

United Kingdom  
**Debt  
Management  
Office**

# DMO Annual Review

2000 | 2001



The United Kingdom  
**Debt Management Office**  
is an Executive Agency of  
HM Treasury

September 2001



	Page No
1. Introduction	2
2. Review of market conditions	4
3. The gilts remit	14
● <i>Box A: Managing the debt market during periods of budget surplus (1998-99 to 2000-01)</i>	23
4. The cash remit	26
5. Other market developments:	32
● <i>Box B: Improvements to the DMO web site</i>	37
6. Twenty years of the index-linked gilts market	39
7. Performance indicators	42
● <i>Box C: Guidelines on public debt management</i>	43
8. The DMO	63
9. Annexes	
● A Gilts in issue at 30 March 2001	65
● B List of GEMMs at 30 March 2001	67
● C Treasury bill tender results	69
● D The DMO's performance against its strategic objectives	71
● E The DMO's performance against its published targets 2000-01	76

## Chapter 1: Introduction

2000-01 – the DMO's third full year of operation – was one of success and expansion. The DMO's operational responsibilities grew significantly with the transfer of responsibility for the Exchequer cash management functions from the Bank of England. The resources of the Office expanded to enable it to meet the new challenges successfully.

The expansion of the DMO's responsibilities is reflected in the title of this publication. It is no longer appropriate to refer to a "Gilt" Review since it now also encompasses the DMO's activities in the sterling money markets in pursuit of its Exchequer cash management responsibilities.

In 2000-01 the DMO was given two remits by HM Treasury - one covering debt management and the other for cash management. The former continued the practice of recent years and the latter acknowledged the transfer in April 2000 of responsibility for the Exchequer's cash management functions from the Bank of England to the DMO.

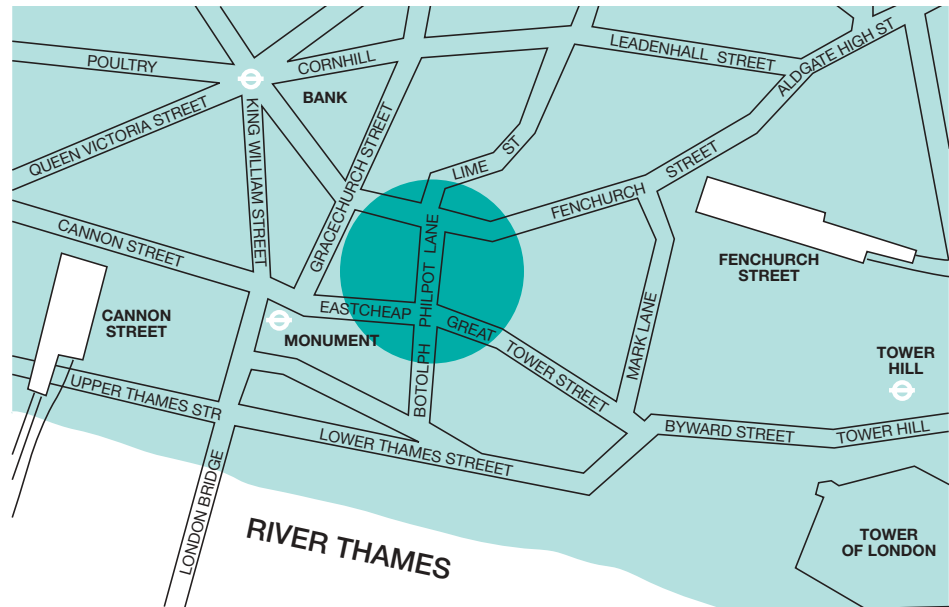
The debt remit identified a number of contingencies for meeting a reduced Central Government Net Cash requirement (CGNCR) (i.e. a larger surplus). These were triggered early in the financial year after the larger than forecast surplus for 1999-2000 and the proceeds received from the auction for third generation mobile phone licences. A gilt auction was cancelled but the authorities maintained a minimum level of cash to be raised by gilt auctions of £10 billion. This recognised that it was desirable to maintain the gilt market-making infrastructure especially in the light of the forecast increase in the financing requirement over the next few years.

The handling of the very large payments for the licences following the 3G auctions presented a challenge to the DMO and others. The DMO, the Bank of England, the Radiocommunications Agency and a number of banks successfully liaised to ensure that the payments caused as little disruption to the money markets and payment systems as possible. The DMO acknowledges the co-operation of all those involved.

The Government's decision to use the increased inflows to reduce the Government's net short-term debt by maintaining a short-term cash position to be run down over the next three financial years (i.e. by end March 2004) also involved the DMO in expanding the range of instruments used in its cash management operations. The anticipated run down of this position will, all other things being equal, smooth the future issuance needs of the Government.

The review covers the key market background against which the DMO has been operating and then describes the main activities undertaken in delivering its remits in 2000-01. The review goes on to address the main developments in the gilts and sterling money markets in the last financial year, reviews the historic development of the index-linked gilts market and reports on some aspects of performance measurement. It also includes some background to the DMO and its achievements in 2000-01 against its strategic objectives and its published targets.

On 30 July 2001 the DMO moved to new premises at Eastcheap Court, 11 Philpot Lane, London EC3M 8UD.



## Chapter 2: Review of market conditions

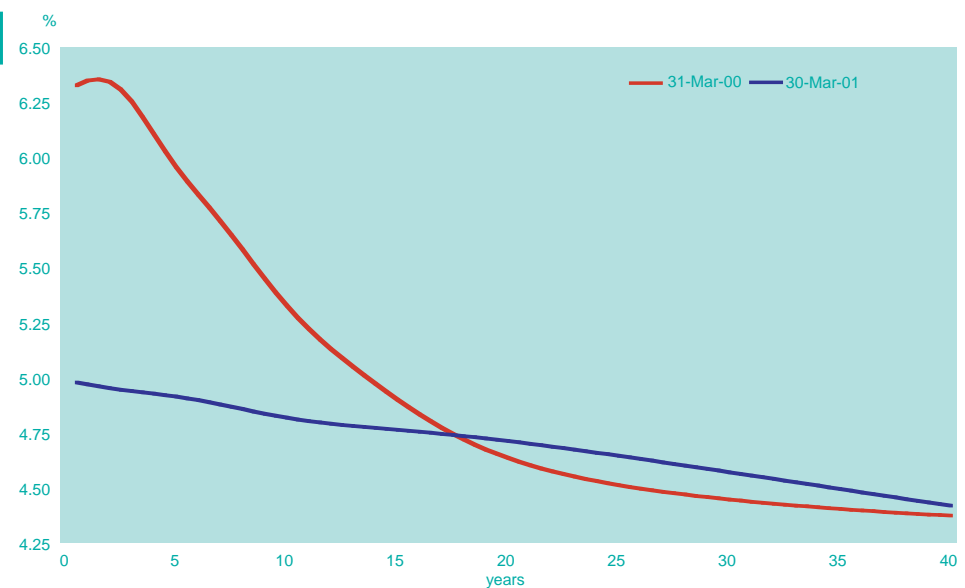
In 2000-01, the UK economy experienced real economic growth of 2.9%. Over the same period inflation averaged 2.0%<sup>1</sup>, with inflation at 1.9% in March 2001, both below the Government's target of 2.5%. The net debt/GDP ratio fell to 31.6% from 36.7% in 1999-2000. This is in line with the Government's sustainable investment rule to keep this ratio below 40%.

### Developments in the sterling fixed income markets

#### The gilt yield curve

The major structural change in the gilts market over 2000-01 has been the out-performance of the short-end of the gilts market (see charts 1 and 2). 2-year par yields fell 139 basis points to 4.95%. In contrast 30-year par yields increased by 12 basis points to 4.57%. This led to a narrowing of the spread between the 2- and 30-year benchmarks during the year as the curve significantly disinverted.

Chart 1  
Par gilt yield curves



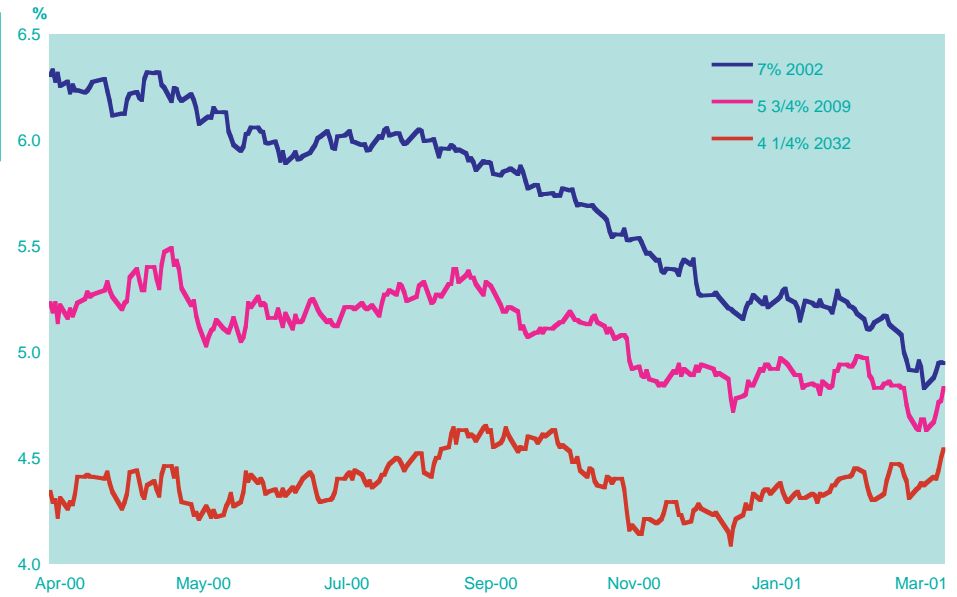
Source: DMO

Chart 3 shows that the spread between the 7% Treasury Stock 2002 and 6% Treasury Stock 2028 was -185 basis points at the start of the year. It finished the year at -33 basis points (a narrowing of 152 basis points). This disinversion was driven by both economic fundamentals and other changing determinants of supply and demand, particularly at the long-end of the curve.

<sup>1</sup> As measured by RPI-X (inflation measured by the RPI excluding mortgage interest payments).

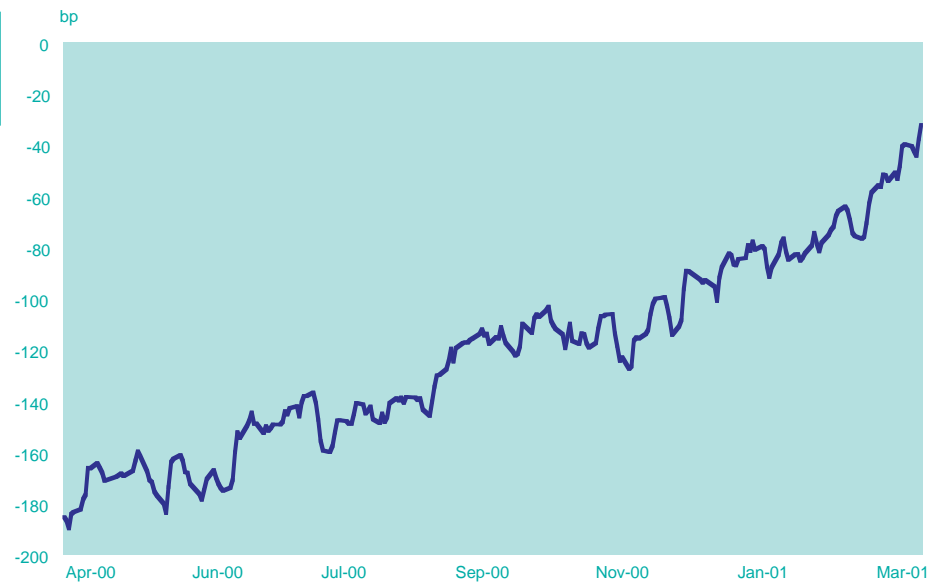


**Chart 2**  
**Benchmark gilt yields 2000-01**  
 (Synthetic yields shown for  
 4¼% 2032 prior to its first  
 auction)



Source: DMO

**Chart 3**  
**Spread between 7% Treasury**  
**Stock 2002 and 6% Treasury**  
**Stock 2028**



Source: DMO

### International comparisons

Nominal yields in other major government bond markets also fell during the financial year. The difference between the yield on the German 10-year benchmark bond and its UK counterpart was close to zero throughout the period to end December 2000 and significant divergences from this were usually caused by UK domestic factors. In the ten-year area of the curve, gilts reached a maximum of 21 basis points over their German equivalent on 12 September 2000 (the day before the review of the Minimum Funding Requirement (MFR) (see also page 9) was published) but had fallen to 16 basis points below it by 27 November 2000.

During the first quarter of 2001, the market was concerned that German growth was beginning to slow and that the ECB would be less proactive than other central banks in cutting interest rates to compensate for this slowdown. This provided a more decisive downward shift in German yields and led to a widening of the gilt-bund spread toward the end of the financial year. The spread of 10-year gilt yields over their German equivalent peaked at 24 basis points on 23 February 2001.

Chart 4  
Spreads of German and US  
10-year yields over 10-year gilt  
yield



Source DMO

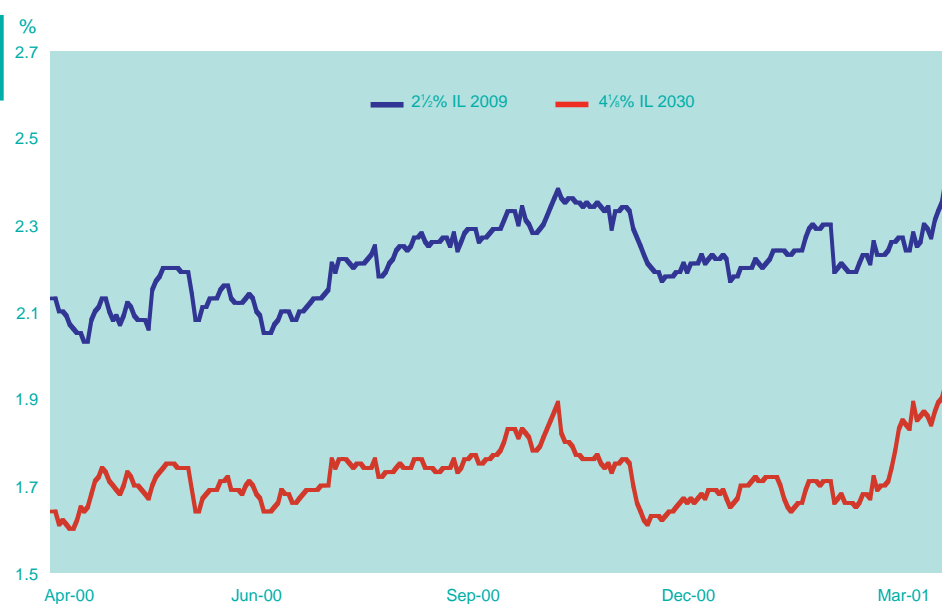
The spread between gilts and US Treasuries narrowed throughout 2000-01. It peaked in the 10-year area of the curve at 127 basis points at the beginning of May 2000, but this had fallen to 9 basis points by the end of the year. Most of this change can be attributed to falling yields in the US, driven by the budget surplus restricting the supply of US Treasuries (including the impact of buy-backs) and fears mounting regarding the degree of the economic slowdown.



### Index-linked gilts

There was a general parallel shift upwards in the real yield curve of index-linked gilts with the real yield<sup>2</sup> on 2½% Index-linked Treasury Stock 2009 increasing by 41 basis points from 2.13% at the start of the financial year to finish at 2.54%. Over the same period the real yield on 4⅛% Index-linked Treasury Stock 2030 increased by 42 basis points to end the financial year at 2.06%. See Chart 5.

Chart 5  
Real yield on 10- and 30-year  
index-linked gilts



Source DMO

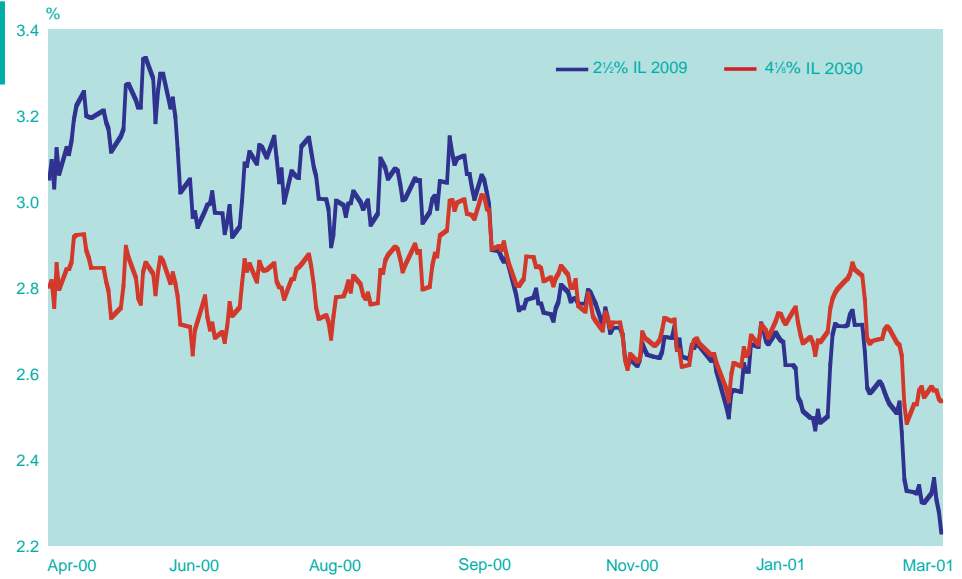
As with long-dated conventional gilts, index-linked yields initially rose at the start of the financial year, partly in anticipation of the review of the MFR. Following the extension of the consultation period, index-linked gilts rallied and retraced many of the losses incurred.

Towards the end of the financial year Index-linked gilts were affected, as were conventionals, by the Government's decision to replace the MFR; although benign inflation data also took real yields higher. Between the announcement of the Government's intentions at the Budget on 7 March 2001 and the end of the financial year, the yield on 4⅛% Index-linked Treasury Stock 2030 increased by 31 basis points to 2.06% and the yield on 2½% Index-linked Treasury Stock 2009 increased by 28 basis points to 2.54%.

Chart 6 overleaf shows the break-even inflation rates at the 10- and 30-year maturities. Taking the period as a whole, index-linked gilts under-performed conventional gilts. The break-even inflation rate at the long-end of the curve fell 27 basis points to end the financial year at 2.53%. The chart also shows how most of this under-performance was concentrated in the final two months of the year.

<sup>2</sup> On a 3% inflation assumption.

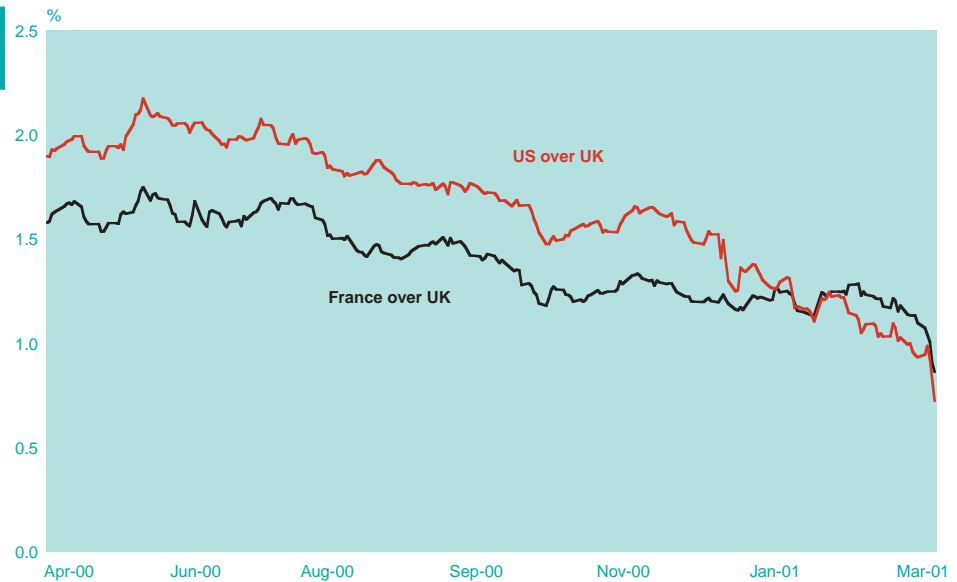
Chart 6  
10- and 30-year break-even  
inflation rates



Source: DMO

Index-linked gilts also under-performed the sovereign index-linked securities of France and the US throughout the year (see Chart 7). Once again, most of this under-performance was concentrated in the final two months of the financial year.

Chart 7  
10-year real yield spread of US  
and France over the UK



Source: Bloomberg

### Supply and demand conditions in the gilts market

Outright conventional gilt issuance by the DMO was concentrated at the long-end of the curve. A new gilt, 4¼% Treasury Stock 2032, was auctioned on 24 May 2000 and further outright auctions of the new stock were held on 21 November 2000 and 28 March 2001. In addition, there were three switch auctions out of 8% Treasury Stock 2015 into 4¼% Treasury Stock 2032 stock during the year. By the end of the financial year these operations had created £13.6 billion (nominal) of 4¼% Treasury Stock 2032 (see chapter 3).

Also in 2000-01 there continued to be a number of proposed legislative and regulatory changes that were perceived as affecting the degree of investor demand for long-dated gilts. Probably the most important of these was the likely timing and content of possible changes to the MFR.

In March 1999 the Government had appointed the Faculty and Institute of Actuaries (F&IoA) to examine the existing MFR legislation that covered defined benefit pension schemes. As 2000 progressed there was growing speculation in the bond market as to the likely nature of the recommendations from this review.

The yield on long-dated stocks increased over the summer, driven to a large extent by market expectations of the possible changes that might be recommended by the F&IoA. Between the beginning of the financial year and 14 September 2000, the yield of the 6% Treasury Stock 2028, the ultra-long benchmark stock, increased by 26 basis points to 4.71%.

The MFR review document was issued on 14 September 2000. With the publication of its proposals, the Department of Social Security (DSS) and HM Treasury launched a further consultation process. Consequently, expectations that this review would serve to ease some of the domestic institution-led demand for ultra long-dated gilts proved to be premature.

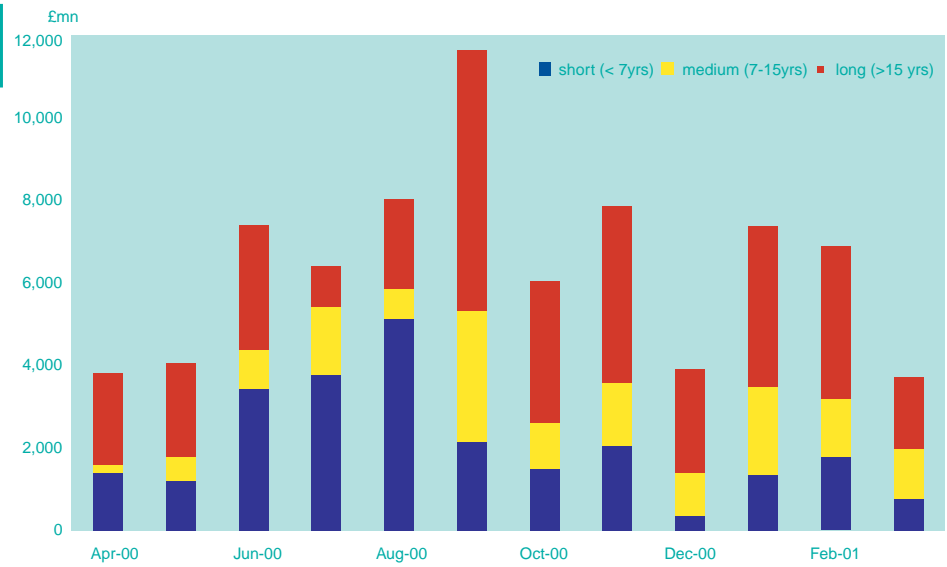
Between 14 September and 3 January 2001, the yield on 6% Treasury Stock 2028 fell 51 basis points to 4.20%. Even at its lowest point, however, this was not a complete retrenchment back to the yield levels seen towards the end of 1999. The lowest yield for the period reached by the new long-dated benchmark stock, 4¼% Treasury Stock 2032, was 4.10% at the close of business on 3 January 2001. This compares with a yield of 4.07% reached in November 1999 by 6% Treasury Stock 2028.

