

United Kingdom  
**Debt  
Management  
Office**

# DMO Annual Review

2008-09



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

August 2009



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**Debt  
Management  
Office**

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## Chapter 1: Foreword by the DMO Chief Executive

2008-09 was the 11th year of operation for the DMO and provided the most challenging market environment to date. It saw a major transformation of the financing environment in which we operate, as conditions in global financial markets deteriorated. Despite these challenges we successfully raised a record £146.5 billion for HM Treasury in gilt sales (in 66 operations) and a net £26.4 billion in Treasury bill sales.

We started the financial year with a planned gilt sales programme of £80.0 billion. October 2008 then saw planned gilt sales rise to £110.0 billion in an exceptional remit revision as part of a programme to raise £37.0 billion to finance the recapitalisation of the UK banking sector.

At the Pre-Budget Report 2008, the gilt sales total rose sharply again, to £146.4 billion implying the need to raise over £100 billion in the second half of the financial year. Raising such a large amount in a short time required a change in the maturity structure of issuance in 2008-09 away from the long-dated and index-linked sectors (which had recently taken precedence) toward short-dated issuance in particular, planned sales of which rose from £25.0 billion to £62.8 billion over the financial year.

The delivery of the £37.0 billion bank recapitalisation financing programme was just one of the many ways the DMO contributed to the Government's activities to support financial markets and the UK banking sector in 2008-09. At the request of HM Treasury, we also helped facilitate the Special Liquidity Scheme, the Discount Window Facility, the Credit, and Asset-backed Guarantee Schemes and the Asset Purchase Facility. The flexibility and adaptability of the DMO was also demonstrated by the successful execution of two auctions of EU allowances for the UK's Emission Trading System.

As for our other main roles, the DMO has again performed strongly in delivering our cash management function, with all operational objectives met, against a backdrop of volatile and difficult credit conditions in the sterling money markets.

The Public Works Loan Board has also continued to operate successfully, advancing new loans to local authorities worth £6.4 billion, thereby maintaining lending at a record level of £50.9 billion. In addition, the DMO has again provided a cost effective service to its client funds (with a market value of £62 billion at end March 2009) through the fund management activities of the Commissioners for the Reduction of the National Debt.

Robert Stheeman  
August 2009

## Chapter 2: The Economy and Financial Markets

### Fiscal and macroeconomic developments

The world economy moved into recession during 2008-09 as output contracted and international trade fell sharply. Financial market turmoil, with its roots in the US sub-prime mortgage lending crisis, persisted and the global banking system remained fragile. Real UK Gross Domestic Product (GDP) contracted by 0.1% quarter-on-quarter in the first three months of the financial year 2008-09. A further contraction of 0.7% in the following quarter confirmed that the UK economy was in recession. The Government responded by adjusting fiscal policy, including a temporary reduction in Value Added Tax by 2.0% from December 2008. The economy contracted further by 2.40% in the final quarter of 2008-09.

Inflation, as measured by the Consumer Prices Index (CPI), the Bank of England's target measure, increased at a rate of 3.00% year-on-year in April 2008 and continued to rise, reaching a peak of 5.20% in September boosted, in part by rising oil and other commodity prices. The reduction in global economic activity helped to slow CPI to 2.90% in March 2009, still significantly above the Bank's target level of 2.00%. The Retail Prices Index (RPI) measure of inflation, which is used to fix the cash flows on index-linked gilts, climbed to a peak of 5.00% during the autumn of 2008 before rapid falls in commodity prices and housing expenses helped to depress the rate to -0.40% in March 2009.

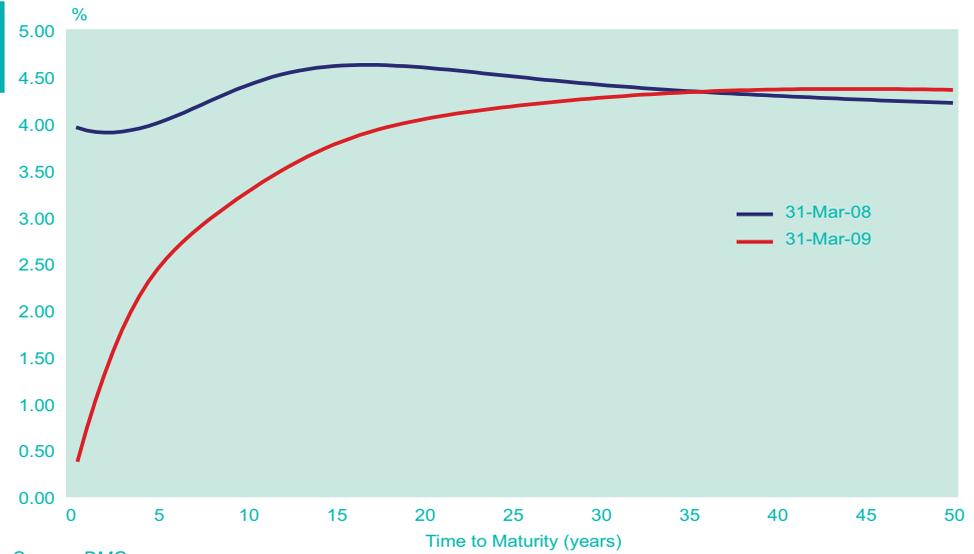
The Bank of England's Official Bank Rate was cut from 5.25% to 5.00% in April 2008 and remained at that level throughout the summer as the Monetary Policy Committee (MPC) judged that declining economic activity would help to bring CPI inflation back to target in the medium-term. The collapse of Lehman Brothers in September 2008 and the consequent effects shifted risks to growth and inflation decisively to the downside, triggering an unprecedented monetary policy response. The Bank Rate was cut by 50 bps in October, a day ahead of the scheduled decision date, in co-ordinated action with several other central banks. Successive rate cuts of 150bps, 100bps and three of 50bps took the Bank Rate to 0.50% in March, the lowest level since the Bank of England was founded in 1694. As the next stage of the Government's response the Chancellor of the Exchequer authorised the Bank to embark on a programme of asset purchases, financed by the provision of up to £150 billion of central bank reserves, with the aim of improving liquidity in credit markets.

### Gilt market developments

#### Par gilt yields

Gilt yields fell significantly at the short-end of the nominal par curve and rose at the long-end in 2008-09 as shown in Chart 1. This reflected primarily reductions in Bank Rate implemented in response to prevailing macroeconomic conditions. 2-year par yields fell by 260 bps to 1.29%, 5-year yields by 157 bps to 2.41%, 10-year yields by 115bps to 3.23% and 30-year yields by 14bps to 4.25%. In contrast, 50-year par yields rose by 14bps to 4.34%.

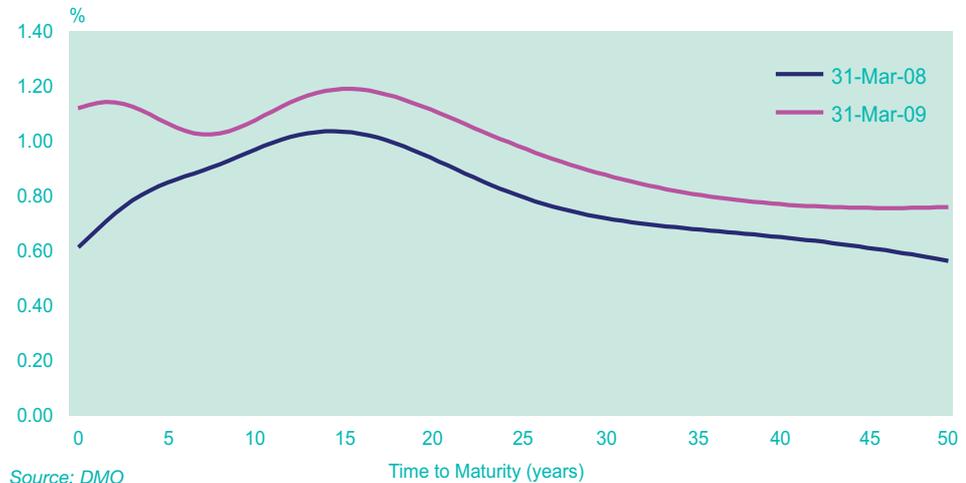
Chart 1  
Nominal par  
gilt yields



Source: DMO

The real yield curve, in contrast to nominal yields, rose in 2008-09. The 10-year real par yield increased by 11 bps to 1.06% and the 50-year yield increased by 19bps to 0.75%. See Chart 2.

Chart 2  
Real par gilt yields



Source: DMO

### Conventional benchmark gilts

The first quarter of 2008-09 was characterised by increased volatility in gilt yields, particularly at the short-end of the curve.

In April 2008, the Bank Rate was cut by 25 bps to 5.0% (where it remained for the remainder of the quarter). As rising commodity prices contributed to an increase in CPI inflation, which rose to 3.3% in May 2008, markets increasingly priced in future interest rate increases. Yields at the long-end of the curve remained relatively stable over the same period.

Volatility in financial markets increased in late September 2008 as Lehman Brothers filed for bankruptcy and AIG received support from the US Government. This was followed by public sector support for a number of banks in the US, UK and Europe. The demand for government bonds, reflecting “flight-to-quality”, led to a fall in yields at the short-end. Other factors such as the unwillingness of stock lenders to lend gilts, also contributed to the downward trend in gilt yields through the quarter.

These trends continued to dominate global financial markets throughout the third quarter of 2008-09. GDP data showed the economy had contracted for the first time since 1992 and, although CPI inflation rose to 5.2% in September, sharp falls in oil and other commodity prices meant that the market increasingly expected inflation to begin to fall. As the difficult global financial conditions continued, and global trade and output contracted, monetary policy was eased further. The Bank Rate was reduced by 50 bps in October, by 150 bps in November and by a further 100 bps in December, finishing 2008 at 2.0%. Yields at the short-end of the curve continued their sharp falls – to record lows.

In the final quarter of 2008-09, the global recession and increased international government bond supply became the dominant themes in bond markets. In January 2009, the Government announced further initiatives to stimulate the provision of corporate credit, which included the Asset Purchase Facility (APF). The Bank of England continued to reduce the Bank Rate, with three consecutive cuts of 50 bps taking the rate from 2.0% to 0.5%. On 5 March 2009, the Bank of England announced its plans to purchase financial assets using central bank reserves. Gilt yields fell in the 5-25 year maturity range (the eligible gilts for the APF), by close to 30 bps in the case of the 10-year gilt yield.

The path of benchmark conventional gilt yields over 2008-09 is shown in Chart 3.



Source: DMO

### Index-linked real yields

Chart 4 shows the real yields on selected benchmark index-linked gilts in 2008-09. The market yield on 1¼% Index-linked Treasury Gilt 2017 fell by 7bps to 0.89%, following an end-year rally (intra-year it had traded as high as 3.04%) whilst 30-year and 50-year index-linked gilt yields increased by 22 and 19bps respectively. The yield on 1⅛% Index-linked Treasury Gilt 2037 was 0.96% on 31 March 2009. 1¼% Index-linked Treasury Gilt 2055 yielded 0.77% on the same day.

Chart 4  
Index-linked benchmark  
gilt yields



Source: DMO

### Breakeven inflation rates

In 2008-09, index-linked gilt yields moved differently to their conventional counterparts. As market expectations for inflation fell, the incentive to hold index-linked gilts as protection against future inflation fell. The 10-year, 30-year and 50-year breakeven inflation rate fell by 140bps (to 1.83%), 44 bps (to 3.22%) and 9bps (to 3.57%) respectively. See Chart 5.

Chart 5  
10-year, 30-year and 50-year  
breakeven inflation rates



Source: DMO

**International comparisons**

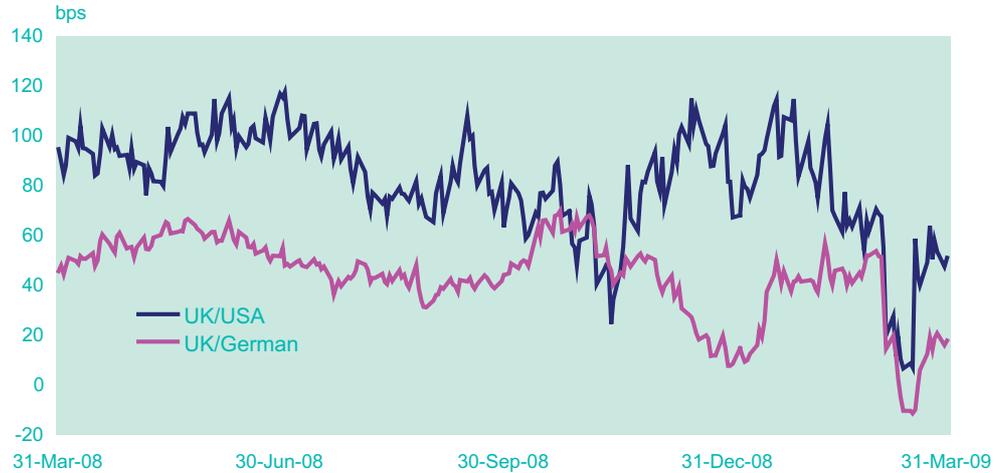
Chart 6 shows the path of 10-year bond yields in the UK, USA and Germany in 2008-09. Gilts traded at higher yields than USA and German Government bonds for most of 2008-09 and, as the US Federal Reserve began sharply cutting rates in the second half of the financial year, the yield on 10-year US Treasuries fell below that on Bunds. The sharp fall in 10-year gilt yields in response to the APF, announced on 5 March 2009, can also be seen in Chart 6. 10-year gilt yields traded at lower than the 10-year Bund briefly in March. The corresponding yield spreads are shown in Chart 7.

Chart 6  
UK, USA and German  
10-year Government  
bond yields



Source: Bloomberg

Chart 7  
UK/US and UK/German  
10-year Government bond  
yield spreads



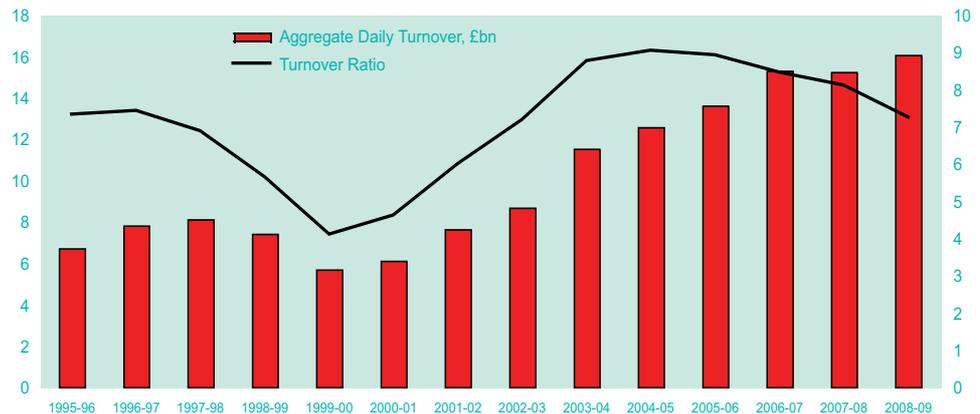
Source: Bloomberg

### Gilt market turnover

As can be seen in Chart 8, aggregate daily turnover by value in the gilt market increased marginally in 2008-09 compared with the previous financial year (from £15.24 billion to £16.05 billion). Trading intensity in 2008-09 (as measured by the turnover ratio<sup>1</sup>) fell to 7.25, compared to 8.11 in 2007-08. This reflected the significantly larger gilt portfolio against which the ratio is calculated.

As with previous years, gilt market turnover was weighted heavily towards the 7-10 year and the over 15-year sectors; see Chart 9.

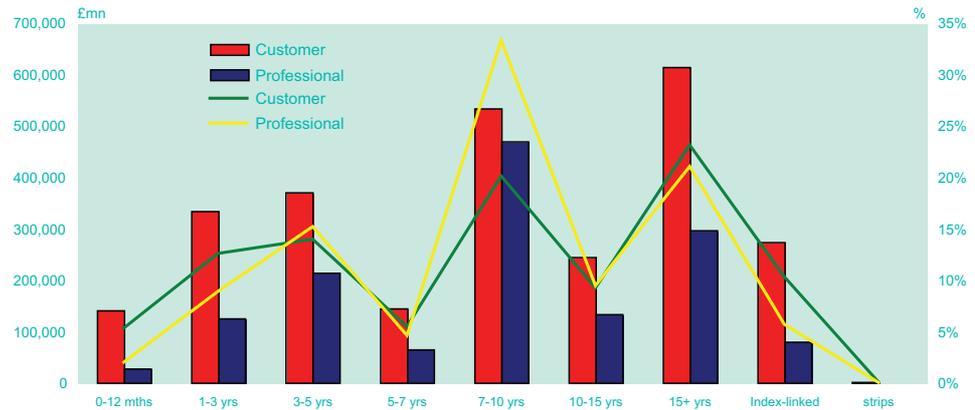
Chart 8  
Gilt market turnover



Source: GEMMs

<sup>1</sup> The turnover ratio for a given financial year is the aggregate turnover in that financial year relative to the market value of the portfolio at the start of that year.

**Chart 9**  
Gilt market turnover by maturity and type

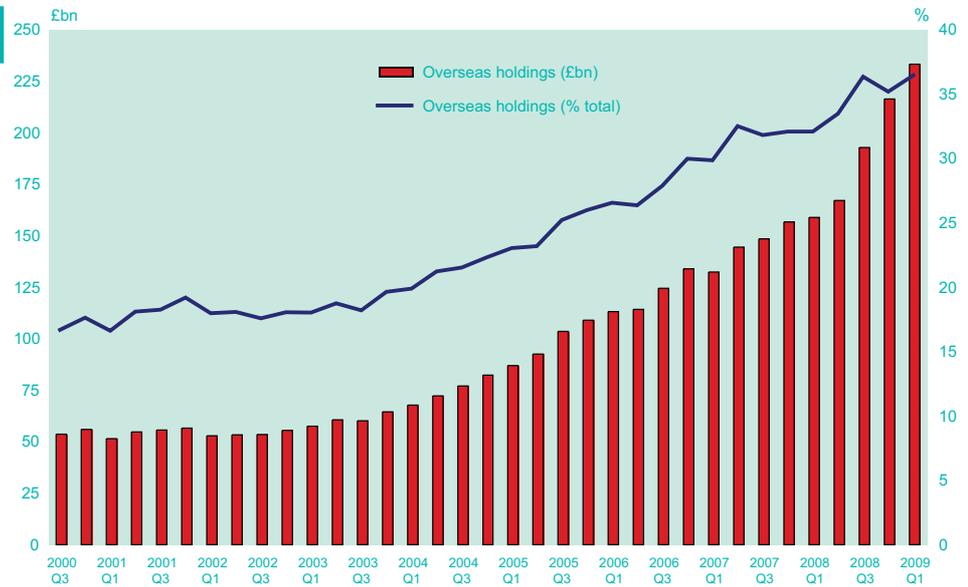


Source: GEMMs

**Overseas holdings of gilts**

Chart 10 shows the trend in overseas holdings of gilts since Q3 2000 (to end-March 2009). From end-2003 there has been a sustained rise (around £100 billion) in the amount of gilts reportedly held by overseas investors. This increase has been attributed to purchases of (mainly short-dated) gilts by Central Banks, reserves managers and hedge funds.

**Chart 10**  
Overseas holdings of gilts



Source: Office for National Statistics (ONS)

### UK money market developments

The path of official rates in the UK, USA and the euro area (and of three-month LIBOR rates) is shown in Chart 11. The UK began the financial year with the Bank Rate at 5.25% (the same level as the USA) but with the sterling money markets anticipating a tightening of monetary policy. Three-month LIBOR rates began the financial year 76bps above the Bank Rate and stayed significantly above, reflecting banks unwillingness to lend to each other. This spread peaked at 256bps on 6 November 2008 at the height of the uncertainty within financial markets.

The Bank of England (BoE) and US Federal Reserve both pursued a series of aggressive interest rate cuts as economic data suggested that the world economy was entering into recession. The BoE cut rates 6 times between October 2008 and March 2009 by 50bps (in October 2008), 150bps (in November 2008), 100bps (in December 2008) and 50bps (in January, February and March 2009). The spread between three-month LIBOR and Bank Rate fell sharply in response to these cuts finishing the financial year at 115bps above Bank Rate, lower than it was at its height, but higher than it was at the beginning of the financial year.

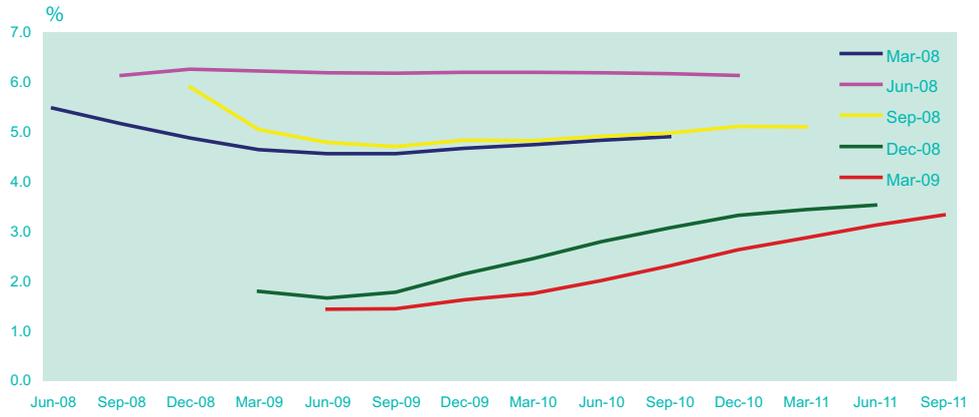
Chart 11  
Official interest rates



Source: Bloomberg/British Banker's Association (BBA)

Changing interest rate expectations during the year as reflected in the derived curves from short sterling contracts are shown in Chart 12.

Chart 12  
Implied curves from short  
sterling contracts



Source: Bloomberg

## Chapter 3: Government Debt Management

### Debt management responsibilities and objectives

#### Objectives of debt management

The UK Government's debt management policy objective is:

“to minimise over the long term, the costs of meeting the Government's financing needs, taking into account risk, whilst ensuring that debt management policy is consistent with the aims of monetary policy.”

The debt management policy objective is achieved by:

- pursuing an issuance policy that is open, transparent and predictable;
- issuing benchmark gilts that achieve a benchmark premium;
- adjusting the maturity and nature of the Government's debt portfolio, primarily by means of the maturity and composition of debt issuance and potentially by other market operations including switch auctions, conversion offers and buy-backs;
- developing a liquid and efficient gilt market; and
- offering cost-effective savings instruments to the retail sector through National Savings & Investments (NS&I).

#### Maturity and composition of debt issuance

In order to determine the maturity and composition of debt issuance, the Government takes account of a number of factors including:

- the Government's own appetite for risk, both nominal and real;
- the shape of both the nominal and real yield curves and the expected effect of issuance policy;
- investors' demand for gilts; and
- changes to the stock of Treasury bills and other short-term debt instruments.

## The DMO's financing remit for 2008-09

The DMO's financing remit for 2008-09 was published by HM Treasury alongside Budget 2008 on 12 March 2008.

On the basis of a forecast Central Government Net Cash Requirement (CGNCR) of £59.3 billion and a net financing requirement for the DMO of £78.8 billion<sup>2</sup>, gilt sales of £80.0 billion and net Treasury bill sales of £5.8 billion were planned for 2008-09. The planned quantum of DMO debt sales, (£85.8 billion) was £7.0 billion more than the net financing requirement as a result of the Government's decision to pay back a further £7.0 billion of the Ways and Means Advance at the Bank of England.

The CGNCR forecast for 2008-09 explicitly reflected the Government's decision to refinance the Bank of England's loans to Northern Rock through a Treasury loan to Northern Rock. The net amount outstanding of that loan at 31 March 2009 was expected to be £14.0 billion.

### The remit structure

The planned total of gilt sales of £80.0 billion was split as follows:

● short-dated conventional	£25.0 billion in 7 auctions
● medium-dated conventional	£12.8 billion in 5 auctions
● long-dated conventional	£24.2 billion in 11 auctions
● index-linked	£18.0 billion in 18 auctions

Planned net sales of Treasury bills were also announced, taking the planned stock for March 2009 to £22.0 billion.

The remit structure reflected a number of considerations underpinned by the objective of minimising long-term cost subject to risk. The gilt issuance plans for 2008-09 were also underpinned by the medium term approach to gilt issuance announced in Budget 2007 but the extent of the skew to long-dated issuance was informed by the changed market environment then being experienced which saw increased demand for short-dated maturities.

A record amount of index-linked gilt issuance was planned and given that the great majority of such issuance is typically long-dated, this represented a continuing bias toward long-dated issuance.

The most significant change in the balance of issuance was, however, the scale of planned supply of short-dated gilts. This took account of prevailing growing structural demand for the highest quality short-dated paper (and ongoing interest from overseas investors).

The amount of medium-maturity issuance sought to maintain liquidity at that sector of the curve, which provides a price reference for other markets;

There were no plans for any switch auctions, reverse auctions, conversion offers or syndicated offerings in 2008-09

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<sup>2</sup> See Table 4 on page 19 for the financing arithmetic for 2008-09

## In-year adjustments to the financing arithmetic and remit

### ● The outturn of the 2007-08 CGNCR (April 2008)

The outturn for the 2007-08 CGNCR was published on 18 April 2008, and, at £32.6 billion, it was £5.1 billion lower than the forecast published at Budget 2008.

The forecast net financing requirement for 2008-09 fell, however, by £6.7 billion, as a result of the outturn for net Treasury bill sales in 2007-08 being £1.4 billion higher than forecast at Budget 2008 and net sales by National Savings & Investments (NS&I) being £0.2 billion higher.

There were, however, no changes to planned gilt sales announced in April 2008; these remained at £80.0 billion. The required reduction in financing was accommodated entirely via Treasury bills, the planned net sales of which were reduced by £6.7 billion compared to Budget 2008. The stock of bills was forecast to fall by £0.9 billion in 2008-09 from £17.6 billion to £16.7 billion.

### ● Banking sector recapitalisation (October 2008)

On 13 October 2008, the DMO announced an exceptional revision to the 2008-09 financing remit to raise £37.0 billion to contribute to the financing of the recapitalisation of UK banks that had been announced by HM Treasury on 8 October 2008. Given the scheduled auction of 4½% Treasury Gilt 2013 on 16 October it was announced that the additional financing programme, which was expected to begin in the week commencing 20 October would not begin with the sale of a 5-year maturity gilt.

The DMO also announced on 13 October 2008 its intention to schedule consultation meetings later that day with end-investors and Gilt-edged market makers (GEMMs) to discuss how the financing package should be structured. The minutes of the meeting were published at 9am on 14 October 2008 and are reproduced in Annex C.

The consequent revision to the DMO's financing remit was announced to Parliament by the then Economic Secretary to the Treasury Ian Pearson MP on 14 October 2008.

Additional gilt sales of £30.0 billion and additional Treasury bill sales of £7.0 billion were announced, taking total planned gilt sales to £110.0 billion and the end-March 2009 planned stock of Treasury bills to £23.7 billion.

The planned increase in gilt sales was split by maturity/type as follows:

- £21.0 billion of short-dated conventional gilts (taking total issuance to £46.0 billion) including the launch on 13 November 2008 of a new, current coupon, gilt maturing on 7 December 2011 (with a long first dividend period);

- £7.0 billion of medium-dated conventional gilts (taking total issuance to £19.8 billion);
- £1.0 billion of long-dated conventional gilts (taking total issuance to £25.2 billion) and
- £1.0 billion of index-linked gilts (taking total issuance to £19.0 billion).

Seven additional gilt auctions were scheduled, five of short-dated and two of medium-dated conventional gilts.

The DMO also committed not to add any further gilt auctions in the third quarter of the financial year, in the event of a further remit revision at Pre-Budget Report 2008.

The maximum size of conventional gilt auctions was increased from £4.0 billion to £5.0 billion (cash). The gilt auction calendar as revised to the end of 2008 is shown in Table 1.

Table 1  
Revised Q3 gilt auction calendar to accommodate the financing of banking sector recapitalisation.

