare the average sterling interbank overnight rate with similar measures in other countries, such as the US Fed funds effective rate. The latter is also a weighted average unsecured interbank overnight rate, which is calculated and published daily by the Federal Reserve Bank of New York from data on trades provided by New York banks and brokers. The chart shows SONIA plotted against the Bank of England's repo rate, and the Fed funds effective rate against the Fed's target for Fed funds.

On average during the quarter SONIA was 10 basis points below the Bank's repo rate, and the Fed funds effective rate was 5 basis points above the Fed's target.

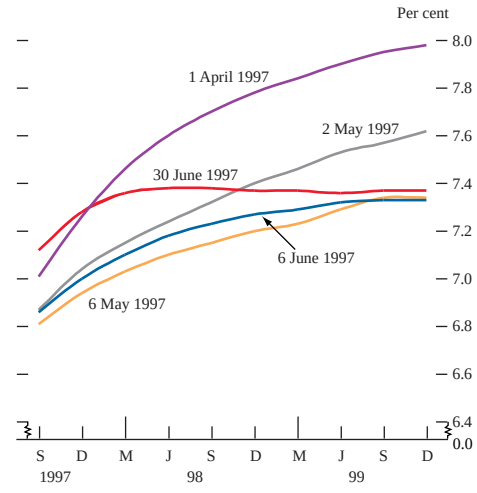
UK and US weighted average overnight interest rates



As can be seen from the chart, June accounts for much of the softness this implies in SONIA. At the beginning of June very short rates were below the Bank's repo rate as a result of the money-market yield curve pivoting(1) because of the strong expectation of an increase in the repo rate at the MPC on 6 June. Later in June, a run of much smaller-than-average daily shortages seems to have been the main reason for the softness of very short-dated rates. The standard deviation of the difference between SONIA and the Bank repo rate and the effective Fed funds rate and the Fed's target suggests that the relative volatility of the two series is broadly comparable: the standard deviation of the UK series is 21 basis points, and that for the US series is 24 basis points. The chart suggests that volatility in the Fed funds rate is most associated with the end of the half-monthly reserve averaging maintenance periods.

(1) It is frequently observed that, when there is a strong expectation of a change in official interest rates, market interest rates 'pivot' around the date at which the change is expected. When a rise in official rates is expected, rates at maturities beyond the decision point rise above the prevailing official rate, while market rates maturing before the decision point soften to below the prevailing official rate.

Chart 12
Short sterling futures(a)

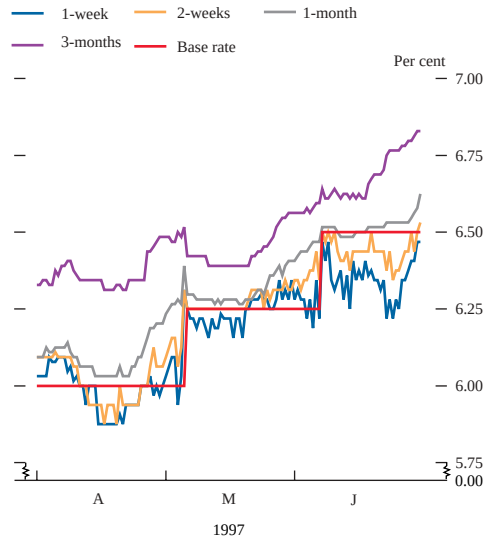


(a) Three-month Libor rates implied by short sterling futures contracts.

longer-dated contracts fell to the point where the term structure was essentially flat from the March 1998 contract onwards. This suggests that the market expected that, following the introduction of the new monetary framework, official rates would be raised sufficiently early to reduce the eventual extent of the tightening required to meet the inflation target.

The first month of the quarter coincided with the General Election campaign. In early April, the rates implied by short sterling futures contracts suggested that the market expected an increase in official rates from 6% by the early summer (the June future implied a three-month rate of 6.70% on 1 April), but there was little serious expectation that this would happen until after the Election. During April the rates implied by longer-dated contracts were revised down following the release of economic data that were weaker than the market had expected. Once the result of the Election became clear on 2 May, the rates implied by longer-dated contracts fell further, possibly in reaction to the clear-cut result which dispelled market concerns about the possibility of a hung Parliament.

Chart 13
Sterling interbank interest rates(a)



(a) Middle-market rates at 4.30 pm.

Chart 14
Benchmark yields on gilts

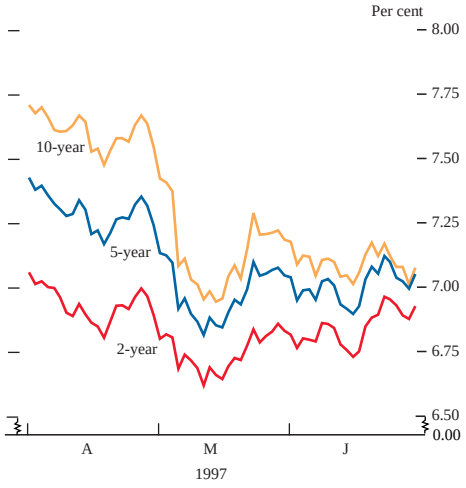


Chart 15
Implied inflation expectations(a)

(a) The implied forward inflation rates are annualised six-month rates derived from the yields on conventional and index-linked gilts.