The announcement by the Chancellor of the Exchequer in the March 2001 Budget speech of the Government's intention to repeal the MFR legislation supported an upward trend in long-dated yields. The yield on 4¼% Treasury Stock 2032 increased by 22 basis points to reach 4.55% by the end of March 2001. Cuts in the Bank of England's repo rate and expectation of additional cuts led to further out-performance of the short-end of the curve toward the end of the financial year.

### The corporate sector, spreads and issuance

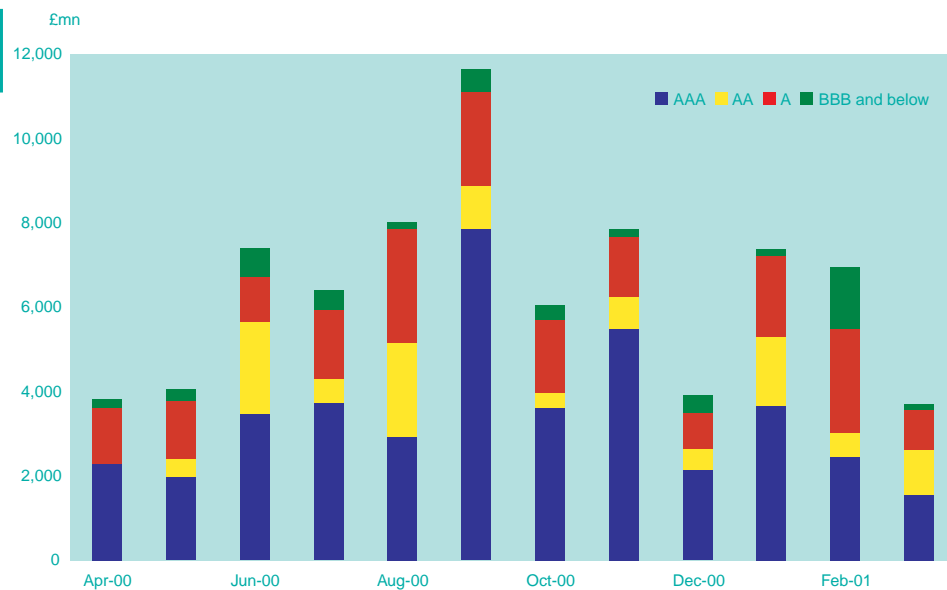
Non-gilt sterling issuance during 2000-01 peaked in September 2000 with £11.7 billion of bonds being issued (see Charts 8 and 9). During that month 68% of new issues were from AAA rated issuers and over half were long-dated maturities of over 15-years. These high levels of issuance reflected a period of particularly strong issuance from the telecommunications sector. The concentration of issuance toward long-dated securities mirrors that seen in the gilts market during 2000-01.

Chart 8  
Monthly non-gilt sterling bond issuance, 2000-01, by maturity



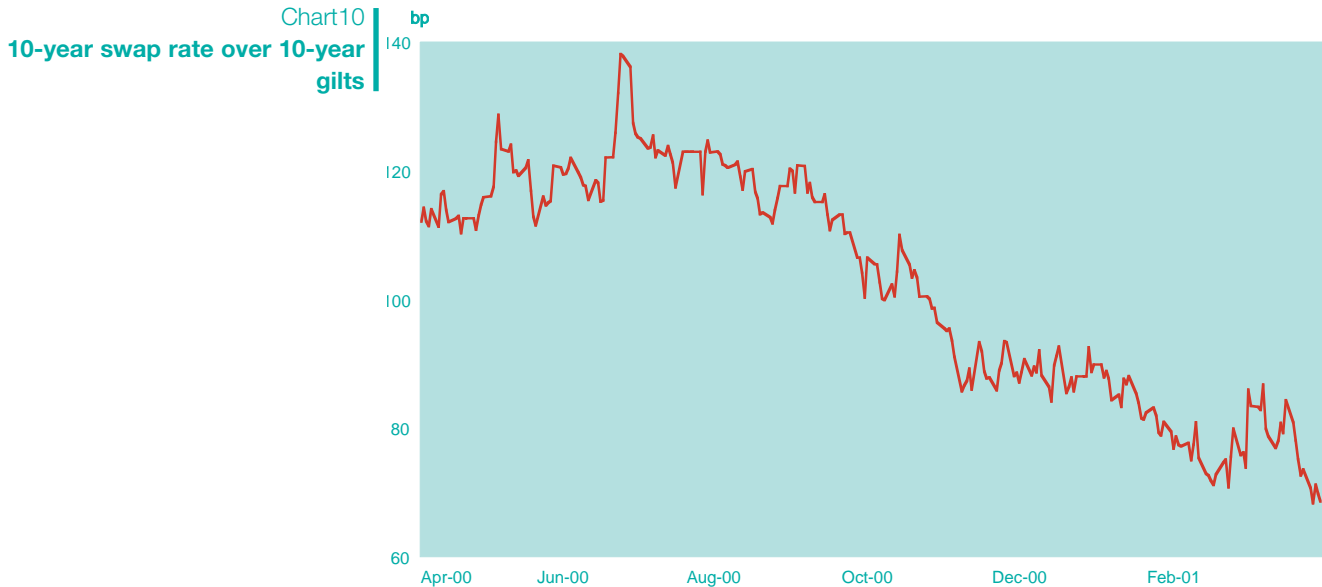
Source Bank of England

Chart 9  
Monthly non-gilt sterling bond issuance, 2000-01, by rating



Source Bank of England

As levels of gross issuance declined during Q4 2000 swap spreads also fell. Monetary loosening by the Bank of England and other central banks supported this downward trend during Q1 2001. The 10-year sterling swap spread that had been as high as 138 basis points in June 2000 had declined to 69 basis points by the end of the period.

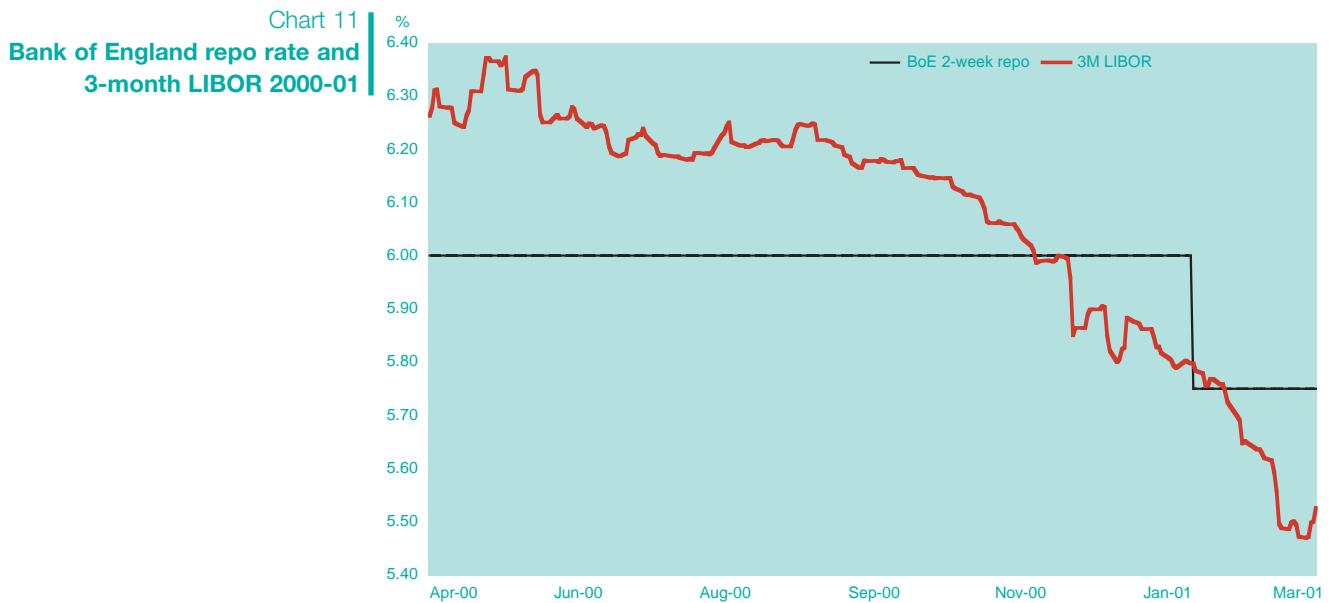


Source: Bloomberg

### Developments in the sterling money markets

#### Interest rate expectations

The peak of the current interest rate cycle was reached during February 2000 when the Bank of England increased its 2-week repo rate to 6.00%. The rate remained at this level until February 2001 when it was cut to 5.75%.



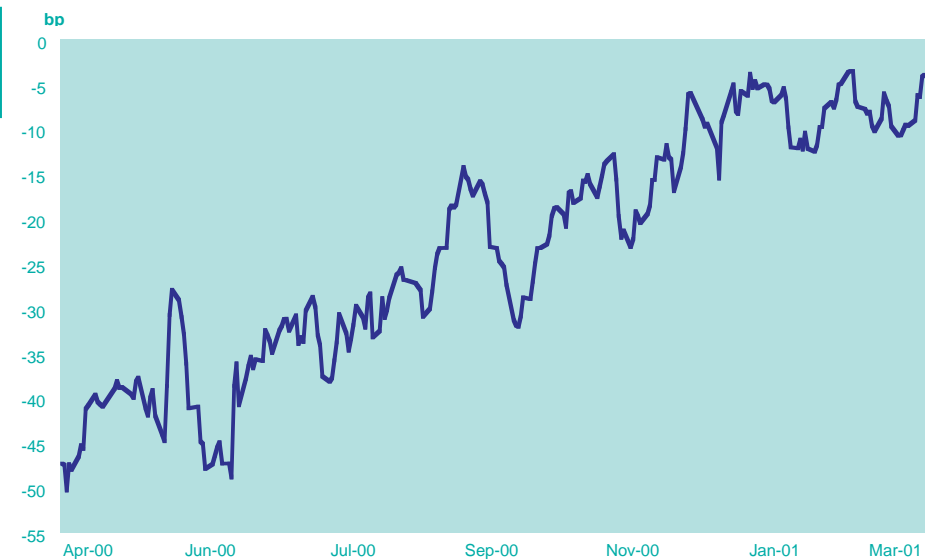
Source: Bank of England

Speculation that the Bank of England would increase rates to beyond 6% faded over the summer and led to yields at the short-end of the curve falling during the first half of the financial year. Between the start of the financial year and the beginning of September 2000, the yield on 7% Treasury Stock 2002 fell by 32 basis points. The yield on 3-month Treasury bills fell by 7 basis points. However, most movement at the short-end of the curve was concentrated in the second half of the financial year.

By October 2000 there was considerable speculation regarding both the extent and duration of the prospective economic slowdown in the United States. When the Federal Reserve cut rates by 50 basis points on 3 January 2001 between Federal Open Market Committee (FOMC) meetings it was widely anticipated that the Bank of England would also reduce interest rates. At the February 2001 meeting of the Monetary Policy Committee the Bank of England's repo rate was reduced by 25 basis points to 5.75%. During the last quarter of the financial year the signs of slowing economic growth from Europe, Japan, and particularly the United States grew and expectations of further rate cuts by the Bank of England therefore continued to increase.

As noted above, the short-end of the gilt curve substantially out-performed longer maturities in the 2000-01 financial year. The short-end of the curve also displayed the same disinversion trend that was evident across the full length of the curve. Between the beginning of September 2000 and the end of March 2001, the yield on 7% Treasury Stock 2002 fell a further 104 basis points, with yields on 3-month Treasury bills down a further 60 basis points. Over the same period 5-year par yields fell by 70 basis points (see Chart 12).

Chart 12  
Yield spread of 8½% Treasury  
Stock 2005 over 7% Treasury  
Stock 2002



Source: DMO

### Supply conditions in the sterling money markets

The combined size of the sterling money market increased by 15.1% during 2000-01. Most of this growth was concentrated in the interbank and stock lending markets (Table 1). The nominal value of UK Treasury bills in issue rose slightly from £2.8 billion to £3.3 billion over the financial year. Net corporate issuance of money market instruments increased, with the size of Certificates of Deposit (CDs) in issue rising by some £9 billion, and that of Commercial Paper (CP) rising by almost £4 billion.

Table 1  
Size of the sterling money market (£ millions)

(end-month)	CDs	Treasury bills	Bank bills	CP	Interbank	Gilt repo*	Stock lent	Sell/buy-backs	TOTAL
Mar-00	132,246	2,800	13,581	15,430	156,229				473,263
Apr-00	141,308	2,500	13,381	16,044	160,799				487,009
May-00	137,585	1,900	13,713	16,791	164,553	123,750	53,784	2,678	514,754
Jun-00	134,701	3,450	12,086	15,580	159,102				505,131
Jul-00	129,294	2,500	11,940	15,270	161,627				500,843
Aug-00	133,229	2,600	11,953	15,638	159,657	126,931	53,289	5,039	508,336
Sep-00	125,045	1,900	12,274	15,965	162,196				502,639
Oct-00	131,093	1,900	12,280	16,158	157,478				504,168
Nov-00	131,053	1,900	12,138	16,385	158,608	128,447	57,250	5,581	511,362
Dec-00	129,966	2,250	11,243	18,003	151,008				503,748
Jan-01	143,182	2,350	11,172	19,489	158,583				526,054
Feb-01	138,763	2,800	13,158	18,219	166,699	126,110	67,195	2,705	535,649
Mar-01	141,337	3,300	13,689	19,285	171,134				544,755

\* Gilt repo and stock tending data are based on a quarterly survey of the market. For the purposes of this table these values are assumed to remain constant during the intervening two months

Source: Bank of England/DMO



## Chapter 3: The gilts remit

*Actual gilt sales at auctions were £10.0 billion in 2000-01 (a reduction of only £2.2 billion relative to the original remit) despite a significant increase in the size of the Government's net cash surplus, from an initial forecast of £4.9 billion to £35.2 billion.*

*The sharply rising surplus was mainly due to the unexpectedly large proceeds from the 3G spectrum auction (which were £19.5 billion more than initial estimates). This chapter explains how the Government maintained the bulk of planned gilt supply in the face of a significant cash surplus.*

### The gilts remit and financing arithmetic 2000-01

#### ● The remit of 21 March 2000

The remit for 2000-01 was published on 21 March 2000. Planned gilt sales of around £12.2 billion (cash) were announced based on a forecast central government net cash requirement (CGNCR) of -£4.9 billion. The planned gilt sales total reflected decisions by the Government to increase the financing requirement in 2000-01 by £7.0 billion. This was achieved by:

- pre-financing £3.5 billion worth of foreign currency debt due to mature in 2000-01;
- buying back £3.5 billion of debt from the market (including at least £2.5 billion through reverse auctions).

Conventional gilt sales of £8.7 billion (£6.5 billion long and £2.2 billion medium) and index-linked sales of £3.5 billion were planned. The planned volume of gilt sales was protected against a rising surplus in 2000-01 by a number of contingencies included in the remit:

- a reduction of up to £2.0 billion in the end-year level of the Ways and Means facility<sup>3</sup> at the Bank of England;
- a reduction of up to £2.0 billion in the planned end year level of the Treasury bill stock and;
- further pre-financing of foreign currency debt – estimated at £5.7 billion at the time of the Budget (at then prevailing £/\$ and £/€ exchange rates).

#### ● 20 April 2000 revision to the remit

Following the publication of the outturn CGNCR for 1999-2000 on 20 April 2000, which showed a surplus of £9.2 billion, £3.4 billion higher than forecast in the March Budget, some of the contingencies were activated – thereby enabling planned gilt sales to remain unchanged at £12.2 billion. The contingencies implemented on 20 April were:

- a reduction of £2.0 billion in the planned end-year level of the Ways and Means facility (to £15.0 billion); and

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<sup>3</sup> Prior to the transfer of Exchequer cash management from the Bank of England to the DMO the Ways & Means facility was used to balance the Government's day-to-day cash needs. In the original remit the planned end-March 2001 level of the Ways and Means was £17.0 billion. In practice the Ways and Means has remained at £13.4 billion since April 2000.

- a reduction of £1.3 billion in the planned end-year level of the Treasury bill stock (to £8.7 billion).

The Government also announced that, in light of the proceeds from the 3G spectrum auction (then still underway), it was expected that HM Treasury would revise the DMO's remit once the size and timing of the auction receipts were clear.

- **12 June 2000 revision**

Following the conclusion of the spectrum auction, the Economic Secretary to the Treasury announced on 12 June 2000 that the cash receipts from the auction in 2000-01 were £19.5 billion more than had been forecast in the Budget. As a consequence, gilt sales were reduced by £2.2 billion to £10.0 billion, with the medium conventional gilt issuance being cancelled. An undertaking was given to maintain gilt sales at this new level for the rest of the financial year. All the remaining remit contingencies were triggered and the Government announced that debt buy-backs might be increased by a further £1.5 billion (to £5.0 billion, which was subsequently confirmed at the time of the Pre-Budget Report). A residual surplus of £10.7 billion remained to be used to reduce net short-term debt, but decisions on the composition of this reduction were left for the Pre-Budget Report.

- **Pre-Budget Report 8 November 2000**

In the Pre-Budget Report on 8 November 2000 a revised CGNCR forecast for 2000-01 of -£28.2 billion was published (a £3.8 billion increase in the forecast surplus since 12 June). Due to changes in exchange rates, the estimated value of the pre-financing of foreign currency debt was reduced from £9.5 billion to £9.3 billion. The Government also chose to exercise the option of increasing debt buy-backs from £3.5 billion to £5.0 billion. In addition, the size of the estimated financing contribution by National Savings was forecast to increase from a net defund of £800 million to one of £1.5 billion. This combined to produce a further reduction of £1.8 billion in the forecast net financing requirement for the year compared to the position published on 12 June 2000. Planned gilt sales were left unchanged at £10.0 billion (cash) as the following further reductions in net short-term debt were announced:

- a further reduction of £1.6 billion in the planned end-year level of the Ways and Means facility (to £13.4 billion);
- a reduction of £4.5 billion in the planned end-year level of the Treasury bill stock (to £3.5 billion);
- a balance of £6.3 billion to be maintained as a short-term cash position to be run down over the next three financial years.

- **Budget 7 March 2001**

The March 2001 Budget included a forecast of -£33.3 billion for the 2000-01 CGNCR (a £5.1 billion increase in the size of the forecast surplus since 8 November). The amount of planned debt buy-backs was increased to £5.5 billion and the estimated size of the negative financing contribution by National Savings was reduced to £0.7 billion. Overall, the net financing requirement fell by a further £5.4 billion relative to the Pre-Budget Report. Gilt sales remained at £10.0 billion. The further increase in the surplus was accommodated by an increase in the short-term cash position to £11.7 billion.

- **2000-01 CGNCR outturn 23 April 2001**

The CGNCR outturn for 2000-01 of -£35.2 billion represented an increase of £1.9 billion in the surplus over the Budget forecast. The corresponding net financing requirement for 2000-01 fell by a further £1.4 billion to -£13.2 billion. This fall reflected slightly higher debt buy-backs (£0.2 billion), a higher DMO cash deposit at the Bank of England (£0.3 billion), a slight increase in the level of prefinancing of foreign exchange reserves (£0.1 billion) and a lower negative financing contribution by National Savings (£0.1 billion) than forecast in the Budget.

With final gilt sales for 2000-01 of £10.0 billion (cash) – in line with the undertaking given on 12 June 2000 – the total reduction in net short-term debt in 2000-01 was £23.2 billion, £1.4 billion more than forecast at the time of the Budget. Part of this was accommodated by a slightly lower (£0.2 billion) outstanding stock of Treasury bills at the end of March 2001 and the remainder was accounted for by an increase of £1.2 billion in the DMO's net cash position.

The changes to the financing arithmetic in 2000-01 are shown in Table 2 below.

Table 2  
2000-01 financing requirement  
(£ billion)

	Original remit March 2000	Revised remit June 2000	Pre-Budget Report November 2000	Budget March 2001	CGNCR outturn April 2001
Central government net cash requirement forecast (CGNCR)	-4.9	-4.9	-28.2	-33.3	-35.2
Unanticipated Spectrum receipts		-19.5			
Replacing foreign currency debt	3.5	9.5	9.3	9.3	9.4
Redemptions	18.6	18.6	18.6	18.6	18.6
Debt buy-backs	3.5	3.5	5.0	5.5	5.7
Residual from 1999-2000	-9.5	-12.8	-12.8	-12.8	-12.8
<b>Financing requirement</b>	<b>11.2</b>	<b>-5.6</b>	<b>-8.1</b>	<b>-12.7</b>	<b>-14.3</b>
<i>Less</i>					
Assumed National Savings contribution	-0.8	-0.8	-1.5	-0.7	-0.6
DMO cash deposit	-0.2	-0.2	-0.2	-0.2	-0.5
<b>Net financing requirement</b>	<b>12.2</b>	<b>-4.6</b>	<b>-6.4</b>	<b>-11.8</b>	<b>-13.2</b>
<i>Contingencies</i>					
Less repayment of Ways and Means	na	-2.0	-3.6	-3.6	-3.6
Less reduction in planned Treasury bill stock	na	-2.0	-6.5	-6.5	-6.7
Further reductions in net short term debt	na	-10.7	-6.3	-11.7	-12.9
<b>Gilt sales planned</b>	<b>12.2</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>	<b>10.0</b>

Figures may not sum due to rounding

Source: DMO

## Outright gilt auctions

The original 2000-01 remit included a calendar for four conventional and four index-linked auctions. With the reduction in the level of planned gilt sales announced on 12 June 2000 one conventional auction (the medium maturity) was cancelled. A new ultra-long gilt 4¼% Treasury Stock 2032, was first auctioned on 24 May 2000, a second auction was held on 21 November and a third on 28 March 2001. £6.5 billion (cash) was raised in line with the remit plans.

Four index-linked auctions were held as planned, raising £3.5 billion (cash) again as targeted under the remit.

The results of the outright gilt auctions held in 2000-01 are shown in Table 3 below.

Table 3  
Results of outright gilt auctions  
in 2000-01

Date	Stock	Amount auctioned (nom)	Cover	Average accepted price (AAP)*	Yield at AAP
03-May-2000	2½% IL 2020	£375mn	2.30	£219.00	1.92%
24-May-2000	4¼% 2032	£2,500mn	1.63	£96.21	4.47%
26-Jul-2000	2½% IL 2013	£425mn	1.94	£195.45	2.18%
25-Oct-2000	4⅛% IL 2030	£450mn	2.07	£189.00	1.87%
21-Nov-2000	4¼% 2032	£2,250mn	2.21	£97.27	4.41%
24-Jan-2001	2½% IL 2016	£450mn	3.16	£218.75	2.08%
28-Mar-2001	4¼% 2032	£2,000mn	1.82	£96.82	4.44%

\* Index-linked gilts are issued through a uniform price format

Index-linked real yields have been calculated using a 3% inflation assumption.

## Breakdown of gilt sales 2000-01

The breakdown by type of instrument of planned and actual gilt sales in 2000-01 is summarised in Table 4 below.