Gilt auctions to end-2008		
	Currently scheduled	Additional
Thu 16 Oct	4½% 2013	
Tue 21 Oct		4¼% 2011
Thu 23 Oct		5% 2018
Tue 28 Oct	New IL 2032	
Thu 30 Oct		4% 2016
Tue 4 Nov	4¾% 2030	
Tue 11 Nov		4¾% 2015
Thu 13 Nov		New Dec 2011
Thu 20 Nov	4½% 2019	
Tue 25 Nov	0¾% IL 2047	
Thu 27 Nov		5% 2012
Tue 2 Dec	4¼% 2049	
Tue 9 Dec	New IL 2032	
Thu 11 Dec	4½% 2013	
Thu 18 Dec		New Dec 2011

The DMO also announced plans to supplement sales at auctions with a number of sales of gilts by mini-tenders. Four such operations (conducted directly with Gilt-edged Market Makers by the DMO's dealing desk) were announced for the period October-December 2008 in the following gilts, 4% Treasury Stock 2009, 4¼% Treasury Gilt 2055 and 1¼% Index-linked Treasury Gilt 2055 (twice).

### Pre-Budget Report (PBR) 2008

PBR 2008 on 24 November included a new forecast of £152.9 billion for the CGNCR in 2008-09, an increase of £93.6 billion compared with Budget 2008. A number of special factors accounted for the bulk of this increase:

- £37.0 billion for the Government's bank recapitalisation programme (as announced on 13 October 2008);
- £21.0 billion to refinance the Bank of England's loans to the Financial Services Compensation Scheme (FSCS) for retail depositors in Bradford & Bingley and UK subsidiaries of Icelandic banks eligible for payments from the FSCS and Icelandic Depositors' and Investors' Guarantee Fund (ICS);
- £5.7 billion to refinance the Bank of England's working capital loan to Bradford & Bingley;
- a £5.4 billion payment for retail depositors in Bradford & Bingley and UK subsidiaries of the Icelandic banks covering that part of deposits above the compensation limits; and
- a downward revision in the forecast of the amount outstanding on the Government's loan to Northern Rock as at 31 March 2009 from £14.0 billion at Budget 2008 to £12.0 billion.

Other changes announced at PBR, which affected the DMO's net financing requirement for 2008-09 (compared to Budget 2008) were:

- an increase of £1.0 billion (to £18.3 billion) in gilt redemptions (as a result of the mini-tender of 4% Treasury Stock 2009 held on 20 October 2008);
- an increase of £7.0 billion (to £11.0 billion) in the forecast net contribution to financing by National Savings & Investments (NS&I); and
- a change in the financing assumptions for the Official Reserves of £2.0 billion.

Together the factors above led to an increase of £85.6 billion (to £157.7 billion) in the DMO's net financing requirement since the financing arithmetic had last been re-stated in April 2008.

To meet the higher financing requirement planned gilt sales rose by a further £36.4 billion to £146.4 billion compared to the programme announced on 14 October (and by £66.4 billion compared with the plans at Budget 2008). 10 auctions and 4 further mini-tenders were added at PBR taking the programme of auctions in 2008-09 to 58 with 8 mini-tenders. The bias was again heavily directed to short-dated and medium-dated conventional gilts reflecting the operational requirement to raise a significant amount of additional finance in a relatively short period of time and the short-term nature of some of the items raising the CGNCR in 2008-09.

The development of the gilt financing remit in 2008-09 and the changes announced at PBR are summarised in Table 2.

Table 2  
Revisions to the gilt financing remit 2008-09

£ billions	Original Remit	14-Oct	Increase at PBR	New Total	Auctions added at PBR
Short conventional	25.0	46.0	16.8	62.8	4*
Medium conventional	12.8	19.8	13.3	33.1	4
Long conventional	24.2	25.2	5.3	30.5	1*
Index-linked	18.0	19.0	1.0	20.0	1
	<b>80.0</b>	<b>110.0</b>	<b>36.4</b>	<b>146.4</b>	<b>10</b>

\*in addition, 1 mini-tender of short-dated and 3 mini-tenders of long-dated conventional gilts were added.

The changes to the Q4 gilt operations calendar announced at PBR 2008 are summarised in Table 3, (operations in bold are those added at PBR 2008).

Table 3  
Q3 Gilt operations calendar as amended at PBR 2008

Operations calendar: January-March 2009 (Operations added at PBR in bold)	
Date	Type
<b>wc 5 Jan</b>	<b>Conventional mini-tender</b>
<b>7-Jan</b>	<b>Conventional auction</b>
13-Jan	Conventional auction
15-Jan	Index-linked auction
<b>wc 19 Jan</b>	<b>Conventional mini-tender</b>
<b>22-Jan</b>	<b>Conventional auction</b>
27-Jan	Index-linked auction
<b>29-Jan</b>	<b>Conventional auction</b>
3-Feb	Conventional auction
<b>4-Feb</b>	<b>Conventional auction</b>
<b>10-Feb</b>	<b>Conventional auction</b>
12-Feb	Index-linked auction
<b>wc 16 Feb</b>	<b>Conventional mini-tender</b>
<b>19-Feb</b>	<b>Conventional auction</b>
24-Feb	Index-linked auction
26-Feb	Conventional auction
3-Mar	Conventional auction
<b>4-Mar</b>	<b>Conventional auction</b>
10-Mar	Conventional auction
<b>12-Mar</b>	<b>Index-linked auction</b>
<b>wc 16 Mar</b>	<b>Conventional mini-tender</b>
<b>19-Mar</b>	<b>Conventional auction</b>
<b>25-Mar</b>	<b>Conventional auction</b>
26-Mar	Index-linked auction

The remaining £19.2 billion of required financing came from changes in short-term debt, made up of:

- £15.4 billion from Treasury bill sales, which moved from planned net sales of -£0.9 billion in April to +£14.5 billion at PBR (planned sales of Treasury bills had previously been increased by £7.0 billion on 14 October). The PBR revision resulted in a planning assumption for the end-financial year Treasury bill stock (in market hands) of £32.1 billion; and
- a temporary increase of £3.8 billion in short-term borrowing from the Ways and Means Advance in order to smooth the impact of the financing of part of the Bank of England's loans to the FSCS. The Government had earlier repaid £7.0 billion of the Ways and Means Advance, and as a result of the change announced at PBR, the net repayment of the Ways and Means Advance in 2008-09 was expected to be £3.2 billion.

### Provisional remit

There were no changes to the 2008-09 financing remit arising from the publication of the provisional financing remit for 2009-10 published on 18 March 2009. This announcement, required under the Code for Fiscal Stability, focused exclusively on the provisional financing programme for 2009-10 and in particular April-May 2009.

### Budget 2009 and CGNCR 2008-09 outturn

The Debt and Reserves Management Report 2009-10 published on 22 April 2009 alongside the Budget included the outturn for the 2008-09 CGNCR of £162.4 billion, an increase of £9.5 billion since the forecast at PBR 2008. The outturn net financing requirement for 2008-09 was £169.1 billion.

The other main changes (since PBR 2008) impacting on financing in 2008-09 were:

- £1.0 billion of financing for the initial phase of the Bank of England's Asset Purchase facility (financed by Treasury bill sales). These arrangements were suspended in February 2009;
- £2.4 billion of secondary market gilt purchases by the DMO (predominantly of the near maturity 2½% Index-linked Treasury Stock 2009);
- an increase of £1.5 billion to £12.5 billion in the net contribution to financing by National Savings & Investments;
- an increase of £11.9 billion (to £44.0 billion) in the end-March 2009 Treasury bill stock. This was principally due to sales of bilateral Treasury bills, £9.7 billion of which were in market hands at the end of the 2008-09 financial year.

The increased contribution to financing from Treasury bills resulted in total financing of £169.7 billion and an end March 2009 DMO net cash position of £1.1 billion, an increase relative to plan of £0.6 billion. This surplus was represented as a short-term financing adjustment in 2009-10 and reduced the financing requirement in 2009-10 accordingly.

The developments in the 2008-09 financing arithmetic over the course of the financial year are shown in Table 4.

Table 4  
Financing arithmetic 2008-09<sup>3</sup>

2008-09 Financing arithmetic (£bn)	Budget 2008	April-08	PBR 2008	Outturn
<b>CGNCR</b>	<b>59.3</b>	<b>59.3</b>	<b>152.9</b>	<b>162.4</b>
Redemptions	17.3	17.3	18.3	18.3
Financing for APF				1.0
Financing for reserves	2.0	2.0	0.0	0.0
Buy-backs	0.0	0.0	0.0	2.4
Planned short-term financing adjustment <sup>1</sup>	4.2	-2.5	-2.5	-2.5
<b>Gross Financing requirement</b>	<b>82.8</b>	<b>76.1</b>	<b>168.7</b>	<b>181.6</b>
Less				
NS&I	4.0	4.0	11.0	12.5
<b>Net Financing requirement</b>	<b>78.8</b>	<b>72.1</b>	<b>157.7</b>	<b>169.1</b>
Financed by				
<b>1. Debt issuance by the DMO</b>				
<b>a) T bills</b>	<b>5.8</b>	<b>-0.9</b>	<b>14.5</b>	<b>26.4</b>
<b>b) Gilt sales</b>	<b>80.0</b>	<b>80.0</b>	<b>146.4</b>	<b>146.5</b>
<b>of which</b>				
Short conventionals	25.0	25.0	62.8	62.8
Medium conventionals	12.8	12.8	33.1	33.3
Long conventionals auctions	24.2	24.2	30.5	30.3
Index-linked auctions	18.0	18.0	20.0	20.0
<b>2. Other planned change in short term debt<sup>2</sup></b>				
Ways and Means	-7.0	-7.0	-3.2	-3.2
<b>3. Change in short term cash position<sup>3</sup></b>	<b>0.0</b>	<b>-2.5</b>	<b>-2.5</b>	<b>0.6</b>
<b>Total financing</b>	<b>78.8</b>	<b>72.1</b>	<b>157.7</b>	<b>169.7</b>
<b>Short-term debt levels at end of financial year</b>				
T bill stock (in market hands)	22.0	16.7	32.1	44.0
Ways and Means	0.4	0.4	4.2	4.2
DMO net cash position	0.5	0.5	0.5	1.1

## DMO gilt financing operations in 2008-09

The DMO issued seven new gilts in 2008-09, six conventional and one index-linked, as detailed in Table 5.

Table 5  
New gilts issued in 2008-09

Gilt	First issued
<b>Conventional</b>	
4¼% Treasury Gilt 2049	03-Sep-08
4½% Treasury Gilt 2019	26-Sep-08
3¾% Treasury Gilt 2011	14-Nov-08
4% Treasury Gilt 2022	27-Feb-09
4¼% Treasury Gilt 2039	05-Mar-09
2¼% Treasury Gilt 2014	20-Mar-09
<b>Index-linked</b>	
1¼% Index-linked Treasury Gilt 2032	29-Oct-08

<sup>3</sup> Figures may not sum due to rounding.

### Implementing the 2008-09 remit

The usual quarterly consultation meetings at which the developing issuance programme was discussed with market participants were supplemented by a fifth meeting on 13 October to discuss the allocation between gilts and Treasury bills of the £37.0 billion financing programme to help recapitalise UK banks.

The following section outlines the issues on which the DMO was seeking feedback at the regular meetings and the nature of the feedback.

#### ● Q1 Issuance programme

The consultation meetings to discuss the gilt auction calendar for April-June 2008 were held on 17 March 2008 (the published minutes of these and the subsequent consultation meetings are reproduced at Annex C).

In the agendas for the meetings published on 12 March 2008 the DMO set out its thinking on the issuance strategy for Q1 and outlined the issues on which it was seeking feedback. These were:

#### Conventional issuance

*“Given the DMO’s policy of issuing regularly across the year in each maturity area, the DMO proposes to hold two auctions each of short-dated and long-dated conventional gilts, and one auction of medium-dated conventional gilts in Q1 of 2008-09.*

- **Short-dated:** *The DMO intends to re-open 4½% Treasury Gilt 2013 at least once within the quarter. The DMO welcomes views on whether this gilt should be re-opened twice or whether it should also issue at a shorter maturity. In the latter case, this might be a re-opening of an existing current coupon short-dated gilt, or the launch of a new ultra-short benchmark.*
- **Medium-dated:** *The DMO expects to re-open 5% Treasury Gilt 2018 in the coming quarter.*
- **Long-dated:** *As far as possible, it is the DMO’s intention to auction long-dated gilts in the early part of a month. Within this maturity bracket, the DMO expects to continue to build up 4¾% Treasury Gilt 2030 and 4½% Treasury Gilt 2042 in the forthcoming quarter, but would also be interested to hear views on the desired maturity (and timing of launch) of any new long-dated gilt and whether there is interest in re-openings of other existing current coupon long-dated gilts”.*

#### Index-linked issuance

*“The DMO will aim to continue to build up new benchmark bonds at key maturities across the real yield curve. As far as possible it is the DMO’s intention to schedule a long-dated index-linked gilt auction towards the end of each month. Of the five index-linked gilt auctions in Q1 the DMO expects that at least three will be of long-dated maturities. The DMO expects to re-open 0¾% IL 2047 at least once in the quarter, and views will be sought on whether there is scope to hold two auctions of this gilt or whether there is a preference to re-open other existing three-month design long-dated gilts. The DMO would also*

*expect to re-open 1 $\frac{7}{8}$ % IL 2022 at least once in Q1, and views will be sought on whether there is demand for the launch of new index-linked gilts at benchmark maturities either in Q1 or later in the financial year”.*

### Meeting feedback and DMO response

Market participants were generally content with the DMO’s suggested approach but in terms of short conventional issuance there was support for supply of a very short dated gilt as well as the 5-year maturity to help meet demand for risk free assets at this part of the curve. The DMO responded to these calls by auctioning 4 $\frac{3}{4}$ % 2010 on 3 April 2008.

At the other end of the curve, ongoing demand for long-dated gilts (both conventional and index-linked issuance) was expressed to which the DMO responded by supply of 4 $\frac{1}{4}$ % 2055 and two auctions of the 40-year index-linked gilt.

### ● Q2 Issuance programme

The consultation meetings to discuss the July-September 2008 gilt auction calendar were held on 19 May 2008. In the agendas for the meetings published on 12 May 2008, the DMO set out its thinking on the issuance strategy for Q2 and outlined the issues on which it was seeking feedback. These were:

#### Conventional issuance

*“Given the DMO’s policy of issuing regularly across the year in each maturity area, the DMO proposes to hold three long-dated auctions, two medium-dated auctions and two short-dated auctions in Q2 of 2008-09.*

**Short-dated:** *The DMO anticipates re-opening 4 $\frac{1}{2}$ % Treasury Gilt 2013 at least once to continue to build it up to benchmark size. The DMO welcomes views on whether this gilt should be re-opened twice, or whether to re-open another existing current coupon short gilt in this quarter.*

**Medium-dated:** *The DMO anticipates re-opening 5% Treasury Gilt 2018 at least once in the coming quarter. The DMO expects to open a new medium maturity gilt in Q2 or Q3 and welcomes views on the exact timing and maturity date.*

**Long-dated:** *The DMO proposes to issue a new long-dated gilt in this quarter and welcomes views on the appropriate maturity date for the new gilt. In line with its benchmark building policy, the DMO also proposes to continue to build up 4 $\frac{3}{4}$ % Treasury Gilt 2030 and/or 4 $\frac{1}{2}$ % Treasury Gilt 2042 in the forthcoming quarter, but seeks views on whether there is interest in re-opening other existing current coupon long-dated gilts”.*

#### Index-linked issuance

*“The DMO will aim to continue to build up new benchmark bonds at key maturities across the real yield curve. As far as possible it is the DMO’s intention to schedule a long-dated index-linked gilt auction towards the end of each month. There are four index-linked auctions scheduled in Q2; the DMO expects that at least two of these will be for long maturities. Views are sought on the timing of the launch of any new index-linked gilts at benchmark maturities”.*

### Meeting feedback and DMO response

Ongoing demand for duration was expressed with support for the launch of a new long-dated conventional gilt in the 2050 area of the curve. There was much less support for the launch of a new long-dated index-linked gilt. There were mixed views on the need for a new 10-year benchmark in Q2. The DMO responded by opening a new 2049 maturity on 2 September 2008 and at the end of the quarter (on 25 September) launched a new 2019 gilt to become the next 10-year benchmark.

#### ● Q3 Issuance programme

The consultation meetings to discuss the October-December 2008 gilt auction calendar were held on 18 August 2008.

In the agendas for the meetings published on 11 August 2008 the DMO set out its thinking on the issuance strategy for Q3 and outlined the issues on which it was seeking feedback. These were:

#### Conventional issuance

*Given the DMO's policy of issuing regularly across the year in each maturity area, the DMO proposes to hold three long-dated auctions, one medium-dated auction and two short-dated auctions in Q3 of 2008-09.*

**Short-dated:** *The DMO anticipates re-opening 4½% Treasury Gilt 2013 at least once to continue to build it up to benchmark size. The DMO welcomes views on whether this gilt should be re-opened twice, or whether another existing current coupon short gilt should be re-opened in this quarter.*

**Medium-dated:** *The DMO anticipates re-opening the new conventional 2019 (to be auctioned for the first time on 25 September) in line with the policy of building gilts up to benchmark size. The DMO welcomes views on the timing of the auction.*

**Long-dated:** *In line with the benchmark building policy, the DMO proposes to re-open the new conventional 2049 gilt at least once in the forthcoming quarter. Views are sought on the identity and timing of the other two long auctions in the quarter, in particular regarding a second re-opening of the new 2049 gilt, one or more re-openings of another existing current coupon long-dated gilt, and/or the desirability of launching a new long conventional gilt in Q3.*

#### Index-linked issuance

*There are four index-linked auctions scheduled in Q3. The DMO will aim to continue to build up new benchmark bonds at key maturities across the real yield curve. As far as possible it is the DMO's intention to schedule a long-dated index-linked gilt auction towards the end of each month. The DMO seeks views on whether a new index-linked benchmark gilt should be launched in Q3 (and if so, the maturity date it should have), and on the re-opening of other benchmark index-linked gilts in the quarter.*

### Meeting feedback and DMO response

Market participants were generally supportive of the DMO's suggested approach, in particular with regard to building up the 2013 and 2049 maturities (both of which were auctioned twice in the quarter) and for the launch of a new index-linked gilt in the sub 25-year maturity. Responding to this interest, the DMO launched a new 2032 maturity index-linked gilt on 28 October 2008 and re-opened it on 9 December.

### Bank recapitalisation programme (October-December 2008)

Following the announcement on 13 October 2008 that the DMO would be raising £37.0 billion to help finance the recapitalisation of UK banks, consultation meetings with gilt market participants were convened later that day with a view to seeking feedback on how the programme should be structured ahead of announcing the details on 14 October.

### Meeting feedback and DMO response

There was a general market preference for the package to be financed mainly by the sale of gilts rather than Treasury bills and for there to be a strong bias toward short and medium maturity sales reflecting the need to raise a substantial amount of cash quickly (this view was in accordance with the DMO's judgement). The market was also supportive of larger sized short-dated auctions.

The announced programme, which was scheduled to be delivered by the end of 2008, was structured 57% short conventional, 19% medium conventional, 5% long/ index-linked and 19% Treasury bills. The permitted maximum size of short auctions was increased to £5.0 billion (cash).

## ● Q4 Issuance programme

The consultation meetings to discuss the January-March 2009 gilt auction calendar were held on 1 December 2008.

In the agendas for the meetings published on 24 November 2008, the DMO set out its thinking on the issuance strategy for Q4 and outlined the issues on which it was seeking feedback. These were:

### Conventional issuance

*“Given the DMO's policy of issuing regularly across the year in each maturity area, the DMO proposes to hold five short-dated, five medium-dated and four long-dated auctions in Q4 of 2008-09. One short-dated mini-tender is scheduled for the week commencing 5 January and three long-dated conventional mini-tenders are also scheduled for the third week of each month. The DMO's aim is to provide regularity in the issuance calendar across each maturity sector/instrument type. The DMO's ongoing policy is to build up new gilts to benchmark size. In order both to widen issuance choices and to contribute to managing the frequency and timing of the launch of new bonds, the DMO is prepared both to re-open older (but current coupon) gilts and to build up individual gilts to larger sizes than has been the practice to date. In*

decisions on the maturity of new gilts the DMO will have explicit regard to the impact on the redemption profile.

- *Short-dated: The DMO anticipates at least one further re-opening each of 4½% Treasury Gilt 2013 and 3¼% Treasury Gilt 2011 to continue to build the gilts up to benchmark size. The DMO welcomes views on other short-dated candidates and on the maturity date and timing of the launch of a new 5-year benchmark (e.g. a new March 2014).*
- *Medium-dated: The DMO anticipates re-opening 4½% 2019 at least once within the quarter. The DMO welcomes views on other medium-dated candidates. The DMO also welcomes views on the maturity date and timing of the launch of a new medium-dated gilt (e.g. a new March 2017 or a new 2023 gilt).*
- *Long-dated: Views are sought on the long-dated candidates for outright auctions. In line with the benchmark building policy, the DMO proposes to re-open each of 4¾% Treasury Gilt 2030 and 4¼% Treasury Gilt 2049 at least once in the forthcoming quarter. The DMO also seeks views on the re-opening of other existing long conventional gilts”.*

#### **Index-linked issuance**

*“There are six index-linked auctions scheduled in Q4. The DMO will aim to continue to build up new benchmark bonds at key maturities across the real yield curve. As far as possible it is the DMO’s intention to schedule a long-dated index-linked gilt auction towards the end of each month. The DMO anticipates re-opening 1¼% IL 2032 at least once in the next quarter and seeks views on the identity and timing of the other index-linked gilt auctions”.*

#### **Meeting feedback**

There was general support for the schedule proposed by the DMO. In the conventional sector there was support for new bonds to be issued in all three maturity sectors – with new gilts maturing in 2014, 2022 and 2039 subsequently being issued in the final quarter.

#### **Results of gilt operations (auctions and mini-tenders) in 2008-09**

The results of the 58 gilt auctions and 8 mini-tenders held in 2008-09 are summarised in Table 6.

Table 6  
Gilt operations results  
2008-2009

Operation Date	Gilt	Size £mn	Cover	Average accepted price AAP (£)	Yield at AAP %	Yield tail bps	Proceeds (£mn)
3-Apr	4¾% Treasury Stock 2010	3,750	2.63	101.51	4.015	0.5	3,802
8-Apr	1¼% Index-linked Treasury Gilt 2017	1,200	1.64	100.49	1.196	N/A	1,308
17-Apr	4½% Treasury Gilt 2042	2,250	1.69	98.86	4.566	0.9	2,223
24-Apr	0¾% Index-linked Treasury Gilt 2047	675	2.28	101.08	0.719	N/A	693
15-May	5% Treasury Gilt 2018	2,500	2.05	100.67	4.912	0.3	2,516
22-May	1⅞% Index-linked Treasury Gilt 2037	900	1.99	109.55	0.763	N/A	1,032
3-Jun	4¼% Treasury Gilt 2055	2,250	1.49	97.06	4.398	0.7	2,184
10-Jun	1⅞% Index-linked Treasury Gilt 2022	1,100	1.58	107.41	1.310	N/A	1,222
12-Jun	4½% Treasury Gilt 2013	3,500	1.91	96.56	5.330	0.7	3,377
24-Jun	0¾% Index-linked Treasury Gilt 2047	650	1.64	110.62	0.455	N/A	739
2-Jul	4½% Treasury Gilt 2042	2,250	1.55	96.65	4.697	0.7	2,174
8-Jul	1⅞% Index-linked Treasury Gilt 2037	850	1.10	110.31	0.734	N/A	993
17-Jul	5% Treasury Stock 2012	3,750	1.65	100.29	4.910	0.3	3,758
24-Jul	1¼% Index-linked Treasury Gilt 2027	1,050	1.20	101.50	1.163	N/A	1,180
29-Jul	5% Treasury Gilt 2018	2,500	2.47	99.96	5.005	0.0	2,490
5-Aug	4¾% Treasury Gilt 2030	2,250	1.58	98.76	4.841	1.0	2,222
14-Aug	1⅞% Index-linked Treasury Gilt 2037	925	1.52	116.43	0.519	N/A	1,149
2-Sep	4¼% Treasury Gilt 2049	2,250	1.73	97.69	4.372	0.5	2,198
10-Sep	4½% Treasury Gilt 2013	3,500	2.13	100.33	4.418	0.5	3,510
23-Sep	1¼% Index-linked Treasury Gilt 2055	450	2.28	126.03	0.614	N/A	639
25-Sep	4½% Treasury Gilt 2019	2,500	2.19	98.10	4.733	0.2	2,450
1-Oct	4¼% Treasury Gilt 2049	2,250	2.08	94.62	4.540	0.4	2,129
7-Oct	1⅞% Index-linked Treasury Gilt 2022	1,200	1.12	100.00	1.875	N/A	1,264
16-Oct	4½% Treasury Gilt 2013	3,750	2.10	100.30	4.423	0.8	3,761
20-Oct	4% Treasury Stock 2009 (T)	1,000	2.13	100.36	3.029	N/A	1,003
21-Oct	4¼% Treasury Gilt 2011	4,750	2.29	100.90	3.848	1.3	4,788
23-Oct	5% Treasury Gilt 2018	3,000	2.01	104.00	4.472	0.4	3,118
28-Oct	1¼% Index-linked Treasury Gilt 2032	1,000	2.49	99.50	1.274	N/A	995
30-Oct	4% Treasury Gilt 2016	4,000	1.61	98.18	4.275	0.8	3,927
4-Nov	4¾% Treasury Gilt 2030	2,250	1.37	97.33	4.950	1.8	2,190
5-Nov	1¼% Index-linked Treasury Gilt 2055 (T)	250	2.10	117.62	0.800	N/A	333
11-Nov	4¾% Treasury Stock 2015	3,500	1.53	104.49	3.990	2.1	3,657
13-Nov	3½% Treasury Gilt 2011	4,000	2.37	100.39	3.115	1.4	4,014
17-Nov	4¼% Treasury Gilt 2055 (T)	1,250	1.86	97.92	4.354	N/A	1,224
20-Nov	4½% Treasury Gilt 2019	3,000	1.60	103.00	4.139	1.7	3,090
26-Nov	0¾% Index-linked Treasury Gilt 2047	700	2.00	93.80	0.940	N/A	690
27-Nov	5% Treasury Gilt 2012	3,750	1.59	105.84	3.108	4.4	3,969
1-Dec	1¼% Index-linked Treasury Gilt 2055 (T)	250	1.62	114.63	0.870	N/A	326
2-Dec	4¼% Treasury Gilt 2049	2,250	2.12	103.49	4.074	0.3	2,328
9-Dec	1¼% Index-linked Treasury Gilt 2032	1,250	1.58	94.91	1.504	N/A	1,192
11-Dec	4½% Treasury Gilt 2013	3,500	1.96	105.27	3.160	1.0	3,683
18-Dec	3¼% Treasury Gilt 2011	3,500	1.57	101.86	2.594	1.4	3,564
6-Jan	5¾% Treasury Stock 2009 (T)	1,500	2.16	104.01	0.898	N/A	1,566
7-Jan	4¾% Treasury Gilt 2038	2,000	1.72	113.38	3.981	0.4	2,267
13-Jan	4½% Treasury Gilt 2019	3,000	2.38	109.39	3.398	0.4	3,280
15-Jan	1¼% Index-linked Treasury Gilt 2032	1,000	1.76	110.00	0.789	N/A	1,099
19-Jan	4¼% Treasury Gilt 2027 (T)	1,250	1.31	98.56	4.362	N/A	1,232
22-Jan	4½% Treasury Gilt 2013	3,500	1.66	108.09	2.424	1.0	3,783
27-Jan	0¾% Index-linked Treasury Gilt 2047	750	1.62	93.51	0.950	N/A	730
29-Jan	4¾% Treasury Stock 2020	2,750	1.37	106.33	4.036	1.2	2,923
3-Feb	3¼% Treasury Gilt 2011	3,750	2.01	103.05	2.135	0.7	3,861
4-Feb	4¼% Treasury Gilt 2049	2,000	2.03	94.04	4.573	0.2	1,876
10-Feb	4½% Treasury Gilt 2019	3,250	1.75	104.61	3.941	0.4	3,399
12-Feb	1¼% Index-linked Treasury Gilt 2027	1,100	1.57	99.00	1.310	N/A	1,204
17-Feb	4¼% Treasury Gilt 2055 (T)	1,000	1.45	103.70	4.072	N/A	1,035
19-Feb	5¼% Treasury Gilt 2012	3,250	2.60	109.75	2.166	1.5	3,566
24-Feb	1⅞% Index-linked Treasury Gilt 2037	950	1.24	99.72	1.136	N/A	999
26-Feb	4% Treasury Gilt 2022	2,750	1.36	99.86	4.014	2.0	2,746
3-Mar	3¼% Treasury Gilt 2011	3,750	2.86	104.15	1.704	0.4	3,905
4-Mar	4¼% Treasury Gilt 2039	2,250	1.48	96.12	4.485	6.5	2,162
10-Mar	4½% Treasury Gilt 2019	3,000	2.06	112.25	3.067	1.8	3,367
12-Mar	1¼% Index-linked Treasury Gilt 2032	1,100	2.62	98.53	1.322	N/A	1,056
17-Mar	5% Treasury Stock 2025 (T)	1,200	1.57	116.70	3.614	N/A	1,400
19-Mar	2¼% Treasury Gilt 2014	3,250	1.45	98.75	2.520	9.8	3,209
25-Mar	4¼% Treasury Gilt 2049	1,750	0.93	95.24	4.506	12.8	1,488
26-Mar	1⅞% Index-linked Treasury Gilt 2022	1,100	2.72	106.21	1.375	N/A	1,196

146,452

\* Prices for uniform price (index-linked) auctions and mini-tenders are the strike not price.