After the announcement of the 25 basis point increase in official rates to 6.25% after the Monetary Meeting on 6 May, and of the new monetary policy framework, the entire term structure implied by short sterling futures fell: the rate on the June 1997 contract fell by 6 basis points, that on the December 1997 contract 10 basis points, and contracts for 1999 around 25 basis points. The falls in the rates implied by longer-dated contracts may be explained by the enhancement to the credibility of the monetary framework conferred by the new arrangements. It is more difficult to explain the falls in rates implied by the near-dated short sterling contracts in these terms. The explanation may be that there was some expectation in the market that official rates would be increased by 50 basis points at the Monetary Meeting, and that the increase of 25 basis points suggested that the Chancellor and the Bank did not think that the outlook for inflation at that point justified a larger increase.

By the first meeting of the Bank of England's Monetary Policy Committee (MPC) on 5 and 6 June, the market was expecting a further increase in official rates. The implied rate on futures contracts had been rising since the second half of May, in particular in response to continuing evidence of strong retail sales and the larger-than-expected fall in unemployment in April. The reaction to the announcement of a 25 basis point increase in the Bank's repo rate to 6.50% reflected the strength of the market's expectation: the rate implied by the June future rose by 6 basis points, while rates implied by contracts for 1998 and beyond fell by up to 6 basis points.

There was a further flattening of the term structure of implied rates in the second half of June, with rises of more than 25 basis points in the 1997 contracts, following the publication of retail sales figures and broad money data for May that were stronger than the market expected. By the end of the quarter there was a strong expectation that the MPC would again decide to raise official rates at its meeting on 9 and 10 July. On 10 July, the Bank announced a further increase of 25 basis points in its repo rate, to 6.75%.

Gilt-edged market

The new UK monetary policy framework, and a perception that the state of the UK economy might result in a further tightening of monetary policy sooner than the market had previously expected, contributed to a significant flattening of the term structure of gilt yields. The yield on the ten-year gilt benchmark fell by 61 basis points to 7.09% during the quarter, and the spread of the yield on the ten-year gilt benchmark above that on the two-year benchmark fell from 65 basis points to 15 basis points. The reaction of the gilt market to the Chancellor's announcement of 6 May was positive, as demonstrated by the sharp fall in yields at all maturities: the yield on the ten-year gilt benchmark fell by 29 basis points to 7.08% on the day. A sharp fall in derived inflation expectations coincided with the announcement, supporting the view that monetary policy credibility was reinforced. On the day, derived six-month forward inflation rates fell by 20 basis points at three years to 3.51%, by 29 basis points at five years to 3.65%, and by 47 basis points at ten years to 3.70%.

The yield on ten-year gilts, which was volatile but little changed on balance between mid May and mid June, rose on 18–19 June when

Chart 16
Yields on index-linked government stock

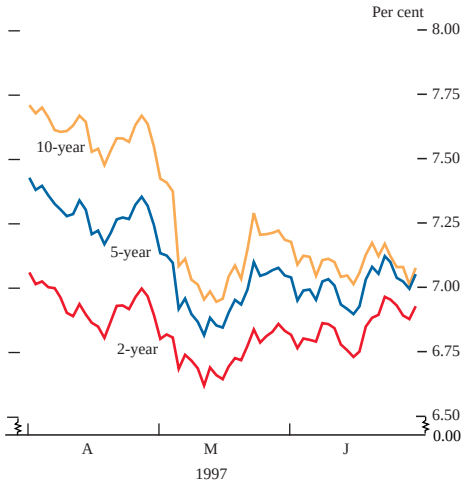
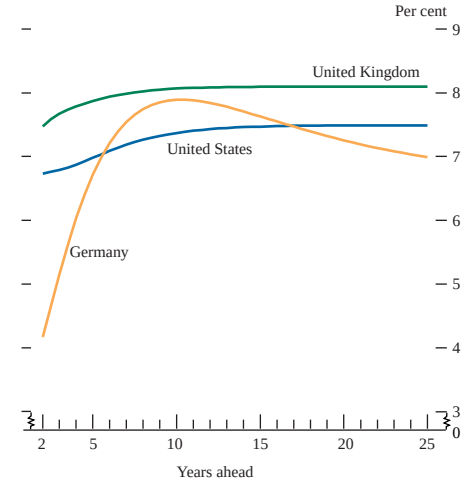
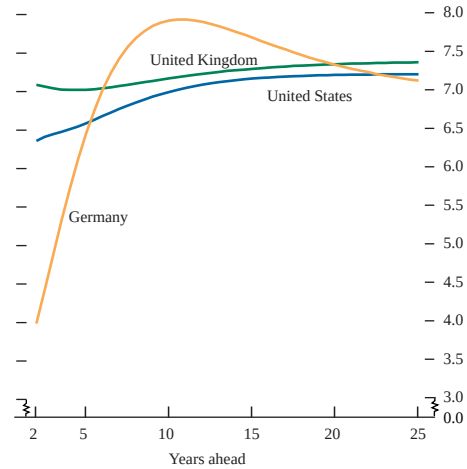


Chart 17
Term structure of six-month forward rates for the United Kingdom, Germany and the United States,(a) 1 April 1997



(a) Implied six-month annualised rates.