Table 4  
Gilts sales planned by type

Type	Original remit plans		Revised remit plans	
	% of total issuance	% of conventional issuance	% of total issuance	% of conventional issuance
Short conventional	0	0	0	0
Medium conventional	18	25	0	0
Long conventional	53	75	65	100
Index-linked	29	–	35	–

## Switch auctions

The DMO continued with a programme of switch auctions in 2000-01. Three auctions out of 8% Treasury Stock 2015 into the new ultra-long benchmark 4¼% Treasury Stock 2032 were held, reducing 8% Treasury Stock 2015 by £5.0 billion (nominal) to £7.3 billion (nominal) by 8 December 2000, when it fell out of the FTSE over 15-year gilt index. 4¼% Treasury Stock 2032 was increased in size by £6.8 billion (nominal) by these operations, taking it to £13.6 billion (nominal) in issue by the end of the financial year. 4¼% Treasury Stock 2032 ended the year as a benchmark stock (the second largest gilt in issue) despite it only having been auctioned outright three times.

The results of the switch auctions held in 2000-01 are shown in Table 5 below.

Table 5  
Results of gilt switch auctions  
in 2000-01

Date	Source stock	Nominal switched	Destination stock	Nominal created	Average dirty price ratio
22-Jun-2000	8% 2015	£1,500mn	4¼% 2032	£2,046mn	1.3641
27-Sep-2000	8% 2015	£1,500mn	4¼% 2032	£2,098mn	1.3985
06-Dec-2000	8% 2015	£2,000mn	4¼% 2032	£2,686mn	1.3435

## Reverse auctions

The DMO carried out a programme of reverse auctions in 2000-01 to buy stock back from the market. The Bank of England had previously carried out a series of reverse auctions in 1988-89 and 1989-90 during the last period of sizeable government financial surpluses. The primary rationale behind the buy-backs of debt in 2000-01 was to increase the financing requirement and thereby increase issuance primarily of long-dated stocks for which there was strong demand from the market. The stocks chosen for buy-backs reflected the criteria set out in the DMO remit for 2000-01, ie they were short- or medium-dated issues (2003-2008 maturities), non-strippable and with over £1.0 billion (nominal) in issue. Following a consultation exercise with the market (see chapter 5), on 14 June 2000 the DMO announced that it would be prepared to receive bids on stocks in two maturity brackets (four stocks in the 2003-05 bracket and three stocks in the 2006-08 bracket). See also pages 32 and 51-53.

The DMO carried out six reverse auctions through the year, buying back £4.1 billion (cash) from the two brackets of stocks. In addition a further £1.6 billion of gilts were bought back as a result of net purchases in the secondary market. In connection with these purchases, the DMO also announced on 14 June 2000 that it would expand its range of stocks for which it would be prepared to offer a bid on demand to include shorter-dated index-linked stocks (2001-2006 maturities) and all non-rump double-dated gilts.

The results of reverse auctions held in 2000-01 are shown in Table 6 below.

Table 6  
Results of reverse gilt auctions  
2000-01

Date	Max value of stocks sought	Stocks sought	Stock bought (£mn nominal)	Average price paid	Average yield	Cover
20-Jul-2000	£800mn cash	8% 2003	£381.23	£105.40	5.93%	
		10% 2003	£357.00	£111.53	5.91%	4.88 times
		6¾% 2004	0	na	na	
		9½% 2005	0	na	na	
21-Sep-2000	£900mn cash	7¾% 2006	£130.00	£110.13	5.72%	
		8½% 2007	£463.70	£115.83	5.66%	3.35 times
		9% 2008	£180.00	£122.04	5.57%	
11 -Oct-2000	£700mn cash	8% 2003	£220.67	£105.41	5.77%	
		10% 2003	£381.00	£111.17	5.76%	3.88 times
		6¾% 2004	0	na	na	
		9½% 2005	£38.00	£115.42	5.59%	
23-Nov-2000	£700mn cash	7¾% 2006	0	na	na	
		8½% 2007	£592.24	£118.20	5.22%	3.48 times
		9% 2008	0	na	na	
18-Jan-2001	£500mn cash	8% 2003	0	na	na	
		10% 2003	0	na	na	5.62 times
		6¾% 2004	0	na	na	
		9½% 2005	£430.36	£116.17	5.20%	
22-Feb-2001	£500mn cash	7¾% 2006	£13.28	£112.23	5.18%	
		8½% 2007	£411.00	£118.03	5.15%	3.07 times
		9% 2008	0	na	na	

### Redemptions

£18.6 billion of gilts in market hands redeemed in 2000-01; details are shown in Table 7 below.

Table 7  
Gilt redemptions in 2000-01  
(£ million)

Redemption date	Stock	Nominal amount outstanding	Official holdings at 31 March 2000	Nominal value of market holdings at 31 March 2000
14-Jul-2000	13% 2000	3,171	96	3,075
25-Jul-2000	13¾% 2000/03	53	4	49
07-Dec-2000	8% 2000	9,800	219	9,581
26-Feb-2001	10% 2001	4,406	15	4,391
19-Mar-2001	11½% 2001/04	1,620	142	1,478
				<b>18,574</b>

### Net gilt issuance

Net gilt issuance in 2000-01 was therefore -£14.3 billion (£10.0 billion issued less £18.6 billion redemptions less £5.7 billion buy-backs).

## The gilt portfolio 2000-01

The key statistics of the gilt portfolio at the end of March 2001 (compared to the position at the end of the previous financial year) are as shown in Table 8 below.

Table 8  
The gilt portfolio 2000-2001

	31 -Mar-2000	30-Mar-2001
Nominal value*	£290.63bn	£281.80bn
Market value	£331.90bn	£319.29bn
Weighted average market yields:		
- Conventional gilts	5.57%	4.85%
- Index-linked gilts	2.31%	2.46%
Average maturity	10.57 years	11.01 years
Average modified duration	7.40 years	7.60 years
Average coupon**	7.79%	7.42%
* including index-linked uplift		
** of conventional, double-dated and undated gilts		

During the financial year 2000-01 the nominal value of the portfolio fell by £8.8 billion (3.0%) and the market value by £12.6bn (3.8%). Over the same period, the maturity and duration of the portfolio both lengthened by 0.44 years (maturity) and 0.19 years (duration). This reflected the combination of long-dated issuance, the impact of switch auctions into 4¼% Treasury Stock 2032 and of buy-backs of shorter-dated stocks. The average coupon of the portfolio (excluding index-linked gilts and the floating rate gilt) has continued to fall steadily; by 37 basis points in the last year.

The breakdown of the nominal value of the gilt portfolio (including index-linked uplift) by maturity at the end of March 2001 compared to a year earlier is shown in Table 9 below.

Table 9  
Portfolio maturity split (%)

	31 March 2000	30 March 2001
Ultra-short (0-3 years)	19.7	21.7
Short (3-7 years)	26.6	24.8
Medium (7-15 years)	26.7	24.1
Long (15+ years)	25.9	28.3
Undated	1.1	1.1



## Gilt remit and financing arithmetic 2001-02

The DMO's gilt remit for 2001-02 was published as part of the Budget on 7 March 2001. On the basis of a CGNCR forecast of £0.3 billion for 2001-02, gilt sales of £13.5 billion (cash) are planned, split as follows:

- £9.75 billion (cash) of conventional gilt issuance split between £4.75 billion medium and £5.0 billion long maturities and;
- £3.75 billion (cash) of index-linked gilts (2009 maturity or longer).

Outright gilt auctions were scheduled on the dates shown in Table 10.

Table 10  
Planned outright gilt auctions  
2001-02

Date	Type
Wednesday 25 April 2001	Index-linked
Thursday 24 May 2001	Conventional
Wednesday 25 July 2001	Index-linked
Wednesday 26 September 2001	Conventional
Wednesday 24 October 2001*	Index-linked
Wednesday 28 November 2001*	Conventional
Thursday 24 January 2002	Index-linked
Wednesday 27 March 2002*	Conventional

\* subject to confirmation following the Chancellor's decision on the Budgetary timetable

The remit provides that any new conventional gilt may be built up by switches and conversions. The range of possible conversion source stock candidates was widened by the provision that the DMO may in future convert out of gilts with up to £5.5 billion (nominal) in issue (previously £5.0 billion).

The remit also enables the DMO to issue a new stock with a new set of coupon dates – on the understanding that the stock may become strippable in due course. This was designed principally to prevent an ever-growing concentration of coupon payments on 7 June/7 December. (5% Treasury Stock 2012 was subsequently auctioned on 24 May 2001 with coupon dates of 7 March/7 September.)

Subject to the exercise of a number of contingencies (see below) no provision was made for reverse auctions but up to £1.0 billion of debt buy-backs are planned through secondary market net purchases.

### Contingencies

As in previous years a number of contingencies were identified that could be invoked in the light of substantial revisions to the forecast financing requirement.

- **In the event of a falling financing requirement**

If the financing requirement were to fall HM Treasury will consider extending the programme of debt buy-backs, including reverse auctions (up to £1.5 billion), reducing gilt sales, accommodating the surplus in the DMO's net cash position,

reducing the planned increase in the Treasury bill stock, and some repayment (up to £1.0 billion) of the Ways and Means advance at the Bank of England.

- **In the event of a rising financing requirement**

HM Treasury will consider increasing planned gilt sales, running down further the DMO's net cash position and increasing the planned stock of Treasury bills.

### CGNCR outturn for 2000-01

On 23 April 2001, the outturn CGNCR for 2000-01 was published. This showed a surplus of £35.2 billion compared to £33.3 billion published at the Budget (see page 15). There was, however, no change to the planned level of gilt sales in 2001-02; this remained at £13.5 billion (cash). The only change to the financing arithmetic for 2001-02 was the level of the DMO's inherited short-term cash position from 2000-01, which was £1.2 billion higher than forecast at the Budget. The financing arithmetic for 2001-02 as presented at the Budget and on 23 April 2001 is shown in Table 11 below.

Table 11  
Financing requirement 2001-02  
(£billion)

	Budget 7 March	23 April
<b>CGNCR forecast</b>	<b>0.3</b>	<b>0.3</b>
Prefinancing forex debt	1.3	1.3
Gilt redemptions	17.8	17.8
Buy-backs	1.0	1.0
<b>Financing Requirement</b>	<b>20.4</b>	<b>20.4</b>
<i>less</i>		
National Savings	-3.0	-3.0
DMO cash deposit at Bank of England	0.0	0.3
<b>Net Financing Requirement</b>	<b>23.4</b>	<b>23.1</b>
<i>Financed by:</i>		
<b>Planned gilts sales</b>	<b>13.5</b>	<b>13.5</b>
<b>Planned short term debt sales</b>	<b>9.9</b>	<b>9.6</b>
<b>Short term debt</b>		
Change in Ways & Means	0.0	0.0
Change in T bill stock	5.0	5.0
Change in DMO net cash position*	4.9	4.6
<b>Total</b>	<b>9.9</b>	<b>9.6</b>
<b>Short term debt levels</b>		
Ways & Means at end of FY	13.4	13.4
T bill stock at end of FY	8.5	8.3
DMO net cash position at end of FY**	6.8	8.5

\* Excl deposit at BoE

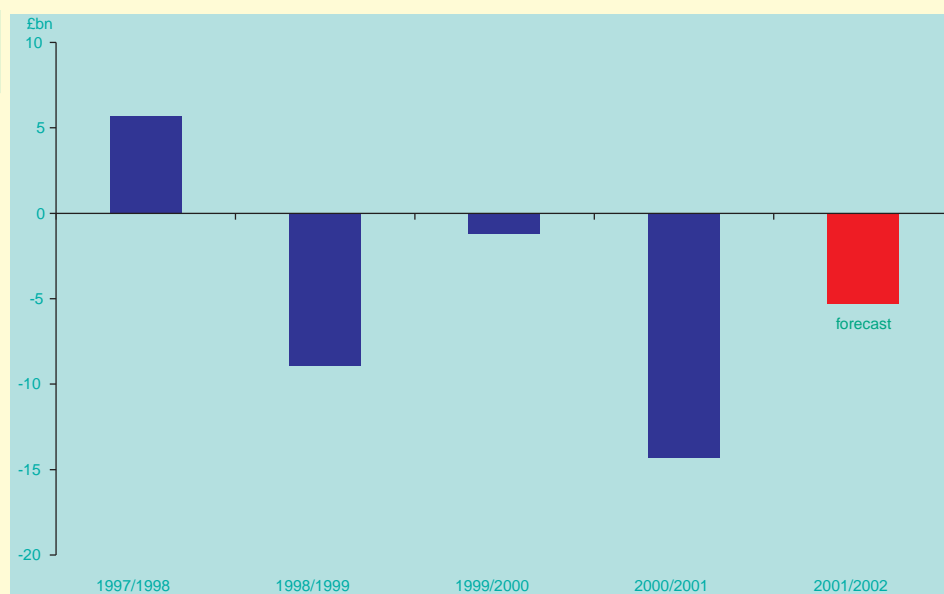
\*\*Inc deposit at BoE

## BOX A

### Managing the debt market during periods of budget surplus

Since the DMO took on responsibility for debt management in April 1998 all subsequent years have been characterised by falls in public sector net debt as the public finances have been in surplus. As a consequence, the size of the gilts market has fallen from £297 billion nominal in March 1998 to £282 billion in March 2001. This represents a 5% decline in the overall size over the last three years. A further net reduction of £5.3 billion is forecast for 2001-02. (Planned gilt issuance of £13.5 billion, less £17.8 billion redemptions and £1.0 billion debt buy-backs).

Chart A1  
Net gilts issuance  
1997-98 to 2000-01



Source: DMO

Debt repayment has positive effects for public finances as debt service costs are reduced and lower yield levels reduce the cost of future government borrowing.

A reduction in the size of sovereign debt markets is also assumed to have positive implications for the wider economy. In particular, lower yield levels will reduce borrowing costs for the private sector. So, non-Government borrowers (corporates and supranational) are likely to look for finance from the debt markets rather than the equity markets therefore making up for the decline in Government borrowing. Any other distortions to the behaviour of economic agents caused by large government borrowing will also be reduced as debt is repaid.

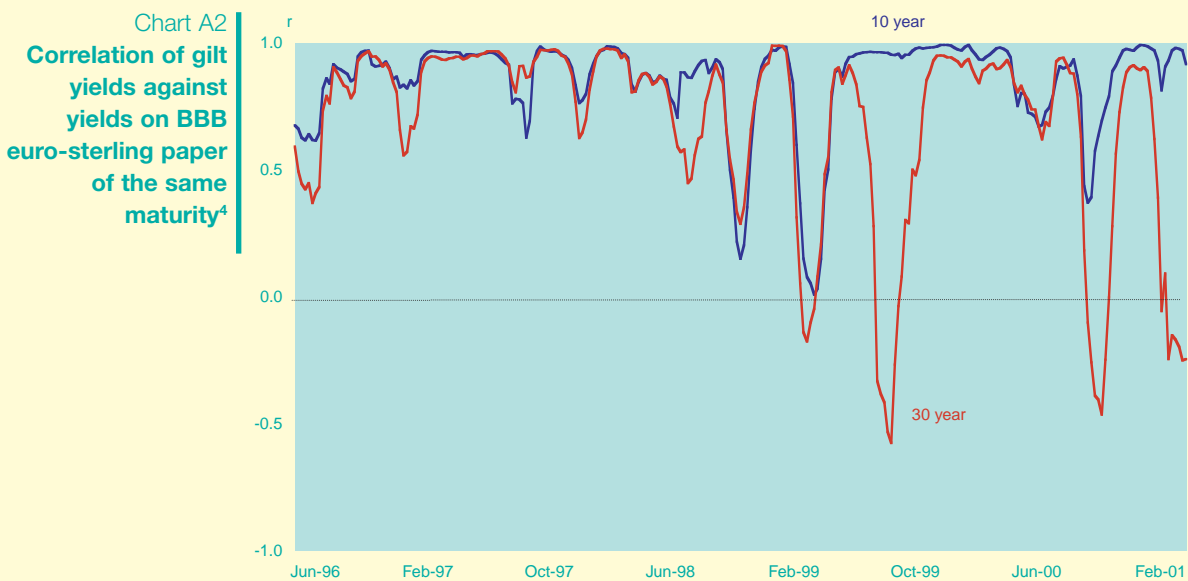
However, financial markets that are accustomed to the use of risk-free, government-backed assets will be adversely affected by the reduction in supply of these securities. In the UK gilts market this strain has been most obvious at the long-end of the gilts curve as supply has fallen and the demand from institutional investors in their most favoured habitat has remained strong.

Gilts are usually held as part of a more diversified portfolio of assets. Conventional government securities often offer a valuable addition to such a diversified portfolio as their returns have a tendency to be negatively correlated with other securities. As such, it has been suggested that the reduced availability of such assets could have the effect of reducing investor appetite for higher-risk securities, such as venture capital. However, gilts also fulfil various roles beyond that of a risk-free store of wealth.

Investors often wish to hedge against their exposure to interest rate risk. This could be the result of a natural exposure, such as a company that has undertaken floating rate loans. Alternatively the need to hedge could be driven by trading exposure. For example a corporate bond trader who has a view on the credit prospects of a particular stock but wishes to remove the interest-rate risk component associated with holding the corporate bond.

In the past government securities have been useful in hedging against these risks. In particular, their risk-free status remains, regardless of the behaviour of other asset prices and markets for these securities have tended to be liquid, thus keeping interest rate hedging costs low.

However, the ability of government securities to provide investors with interest-rate insurance has already started to decline as government debt markets have shrunk. In the UK the 'commoditisation' of the gilts market, especially at the long-end, has served to reduce the correlation between government yields and other fixed income instruments. (See Chart A2.)



Source: DMO/Bloomberg

<sup>4</sup> The correlation coefficient shows the degree of the linear relationship between two variables, in this case the daily yield on government and corporate securities at the two maturity dates. A value of 0 indicates no discernible relationship. The chart represents the correlation measured over a three month rolling window.

Chart A2 shows that the high level of positive correlation evident before 1998 becomes less stable as government gross issuance declines. This is especially the case at the long-end of the curve. This suggests that gilts have become less effective at hedging interest-rate risk and credit products over this period.

Usually, the reduced ability of government bonds to hedge against interest-rate risk does not present a major concern for developed financial markets as the hedging role is taken on by the swaps market and supranational and agency paper. However, during periods of financial stress the amount of credit risk in these instruments can increase.

Whilst the swap market may become as liquid as government bond markets, it can never be as risk-free due to the counterparty exposure involved. It is therefore at precisely the times when investors most wish to hedge against volatile movements in asset prices that the ability of the swaps market to fulfil this role could be most uncertain.

The UK Government is aware that there are possible disadvantages for financial markets associated with a prolonged period of net gilt repayment and the relevant authorities will continue to monitor the position. However, medium term projections for the public finances suggest positive levels of net gilts issuance and so the recent difficulties should begin to ease.

## Chapter 4: The cash remit

The DMO assumed full responsibility for Exchequer cash management on 3 April 2000. For the first time the DMO's remit for 2000-01 extended to the DMO's Exchequer cash management operations.

### The DMO cash management remit

The cash remit specifies that the DMO's main objective in cash management is to offset, through its market operations, the expected cash flow into or out of the National Loans Fund on every business day. It is to do this in a cost-effective way, balancing cost and risk in its strategies and without influencing the level of short-term interest rates. The DMO also has to take account of the operational requirements of the Bank of England for implementing its monetary policy objectives.

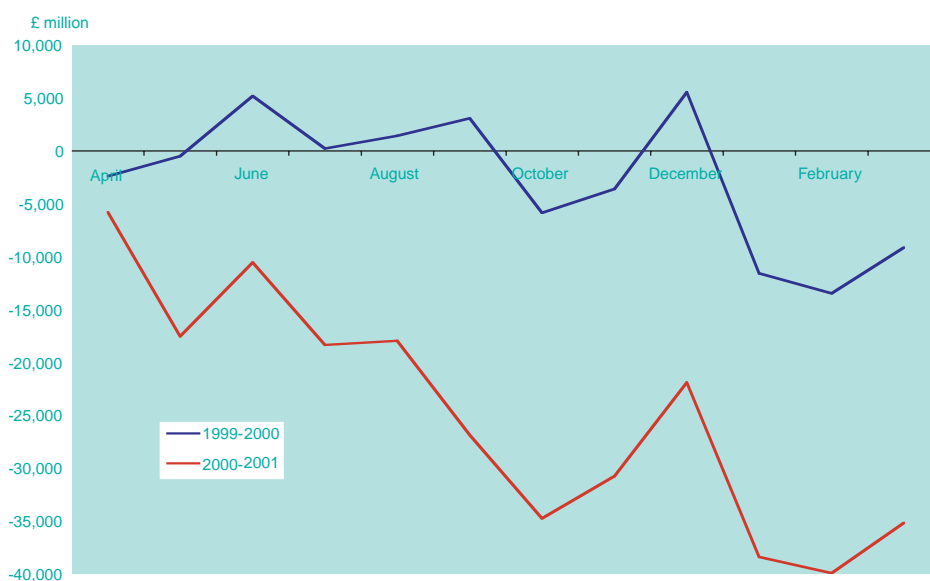
The remit specifies that the DMO carries out its cash management objectives primarily by a combination of the following activities:

- regular weekly Treasury bill tenders;
- bilateral dealing with DMO counterparties;
- ad hoc tenders of Treasury bills (and repo or reverse repo transactions).

### The DMO's cash management task

The Exchequer's cash flow usually has a fairly regular seasonal and monthly pattern; but it is also subject to considerable uncertainty, associated largely with unpredictability in the timing of some tax and expenditure flows. In 2000-01 this picture was dramatically affected by the surprisingly large cash proceeds from the third generation of radio spectrum licences (3G auction). The total proceeds were some £19.5 billion more than had been estimated at the time of Budget 2000. The proceeds were received over two days in May 2000 (£12.1 billion) and in September 2000 (£9.9 billion). The impact of these receipts on the cumulative CGNCR profile for 2000-01 can be seen in the chart below (which includes the profile for the previous financial year for comparison).

Chart 13  
Cumulative CGNCRS 1999-2000  
and 2000-2001



Source: HMT

The DMO's approach has been to manage the pattern of flows primarily through bilateral dealing in a range of money market instruments and by the issuance of Treasury bills. Some smoothing of the Exchequer's prospective cash flow variation is possible through term lending and borrowing. But the daily variation in the forecast of Exchequer flows means that there is also a need to fine tune cash flows on a daily basis. Apart from the weekly issue of Treasury bills (see overleaf), most of the DMO's dealing is done on a bilateral basis, and mainly in the secured markets. To take account of late unanticipated cash inflows and outflows, arrangements have been put in place with the Bank of England and settlement banks to cope with late changes in the forecast for the day without disadvantage to the market. HM Treasury also has in hand a programme to improve both the forecasting and monitoring of the daily cash flows.

An important part of the DMO's approach is that it seeks to ensure that its actions do not distort market or trading patterns. In its bilateral dealings with the market the DMO is a price-taker and its remit is to balance the Exchequer cash flows effectively over the long-run. This means that the DMO takes account of market levels in seeking to find cost-effective funding or instruments, but it does not run the cash management operation with a profit target and would not seek to influence rates to its advantage. The DMO works with the market, responding to market developments and balancing cost and risk in a similar way to other users of the market.



### **Maturity of structured Treasury bill tenders**

The DMO may hold tenders for Treasury bills of the following maturities:

- one month (approximately 28 days);
- three months (approximately 91 days);
- six months (approximately 182 days); and
- twelve months (approximately 364 days).