The outturn for gilt sales versus the different remit targets is shown in Table 7.

Table 7  
Gilt sales outturn relative to remit targets

Gilt sales v remit outturn at 31 March 2009 (£ millions)					
	Conventional Gilts			Index-linked gilts	Total
	Short	Medium	Long		
Gilt sales outturn	62,776	33,306	30,331	20,038	146,452
Total planned sales	62,800	33,100	30,500	20,000	146,400
Total auctions planned	16	11	12	19	58
Relative to target	-24	206	-169	38	52

## Consultation on supplementary gilt distribution methods

Since the establishment of the DMO in 1998, gilt auctions have remained the key means by which the Government has implemented its debt management strategy and they remain the preferred means by which to issue gilts going forward.

However, given the significantly increased levels of gilt issuance projected in 2009–10 and beyond, the DMO considered that it would be useful to explore whether other distribution methods might be introduced as a supplement to auctions. Of particular relevance was the potential of supplementary distribution methods better to facilitate the primary market distribution of long-dated conventional and index-linked gilts in accordance with the Government's medium-term strategy<sup>4</sup> and better to align supply with demand for such securities from key investor groups such as the UK pension and insurance sectors.

As a result, a market consultation on 'Supplementary Methods for Distributing Gilts' was launched in December 2008 and closed in January 2009. The principal supplementary distribution method on which the DMO sought views was the re-activation of syndicated gilt offerings, but views on the continued use of mini-tenders and other means such as direct placement with investors were also sought.

The DMO received 35 written responses to its consultation, including from all GEMMs, companies which invest in gilts either on their own behalf or on behalf of other institutional investors (e.g. investment managers), companies which advise pension funds and/or insurance companies, and industry bodies. The DMO also received responses from an academic institution and from individuals.

Feedback from the consultation showed that respondents agreed that the current auction process worked well and had helped to deliver record amounts of financing in a relatively smooth way in 2008–09. However, respondents also agreed that prevailing elevated levels of volatility and a more risk-averse market environment, combined with the high financing requirements projected for the financial year 2009–10 and beyond could affect the Government as issuer and increase the 'execution risk'<sup>5</sup> associated particularly with long-dated conventional and index-linked issuance. In these circumstances it was felt that there was a case to add supplementary distribution methods to support the auction process, so long as they do not interfere with the smooth functioning of the auction process or undermine the principles of predictability and transparency.

The DMO's response to the consultation was published on 18 March 2009 alongside the provisional remit. The following provisional conclusions in respect of supplementary distribution methods in 2009–10 were announced as was the intention that the Government would announce details of any new supplementary distribution methods in Budget 2009.

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<sup>4</sup> The Government's medium term strategy for gilt issuance was set out by the then Economic Secretary to the Treasury in the foreword to the Debt and Reserves Management Report (DRMR) 2007–08. It was stated that "It is likely that strong demand for long conventional and index-linked gilts will persist in the medium term and continue to influence the shape of the yield curve. Should that be the case, our policy of skewing issuance towards long maturities would continue."

<sup>5</sup> There are two aspects to execution risk, (i) auction execution risk, i.e. the risk of an uncovered or poorly covered auction and (ii) programme execution risk, which is the risk that the failure of one operation negatively affect subsequent operations and the delivery of the financing programme.

- *Mini-tenders* – the DMO said it saw merit in the continued use, for a small part of the total issuance programme, in 2009-10, of mini-tenders to support the auction process in meeting the financing requirement, by allowing the Government to issue into pockets of demand identified by the DMO closer to the time that they emerge.
- *Syndication* – the DMO also said it saw merit in the use of syndication in 2009-10, alongside the auction programme, in particular, to issue larger volumes of long-dated conventional and index-linked gilts per operation than it judged would be possible via auction. It was anticipated that syndicated issuance would occur no more frequently than once in any quarter, following the usual quarterly consultation process with market participants.
- *Direct placement* – the DMO said it not see merit in issuing gilts via direct placement.

### Remit 2009-10

A supplementary issuance programme of £37.0 billion (17% of the total gilt sales programme) was announced as part of the 2009-10 Remit on 22 April 2009. The planning assumption is that these sales will be exclusively of long-dated conventional and index-linked gilts. The programme comprises two elements:

- £12.0 billion of sales by mini-tenders to be held at least monthly; and
- £25.0 billion of sales by syndicated offerings (in up to 8 operations)

### Mini-tenders

Mini-tenders were first introduced in the October 2008 remit revision following the announcement of the Government's plans for the recapitalisation of UK banks. The use of mini-tenders in Q3 of the 2008-09 financial year was designed to facilitate the issuance of smaller amounts of gilts, with a shorter pre-announcement period than for auctions, with a view to accessing emerging pockets of demand in specific gilts.

Their use was extended into Q4 of 2008-09 in the PBR 2008 remit revision and they were included in Remit 2009-10 as a permanent addition to the issuance toolkit to be activated in each annual financing remit as appropriate, depending for example, on the size of the financing requirement and the desired split of issuance between different maturities in a given year.

At the end of July 2009 £3.81 billion had been raised from the tender programme.

### Syndicated offers

The DMO first used syndication to launch 1¼% Index-linked Gilt 2055 in September 2005. Syndication continued to exist in the remit as a potential method of issuance but had since lain dormant.

The use of syndicated offerings was highlighted in the DMO consultation document as an option for re-activation as part of an issuance programme. The DMO noted that some of the key benefits that have been cited for use of syndication as an issuance method are that it:

- (i) encourages investor participation;
- (ii) achieves better distribution of bonds;
- (iii) facilitates building up a new issue quickly to a reasonable level of liquidity;
- and
- (iv) allows issuance in a timely and efficient manner.

The DMO will use the consultation meetings throughout the year to discuss the scheduling of syndicated offerings, with announcements about planned syndications in forthcoming quarters being made in the quarterly operation announcements.

By the end of July 2009 £11.45 billion has been raised from two syndicated offerings.

#### **Post auction option facility**

One issue which was raised by some respondents to the consultation exercise was the prospect of an option for successful bidders at auctions to acquire additional stock at the average accepted/strike price of the auction at a point after the close of the auction. The DMO saw merit in such an option in that it could both incentivise bidding in an auction – bidders would only get access to the option if they had bid successfully – and offered the prospect of raising additional proceeds.

Following a short period of further consultation in March-April, Treasury Ministers agreed to the activation of such an option in the DMO remit 2009-10. The facility was introduced from the auction held on 2 June 2009.

Successful bidders at gilt auctions now have the right to acquire up to an additional 10% of their auction allocation between 12noon and 2pm on the day of the auction, at the average accepted/strike price of the auction. To end-July 2009 the option had been activated 5 times out of 11 auctions, raising an additional £1.91 billion.

## Potential innovations in debt management

During 2008-09 the DMO received a number of suggestions for issuance of new types of debt instruments, and market operations, in particular in response to the DMO's consultation on the possible introduction of supplementary gilt distribution methods in the 2009-10 remit<sup>6</sup>.

It was suggested that allocating a small percentage of issuance to niche products, which would not compete with the standard issuance of gilts, could tap into latent demand and might lead to a premium being paid to the Government. Suggestions were also made that wider economic benefits would accrue from the introduction in particular of longevity bonds and the Government's use of interest rate swaps.

The Government continues to keep under review the potential for issuance of new instrument types although it has no current plans to launch any new type of debt financing instrument. Amongst the key issues to consider would be the ability of any such instruments to achieve the Government's long-run cost and risk objectives in debt management.

The Government's debt issuance strategy is to issue fixed interest gilts (in bullet form) in large size to build highly liquid benchmark bonds at a range of maturities. This approach has successfully supported achieving long-run cost minimisation by maximising the benchmark premium in prices/yields arising from the issuance of highly liquid bonds. In addition to directly servicing the demand from fixed income investors (pension funds, insurance companies etc) and international investors, an additional effect of this approach is to facilitate the ability of private sector financial institutions to structure other instruments using the basic 'building blocks' of cash flows from gilts. This also allows the private sector to use its greater expertise to generate, more efficiently than may be possible for Government, 'exotic' cash flow structures. The strategy and issuance approach also contribute to the Government's risk objective by fixing future debt servicing costs and by diversifying the refinancing risk across time.

Another long-standing debt issuance strategy has been the issuance of index-linked gilts which offer inflation protection to the bond holder. A similar issuance approach, building up a range of maturities and using standardised formats, has been used with the aim of enhancing the liquidity premium received at issuance and diversifying refinancing risk. This strategy also contributes to Government's debt management risk objective because the way index-linked debt servicing costs evolve can help diversify the evolution of overall debt servicing costs.

One example of a proposed new product is longevity bonds. The suggestion has been made that demand for protection against longevity risk exists and the Government could tap into this, potentially achieving an 'insurance' premium at issuance. But by contrast with index-linked issuance, issuance of longevity bonds raises significant policy questions, in particular around the transfer of longevity risk onto the Government's balance sheet. This issue runs wider than the DMO's debt management objectives. In addition the depth of the market for, and the potential liquidity of, this type of product are unclear.

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<sup>6</sup> The consultation document on supplementary gilt distribution methods can be found on the DMO's website at: <http://www.dmo.gov.uk/documentview.aspx?docname=publications/giltmarket/consultationpapers/cons171208.pdf>  
The response to the consultation can be found on the DMO's website at: <http://www.dmo.gov.uk/documentview.aspx?docname=publications/giltmarket/consultationpapers/cons20090318.pdf>

A number of other new instrument types have been suggested from time to time and, indeed the DMO has in the past consulted on different possible structures<sup>7</sup>. For example, there have been calls from time to time for bonds with limited price indexation properties (LPI bonds) that could place a cap and/or a floor on the extent to which inflation uplift would be applied to the cash flows on the bonds. It has been suggested that Government could achieve a premium at issuance from the niche nature of the product. However, in the context of a transparent and predictable framework, such structures could be numerous and each one would be likely to be attractive to a limited group of investors, which could lead to an overall loss of liquidity and fragmentation in the gilt market. These outcomes would probably conflict with achievement of the debt management objective primarily by increasing the long-term costs of debt issuance overall.

A further consideration is the practical implications of introducing new instrument types. The implementation costs associated with introducing new instruments must be weighed against the likely relative cash contribution to the Government's financing needs that could be achieved through issuance of the new instrument type.

The Government remains open to the possibility of launching new instrument types and will continue to apply the following criteria to its consideration of any potential new types of debt financing instrument:

- (i) consistency with the debt management objective and the principles on which debt management policy is based;
- (ii) impact on liquidity and the good functioning more generally of the gilt market;
- (iii) the likely size of demand for the new instrument; and
- (iv) an assessment of the cost and resource commitment required for implementation in comparison with the potential size of demand.

Another suggested innovation in UK debt management has been the proposition that the Government become a payer of interest rate or inflation swaps on the basis of potential benefits to the pension and insurance sectors by providing more of the cash flows these sectors need in order to match their long-term liabilities. Although paying swaps would not help the DMO in raising cash to meet the Government's financing requirement it is argued that it could help to reduce long-term costs of debt by changing the risk profile of issuance. For example, it has been suggested that paying swaps could allow Government to access favourable debt servicing rates available at one maturity whilst facilitating issuance of cash bonds at another maturity in larger size than could otherwise take place.

It is not Government policy to undertake swap transactions to complement its gilt operations and the Government has not done so in the past. In this context it is important to note the importance to Government of debt management adherence to the principles of predictability and transparency. The framework of gilt issuance

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<sup>7</sup> For example the DMO launched a public consultation in 2004 that included seeking feedback on the possibility of the DMO issuing annuity gilts. The consultation document can be found on the DMO's website at: <http://www.dmo.gov.uk/documentview.aspx?docname=publications/giltmarket/consultationpapers/cons021204.pdf> The DMO's response to the consultation can be found on the DMO's website at: <http://www.dmo.gov.uk/documentview.aspx?docname=publications/giltmarket/consultationpapers/cons160305.pdf>

(primarily via a pre-committed timetable of gilt auctions) was designed explicitly in accordance with the principles. If the Government was to introduce swaps into the debt management programme it would have to think very carefully about how any swaps programme could be designed not to conflict with those principles. Other issues that would also need to be considered include counterparty risk exposure. Although the Government's overall debt management objective cannot specify which risks are taken into account at any point in time, the Government's current approach to debt management does not generate exposure to counterparties in the longer-term. However, if the Government was, for example, to undertake longer-dated swap transactions then it would be incurring a new class of risk (although the risk could be mitigated at least in part).

Supplementary gilt distribution methods such as sales by syndication facilitate higher issuance of long-dated conventional and index-linked gilts than would otherwise be possible (whilst also reducing the market risk of such operations). They are also being conducted in a way which allows the DMO to meet HM Treasury's overarching requirement to raise in-year the quantum of cash set out in the remit while maintaining the Government's firm commitment to the principles of predictability and transparency in debt management. In this sense, the use of supplementary distribution methods for gilt issuance can be seen as an alternative to writing interest rate or inflation swaps as a means by which to provide the pension and insurance sectors with more of the cash flows that they require.

## The Asset Purchase Facility and Debt Management

On 19 January 2009, the Chancellor of the Exchequer announced that the Government had authorised the Bank of England to set up a new fund, the Asset Purchase Facility (APF). In an exchange of letters on 29 January between the Chancellor and Governor of the Bank of England, the Chancellor set out further details on the operation of the facility, outlining that the purpose of the facility was to increase the availability of corporate credit, and to support the Bank of England's responsibilities for financial and monetary stability.

The Bank was authorised to purchase up to £50 billion of high quality private sector assets (investment grade) under the facility, including paper issued under the Credit Guarantee Scheme (CGS), corporate bonds, commercial paper, syndicated loans and asset backed securities. The facility was to be financed by the DMO through the issue of Treasury bills and cash management operations. In addition, the facility would provide a framework for the Monetary Policy Committee (MPC) of the Bank to use asset purchases for monetary policy purposes, should the MPC conclude that this would assist in meeting the inflation target.

On 9 February 2009, the Bank published a Market Notice setting out how the APF would operate, in particular detailing the establishment and operation of a Commercial Paper Facility, as well as setting outline proposals for a Corporate Bond Secondary Market Scheme and a Credit Guarantee Scheme Facility. The Commercial Paper Facility commenced operation on 13 February, funded by the sale of Treasury bills.

At the meeting of the MPC on 4 and 5 February, the Committee unanimously agreed that the Governor should write to the Chancellor to request the use of the APF for monetary policy purposes, to purchase government and other securities, financed by the use of central bank money. The use of the APF in this manner, for the purchase of gilts and corporate bonds via central bank reserves (and suspending the use of Treasury bills to finance purchases), would give the authorities an additional instrument for implementing monetary policy, by allowing the MPC to purchase assets funded by the provision of central bank reserves. There was an exchange of letters between the Chancellor and the Governor, the Chancellor authorising the use of the APF for monetary policy purposes, increasing the scale of purchases to up to £150 billion, of which £50 billion should be used to purchase private sector assets.

In the exchange of letters at the end of March, the Chancellor's letter to the Governor noted the importance of ensuring that debt management policy is consistent with the aims of monetary policy and reconfirmed that the Government's debt management objective "remains to minimise, over the long term, the costs of meeting the Government's financing needs, taking into account risk, whilst ensuring that debt management policy is consistent with the aims of monetary policy". The Chancellor affirmed that there would be no change to the financing remit for 2008-09 and that the Government would not alter its issuance strategy as a result of asset transactions undertaken by the Bank of England.

The MPC voted at its meeting in March for the APF to purchase £75 billion of assets financed by central bank reserves; the majority of asset purchases were to be of conventional gilts. An initial period of three months was established over which to conduct these purchases.

The first gilt purchases via reverse auctions under the facility began on 11 March 2009. Gilts eligible for purchase were conventional gilts in the maturity range of 5-25 years, with outstanding amounts greater than £4 billion, that were not to be sold to the market by the DMO in the period one week either side of the reverse auction. Index-linked gilts are not eligible for purchase. The facility purchased gilts in twice-weekly operations, with gilts in the maturity range 5-10 years typically purchased on a Monday and gilts 10-25 years to maturity purchased on a Wednesday. The Bank accepted the cheapest bids, relative to market prices for the gilts offered to it up to the total amount to be purchased at the reverse auction.

On 25 March 2009, the Bank activated its corporate bond facility, allowing it to purchase corporate bonds of investment grade via reverse auction. Table 8 details the total asset purchases to the end of the 2008-09 financial year.

Table 8  
Asset purchases by type to  
end March 2009 (£mn)

	Commercial Paper	Gilts	Corporate Bonds	Total
Financed by Treasury Bills	985	-	-	985
Financed by Central Bank Reserves	982	12,993	128	14,103
Total Asset purchases	1,966	12,993	128	15,087

Source: Bank of England

## The DMO remit 2009-10 and future financing projections

### Provisional remit

A provisional financing remit for 2009-10 was published in the provisional Debt and Reserves Management Report 2009-10 on 18 March 2009. This used the forecast CGNCR for 2009-10 as published at PBR 2008 on 24 November 2008, of £126 billion to produce a net financing requirement for the DMO of £144.1 billion, after taking account of planned redemptions.

The publication of a provisional remit followed the Chancellor's decision to hold Budget 2009 on 22 April 2009, and the requirement in the Code for Fiscal Stability for the Government to publish a Debt Management Report within the financial year.

Gilt sales of £147.9 billion were planned in the DMO's provisional financing remit for 2009-10. The provisional gilt sales plans were:

● Short-dated conventional	£63.6 billion in 16 auctions
● Medium-dated conventional	£32.5 billion in 11 auctions
● Long-dated conventional	£31.1 billion in 14 auctions
● Index-linked	£20.7 billion in 20 auctions

The proportionate split of conventional and index-linked gilt issuance was the same as that published for 2008-09 alongside the 2008 Pre-Budget Report (i.e. the 2008-09 proportionate split was carried forward into the 2009-10 provisional remit). It was made clear at the time of the publication of the provisional remit that the split would not necessarily be maintained in light of the updated financing forecasts to be published at Budget 2009.

Operationally the provisional remit covered the period April-May 2009. The auction calendar published with the provisional remit included dates from April 2009 - March 2010, but only the dates in April and May were fixed.

Also published on 18 March 2009, alongside the provisional remit was the DMO's response to the consultation on supplementary gilt distribution methods (see pages 27 to 29). Consistent with this, the provisional remit permitted the continued use of mini-tenders by the DMO to supplement the auction programme.

### DMO remit 2009-10

The DMO remit for 2009-10 was published in the Debt and Reserves Management Report 2009-10 on 22 April 2009 alongside Budget 2009.

Total debt sales by the DMO of £241.6 billion are planned in 2009-10, split as follows:

Outright gilt sales	£220.0 billion
Net Treasury bill sales	£21.6 billion

## The gilt financing remit structure

The DMO's financing remit for 2009-10 included a total planned gilt sales programme of £220.0 billion, comprising:

- a gilt sales programme of £183.0 billion sales in 58 auctions,
- supplementary gilt sales programmes of £37.0 billion split as follows:
  - £25.0 billion of gilt sales via up to 8 syndicated offerings; and
  - £12.0 billion of gilt sales via mini-tenders to be held at least monthly.

The planning assumption is that the entire £37.0 billion of the supplementary gilts sales programmes would be directed at long conventional and index-linked gilt sales (although this assumption can be subject to revision in the light of developing market and demand conditions in 2009-10).

The overall planned split of issuance is as follows:

- £74.0 billion of short-dated conventional gilt sales in 15 auctions;
- £70.0 billion of medium-dated conventional gilt sales in 19 auctions;
- £27.0 billion of long-dated conventional gilt sales in 12 auctions;
- £19.0 billion of long-dated conventional gilt sales in a combination of syndicated offerings and mini-tenders;
- £12.0 billion of index-linked gilt sales in 12 auctions; and
- £18.0 billion of index-linked gilt sales in a combination of syndicated offerings and mini-tenders.

### Post auction option facility

The 2009-10 remit also provided for the launch, from the auction held on 2 June 2009, of a post-auction option facility, under which successful bidders at auctions (both GEMMs and investors) have the option to purchase additional stock up to 10% of the amount allocated to them at the auction itself. The option window opens at 12.00 noon on the day of the auction and closes 2 hours later at 2.00pm. The additional stock is available to successful bidders at the average accepted price at conventional auctions and the strike price at index-linked auctions.

### Gilt operation calendar 2009-10

The gilt operation calendar for 2009-10 is set out in Table 9. It includes the decisions about individual gilts sold in April-May 2009 which were announced on 31 March 2009 and the period June-September 2009 which were announced on 22 May 2009. In addition to auctions it includes details of mini-tenders and syndicated offers held to the end of July 2009.

Table 9  
**Gilt operation calendar 2009-10**  
 (updated to reflect position at  
 31 July 2009)

Date	Gilt/Type
1-Apr-2009	4¾% Treasury Stock 2015
2-Apr-2009	4¼% Treasury Gilt 2039
7-Apr-2009	4½% Treasury Gilt 2019
8-Apr-2009	1¼% Index-linked Treasury Gilt 2032
15-Apr-2009	1½% Index-linked Treasury Gilt 2037 (T)
16-Apr-2009	2¼% Treasury Gilt 2014
28-Apr-2009	4% Treasury Gilt 2022
29-Apr-2009	4¼% Treasury Gilt 2049 (T)
30-Apr-2009	1⅞% Index-linked Treasury Gilt 2022
6-May-2009	4½% Treasury Gilt 2019
12-May-2009	4¾% Treasury Gilt 2030
14-May-2009	0¾% Index-linked Treasury Gilt 2047
19-May-2009	4¾% Treasury Stock 2038 (T)
21-May-2009	2¼% Treasury Gilt 2014
28-May-2009	1¼% Index-linked Treasury Gilt 2032
2-Jun-2009	4¼% Treasury Gilt 2049
3-Jun-2009	4½% Treasury Gilt 2019
9-Jun-2009	5% Treasury Stock 2014
11-Jun-2009	0¾% Index-linked Treasury Gilt 2047
16-Jun-2009	4½% Treasury Gilt 2034 (S)
23-Jun-2009	4% Treasury Gilt 2022
25-Jun-2009	1½% Index-linked Treasury Gilt 2037 (T)
1-Jul-2009	2¼% Treasury Gilt 2014
2-Jul-2009	4¼% Treasury Gilt 2039
7-Jul-2009	3¾% Treasury Gilt 2019
8-Jul-2009	1¼% Index-linked Treasury Gilt 2027
16-Jul-2009	4¼% Treasury Gilt 2032 (T)
21-Jul-2009	4% Treasury Gilt 2016
23-Jul-2009	0⅞% Index-linked Treasury Gilt 2042 (S)
29-Jul-2009	2¼% Treasury Gilt 2014
4-Aug-2009	4¼% Treasury Gilt 2027
11-Aug-2009	3¾% Treasury Gilt 2019
13-Aug-2009	0¾% Index-linked Treasury Gilt 2047 (T)
20-Aug-2009	1¼% Index-linked Treasury Gilt 2032
2-Sep-2009	5¼% Treasury Gilt 2012
3-Sep-2009	4¼% Treasury Gilt 2039
8-Sep-2009	3¾% Treasury Gilt 2019
17-Sep-2009	2¼% Treasury Gilt 2014
29-Sep-2009	4% Treasury Gilt 2022
1-Oct-2009	Conventional
6-Oct-2009	Conventional
7-Oct-2009	Index-linked
14-Oct-2009	Conventional
22-Oct-2009	Conventional
3-Nov-2009	Conventional
4-Nov-2009	Conventional
10-Nov-2009	Conventional
12-Nov-2009	Index-linked
24-Nov-2009	Conventional
1-Dec-2009	Conventional
2-Dec-2009	Conventional
8-Dec-2009	Conventional
9-Dec-2009	Index-linked
6-Jan-2010	Conventional
13-Jan-2010	Conventional
21-Jan-2010	Conventional
2-Feb-2010	Conventional
3-Feb-2010	Conventional
9-Feb-2010	Conventional
11-Feb-2010	Index-linked
24-Feb-2010	Conventional
2-Mar-2010	Conventional
3-Mar-2010	Conventional
9-Mar-2010	Conventional
11-Mar-2010	Index-linked
24-Mar-2010	Conventional

The DMO has no plans to hold any switch auctions, reverse auctions or conversion offers in 2009-10.

### Treasury bill financing

The stock of Treasury bills in market hands is scheduled to rise by £21.6 billion in 2009-10, implying an increase in the projected stock of Treasury bills at end-March 2010 to £65.6 billion.

### Future financing projections

Budget 2009 also included projections for the CGNCR as a percentage of GDP out to 2013-14. Table 10 sets out the resulting CGNCR projections in cash terms together with current redemption totals to produce illustrative financing projections. Note that these are not gilt sales forecasts - they take no account of possible contributions to financing by NS&I or Treasury bill sales.

Table 10  
Budget 2009 – updated  
illustrative financing projections

Illustrative financing projections				
£bn	2010-11	2011-12	2012-13	2013-14
CGNCR projections	179	148	120	104
Gilt redemptions	39	49	34	21
<b>Financing requirement**</b>	<b>218</b>	<b>197</b>	<b>154</b>	<b>125</b>

\*\*Indicative gross financing requirements.

## Chapter 4: Exchequer Cash Management

### Cash remit 2008-09

The DMO's cash management remit for 2008-09, published alongside the Budget on 12 March 2008, specified that the Government's cash management objective is:

*“to ensure that sufficient funds are always available to meet any net daily central Government cash shortfall and, on any day when there is a cash surplus, to ensure this is used to best advantage”.*

HM Treasury and the DMO work together to achieve this, with HM Treasury providing information to the DMO about flows into and out of the National Loans Fund (NLF) and the DMO making arrangements for funding and for placing net cash positions, primarily by carrying out market operations on the basis of HM Treasury forecasts.

### The DMO's cash management objective

The remit specifies that the DMO's cash management objective is to:

*“minimise the cost of offsetting the Government's net cash flows over time, while operating within a risk appetite approved by Ministers. In so doing, the DMO will seek to avoid actions or arrangements that would:*

- *undermine the efficient functioning of the Sterling money markets; or*
- *conflict with the operational requirements of the Bank of England for monetary policy implementation.”*

### Instruments and operations used in Exchequer cash management

In 2008-09 the DMO carried out its cash management objective primarily through a combination of:

- weekly Treasury bill tenders;
- bilateral Treasury bill sales; and
- bilateral market operations with DMO counterparties.

The results of the Treasury bill tenders held in 2008-09 are reported in Annex F and the average yields achieved compared with prevailing General Collateral (GC) repo rates reported in Annex G.

Treasury bills play a role in smoothing cumulative cash positions. Variations in the stock of bills in market hands also serve as a financing instrument within short-term debt sales. In 2008-09 Treasury bill sales contributed £26.4 billion to financing. Table 11 shows the split of issuance in Treasury bills by maturity at tenders over the course of the financial year.

In November 2007 the DMO introduced a facility which allowed it to re-open existing Treasury bills and issue them on a bilateral basis on request from its cash management counterparties (provided that such issuance is consistent with the DMO's cash management operational requirements). Monthly issuance of these bills is shown in the "Other issuance" category in Table 11. At end-March 2009 there were £9.674 billion of bilateral bills in issue and these formed part of the £43.952 billion stock in market hands on that date.