Chart 18
Term structure of six-month forward rates for the United Kingdom, Germany and the United States,(a) 30 June 1997



(a) Implied six-month annualised rates.

strong retail sales and broad money data reinforced the market's view that the Bank might need to raise official rates in July, the third increase in as many months. Against this, however, there was some expectation that the Budget on 2 July would contain measures designed to slow the rise in consumer spending, so that monetary policy would not necessarily need to be tightened further immediately. Derived inflation expectations rose on 18–19 June but reverted to their mid-June levels in the following days. Yields on index-linked gilts (IGs) of different maturities converged in the second quarter. In contrast with nominal yields, however, they were little affected by the Chancellor's announcement; it was not until mid May that yields on shorter-term IGs rose. The rise in IG yields perhaps reflects rising short-term real rates following the tightening of official interest rates. Charts 17 and 18 compare the six-month nominal term structure of interest rates for the United Kingdom, United States and Germany on 1 April and 30 June. The reduction in expected short-term interest rates in the United Kingdom that these charts demonstrate is consistent with the view that the credibility of UK monetary policy was enhanced by the new monetary policy framework.

Equity markets

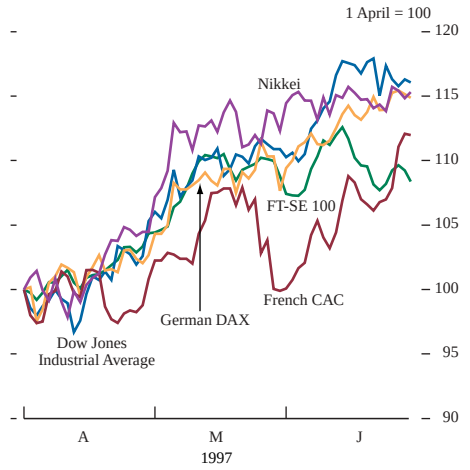
After falling sharply in late March and early April, US equity prices rose very strongly and reached new historic highs in late June, at levels nearly 20% higher than the 1997 lows reached in mid April. The Dow Jones Industrial Average rose 16% in Q2 to 7,673. The strength of US equities appears to have benefited European markets, which posted strong price gains: the FT-SE 100 index rose 8%, the German DAX index 15% and the French CAC 40 index 11% (see Chart 19). This nevertheless represented underperformance by the FT-SE 100 index, which closely tracked the Dow Jones until late May. Several factors, including shifting expectations about the post-Budget treatment of dividend tax credits, the prospective windfall tax on the privatised utilities and the impact of further sterling appreciation on corporate profits, which are unique to the UK markets, may help to explain the relative underperformance of the FT-SE 100. Higher real yields also weighed on UK equity prices.

Sterling issues

There was a lull in sterling bond issuance in the second quarter, perhaps in part because of the uncertain background of the General Election campaign and, subsequently, the prospects for the new government's first Budget. Nevertheless, total fixed-rate sterling issuance (excluding equity related) in the quarter remained strong at £6.6 billion. As a result, the total for the first half of 1997 is already close to the £21 billion issued in the whole of 1996.

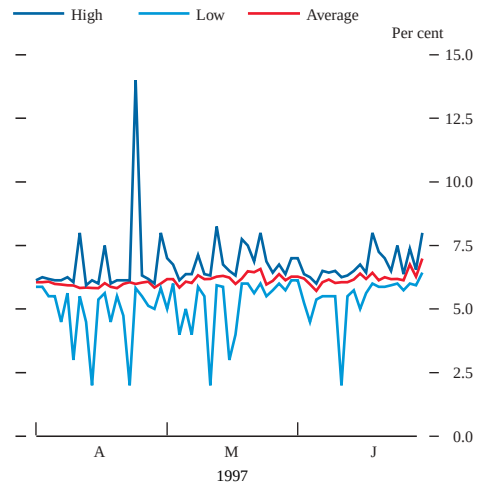
The strength of sterling continued to attract overseas issuers, who accounted for £4 billion. Issues were primarily for public sector or supranational bodies, including a £750 million five-year bond for the World Bank and a £500 million ten-year bond for the European Investment Bank. The latter was the first sterling issue to incorporate a clause allowing the issuer to re-denominate the bond in euros should the United Kingdom adopt it as its currency. Two Latin American emerging market bonds were also issued in sterling. Mexico's five-year bond was launched at a spread of 175 basis points over the benchmark gilt; Argentina's ten-year issue came at 280 basis points over the benchmark. Though

Chart 19
Major equity indices(a)



(a) In national currencies.

Chart 20
Sterling interbank overnight high, low and weighted average



overseas issuance was mainly in short to medium maturities, the flattening of the UK yield curve in this period encouraged domestic financial and corporate issuers to borrow for longer maturities.

Fixed-rate issuance by UK companies was £1.4 billion. In addition to household names such as Asda, National Power and Carlton TV, there were two long-dated deals to finance Private Finance Initiatives relating to the M6 motorway extension and Sutton Bridge Power station. The fledgling UK high-yield bond market was also given a boost by two deals brought for Castle Transmission and Eco-Bat Technologies.

Floating-rate note issues amounted to £2.3 billion in the quarter. Four mortgage-backed deals raised over £500 million, with the remainder issued primarily by UK and overseas financial institutions.

Operations in the sterling money market

This was the first full quarter of operation of the Bank's reformed money-market operations, introduced on 3 March. On 19 March the Bank announced that its twice-monthly gilt repo facility, which had been used as a supplementary refinancing mechanism alongside its daily operations, would be withdrawn after the maturity of the final repos taken up on that date. The successful introduction of the new operating arrangements meant that the facility was no longer needed as a standard feature.(1) Since 14 April, therefore, the Bank's refinancing has been provided exclusively through its daily operations. The new system has coped well with the resulting larger daily shortages: the average size of the daily shortage was £1,270 million in March, £1,360 million in April, £1,525 million in May and £958 million in June, compared with an average of £895 million for January and February.