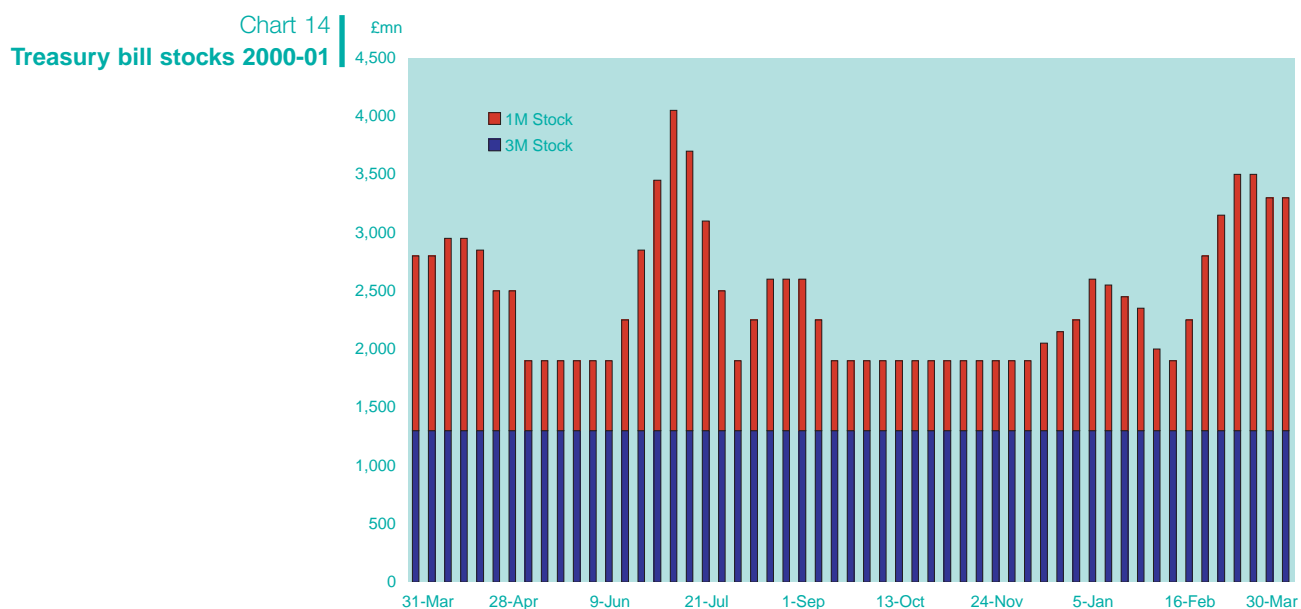
Priority has been given to establishing stocks of one- and three-month bills before moving on to longer maturities. The DMO only issued one- and three-month bills at structured tenders in 2000-01.

### **Level of Treasury bill stock**

The remit allows for the DMO to manage issuance with a view to running down the stock of bills in months of positive cash flow (i.e. surplus) and increasing it in months of higher net expenditure.

The DMO began the 2000-01 financial year with a structured Treasury bill stock of £2.8 billion and the forecast level for the end of the financial year was £10 billion. During the year, however the forecast end-year stock was reduced in response to better than expected government finances. The forecast stock was reduced to a target level of £8.7 billion after the 20 April 2000 publication of the CGNCR outturn for 1999-2000. It was then reduced to £8.0 billion in the 12 June 2000 re-statement of the financing arithmetic and was reduced again to £3.5 billion in the Pre-Budget Report on 8 November 2000. The stock ended the financial year at £3.3 billion; comprising £2.0 billion one-month bills and £1.3 billion three-month bills.

The stock of structured Treasury bills over 2000-01 is shown in Chart 14 below.



As can be seen from the chart the DMO used changes in the stock of one-month bills as a means of intra-year cash management. The stock of one-month Treasury bills varied between £600 million and £2,750 million (in mid July). The size of one-month tenders ranged from £150 million per week to £750 million. Three-month Treasury bill issuance remained unchanged at £100 million per week throughout the year and the stock steady at £1.3 billion.

The results of the weekly structured Treasury bill tenders are as shown in the table in Annex C on pages 69-70 and a comparison of the yield achieved at the tenders with prevailing market rates can be found in chapter 7 (see pages 57-58).

The DMO carried out two ad hoc Treasury bill tenders in 2000-01, on 12 and 27 April 2000 as part of the management of cash inflows expected in late April-early May 2000. The results are shown in Table 12 below.

Table 12  
Ad hoc T bill tender results  
2000-01

Date	Maturity	Size	Cover	Avg Yield %	Avg Price
12 April 00	14 day	£350mn	8.07	5.80	£99.778
27 April 00	26 day	£500mn	4.00	5.90	£99.581

Two ad hoc reverse repo tenders were also held in connection with the management of the spectrum proceeds (see overleaf).

## Bilateral operations with the market

The DMO trades on a daily basis with its counterparties in a range of instruments. The original cash remit specified that these could include:

- purchases from the market for future resale (reverse repo);
- sale to the market for future repurchase (repo);
- outright sale and purchase of gilts, Treasury bills and eligible bills;
- unsecured cash borrowing and lending with its counterparties.

Other than gilts, the original remit specified that the DMO may use selected euro-denominated government securities, selected eligible bank bills, selected supranational sterling and euro denominated securities and Treasury bills as collateral in repo and reverse repo transactions.

During the course of the year the range of instruments in which the DMO could deal bilaterally was expanded. On 12 September 2000 the DMO announced that it was adding selected Certificates of Deposit (CDs) to the range of instruments. On 9 November 2000, the day after the Pre-Budget Report announcement that the DMO would manage the Exchequer's net short-term cash position (of £6.3 billion to be run down over the next three financial years), the DMO further expanded the list of instruments to include:

- selected commercial paper (CP);
- selected bank bills and other short-term debt issued by high quality issuers, including supranationals and foreign governments.

The DMO also announced on 9 November 2000 that it may use short-term foreign currency swaps, Forward Rate Agreements (FRAs), and interest-rate futures to manage foreign currency and interest-rate exposures. Any foreign currency exposures would be fully hedged back into sterling.

To date the DMO has principally used the secured markets to effect both long- and short-term Exchequer cash operations. The approach taken has involved sales to the market when the Exchequer is in surplus for future repurchase at a time when deficits are expected, and vice versa. The maturity of particular repo or reverse repo operations has reflected the projected profile of Exchequer cash flows. Some transactions can be targeted some months in advance (ahead of days when significant cash inflows, or outflows are expected (e.g. gilt redemptions)) but others are managed over a much shorter period.

### The cash management impact of the spectrum auction proceeds

The DMO faced a major early challenge on cash management in handling the cash receipts from three of the successful bidders for the 3G radio spectrum licences. £8.2 billion was received from the first bidders on 9 May 2000 and £3.9 billion on 16 May 2000. The first of these was amongst the largest ever cash payments to Government on a single day.

The DMO (in consultation with the Bank of England, HM Treasury, the Radiocommunications Agency and some major private sector banks) successfully put in place arrangements designed to:

- minimise disruption in the payments clearing system arising from the flow;
- minimise disruption to the London money market arising from the flow from the private to public sectors;
- minimise any risk of default or delay in the payments;
- and to do so in a cost-effective way.

To this end a number of private sector bank accounts were opened into which the auction proceeds paid by successful bidders could be paid. Any amounts held overnight in these buffer accounts were collateralised by the banks. Subsequently, any monies paid into these accounts were transferred into the Exchequer according to a previously agreed schedule – thereby smoothing flows and any market price adjustment. Part of the 9 May 2000 payment (of £8.2 billion) was handled in this way.

In addition the DMO held an ad hoc one-month reverse repo tender for £1 billion on the morning of 9 May 2000 (thereby lending a proportion of the Spectrum proceeds against gilt collateral). The tender was covered 6.72 times at an average (and lowest) yield of 5.85%.

The proceeds from the second tranche of payers (£9.9 billion on 1 September 2000), for which the DMO had a much longer planning period, were managed through a combination of term bilateral repo/reverse repo transactions and an ad hoc reverse repo tender of £1.2 billion. (The tender was covered 3.35 times at an average yield of 5.64%).

## Chapter 5: Other market developments

### Gilt-edged market makers

The Royal Bank of Canada (RBC) became a Gilt-edged Market Maker (GEMM) in November 2000. The DMO also recognised RBC as a specialist index-linked market maker (IG GEMM) increasing the number of IG GEMMs to ten. Later in November 2000 the DMO also recognised UBS Warburg as a specialist index-linked market maker, taking the number of IG GEMMs to eleven. Société Générale ceased to be a GEMM in September 2000.

### Reverse gilt auctions

The DMO published proposals on the conduct of reverse gilt auctions and details of a proposed extension to the scope of its secondary market purchase operations on 26 April 2000. These new operations were part of the government's strategy to buy back debt from the market (see pages 18-19). Following consultation with the market, the DMO published its response on 14 June 2000 and the first reverse gilt auction was successfully held on 20 July 2000. Six were held in the 2000-01 financial year, accounting for £4.1 billion (cash) of the buy-back total of £5.7 billion.

### Strippable gilts

One stock was added to the list of strippable gilts in 2000-01 (Table 13). The new ultra-long benchmark 4¼% Treasury Stock 2032, took the total number of strippable stocks to twelve; however, the total reverted to eleven when 8% Treasury Stock 2000 redeemed on 7 December 2000. The total nominal strippable stock in issue was £115.2 billion at the end of March 2001 (of which £2.3 billion – or 2.0% – was held in stripped form).

Table 13  
Strippable stocks outstanding  
(£ million) at 30 March 2001

Gilt	Nominal amount in issue	Nominal amount held in stripped form	% held in stripped form
7% Treasury 2002	9,000	232	2.6
6½% Treasury 2003	7,987	94	1.2
5% Treasury 2004	7,408	113	1.5
8½% Treasury 2005	10,373	327	3.2
7½% Treasury 2006	11,700	265	2.3
7¼% Treasury 2007	11,000	242	2.2
5¾% Treasury 2009	8,827	165	1.9
8% Treasury 2015	7,288	357	4.9
8% Treasury 2021	16,500	353	2.1
6% Treasury 2028	11,512	161	1.4
4¼% Treasury 2032	13,580	25	0.2
	<b>115,175</b>	<b>2,334</b>	<b>2.0</b>

### Gilts market turnover

Activity in the gilts market increased slightly in 2000-01 relative to the previous financial year. Average daily turnover as reported by the GEMMs increased by 7% from £5.7 billion to £6.1 billion (see Chart 15 below). However, when changes in the market value of the gilt portfolio are taken into account, trading intensity (as measured by the turnover ratio<sup>5</sup>) has increased more significantly (by 12%) from 4.1 to 4.6. Nevertheless, there is still some way to go before recovering to 1998-99 levels of 5.6. Turnover was heavily weighted toward longer-dated maturities reflecting the concentration of issuance and demand (Chart 16).

Chart 15  
Aggregate daily turnover in gilts (£bn) and turnover ratio

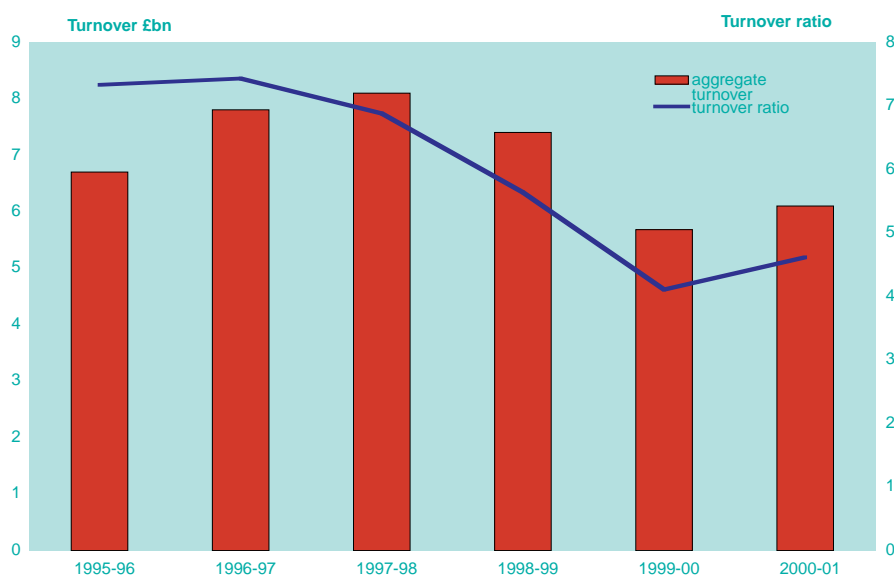
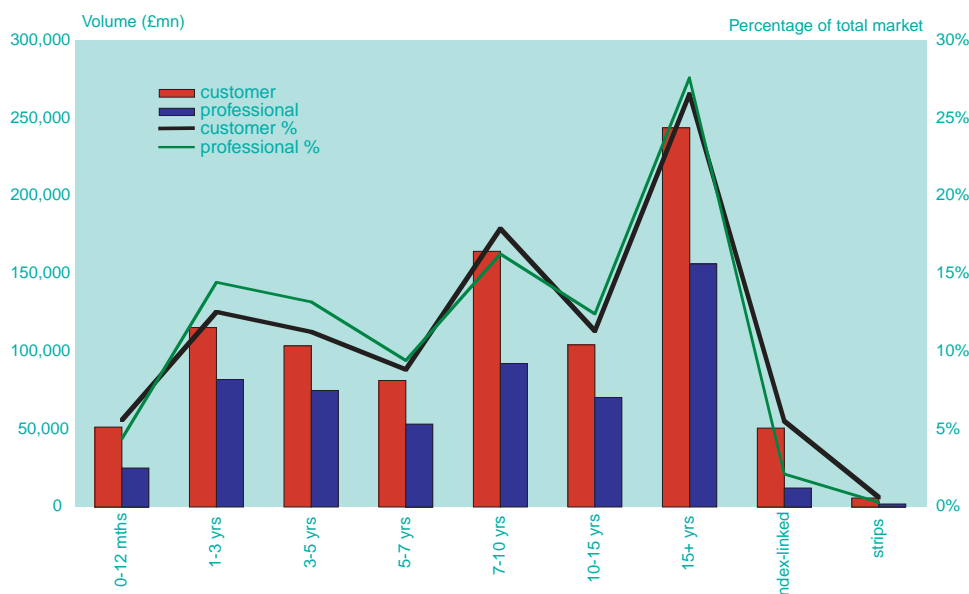


Chart 16  
GEMM turnover in gilts by maturity band

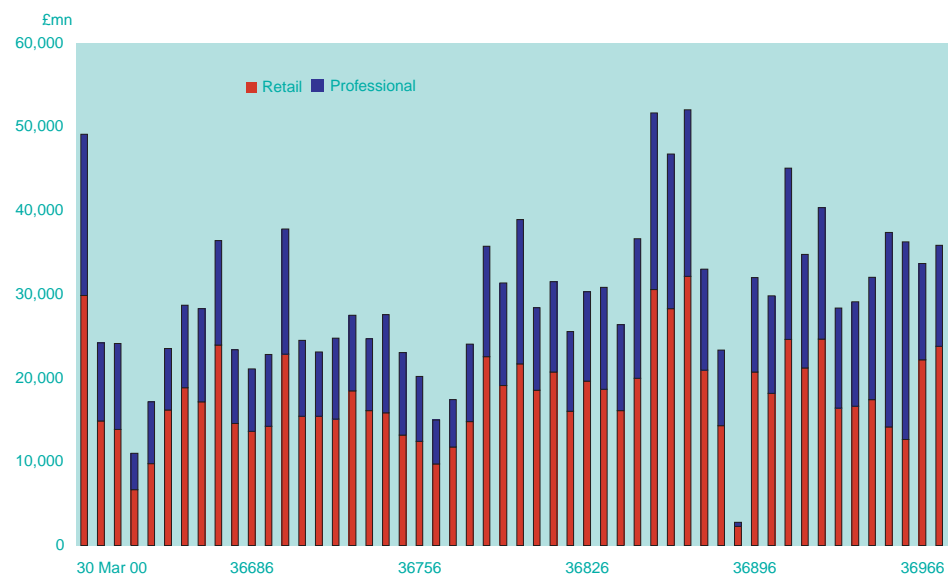


Source GEMMs

<sup>5</sup> The turnover ratio equals aggregate turnover relative to the market value of the portfolio at the beginning of the relevant financial year.

Weekly turnover by GEMMs is published in the DMO's Quarterly Review, and on the DMO's web site, on a quarterly basis. Average weekly turnover of gilt trades executed through the GEMMs in 2000-01 was £29.6 billion relative to the equivalent figure of £27.4 billion in 1999-00, with client business accounting for 60% of turnover (Chart 17). From the chart it appears that activity is on an upward trend. Average weekly turnover increased by 35% to £34 billion in the second half of 2000-01 relative to the first half, when average weekly turnover was only £25 billion. In particular, the level of turnover was affected by the change in the FTSE over-15 year index in December 2000 when 8% Treasury Stock 2015 dropped out of the index after the close of business on 7 December 2000. Weekly turnover in the period covering this index change, the three weeks between 27 November and 15 December 2000, averaged £44 billion.

Chart 17  
Gilts market weekly turnover

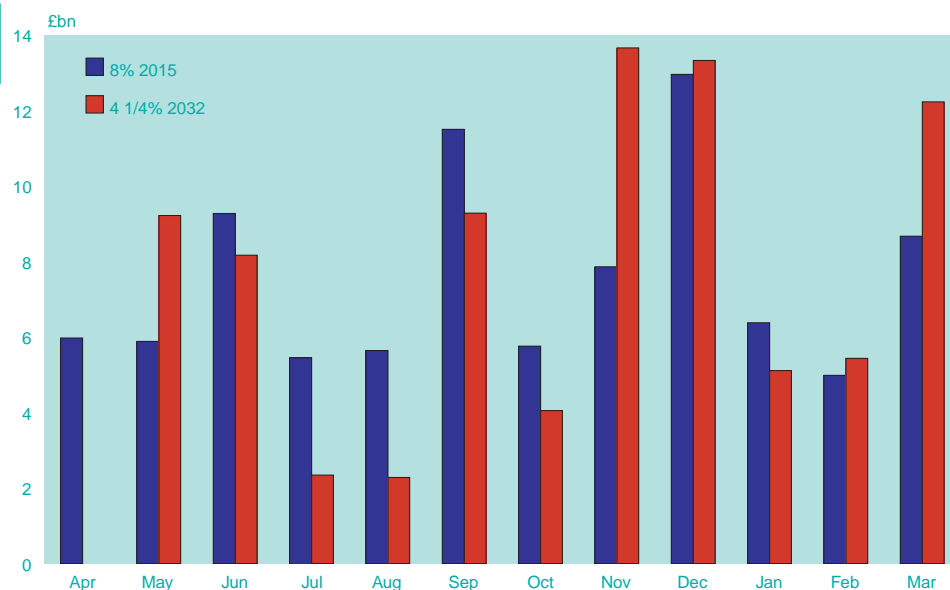


Source: GEMMs

Turnover reported by the London Stock Exchange shows a similar pattern on a weekly basis. However, as last year, total turnover was very concentrated with the most active top twenty stocks accounting for 88% of turnover. These twenty stocks accounted for 74% of the total number of trades resulting in a higher than average bargain size of £4.1 million relative to the average trade size across all stocks of £3.5 million. The next twenty stocks in order of turnover accounted for virtually all other turnover on the exchange.

Events at the long-end had a significant impact on activity as evidenced by chart 18 overleaf. This shows monthly turnover in the new long benchmark 4¼% Treasury Stock 2032 and 8% Treasury Stock 2015. Activity in the new benchmark was particularly high when it was being issued, including when it was being switched into from 8% Treasury Stock 2015 in December 2000. Activity in 8% Treasury Stock 2015 was particularly pronounced in the month before it moved out of the FTSE over-15 year gilt index.

Chart 18  
Monthly turnover in 8% 2015  
and 4¼% 2032



#### Operation of the DMO's standing repo facility

On 29 December 2000, in response to requests by its dealing counterparties, the DMO created an additional £1,146.5 million of 5¾% Treasury Stock 2009 under the terms of the standing repo facility that was introduced on 1 June 2000. The stock was cancelled on 2 January 2001. There were three subsequent operations on 3 January, 5 January and 11 January 2001, all of which involved 5¾% Treasury Stock 2009. On each occasion the stock created was cancelled on the following business day.

#### Proposed changes to the structure of the secondary market for gilts

In January 2000 the DMO issued a consultation document on the implications of developments in electronic trading of fixed income instruments on the secondary market for gilts. The consultation document questioned whether the DMO needed to change its relationship with the Gilt-edged Market Makers (GEMMs) as a result of these new developments.

The DMO received many considered responses to the document, and in June 2000 published proposals to develop an inter-GEMM market with mandatory quote obligations. This is an extension of the existing relationship between GEMMs that is facilitated through the gilt-edged inter-dealer brokers (IDBs). Under the proposals, GEMMs would be required to make firm two-way quotes in a selection of benchmark bonds to each other on a near-continuous basis. It is hoped that this will improve the liquidity available to all GEMMs. Competition between the GEMMs should ensure that any resultant improvement in liquidity is reflected in the provision of liquidity to end-investors.



The Gilt-edged Market Makers Association (GEMMA) and the DMO established a working group in August 2000 to take forward the question of how this inter-GEMM market should be delivered. In September 2000, the group issued an invitation to interested platform providers that identified three possible options that the group wished to explore. The group is continuing to work towards identifying a solution that can be adopted by all members of GEMMA and the IDB community.

#### **Gilt price information**

In order to promote further transparency in the gilts market, the DMO introduced a real-time benchmark gilt price screen on its wire services in September 2000. This screen displays indicative mid-prices for a series of gilts, derived from GEMMs' published quotes.

#### **Transfer of gilt settlement to the CREST settlement system**

Gilt settlement successfully transferred from the CGO system to the CREST settlement system over the weekend of 1-2 July 2000. Responsibility for the operation of the CGO had transferred from the Bank of England to CRESTCo on 24 May 1999.

#### **Publications**

- The DMO published its regular annual review of developments in the gilts market *The Gilt Review 2000* on 18 August 2000; this included for the first time references to the DMO's emerging cash management role. The DMO has also continued to publish and refine its Quarterly Review. A comprehensive re-design of the Quarterly Review occurred in the first quarter of 2001.
- The DMO has liaised with the Bank of England Registrar's Department on the production of a second edition of the booklet *Investing in Gilts: the Private Investor's Guide to British Government Stock* in February 2001. An electronic version of this publication is available on the DMO web site.

## BOX B

### Improvements to the DMO web site – [www.dmo.gov.uk](http://www.dmo.gov.uk)

During the year the DMO web site has undergone a programme of continuous development and improvement to make it more user-friendly and a better reflection of the DMO's business activities.

The improvements cascade downwards from the new home page (below), which has a wider range of user options as well as a banner highlighting significant recent events.



The following list gives an indication of some of the information currently available on the web site:

- all cash and gilts press notices, as well as some screen announcements;
- a What's New section detailing press notices and publications issued by the DMO over the preceding three months;
- a dedicated remit section (available from the home page) which includes the cash and gilt remits and details of the financing arithmetic;
- a gilts publication section which features DMO publications such as the Annual and Quarterly Reviews, the wholesale and retail guides to the gilts market and DMO market consultation and response documents;
- results of cash and gilts operations including Treasury bill tenders, and outright, switch and reverse gilt auctions;
- historic data including details on the size of the gilts market since 1980, the composition of the gilts portfolio by instrument/maturity since 1990 and monthly average yield data for short, medium and long-dated gilts since 1998;

- a dedicated section on index-linked gilts providing comprehensive information about the UK market as well as details on other inflation-indexed bond markets, including hyperlinks to the web sites of other government issuers;
- an issuance calendar detailing all the scheduled outright gilt auctions for the current financial year;
- hyperlinks to the web sites of relevant financial institutions such as the London Stock Exchange, LIFFE, the Bank of England and all Gilt-edged Market Makers;
- a Question and Answer section providing answers to some of the most frequently asked questions about gilts and gilt issuance.