Table 11  
Treasury bill issuance 2008-09

Month End	One Month (£ million)	Three Month (£ million)	Six Month (£ million)	Other Issuance (£ million)	Total Issuance (£ million)	Total Stock Outstanding (£ million)
Apr-08	1,600	3,200	1,600	3,733	10,133	19,023
May-08	1,600	3,200	1,600	1,997	8,397	20,015
Jun-08	2,000	2,174	2,000	2,357	8,531	20,257
Jul-08	1,600	1,600	1,600	2,754	7,554	19,262
Aug-08	1,600	1,600	1,600	2,572	7,372	18,936
Sep-08	2,000	2,400	2,400	10,603	17,403	27,806
Oct-08	1,600	2,000	2,300	26,065	31,965	47,666
Nov-08	1,600	2,000	2,168	3,875	9,643	40,507
Dec-08	1,600	2,000	2,400	8,290	14,290	39,758
Jan-09	1,600	2,800	2,400	6,101	12,901	34,919
Feb-09	1,600	4,000	3,200	5,125	13,925	38,932
Mar-09	3,600	7,000	4,800	7,918	23,318	43,952

The breakdown of the Treasury bill portfolio at end-March 2009 is shown in Table 12.

Table 12  
Treasury bills outstanding at 31 March 2009

Bill Maturity date	Amount in issue (£mn)
06-Apr-09	3,072
14-Apr-09	3,073
20-Apr-09	3,204
27-Apr-09	2,811
05-May-09	1,923
11-May-09	2,101
18-May-09	2,098
26-May-09	2,122
01-Jun-09	1,789
08-Jun-09	2,306
15-Jun-09	2,950
22-Jun-09	3,094
29-Jun-09	1,500
06-Jul-09	725
13-Jul-09	607
20-Jul-09	620
27-Jul-09	808
03-Aug-09	856
10-Aug-09	800
17-Aug-09	1,062
24-Aug-09	853
01-Sep-09	861
07-Sep-09	1,145
14-Sep-09	1,001
21-Sep-09	1,227
28-Sep-09	1,000
19-Oct-09	331
16-Nov-09	14
<b>TOTAL</b>	<b>43,952</b>

## Bilateral cash management operations

In practice the majority of cash management operations in 2008–09, as in previous years, were negotiated bilaterally by the DMO with market counterparties. To ensure competitive pricing, the DMO maintains relations with a wide range of money market counterparties with whom it transacts both directly and via voice and electronic brokers.

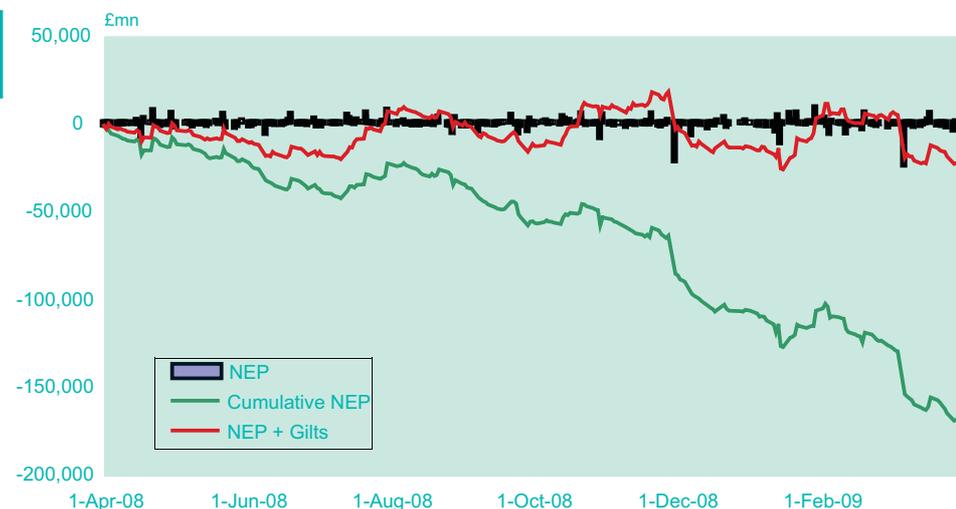
Cash management is conducted through a diversified set of money market instruments in order to minimise cost whilst operating within agreed risk limits. Sterling-denominated repo and reverse repo instruments play a particularly important role, though short-dated cash bonds, Certificates of Deposit, Commercial Paper, reverse repo of foreign currency bonds swapped into sterling, and unsecured loans and deposits are also widely used.

The DMO's money market dealers borrow from or lend to the market on each business day to balance the position in the NLF. In order to do so the DMO receives from HM Treasury forecasts of each business day's significant cash flows into and out of central government. Additionally, the DMO requires up-to-date intra-day monitoring of cash flows as they occur. The DMO trades only with the purpose of offsetting current and forecast future government cash flows, subject to the agreed risk limits. The DMO does not take interest rate positions except in so far as is necessary to offset forecast future cash flows.

Over the course of a financial year, the Exchequer's cash flow has typically had a fairly regular and predictable pattern associated with the tax receipts and expenditure cycles. There were, however, some exceptions to this pattern in 2008–09 associated with the Government's activities to support financial markets and the UK banking sector. Flows associated with gilt coupons and redemptions are also known in advance.

Chart 13 shows the scale of daily cash flows before (the Net Exchequer Position (NEP)) and after (NEP and plus gilt sales) account is taken of the gilt issuance programme. It excludes the effects of Treasury bill issuance and NS&I's overall net contribution to Government financing, but highlights the major contribution of gilt sales to reducing the cumulative deficit in year.

Chart 13  
Exchequer cash flows  
2008–09



Source: HM Treasury/DMO

### Exchequer cash management model in 2008-09

The depth and liquidity of the key money markets in which the DMO operates cash management on behalf of the Exchequer have changed markedly over the past year. The Exchequer cash management model has been required to adapt accordingly.

After the onset of the credit crisis in August 2007, and notably in the aftermath of the Lehman default, liquidity in international and sterling term money markets declined. Falling credit risk appetite and balance sheet de-leveraging by traditional money market participants has tended to discourage discretionary trading and provision of liquidity in favour of more traditional non-discretionary cash management. This shift has been particularly noticeable in the market for unsecured loans, with the rise in Libor vs other market rates, but has also affected liquidity in the term (and forward) repo markets which have typically been significant to DMO cash management. At the same time, however, liquidity in the overnight markets has been relatively high and demand for the highest credit quality instruments has been very strong.

Indeed, investors were keen to invest cash with government through 2008-09, either in the form of Treasury bills or deposits, notwithstanding the large differential between government and commercial rates of interest. Inflows included those from local authorities into the Debt Management Account Deposit Facility (DMADF) and new investors into Treasury bills. The demand base for Treasury bills has evolved over the period with a greater proportion of issuance than in previous years going to investors who value a fairly stable issuance pattern. DMO has consequently made less variation to weekly Treasury bill issuance than in previous years.

In the meantime, the size of the Exchequer cash management task has risen with a number of exceptional and large flows, including those to support the government's initiatives within the financial sector. In some cases, it has been difficult to plan ahead for the size and or timing of these flows.

This environment has required the DMO to be increasingly active on both sides of the Debt Management Account (DMA): gradually operating in illiquid term markets to build up the necessary long or short position to cover future cash flows while at times simultaneously borrowing or lending to balance out timing mismatches, unexpected changes in net cash flows and inflows from investors. The decline in liquidity in the term and forward repo markets has also necessitated an expansion in the gross size of the balance sheet and turnover across the DMA. This is because advance smoothing of large cash flows has needed to begin earlier and, in the absence of term liquidity, there has been more frequent rolling of larger net lending or net borrowing balances than would otherwise have been the case. Cash management continued throughout the year to operate within risk parameters approved by Ministers.

### Active Cash Management Performance Framework and Results

Since 2000 the net in-year cash flows of the Government have been managed actively by HM Treasury and the DMO with the Treasury providing short and medium-term forecasts of daily net cash surpluses and deficits and the DMO transacting with its market counterparties in a range of instruments at a range of different maturities to offset the current and forecast future cumulative net cash position.

This active cash management framework allows the exercise of discretion by specialist cash managers in selecting the appropriate counterparties, instruments and maturities with which to deliver the cash management remit at minimum cost subject to the agreed risk limits. The Cash Management Review of 2004-05<sup>8</sup> recommended this discretion be captured through a quantifiable measure of net interest saving as a means of enhancing effectiveness and ensuring accountability. In 2006-07 HM Treasury and the DMO announced their intention to begin formal performance reporting, commencing with the 2007-08 outturn. For reference, a consistent set of returns for 2006-07 have also been calculated. For 2008-09 these are presented under Key Performance Indicator (KPI) 1.4 in Annex D.

The Treasury and the DMO equally recognise that to measure performance solely in terms of net interest savings is a somewhat narrow interpretation that does not fully capture the ethos or the wider policy objectives the Government sets the DMO as its cash manager. Exchequer cash management differs from that of a commercial entity in that it does not seek to maximise profits, but rather to minimise costs subject to risk while playing no role in the determination of sterling interest rates. Consequently the DMO and HM Treasury monitor and assess overall performance in meeting the Government's objectives using a number of quantitative and qualitative KPIs and controls. A report on performance in 2008-09 appears in Annex D.

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<sup>8</sup> See Chapter 5 Annual Review 2004-05 published in July 2005.

## Chapter 5: Fund management and local authority lending for Central Government

### Fund management

The origins of the Commissioners for the Reduction of the National Debt (CRND) can be traced back to the passing of the National Debt Reduction Act of 1786. From their earliest days the Commissioners had associations with the stock market and this led to a diversification of CRND operations, including in particular the responsibility for the investment of major Government funds. This now constitutes the main function of CRND, which has around £62 billion under its control, representing the assets of the various investment accounts.

The investment powers differ to some extent from fund to fund, depending upon the provisions of the relevant Acts of Parliament, but essentially investments are restricted to government and government guaranteed securities. Currently, the largest funds are the National Insurance Fund Investment Account, the Court Funds Investment Account and the National Lottery Distribution Fund Investment Account. The full list of funds under management is as follows:

- Court Funds Investment Account
- Insolvency Services Investment Account
- National Endowment for Science, Technology and the Arts
- National Insurance Fund Investment Account
- National Lottery Distribution Fund Investment Account
- National Savings Bank Fund
- Northern Ireland Court Service Investment Account
- Northern Ireland National Insurance Fund Investment Account
- Olympic Lottery Distribution Fund Investment Account

CRND continues to provide an efficient, value for money service, with the main investment objectives being to maintain sufficient liquidity to meet withdrawals and to protect the capital value of the funds under management.

### Lending to local authorities

#### Public Works Loan Board responsibilities and objectives

The PWLB is an independent statutory body, headed by Commissioners, which dates back to 1793. Since 2002, the Board has operated as a unit of the DMO, sharing common services while retaining its statutory identity. The Board's Secretary and staff are employees of the DMO.

The PWLB's function is to consider loan applications from local authorities and other prescribed bodies and, where loans are made, to collect the repayments. Nearly all borrowers are local authorities requiring loans for capital purposes.

Loans, which are automatically secured by statute on the revenue stream of the authority, are sourced from the National Loans Fund (NLF). Rates of interest are determined by the DMO in accordance with methodologies agreed with HM Treasury.

The Board's accounts are audited by the Comptroller & Auditor General, whose reports on them are laid before Parliament, to which the Board makes its own Annual Report.

### **PWLB operations in 2008-09**

Loans of £6.4 billion (cash) were made to local authorities during 2008-09.

After taking account of loan repayments, the PWLB's portfolio of loans grew by £0.1 billion over 2008-09 and at end-March 2009, the outstanding balance of principal was £50.9 billion, with a market value of £60.4 billion.

## Chapter 6: The Portfolio Simulation Tool

### Introduction

The DMO has developed a new model referred to as the Portfolio Simulation Tool (PST). This model facilitates an analysis of the impact that gilt and Treasury bill annual issuance decisions have on the characteristics of the Government's outstanding debt portfolio. In the past, a simpler form of simulation modelling referred to as stock flow dynamics used to be presented each year in the Debt and Reserves Management Report (DRMR) produced by HM Treasury with the intention of conveying the impact that different issuance strategies and levels of financing can have on the composition of the Government's debt portfolio. However, the PST offers a much more sophisticated approach that is intended to allow more in-depth analysis, since it provides a much greater capacity to define possible issuance scenarios, it captures the DMO's operational rules more precisely and has the ability to produce a much larger range of portfolio statistics.

Although the UK Government does not have a duration target or other form of target for its debt portfolio HM Treasury and the DMO consider that it is important to understand the implications for the portfolio of issuance decisions going forward, particularly in the context of large projected financing requirements over the next few years. This is the rationale for developing the PST. The purpose of this chapter is to describe the key features of this model and to provide some illustrative results from it.

### How the Portfolio Simulation Tool works

The PST takes the existing Government debt portfolio of gilts and Treasury bills as its starting point. For each year in the future that is being simulated, an estimate has to be supplied to the model for the Central Government Net Cash Requirement (CGNCR). The PST then computes the total gilt redemption payments for each year and adds this to the CGNCR figure to get an estimate for each year's gross financing requirement. For each year of the simulation, details need to be supplied to the model for the split of issuance between different instruments (conventional gilts, index-linked gilts and Treasury bills) and between different maturity bands. In addition, the model needs to be provided with the benchmark maturities to be targeted for issuance within each maturity band, as well as the maximum and minimum permissible size of auctions for each type of instrument. The default maximum and minimum auction sizes in the PST are in line with the DMO's operational rules. That is, conventional gilt auctions have a minimum size of £1.5 billion (cash) and a maximum size of £6.0 billion (cash), whilst index-linked gilt auctions have a minimum size of £0.5 billion (cash) and a maximum size of £2.0 billion (cash).

Once the PST has computed the gross financing requirement for each year it creates a set of auctions for each instrument type and for each maturity band such that the total cash raised from these auctions equates to the gross financing requirement. In line with the practice followed by the DMO in its actual operations, the PST schedules gilt auctions to occur on Tuesdays, Wednesdays or Thursdays. As an alternative to using the auction schedule generated by the PST it is possible

to impose a different auction calendar. This is particularly useful for the first year of the simulation as it means that the actual auction calendar published as part of the remit can be used. Imposing an auction schedule on the model also provides a means of introducing other types of gilt operations which do not necessarily conform to the same rules on sizing as auctions such as mini-tenders and syndicated offerings.

For each auction the PST uses a variety of criteria to determine whether to launch a new bond or to re-open an existing one. The starting point for the model is to consider for each maturity band if it is possible to re-open the existing benchmark bonds. If this is not possible, the PST next assesses whether there are any other existing bonds that could potentially be re-opened. In the event that there are no existing gilts suitable for re-opening the PST will launch a new benchmark bond with a coupon determined from the yield curve. For conventional gilts, the coupon is set from the nominal forward par yield curve and for index-linked gilts, the coupon is set from the real forward par yield curve. The yield curve model used in the PST is the Variable Roughness Penalty (VRP) model developed by the Bank of England and employed by the DMO since 2007<sup>9</sup>.

The coupon dates for new issues are parameters that can be changed in the model. When determining whether existing bonds are suitable for re-opening, the PST references parameters specified in the model for the maximum permissible size of a benchmark bond and also for the maturity window over which the DMO is prepared to re-open a bond. For instance, if the PST is issuing a 10 year bond, existing bonds with a residual maturity of 9.5-10.5 years might be deemed - from a maturity perspective - to be potential candidates for re-opening. The values that these parameters take can be set differently for different maturity bands and different instrument types. If an auction calendar has been imposed on the model it is possible to include as part of this the details on the exact bond to be sold at each auction.

Once the PST has determined which bond is to be sold at each auction it then estimates a clean price for that bond at auction. First it calculates the dirty price, which it estimates as the sum of the net present value (NPV) of the outstanding cash flows on the bond at the time that it is auctioned. The discount factors used to compute the NPV of the cash flows are determined from the nominal yield curve. For index-linked gilts, the future cash flows need to be estimated as they are dependent on the future profile of the Retail Prices Index (RPI). The PST estimates these cash flows by using the inflation term structure derived from the nominal and real yield curves, but as an alternative it is possible to impose a different future profile for the RPI. From the dirty price the PST then subtracts the relevant accrued interest to provide the clean price of the bond at auction.

Once the PST has calculated both the cash that it needs to raise at a given auction and the clean price that is achieved at that auction, it next divides one by the other to obtain the nominal amount sold. Calculating the precise nominal amount in this way means that the model should be able to raise the exact amount of cash required to meet the financing requirement for the year and so ensure that there is no over- or under-funding. However, it does mean that the nominal size of each

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<sup>9</sup> For more information on the VRP model see <http://www.bankofengland.co.uk/statistics/yieldcurve/index.htm>

auction will not conform to the DMO's operational rules on increments, which are that the nominal size of conventional gilt auctions should be a multiple of £50 million nominal and that the nominal size of index-linked gilt auctions should be a multiple of £25 million nominal. If an auction calendar has been imposed on the model then it is possible to specify as part of this the nominal size and/or the cash amount to be raised at some, or all, of the auctions for the year.

### Outputs from the Portfolio Simulation Tool

The PST produces a large range of outputs to illustrate how the debt portfolio changes in the future based on assumptions about the future financing requirement, the instrument and the maturity split of future issuance. The model automatically values every instrument in the portfolio at the end of each financial year and then for each instrument it derives its redemption yield, Macaulay duration, modified duration, interest rate re-fixing period<sup>10</sup> and convexity. These are then used as inputs when the PST computes statistics for the debt portfolio as a whole. In practice, as the PST has been designed to be flexible it is possible to calculate statistics for either the whole portfolio or any subset of it. The portfolio statistics available are extensive and include<sup>11</sup>:

- Percentage of portfolio in each instrument type;
- Percentage of portfolio in each maturity band;
- Market value of the portfolio;
- Uplifted nominal value of the portfolio;
- Average maturity of the portfolio;
- Average redemption yield of the portfolio;
- Average Macaulay duration of the portfolio;
- Average modified duration of the portfolio;
- Average interest rate re-fixing period of the portfolio; and
- Average convexity of the portfolio.

Another important output of the PST is the cash flow schedule that it produces. This provides a complete record of estimated cash inflows from gilt issuance and cash outflows from the gilt portfolio up until the maturity date of the longest dated gilt. The cash outflows calculated by the model are the coupon payments and redemption payments due on each gilt in the portfolio, whilst the inflows are in the form of the cash raised from auctions. The coupon and redemption payments that appear in the schedule reflect any issuance by the PST. Both the total size of each cash flow and the proportion of this cash flow in market hands are calculated and displayed.

### Comparing the PST and the Strategic Debt Analysis (SDA) models

As the DMO has an established tool for simulating strategies of debt portfolio issuance - the Strategic Debt Analysis (SDA) model - it is useful to highlight the

<sup>10</sup> The interest rate re-fixing period for a security is a measure of the time to maturity of the instrument which is calculated by weighting time to each cash flow by the size of the cash flow.

<sup>11</sup> NB: For some statistics it is not appropriate to mix conventional and index-linked gilts to derive a single figure for the entire portfolio. For example, the duration of an index-linked gilt is a measure of its price sensitivity to real interest rates, whilst for a conventional gilt it is a measure of its price sensitivity to nominal interest rates. Consequently, it is misleading to compute a combined duration figure and so the PST produces separate figures for the duration of the index-linked part of the portfolio and the conventional part of the portfolio.

similarities and differences between the PST and the SDA<sup>12</sup>. Like the SDA the PST is a simulation model whose outputs are a function of the inputs and assumptions made. This means that it is not a forecast of the likely gilt portfolio that will exist in the future or over the long-term – rather it is a way to illustrate the portfolio effects of possible gilt issuance decisions. For this reason, the PST will be used alongside the SDA as a ‘tool in the toolkit’ that the debt management authorities may use to inform issuance decisions alongside other evidence.

The PST does not replicate what the SDA does, rather it complements it. The main differences are as follows: (i) the PST is about analysing the portfolio implications of any given issuance strategy where the issuance strategy can be defined with a high degree of specificity; the SDA is about analysing the costs and risks associated with any given issuance strategy at a much broader level; (ii) the PST allows more granularity in inputs and models the DMO’s operational rules more precisely; the SDA is more ‘high level’, looking at broad splits between conventional issuance maturities that are kept constant over time in each scenario; (iii) the SDA incorporates a measure of risk through the modelling of the economy in the background and thus an evaluation of how different resulting yield curves could affect the cost of debt issuance (with the resulting variation of possible costs providing the risk measure) whereas the PST is much more specific on the cost evaluation but does not provide a measure of risk; and (iv) the way in which real yields are modelled. In the SDA the real yield curve is derived in a mechanical way from the nominal curve whereas the PST is more advanced and models the real curve separately so that when real and nominal curves differ, a more realistic comparison of the costs of issuing certain proportions of index-linked gilts/conventional gilts at a given maturity can be reported.

### Illustrative results from the PST

This section presents some illustrative results from the PST and is intended to highlight the types of analysis that the model can be used for. One of the key inputs required by the PST is an estimate or forecast for the CGNCR for each financial year of the simulation. The simulations presented in this chapter are based on the CGNCR projections for the next five years published by HM Treasury at Budget 2009. For completeness, these estimates appear in Table 13.

Table 13  
CGNCR projections for  
future years used in the  
simulations (£ billion)

Financial Year	2009-10	2010-11	2011-12	2012-13	2013-14
CGNCR estimate	220.8	179	148	120	104

Source: HM Treasury

<sup>12</sup> An explanation of the SDA model appears in Chapter 6 of the DMO Annual Review 2005-06: <http://www.dmo.gov.uk/documentview.aspx?docname=publications/annualreviews/gar0506.pdf>

The simulations assume that the change in the level of the Treasury bill stock in 2009-10 is £21.6 billion, in line with the financing arithmetic published at Budget 2009. For simplicity, for subsequent years an arbitrary increase of £5.0 billion per year in the Treasury bill stock has been assumed.

Table 14 contains the details of the three alternative gilt issuance strategies that are presented here. In order to model gilt issuance realistically, illustrative maturity splits have been provided for index-linked gilt issuance and for the split between ultra-short and short conventional gilt issuance, even though these do not represent formal splits published in the DMO's remit.

- *Strategy 1:* The 2009-10 remit split.
- *Strategy 2:* The 'reference' issuance strategy is based largely on an even flow assumption about issuance i.e. it issues gilts in roughly equal proportions across the yield curve (short, medium and long maturities).
- *Strategy 3:* Extreme long-term conventional gilt skew (i.e. 100% long-term conventional gilt issuance).

Table 14  
**Composition of issuance strategies for conventional and index-linked gilts**

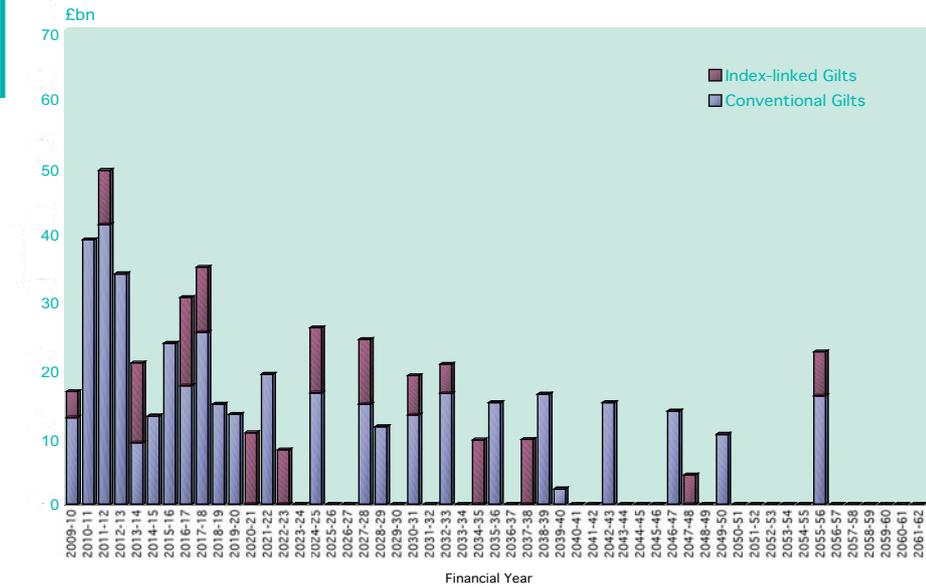
%	Conventional Gilts				Index-linked gilts	
	Ultra Short (0-3 yrs)	Short (3-7 yrs)	Medium (7-15 yrs)	Long (15+ yrs)	Medium (7-15 yrs)	Long (15+ yrs)
Strategy 1	1.7	32	31.8	20.9	3.4	10.2
Strategy 2	7.5	17.5	25	25	12.5	12.5
Strategy 3	0	0	100	0	0	0

### Completing the issuance programme for 2009-10

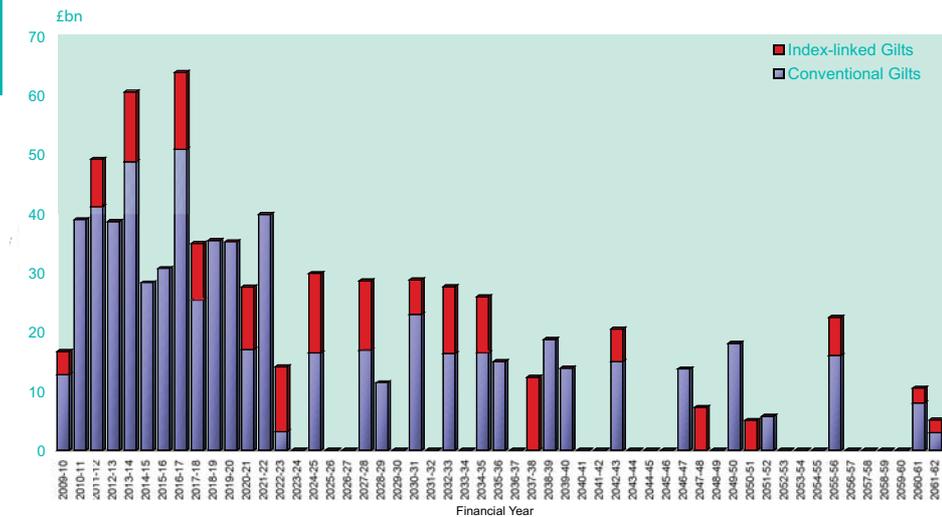
Before examining results from simulations five years into the future it is useful to focus on the current financial year. The PST was run for 2009-10 using Strategy 1 (a representation of this year's remit split) and using the DMO's published auction calendar for the year. The model was also provided with the results from all the auctions, mini-tenders and syndicated offerings held up until 20 July 2009 and with the published details of the bonds to be auctioned up until the end of September 2009. In addition, an estimate for the timing, bond and size for any remaining mini-tenders and syndicated offerings in 2009-10 was given to the model. For valuation purposes the yield curve from 20 July 2009 was used.

Chart 14 shows the actual redemption profile at end March 2009. The redemption payments displayed are calculated using the approach employed by HM Treasury when scoring redemptions of gilts in the financing arithmetic. As such, the data displayed are net of government holdings of gilts and, in the case of index-linked gilts, reflect a partial uplift for inflation over the life of each bond. Chart 15 illustrates the simulated redemption profile at the end of March 2010 generated by the PST. Using the PST in this way to generate an estimate of the redemption profile at the end of each financial year helps quickly to highlight how a given issuance strategy can affect this profile and hence the future gross financing requirement.

**Chart 14**  
Redemption profile at end-March 2009

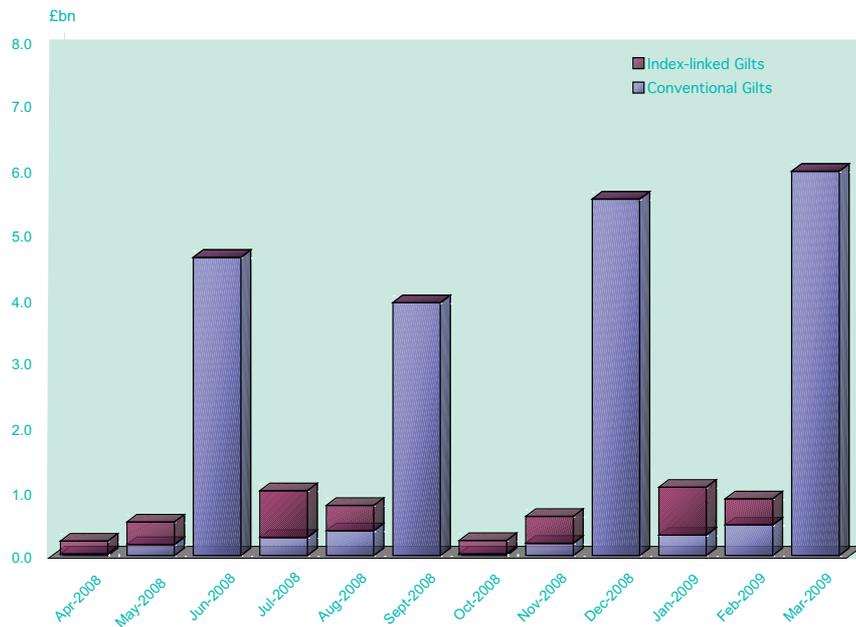


**Chart 15**  
Estimated redemption profile at end-March 2010



As the PST generates a full set of cash flows for the whole gilt portfolio, it is also possible to use it to obtain estimates of coupon payments. For example, Chart 16 illustrates the gross coupon payments for 2008-09 aggregated on a monthly basis. The peaks in March, June, September and December reflect the fact that the overwhelming majority of conventional gilt issuance over the past 12 years has been into bonds paying coupon payments in these months.