Chart 20 shows the high and low of the sterling interbank overnight rate in the second quarter, and the weighted average rate.(2) The steadiness of the weighted average overnight rate confirms the impression that, for the most part, peaks and troughs in the overnight rate tended to be associated with relatively low volumes of business towards the end of the trading day. The spike in the overnight rate on 23 April, for example, arose only after it became clear that the Bank's counterparties had not applied for enough refinancing in the last open market operation (OMO) of the day at 2.30 pm to clear the residual shortage. The extent of the peak in the overnight rate on this day may have been exacerbated by the unfamiliarity of some market participants with the capacity of the new system: the amount of refinancing needed after 2.30 pm was within the capacity of the discount houses' late repo facility(3) at the Bank, which was available at rates well below those seen in the market in late trading. In the event, the residual shortage was met via the houses' late repo facility.

Chart 21 and Table B give a breakdown of the instruments used in the Bank's refinancing operations in the second quarter. Gilt repo increased slightly in the second quarter as a proportion of total

(1) The facility is, however, retained for future reintroduction if ever necessary.
(2) See the box on page 253.
(3) The late repo facility is one of the transitional provisions that have been made available to the discount houses while they restructure their businesses following the Bank's money-market reforms. They are described in the article, 'The Bank of England's operations in the sterling money markets' on pages 204–7 of the May 1997 *Quarterly Bulletin*.

Chart 21
OMOs—instrument overview

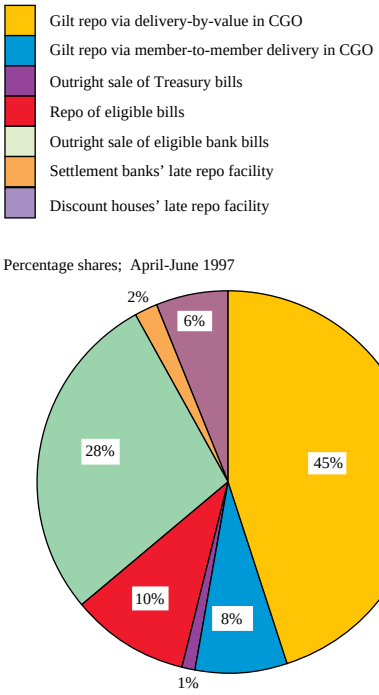


Table B
Influences on the cash position of the money market

£ billions; *not seasonally adjusted*
Increase in settlement banks' operational balances (+)

	1996/97	1997/98		
	Apr.-Mar.	Apr.	May	June
CGBR (+)	25.1	-1.4	5.4	5.1
Net official sales of gilts (-) (a)	-26.4	-2.1	-3.3	-3.2
National Savings (-)	-4.8	-0.1	0.0	-0.1
Currency circulation (-)	-2.3	1.9	-1.7	1.2
Other	0.3	-2.1	-0.3	-0.3
Total	**-8.1**	**-3.8**	**0.1**	**2.7**
Outright purchases of Treasury bills and Bank bills	-2.2	0.8	-0.5	0.1
Repos of Treasury bills, Bank bills, and British Government stocks and non-sterling debt	4.9	2.6	-0.2	-3.9
Late facilities (b)	-0.4	0.3	-0.1	0.3
Total refinancing	2.3	3.7	-0.8	-3.5
Treasury bills: market issues and redemptions (c)	-6.2	0.3	-0.9	-0.7
Total offsetting operations	**8.5**	**3.3**	**0.1**	**-2.8**
Settlement banks' operational balances at the Bank	0.4	-0.5	0.2	-0.2

(a) Excluding repurchase transactions with the Bank.
(b) Since 3 March 1997, when the Bank introduced reforms to its daily money-market operations, discount houses and settlement banks have been eligible to apply to use the late facilities. Prior to this, late facilities were available to the discount houses and the gilt-edged market makers.
(c) Issues at weekly tenders plus redemptions in market hands. Excludes repurchase transactions with the Bank (market holdings include Treasury bills sold to the Bank in repurchase transactions) and tap Treasury bills.

refinancing to 53%, compared with 50% in March. The outright sale to the Bank of eligible (bank and Treasury) bills declined from 39% to 29%. This is perhaps explained by a combination of the larger shortages in the second quarter and the relatively fixed supply of bills to the market. The other major contrast with March was the increased use of the discount houses' late repo facility, by which 6% of refinancing was supplied in the second quarter compared with 2% in March. The houses' repo facility was used on average eight times each month in the second quarter, as in March, but the amounts involved were larger and mainly reflected the failure of counterparties to bid for enough refinancing in the earlier open market operations.

The weekly tender of three-month Treasury bills was reduced from £400 million to £200 million with effect from 4 April, and maintained at that level for the rest of the quarter.

Gilt repo market

The gilt repo market grew quickly last year, reaching £68 billion outstanding by November. Between February and May this year, the outstanding amount of gilt repo reported to the Bank rose from £71 billion to £79 billion.(1)

Table C shows the outstanding amounts of gilt repo and reverse repo by maturity, since the data were first collected in May 1996. Most repo activity continues to be at shorter maturities, with about three quarters of outstandings of maturity one month or less. Repo turnover is concentrated even more heavily at shorter maturities: in May, about 70% of gilt repo turnover reported to the Bank was on call and next day. Average daily turnover in gilt repo was about £15 billion in the quarter to May, compared with £17 billion or so in the previous quarter.