One relatively new service on the web site is the provision of daily prices and yields on all gilts. These are based on data provided each evening by members of the Gilt-edged Market Makers Association (GEMMA).

Price data are available from 2 April 2001 and are split into separate files for conventional gilts, index-linked gilts and strips. As the data are stored as HTML files it is straightforward for users of the site to load them into Excel for analysis. The format of the GEMMA prices screen is shown below:

The screenshot shows the 'Gilt Market' page from the United Kingdom Debt Management Office. The page features a navigation menu on the left with links for Home, Publications, Market Makers, Links, Issuance Calendar, Data, Operations, G.S.A., and Retail Pages. The main content area is titled 'GEMMA daily close of business prices and yields' and includes a 'Type of instrument' dropdown menu with options for Gilt Strips, Conventional Gilts, and Index-linked Gilts. Below this is a 'Date' field with a calendar icon and a 'Get Prices' button. A section titled 'Where the prices come from...' explains that GEMMA members provide market closing prices and yields to the DMO, which then publishes an average price and yield for each security. A link is provided for a more comprehensive account of how GEMMA reference prices are calculated.

The most recent addition to the web site has been information relating to gilts market turnover. Data are published quarterly in arrears.

The DMO is committed to an ongoing programme of development of its web site and as such would appreciate suggestions for material to add to the site. These ideas should be e-mailed to: [webmaster@dmo.gov.uk](mailto:webmaster@dmo.gov.uk)

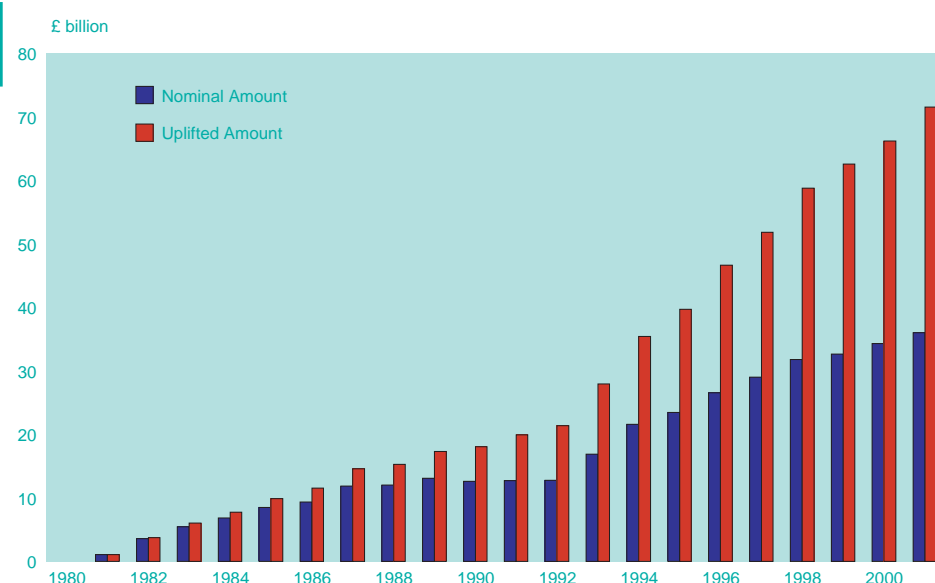
## Chapter 6: Twenty years of the index-linked gilts market

On 10 March 1981, Geoffrey Howe, the then Chancellor of the Exchequer, announced the Government's intention to issue bonds with cash flows indexed to inflation (index-linked gilts). This development took place against the backdrop of RPI inflation which averaged 18.0% in 1980. The Retail Prices Index (RPI) was chosen in preference to other indices such as the GDP deflator and the average earnings index due to its frequent (monthly) publication and the fact that it is not subject to revision. The three reasons for introducing index-linked gilts were; to reinforce belief in the Government's anti-inflation policy; to reduce the cost of funding by reducing inflation risk; and to improve monetary control by increasing the flexibility of funding.

Index-linked gilts have proved a valuable addition to the Government's portfolio. In addition to increasing the diversity of the portfolio, index-linked gilts have led to a significant reduction in the cost of funding. This has partly been due to the reduction of inflation risk but more importantly because of the fact that market expectations of inflation have exceeded the inflation outturn for much of the last 20 years.

Index-linked gilts pay cash flows which are adjusted to compensate for RPI inflation since the bond was issued. An eight-month indexation lag is used – two months to allow for the compilation and publication of the RPI and six months to ensure that the nominal size of the next coupon payment is known at the start of each coupon period, for accrued interest calculations. In practice this means that if an index-linked gilt was issued in September 1981 and redeemed in September 2000 the cash flows would be indexed for inflation over the period from January 1981 to January 2000. The first index-linked gilt (2% Index-linked Treasury Stock 1996) was issued by uniform price auction on 27 March 1981. Although ownership was initially

Chart 19  
Growth in the index-linked gilts market 1980-2001<sup>6</sup>



Source: DMO

<sup>6</sup> End financial years.

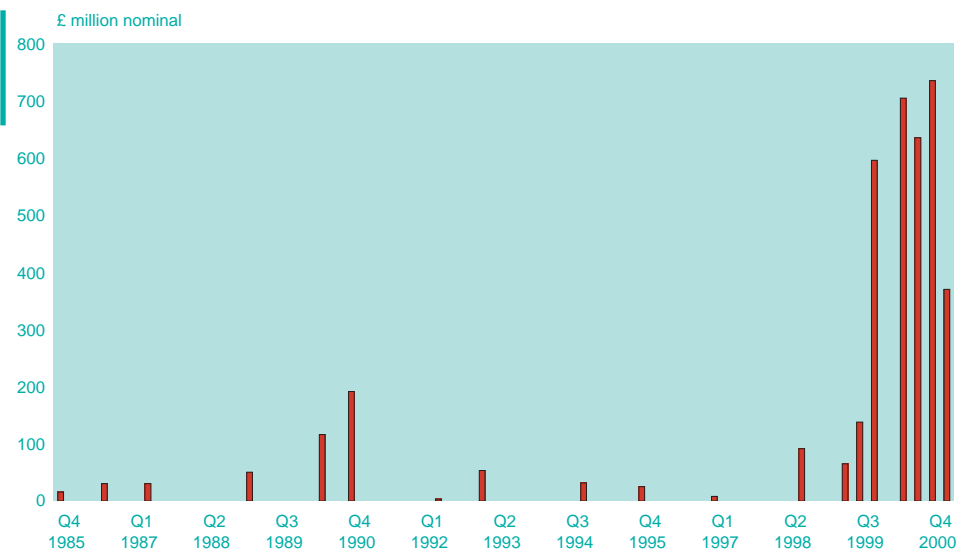
restricted to pension funds or similar institutions writing pension business, these restrictions were removed in March 1982. As Chart 19 shows, the index-linked gilts market has grown significantly since 1981 and by the end of March 2001 represented around 23% of the gilts market in market value terms.

In 1988, following several auctions where significant amounts of stock remained unsold, it was decided to abandon auctions in favour of taps. The main rationale behind this move was that it enabled issuance to be timed to coincide with market demand. Although large in size, the index-linked gilts market has always been much less liquid than the market for conventional gilts. For instance, although the index-linked market is about 20% of the size of the conventional market, it represents less than 5% of the turnover. Looking at data for 1998 shows that primary issuance represented about 6.8% of the total index-linked market turnover, compared with about 1.3% for conventionals. Bid-ask spreads for index-linked gilts are also reported to be much wider than for conventionals. Ideas for ways in which the liquidity of the market could be improved were discussed at a conference – "The UK index-linked gilt market: future development" – hosted by the Bank of England in 1995. One of the subsequent steps taken to improve liquidity was the announcement in March 1998 of a commitment to a minimum gross supply of £2.5 billion cash of index-linked stock each financial year for the foreseeable future. This commitment has been renewed in subsequent years.

By 1998 it was thought that the market was sufficiently mature to support the re-introduction of index-linked auctions. Following a consultation process with the market, in June 1998 the DMO published its proposals for the re-introduction of auctions and the launch of a separate index-linked market maker list. The motivation for the change was that a pre-announced auction programme would improve the predictability and transparency of issuance and lead to a focussing of demand and increased liquidity. In September 1998 the specialist market maker list was introduced, initially consisting of eight firms, but this had increased to eleven by the end of March 2001. The first auction – for £450 million nominal of 2½% Index-linked Treasury Stock 2013 – was held on 25 November 1998 and had a cover ratio of 2.29. Since then the DMO has held index-linked auctions on a quarterly basis.

Despite the fact that the index-linked gilts market has grown quickly over the last 20 years, there has only been significant corporate and supranational sterling index-linked issuance in the last two years. This slow growth is likely to be due in part to previous tax regimes in the UK, which discouraged corporate issuance of index-linked securities. Chart 20 shows how issuance has grown in recent years. By the end of March 2001, the nominal size of the market was £3.8 billion, close to 10% of the UK index-linked market in nominal terms. In contrast, two years earlier this sector accounted for less than 1% of the total index-linked market. Large issuers in the sector have included utility companies.

**Chart 20**  
**Sterling corporate and**  
**supranational index-linked bond**  
**issuance**



Source: DMO

As part of its programme of improvement and development of the index-linked gilts market, the DMO will be seeking views on whether there are changes that could be made to the design of index-linked gilts to make them more attractive to investors. The decision to consult the market on this issue has been prompted by the launch in the last ten years of index-linked bonds with much shorter indexation lags in several countries including the US. The DMO will be publishing its consultation paper on index-linked design during the summer. If, following the consultation process, the decision is made to proceed with a re-design, the DMO would not issue a new design bond before the 2002-03 financial year in order to allow the market time to carry out the necessary systems changes.

## Chapter 7: Performance indicators

The general desirability of greater transparency and accountability in debt management is enshrined in the IMF and World Bank guidelines on public debt management (see below).

The issue also received a good deal of attention in the Treasury Committee Report “*Government’s Cash and Debt Management*”. In its response of 26 July 2000 to the Treasury Committee, the Government accepted that greater transparency in performance measurement would be desirable if it could be achieved without compromising other strategic debt management objectives, but expressed reservations about the extent to which this was possible.

This Chapter is the first step toward meeting the undertakings contained in the Government’s response. The following areas are covered:

Box C Guidelines on public debt management.

- Managing risk in the gilts portfolio.
- DMO operations.
  - Reverse gilt auctions.
  - Counterfactual gilt issuance and portfolio 2000-01.
  - Treasury bill tenders.
- Gilts: holding period returns.
- Benchmark premia.

## BOX C

### Guidelines on public debt management

In April 2001 the International Monetary Fund and World Bank presented their guidelines on public debt management. Their purpose is to assist policy makers in considering reforms to strengthen the quality of their public debt management and reduce their country's vulnerability to international financial shocks. They are not mandatory and should not be taken as binding. They represent the current thinking on best practice (as followed in some member countries) and are mainly intended to assist policy makers in debt management strategy and operations.

As set out below, the DMO believes that the approach to debt management in the UK is broadly consistent with these guidelines.

In summary, the guidelines cover the following areas.

- Objectives of debt management.
- Transparency and accountability of debt management decisions.
- Institutional framework covering operations.
- Debt management strategy.
- Risk management framework.
- Efficiency of the market for government securities.

The key recommendations arising from the guidelines are discussed below in the light of UK practice.

#### **Separation of debt management and monetary policy objectives and accountability.**

The allocation of responsibilities among the ministry of finance, the central bank, or a separate debt management agency, for debt management policy advice, primary issuance, secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities, should be publicly disclosed.

The key requirement here is that the organisational framework surrounding debt management is clearly specified, that there is co-ordination and sharing of information (across the central bank, ministry of finance, central depository and debt management agency) as appropriate, and that the mandates of the respective players are clear.

*The DMO has been set up as an executive agency of HM Treasury. Its formal role, responsibilities and lines of accountability (including its relationship with HM Treasury) are described in its Framework Document, a revised version of which was published July 2001. The Framework Document needs to be read in conjunction with the annual remit, which is published in the Debt & Reserves Management*



*Report (DRMR). The remit gives details of the specific responsibilities for the year ahead. The various roles of parties such as the gilts registrar and the clearing and settlement system in the gilts market are outlined in the DMO's publication, "Gilts: An Investor's Guide" (September 1999).*

### **Public disclosure of objectives, stock and composition of debt portfolio and materially important aspects of operations.**

The guidelines propose that the main objective of debt management should be to ensure that the government's financing needs and payment obligations are met at the lowest possible cost over the medium- to long-run, consistent with a prudent degree of risk. Minimising cost, while ignoring risk, should not be an objective. Transparency and simplicity in debt management operations and in the design of debt instruments can also reduce transaction costs and meet the government's debt portfolio objectives. The measures of cost and risk that are adopted should be explained.

*The UK's debt management strategy as agreed between HM Treasury and the DMO is set out each year in the DRMR. The DMO's performance in implementing this strategy is discussed in Annex D of this review.*

In addition, there are some indicators specific to the government's debt situation that governments and debt managers might want to consider. Ratios of debt to GDP and to tax revenue, for example, are relevant, as are indicators such as the debt service ratio, the average interest rate, and of the composition of the debt, including maturities.

*The DMO regularly publishes details of the average yield, maturity, modified duration and composition of the gilts and Treasury bill portfolio. Other fiscal indicators are published by HM Treasury with its fiscal projections.*

Debt managers should also have due regard for the impact that any contingent liabilities might have on the government's financial position, including its overall liquidity, when making borrowing decisions. However, governments need to balance the benefits of disclosure with the potential moral hazard consequences that may arise with respect to contingent liabilities. Governments should ensure that they are well informed of the risks to which they are exposed by accepting explicit contingent liabilities, and should monitor them accordingly. They should also be conscious of the conditions that could trigger implicit contingent liabilities, such as policy distortions which can lead to poor asset and liability management practices in the banking sector. Some governments have found it useful to centralise this monitoring function. In all cases, the debt managers should be aware of the explicit contingent liabilities that the government has entered into.

*HM Treasury publishes details of the UK Government's contingent liabilities and maximum potential loss in the Consolidated Fund and National Loans Fund Account Supplementary Statement.*

Regulations and procedures for the primary distribution of government securities, including those relating to auctions, should be clear to all market participants. Rules covering the licensing of primary dealers (where they are engaged), including the criteria for selection and their rights and obligations, should also be made public.

*The DMO has published details of its operational procedures in its Operational Notices; it has also published a document outlining its relationship with the Gilt-edged Market Makers (GEMMs) that describes the benefits and obligations associated with being a GEMM.*

### **Debt management activities should be audited by external auditors and the audit reviews should be made public.**

Information on operating expenses and revenues should also be audited and made public.

*The National Audit Office (NAO) is responsible for auditing annually the Debt Management Account (DMA), the account across which all financial transactions entered into by the DMO in pursuit of its debt and cash management objectives pass, and the NLF, across which all gilt issuance is recorded. In addition, the NAO is responsible for auditing the administrative (or agency) accounts of the DMO. These audits are published. The agency accounts for 2000-01 were published in July 2001 and the DMA accounts, for an extended period covering November 1999 – March 2001, are to be published later this year.*

### **Operational risk should be actively monitored and activities should be supported by an accurate and comprehensive Management Information Systems (MIS).**

Operational risk can entail large losses to the government and tarnish the reputation of debt managers. Sound risk monitoring and control practices are essential to reduce operational risk. Government debt management requires staff with a combination of financial market and public policy skills; therefore the ability to attract and retain skilled debt management staff is crucial for mitigating operational risk.

*The Statement of Internal Control (SIC) in the DMO's Annual Report & Accounts (ARA) 2000-01 describes the DMO's approach to managing its operational risk. The adequacy of the DMO's management of risk and internal controls is regularly reviewed by the DMO's Audit Committee, which is chaired by an external non-executive director.*

### **Sound business recovery procedures should be in place.**

Sound business recovery procedures should be in place to mitigate the risk that debt management activities might be severely disrupted by natural disasters, social unrest or acts of terrorism.

*The DMO has established a Business Continuity Plan. This includes a capability that would allow it to conduct its business at its Disaster Recovery Site in the event of its main offices becoming unavailable (see the SIC).*

**Risks inherent in the structure of the government’s debt should be monitored and evaluated with a framework in place to allow the identification and management of the trade-offs between expected cost and risk of the government debt portfolio.**

The risks inherent in the government’s debt structure should be carefully monitored and evaluated. To assess risk, debt managers should regularly conduct stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government – and the country more generally – are potentially exposed. These risks should be mitigated to the extent feasible by modifying the debt structure, taking into account the cost of doing so.

Debt managers in well-developed financial markets typically follow one of two courses: periodically determine a desired debt structure to guide new debt issuance for the subsequent period, or set strategic benchmarks to guide the day-to-day management of the government’s debt portfolio. Such portfolio benchmarks typically are expressed as numerical targets for key portfolio risk indicators such as the share of short- to long-term debt and the desired currency composition and duration of the debt. The key distinction between both these two approaches is the extent to which debt managers operate in financial markets on a regular basis to adhere to the “benchmark”.

*HM Treasury, in conjunction with the DMO, determines the desired structure of new issuance over the year ahead. This is outlined in the DRMR and is expressed in terms of the percentage issuance across each class of gilt and overall financing to be raised through the issuance of Treasury bills. The DMO makes further decisions about specific issuance instruments and timing during the year in line with the overall target. This chapter discusses some indicators of performance with respect to the remit set for the DMO. The DMO is conducting further work on managing risk in the debt portfolio by determining the resilience of cost and tax smoothing properties for different debt structures to a range of economic shocks (see section on managing risk below).*

*The DMO is not set numerical target ratios and its operations in the financial markets are mainly in respect of new issuance. Numerical targets can create perverse incentives. For example, assessing performance relative to a benchmark portfolio could lead to the adoption of very short-term strategies that could be opportunistic in nature.*

**There should be cost-effective cash management policies in place to enable the authorities to meet with a high degree of certainty their financial obligations as they fall due.**

*This is the DMO's cash management objective as set in the cash management remit, published in the DRMR and discussed in an earlier section of this review.*

### **Policies should be consistent with the development of an efficient government securities market.**

Where appropriate, debt management policies to promote the development of the domestic market should also be included as a prominent government objective.

An efficient market for government securities provides the government with a mechanism to finance its expenditures in a way that alleviates the need to rely on the central bank to finance budget deficits. Moreover, by promoting the development of a deep and liquid market for its securities, debt managers, working as necessary with central banks, supervisors and regulators of financial institutions, and market participants, can achieve lower debt service costs over the medium- to long-term as liquidity premia embedded in the yields on government debt diminish. In addition, where they have low credit risks, the yields on government securities serve as a benchmark in pricing other financial assets (see Box A, pages 23-25 on managing the debt market in periods of budget surpluses), thereby serving as a catalyst for the development of deep and liquid money and bond markets generally. This helps to buffer the effects of domestic and international shocks on the economy by providing borrowers with readily accessible domestic financing, and it is especially valuable in times of global financial instability, when lower quality credits may find it particularly difficult to obtain foreign funding. A government should strive to achieve a broad investor base for its domestic and foreign obligations, with due regard to cost and risk, and should treat investors equitably. Debt issuers can support this objective by diversifying the stock of debt across the yield curve or through a range of market instruments.

*The DMO has a specific strategic objective (set out in its Framework Document) to promote the efficiency of the gilts and Treasury bill markets, for example, by promoting liquidity and, where appropriate, transparency.*

## Managing risk in the gilts portfolio

The 1995 Debt Management Review (as subsequently updated) established the primary objective of UK debt management policy as "to minimise over the long term the cost of meeting the government's financing needs, taking account of risk, whilst ensuring that debt management policy is consistent with the objectives of monetary policy." There was some discussion of this issue in the Treasury Select Committee report and the Government undertook to consider publishing more on its views about risk elements of the debt portfolio.

The trade-off between cost and risk is a familiar concept to private sector fund managers. That the government faces the same trade-off may suggest that the DMO could apply a corporate finance approach to determining its debt strategy. However, there are a number of factors peculiar to government that complicate the relationship between cost and risk faced by the DMO. The most significant of these are listed below:

- given the size and nature of the government's debt issuance the government may find it difficult to operate in financial markets without affecting prices;
- the government is also able to influence asset prices through its macroeconomic policy, which affects interest and inflation rates;
- the government will generally have a wider objective than maximising its expected wealth or return. For instance, the government's objective function is likely to include the welfare of bondholders and taxpayers.

The last of these points demonstrates the important first stage of any discussion regarding the DMO's management of the cost/risk trade-off represented by the government's debt portfolio. Namely, defining the nature of the risk the DMO is attempting to mitigate in relation to cost.

The risk faced by a sovereign issuer can be expressed either as the variance of an absolute cash amount of the debt servicing cost alone or as part of a more holistic approach that considers the variance of all government spending. In debt management academic literature these are referred to as cash smoothing (or "cost at risk") and tax smoothing approaches respectively.

The definition of risk faced by the government will determine what are considered to be optimal debt issuance strategies. Here we consider both the cash and tax smoothing approaches.

### Cash smoothing / cost at risk

In this framework the government is concerned with simply minimising the degree of variance of debt servicing costs in either nominal or real terms. A cash smoothing approach to debt management is particularly useful if the government faces an external budgetary constraint, such as the 3% of GDP ceiling for general government deficits contained in the Maastricht Treaty. By reducing the expected

variance of debt servicing costs this will allow the government to plan budgets with more confidence of not breaching this external constraint.

A government can reduce the variance of expected future debt service costs by lengthening the average duration of its debt portfolio, reducing its variable rate component and having an even redemption schedule. Only a small proportion of a government's debt will therefore have to be refinanced each year. By reducing its exposure to future interest rate movements a government is able to reduce the nominal cost at risk of its debt financing operations.

Given that a government yield curve is usually upward sloping due to a term premium, the cost of minimising cost at risk in this manner would usually be a higher debt servicing cost.

### Tax smoothing

This approach considers how it is possible to manage the debt portfolio with a view to reducing the volatility of all government spending in the face of economic shocks. The fiscal authorities are therefore interested in the effect of changes in certain economic variables on both the size of the annual deficit and the cost of servicing the entire national debt.

A tax smoothing approach would suggest the development of a portfolio where the cost of debt servicing had an inverse relationship with the size of the deficit, given certain macroeconomic outcomes. By reducing the debt servicing costs at a time of rising deficits, and vice versa, the government is therefore able to mitigate the impact of changes in the macroeconomy on the size of its financing requirements.

The components of an optimal portfolio under a tax smoothing regime will depend on the assumed relationship between certain economic variables, their impact on the size of the government's annual deficit and the types of shocks that the economy is expected to face.

For the purposes of further analysis it is possible to make the following assumptions:

- economic growth has an inverse relationship with the size of the government's annual deficit. For example, accelerating economic growth both increases tax revenues and decreases the payment of unemployment benefit and other automatic fiscal stabilisers; the government's budget balance will therefore be increasingly positive;
- there is a positive correlation between the rate of inflation and short-term interest rates.

If the economy is expected to receive a supply-side shock it is legitimate to anticipate an inverse relationship between changes in the rate of economic growth and the level of inflation (such as the oil shocks of the 1970s). A government interested in reducing the impact of this supply shock on its own deficit position would wish to hold less of its debt in the form of index-linked stock. This is because increased payments on this type of debt, due to the increase in the level of inflation,

have coincided with reduced growth and thus a less healthy budget balance. Holdings of short-dated and floating-rate debt would also become more costly to service in real terms were the monetary policy response to this supply-side shock be sufficient to increase the real interest rate.

During a supply-side shock the interest payments required on short-dated and index-linked debt instruments would therefore amplify the change in the government's fiscal position caused by the change in the rate of growth.

In contrast it would be expected that a demand-side shock would affect rates of economic growth and inflation in the same direction, e.g. a consumer spending led boom will tend to increase the price level as well as growth. In this circumstance it would be in a government's interest to hold at least some of its debt in short-dated and index-linked instruments.