Chart 16  
**Estimated gross gilt coupon payments in 2009-10**



At end March 2010 the PST estimates the total size of the gilt portfolio in uplifted nominal terms to be £907 billion, compared with a figure of £713 billion for end March 2009. This significant increase reflects the record size of the gilt issuance programme in 2009-10.

Charts 17 and 18 illustrate how the composition of the debt portfolio (in uplifted nominal terms) is estimated to change over the year. Unsurprisingly, as short and medium maturity conventional gilts account for a larger proportion of the issuance programme in 2009-10 than long conventionals and index-linked gilts, their share in the portfolio increases over the year.

Chart 17  
**Composition of the debt portfolio at end-March 2009**

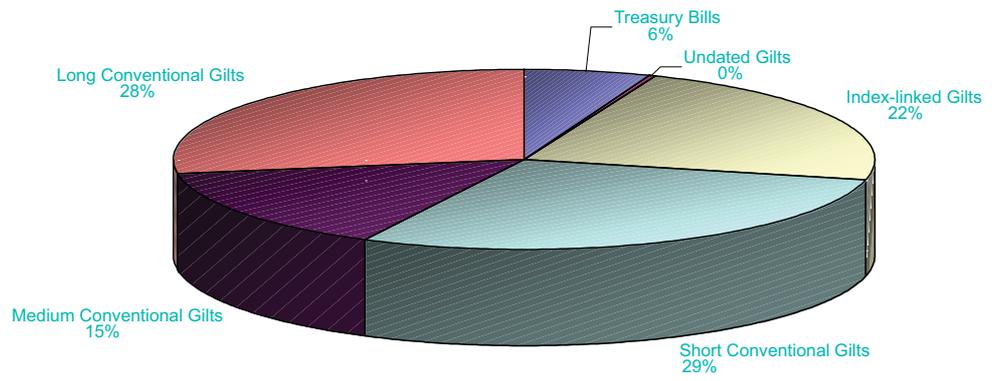
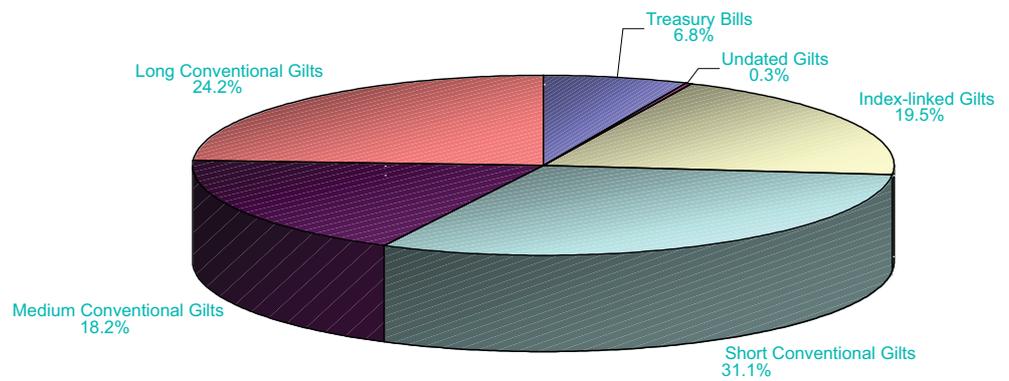


Chart 18  
**Estimated composition of the debt portfolio at end-March 2010**



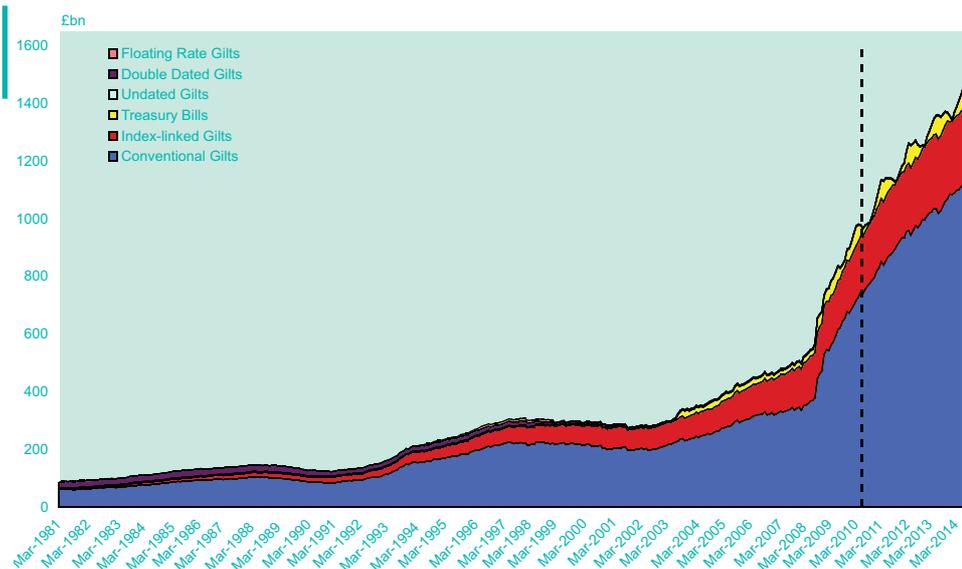
## Evolution of the debt portfolio over the next five years

Scenarios 1 to 3 below are based on the respective issuance Strategies 1-3 that were set out earlier. In all three cases, the remainder of 2009-10 is simulated based on the Budget 2009 instrument and maturity splits for the year, but then the following four years are simulated using the splits in Strategies 1-3. The 5 year horizon was chosen because this is the timeframe over which the published HM Treasury projections for the CGNCR is available.

Chart 19 illustrates the growth in the Government debt portfolio since 1981 based on Scenario 1 (i.e. assuming that the issuance plan for 2009-10 is followed this year and in the subsequent four years). The comparable graphs for the other two strategies look broadly similar to this<sup>13</sup>, but the rate of growth in the portfolio varies from scenario to scenario, reflecting the point in time in the future at which the cost of redeeming the new debt issued by the PST impacts on the gross financing requirement. Clearly, the split in the portfolio between the different instrument types will also vary with the different strategies.

A significant contributory factor to the increase in the size of the portfolio during 2008-09 were the three instances where gilts were created for the DMO to use as collateral – in cash terms around £115 billion of gilts were created in three operations (£15 billion in April 2008, £50 billion in October and another £50 billion in January 2009). For Chart 19, historical data on the Treasury bill stock were only available from 2003. For the simulated years, the irregular intra-year pattern followed by the Treasury bill stock is due to the fact that the PST only models Treasury bill issuance in a fairly simple way. In particular, all Treasury bills issued are assumed to be of 6 months maturity, with issuance occurring in the last 6 months of the year. This constraint is designed to guarantee that the change in the size of the Treasury bill stock over the year is consistent with the financing arithmetic.

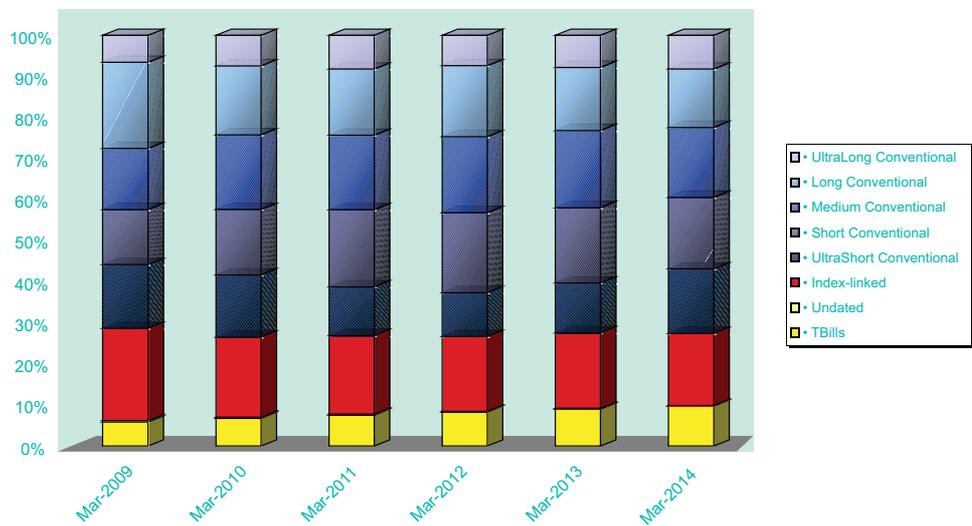
Chart 19  
Size of the debt portfolio (in uplifted nominal terms)



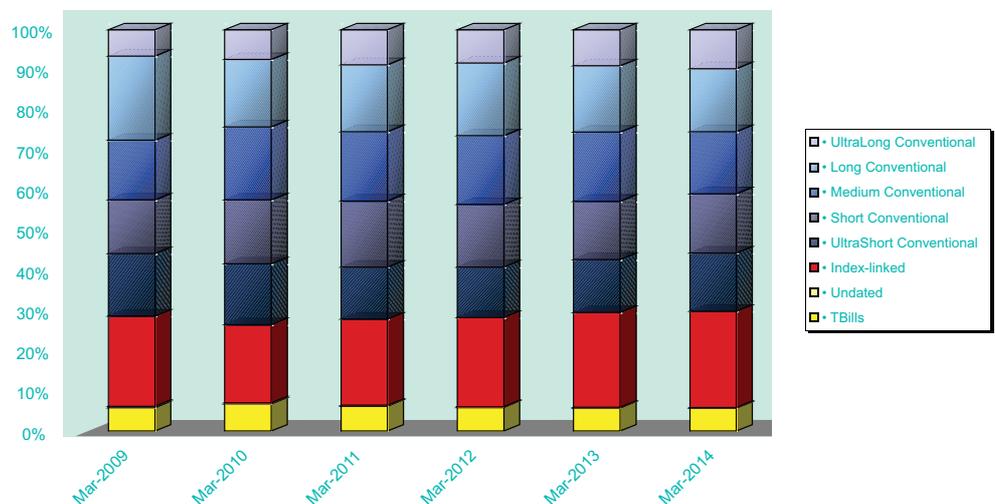
<sup>13</sup> And are not charted for this reason.

Charts 20-22 show how the composition of the portfolio (in uplifted nominal terms) changes over this period based on the three different issuance strategies. For illustrative purposes the long conventional part of the portfolio has been split into long (15-35 years) and ultra-long (35+ years) categories. Scenario 1 shows that an annual assumption of 13.6% of annual gilt issuance in index-linked gilts results in them constituting around 18% of the gilt portfolio by 2014; whereas if index-linked gilt issuance is assumed to constitute 25% of gilt issuance (as in Scenario 2), they would represent 24% of the gilt portfolio by 2014. As expected, in Scenario 3, given that all gilt issuance is into conventional gilts, by 2014 the proportion of index-linked gilts in the portfolio falls significantly to 11%.

**Chart 20**  
Changes in the composition of the debt portfolio for Scenario 1



**Chart 21**  
Changes in the composition of the debt portfolio for Scenario 2



**Chart 22**  
**Changes in the composition**  
**of the debt portfolio for**  
**Scenario 3**

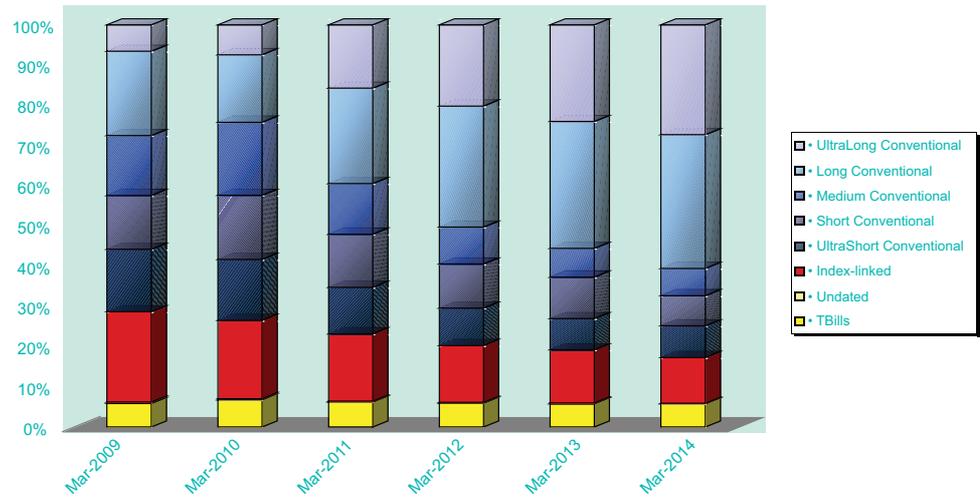


Table 15 compares the composition of the debt portfolio in 2014 based on Scenario 1 (the 2009-10 remit strategy) with that from following Scenario 2 (even flow).

**Table 15**  
**Composition of the debt**  
**portfolio at end March 2014**

Category	Scenario 1	Scenario 2
Treasury Bills	5.7%	5.7%
Undated Gilts	0.2%	0.2%
Index-linked Gilts	18.1%	24.0%
Ultra-short Conventional Gilts	14.3%	14.5%
Short Conventional Gilts	20.1%	14.7%
Medium Conventional Gilts	18.4%	15.5%
Long Conventional Gilts	14.6%	15.7%
Ultra-long Conventional Gilts	8.6%	9.7%

Chart 23 shows how the average maturity of the gilt portfolio changes over time. At end March 2009 the average maturity of the gilt portfolio was 14.1 years and by end March 2010 the PST estimates that this will rise to 14.3 years. In subsequent years, all three scenarios show a further increase in the average maturity of the portfolio. Scenario 1, which is the strategy with least long issuance, leads to the smallest increase in average maturity. By 2014 the average maturity for this scenario was 14.4 years, whereas Scenario 2 results in an average maturity of around 15.8 years. Scenario 3, with its focus purely on long and ultra-long conventional issuance, leads to an average maturity of 24.0 years by 2014.

**Chart 23**  
Average maturity of the gilt portfolio

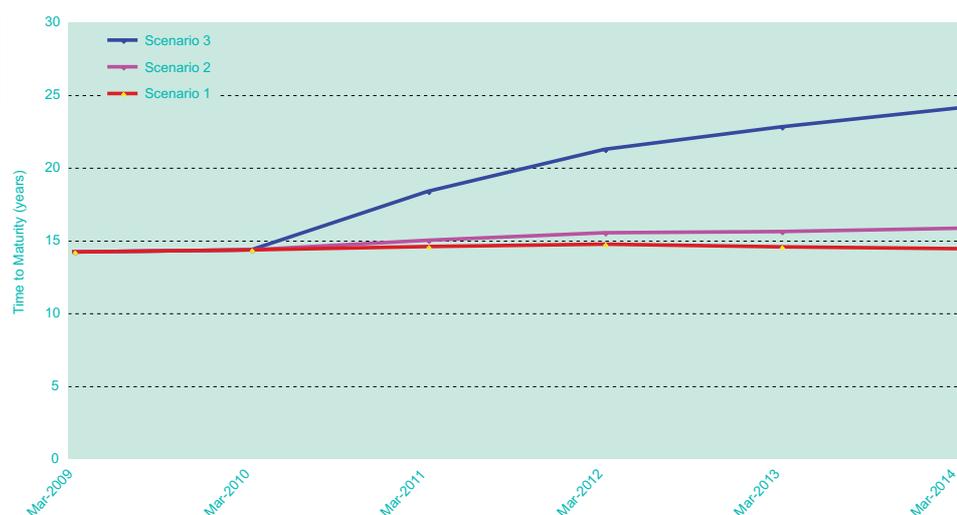


Chart 24 illustrates how the average modified duration of the conventional gilts in the portfolio changes over time<sup>14</sup>. As would be expected, there is a more dramatic change in the average duration for Scenario 3 - where all issuance is in either long or ultra-long conventional gilts - than for the other two scenarios, with the average duration rising from 8.6 years at end-March 2009 to 12.4 years at end-March 2014. In contrast, the other scenarios result in a fall in average duration. In the case of Scenario 1, which has the smallest proportion of long and ultra-long conventional gilt issuance, the duration falls to 7.7 years at end-March 2014, whilst in the case of Scenario 2 the duration falls to 8.3 years.

<sup>14</sup> In addition to standard conventional gilts, double-dated and undated gilts have been included in this calculation.

Chart 24  
Average modified duration  
of conventional gilts



Chart 25 shows how the average modified duration of the index-linked gilts in the portfolio changes over time. At end-March 2009, the average modified duration of index-linked gilts in the portfolio was 13.2 years and by the end of March 2010 the PST suggests that this will rise to 14.6 years. Since no index-linked gilts are issued after March 2010 under Scenario 3, the existing bonds gradually shorten and so the average modified duration falls over time. Scenarios 1 and 2 lead to an increase in the average modified duration of index-linked gilts to 17.8 years and 17.1 years respectively at end-March 2014.

Chart 25  
Average modified duration  
of index-linked gilts



**Concluding remarks**

The PST is an important new model that assists the DMO and HM Treasury when making debt management decisions. This chapter has highlighted some of the types of analysis that can be conducted using the model. Going forward, simulations produced by the PST will appear on a routine basis in publications produced by the DMO.

## Chapter 7: The DMO

The DMO was established on 1 April 1998. In institutional terms, the DMO is legally and constitutionally part of HM Treasury, but, as an Executive Agency, it operates at arms 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 website) 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. The plan sets out the DMO's targets and objectives for the year ahead, and the strategies for achieving them. It also reviews the 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.

### Organisation and resources

The DMO is organised flexibly to ensure that resources are available as necessary for the respective requirements of the business areas. There are 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 across which there is substantial cross-team working to ensure that both policy and operational concerns are adequately met; that the relevant skills are applied to tasks or problems; and that essential operations are adequately resourced.

The DMO's Managing Board (MB) considers all major strategic decisions and comprises the Chief Executive, the Deputy Chief Executive, the Joint Heads of Policy and Markets and the Chief Operating Officer. The other members in 2008-09 were Colin Price and Brian Larkman (non-executive directors) and Samantha Beckett from HM Treasury (non-executive director). Colin Price is also Chairman of the Exchequer Funds Audit Committee, which advises the DMO Chief Executive on matters connected with the DMA, PWLB and CRND accounts. The Treasury Group Resource Audit Committee advises the Chief Executive on matters connected with the DMO's Resource Account.

Within the DMO most business issues are considered by internal committees: in particular those on debt management, cash management and investment, they are supported by a Risk Committee, which also reports to the Managing Board.

### **Managing risk**

The processes the DMO employs to manage its risks are subject to continual review and development to ensure their continued effectiveness. Of particular note was the need proactively to adjust risk policies and risk appetite in response to more uncertain market conditions during the year.

### **Financial Performance**

The DMO is financed through HM Treasury and operates under net cost arrangements, meaning that the control total for the DMO's annual expenditure is agreed by Parliament and comprises an aggregate of target expenditure and income.

### **Operating costs**

The DMO's operating budget reflects a need for skills and systems that are not available elsewhere in Government. The DMO's net operating cost for 2008-09 was £12.0 million, an increase of £2.1 million from 2007-08. The increase largely related to the higher cost of the DMO's trading and debt issuance activity, including settlement and custodial charges, brokerage fees and the cost of acting as an agent for the NLF in issuing government backed securities. This was due to the DMO's increased trading activity in the latter half of the financial year as the Agency responded to severe liquidity problems in the money markets and sought to enable parts of the Government's financial sector intervention package. The DMO successfully managed its operations within the expenditure limits agreed with HM Treasury and voted by Parliament.

### **Administrative costs**

During 2008-09 the DMO's gross administrative expenditure was £12.9 million, a reduction of £0.2 million from 2007-08.

## The DMO's contribution to the Government's activities to support financial markets and the UK banking sector

In 2008-09 the DMO undertook a range of activities at the request of HM Treasury to help stabilise financial markets and support the UK banking sector. This has involved ongoing participation in a number of schemes (as listed below) with HM Treasury and the Bank of England.

### i) Special Liquidity Scheme (SLS)

On 21 April 2008 the Bank of England launched a scheme to allow banks to swap temporarily their high quality mortgaged-backed and other securities for UK Treasury bills. The DMO facilitates this scheme by lending Treasury bills to the Bank (for a fee) when required.

The DMO established and subsequently refreshed on a monthly basis the stock of bills available for this scheme by purchasing specially created Treasury bills from the NLF in quantities informed by the Bank of England's estimates of future demand. The Treasury bills are held on the Debt Management Account (DMA); earning interest from the NLF until lent to the Bank.

The initial purchase of Treasury bills had a nominal value of £50.0 billion and further purchases were made through 2008-09. At 31 March 2009 the nominal value of Treasury bills held on the DMA for the purpose of providing liquidity under the SLS was £205.7 billion<sup>15</sup>.

The drawdown window to access the SLS has closed but the Scheme will remain in place for three years. During this time, participant banks may replace existing stock swaps under the Scheme with new ones under the same terms but maturing before the Scheme closes. Therefore, under current arrangements, the DMA's stock of Treasury bills held for the SLS will not increase.

### ii) Credit Guarantee Scheme (CGS)

In October 2008, the Treasury announced a Financial Intervention Package; of which one of the components was the Credit Guarantee Scheme. The purpose of the Scheme is to help restore confidence by making available, to eligible institutions, a government guarantee of senior unsecured debt of up to three years' maturity for a fee.

The scheme is administered by the DMO acting as an agent for HM Treasury. The DMO's role involves assessing applications to the Scheme, issuing guarantees for eligible instruments and collecting the fees payable from institutions participating in the Scheme. Further information about the CGS is available from a dedicated part of the DMO website at:

[http://www.dmo.gov.uk/index.aspx?page=CGS/CGS\\_about](http://www.dmo.gov.uk/index.aspx?page=CGS/CGS_about)

### iii) Discount Window Facility (DWF)

On 20 October 2008 the Bank of England launched the Discount Window Facility as a permanent successor to the SLS. The purpose of the DWF is to provide liquidity insurance to the UK banking system.

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<sup>15</sup> Although this was not necessarily the amount lent to the Bank.

The DMO facilitates this scheme by lending gilts to the Bank when required, so that the Bank may swap them with participating Banks for eligible securities. On 21 October 2008 the DMO announced that it was creating £47,752 million (nominal) of conventional gilts to be held as collateral on the DMA in connection with the DWF.

Gilts used in the DWF are only used in delivery-by-value (DBV) transactions, or, at the Bank's discretion, in repo transactions. They are not sold or issued outright into the market.

#### **iv) Asset-backed Securities Guarantee Scheme (ABS)**

On 19 January 2009 the Government announced the Asset-backed Securities Guarantee Scheme which is intended to support lending in the economy and represents an extension to the CGS. The DMO is responsible for administering most aspects of this scheme on behalf of HM Treasury.

#### **v) Asset Purchase Facility (APF) initial phase**

On 19 January 2009 HM Government also announced that it was authorising the Bank of England to purchase a range of high quality assets as part of the package of measures to improve liquidity in credit markets. The DMO financed £985 million of purchases under this phase of the APF until 5 March 2009 by a combination of the sale of Treasury bills and its regular cash management operations. The DMO is remunerated at the Bank Rate by the Bank of England on monies provided to it for purchases under the Facility.

Since 5 March 2009 purchases under the APF have been financed by the Bank of England. Such purchases were primarily of gilts – see pages 33-34 for more details of this phase of the operation of the APF.

### **European Union Emissions Trading System (EU ETS): DMO involvement**

In 2007-08 the DMO was appointed by the Department of Energy and Climate Change (DECC) to conduct the auction of EU Allowances in the UK for Phase II of the EU Emission Trading Scheme (EU ETS). The UK National Allocation Plan (NAP) for phase II (which runs until 2012) sets aside 7% of the allowance cap for auctioning, which amounts to around 85 million allowances.

On 19 November 2008 the Government successfully held the first UK auction in the EU ETS, which attracted over 16 million bids for the four million allowances on offer which were issued at a clearing price of €16.15. This was followed on 24 March 2009 by the sale of a further four million allowances, which attracted over 23 million bids and which were issued at a clearing price of €10.98. The DMO will continue to conduct the auctions of the allowances on behalf of DECC throughout the remainder of Phase II.

All EU ETS auction results and a report by the Independent Observer from each auction are published on the DMO's website.



## **Annexes:**

- A) Gilts in issue at 31 March 2009**
- B) List of GEMMs and IDBs at 31 March 2009**
- C) Minutes of consultation meetings**
- D) Debt and cash management performance**
- E) Gilt redemptions and the gilt portfolio**
- F) Treasury bill tender results**
- G) Treasury bill tender performance**

## A: Gilts in issue at 31 March 2009

Total amount in issue (including uplift on index-linked gilts): £713.20 billion (nominal).