Gilt repo data are also reported to the Bank for monetary statistics purposes (gilt repo contributes to M4 and gilt reverse repo to M4 lending). Those data are reported on a monthly basis and are therefore more timely than the more detailed quarterly data. In June, gilt repo made a negative contribution to M4 growth and the total amount of gilt repo outstanding on banks' and building societies' balance sheets fell. This may have been partly because banks and their customers were attempting to reduce balance sheet size ahead of their end-June reports.

The data collected by the Bank suggest that so far, the enhanced role of gilt repo in the Bank's money-market operations from 3 March has not affected turnover and outstandings significantly. After its rapid growth last year, the gilt repo market is now consolidating its position as an important source of secured money at the short end of the sterling money markets. Over time, as this position is established more widely, further entrants—including more corporates and institutional investors—might be encouraged into the market, leading to further growth in turnover and outstandings. Relatively subdued gilt repo turnover during the past three months might also be linked to a decline in specials(2) trading. Although some of the shorter benchmark stocks have continued to be in demand, for example as a hedging tool for corporate bond

(1) The number of institutions reporting gilt repo statistics to the Bank rose a little over the past six months, and so accounts for some of the growth.
(2) When a stock is particularly difficult to obtain and its repo rate falls below the prevailing general collateral rate by more than about 5 to 10 basis points, it is said to be trading 'special'.

Table C
Maturity breakdown of outstandings over time(a)

	On call and next day	2–8 days	9 days–1 month	1–3 months	3–6 months	Over 6 months	**Total**
Per cent							
Repos							
1996 May	20	34	23	15	7	1	**100**
Aug.	19	33	33	11	4	1	**100**
Nov.	19	36	22	19	2	2	**100**
1997 Feb.	20	29	33	15	3	0	**100**
May	27	23	27	18	4	1	**100**
Reverse repos							
1996 May	20	30	20	23	6	2	**100**
Aug.	22	29	29	14	5	1	**100**
Nov.	21	34	21	20	3	2	**100**
1997 Feb.	18	32	26	21	3	0	**100**
May	23	21	30	20	6	1	**100**

Note: Rows may not sum to total owing to rounding.

(a) From the data reported under the voluntary quarterly arrangements.

Table D
The 1997/98 financing requirement

£ billions (a)

	Original remit March 1997	Budget July 1997
CGBR forecast	20.0	12.4
Expected net change in official reserves	0.0	0.0
Gilt redemptions	19.6	19.6
Gilt sales residual from 1996/97	n.a.	-3.9
Financing requirement	39.5	28.1
Less net financing from:		
National Savings	3.0	3.0
Certificates of Tax Deposit (b)	0.0	0.0
Remaining debt sales required	36.5	25.1
Made up by net sales of:		
Treasury Bills and other short-term debt (c)	0.0	0.0
And gross gilt sales of:		
Ultra-short Conventionals (1–3 years)	0.0	0.0
Short Conventionals (3–7 years)	10.2	7.0
Medium Conventionals (7–15 years)	8.8	6.0
Long Conventionals (15+ years)	10.2	7.0
Index-linked Gilts	7.3	5.0

n.a. = not available.

(a) Figures may not sum owing to rounding
(b) Certificates of tax deposits (CTDs) are deposits made by taxpayers with the Inland Revenue in advance of potential tax liabilities. Changes in the level of CTDs act as a financing item for central government. The working assumption at the beginning of each year is that the level of CTDs remains unchanged.
(c) The level of net Treasury Bill issuance may fluctuate during the year as a result of money-market operations.

Table E
Gilt auction dates 1997/98

23 July 1997
23 and 25 September 1997 (a)
29 October 1997
26 November 1997
28 January 1998
25 March 1998 (b)

(a) The dual auction for the second quarter of the financial year (July-September) was set for September after consultation with GEMMs and end-investors.
(b) This date is subject to change if it should coincide with the spring 1998 Budget.

underwriting, and have therefore traded special on occasion, the overall level of specials trading was probably less than in the previous quarter.

Gilt financing

Organisation of debt management

On 6 May, the Chancellor's letter to the Governor on the new monetary policy framework stated (in paragraph 21) that: 'The Bank's role as the Government's agent for debt management, the sale of gilts, oversight of the gilts market and cash management will be transferred to the Treasury.' This was followed on 13 May by the Treasury announcement that: 'The Treasury, in consultation with the Bank, will now work up detailed proposals. These proposals will be offered for consultation with gilt market participants with a view to being finalised by the end of July and implemented as soon as feasible thereafter. In the interim, the Bank will continue to carry out their present functions and responsibilities.' An article on pages 241–47 of this *Bulletin* discusses the changes to the Bank of England's role in more detail. On debt management the Bank is working closely with HMT to ensure that the handover of responsibilities takes place as efficiently as possible. In the meantime, the Bank continues to execute the policies set out in the remit.

Financing requirement and gilt sales

At the beginning of the financial year the gilt sales target was £36.5 billion. This was revised down by £3.9 billion, the carry-over of excess gilt sales from 1996/97. As part of the Budget on 2 July, the CGBR forecast for 1997/98 was reduced from £20 billion to £12.4 billion. As a consequence the gilt sales requirement for 1997/98 is now £25.1 billion. Table D sets out the revised financing arithmetic.