As growth and inflation increase simultaneously and interest rates are increased to contain these pressures, the interest payments due on short-dated, floating-rate and index-linked instruments will increase. This will serve to offset some of the improvement in the budget balance as a result of the quicker growth. The same mechanism will then operate in reverse as economic growth slows.

Over a demand-led business cycle government debt denominated in short-dated floating rate and index-linked forms will therefore smooth the amount of taxation revenue required to balance the government's budget.

### **The approach of the UK**

It is currently the policy of the UK Government to issue debt across a variety of instruments. At 7.60 years (at end-March 2001) the average duration of the gilts market is longer than most of its peers amongst OECD governments. Along with a relatively smooth redemption profile, this helps to add additional certainty to projections of future debt servicing costs. Long duration will also limit the effect of any supply-side shock on the government's fiscal position.

In addition, 26.3% of the marketable debt portfolio comprises index-linked gilts and Treasury bills. In the event of a demand shock this proportion should allow the changes in the debt servicing cost relating to this particular part of the national debt to mitigate the resulting move in the government's budget balance. UK governments have not used foreign currency debt to finance the domestic borrowing requirement in peacetime, reflecting the belief that foreign currency risk to the balance sheet was neither desirable nor cost-effective.

The optimal proportion of the gilts stock that should be comprised of different types of securities will depend primarily on which type of risk the fiscal authorities are trying to contain and their preferences over any cost implications of a risk mitigation strategy. The focus could either be upon variations to the debt servicing cost alone or to government spending as a whole. If considering the latter, the relationship between different economic variables and their effect on the level of the government's annual deficit also needs to be considered.



One piece of academic research that adopts a tax smoothing approach to the question<sup>7</sup> has suggested that the UK should hold 27% of its debt in index-linked instruments, compared to an actual figure of 25.1% (at end-March 2001).

Study of an optimal portfolio mix is ongoing and updates will be published in subsequent HM Treasury and DMO publications.

## Reverse gilt auctions

On 21 March 2000 HM Treasury published the Debt Management Report 2000-01, which set out its financing remit to the DMO for the coming financial year. In the prevailing low issuance environment, the Government decided to launch a structured gilt buy-back programme in order to add to gross issuance and thus help to maintain liquidity in the market at a time of strong demand. One of the ways in which it decided to effect this was by buying back short-dated (2003 to 2008 maturity) non-strippable stocks with greater than £1 billion nominal outstanding, through a series of reverse auctions – the first such operations undertaken by the UK Government since the late 1980s.

The DMO launched a market consultation paper on the conduct of reverse auctions on 26 April 2000<sup>8</sup>. The consultation closed on 19 May 2000 and the DMO issued its response paper on 14 June 2000<sup>9</sup>.

In setting the policy underpinning the conduct of reverse auctions the DMO was mindful of securing good terms for the taxpayer in the gilts it re-purchased. By enabling a range of stocks to be offered in each operation the DMO was able to buy-back those stocks which it determined were relatively cheap to the fitted yield curve. Prior to the first reverse auction the DMO published an article describing its yield curve estimation technique on its web site<sup>10</sup>.

Each offer of stock comprised: the name of the stock offered; the amount of that stock offered (in units of £1 million nominal); and the offer clean price of that stock (in units of £0.01 per £100 nominal). In the reverse auction allocation process, each price offer was converted into a yield using the DMO price/yield convention; from this was subtracted a fitted yield for that stock calculated from the DMO yield curve, to give a 'yield residual' for each offer; all offers were then ranked in order of descending yield residual. All offers were accepted down to the point where the cash size of the offer had been reached, at which yield residual level any required scaling of offers was applied. The DMO reserved the right to reject offers if it deemed them to be at an unacceptably high premium to prevailing market levels, or to the fitted yield curve.

Two measures by which the cost-effectiveness of the reverse auction programme can be assessed are by comparing the yields at which the DMO has re-purchased stock with the fitted yield curve, and by calculating the premium paid to prevailing market levels (yield concession). Chart 21 shows both these measures across each reverse auction.

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<sup>7</sup> Alessandro Missale, *Public Debt Management 1999*.

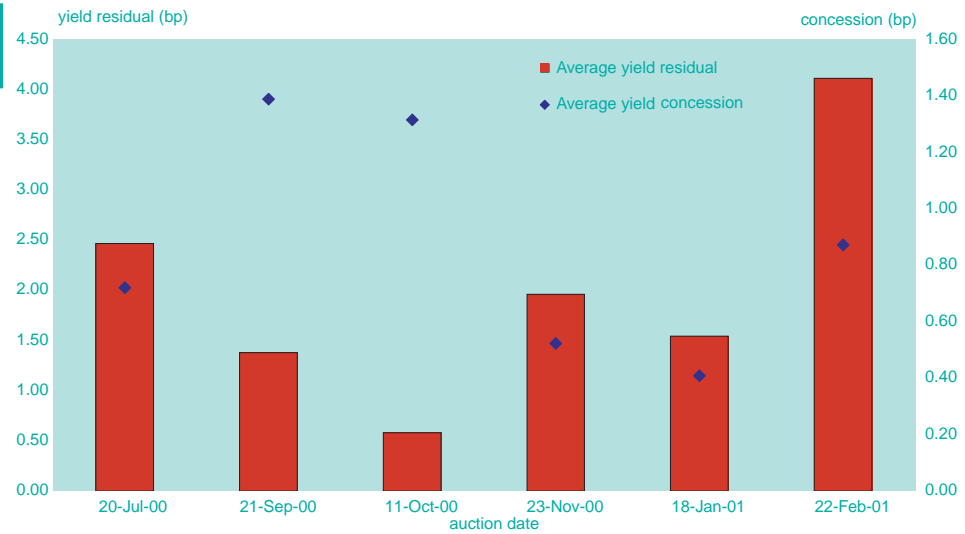
<sup>8</sup> 'Reverse Auctions: Proposals for Consultation'.

<sup>9</sup> 'Response to DMO Consultation on Reverse Auctions'.

<sup>10</sup> 'The DMO's Yield Curve Model', July 2000.



Chart 21  
Average yield residuals and  
concessions by auction

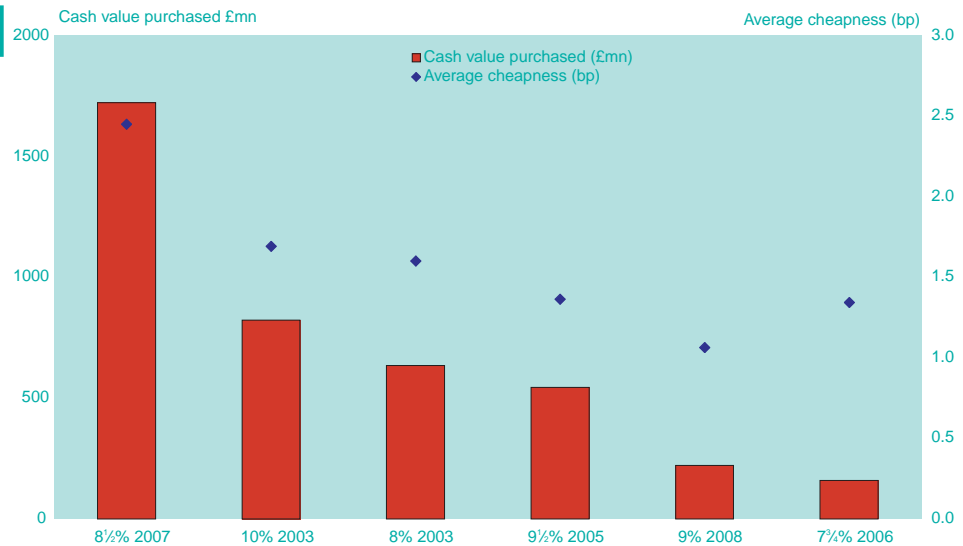


The 'average yield residual' shows the average cheapness of the stock re-purchased relative to the DMO's yield curve, and the 'average yield concession' shows the average difference between the prevailing mid yields at the close of the auction and the (generally lower) offer yield (both measures being weighted by cash value of stock). The chart shows that, in every reverse auction, the DMO has purchased stock which has been (on average) cheap to its yield curve. Over the entire reverse auction programme the average cheapness of purchases was 1.90 basis points. Moreover, the chart shows no evidence that the reverse auctions had become more expensive as the programme progressed. One would have expected that, as the programme progressed, the yield residuals of all the stocks eligible to be re-purchased would have converged as the cheaper stocks became more expensive (following declining amounts outstanding, making it potentially more difficult to find 'loose' holders of stock). Indeed, in the longer bracket of stocks (2006 to 2008 maturities) the average cheapness of stock re-purchased increased over time.

The chart also shows that, while the concessions paid to the prevailing market levels in re-purchasing debt via reverse auctions were small, they displayed no consistent pattern – ranging from 0.41 basis points in the January 2001 operation to 1.39 basis points in September 2000.

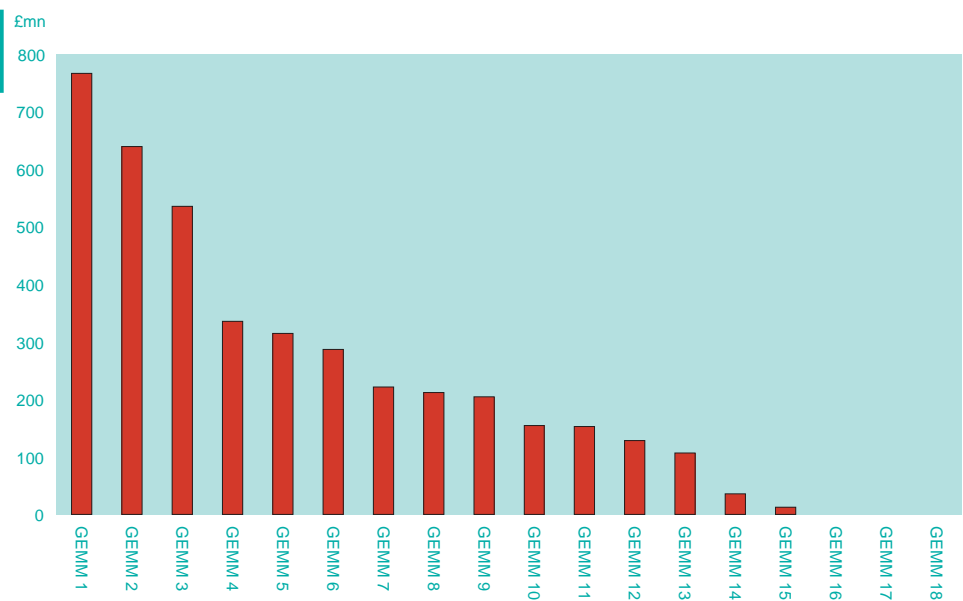
The chart below shows the breakdown of the stocks re-purchased in the programme. It shows that the DMO repurchased significantly more of 8½% Treasury Stock 2007 than other stocks, this stock being consistently cheaper to its yield curve compared to the others in its maturity bracket. On the other hand, none of 6¾% Treasury Stock 2004 was bought back as this was consistently dearer to the yield curve than other candidate stocks.

Chart 22  
Buy-back stocks



The chart below shows the breakdown of allocations in cash across the reverse auction programme by GEMM. Just under half of all allocations were awarded to three GEMMs.

Chart 23  
Reverse auctions allocations to GEMMs



## Gilt issuance counterfactuals

There was some discussion in the Treasury Select Committee report of the gilt issuance counterfactuals currently reported to HM Treasury by the DMO.

In measuring actual issuance against a counterfactual it must be borne in mind that much of the DMO's operations are constrained by the annual remit given to it by HM Treasury – this sets the cash amount of gilts to be sold in a financial year, the breakdown by type and maturity, and the dates of the auctions. It was noted that the current form of issuance counterfactual measurement is designed to show whether different non-discretionary patterns of issuance during the year would have resulted in higher or lower costs of financing.

The counterfactuals below compare the average of actual auction yields for conventional and index-linked gilts, with what would have been achieved if:

- i) for conventional issuance, long gilts had been issued evenly through the year using the annual average of the close of business yield of 4¼% Treasury Stock 2032<sup>11</sup>; and
- ii) equal amounts of a short (5% Treasury Stock 2004), a medium (5¾% Treasury Stock 2009) and a long maturity gilt (4¼% Treasury Stock 2032) had been issued evenly through the year – using an annual average of the daily close of business yields across the three stocks;
- iii) for index-linked issuance, equal amounts of all the index-linked gilts in the maturity range (2009-2030) had been issued evenly throughout the year<sup>12</sup>.

The weighted average actual yield achieved at all auctions in 2000-01 is also compared with a weighted average (based on the cash amount issued across conventional and index-linked gilts) using the counterfactual issuance patterns from ii) and iii) above.

### Actual gilt issuance in 2000-01

The weighted average yield of long conventional (4¼% Treasury Stock 2032) issuance at the three outright auctions in 2000-01 was 4.44%.

Table 14

Weighted average conventional auction (4¼% 2032) yields		
Date	Cash £mn	Yield %
24 May	2405.3	4.47
21 Nov	2188.1	4.41
28 Mar	1935.6	4.44
	<b>6529.0</b>	<b>4.44</b>

<sup>11</sup> For 4¼% Treasury Stock 2032 synthetic yields are used for the period prior to its first auction on 24 May 2000.

<sup>12</sup> ie. those stocks eligible for auction (paragraph 5 of the DMO remit for 2000-01).

The weighted average real yield of index-linked issuance at auctions was 2.015%<sup>13</sup> (using a 3% inflation assumption).

Table 15

Weighted average index-linked auction yields			
Date	Stock	Cash £mn	Yield %
03 May	2½% IL 2020	820.8	1.92
26 Jul	2½% IL 2013	830.4	2.18
25 Oct	4¼% IL 2030	850.2	1.87
24 Jan	2½% IL 2016	984.0	2.08
		<b>3485.4</b>	<b>2.01</b>

The combined weighted average yield of actual issuance at auctions in 2000-01 was therefore 4.643%.

Table 16

All gilt issuance at auctions 2000-01			
	Cash £mn	Real yield %	Nom. yield %
Conventional	6,529.0		4.441
Index-linked	3,485.4	2.015	5.023
	<b>10,014.4</b>		<b>4.643</b>

### Counterfactual issuance

For conventional issuance the weighted average yield achieved at the three auctions of 4¼% Treasury Stock 2032 of 4.44% can be compared simply with the annual average of the daily closing yields for that stock over the year. Over the financial year, the close of business yield for 4¼% Treasury Stock 2032 ranged from 4.10% to 4.64% and averaged 4.39%, five basis points better than the actual issuance achieved.

However, to compare actual issuance performance with an alternative issuance strategy, the actual issuance yields are compared with counterfactuals of:

- for conventionals an average of the daily close of business yields on the 5, 10 and 30-year stocks – in keeping with the Government's underlying aim to issue along the conventional yield curve;
- for index-linked gilts an average of the daily close of business yields of the eligible auction stocks (2009 maturity and longer);
- an average of the counterfactual yields at a) and b) above weighted to reflect actual issuance.

Table 17

	Gilt issuance yields %	
	Actual Issuance	Counterfactual Issuance
Conventional	4.441	5.010
Index-linked	2.015 (5.023)	2.030 (5.038)
Combined	4.643	5.020

*counterfactual = actual cash amounts issued but at yields representing ave of all cob yields of 5, 10 and 30 yr benchmarks and 2009-30 IGs*

<sup>13</sup> Or 5.023% (nominal).

Given that the yields on long-dated maturities continued to be below those of shorter and medium-dated maturities, actual conventional issuance, which was exclusively long, significantly outperformed the even-spread of maturity counterfactual over the year (by 57 basis points). Index-linked actual issuance was much closer to its counterfactual (1.5 basis points lower), reflecting the wide spread of maturities issued within the 2009-2030 range. Overall, the counterfactual suggests that actual issuance in 2000-01 led to a yield benefit of 38 basis points.

### Counterfactual gilt portfolio

The tables below compare some key features of the actual portfolio at 30 March 2001 under four hypothetical scenarios:

- no reverse auctions took place in 2000-01;
- no switch auctions took place in 2000-01;
- no switch or reverse auctions took place in 2000-01;
- the impact of counterfactual issuance pattern described immediately above (assuming reverse and switch auctions **did** take place).

Table 18

GILT PORTFOLIO 30 MARCH 2001 (ALTERNATIVE SCENARIOS)				
	Nominal amount outstanding (inc IG uplift) (£mn)	Market value (£mn)	Maturity (years)	Duration (years)
Actual	281,796	319,292	11.01	7.60
No reverse auctions	285,395	323,508	10.92	7.55
No switch auctions	279,966	319,505	10.67	7.45
No reverse auctions and no switch auctions	283,565	323,722	10.59	7.40
Counterfactual issuance	281,585	319,454	10.66	7.44

Table 19

GILT PORTFOLIO MATURITY SPLIT: 30 MARCH 2001 (ALTERNATIVE SCENARIOS)					
	Short conventional 0-7 yrs	Medium conventional 7-15 yrs	Long conventional 15+ yrs	Index-linked gilts	Undated gilts
	%				
Actual	40.0	16.1	17.4	25.4	1.1
No reverse auctions	40.7	15.9	17.2	25.0	1.1
No switch auctions	40.3	18.0	15.1	25.6	1.1
No reverse auctions and no switch auctions	41.0	17.8	14.9	25.2	1.1
Counterfactual issuance	40.8	16.8	15.9	25.4	1.1

The impact of the DMO's gilt market operations on the portfolio in 2000-01 can be clearly seen. The maturity of the portfolio is 0.42 years longer than would have been the case if no reverse or switch auctions had been held (duration is 0.20 years longer).

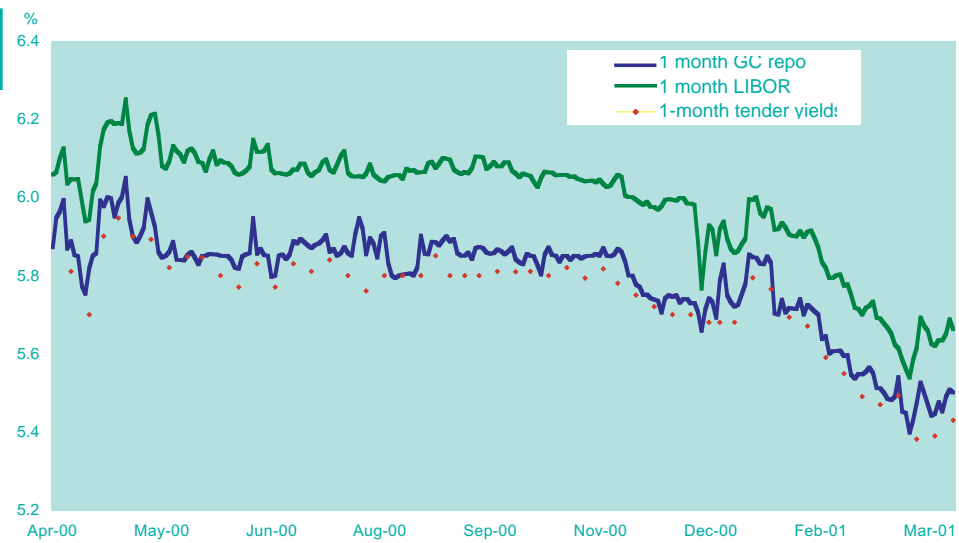
In terms of the maturity split of the portfolio, short conventionals account for 1% less of the portfolio than would have been the case if no reverse or switch auctions had been held (and long conventionals 2.5% more).

## Treasury bill issuance

Chapter 4 covers the DMO’s Treasury bill issuance programme in 2000-01. The results of all structured Treasury bill tenders are given at Annex C. This section compares the performance of the tender programme by comparing the yields achieved with a market equivalent funding rate (the BBA repo GC fixing rate on the settlement date of the tenders) and LIBOR.

The picture in respect of 1-month Treasury bill tenders is shown in Chart 24:

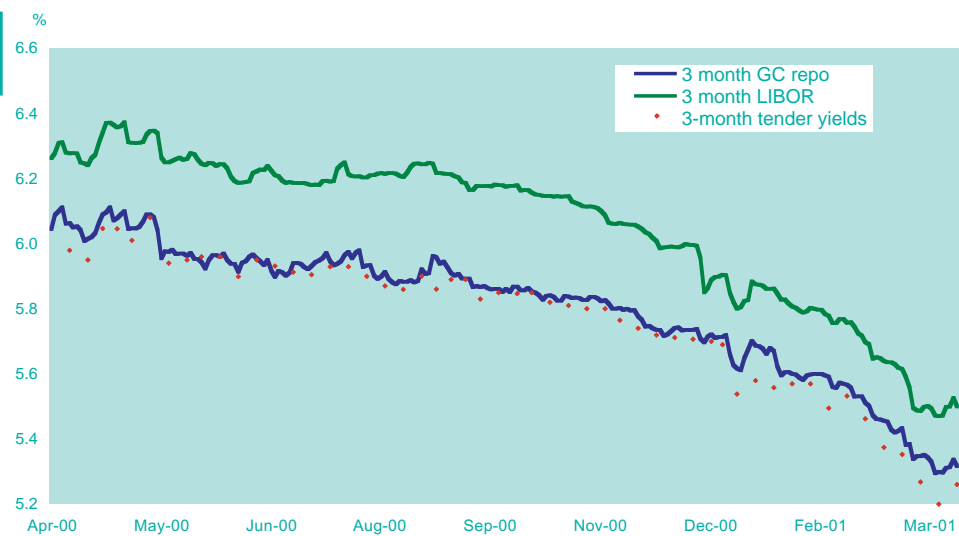
Chart 24  
1 month GC repo rates vs 1 month tender yields



Source: DMO

The picture in respect of 3-month Treasury bill tenders is shown in Chart 25:

Chart 25  
3 month GC repo rates vs 3 month tender yields



Source: DMO

Overall, the issuance of Treasury bills provided better rates of funding than would have been represented by the BBA GC repo fixing. The average yield out-performance for 1-month issuance was 5.3 basis points and for 3-month issuance 3.5 basis points.

Table 20

	(%)	1 month	3 month
Average tender yield		5.742	5.771
Average GC repo rate on tender settlement day		5.795	5.806
<b>Tender outperformance</b>		<b>0.053</b>	<b>0.035</b>

Compared to LIBOR the levels of outperformance rise to 24.8 basis points (1-month) and 28.6 basis points (3-month).

## Holding period returns: comparing the returns on different categories of gilts

When comparing the performance of two bonds investors often examine the yields to maturity. However, for investors that do not hold bonds until redemption, but instead have a much shorter time horizon over which they operate, it is more useful to compare holding period returns. Holding period returns can be used to compare the relative performance of gilts of different types and maturities. The holding period return for a bond over a given time horizon is calculated as the percentage change in the dirty price over that period. One slight complication with this calculation is the need to add in any dividend payments received during the period over which the bond is held. Discounted dividend payments are added on the ex-dividend date to offset the effect on the dirty price of the bond going ex-dividend.

For example, consider calculating the daily holding period return for 4¼% Treasury Stock 2032 on 28 November 2000 - an ex-dividend date. On 27 November 2000 the dirty GEMMA reference price of 4¼% Treasury Stock 2032 was £104.051448 per £100 nominal of stock and this dropped to £101.787104 on 28 November 2000 as the bond went ex-dividend. Calculating the daily holding period return directly from these prices gives a return of  $\log(101.787104/104.051448) = -2.2\%$ .

In order to adjust the return for the effect of the bond going ex-dividend it is necessary to add in the discounted dividend payment. The dividend due on 4¼% Treasury Stock 2032 on 7 December 2000 was £2.275956 per £100 nominal of stock. Discounting this back to 28 November 2000 using a money market rate gives a discounted dividend of £2.2726. The adjusted daily holding period return is then  $\log(101.787104+2.2726/104.051448) = 0.01\%$ .