### Conventional gilts

Conventional gilts	Redemption date	Dividend dates	First issue date	Amount in issue (£mn nom)	Central Govt holdings (DMO & CRND) (£mn nom)
<b>Shorts: (maturity up to 7 years)</b>					
5¾% Treasury Stock 2009	7-Dec-2009	7 Jun/Dec	30-Jul-1998	15,596	3,011
4¾% Treasury Stock 2010	7-Jun-2010	7 Jun/Dec	19-Nov-2004	21,285	5,296
6¼% Treasury Stock 2010	25-Nov-2010	25 May/Nov	27-Jan-1994	6,720	2,238
4¼% Treasury Gilt 2011	7-Mar-2011	7 Mar/Sep	9-Nov-2005	23,651	5,161
9% Conversion Loan 2011	12-Jul-2011	12 Jan/Jul	12-Jul-1987	7,312	2,122
3¼% Treasury Gilt 2011	7-Dec-2011	7 Jun/Dec	14-Nov-2008	15,747	754
5% Treasury Stock 2012	7-Mar-2012	7 Mar/Sep	25-May-2001	26,867	6,259
5¼% Treasury Gilt 2012	7-Jun-2012	7 Jun/Dec	16-Mar-2007	16,483	2,987
4½% Treasury Gilt 2013	7-Mar-2013	7 Mar/Sep	5-Mar-2008	23,897	3,655
8% Treasury Stock 2013	27-Sep-2013	27 Mar/Sep	1-Apr-1993	8,378	2,583
2¼% Treasury Gilt 2014	7-Mar-2014	7 Mar/Sep	20-Mar-2009	3,250	0
5% Treasury Stock 2014	7-Sep-2014	7 Mar/Sep	25-Jul-2002	17,686	4,695
4¾% Treasury Stock 2015	7-Sep-2015	7 Mar/Sep	26-Sep-2003	21,468	4,975
8% Treasury Stock 2015	7-Dec-2015	7 Jun/Dec	26-Jan-1995	9,998	2,793
<b>Mediums: (maturity 7 to 15 years)</b>					
4% Treasury Gilt 2016	7-Sep-2016	7 Mar/Sep	2-Mar-2006	21,827	4,337
8¾% Treasury Stock 2017	25-Aug-2017	25 Feb/Aug	30-Apr-1992	10,502	3,131
5% Treasury Gilt 2018	7-Mar-2018	7 Mar/Sep	25-May-2007	22,388	4,403
4½% Treasury Gilt 2019	7-Mar-2019	7 Mar/Sep	26-Sep-2008	15,953	1,209
4¾% Treasury Stock 2020	7-Mar-2020	7 Mar/Sep	29-Mar-2005	16,618	3,374
8% Treasury Stock 2021	7-Jun-2021	7 Jun/Dec	29-Feb-1996	22,686	6,291
4% Treasury Gilt 2022	7-Mar-2022	7 Mar/Sep	27-Feb-2009	2,750	0
<b>Longs: (maturity over 15 years)</b>					
5% Treasury Stock 2025	7-Mar-2025	7 Mar/Sep	27-Sep-2001	22,099	5,656
4¼% Treasury Gilt 2027	7-Dec-2027	7 Jun/Dec	6-Sep-2006	18,679	3,932
6% Treasury Stock 2028	7-Dec-2028	7 Jun/Dec	29-Jan-1998	15,932	4,485
4¾% Treasury Gilt 2030	7-Dec-2030	7 Jun/Dec	3-Oct-2007	16,540	3,391
4¼% Treasury Stock 2032	7-Jun-2032	7 Jun/Dec	25-May-2000	22,368	6,039
4¼% Treasury Stock 2036	7-Mar-2036	7 Mar/Sep	27-Feb-2003	20,227	5,230
4¾% Treasury Stock 2038	7-Dec-2038	7 Jun/Dec	23-Apr-2004	21,509	5,267
4¼% Treasury Gilt 2039	7-Sep-2039	7 Mar/Sep	5-Mar-2009	2,250	1
4½% Treasury Gilt 2042	7-Dec-2042	7 Jun/Dec	6-Jun-2007	19,120	4,123
4¼% Treasury Gilt 2046	7-Dec-2046	7 Jun/Dec	12-May-2006	17,751	4,003
4¼% Treasury Gilt 2049	7-Dec-2049	7 Jun/Dec	3-Sep-2008	11,813	1,507
4¼% Treasury Gilt 2055	7-Dec-2055	7 Jun/Dec	27-May-2005	20,147	4,152
3½% War Loan	Undated	1 Jun/Dec	1-Dec-1932	1,939	31

## Index-linked gilts

Index-linked gilts	Redemption date	Dividend dates	First issue date	Base RPI*	Amount in issue (£mn nom)	Nominal including inflation uplift (£mn nom)	Central Govt holdings (DMO & CRND) (£mn nom)
<b>3-month lag</b>							
1¼% I-L Treasury Gilt 2017	22-Nov-2017	22 May/Nov	8-Feb-2006	193.72500	9,634	10,448	338
1⅞% I-L Treasury Gilt 2022	22-Nov-2022	22 May/Nov	11-Jul-2007	205.65806	8,004	8,177	157
1¼% I-L Treasury Gilt 2027	22-Nov-2027	22 May/Nov	26-Apr-2006	194.06667	9,322	10,092	249
1¼% I-L Treasury Gilt 2032	22-Nov-2032	22 May/Nov	29-Oct-2008	217.13226	4,350	4,209	1
1½% I-L Treasury Gilt 2037	22-Nov-2037	22 May/Nov	21-Feb-2007	202.24286	9,477	9,845	204
0¾% I-L Treasury Gilt 2047	22-Nov-2047	22 May/Nov	21-Nov-2007	207.76667	4,298	4,346	49
1¼% I-L Treasury Gilt 2055	22-Nov-2055	22 May/Nov	23-Sep-2005	192.20000	6,434	7,033	235
<b>8-month lag</b>							
2½% I-L Treasury Stock 2009	20-May-2009	20 May/Nov	19-Oct-1982	78.75792	3,427	9,503	1,248
2½% I-L Treasury Stock 2011	23-Aug-2011	23 Feb/Aug	28-Jan-1982	74.55006	4,803	13,948	531
2½% I-L Treasury Stock 2013	16-Aug-2013	16 Feb/Aug	21-Feb-1985	89.20152	7,620	18,494	803
2½% I-L Treasury Stock 2016	26-Jul-2016	26 Jan/Jul	19-Jan-1983	81.62231	7,982	21,173	922
2½% I-L Treasury Stock 2020	16-Apr-2020	16 Apr/Oct	12-Oct-1983	82.96578	6,585	17,184	685
2½% I-L Treasury Stock 2024	17-Jul-2024	17 Jan/Jul	30-Dec-1986	97.66793	6,827	15,133	737
4¼% I-L Treasury Stock 2030	22-Jul-2030	22 Jan/Jul	12-Jun-1992	135.10000	5,207	8,344	533
2% I-L Treasury Stock 2035	26-Jan-2035	26 Jan/Jul	11-Jul-2002	173.60000	9,738	12,144	816

## “Rump” gilts (these are not available for purchase from the DMO)

Rump gilts	Redemption date	Dividend dates	First Issue date	Amount in issue (£mn nom)	Central Govt Holdings (DMO & CRND) (£mn nom)
8% Treasury Stock 2009	25-Sep-2009	25 Mar/Sep	23-Apr-1986	208	0
7¾% Treasury Loan 2012-2015	26-Jan-2012	26 Jan/Jul	26-Jan-1972	408	0
9% Treasury Stock 2012	06-Aug-2012	6 Feb/Aug	7-Feb-1992	204	1
12% Exchequer Stock 2013-2017	12-Dec-2013	12 Jun/Dec	15-Jun-1978	17	0
2½% Treasury Stock	Undated	1 Apr/Oct	28-Oct-1946	423	2
4% Consolidated Loan	Undated	1 Feb/Aug	16-Mar-1932	270	0
2½% Consolidated Stock	Undated	5 Jan/Apr/Jul/Oct	5-Apr-1888	181	2
3% Treasury Stock	Undated	5 Apr/Oct	1-Mar-1946	41	0
3½% Conversion Loan	Undated	1 Apr/Oct	1-Apr-1921	17	5
2½% Annuities	Undated	5 Jan/Apr/Jul/Oct	13-Jun-1853	1	0
2¾% Annuities	Undated	5 Jan/Apr/Jul/Oct	17-Oct-1884	1	0

*It is assumed that double-dated gilts (which have not been called) that are currently trading above par will be redeemed at the first maturity date.*

*Central government holdings include holdings by the DMO and the Commissioners for the Reduction of the National Debt (CRND) but exclude holdings by local authorities, public corporations and the Bank of England.*

## **B: List of Gilt-edged Market Makers (GEMMs) and Inter-Dealer Brokers (IDBs) at 31 March 2008\***

All GEMMs are market-makers in both conventional and index-linked gilts

<b>GEMM</b>	<b>Website</b>
<b>Barclays Capital</b> 5 The North Colonnade Canary Wharf London E14 4BB	<a href="http://www.barcap.com">www.barcap.com</a>
<b>BNP Paribas (London Branch)</b> 10 Harewood Avenue London NW1 6AA	<a href="http://www.bnpparibas.com">www.bnpparibas.com</a>
<b>Citigroup Global Markets Limited</b> Citigroup Centre 33 Canada Square London E14 5LB	<a href="http://www.citigroup.com">www.citigroup.com</a>
<b>Credit Suisse Securities</b> One Cabot Square London E14 4QJ	<a href="http://www.credit-suisse.com">www.credit-suisse.com</a>
<b>Deutsche Bank AG (London Branch)</b> Winchester House 1 Great Winchester Street London EC2N 2DB	<a href="https://gm-secure.db.com">https://gm-secure.db.com</a>
<b>Goldman Sachs International Limited</b> Peterborough Court 133 Fleet Street London EC4A 2BB	<a href="http://www.gs.com">www.gs.com</a>
<b>HSBC Bank PLC</b> 8 Canada Square London E14 5HQ	<a href="http://www.hsbcgroup.com">www.hsbcgroup.com</a>
<b>JP Morgan Securities Limited</b> 125 London Wall London EC2Y 5AJ	<a href="http://www.jpmorgan.com">www.jpmorgan.com</a>

\*Commerzbank AG was a GEMM on 31 March 2009 but resigned on 30 June 2009 and has been excluded from this list on that basis.

**Merrill Lynch International**[www.ml.com](http://www.ml.com)

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

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

20 Cabot Square  
Canary Wharf  
London E14 4QW

**Nomura International plc**[www.nomura.com](http://www.nomura.com)

Nomura House  
1 St Martin's-le-Grand  
London  
EC1A 4NP

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

Thames Court  
One Queenhithe  
London EC4V 4DE

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

135 Bishopsgate  
London  
EC2M 3UR

**UBS Limited**[www.ubs.com/investmentbank/](http://www.ubs.com/investmentbank/)

1 Finsbury Avenue  
London  
EC2M 2PP

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

The Atrium Building  
Cannon Bridge  
25 Dowgate Hill  
London EC4R 2GA

## Inter Dealer Brokers

### **BGC International**

One Churchill Place  
Canary Wharf  
London  
E14 5RD

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

### **Dowgate**

6th Floor  
Candlewick House  
120 Cannon Street  
London  
EC4N 6AS

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

### **ICAP Electronic Broking Limited**

2 Broadgate  
London  
EC2M 7UR

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

### **ICAP WCLK Limited**

2 Broadgate  
London  
EC2M 7UR

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

### **Tullet Prebon Gilts**

155 Bishopsgate  
London  
EC2N 3DA

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

## C: Minutes of the consultation meetings

### RECORD OF QUARTERLY MEETINGS WITH GILT MARKET PARTICIPANTS AHEAD OF THE APRIL-JUNE 2008 GILT AUCTION ANNOUNCEMENT

The DMO held meetings with the Gilt-edged Market Makers (GEMMs) and with representatives of gilt investors on 17 March 2008. The meetings were primarily intended to inform the choice of gilts to be issued in the scheduled auctions in April-June 2008.

Ten gilt auctions are scheduled in the first quarter of FY 2008-09: five each of conventional and index-linked gilts. The conventional auctions are scheduled to be held on 3 and 17 April, 15 May, 3 and 12 June. The index-linked auctions are scheduled to be held on 8 and 24 April, 22 May, 10 and 24 June. The following main points emerged in discussion:

#### GEMMs

**CONVENTIONAL:** In short maturities there were mixed views about the merits of re-opening 4½% 2013 twice in Q1 (thereby helping to build it to benchmark size more quickly), issuing a new short-dated gilt alongside the 2013, or re-opening an existing short-dated conventional alongside the 2013. Those who suggested a new gilt proposed variously a new 2- or 3-year, with maturity dates of March 2010 and September 2011 mentioned. Those who suggested a re-opening of an existing gilt specifically mentioned 4¾% 2010, 4¼% 2011, 5% 2014 (and if not in Q1 - to accommodate two auctions of 4½% 2013 - it was suggested any of these gilts could be opened later in the financial year). 5% 2018 was seen as the obvious choice for medium-dated issuance. For long-dated maturities, there was general support for a re-opening 4½% 2042 in Q1 but a number of GEMMs were ambivalent about the case for re-opening 4¾% 2030 in Q1 (although not necessarily later in the financial year). There were a number of calls instead for a re-opening of 4¼% 2055 and an isolated call for a reopening of 4¼% 2036. There was also some support for a new 2050 maturity gilt to be issued, but generally later in the financial year rather than in Q1.

**INDEX-LINKED:** All attendees supported the case for at least one auction of 0¾% IL 2047, and a number suggested two. The 2027 and 2037 maturities were also frequently mentioned as auction candidates in Q1 and 1¼% IL 2055 was also proposed by some. There was one call for the older design 2035 maturity. Some recommendations were received for the launch of a new index-linked gilt with a 2032/3 maturity in Q1, whilst others advised that such a maturity be issued later in the financial year. Views were divided between 1¼% IL 2017 and 1⅞% IL 2022 for medium-dated issuance. There were also isolated calls for a new 5-year or 2014 maturity at the short-end of the real curve.

## INVESTORS

**CONVENTIONAL:** There was general support for 4½% 2013 to be re-opened twice in Q1 to build it up to benchmark size quickly (although there was one call for a reopening of 4¼% 2011). 5% 2018 was again seen as the obvious candidate for medium-dated issuance, although there was one call for a third long auction (of a new 2050 maturity) at the expense of any medium issuance in Q1. 4¾% 2030 and 4½% 2042 were the predominant choices for long-dated issuance.

**INDEX-LINKED:** Attendees generally expressed preference for continued issuance of long-dated maturities, with most recommending two auctions of 0¾% IL 2047. 1⅞% IL 2022 was the preferred candidate for medium-maturity issuance in Q1. A number of other long-dated issues were mentioned as candidates for re-opening, including the 2027, 2037 and 2055 maturities. There was one call<sup>16</sup> for the launch of a new 2019 maturity and, looking ahead to the index event in August, some calls for the launch, either in Q1 or Q2, of a new bond of a more neutral duration. At the long end of the curve, there were a number of calls for a new 2050 maturity to be launched at some point in the financial year and also mentions of the need for a new 2040 or 2042 maturity.

The details of the conventional gilt auction on 3 April will be announced by the DMO at 3:30pm on Tuesday 25 March. The details of the remaining auction calendar for April-June 2008 will be announced by the DMO at 3:30pm on Monday 31 March.

The next quarterly consultation meetings will be held at the DMO on Monday 19 May 2008.

Published: 28 March 2008

## RECORD OF QUARTERLY MEETINGS WITH GILT MARKET PARTICIPANTS AHEAD OF THE JULY - SEPTEMBER 2007 GILT AUCTION ANNOUNCEMENT

The DMO held meetings with the Gilt-edged Market Makers (GEMMs) and with representatives of gilt investors on 19 May 2008. The meetings were primarily intended to inform the choice of gilts to be issued in the scheduled auctions in July-September 2008.

Eleven gilt auctions are scheduled in the second quarter of FY 2008-09: seven of conventional gilts and four of index-linked gilts. The conventional auctions are scheduled to be held on 2, 17 and 29 July, 5 August and 2, 10 and 25 September. The DMO had previously indicated an expectation to hold two short, two medium and three long-dated conventional auctions in Q2. The index-linked auctions are scheduled to be held on 8 and 24 July, 14 August and 23 September. The following main points emerged in discussion:

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<sup>16</sup> Including by e-mail from those unable to attend.

## GEMMs

**CONVENTIONAL:** A majority of GEMMs favoured two auctions of 4½% 2013 (to build the gilt up quickly), although others suggested a re-opening of another existing short-dated gilt, with 5% 2012 the most often mentioned in this respect. Views were also mixed on the approach to medium issuance, with a majority favouring the launch of a new 2019 maturity in the quarter, generally following a further re-opening of 5% 2018. Others thought that a new 2019 could wait until Q3 and advocated the re-opening of 4% 2016 (or 4¾% 2020) alongside 5% 2018. Some called for two auctions of 5% 2018. A range of views were also received on long-dated issuance. Most recommended a re-opening of 4½% 2042, but opinions were more divided on the merits of re-opening 4¾% 2030. In terms of potential new long-dated maturities, most cited the ongoing demand for duration and recommended the launch of a new gilt in the 2050 area of the curve, though there was also a call for new 2040 or 2060 maturity.

**INDEX-LINKED:** All existing three-month lag bonds were mentioned as possible candidates for re-opening by those at the meeting. A strong bias toward long-dated issuance was expressed, however, by a majority of GEMMs, who supported the re-opening of the 2027, 2037, 2047 and/or 2055 maturities in Q2. The 2027 or the 2037 maturities were favoured by a small majority of attendees as potential candidates for the auction on 14 August (to coincide with the IL 2013 index event), but others mentioned for that date were the 2017, 2035, 2047 and 2055 bonds. There was little support for the launch of any new index-linked gilt in Q2, with attendees generally suggesting that such action could be postponed until the next quarter.

## INVESTORS

**CONVENTIONAL:** For short-dated maturities, views were divided between those advocating two re-openings of 4½% 2013 and others recommending one auction of a shorter-dated gilt alongside 4½% 2013, with 5% 2012 and 5¼% 2012 both mentioned here. There was general support for one re-opening of 5% 2018 and the launch of a new 10-year (2019) gilt in the quarter, although there were also isolated calls for a re-opening of 4% 2016. Again, a range of views were expressed regarding the choice of long-dated issuance in Q2, with general support for re-openings of 4¾% 2030 and 4½% 2042. For a new long-dated gilt, a variety of new maturities were suggested, with 2040, 2049 and 2050 maturities variously mentioned.

**INDEX-LINKED:** Most investors favoured one re-opening of the 2022 maturity early in the quarter. Re-openings of the 2027, 2037 and 2047 maturities were also widely advocated. There were also some calls for a re-opening of the 2055 maturity. The 2027 or 2037 maturities were the most widely suggested maturities for the 14 August auction, although there were some calls for a new 2032 maturity and the re-opening of some 8-month lag bonds.

The details of the auction calendar for July–September 2008 will be announced by the DMO at 3:30pm on Friday 30 May.

The next quarterly consultation meetings will be held at the DMO on Monday 18 August 2008.

Published: 20 May 2008

## RECORD OF QUARTERLY MEETINGS WITH GILT MARKET PARTICIPANTS AHEAD OF THE OCTOBER - DECEMBER 2007 GILT AUCTION ANNOUNCEMENT

The DMO held meetings with the Gilt-edged Market Makers (GEMMs) and with representatives of gilt investors on 18 August 2008. The meetings were primarily intended to inform the choice of gilts to be issued in the scheduled auctions in October-December 2008.

Ten gilt auctions are scheduled in the third quarter of FY 2008-09: six of conventional gilts and four of index-linked gilts. The conventional auctions are scheduled to be held on 1 and 16 October, 4 and 20 November and 2 and 11 December<sup>17</sup>. The DMO had previously indicated an expectation to hold two short, one medium and three long-dated conventional auctions in Q3. The index-linked auctions are scheduled to be held on 7 and 28 October, 25 November and 9 December. The following main points emerged in discussion:

### GEMMs

**CONVENTIONAL:** In terms of auction scheduling, there was general support for a long/short/long/medium/long/short sequence, although there were a few calls for an auction in October of the new 2019 maturity (being auctioned for the first time on 25 September). There was widespread support for two auctions of 4½% 2013, to build it up to benchmark size, and isolated calls for an auction of 5¼% 2012 or a new 2014 maturity. The new 2019 maturity was seen as the obvious candidate for medium-dated issuance. There was widespread support for Q3 to begin with a re-opening of the new 2049 maturity gilt (being auctioned for the first time on 2 September) and significant support for two auctions of that gilt in the quarter. Of the existing long-dated gilts, recommendations were received for reopenings of the 2030, 2036, 2038 and 2055 maturities. There were also a number of calls for a new long-dated gilt to be issued in Q3, with 2034 the most often mentioned maturity year and one recommendation for a new 30-year gilt.

**INDEX-LINKED:** A majority of GEMMs favoured starting the quarter with an auction of either the 2017 or 2022 maturities. Of the other existing gilts, the 2047 maturity was the most often mentioned candidate for reopening in Q3, but some calls were also received for reopening the 2027, 2037 and 2055 maturities. There was also significant support for the launch of a new 2032 or 2033 maturity (and some calls for such a gilt to be issued twice). One call was received for the launch of a new gilt maturing in 2042 or 2043.

### INVESTORS

**CONVENTIONAL:** In terms of auction scheduling, there was widespread support for a long/short/long/medium/long/short sequence. On specific maturities, there was a general preference for two auctions of 4½% 2013, but there was also a call for a re-opening of 5¼% 2012. The new 2019 gilt was the widely favoured candidate for medium maturity issuance, while a re-opening of the 4% 2016 was also mentioned. In terms of long-dated issuance, an auction of the new 2049 gilt on 1 October received very strong support and there was also strong support for two auctions of this gilt in Q3. The 2030 and 2038 maturities were the most often mentioned alternative re-openings, though there was one call for an auction of 6% 2028.

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<sup>17</sup> Auction dates in Q3 are subject to confirmation pending the Chancellor's decision on the date of the Pre-Budget Report (PBR)

**INDEX-LINKED:** There was widespread support for the proposition of bridging existing gaps in the (3-month lag instrument) real yield curve. The most popular maturity years for a proposed new index-linked gilt were 2032 and 2019, although there were some calls for 2040 or 2042. Some investors called for two auctions of a new 2032 maturity and, indeed, a minority called for two new gilts to be issued in Q3. Amongst existing gilts, re-openings of the 2017, 2022 and 2047 maturities were most often mentioned, although there were isolated calls for auctions of the 2013, 2027 or 2037 maturities.

The details of the auction calendar for October-December 2008 will be announced by the DMO at 3:30pm on Friday 29 August.

The next quarterly consultation meetings will be held at the DMO on Monday 17 November 2008 (subject to confirmation depending on the date of the Pre-Budget Report).

Published: 19 August 2008

### **RECORD OF QUARTERLY MEETINGS WITH GILT MARKET PARTICIPANTS TO DISCUSS THE UK BANK RECAPITALISATION FINANCING PROGRAMME**

The DMO held meetings with the Gilt-edged Market Makers (GEMMs) and with representatives of gilt investors on 13 October 2008. The meetings were primarily intended to inform the structure of the planned £37 billion financing programme for the re-capitalisation of UK banks.

The following main points emerged in discussion:

#### **GEMMs.**

There was a general preference for the programme to be financed by gilts rather than Treasury bills (most suggested a Treasury bill contribution in the £5-10 billion range). There was some support, however, for the introduction of one-year Treasury bills. Regarding gilts, there was a general preference for a bias towards short-dated issuance but with some difference of emphasis about whether the focus should be on sub three-year or five-year issuance – with the potential ‘crowding out’ effect of Government-guaranteed bank borrowing impacting on the former. Mixed views were also expressed on the need for a new short-dated benchmark, as opposed to the merits of re-opening existing issues from 2010 onwards. It was suggested that the maximum size of short auctions might be increased to up to £5 billion. General support was expressed for re-opening existing gilts in the 5-10 year sector, with 4% 2016, 5% 2018 and 4½% 2019 most often mentioned. Despite the clear emphasis on short- and medium- dated issuance, some attendees also felt it was important not to neglect entirely the long-dated sector. Here a re-opening of 4¼% 2055 was most often suggested. There was limited support for index-linked issuance, but amongst those that did advocate extra issuance here, most attendees suggested that it should be long-dated, but could, to some extent, be accommodated by issuing larger sizes in those auctions already scheduled.

## INVESTORS

Views were mixed about the potential contribution by Treasury bills to the package, with some attendees advocating a contribution of approximately a third of financing from this source, whilst others suggested a much smaller proportion. The existing facility to issue bills bilaterally was highlighted. Here too, there was a general preference for biasing the gilt programme towards short- and medium- dated issuance. However, whilst most acknowledged the current structural demand for short-dated assets, some concerns were also expressed about the potential 'crowding out' effect of sub three-year guaranteed bank lending on ultra-short gilts. Notwithstanding this, attendees were generally open to the notion of a new short-dated gilt. Most often mentioned among the long-maturities was the 2055 gilt. Sharply contrasting views were expressed about the scope for index-linked issuance to contribute to the programme, but some pointed to the highly inverted nature of the real yield curve in particular as evidence of continuing structural demand. Details of the programme will be announced at 3.30pm today. The next quarterly consultation meetings will be held at the DMO on Monday 17 November 2008 (subject to confirmation depending on the date of the Pre-Budget Report).

Published: 14 October 2008

## RECORD OF QUARTERLY MEETINGS WITH GILT MARKET PARTICIPANTS AHEAD OF THE JANUARY-MARCH 2009 GILT AUCTION ANNOUNCEMENT

The DMO held meetings with the Gilt-edged Market Makers (GEMMs) and with representatives of gilt investors on 1 December 2008. The meetings were primarily intended to inform the choice of gilts to be issued in the scheduled gilt market operations in January-March 2009.

20 gilt auctions are scheduled in the final quarter of 2008-09: 14 of conventional gilts and 6 of index-linked gilts. The conventional auctions are split by maturity as follows: 5 short-dated, 5 medium-dated and 4 long-dated. In addition 4 mini-tenders of conventional gilts are planned: 1 of short-dated and 3 of long-dated gilts. The following main points emerged in discussion:

### GEMMs

**CONVENTIONAL:** There was general support for the schedule for the maturity of conventional issuance suggested in the published agendas. Amongst short-dated gilts, there was widespread support for re-openings of 3¼% 2011 and 4½% 2013 and for the launch of a new 2014 maturity (with a number of recommendations for these gilts to be auctioned more than once). 5¼% 2012 was also suggested as an auction candidate by some. In the medium sector 4½% 2019 was seen as the obvious candidate to be re-opened with most recommending it be auctioned at least twice. There were also some calls for a re-opening of 4¾% 2020. In discussions about the launch of a new medium-dated gilt, views were split between a new 2017 maturity or a new gilt in the 2022/23 part of the curve (although the latter was generally the more popular choice). Amongst long-dated gilts, re-openings of the 2049 maturity were the most widely recommended. There were also a number of calls for issuance into the 30-year area of the curve, both the re-opening of 4¾% 2038 and a new gilt maturing in 2039/40. There was less support for a re-opening of 4¾% 2030. There were also isolated calls for a new ultra-long (2059/60 maturity).

There was also general support for the recent introduction of mini-tenders to supplement auctions, in particular as a means of supplying additional long-dated gilts, but some difference of view emerged about the period of notice to be given of the gilt being sold at tender (most agreed with the DMO suggestion that a period of a week was appropriate, whereas some suggested that more notice should be given). Regardless of the notice period, 5¾% 2009 was the preferred candidate gilt to be issued at the first mini-tender (in wc 5 January).

**INDEX-LINKED:** There was a general preference to continue the re-opening existing gilts (to build up liquidity) over the launch of a new issue in Q4. The 2032 maturity was most often recommended for auction – with a number of GEMMs recommending it be auctioned twice. The 2022, 2027, 2037, 2047 and 2055 maturities were also widely recommended. There were only isolated calls for a new gilt to be launched, with a preference for a 2042 maturity over a 2019 maturity.

### INVESTORS

**CONVENTIONAL:** Those who expressed a specific view gave support to the schedule for the maturity of conventional issuance suggested in the published agendas. In terms of individual maturities, re-openings of 3¼% 2011 and 4½% 2013 and the launch of a new, current coupon 2014 were recommended by those who expressed an interest in short-dated gilts. Among medium-dated gilts, 4½% 2019 was seen as an obvious candidate for re-openings, along with calls for auctions in the 4¾ 2020, and/or the launch of a new bond maturing in 2022/3. Amongst long-dated gilts, investors were also less supportive of issuance in the 20-year area of the curve, but there were calls for a re-openings of 4¾% 2038 and 4¼% 2049 as well as the launch of a new 2039 or 2040 maturity. Where mentioned, investors were also supportive of the use of mini tenders.

**INDEX-LINKED:** Amongst those who recommended specific maturities there was significant interest in re-openings of the new 2032 maturity, further issuance of the 2055 maturity and some suggestions for the launch of a new 2040 (or 2042) maturity.

The details of the auction calendar for January-March 2009 will be announced by the DMO at 3:30pm on Friday 5 December.

The DMO confirmed that the gilt market will be closed early on Christmas Eve and New Year's Eve, with GEMMA Reference Prices to be published at 1:00pm on those days.

The next consultation meetings with market participants, to discuss the financing remit for 2009-10, and chaired by the Economic Secretary to the Treasury, will be held at HM Treasury on 12 January 2009.

The next quarterly consultation meetings to discuss issuance in Q1 2009-10 will be held at the DMO on Monday 23 March 2009 (date subject to confirmation depending on the date of Budget 2009).

## D: Debt and cash management performance

### Gilt issuance counterfactuals

The DMO has been publishing the results of its measurement of auction performance against counterfactuals in its Annual Review since 2001. The intention in doing so is to illustrate whether different non-discretionary issuance patterns during the year could have resulted in higher or lower costs of financing (measured by comparing the cash weighted yield of actual issuance with the yield on various counterfactual issuance patterns) but on the basis of a key assumption that the different issuance patterns modelled would not have impacted the levels of yields relative to those achieved in practice (see below).

The underlying rationale for considering auction performance against counterfactuals is that it provides one means by which to analyse the performance of the debt management authorities in achieving the debt management objective. It is worth noting in this context that measuring performance against the primary debt management objective is not straightforward, which is also widely acknowledged by other sovereign debt managers. Hence, presentation of counterfactuals should not be interpreted as a complete or authoritative means by which to test achievement of the debt management objective.

It is also important to recognise the limitations of the analysis. In particular the key assumption that the counterfactual issuance patterns would not have had any impact on yields is unlikely to hold in practice particularly where the gilt issuance pattern under the counterfactual was significantly different from actual issuance (e.g. a heavy skew to a certain maturity). Whilst it is likely, certainly over the medium to longer-term, that the greatest influences on the level of yields will be macro-economic conditions and market expectations of interest rates, establishing the extent to which changes in volumes and patterns of supply might affect yields is more difficult.

For these reasons, caution is required when interpreting the cost of counterfactual issuance patterns implied by the different yields set out in this annex in comparison with actual issuance. Nevertheless, the DMO considers it worthwhile to present this analysis because it provides one possible analytical framework within which to consider the cost-effectiveness of the chosen debt issuance strategy.