The Bank aims to sell gilts at a broadly even pace through the year. Gilts sales to end June amounted to £8.6 billion, about one quarter of the initial gilt sales target for the year, and hence close to even pace funding. Measured against the new target, close to one third of the gilt sales target was achieved in the first quarter. Conventional gilts accounted for £7.2 billion, all of which was sold in the scheduled auctions. Taps of conventional stocks are undertaken for market management purposes; there were none during the quarter. £0.9 billion (nominal value) of index-linked gilts were sold through taps in the quarter.(1)

Auctions

The 1997 remit set out the auction calendar for the financial year. At that time, seven single auctions and four dual auctions were planned. This schedule was revised in the light of the reduced target for gilt sales announced in the Budget, reflecting the market preference for maintaining the minimum size of auctions and so reducing their number. The new auction calendar included three changes to the original remit:

- The two dual auctions due to be held in the third and fourth quarters of the 1997/98 financial year were changed to single auctions.

(1) Which raised £1.4 billion inclusive of the inflation uplift on the index-linked gilts.

- The auctions due to be held in August 1997 and February 1998 were cancelled.

- The auction previously scheduled for late November/December 1997 was set for 26 November, reflecting the Government's decision not to hold a Budget in November. The date of the March 1998 auction may need to be considered in the light of the Budget.

Following the quarterly consultation with gilt-edged market makers (GEMMs) and end-investors, which took place immediately after the Budget, the dual auction for Q2 (July-September) was fixed for September. Table E sets out the auction program for the final three quarters of the year.

Three auctions were conducted in the first quarter of the financial year. The 1997 remit stated that the specific stocks to be auctioned in the forthcoming quarter would be announced at the end of the previous quarter, unless further feedback from the market would be valuable, in which case only the maturity range would be indicated. The 27 March announcement set out the following auction schedule:

- 23 April 1997: 7% Treasury Stock 2002;

- 20 and 22 May 1997: 7% Treasury Stock 2002 and 8% Treasury Stock 2021 respectively;

- 25 June 1997: 7¼% Treasury Stock 2007.

This reflected advice from market participants in the Bank's quarterly meetings. There was a widespread view that the April auction should proceed on the scheduled date despite the imminent General Election, but that, in view of the election and the perception that interest rates might be raised at the Monetary Meeting scheduled for the following week, a short auction would limit the exposure that the market would be required to assume. The announcement was consistent with the policy of issuing strippable benchmark stocks, in order to maximise the outstanding amount of strippable stock ahead of the introduction of strips.

The announcement that the April auction would comprise £2 billion stock was towards the lower end of market expectations, but the March PSBR, published the day after the announcement of the auction size, was also lower than expected, suggesting that the gilt financing target for 1996/97 had been exceeded, implying a lower gilt sales target for 1997/98. The auction was well covered—3.5 times—in line with the 1996–97 average for short stocks. The tail was 1 basis point, higher than the previous year's average for short auctions, and consistent with a wider-than-usual distribution of bids.

The May dual auction combined the benchmark short and long stocks. The first leg, £1.5 billion 7% 2002 was covered 3.03 times, and had no tail. Cover at the second leg, £1.5 billion of 8% 2021, was 1.29 times, well below the average for longs (2.05) and the lowest cover since December 1995. The tail was 4 basis points, significantly above the 1996–97 average for long auctions of 1.4 basis points, as would be expected given low cover. The relatively low cover surprised the market, since When Issued (WI)

Table F
Gilt issuance

Date	Stock	Amount issued (£ millions)	*of which: to CRND*	Price at issue (per £100 stock) (a)	Yield at non-competitive allotment price (b)	Yield at issue	Yield when exhausted (c)	Average yield (d)	Cover (e) at auctions	Tail (f) at auctions (basis points on yield)	Date exhausted
Auctions of Conventional stock											
23.4.97	7% Treasury Stock 2002	2,000	0	98.9688	7.24	n.a.	n.a.	n.a.	3.49	1	23.4.97
20.5.97	7% Treasury Stock 2002	1,500	0	100.2500	6.94	n.a.	n.a.	n.a.	3.03	0	20.5.97
22.5.97	8% Treasury Stock 2021	1,500	0	108.6250	7.24	n.a.	n.a.	n.a.	1.29	4	22.5.97
25.6.97	7¼% Treasury Stock 2007	2,000	0	100.8125	7.13	n.a.	n.a.	n.a.	2.71	1	25.6.97
Tap Issues of Index-Linked Stock											
17.4.97	2½% Index-linked 2013	200	0	146.5625	n.a.	3.61	3.61	3.60	n.a.	n.a.	30.4.97
3.6.97	2½% Index-linked 2016	325	25	156.5000	n.a.	3.67	3.67	3.67	n.a.	n.a.	3.6.97
3.6.97	2½% Index-linked 2009	125	25	172.2500	n.a.	3.62	3.62	3.62	n.a.	n.a.	3.6.97
16.6.97	2½% Index-linked 2013	150	0	147.8750	n.a.	3.61	3.62	3.62	n.a.	n.a.	27.6.97
16.6.97	2½% Index-linked 2024	150	0	125.3750	n.a.	3.65	3.65	3.65	n.a.	n.a.	16.6.97

n.a. = not applicable.

(a) Non-competitive allotment price.
(b) Gross redemption yield per cent based on the weighted average price of successful competitive bids.
(c) Gross redemption yield or real rate of return (assuming 5% inflation) based on the price when the issue ceased to operate as a tap.
(d) Weighted average gross redemption yield or real rate of return (assuming 5% inflation), based on actual price at which issues were made.
(e) Total of bids divided by the amount on offer.
(f) Difference in gross redemption yield between the weighted average of successful competitive bids and the lowest accepted competitive bid.

trading had been active. The yield on 8% 2021 had fallen very sharply, and the spread over German bunds narrowed accordingly, after the Chancellor's announcement on 6 May, and it is possible that this process had taken yields to a point at which long stock was relatively less attractive than before. Yields reached a low point of 7.03% on 14 May, but had risen to 7.20% the evening before the auction. The market reacted sharply to the announcement of low cover and high tail, falling ½ point immediately, and closing on auction day at a yield of 7.34%.