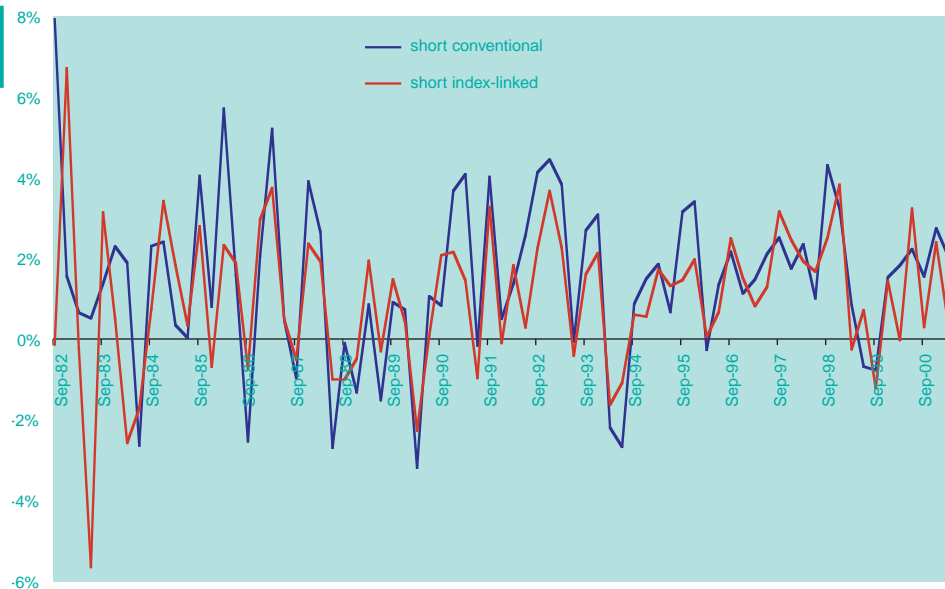
In 1996 the Bank of England constructed a holding period returns data set consisting of real returns on short, medium and long maturity conventional gilts from Q2 1970 to Q2 1996 and short, medium and long maturity index-linked gilts from Q3 1982 to Q2 1996. The DMO has now extended this data set up to Q1 2001. For each bond the daily holding period returns (monthly for the period from 1970 to 1978) were computed and these were then summed to give a non-overlapping quarterly holding period return series<sup>14</sup>. The quarterly holding period returns for each of the six classes of bond were then calculated as the average of

<sup>14</sup> As the daily holding period returns are computed using the standard log approximation it is possible to estimate the quarterly holding period returns by simply adding the daily observations over the quarter.

the holding period returns of the bonds in the class. Finally, the returns were converted into real holding period returns by subtracting quarterly inflation implied by the RPI. Bonds of small size or with outstanding part payments were excluded from this analysis.

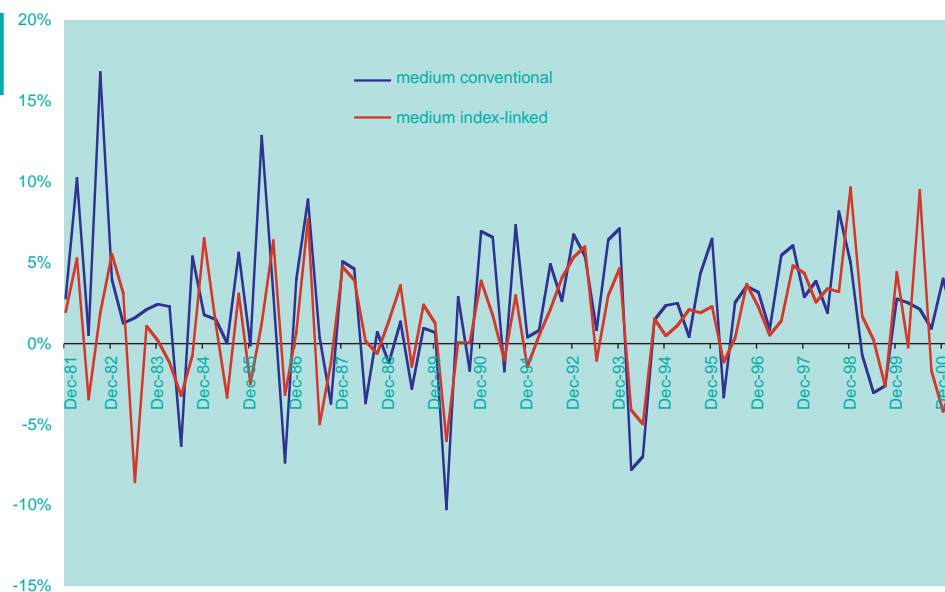
Charts 26-28 below compare the quarterly real holding period returns of the different categories of gilts. These graphs clearly illustrate that real returns on index-linked gilts over the period 1982 to 2001 have – as expected – proved less variable than those on conventionals. In addition, they show that the volatility also tends to increase with maturity.

**Chart 26**  
Real holding period returns for short gilts



Source: DMO/Bank of England

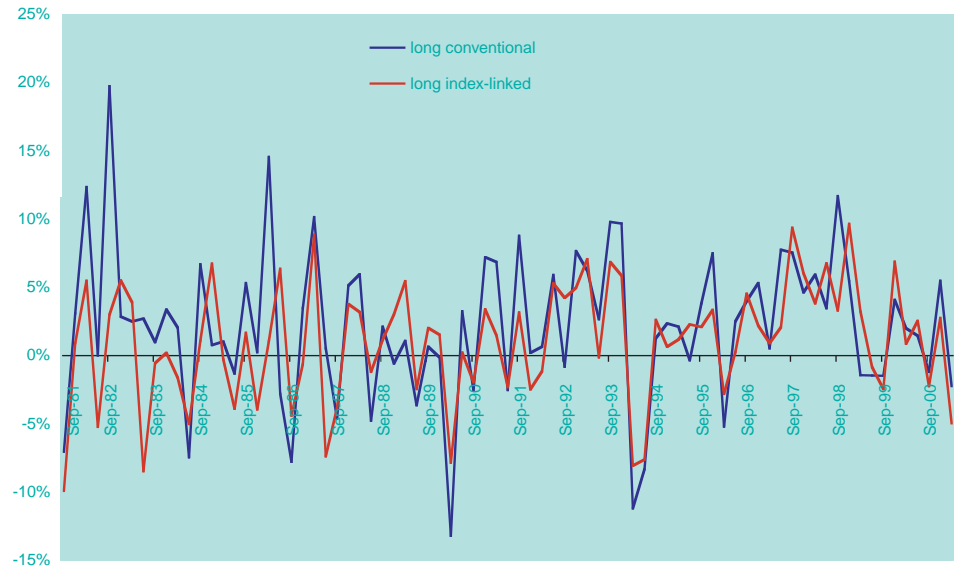
**Chart 27**  
Real holding period returns for medium gilts



Source: DMO/Bank of England



Chart 28  
Real holding period returns for  
long gilts



Source: DMO/Bank of England

The tables below provide summary statistics for these data. Table 21 reports the annualised mean holding period return for each class of bond, whilst Table 22 shows the annualised standard deviations of the returns. The latter provides an indication of the volatility of the returns of the different categories of bonds. Whilst the tables show that index-linked gilt returns have proved to be around 20% less volatile than those on conventional gilts, on average they have also tended to be much lower (as one would expect in a period of declining inflation expectations).

Table 21

Class of gilt	Annualised mean real HPR (%) (Q3 1982 - Q1 2001)
Short conventional	6.11
Short index-linked	4.18
Medium conventional	8.65
Medium index-linked	4.87
Long conventional	9.04
Long index-linked	4.85

Table 22

Class of gilt	Annualised standard deviation of real HPRs (%) (Q3 1982 - Q1 2001)
Short conventional	4.13
Short index-linked	3.63
Medium conventional	8.79
Medium index-linked	6.84
Long conventional	10.89
Long index-linked	8.40

The DMO's quarterly holding period returns data set is available on its web site as an html file which can be downloaded into Excel.

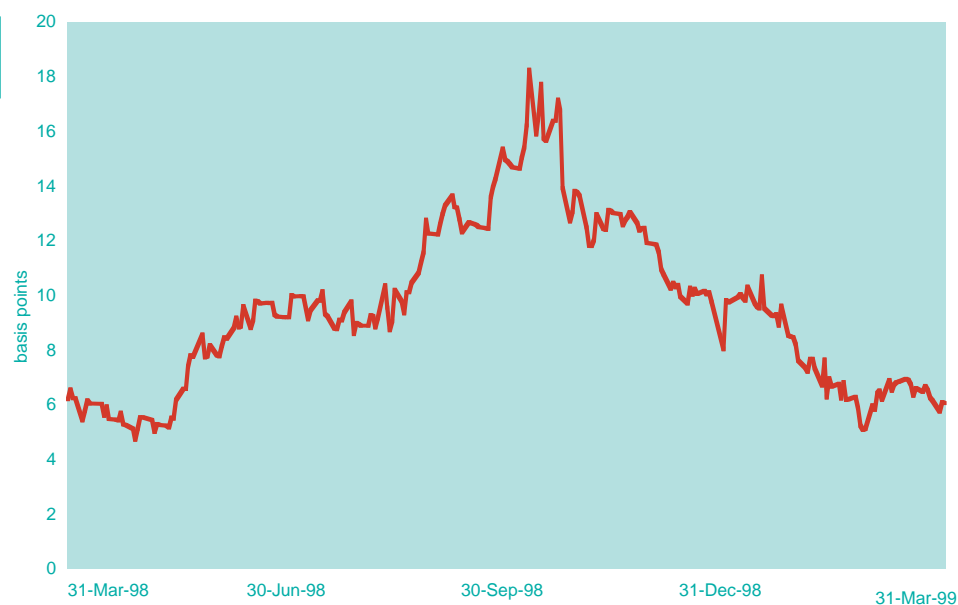
## Benchmark premia (“on-off the run” spreads)

In recent years the issuance policy employed in the UK has been based around building up sizeable conventional gilts at key maturities (currently 5, 10 and 30 years). These bonds tend to trade at a premium to other bonds of a similar coupon and maturity, reflecting the on-the-run status and generally larger size of these issues. The yield spread between on-the-run and off-the-run issues provides some indication of the “benchmark premium” (ie. the value that investors place on liquidity) although other factors such as strippability may also contribute to this differential.

Examining how the yield spread between two bonds has varied over time demonstrates how the value that investors place on liquidity can change with the economic climate. For example the chart below shows how the 10-year yield spread varied during the 1998-99 financial year. During this period, events in Russia and East Asia led to a significant reduction in investors’ appetites for risk and increased their concerns over other emerging markets.

In the UK market this was reflected both in a general move from corporate bonds and equities into government bonds, and within the government sector, in a move from off-the-run issues into on-the-runs. As a result, during the year the 10-year “on-off the run” spread increased from around 6 basis points to a peak of about 18 basis points, before returning to a level of around 6 basis points as confidence returned. Charts 29 and 30 show the spread between an “on-the-run” stock 7¼% Treasury Stock 2007, and an “off-the-run” stock 8½% Treasury Stock 2007.

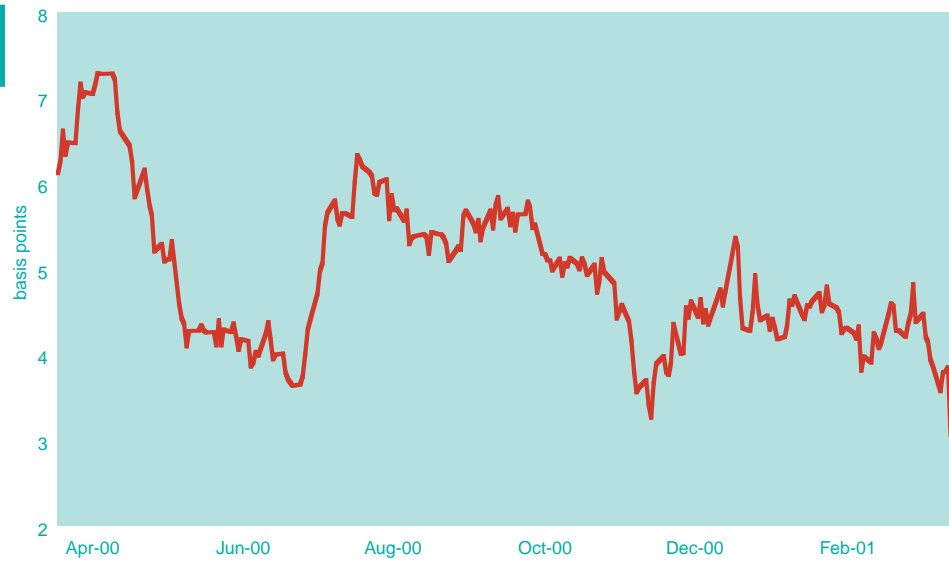
Chart 29  
Yield spread between 7¼%  
2007 and 8½% 2007 (1998-99)



Source: DMO

In the past year the spread between the two gilts has averaged 4.9 basis points.

Chart 30  
Yield spread between 7¼%  
2007 and 8½% 2007 (2000-01)



Source: DMO

The existence of a positive spread shows that the DMO's policy to concentrate issuance in benchmark stocks is cost-effective.

## Chapter 8: The DMO

The DMO was established on 1 April 1998, with the aim ‘. . . to carry out the Government’s debt management policy of minimising financing costs over the longer term, taking account of risk, and to manage the aggregate cash needs of the Exchequer in the most cost effective way’.

The establishment of the DMO followed the announcement by the Chancellor of the Exchequer on 6 May 1997 that responsibility for setting of official interest rates was being transferred from HM Treasury to the Bank of England. As a corollary of this he also announced that the Bank of England’s role as the Government’s agent for debt and cash management and oversight of the gilts market was being transferred to HM Treasury. The objectives were to ensure that debt management decisions could not be influenced by, or thought to be influenced by inside information on interest rate decisions, and to increase transparency in debt and cash management operations.

The DMO is legally and constitutionally part of HM Treasury, but, as an Executive Agency, it operates at arm’s length from Ministers. The Chancellor of the Exchequer determines the policy and operational framework within which the DMO operates, but delegates to the Chief Executive operational decisions on debt and cash management, and day-to-day management of the office.

The separate responsibilities of the Chancellor and other Treasury Ministers, the Permanent Secretary to the Treasury and the DMO’s Chief Executive are set out in a published Framework Document (available on the DMO web site at [www.dmo.gov.uk](http://www.dmo.gov.uk)), which also sets out the DMO’s objectives and its Chief Executive’s lines of accountability. The Chief Executive is accountable to Parliament for the DMO’s performance and operations, both in respect of its administrative expenditure and the Debt Management Account.

### Business planning

The DMO publishes an annual business plan<sup>15</sup>. The plan sets out the DMO’s targets and objectives for the year ahead, and the strategies for achieving them. It also reviews the immediately preceding year.

The starting point of the DMO’s business plan is the strategic objectives given by the Chancellor of the Exchequer to the DMO and set out in the Framework Document. Annex D sets out the DMO’s strategic objectives operating throughout 2000-01, together with a summary record of achievement against them. The strategic objectives for 2001-02 have been slightly expanded to take account of the DMO’s developing responsibilities.

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<sup>15</sup> The DMO Business Plan for 2001-02 was published in April 2001 – it is available from the DMO or on its web site, [www.dmo.gov.uk](http://www.dmo.gov.uk).

The DMO's strategic objectives are supported by a number of published performance targets. Annex E also includes a record of the DMO's performance against its targets in 2000-01. With the exception of one technical breach they were fully met.

### **Organisation and resources**

The DMO is organised flexibly to ensure that resources are available as necessary for the respective tasks.

The DMO's functional organisation was changed during 2001, and its corporate governance arrangements further developed. There are now two main business areas in the DMO: policy and markets, and operations and resources. These areas are in turn split into a number of teams<sup>16</sup>.

There is substantial working across teams to ensure that both policy and operational concerns are adequately met; that the relevant skills are brought to bear on tasks or problems; and that important operations are adequately resourced. The DMO's Managing Committee considers all major operational and strategic decisions. The Committee comprises the Chief Executive, together with the heads of the two business areas and of the main functional teams.

The Managing Committee is guided by an Advisory Board which comprises the Chief Executive, the Deputy Chief Executive and the head of operations and resources, together with non-executive members from outside the DMO: James Barclay, Colin Price and, from the Treasury, Paul Mills. James Barclay is also Chairman of the DMO's audit committee.

Within the DMO most business issues are considered by one of three cross-cutting committees: on debt strategy; cash strategy; and investment. They are supported by a credit and risk committee, which also reports to Advisory Board.

The DMO's resource requirement is largely driven by the need to meet its responsibilities, as well as the wider need within Government to maintain taut administrative budgets. Its budget, which is financed as part of the budget for HM Treasury as a whole, has to reflect a need for both skills and systems that are not available elsewhere within Government. The DMO's administrative expenditure in 2000-01 was not very different from that in 1999-2000. But expenditure in 2001-02 will be greater, reflecting both the expanded capability to manage effectively the Government's net cash position, and the need for greater operational resilience in some areas. Relocation to new premises will also add to expenditure.

All the DMO's trading operations are accounted for separately from its administrative budget, through the Debt Management Account.

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<sup>16</sup> The teams are: Dealing and Investment, External Liaison Unit, Policy and Analysis, Settlements, Risk Management Unit, Business Services, Operations, and IT.

## ANNEX A

Gilts in issue at 30 March 2001			(£mn nominal)		
Total amount in issue (inc IL uplift) £mn			281,796		
Conventional gilts	Redemption date	Dividend dates	Amount in issue	Amount held in stripped form at 30 Mar 2001	Central Govt holdings (DMO & NILO) at 30 Mar 2001
Floating Rate 2001	10-Jul-01	10 Jan/Apr/Jul/Oct	3,000	-	16
7% Treasury 2001	06-Nov-01	6 May/Nov	12,750	-	1039
7% Treasury 2002	07-Jun-02	7 Jun/Dec	9,000	232	207
9¼% Treasury 2002	27-Aug-02	27 Feb/Aug	6,527	-	108
8% Treasury 2002/2006	05-Oct-02	5 Apr/Oct	2,050	-	169
8% Treasury 2003	10-Jun-03	10 Jun/Dec	6,999	-	418
10% Treasury 2003	08-Sep-03	8 Sep/Mar	1,768	-	0
6½% Treasury 2003	07-Dec-03	7 Jun/Dec	7,987	94	199
5% Treasury 2004	07-Jun-04	7 Jun/Dec	7,408	113	151
3½% Funding 1999/2004	14-Jul-04	14 Jan/Jul	543	-	32
6¾% Treasury 2004	26-Nov-04	26 May/Nov	6,500	-	373
9½% Conversion 2005	18-Apr-05	18 Apr/Oct	4,374	-	0
8½% Treasury 2005	07-Dec-05	7 Jun/Dec	10,373	327	188
7¾% Treasury 2006	08-Sep-06	8 Mar/Sep	3,857	-	321
7½% Treasury 2006	07-Dec-06	7 Jun/Dec	11,700	265	168
8½% Treasury 2007	16-Jul-07	16 Jan/Jul	5,930	-	254
7¼% Treasury 2007	07-Dec-07	7 Jun/Dec	11,000	242	132
5½% Treasury 2008/2012	10-Sep-08	10 Mar/Sep	1,000	-	157
9% Treasury 2008	13-Oct-08	13 Apr/Oct	5,441	-	0
5¾% Treasury 2009	07-Dec-09	7 Jun/Dec	8,827	165	242
6¼% Treasury 2010	25-Nov-10	25 May/Nov	4,750	-	269
9% Conversion 2011	12-Jul-11	12 Jan/Jul	5,273	-	82
7¾% Treasury 2012/2015	26-Jan-12	26 Jan/Jul	800	-	236
9% Treasury 2012	06-Aug-12	6 Feb/Aug	5,361	-	0
8% Treasury 2013	27-Sep-13	27 Mar/Sep	6,100	-	305
8% Treasury 2015	07-Dec-15	7 Jun/Dec	7,288	357	83
8¾% Treasury 2017	25-Aug-17	25 Feb/Aug	7,550	-	179
8% Treasury 2021	07-Jun-21	7 Jun/Dec	16,500	353	105
6% Treasury 2028	07-Dec-28	7 Jun/Dec	11,512	161	65
4¼% Treasury 2032	07-Jun-32	7 Jun/Dec	13,580	25	2
2½% Treasury	Undated	1 Apr/Oct	474	-	0
3½% War	Undated	1 Jun/Dec	1,909	-	0
			<b>208,131</b>	<b>2,334</b>	<b>5,500</b>

Double-dated gilts currently above par are assumed to be called at the first maturity date.

Index-linked gilts	Redemption date	Dividend dates	Amount in issue	Nominal including inflation uplift	Central Govt holdings (DMO & NILO) at 30 Mar 2001
2½% I-L Treasury 2001	24-Sep-01	24 Mar/Sep	2,150	4,683	179
2½% I-L Treasury 2003	20-May-03	20 May/Nov	2,700	5,845	14
4⅞% I-L Treasury 2004	21-Oct-04	21 Apr/Oct	1,300	1,635	24
2% I-L Treasury 2006	19-Jul-06	19 Jan/Jul	2,500	6,135	90
2½% I-L Treasury 2009	20-May-09	20 May/Nov	2,625	5,683	26
2½% I-L Treasury 2011	23-Aug-11	23 Feb/Aug	3,475	7,948	3
2½% I-L Treasury 2013	16-Aug-13	16 Feb/Aug	4,635	8,859	17
2½% I-L Treasury 2016	26-Jul-16	26 Jan/Jul	4,965	10,371	65
2½% I-L Treasury 2020	16-Apr-20	16 Apr/Oct	4,175	8,580	20
2½% I-L Treasury 2024	17-Jul-24	17 Jan/Jul	4,820	8,414	30
4⅞% I-L Treasury 2030	22-Jul-30	22 Jan/Jul	2,600	3,281	95
			<b>35,945</b>	<b>71,434</b>	<b>563</b>

"Rump" gilts	Redemption date	Dividend dates	Amount in issue	Central Govt holdings (DMO & NILO) at 30 Mar 2001
9½% Conversion 2001	12-Jul-01	12 Jan/Jul	3	3
9¼% Conversion 2001	10-Aug-01	10 Feb/Aug	35	28
10% Conversion 2002	11-Apr-02	11 Apr/Oct	21	11
9½% Conversion 2002	14-Jun-02	14 Jun/Dec	2	2
9% Exchequer 2002	19-Nov-02	19 May/ Nov	83	66
11¾% Treasury 2003/2007	22-Jan-03	22 Jan/Jul	234	71
9¾% Conversion 2003	07-May-03	7 May/Nov	11	9
12½% Treasury 2003/2005	21-Nov-03	21 May/Nov	152	49
13½% Treasury 2004/2008	26-Mar-04	26 Mar/Sep	95	13
10% Treasury 2004	18-May-04	18 May/Nov	20	5
9½% Conversion 2004	25-Oct-04	25 Apr/Oct	307	90
10½% Exchequer 2005	20-Sep-05	20 Mar/Sep	23	14
9¾% Conversion 2006	15-Nov-06	15 May/Nov	6	3
8% Treasury 2009	25-Sep-09	25 Mar/Sep	393	62
12% Exchequer 2013/2017	12-Dec-13	12 Jun/Dec	57	2
2½% Annuities	Undated	5 Jan/Apr/Jul/Oct	3	0
3% Treasury	Undated	5 Apr/Oct	55	5
3½% Conversion	Undated	1 Apr/Oct	97	73
2½% Consolidated	Undated	5 Jan/Apr/Jul/Oct	275	41
2¾% Annuities	Undated	5 Jan/Apr/Jul/Oct	1	0
4% Consolidated	Undated	1 Feb/Aug	358	22
			<b>2,231</b>	<b>569</b>

At 30 March 2001, rump gilts were those with £400 million nominal or less in issue. Double-dated gilts currently above par are assumed to be called at the first maturity date.