The cash weighted average yield of actual issuance at the 58 gilt auctions and 8 mini-tenders in 2008-09 was 3.828%. See Table D1. (Index-linked real yields have been converted to nominal equivalents, assuming 3% inflation).

Table D1  
Cash weighted average yield of  
gilt issuance 2008-09

Date	Gilt	Real yield (%)	Nominal yield (%)	Cash £mn
03-Apr	4¾% 2010		4.015	3,802
08-Apr	1¼% IL 2017	1.196	4.192	1,308
17-Apr	4½% 2042		4.566	2,223
24-Apr	0¾% IL 2047	0.719	3.708	693
15-May	5% 2018		4.912	2,516
22-May	1½% IL 2037	0.763	3.752	1,032
03-Jun	4¼% 2055		4.398	2,184
10-Jun	1⅞% IL 2022	1.310	4.307	1,222
12-Jun	4½% 2013		5.330	3,377
24-Jun	0¾% IL 2047	0.455	3.440	739
02-Jul	4½% 2042		4.697	2,174
08-Jul	1½% IL 2037	0.734	3.723	993
17-Jul	5% 2012		4.910	3,758
24-Jul	1¼%IL 2027	1.163	4.158	1,180
29-Jul	5% 2018		5.005	2,490
05-Aug	4¾% 2030		4.841	2,222
14-Aug	1½% IL 2037	0.519	3.505	1,149
02-Sep	4¼% 2049		4.372	2,198
10-Sep	4½% 2013		4.418	3,510
23-Sep	1¼%IL 2055	0.614	3.601	639
25-Sep	4½% 2019		4.733	2,450
01-Oct	4¼% 2049		4.540	2,129
07-Oct	1⅞% IL 2022	1.875	4.881	1,264
16-Oct	4½% 2013		4.423	3,761
20-Oct	4% 2009 (T)		3.029	1,003
21-Oct	4¼% 2011		3.848	4,788
23-Oct	5% 2018		4.472	3,118
28-Oct	1¼% IL 2032	1.274	4.271	995
30-Oct	4% 2016		4.275	3,927
04-Nov	4¾% 2030		4.950	2,190
05-Nov	1¼%IL 2055 (T)	0.800	3.790	333
11-Nov	4¾% 2015		3.990	3,657
13-Nov	3¼% 2011		3.115	4,014
17-Nov	4¼% 2055 (T)		4.354	1,224
20-Nov	4½% 2019		4.139	3,090
25-Nov	0¾% IL 2047	0.940	3.932	690
27-Nov	5% 2012		3.108	3,969
01-Dec	1¼%IL 2055 (T)	0.870	3.861	326
02-Dec	4¼% 2049		4.074	2,328
09-Dec	1¼% IL 2032	1.504	4.504	1,192
11-Dec	4½% 2013		3.160	3,683
18-Dec	3¼% 2011		2.594	3,564
06-Jan	5¾% 2009 (T)		0.898	1,566
07-Jan	4¾% 2038		3.981	2,267
13-Jan	4½% 2019		3.398	3,280
15-Jan	1¼% IL 2032	0.789	3.779	1,099
19-Jan	4¼% 2027 (T)		4.362	1,232
22-Jan	4½% 2013		2.424	3,783
27-Jan	0¾% IL 2047	0.950	3.942	730
29-Jan	4¾% 2020		4.036	2,923
03-Feb	3¼% 2011		2.135	3,861
04-Feb	4¼% 2049		4.573	1,876
10-Feb	4½% 2019		3.941	3,399
12-Feb	1¼% IL 2027	1.310	4.307	1,204
17-Feb	4¼% 2055 (T)		4.072	1,035
19-Feb	5¼% 2012		2.166	3,566
24-Feb	1½% IL 2037	1.136	4.131	999
26-Feb	4% 2022		4.014	2,746
03-Mar	3¼% 2011		1.704	3,905
04-Mar	4¼% 2039		4.485	2,162
10-Mar	4½% 2019		3.067	3,367
12-Mar	1¼% IL 2032	1.322	4.320	1,056
17-Mar	5% 2025 (T)		3.614	1,400
19-Mar	2¼% 2014		2.520	3,209
25-Mar	4¼% 2049		4.506	1,488
26-Mar	1⅞% IL 2022	1.375	4.373	1,196
			<b>3.828</b>	<b>146,452</b>

The cash weighted yield of issuance by type of gilt and maturity is shown in Table D2 below.

Table D2  
Average issuance yield by type  
and maturity of gilt.

Average yield of gilt issuance in 2008-09		
	Cash	%
<b>All issuance</b>	<b>146,452</b>	<b>3.828</b>
<b>By maturity</b>		
Short (conv)	62,776	3.296
Medium (conv+ilg)	38,296	4.173
Long (conv+ilg)	45,380	4.015
<b>Conventional</b>		
Short	62,776	3.296
Medium	33,306	4.134
Long	30,331	4.040
<b>Total Conventional</b>	<b>126,413</b>	<b>3.695</b>
<b>Index-linked</b>		
Medium	4,990	4.438
Long	15,049	3.963
<b>Total index-linked</b>	<b>20,038</b>	<b>4.0812</b>

The actual average yield of all outright issuance in 2008-09 of 3.828% can then be compared with yields derived by applying the actual cash weighted yield of different maturities/types of gilt to different gilt issuance patterns. Table D3 contrasts the actual average issuance yield of the 2008-09 remit with three counterfactuals assuming:

- an even-distribution approach to financing;
- a significantly greater bias towards long-dated issuance;
- a significantly greater bias towards short-dated issuance, and most fundamentally;
- that the different issuance patterns had no impact on yields.

Table D3  
Illustrative yields assuming  
different issuance patterns

Conventional		Remit (£bn)	Even-flow (£bn)	Long bias (£bn)	Short bias (£bn)
Short	3.296	62.8	42.2	20.0	86.5
Medium	4.134	33.3	42.2	20.0	20.0
Long	4.040	30.3	42.2	86.5	20.0
		<b>126.4</b>	<b>126.5</b>	<b>126.5</b>	<b>126.5</b>
<b>Index linked</b>					
Medium	4.438	5.0	10.0	5.0	15.0
Long	3.963	15.0	10.0	15.0	5.0
		<b>20.0</b>	<b>20.0</b>	<b>20.0</b>	<b>20.0</b>
<b>Total gilt sales</b>		<b>146.5</b>	<b>146.5</b>	<b>146.5</b>	<b>146.5</b>
<b>Average yield</b>		<b>3.828</b>	<b>3.875</b>	<b>3.957</b>	<b>3.652</b>
<b>Diff bps</b>			<b>4.6</b>	<b>12.8</b>	<b>-17.7</b>

An even-split approach to financing by maturity produces a marginally higher average yield of issuance whereas the skews much longer and shorter produce significantly larger under and over performances respectively. When interpreting these results it is important to bear in mind changes in the shape of the nominal gilt yield curve during 2008-09. As noted in Chapter 2 (Chart 1) gilt yields fell significantly at the short-end of the nominal curve and rose at the long-end during 2008-09. Given the key assumption that yields would have been unaffected by the counterfactual issuance patterns relative to actual issuance, it is clear that an issuance pattern much more heavily skewed towards long-dated conventional issuance ('Long bias' pattern) would have a higher average yield than actual issuance. Conversely, the 'Short bias' pattern would have resulted in a lower average yield than actual issuance.

While the 'Short bias' pattern illustrated above shows a potentially significant lower overall financing yield than the actual issuance pattern, this should not be interpreted as implying this would necessarily have been an issuance strategy that would better have met the overall debt management objective.

The outcomes from counterfactual modelling of this kind need to be considered in the context of an objective that requires the DMO (and many other sovereign issuers with similar objectives) to pursue policies designed to minimise long-term cost whilst taking account of the risks to which debt issuance exposes the Exchequer – i.e. the DMO does not seek exclusively to minimise yield at the expense of other considerations. In order to determine the maturity and composition of debt issuance, the Government takes account of a number of factors including:

- the Government's own appetite for risk, both nominal and real;
- the shape of both the nominal and real yield curves and the expected effect of issuance policy and
- investors' demand for gilts.

### **Auction concession analysis**

Table D4 illustrates the potential yield concession/premium in the immediate run up to auctions held in 2008-09. It shows the difference between the actual proceeds received and those that would have been generated had each auction been priced at the close of business reference price on the previous day. Again, as with the counterfactual issuance methodology this analysis has limitations, and conclusions should be caveated with reference to the fact that only a single point of comparison (close of business price of the gilt on the night before) is used.

In most cases prices fell ahead of auctions and the average concession across the 58 operations was £5.8 million per auction. There was little difference in the size of average concessions between conventional (£5.7 million) and index-linked gilts (6.1 million), but a significant range in average concessions across conventional maturities (short, £2 million, medium £1 million, and long £12 million).

Table D4  
**Auction concession (-) and  
 premia ahead of gilt auctions in  
 2008-09**

	<b>Gilt</b>	<b>concession (-)/ premium (£mn)</b>
03-Apr	4¾% Treasury Stock 2010	1.9
08-Apr	1¼% Index-linked Treasury Gilt 2017	-6.2
17-Apr	4½% Treasury Gilt 2042	-20.9
24-Apr	0¾% Index-linked Treasury Gilt 2047	-4.1
15-May	5% Treasury Gilt 2018	-18.5
22-May	1½% Index-linked Treasury Gilt 2037	4.1
03-Jun	4¼% Treasury Gilt 2055	-12.2
10-Jun	17⁄8% Index-linked Treasury Gilt 2022	-9.0
12-Jun	4½% Treasury Gilt 2013	-14.7
24-Jun	0¾% Index-linked Treasury Gilt 2047	-4.0
02-Jul	4½% Treasury Gilt 2042	-6.5
08-Jul	1½% Index-linked Treasury Gilt 2037	-36.6
17-Jul	5% Treasury Stock 2012	-6.8
24-Jul	1¼% Index-linked Treasury Gilt 2027	-24.2
29-Jul	5% Treasury Gilt 2018	-10.8
05-Aug	4¾% Treasury Gilt 2030	-12.2
14-Aug	1½% Index-linked Treasury Gilt 2037	-9.6
02-Sep	4¼% Treasury Gilt 2049	-25.7
10-Sep	4½% Treasury Gilt 2013	0.2
23-Sep	1¼% Index-linked Treasury Gilt 2055	5.2
25-Sep	4½% Treasury Gilt 2019	-8.5
01-Oct	4¼% Treasury Gilt 2049	-1.1
07-Oct	17⁄8% Index-linked Treasury Gilt 2022	-75.1
16-Oct	4½% Treasury Gilt 2013	5.6
21-Oct	4¼% Treasury Gilt 2011	1.9
23-Oct	5% Treasury Gilt 2018	0.3
28-Oct	1¼% Index-linked Treasury Gilt 2032	-26.1
30-Oct	4% Treasury Stock 2016	-9.2
04-Nov	4¾% Treasury Gilt 2030	-13.5
11-Nov	4¾% Treasury Stock 2015	-10.5
13-Nov	3½% Treasury Gilt 2011	1.6
20-Nov	4½% Treasury Gilt 2019	19.2
26-Nov	0¾% Index-linked Treasury Gilt 2047	9.7
27-Nov	5% Treasury Gilt 2012	-12.4
02-Dec	4¼% Treasury Gilt 2049	12.2
09-Dec	1¼% Index-linked Treasury Gilt 2032	3.0
11-Dec	4½% Treasury Gilt 2013	-1.4
18-Dec	3¼% Treasury Gilt 2011	0.7
07-Jan	4¾% Treasury Gilt 2038	-1.4
13-Jan	4½% Treasury Gilt 2019	-1.5
15-Jan	1¼% Index-linked Treasury Gilt 2032	20.2
22-Jan	4½% Treasury Gilt 2013	9.1
27-Jan	0¾% Index-linked Treasury Gilt 2047	-4.6
29-Jan	4¾% Treasury Stock 2020	-11.6
03-Feb	3¼% Treasury Gilt 2011	-6.4
04-Feb	4¼% Treasury Gilt 2049	-9.2
10-Feb	4½% Treasury Gilt 2019	3.9
12-Feb	1¼% Index-linked Treasury Gilt 2027	11.8
19-Feb	5¼% Treasury Gilt 2012	-10.4
24-Feb	1½% Index-linked Treasury Gilt 2037	0.7
26-Feb	4% Treasury Gilt 2022	-23.7
03-Mar	3¼% Treasury Gilt 2011	5.3
04-Mar	4¼% Treasury Gilt 2039	-36.9
10-Mar	4½% Treasury Gilt 2019	16.2
12-Mar	1¼% Index-linked Treasury Gilt 2032	21.4
19-Mar	2¼% Treasury Gilt 2014	4.9
25-Mar	4¼% Treasury Gilt 2049	-19.4
26-Mar	17⁄8% Index-linked Treasury Gilt 2022	8.0

### **The DMO's cash management objective: performance report**

The DMO's high level cash management objective as set out in Chapter 4 has been subdivided into a series of objectives, to each of which has been attached a KPI. The following section explains how performance has been delivered against these objectives in 2008-09.

*Objective 1.1: DMO must supply sufficient cash each day to enable government to meet its payment obligations. This is fundamental and unconditional.*

The core requirement of Exchequer cash management is to secure the day to day funding of Exchequer cash needs. This objective is supported by HM Treasury's daily net cash flow forecasts for 19 weeks ahead and intraday updates of same-day scheduled expenditure and revenue flows. The DMO cash dealers raise and place current and future anticipated net daily balances in the Debt Management Account (DMA) with counterparties in the sterling money markets, transacting in a range of instruments and at a range of different maturities to smooth the profile of the forecast cumulative net cash position.

Table D6

CASH MANAGEMENT OBJECTIVE	KEY PERFORMANCE INDICATORS & CONTROLS
<p>The Debt Management Office (DMO) must supply sufficient cash each day to enable government to meet its payment obligations. This is fundamental and unconditional.</p>	<p>Way and Means transfers must be avoided for cash management purposes by ensuring that there is always a positive Debt Management Account (DMA) balance. (NB: HM Treasury is responsible for monitoring and reporting performance of the forecasting function against outturns).</p>
<p>Cash management operations and arrangements should be conducted in a way that does not interfere with monetary policy operations.</p>	<p>The DMO will conduct market operations with a view to achieving, within a very small range, the weekly cumulative target balance for the DMA at the Bank of England. The DMO will maintain formal and informal channels of communication with the Bank on conditions in the Sterling money markets.</p>
<p>Cash management operations and arrangements should be conducted without impeding the efficient working of the Sterling money markets</p>	<p>The DMO will seek to avoid holding weekly or ad hoc Treasury bill tenders when the Bank conducts its weekly open market operations.</p>
<p>The DMO should maintain a system in which the costs and risks are transparent, measured and monitored and the performance of government cash management is assessed. The DMO maintains an ethos of cost minimisation rather than profit maximisation.</p>	<p>The DMO will advise HM Treasury as appropriate on the impact of Exchequer cash flows on liquidity conditions in the sterling money markets.</p> <p>The DMO will report to HM Treasury on a quarterly basis the details of its cash management activity, its active management performance against the Government's marginal cost of funds and the market and credit risks incurred. Performance may also be reported in the DMO Annual Review.</p>
<p>The DMO should maintain a credible reputation in the market that leads to lower costs in the long term and a cash management system that is sustainable.</p>	<p>The DMO should maintain channels of communication with money market participants and Treasury bill counterparties both formally and informally to explain, as far as possible, the nature and intent of its operations in the money markets.</p> <p>The DMO should monitor compliance with its operational notices; provide complete, accurate and timely instructions to counterparties, agents, external systems and operators; and achieve the successful settlement of agreed trades on the due date.</p>

The DMA is used to manage the Exchequer's net cash position. Balances in central government accounts contained within the Exchequer pyramid are swept on a daily basis into the NLF and the DMA is required to offset the resultant NLF balance through its borrowing and lending in the money markets. The DMA is held at the Bank of England and a positive end of day balance must be maintained at all times; it cannot be overdrawn. Automatic transfers from a Government Ways and Means account<sup>18</sup> at the Bank of England would offset any negative end of day balances, though it is an objective to minimise such transfers. Thus evidence of meeting this objective is provided by reference to the number of occasions the DMA goes overdrawn.

*KPI 1.1: Ways and Means end-of-day transfers for cash management purposes must be avoided by ensuring that there is always a positive DMA balance.*

- The DMO ensured a positive end-of-day DMA balance on each day during 2008-09 except for the 15 October 2008 when a transfer from the Bank of England's Ways and Means (II) facility was required. This facility was required to prevent the DMA from going overdrawn after a large unexpected payment, of £700 million occurred after the wholesale money market had closed for same-day settlement.

*Objective 1.2: Cash management operations and arrangements should be conducted in a way that does not conflict with the operational requirements of the Bank of England for monetary policy implementation.*

The DMA target balance at the Bank of England serves solely as a buffer against unexpected payments that occur after the wholesale money markets have closed for same-day settlement. It serves to mitigate the risk of going overdrawn. All changes to the daily net cash forecast that occur before markets are closed should be transacted by DMO cash dealers with market counterparties. The DMO cash forecasters are required to notify the Bank of England, in advance of its weekly round of open market operations, of the target cumulative weekly balance on the DMA for the week ahead. This contributes to the forecast money market shortage and hence it is important that actual cumulative end-of-day balances do not differ significantly from target.

*KPI 1.2: The DMO will conduct market operations with a view to achieving, within a very small range, the weekly cumulative target balance for the DMA at the Bank of England. The DMO will maintain formal and informal channels of communication with the Bank on conditions in the sterling money markets. The DMO will seek to avoid holding weekly or ad hoc Treasury bill tenders when the Bank conducts its weekly open market operations.*

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<sup>18</sup> This account deals with overnight balances and is distinct from the Ways and Means facility referred to in Chapter 3.

- The DMO achieved its target weekly cumulative balance within an acceptable range on 35 out of 52 occasions in 2008–09. In all cases, balances outside this range related to events beyond the DMO's control, largely unexpected late cash flows on the final day of the week or over long weekends. Average absolute deviation from target of weekly balances was 1.7% in 2008–09. All significant known daily and forecast cumulative weekly variations from target were notified to the Bank of England in a timely fashion. The DMO and the Bank held regular meetings to review the operation of these arrangements.
- No cash management operations were undertaken that by their nature or timing could be perceived to clash with the Bank's open market operations.

*Objective 1.3: Cash management operations and arrangements should be conducted to avoid undermining the efficient functioning of the sterling money markets.*

While this objective is difficult to capture in a KPI, the DMO interprets this as a responsibility to seek to minimise the impact of individual daily flows on the sterling money markets while ensuring it deals at competitive prices. The DMO operates as a customer at the core of the money markets, seeking to ensure the widest possible access to maturities, instruments, trading arrangements and counterparties across which to diversify its cash management operations. Limits have been set on the amount of dealing with individual counterparties and in individual instruments; exposure to sterling overnight liquidity and sterling interest rates are also subject to limits. In accordance with objective 2.3, limits and controls are intended to avoid concentration of exposures and are reviewed regularly to ensure consistency with market trends and developments.

*KPI 1.3: The DMO will advise HM Treasury as appropriate on the impact of Exchequer cash flows on liquidity conditions in the sterling money markets.*

- *Throughout 2008–09 the DMO has undertaken regular formal and informal communication with the Bank of England, money market counterparties, and industry groups to assess liquidity in the sterling money markets. It has also maintained frequent and regular dialogue to update HM Treasury on market liquidity and, working with HM Treasury, has reviewed its trading policies and risk controls to respond to significant sterling liquidity trends and developments.*

*Objective 1.4: The DMO should maintain a system in which the costs and risks are transparent, measured and monitored and the performance of government cash management is assessed. The DMO maintains an ethos of cost minimisation rather than profit maximisation.*

The active cash management framework encompasses a series of quantitative liquidity, interest rate, foreign exchange and credit risk limits that together reflect the government's risk preference and are designed to be consistent with the wider policy objectives the Government sets its cash manager.

Under the current approach active cash performance is measured and evaluated directly by comparing actual net interest paid and received with cost of funds (i.e. deducting net interest on daily balances at the Bank of England repo rate and deducting transaction and management costs).

*KPI 1.4: The DMO will report to HM Treasury on a quarterly basis the details of its cash management activity, including active management performance after cost of funds and the liquidity, interest rate, foreign exchange and credit risks incurred.*

- The DMO reports to the Treasury on a quarterly cycle the details of its cash management activity, including active management performance and usage of liquidity, interest rate, foreign exchange and credit risk limits.
- 2007-08 was the first full financial year after the introduction of Bank of England reforms to the sterling money markets in May 2006 and the first for which active management performance was published. Net returns (over cost of funds) will be affected by market conditions and the size and volatility of the Exchequer's cumulative cash position, both of which will vary significantly over time.
- Results should be interpreted in the context of the Government's ethos of cost minimisation and not profit maximisation: cash transactions are solely intended to smooth a given cash flow profile over time and across products and instruments, within agreed risk parameters, and are not intended to seek opportunities to generate excess return.
- Active cash management earned positive net interest after cost of funds but before transaction and management costs, of £23.4 million for 2008-2009 compared with £17.7 million for 2007-2008. The DMO's estimated transaction and management costs during the year were £7.6 million.
- Positive net interest after cost of funds has been earned by virtue of funding the Exchequer's daily cash needs in the wholesale money markets at Rates that have been on average below the prevailing Bank Rate and from investing surpluses at market rates that were on average above the Bank's Rate.
- There were no breaches of credit, interest rate, foreign exchange or liquidity limits recorded in 2008-09.

*Objective 1.5: The DMO should maintain a credible reputation in the market that leads to lower costs in the long term and a system that is sustainable.*

The DMO seeks to maintain and enhance its reputation in the market by being open, transparent and consistent about the aims and intentions of its operations and transactions. This has allowed it to continue to widen its market and counterparty access and to deal at fair and competitive rates.

In addition, DMO personnel, processes and internal systems have to be capable of complying with market standards and following market practice in respect of speed and accuracy in negotiation, clearing and settlement of trades.

*KPI 1.5: The DMO should maintain channels of communication with money market participants and Treasury bill counterparties both formally and informally to explain, as far as possible, the nature and intent of its operations in the money markets. The DMO should monitor compliance with its operational notices; provide complete, accurate and timely instructions to counterparties, agents, external systems and operators; and achieve the successful settlement of agreed trades on the due date.*

- As in KPI 1.3 above, in 2008–09 the DMO maintained an active and open dialogue with cash counterparties and other market stakeholders to explain its cash management approach and strategy and to explain the context for and receive feedback on Treasury bill tenders and other market operations.
- There were no breaches of cash management operational targets for trade settlement (99% by value on the due date), announcement of Treasury bill tender results (30 minutes) or maximum permitted breaches of cash management operational notices (5).

## E: Gilt redemptions and the gilt portfolio

### Gilt redemptions

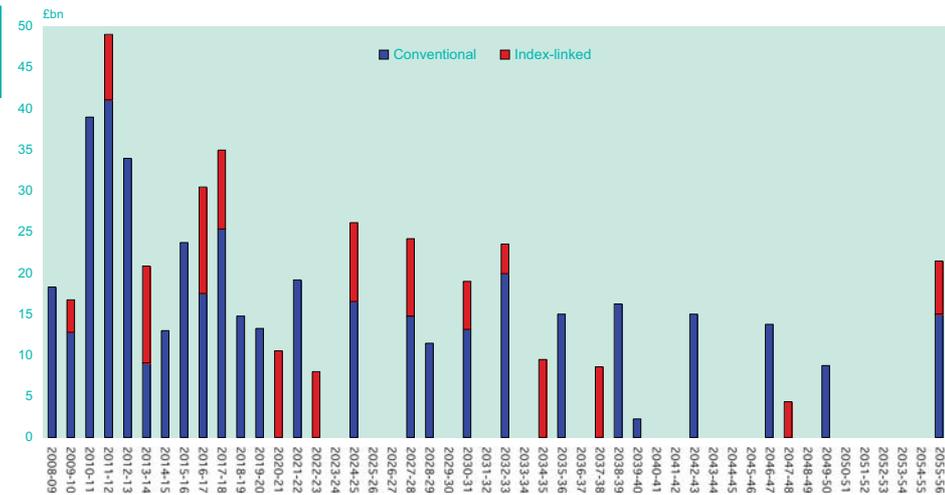
Three gilts with an aggregate of £18.3 billion of gilts in market hands redeemed in 2008-09, as detailed in Table E1.

Table E1  
Gilt redemptions in 2007-08 (£mn)

Gilt	Redemption date	Amount in issue (£mn)	Government holdings (£mn)	Redemptions to market (£mn)
5½% Treasury 2008-12	10-Sep-08	692	0	692
9% Treasury 2008	13-Oct-08	379	0	379
4% Treasury 2009	07-Mar-09	18,141	912	17,229
				<b>18,300</b>

The future profile of gilt redemptions at end-March 2009 is shown in Chart E1.

Chart E1  
Gilt redemption profile at end-March 2009



Source: DMO

### The Gilt portfolio

The key statistics of the gilt portfolio at end-March 2009 compared to the position at the end of the previous financial year are shown in Table E2 below. Figures in brackets next to the nominal and market values of the gilt portfolio are the corresponding totals net of government holdings.

Table E2  
Key portfolio statistics

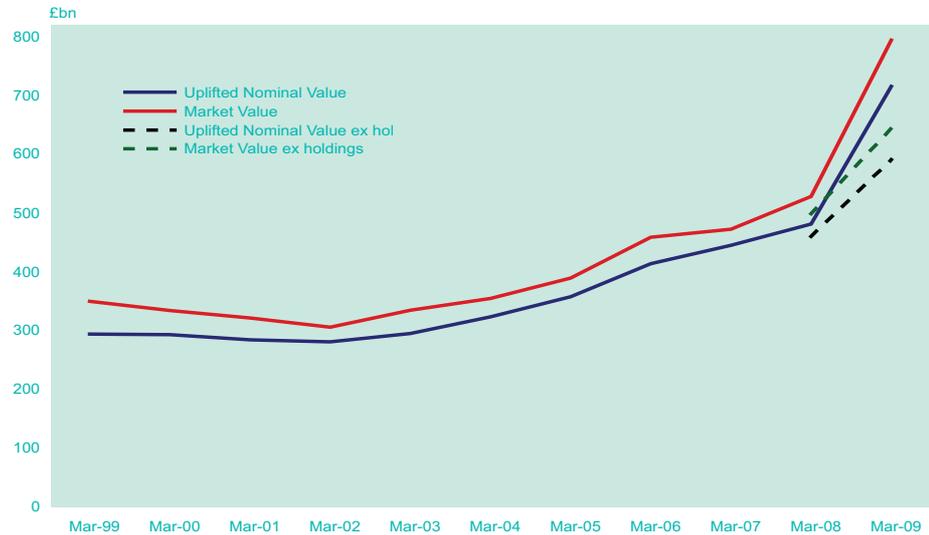
Gilt Portfolio Summary Statistics	End-March 2008	End-March 2009
Nominal value of the gilt portfolio (£):	478.77bn (453.02bn)	713.20bn (580.12bn)
- conventional gilts:	337.25bn (320.62bn)	543.21bn (426.11bn)
- index-linked gilts:	141.52bn (132.40bn)	169.99bn (154.01bn)
Market value of the gilt portfolio (£)	525.94bn (496.75bn)	791.74bn (641.08bn)
- conventional gilts:	360.16bn (341.76bn)	606.65bn (474.04bn)
- index-linked gilts:	165.77bn (154.98bn)	185.10bn (167.75bn)
Weighted average market yields		
- conventional gilts:	4.25%	2.92%
- index-linked gilts:	0.88%	1.07%
Portfolio average maturity	14.79 years	14.13 years
- conventional gilts:	14.74 years	13.90 years
- index-linked gilts:	14.91 years	14.87 years
Average modified duration		
- conventional gilts:	9.04 years	8.57 years
- index-linked gilts:	12.49 years	13.17 years

The nominal value of the gilt portfolio rose by 49% to £713.2 billion as gross gilt issuance greatly exceeded gilt redemptions (see above). The market value of the portfolio rose equally sharply, to £791.7 billion reflecting the rise in gilt prices over the year (evidenced by the sharp fall in market yields).

The numbers are, however, significantly inflated by the creation of £115 billion (cash) gilt collateral for the DMO's Exchequer cash management operations and the Bank of England's Discount Window Facility; excluding these amounts (which account for the great majority of government holdings of gilts, the increases in the nominal and market value sizes of the gilt portfolio are significantly smaller – from £453.0 billion to £580.1 billion (or 28%, nominal) and from £496.7 billion to £641.1 billion (or 29%, market value).