On 25 June the first medium stock of the financial year, 7¼% 2007, was sold, again in the minimum size for a single auction of £2 billion. Ahead of the auction there was a marked lack of activity in the WI and parent stock, reflecting increased expectations of higher interest rates following the sharp rise in retail sales for May released on 18 June, and possibly also some residual nervousness from the second half of the May auction. In the event, both cover and tail were in line with the 1996–97 average, at 2.71 times and 1 basis point respectively.

Turnover in switches of stocks from the Bank of England's shop window for gilts dropped only slightly in this period compared with the first quarter of 1997; nominal monthly turnover averaged £547 million, against £570 million. Unlike the previous quarter, activity was fairly even each month. There were also outright sales made from the window in May (£56.25 million) and June (£180.5 million). The bulk of the May sales took place on 6 May after the announcement of the changes to the monetary policy framework. In June the sales included £35 million of 8½% 2007, which were sold in response to tightness connected with the delivery of the stock into the long gilt futures contract. During the period all the activity in both switches and outright sales was in shorts and mediums, ie stocks with residual maturities of between 3 and 15 years.

Index-linked gilts

A number of factors weighed on index-linked gilts in early April. The rise in target for index-linked issuance to 20% of gilt sales implied an increase in supply from £5.8 billion in 1996/7 to £7.3 billion in the current financial year; the second auction of ten-year US Inflation Indexed Notes on 8 April met with much less demand than the first (a higher-than-expected yield of 3.65% and

relatively small cover of 2.26, compared with 3.45% and 5.51 for the January auction); and fears of emerging inflation and expectations of higher interest rates in the United Kingdom and the United States were depressing bond markets generally.

The gilt market, including the index-linked sector, stabilised in mid April after the release of more benign economic data in the United Kingdom and the United States. The underperformance of index-linked against both conventionals and equities, as well as nervousness ahead of the May election, prompted some switching back into the sector. Consequently, and with the long absence of supply also leading to some illiquidity, it was decided to accept lower bids for the outstanding £36 million of the 2% index-linked 2006 issued in February. The tap was exhausted in a mini-tender on 16 April at $191^{14}/_{32}$, $4^{5}/_{16}$ below the original selling price. The following day £200 million of $2^{1}/_{2}$% index-linked 2013 was issued and, with almost half of the tap sold in the initial tender, the price was raised $^{1}/_{8}$. But the market subsequently softened and no further sales were made until the end of April, the tap finally being exhausted on the day before the 1 May General Election.

The reforms to the monetary policy framework announced by the new Chancellor on 6 May led to a reassessment of the prospects for price stability in the United Kingdom. With inflation expectations revised down, the demand for index-linked stock dried up for a while and the sector underperformed markedly in May.

In part because of speculation that the July Budget would abolish pension funds' dividend tax credit (making equities less attractive relative to bonds), investor interest in index-linked gilts began to re-emerge in June and, in response to specific known demand, the Bank issued a £400 million tap package on 3 June. The £100 million $2^{1}/_{2}$% index-linked 2009 and £300 million $2^{1}/_{2}$% index-linked 2016 were both exhausted on the first day. This helped to restore market confidence that the index-linked issuance target was achievable. With demand for longer-dated stock continuing as the nominal and real yield curve flattened, this was followed on 16 June by £150 million each of $2^{1}/_{2}$% index-linked 2013 and $2^{1}/_{2}$% index-linked 2024. The latter was also exhausted in the initial tender but the bulk of the 2013s were not sold until later in the month, the tap being exhausted on 27 June.

Sectoral investment activity

The latest ONS statistics, covering the first calendar quarter of 1997, show a sharp drop in net investment by institutions in gilts, falling to £2.3 billion, the lowest quarterly total for five years. Since the total level of net institutional investment in securities markets generally remained very buoyant, this probably reflects the relatively high level of gilt redemptions (nearly £5 billion) falling in the quarter. Net investment in gilts by pension funds remained strong, rising to £2.1 billion in the quarter. Pension funds have shown a propensity to invest heavily in gilts consistently in the last few years; once again in this quarter gilts accounted for almost 50% of total net investment by pension funds (compared with 11% of their total portfolios at end 1996, up from 7% in 1992). The Minimum Funding Requirement, introduced under the Pensions Act in April, is thought likely further to increase demand for gilts among pension funds. Long-term insurers by contrast invested only £332 million in gilts, the lowest quarterly level for six years, reversing the trend over the previous four quarters of heavy buying.

Table G
Official transactions in gilt-edged stocks

£ billions; *not seasonally adjusted*

	1996/97	1997/98		
	Apr.-Mar.	Apr.	May	June
Gross official sales (+) (a)	38.8	2.1	3.3	3.2
Redemptions and net official purchases of stock within a year of maturity (-)	-12.4	0.0	0.0	0.0
Net official sales (b)	26.4	2.1	3.3	3.2
of which net purchases by:				
Banks (b)	-2.3	0.2	0.7	-0.5
Building societies (b)	0.3	0.1	0.8	-0.1
M4 Private sector (b)	21.9	1.6	2.8	3.1
Overseas sector	5.9	0.2	-1.1	0.7
LAs & PCs (c)	0.6	0.0	0.0	0.0

(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) Excluding repurchase transactions with the Bank.
(c) Local Authorities and Public Corporations.