## ANNEX B

### List of GEMMs at 30 March 2001\*

**ABN Amro Bank NV**

250 Bishopsgate  
London EC2M 4AA

Web site  
[www.abnamro.com](http://www.abnamro.com)

**Barclays Capital**

5 The North Colonnade  
Canary Wharf  
London E14 4BB

[www.barcap.com](http://www.barcap.com)

**Credit Suisse First Boston Gilts Limited**

One Cabot Square  
London E14 4QJ

[www.csfb.com](http://www.csfb.com)

**Deutsche Bank Gilts Limited**

6 Bishopsgate  
London EC2N 4DA

[www.db.com](http://www.db.com)

**Dresdner Kleinwort Wasserstein**

20 Fenchurch Street  
London EC3P 3DB

[www.drkw.com](http://www.drkw.com)

**Goldman Sachs International Limited**

Peterborough Court  
133 Fleet Street  
London EC4A 2BB

[www.gs.com](http://www.gs.com)

**HSBC Bank PLC**

Thames Exchange  
10 Queen Street Place  
London EC4R 1BL

[www.markets.hsbc.com](http://www.markets.hsbc.com)

**JP Morgan Chase**

PO Box 161  
60 Victoria Embankment  
London EC4Y 0JP

[www.jpmorgan.com](http://www.jpmorgan.com)

**Lehman Brothers International (Europe)**

1 Broadgate  
London EC2M 7HA

[www.lehman.com](http://www.lehman.com)

**Merrill Lynch International\*\***

Merrill Lynch Financial Centre  
2 King Edward Street  
London EC1A 1HQ

[www.ml.com](http://www.ml.com)



**Morgan Stanley & Co. International Limited**[www.morganstanley.com](http://www.morganstanley.com)

25 Cabot Square  
Canary Wharf  
London E14 4QA

**Royal Bank of Canada Europe Limited**[www.royalbank.com](http://www.royalbank.com)

71 Queen Victoria Street  
London EC4V 4AY

**Royal Bank of Scotland PLC**[www.rbsmarkets.com](http://www.rbsmarkets.com)

135 Bishopsgate  
London EC2M 3UR

**Salomon Brothers International Limited**[www.salomonsmithbarney.com](http://www.salomonsmithbarney.com)

Citigroup Centre  
33 Canada Square  
London E14 5LB

**UBS Warburg (London Branch)**[www.ubswarburg.com](http://www.ubswarburg.com)

100 Liverpool Street  
London EC2M 2RH

**Winterflood Gilts Limited**[www.wins.co.uk](http://www.wins.co.uk)

Walbrook House  
23-39 Walbrook  
London EC4N 8LA

*\*Intercapital Gilt Trading Ltd were also a GEMM at the end of March 2001 but ceased to be one in April 2001.*

*\*\*Prior to September 2001 Merrill Lynch were located at Ropemaker Place, 25 Ropemaker Street, London EC2Y 9LY.*

## ANNEX C: Treasury bill tender results

### One-month tenders

Date	Maturity date	Size £mn	Cover	Avg yield %	Avg price £	Yield tail (bp)
07-Apr	08-May	150	6.10	5.8099	99.5600	0
14-Apr	15-May	150	6.97	5.7000	99.5600	0
20-Apr	22-May	150	4.70	5.9000	99.5600	0
28-Apr	30-May	150	4.30	5.9467	99.5500	0
05-May	05-Jun	150	5.53	5.8990	99.5490	0
12-May	12-Jun	150	5.54	5.8925	99.5500	1
19-May	19-Jun	150	3.37	5.8200	99.5550	1
26-May	26-Jun	150	3.47	5.8487	99.5690	1
02-Jun	03-Jul	150	4.53	5.8466	99.5530	0
09-Jun	10-Jul	500	6.09	5.8000	99.5570	0
16-Jun	17-Jul	750	5.39	5.7700	99.5990	0
23-Jun	24-Jul	750	5.05	5.8300	99.5550	0
30-Jun	31-Jul	750	3.33	5.7700	99.5990	0
07-Jul	07-Aug	150	5.53	5.8300	99.5548	0
14-Jul	14-Aug	150	6.30	5.8100	99.5563	0
21-Jul	21-Aug	150	5.73	5.8400	99.5540	0
28-Jul	29-Aug	150	6.47	5.8000	99.5413	0
04-Aug	04-Sep	500	6.25	5.7600	99.6560	0
11-Aug	11-Sep	500	4.70	5.8000	99.5570	0
18-Aug	18-Sep	150	6.00	5.8000	99.5571	0
25-Aug	25-Sep	150	5.17	5.8000	99.5427	0
01-Sep	02-Oct	150	2.57	5.8500	99.5532	0
08-Sep	09-Oct	150	5.23	5.8000	99.5570	0
15-Sep	16-Oct	150	6.63	5.8000	99.5570	0
22-Sep	23-Oct	150	4.80	5.8000	99.5570	0
29-Sep	30-Oct	150	6.73	5.8100	99.5563	0
06-Oct	06-Nov	150	6.96	5.8090	99.5564	1
13-Oct	13-Nov	150	6.83	5.8100	99.5563	0
20-Oct	20-Nov	150	4.67	5.8000	99.5570	0
27-Oct	27-Nov	150	5.83	5.8200	99.5555	0
03-Nov	04-Dec	150	7.00	5.7900	99.5575	1
10-Nov	11-Dec	150	5.63	5.8167	99.5558	0
17-Nov	18-Dec	150	5.40	5.7800	99.5586	0
24-Nov	27-Dec	150	5.63	5.7500	99.5296	0
01-Dec	02-Jan	150	4.50	5.7200	99.5476	0
08-Dec	08-Jan	150	3.30	5.7000	99.5646	0
15-Dec	15-Jan	300	4.47	5.7000	99.5646	0
22-Dec	22-Jan	250	3.98	5.6800	99.5970	0
29-Dec	29-Jan	250	3.40	5.6800	99.5812	0
05-Jan	05-Feb	500	4.77	5.6800	99.5662	0
12-Jan	12-Feb	250	7.22	5.7940	99.5575	1
19-Jan	19-Feb	150	7.90	5.7650	99.5597	1
26-Jan	26-Feb	150	5.97	5.6933	99.5652	1
02-Feb	05-Mar	150	6.73	5.6700	99.5669	0
09-Feb	12-Mar	150	6.67	5.5900	99.5730	0
16-Feb	19-Mar	500	7.02	5.5492	99.5761	0
23-Feb	26-Mar	700	8.92	5.4950	99.5802	1
02-Mar	02-Apr	500	6.54	5.4700	99.5821	0
09-Mar	09-Apr	500	8.64	5.4925	99.5804	1
16-Mar	17-Apr	500	6.16	5.3820	99.5742	2
23-Mar	23-Apr	500	7.15	5.3900	99.5882	1
30-Mar	30-Apr	500	7.46	5.4297	99.5852	0

## Three-month tenders

Date	Maturity date	Size £mn	Cover	Avg yield %	Avg price £	Yield tail (bp)
07-Apr	10-Jul	100	6.15	5.9799	98.5310	0
14-Apr	17-Jul	100	7.95	5.9500	98.5380	0
20-Apr	24-Jul	100	5.05	6.0470	98.5310	0
28-Apr	31-Jul	100	5.45	6.0465	98.5310	0
05-May	07-Aug	100	5.30	6.0100	98.5240	1
12-May	14-Aug	100	5.05	6.0800	98.5070	0
19-May	21-Aug	100	4.55	5.9400	98.5410	0
26-May	29-Aug	100	4.90	5.9500	98.5380	0
02-Jun	04-Sep	100	5.80	5.9600	98.5360	0
09-Jun	11-Sep	100	4.90	5.9600	98.5360	0
16-Jun	18-Sep	100	5.55	5.8987	98.5510	0
23-Jun	25-Sep	100	5.75	5.9500	98.5380	0
30-Jun	02-Oct	100	3.50	5.9325	98.5420	2
07-Jul	09-Oct	100	6.70	5.9130	98.5472	2
14-Jul	16-Oct	100	7.25	5.9050	98.5492	1
21-Jul	23-Oct	100	6.07	5.9300	98.5431	0
28-Jul	30-Oct	100	6.30	5.9295	98.5432	0
04-Aug	06-Nov	100	7.25	5.9000	98.5504	0
11-Aug	13-Nov	100	6.50	5.8700	98.5576	0
18-Aug	20-Nov	100	6.50	5.8600	98.5601	0
25-Aug	27-Nov	100	4.25	5.9000	98.5661	0
01-Sep	04-Dec	100	2.00	5.9475	98.5389	0
08-Sep	11-Dec	100	5.75	5.8900	98.5528	1
15-Sep	18-Dec	100	7.02	5.8900	98.5528	0
22-Sep	27-Dec	100	6.75	5.8300	98.5363	0
29-Sep	02-Jan	100	6.75	5.8500	98.5469	0
06-Oct	08-Jan	100	7.75	5.8472	98.5632	2
13-Oct	15-Jan	100	8.50	5.8500	98.5624	0
20-Oct	22-Jan	100	6.75	5.8200	98.5697	0
27-Oct	29-Jan	100	7.75	5.8100	98.5722	0
03-Nov	05-Feb	100	7.50	5.8000	98.5746	0
10-Nov	12-Feb	100	6.95	5.8000	98.5746	0
17-Nov	19-Feb	100	7.45	5.7650	98.5831	1
24-Nov	26-Feb	100	5.95	5.7400	98.5891	0
01-Dec	05-Mar	100	6.45	5.7200	98.5940	0
08-Dec	12-Mar	100	4.65	5.7121	98.5958	1
15-Dec	19-Mar	100	6.47	5.7065	98.5972	0
22-Dec	26-Mar	100	4.45	5.7000	98.6292	0
29-Dec	02-Apr	100	3.90	5.6900	98.6164	0
05-Jan	09-Apr	100	5.60	5.5380	98.6381	0
12-Jan	17-Apr	100	7.75	5.5800	98.6130	2
19-Jan	23-Apr	100	9.50	5.5580	98.6332	4
26-Jan	30-Apr	100	7.70	5.5700	98.6303	0
02-Feb	08-May	100	6.90	5.5700	98.6155	0
09-Feb	14-May	100	10.00	5.4950	98.6485	1
16-Feb	21-May	100	8.80	5.5320	98.6395	1
23-Feb	29-May	100	9.58	5.4623	98.6419	1
02-Mar	04-Jun	100	9.15	5.3750	98.6777	2
09-Mar	11-Jun	100	10.66	5.3532	98.6829	2
16-Mar	18-Jun	100	8.40	5.2680	98.7036	0
23-Mar	25-Jun	100	9.15	5.2000	98.7202	0
30-Mar	02-Jul	100	7.05	5.2920	98.6978	1

## ANNEX D

### The DMO's performance against its strategic objectives

HM Treasury Ministers gave the DMO ten strategic objectives for 2000-01. These, and the DMO's achievement against them, are described below.

#### **1. To meet the annual remit set by Treasury Ministers for the sale of gilts, with high regard to long term cost minimisation, taking account of risk.**

Successfully achieved.

- Gilt sales targets were met through the conduct of seven outright auctions (three conventional and four index-linked). Outright gilt sales were £10.0 billion (cash) as planned, split between £6.5 billion (long conventional) and £3.5 billion (index-linked).
- The debt buy-back target was successfully met through a combination of six reverse gilt auctions and secondary market purchases. Buy-backs totalled £5.7 billion (cash) in 2000-01 (to which reverse auctions contributed £4.1 billion).

#### **2. To offset, through its market operations, the expected net cash flow into or out of the NLF, on every business day; and in a cost-effective manner.**

Successfully achieved.

- The DMO assumed full responsibility for Exchequer cash management on 3 April 2000 and has been fully operational every business day since.
- A major operational challenge has been to deal with the Government's sizeable cash surplus and some very substantial daily cash movements.
- The DMO liaised successfully with the Bank of England, the Radiocommunications Agency and market participants to facilitate the smooth handling of the very large cash receipts from the third generation mobile phone licence auction. Total receipts from the auction were £22.5 billion.
- Cost effectiveness has been promoted. The DMO has established effective dealing relationships with a wide range of counterparties and has extended the range of instruments it may use in its operations.

**3. To advise Ministers on setting the remit to meet the Government's debt management objectives, and on any future modification to the Government's cash management objectives; and to report to Ministers on the DMO's performance against its remit, objectives and targets.**

The DMO contributed specific advice in a number of areas of the 2000-01 remit;

- The extent to which gilt issuance should be split between conventional and index-linked gilts and the range of contingencies in the event of changes in the Government's financing requirement (which were implemented as a result of the significantly increased cash surplus following the spectrum auction);
- Size and timing of auctions;
- Switch auction candidates;
- The scope for debt buy-backs to increase the size of the financing requirement, thereby allowing more room for greater gross gilts issuance;
- The scope of an inaugural cash management remit;
- In the course of 2000-01, the establishment of a regime to manage the Government's short-term cash position, as an extension to cash management operations.

The DMO also contributed substantially to the preparation of the "*Debt and Reserves Management Report 2001-02*", including the DMO remit for 2001-02.

The DMO reported performance against the remit to the Treasury on a monthly basis, and on developments in the gilt portfolio and compliance against individual published targets on a quarterly basis.

The DMO submitted a number of memoranda to, and DMO officials appeared a number of times before, the House of Commons Treasury Select Committee inquiry "Government's Cash and Debt Management".

**4. To develop policy on and promote advances in new instruments, issuance techniques and structural changes to the debt markets that will help to lower the cost of debt management, liaising as appropriate with the Bank of England, Financial Services Authority, London Stock Exchange, and other bodies; and to provide policy advice to Treasury Ministers and senior officials accordingly.**

- The DMO published proposals for the conduct of reverse gilt auctions and a proposed extension to the scope of its secondary market purchase operations on 26 April 2000. Following consultation with the market, the DMO published its response document on 14 June 2000 and the first reverse gilt auction was successfully held on 20 July 2000.

- The DMO has continued to consult widely about the possible impact of electronic trading systems on the secondary market for gilts and how the DMO's relationship with the GEMMs might change as a consequence. On 23 June 2000 the DMO announced a proposal to introduce an inter-GEMM market with quote obligations in a designated set of stocks, but that it wished to consult further about the nature of the means of delivery of the market. Discussions have continued with the GEMMs, and a decision is expected later in the Summer of 2001.
- The DMO also extended the range of financial instruments in which it may transact on a bilateral basis for cash management purposes – including selected commercial paper and bank bills and other high quality short-term debt instruments.
- The DMO introduced a standing repo facility on 1 June 2000 for the purpose of managing actual or potential dislocations in the gilt repo market. The facility was used for the first time on 29 December 2000 and subsequently three times in early January 2001 and again in early March 2001.
- On 12 March 2001, the DMO launched a consultation exercise on the introduction of index-linked switch auctions (the response document was published on 10 May 2001).
- The DMO's new remit for 2001-02 was published with the Budget Statement on 7 March 2001. At the same time the DMO undertook to consult the market about a possible re-design of index-linked gilts – a decision to issue will depend on the outcome of the consultation, but the DMO would not envisage introducing any re-designed index-linked gilt before the 2002-03 financial year.

**5. To conduct its market operations, liaising as necessary with regulatory and other bodies, with a view to maintaining orderly and efficient markets and promoting a liquid market for gilts.**

- Given the Government's sizeable cash surplus in 2000-01 and the limited scope for issuance of new benchmark stocks, the DMO concentrated issuance where demand was strongest (for long-dated stocks). Outright gilt auctions have been supplemented by a series of three switch auctions out of 8% Treasury Stock 2015 into the new ultra-long benchmark 4¼% Treasury Stock 2032.
- The DMO conducts its market operations in accordance with its operational market notices. It published a revised gilts market operational notice in October 2000 (primarily to accommodate reverse auctions). Subsequent amendments to the gilt operational notice were made in November 2000 and March 2001 and updated on the electronic version published on the DMO's web site [www.dmo.gov.uk](http://www.dmo.gov.uk).

**6. To provide, including in liaison with the Bank of England and CRESTCo, a high quality efficient service to investors in Government debt, and to deal fairly and professionally with market participants in the gilt and money markets, consistent with achieving low cost issuance.**

- In order to promote further transparency in the gilts market, in September 2000 the DMO introduced a real-time benchmark gilt price screen on its wire service pages showing indicative mid-prices for a series of gilts derived from GEMMs published quotes.
- The Royal Bank of Canada (RBC) became a Gilt-edged Market Maker (GEMM) in November 2000, taking the number of GEMMs to 17. The DMO also recognised RBC as a specialist index-linked gilt-edged market maker (IG GEMM). Later in November the DMO recognised UBS Warburg as an IG GEMM, taking their number to eleven. Société Générale ceased to be a GEMM in September 2000.

**7. To contribute to the Treasury's work on the development of the strategy for the debt portfolio.**

- Preliminary research on this project has tested a number of techniques that could be used to measure the risk/return trade-off between different issuance strategies. Work is proposed that builds on one aspect of this work, namely the Monte Carlo simulation approach.
- The DMO is planning the development and research work needed to take this forward.

**8. To make information publicly available on the debt markets and DMO policies where that contributes through openness and predictability to efficient markets and lower costs of debt issuance.**

- The DMO has also been expanding and restructuring its web site [www.dmo.gov.uk](http://www.dmo.gov.uk) on which all its publications appear. New areas covering retail involvement in the gilts market, index-linked gilts and the DMO's cash management operations have been added to the site. The DMO has also used its web site to provide access for gilts market participants to Government issues which range wider than the DMO's own policy responsibility but impact on the gilts market (eg Minimum Funding Requirement and Myners Review announcements).
- The DMO has produced an e-strategy statement which includes the aim of making non-commercial information relating to its activities available electronically.
- The DMO published its regular annual review of developments in the gilts market "*The Gilt Review 2000*" on 4 August 2000; this was expanded to include references to the DMO's new cash management role. The DMO has also continued to publish and refine its Quarterly Review. There was a comprehensive revision of the Quarterly Review in the first quarter of financial year 2001-02.

- The DMO has liaised with the Bank of England Registrar's Department on the production of a second edition of the booklet "*Investing in Gilts: the Private Investor's Guide to British Government Stock*" which was published in February 2001. This is available on the DMO web site.

**9. To resource, staff and manage the Office to deliver its objectives effectively and efficiently and to ensure value for money in its administrative expenditure.**

- The DMO received "*Investors in People*" accreditation on 8 June 2000.
- The DMO's annual report and audited accounts for 1999-2000 were published on 26 July 2000.
- The DMO has kept within its cash budget despite a major challenge to prepare for the management of the Government's surplus cash position.
- An electronic records management system has been procured and operational implementation began in March 2001.

**10. To develop appropriate management, information and control systems with high regard to risk minimisation; and to ensure full and accurate presentation of accounting and other information.**

- A new structure of corporate governance has been introduced to assist the Chief Executive in carrying out his responsibilities.
- A Risk Unit has been established to develop best practice disciplines covering the DMO's credit, market, compliance, legal and operational activities.
- Internal reporting arrangements have been formalised to help the Chief Executive to meet his internal control responsibilities as required under the Turnbull Guidelines.
- Charters were approved for the DMO's Audit Committee, internal audit and compliance functions.
- The DMO's internal audit function is well established; an audit programme has been produced to ensure appropriate audit coverage for the DMO's key business activities.



## ANNEX E

### DMO's performance against its published targets 2000-2001

With the exception of a technical breach to target 6 (see next page), the DMO met all its published targets in 2000-01.

*To ensure full compliance with the Government's remit for the DMO as set out in the Debt Management Report, within the tolerances and subject to the review triggers notified separately to the Office and consistently with the objectives of monetary policy.*

The DMO has complied fully with the remit for 2000-01 (see chapters 3, 4 and 8).

**2. To ensure that the maximum time taken to issue the results of gilt auctions and Treasury bill tenders does not exceed 40 minutes whilst achieving complete accuracy.**

This was successfully achieved. The gilt auction result release times were:

3 May: 2½% IL 2020	26 minutes
24 May: 4¼% 2032	30 minutes
21 June: switch auction	27 minutes
20 July: reverse auction	37 minutes
26 July: 2½% IL 2013	22 minutes
21 September: reverse auction	25 minutes
27 September: switch auction	33 minutes
11 October: reverse auction	32 minutes
25 October: 4⅛% IL 2030	26 minutes
21 November: 4¼% 2032	37 minutes
23 November: reverse auction	25 minutes
6 December: switch auction	29 minutes
18 January: reverse auction	22 minutes
24 January: 2½% IL 2016	27 minutes
22 February: reverse auction	28 minutes
28 March: 4¼% 2032	37 minutes

The release times for the results of the 52 structured bill tenders held during the financial year ranged from 7 to 20 minutes and averaged 13 minutes.

**3. To ensure that the maximum time taken to issue the results of ad hoc Treasury bill or other tenders does not exceed 15 minutes.**

This was successfully achieved. The release times for the result of the 4 ad hoc and reverse repo tenders ranged from 5 to 13 minutes and averaged 8 minutes.

**4. To achieve complete accuracy, within agreed accounting tolerances, in the recording and reporting of transactions through the Debt Management Account and in delivering money (and reconciling payments) to the NLF.**

All transactions going through the DMA have met the required standards. NLF balances are reconciled and agreed with the Treasury on a daily basis.

**5. To acknowledge all letters and e-mail inquiries from the public within 8 working days and for at least 95 per cent to be sent a substantive reply within 3 weeks.**

This was achieved. 76 inquiries were received from the public by letter and e-mail in the financial year. The longest response time was 7 working days and the average response time was 2 working days.

**6. To achieve less than 10 breaches of operational market notices (excluding any breaches which the Treasury accept were beyond the control of the Office).**

There was one technical breach of the gilt operational notice on 6 December 2000 when a switch auction from 8% Treasury Stock 2015 into 4¼% Treasury Stock 2032 was held 15 days after the outright auction of 4¼% Treasury Stock 2032. The gilt operational notice had said that the DMO will not hold a switch auction into a stock that had been auctioned outright less than 21 days earlier. This provision had been intended to reassure the market that the DMO would not decide to announce a switch into a newly auctioned stock at short notice. This issue did not arise in this case because the DMO had announced – in the 30 September 2000 auction calendar press release – its intention to auction the 2032 stock on 21 November 2000 and switch into it on 6 December 2000. The gilt operational notice was subsequently revised to bring the wording into line with the underlying policy intention.

**7. To ensure that the qualifications that the NAO have made in respect of the Gilt-Edged Official Operations Account are satisfactorily addressed in the running and presentation of the Debt Management Account.**

See response to target 4 above.

**8. To ensure that the statutory constraint on DMO market borrowing (not to exceed its deposits with the NLF and Bank of England) is always met.**

Achieved.

**9. To ensure that, where there is a late change in the forecast, any necessary use of end of day borrowing or lending facilities is notified by the due time.**

Achieved. All required notifications to the Bank of England have been made in due time.

**10. To achieve a minimum of 99% (by value) successful settlement of agreed trades on the due date.**

Achieved. Exchequer cash management operations turnover in 2000-01 was some £475 billion. Trades totalling 0.2% of turnover (£0.945 billion) failed as a result of circumstances within (or partly within) the DMO's control. Successful settlement of trades by value over the year on this measure was therefore 99.8%. If trades which failed as a result of circumstances outside the DMO's control are included, the total of fails rises to 0.96% of total turnover (to £4.540 billion).

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