Chart E2 shows the uplifted nominal and market values of the gilt portfolio at end-March in each year since 1999 with data excluding Government holdings for end March 2008 and 2009. On the basis of future financing projections, the trend of rising nominal values is expected to continue.

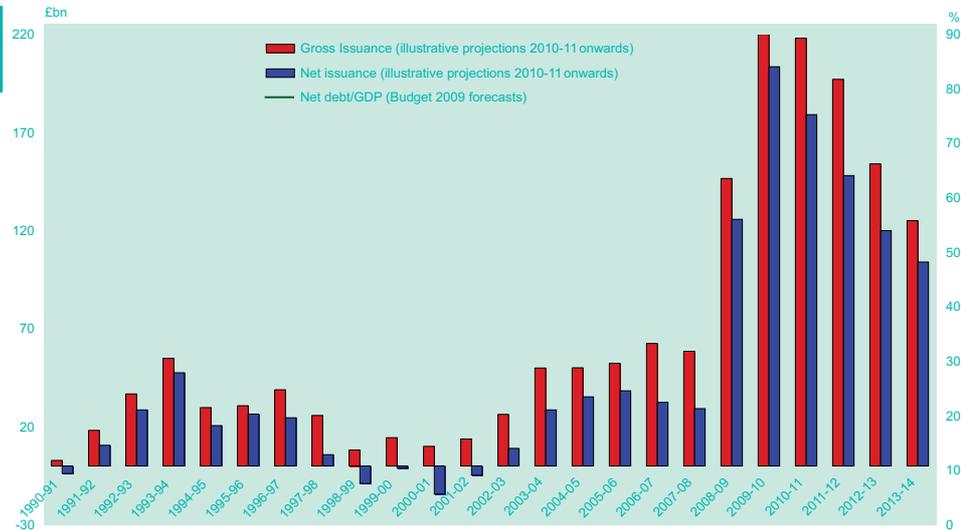
**Chart E2**  
**Uplifted Nominal and market values of the gilt portfolio (to end-March 2009)**



Source: DMO

Chart E3 shows past and projected gross and net gilt issuance levels (and net debt/GDP data).

**Chart E3**  
**Gross and net issuance history and projections**



Source: HM Treasury/DMO

**Breakdown of the gilt portfolio by type and maturity**

Table E3 and Chart E4 below show the evolution of the gilt portfolio by type and maturity since March 1999. They show the steadily rising proportion of long conventional gilts (from 15% to 28% of the portfolio), over the 11 year period. Index-linked gilts rose from 21% to 30% of the gilt portfolio to end 2007-08, but fell back to 24% at end 2008-09.

**Table E3**  
**Portfolio composition**  
**1999-2009**

At end-March (%)	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Conventional</b>											
0-3 years	16	17	17	18	16	16	20	19	14	13	17
3-7 years	22	22	22	18	19	18	17	14	14	11	14
7-15 years	24	19	16	17	18	19	14	15	19	17	16
Over 15 years	15	16	17	20	19	21	23	25	25	28	29
<b>Total Conventional</b>	<b>76</b>	<b>75</b>	<b>72</b>	<b>73</b>	<b>72</b>	<b>74</b>	<b>74</b>	<b>73</b>	<b>72</b>	<b>70</b>	<b>76</b>
<b>Index-linked*</b>	<b>21</b>	<b>23</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>25</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>30</b>	<b>24</b>
Undated	1	1	1	1	1	1	1	1	1	1	0
Floating rate	1	1	1	0	0	0	0	0	0	0	0

\*including index-linked uplift  
(Figures may not sum due to rounding)

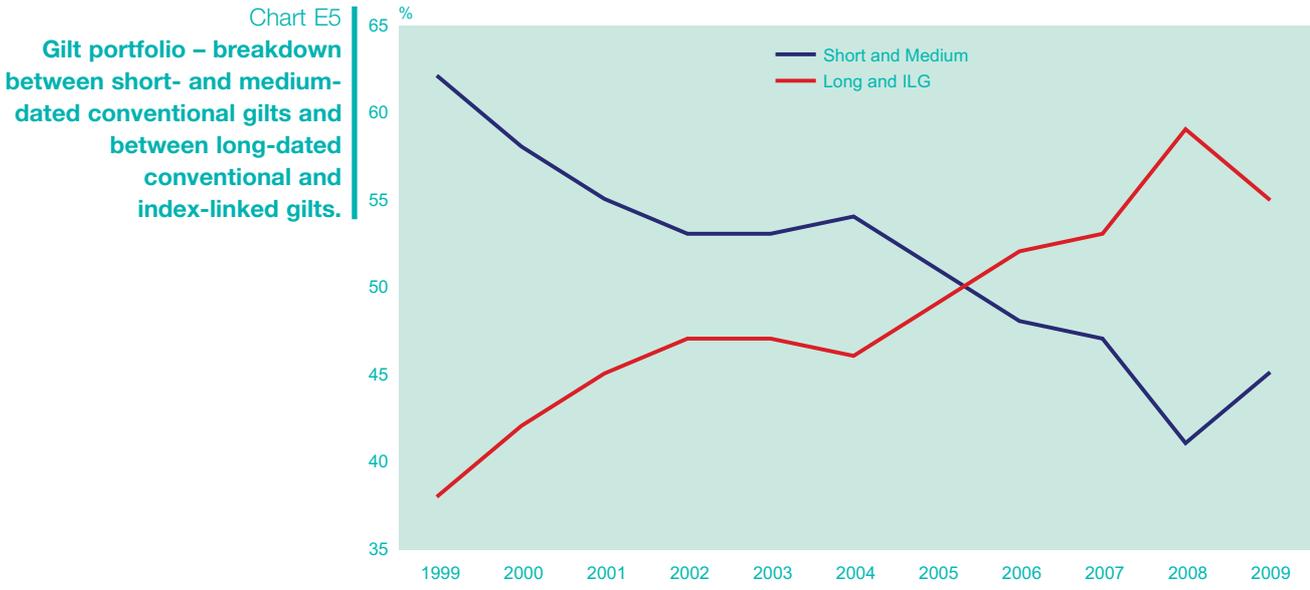
Chart E4 includes both the 0-3 year and 3-7 year data within the “short conventional” category and undated and floating rate gilts in “other” category.

**Chart E4**  
**Gilt portfolio – breakdown**  
**proportion by maturity and type**



Source: DMO

Chart E5 compares the change in the balance of the portfolio accounted for by: (i) short- and medium-dated conventional gilts; with (ii) long-dated and index-linked gilts at the end of March each year since 1999. This shows clearly the impact of the general skew of issuance towards long-dated and index-linked gilts over this period.



Source: DMO

## F: Treasury bill tender results 2008-09

Table F1  
One-month tender results

Tender date	Issue Date	Redemption Date	Size £mn	Cover	Ave Yield (%)	Ave Price (£)	Tail (bps)
04-Apr-2008	07-Apr-2008	06-May-2008	400	4.49	4.946	99.609	3
11-Apr-2008	14-Apr-2008	12-May-2008	400	3.73	4.854	99.629	8
18-Apr-2008	21-Apr-2008	19-May-2008	400	3.18	4.897	99.626	10
25-Apr-2008	28-Apr-2008	27-May-2008	400	2.51	4.966	99.607	5
02-May-2008	06-May-2008	02-Jun-2008	400	2.58	4.980	99.633	7
09-May-2008	12-May-2008	09-Jun-2008	400	3.11	4.963	99.621	3
16-May-2008	19-May-2008	16-Jun-2008	400	4.07	4.998	99.618	3
23-May-2008	27-May-2008	23-Jun-2008	400	5.18	5.029	99.629	3
30-May-2008	02-Jun-2008	30-Jun-2008	400	3.34	5.028	99.616	1
06-Jun-2008	09-Jun-2008	07-Jul-2008	400	2.60	5.003	99.618	1
13-Jun-2008	16-Jun-2008	14-Jul-2008	400	1.84	5.007	99.617	2
20-Jun-2008	23-Jun-2008	21-Jul-2008	400	1.64	5.212	99.602	5
27-Jun-2008	30-Jun-2008	28-Jul-2008	400	4.11	5.121	99.609	4
04-Jul-2008	07-Jul-2008	04-Aug-2008	400	3.39	5.080	99.612	5
11-Jul-2008	14-Jul-2008	11-Aug-2008	400	3.39	5.078	99.612	4
18-Jul-2008	21-Jul-2008	18-Aug-2008	400	2.32	5.110	99.610	12
25-Jul-2008	28-Jul-2008	26-Aug-2008	400	2.63	5.081	99.598	2
01-Aug-2008	04-Aug-2008	01-Sep-2008	400	3.10	5.071	99.612	2
08-Aug-2008	11-Aug-2008	08-Sep-2008	400	3.14	5.043	99.615	4
15-Aug-2008	18-Aug-2008	15-Sep-2008	400	3.36	5.026	99.616	2
22-Aug-2008	26-Aug-2008	22-Sep-2008	400	2.15	5.009	99.631	2
29-Aug-2008	01-Sep-2008	29-Sep-2008	400	3.14	4.984	99.619	2
05-Sep-2008	08-Sep-2008	06-Oct-2008	400	2.74	4.965	99.621	4
12-Sep-2008	15-Sep-2008	13-Oct-2008	400	1.89	5.006	99.617	3
19-Sep-2008	22-Sep-2008	20-Oct-2008	400	2.26	4.741	99.638	14
26-Sep-2008	29-Sep-2008	27-Oct-2008	400	3.09	4.679	99.642	7
03-Oct-2008	06-Oct-2008	03-Nov-2008	400	8.28	4.279	99.673	7
10-Oct-2008	13-Oct-2008	10-Nov-2008	400	4.72	3.648	99.721	14
17-Oct-2008	20-Oct-2008	17-Nov-2008	400	3.46	3.761	99.712	8
24-Oct-2008	27-Oct-2008	24-Nov-2008	400	2.54	3.524	99.730	12
31-Oct-2008	03-Nov-2008	01-Dec-2008	400	3.05	3.633	99.722	22
07-Nov-2008	10-Nov-2008	08-Dec-2008	400	3.76	2.554	99.804	5
14-Nov-2008	17-Nov-2008	15-Dec-2008	400	3.36	2.163	99.834	9
21-Nov-2008	24-Nov-2008	22-Dec-2008	400	3.49	1.921	99.853	11
28-Nov-2008	01-Dec-2008	29-Dec-2008	400	3.88	1.828	99.860	7
05-Dec-2008	08-Dec-2008	05-Jan-2009	400	2.73	1.502	99.885	4
12-Dec-2008	15-Dec-2008	12-Jan-2009	400	1.68	1.495	99.885	10
19-Dec-2008	22-Dec-2008	19-Jan-2009	400	3.78	1.243	99.905	1
02-Jan-2009	05-Jan-2009	02-Feb-2009	400	2.72	1.166	99.911	7
09-Jan-2009	12-Jan-2009	09-Feb-2009	400	3.49	0.977	99.925	3
16-Jan-2009	19-Jan-2009	16-Feb-2009	400	2.31	0.966	99.926	3
23-Jan-2009	26-Jan-2009	23-Feb-2009	400	2.47	0.911	99.930	8
30-Jan-2009	02-Feb-2009	02-Mar-2009	400	2.12	0.913	99.930	12
06-Feb-2009	09-Feb-2009	09-Mar-2009	400	7.05	0.806	99.938	2
13-Feb-2009	16-Feb-2009	16-Mar-2009	400	4.26	0.698	99.946	0
20-Feb-2009	23-Feb-2009	23-Mar-2009	400	2.23	0.653	99.950	5
27-Feb-2009	02-Mar-2009	30-Mar-2009	400	3.36	0.469	99.964	8
06-Mar-2009	09-Mar-2009	06-Apr-2009	800	2.46	0.467	99.964	3
13-Mar-2009	16-Mar-2009	14-Apr-2009	800	2.33	0.462	99.963	4
20-Mar-2009	23-Mar-2009	20-Apr-2009	800	1.42	0.468	99.964	13

Table F2  
Three-month tender results

Tender date	Issue Date	Redemption Date	Size £mn	Cover	Ave Yield (%)	Ave Price (£)	Tail (bps)
04-Apr-2008	07-Apr-2008	07-Jul-2008	800	3.12	4.833	98.809	2
11-Apr-2008	14-Apr-2008	14-Jul-2008	800	2.51	4.863	98.802	4
18-Apr-2008	21-Apr-2008	21-Jul-2008	800	2.79	4.881	98.798	4
25-Apr-2008	28-Apr-2008	28-Jul-2008	800	1.88	4.957	98.779	4
02-May-2008	06-May-2008	04-Aug-2008	800	2.39	4.961	98.792	4
09-May-2008	12-May-2008	11-Aug-2008	800	1.58	4.897	98.794	7
16-May-2008	19-May-2008	18-Aug-2008	800	2.02	5.029	98.762	1
23-May-2008	27-May-2008	26-Aug-2008	800	2.42	5.067	98.752	1
30-May-2008	02-Jun-2008	01-Sep-2008	800	0.72	5.102	98.744	9
06-Jun-2008	09-Jun-2008	08-Sep-2008	400	3.25	5.089	98.747	0
13-Jun-2008	16-Jun-2008	15-Sep-2008	400	1.59	5.221	98.715	10
20-Jun-2008	23-Jun-2008	22-Sep-2008	400	3.72	5.241	98.710	1
27-Jun-2008	30-Jun-2008	29-Sep-2008	400	4.15	5.168	98.728	2
04-Jul-2008	07-Jul-2008	06-Oct-2008	400	4.11	5.124	98.739	3
11-Jul-2008	14-Jul-2008	13-Oct-2008	400	3.04	5.174	98.727	5
18-Jul-2008	21-Jul-2008	20-Oct-2008	400	2.82	5.158	98.730	2
25-Jul-2008	28-Jul-2008	27-Oct-2008	400	3.18	5.141	98.734	1
01-Aug-2008	04-Aug-2008	03-Nov-2008	400	2.34	5.150	98.732	12
08-Aug-2008	11-Aug-2008	10-Nov-2008	400	4.07	5.061	98.754	4
15-Aug-2008	18-Aug-2008	17-Nov-2008	400	4.08	5.012	98.766	6
22-Aug-2008	26-Aug-2008	24-Nov-2008	400	4.52	4.989	98.785	4
29-Aug-2008	01-Sep-2008	01-Dec-2008	400	2.70	5.000	98.769	5
05-Sep-2008	08-Sep-2008	08-Dec-2008	500	3.53	4.950	98.781	3
12-Sep-2008	15-Sep-2008	15-Dec-2008	500	2.80	4.958	98.779	4
19-Sep-2008	22-Sep-2008	22-Dec-2008	500	2.02	4.724	98.836	12
26-Sep-2008	29-Sep-2008	29-Dec-2008	500	3.23	4.564	98.875	9
03-Oct-2008	06-Oct-2008	05-Jan-2009	500	5.40	4.186	98.967	11
10-Oct-2008	13-Oct-2008	12-Jan-2009	500	1.83	3.495	99.136	10
17-Oct-2008	20-Oct-2008	19-Jan-2009	500	2.14	3.795	99.063	11
24-Oct-2008	27-Oct-2008	26-Jan-2009	500	2.14	3.516	99.131	6
31-Oct-2008	03-Nov-2008	02-Feb-2009	500	1.07	3.573	99.117	21
07-Nov-2008	10-Nov-2008	09-Feb-2009	500	1.80	2.625	99.350	32
14-Nov-2008	17-Nov-2008	16-Feb-2009	500	4.32	1.979	99.509	9
21-Nov-2008	24-Nov-2008	23-Feb-2009	500	3.05	1.729	99.571	7
28-Nov-2008	01-Dec-2008	02-Mar-2009	500	2.09	1.688	99.581	9
05-Dec-2008	08-Dec-2008	09-Mar-2009	500	4.77	1.321	99.672	6
12-Dec-2008	15-Dec-2008	16-Mar-2009	500	4.21	1.400	99.652	5
19-Dec-2008	22-Dec-2008	23-Mar-2009	500	4.55	1.183	99.706	2
02-Jan-2009	05-Jan-2009	06-Apr-2009	700	2.88	1.177	99.707	12
09-Jan-2009	12-Jan-2009	14-Apr-2009	700	2.99	0.898	99.774	12
16-Jan-2009	19-Jan-2009	20-Apr-2009	700	1.99	0.928	99.769	3
23-Jan-2009	26-Jan-2009	27-Apr-2009	700	1.85	0.853	99.788	11
30-Jan-2009	02-Feb-2009	05-May-2009	1,000	2.30	0.908	99.772	4
06-Feb-2009	09-Feb-2009	11-May-2009	1,000	5.44	0.869	99.784	3
13-Feb-2009	16-Feb-2009	18-May-2009	1,000	2.89	0.678	99.831	5
20-Feb-2009	23-Feb-2009	26-May-2009	1,000	3.22	0.669	99.832	11
27-Feb-2009	02-Mar-2009	01-Jun-2009	1,000	3.85	0.661	99.836	4
06-Mar-2009	09-Mar-2009	08-Jun-2009	1,500	2.37	0.586	99.854	8
13-Mar-2009	16-Mar-2009	15-Jun-2009	1,500	2.10	0.588	99.854	6
20-Mar-2009	23-Mar-2009	22-Jun-2009	1,500	1.78	0.605	99.849	3

Table F3  
Six-month tender results

Tender date	Issue Date	Redemption Date	Size £mn	Cover	Ave Yield (%)	Ave Price (£)	Tail (bps)
04-Apr-2008	07-Apr-2008	06-Oct-2008	400	3.06	4.671	97.724	3
11-Apr-2008	14-Apr-2008	13-Oct-2008	400	4.06	4.656	97.731	4
18-Apr-2008	21-Apr-2008	20-Oct-2008	400	2.76	4.769	97.677	4
25-Apr-2008	28-Apr-2008	27-Oct-2008	400	2.51	4.896	97.617	2
02-May-2008	06-May-2008	03-Nov-2008	400	2.63	4.849	97.652	2
09-May-2008	12-May-2008	10-Nov-2008	400	2.46	4.766	97.679	2
16-May-2008	19-May-2008	17-Nov-2008	400	3.29	4.948	97.592	8
23-May-2008	27-May-2008	24-Nov-2008	400	2.88	5.108	97.530	1
30-May-2008	02-Jun-2008	01-Dec-2008	400	1.53	5.136	97.503	4
06-Jun-2008	09-Jun-2008	08-Dec-2008	400	2.94	5.198	97.474	0
13-Jun-2008	16-Jun-2008	15-Dec-2008	400	1.83	5.370	97.392	8
20-Jun-2008	23-Jun-2008	22-Dec-2008	400	3.37	5.384	97.386	4
27-Jun-2008	30-Jun-2008	29-Dec-2008	400	3.29	5.306	97.422	2
04-Jul-2008	07-Jul-2008	05-Jan-2009	400	4.05	5.222	97.462	4
11-Jul-2008	14-Jul-2008	12-Jan-2009	400	2.17	5.180	97.482	5
18-Jul-2008	21-Jul-2008	19-Jan-2009	400	4.68	5.180	97.482	2
25-Jul-2008	28-Jul-2008	26-Jan-2009	400	3.03	5.121	97.510	2
01-Aug-2008	04-Aug-2008	02-Feb-2009	400	3.80	5.121	97.510	2
08-Aug-2008	11-Aug-2008	09-Feb-2009	400	3.89	5.026	97.555	1
15-Aug-2008	18-Aug-2008	16-Feb-2009	400	3.19	4.965	97.584	3
22-Aug-2008	26-Aug-2008	23-Feb-2009	400	4.05	4.929	97.614	2
29-Aug-2008	01-Sep-2008	02-Mar-2009	400	2.98	4.903	97.614	2
05-Sep-2008	08-Sep-2008	09-Mar-2009	500	2.77	4.814	97.656	4
12-Sep-2008	15-Sep-2008	16-Mar-2009	500	2.21	4.820	97.653	2
19-Sep-2008	22-Sep-2008	23-Mar-2009	500	2.32	4.544	97.784	8
26-Sep-2008	29-Sep-2008	30-Mar-2009	500	3.27	4.483	97.813	2
03-Oct-2008	06-Oct-2008	06-Apr-2009	500	2.95	4.114	97.990	3
10-Oct-2008	13-Oct-2008	14-Apr-2009	600	1.58	3.663	98.196	14
17-Oct-2008	20-Oct-2008	20-Apr-2009	600	2.07	3.767	98.156	4
24-Oct-2008	27-Oct-2008	27-Apr-2009	600	1.93	3.475	98.297	9
31-Oct-2008	03-Nov-2008	05-May-2009	600	0.61	3.370	98.338	18
07-Nov-2008	10-Nov-2008	11-May-2009	600	1.91	2.500	98.769	25
14-Nov-2008	17-Nov-2008	18-May-2009	600	4.19	1.947	99.038	4
21-Nov-2008	24-Nov-2008	26-May-2009	600	2.61	1.743	99.134	9
28-Nov-2008	01-Dec-2008	01-Jun-2009	600	1.57	1.718	99.151	13
05-Dec-2008	08-Dec-2008	08-Jun-2009	600	4.07	1.396	99.309	10
12-Dec-2008	15-Dec-2008	15-Jun-2009	600	3.24	1.449	99.283	5
19-Dec-2008	22-Dec-2008	22-Jun-2009	600	4.24	1.123	99.443	3
02-Jan-2009	05-Jan-2009	06-Jul-2009	600	4.15	0.972	99.518	16
09-Jan-2009	12-Jan-2009	13-Jul-2009	600	3.34	0.921	99.543	3
16-Jan-2009	19-Jan-2009	20-Jul-2009	600	2.79	0.928	99.539	5
23-Jan-2009	26-Jan-2009	27-Jul-2009	600	1.42	0.892	99.557	11
30-Jan-2009	02-Feb-2009	03-Aug-2009	800	1.17	1.045	99.482	9
06-Feb-2009	09-Feb-2009	10-Aug-2009	800	4.09	0.949	99.529	0
13-Feb-2009	16-Feb-2009	17-Aug-2009	800	2.65	0.679	99.663	2
20-Feb-2009	23-Feb-2009	24-Aug-2009	800	3.23	0.741	99.632	9
27-Feb-2009	02-Mar-2009	01-Sep-2009	800	4.04	0.690	99.655	1
06-Mar-2009	09-Mar-2009	07-Sep-2009	1,000	3.40	0.636	99.684	4
13-Mar-2009	16-Mar-2009	14-Sep-2009	1,000	3.01	0.624	99.690	5
20-Mar-2009	23-Mar-2009	21-Sep-2009	1,000	2.61	0.606	99.699	1

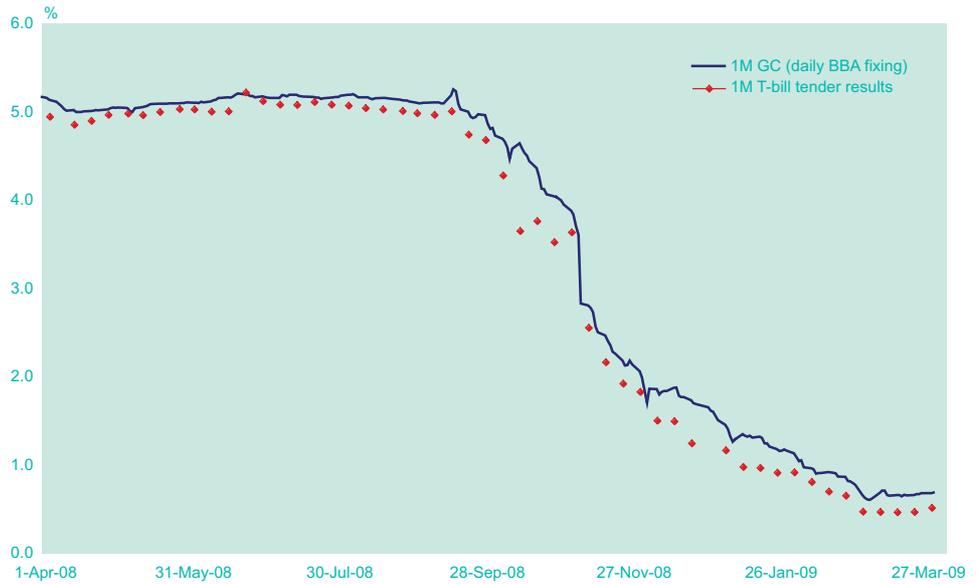
## G: Treasury bill tender performance

Table G1 and Charts G1-3 compare the results (in terms of the average yield) of all Treasury bill tenders in 2008-09 with the average fixing of the relevant GC repo rate on the day of the settlement of the tenders. On average over the financial year the yields at tenders of bills at all maturities out-performed the average of GC repo fixings by 11.0 to 21.1 bps.

Table G1  
Comparison of average tender yields with GC repo fixings in 2008-09

Average Treasury bill tender yields compared to average GC fixings on settlement of tenders in 2008-09			
Maturity	Average tender yield	Average GC fixing	Tender relative performance (bps)
One-month	3.351	3.562	-21.1
Three-month	3.350	3.494	-14.4
Six-month	3.332	3.442	-11.0

Chart G1  
One-month tender yields v GC repo fixings in 2008-09



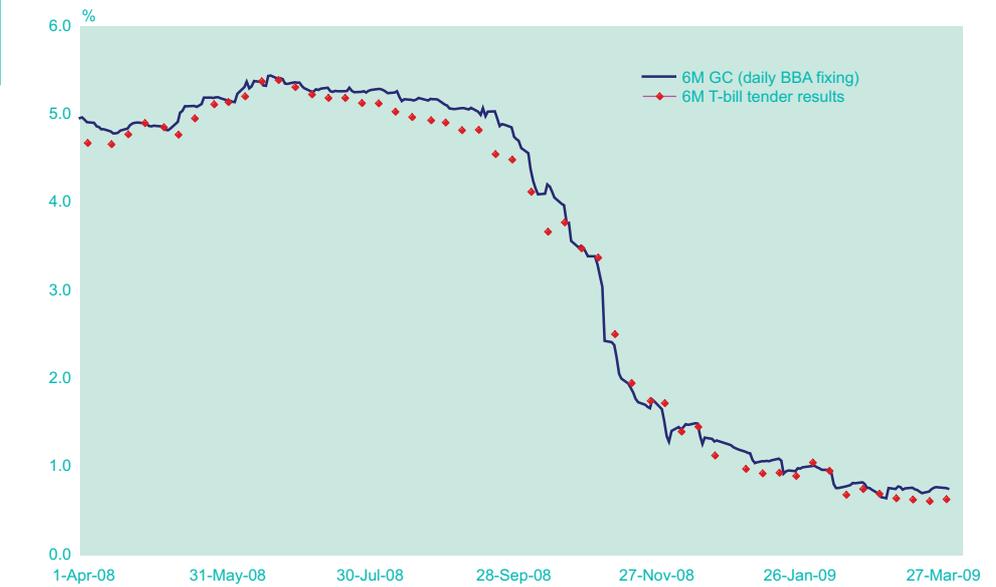
Source: DMO/BBA

Chart G2  
**Three-month tender yields v GC fixings in 2008-09**



Source: DMO/BBA

Chart G3  
**Six-month tender yields v GC fixings in 2008-09**



Source: DMO/BBA

## H: The DMO website: [www.dmo.gov.uk](http://www.dmo.gov.uk)



The DMO website provides users with an interactive database and reporting service and allows access to all of the DMO's publications, including:

- the DMO Annual Review, which covers the main developments across the range of the DMO's activities each financial year;
- the Quarterly Review, which highlights more recent developments in the DMO's gilt and cash market activities;
- the DMO's annual Report and Accounts for its administrative expenditure and also for the operation of the Debt Management Account;
- press releases, gilt and cash market announcements; and
- market consultation documents.

A wide range of current and historical data are also available including;

- gilt and Treasury bill prices and yields;
- details of gilt auction and Treasury bill tender results;
- details of the DMO's annual financing remits;
- characteristics of the gilt and Treasury bill portfolios; and
- interest rates for loans from the Public Works Loan Board.

Many of the website reports give users the option for automatic downloads of data. The website also provides users with analytical tools and calculators, enabling them to estimate the redemption payment on an index-linked gilt or the repayment cost of a fixed interest loan from the PWLB.

In 2008-09 new sections of the DMO website were launched covering the DMO's activities in administering the Government's Credit Guarantee schemes and as auctioneer of allowances in the EU Emission Trading System (EU ETS).

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