Data compiled by the Bank for the most recent quarter, April to June, saw net sectoral investment in gilts rising back up to £8.6 billion, buoyed by the absence of redemptions falling during this period. The domestic non-monetary sector made net purchases of £7.5 billion compared with £8.6 billion the previous quarter. For the overseas sector, sales outweighed purchases of gilts in May, perhaps reflecting further profit-taking on sterling's continuing rise, and the narrowing spreads against European bonds following the Chancellor's announcement of 6 May. The monetary sector made net purchases of gilts of £1.1 billion, following a significant reduction in holdings the previous quarter, with demand in April and May encouraged by two auctions of the 7% 2002 five-year benchmark stock.

Technical developments

On 30 May the Bank announced the results of its consultations on gilt market conventions and on the ex-dividend period for gilt-edged securities.

Daycounts and decimals

The consultation invited views on possible changes to two gilt market conventions. The first was the daycount convention used for the calculation of accrued interest. This is part of the formula used to calculate the accrued interest payable to the seller by the buyer when gilts are traded between dividend payments. Because dividends on gilts are paid semi-annually, the 'actual/365' convention calculates the accrued interest as half of the annual coupon multiplied by the number of days between the start of the dividend period and the settlement date, divided by 182.5. The calculation of accrued interest on gilts using 'actual/actual' convention differs from the 'actual/365' approach only in that the number of days is divided by the actual number of days in the coupon period rather than 182.5. The majority of those responding to the paper wished to switch from the 'actual/365' to the 'actual/actual' convention.

The second was whether to change the quotation of gilt prices from fractions (£$^{1}/_{32}$nds per £100) to decimals (£0.01 per £100). Almost all major international bond markets use decimal prices; the United States is the only other exception. A large majority of those responding to the paper favoured making such a change.

The Bank proposed that both these changes should be made next year. The implementation date will be determined in consultation with market participants as soon as possible, and will take account of the implications for firms' systems and for the specification of LIFFE gilt contracts; the change will not be implemented before April 1998.

Calculating strip prices from yields

The consultation invited views on what standardised formula for computing market prices from gross redemption yields should be adopted to allow gilt strips to trade on a yield basis. The majority of those responding to the paper favoured compound interest for all strips, including the shortest, on an 'actual/actual' basis. The Bank therefore proposed that this be the pricing method for strips from the start of the strips market.(1) The Bank also proposed that, from

(1) The date for the start of the strips market will be announced later in the summer, but is expected to be a month or so after the Central Gilts Office upgrade goes live.

the same time, the Stock Exchange price/yield formula for conventional bonds should be brought into line with this method; this will be discussed with the Exchange. The conventions proposed for the number of decimal points in strip yields and in settlement prices are, respectively, three and six.

Ex-dividend period

The consultation also sought views on possible changes to the ex-dividend period and to the special ex and special cum-dividend facilities. A large majority of those responding favoured the proposal to abolish the ex-dividend period for gilts held in the Central Gilts Office; it was recognised that there would be consequential changes to arrangements for trading gilts between CGO members and gilt holders outside CGO or holders on the National Savings Stock Register, where the ex-dividend period could only be reduced from seven to five working days (ten to eight for War Loan). A large majority also favoured the abolition of special ex and special cum-dividend facilities.

No decision has yet been made on whether to proceed with these changes, which would require secondary legislation and systems changes at the National Savings Stock Register and at the Bank's Registrar's Department. The implementation date for any change would take into account the implications for firms' systems and for the specification of LIFFE contracts, and would not be before April 1998.

London Stock Exchange rules for GEMMs

Following the end of the Bank's separate capitalisation requirement for GEMMs, the London Stock Exchange has amended its membership rules as they relate to GEMMs that merge with another group firm. All GEMMs continue to be required by the Bank to be members of the London Stock Exchange, but under the revised membership rules a firm may apply to be a member on terms that mean that only transactions that are related to its gilt-edged market-making functions, other than gilt repo transactions, are subject to Exchange rules. The precise scope of business that is on and off Exchange is a matter for determination by the London Stock Exchange on a case-by-case basis.

HM Government ECU issuance

The United Kingdom continued to hold regular monthly tenders of ECU 1 billion of Ecu Treasury bills in the second quarter, comprising ECU 200 million of one-month, ECU 500 million of three-month and ECU 300 million of six-month bills. The tenders continued to be oversubscribed, with issues covered by an average of 2.9 times the amount on offer, compared with the average cover of 2.5 in both the first quarter and in 1996 as a whole. During the second quarter, bids were accepted at average yields between 3 and 10 basis points below the ECU Libid rate of the appropriate maturity. There are currently ECU 3.5 billion of UK Government Treasury bills outstanding. Secondary market turnover in the second quarter averaged ECU 1.6 billion per month, slightly lower than average turnover in 1996 but at around the same level as turnover in the first quarter of 1997.

On 15 April the Bank re-opened the Ecu Treasury Note maturing in January 2000 with a further tender for ECU 500 million, raising the

amount of this Note outstanding with the public to ECU 1.0 billion. There was strong cover at the auction, 2.7 times the amount on offer, and accepted bids were in a tight range of 4.62%–4.64%. The total of Notes outstanding with the public under the UK Note programme rose to ECU 5.0 billion.