United Kingdom
Debt Management
Office

DMO Annual Review

2017-18

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

August 2018

Foreword by the DMO Chief Executive

2017-18 was the twentieth year during which the DMO has delivered the government's gilt financing remit. Cumulative gilt sales over those 20 years have exceeded £1.9 trillion.

The remit in 2017-18 was, once again, successfully delivered in ongoing challenging financial market conditions. Gilt sales of £115.5 billion were delivered in 2017-18, a fall of £32.1 billion relative to the outturn for 2016-17. This was the tenth consecutive financial year in which annual gross gilt sales had exceeded £100 billion, with the size of the gilt portfolio growing from £479 billion to £1,547 billion (nominal). Over the same period, the gilt market has developed significantly with a greater diversity of investors.

Auctions remain the DMO's primary means of distributing gilts and accounted for £90.5 billion of gilt sales in 2017-18, equivalent to 78% of the overall programme. The average cover ratio at gilt auctions rose in 2017-18 by 16% to 2.30x from 1.98x in 2016-17. At the same time the use of supplementary distribution methods, principally syndicated gilt offerings, again supported a large programme of long-dated conventional and index-linked gilt sales and also assisted the DMO in targeting its core investor base.

Five syndications were held in 2017-18, raising £24.3 billion. Such was the size and quality of demand that all these operations were increased in size above initial planning assumptions. Over the financial year, £3.3 billion of an initial £6.6 billion unallocated portion of financing was moved into the syndication programme.

The efficiency with which the gilt market absorbed the level of gilt supply in 2017-18 continues to impress me. Aggregate turnover in the gilt market increased by 14% compared with the previous financial year to £8.3 trillion. The presence of a deep and well-functioning gilt market is critical to the DMO's ability to carry out its mandate successfully.

The DMO also continued to perform strongly in carrying out its cash management activities in 2017-18, with all objectives achieved, despite strained money market conditions, in particular reduced liquidity in the repo market.

I was pleased to see continued strong demand for Treasury bills. As with gilts, Treasury bills continued to attract significant overseas investor interest, with around 51%[1] of the stock being held by such investors at 31 March 2018.

The DMO again successfully provided a cost-effective service to its clients through the fund management operations of the Commissioners for the Reduction of the National Debt. The market value of these funds was £32.0 billion at 31 March 2018.

As for 2018-19, the initial remit published on 13 March 2018 saw a significant reduction in planned gilt sales to £102.9 billion in a remit structure broadly the same as in 2017-18, with the largest change being a two percentage point reduction in the initial planned share of total issuance in index-linked gilts (to 21.1%). Planned

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[1] Source: ONS.

gilt sales subsequently rose, however, by £3.1 billion to £106.0 billion at the remit revision on 24 April 2017 coinciding with the publication of the outturn for the Central Government Net Cash Requirement (excluding Northern Rock (Asset Management) (NRAM), Bradford & Bingley (B&B) and Network Rail) (NR)) for 2017-18. A zero net contribution to debt financing from Treasury bills is planned for 2018-19.

Overall, the DMO has again performed strongly across its range of activities and operations. I want to record my sincere appreciation to DMO staff, to colleagues at HM Treasury and at the Bank of England for their hard work and commitment in helping us to deliver our objectives. I am also grateful to our market counterparties for their professionalism and ongoing support throughout the year. The continued success of the DMO would not have been possible without them.

Sir Robert Stheeman

August 2018

Chapter 1: The Economy and Financial Markets

Macroeconomic developments

Growth in advanced economies was generally robust during 2017-18 with a rise in investment a key driver. Increased output was largely a result of higher employment as productivity growth remained subdued. Prices of riskier assets generally rose, helped by increasing confidence, and many of the main equity indices were at, or close to, record high levels at the end of the period, despite growing concerns that protectionist trade policies might dampen global growth.

Following robust domestic Gross Domestic Product (GDP) growth and rising inflationary pressures, policymakers in the US increased the target range of the federal funds rate by 0.25% on three occasions during the financial year, such that the target range stood at 1.50%-1.75% at 31 March 2018, its highest level since October 2008. In the euro area, economic growth was relatively robust (averaging just over 0.6% on a quarter-on-quarter (q-o-q) basis), but inflation remained subdued. The European Central Bank (ECB) Governing Council kept its main interest rate at a record low of 0.0% throughout the period but reduced the rate of asset purchases from €60 billion per month to €30 billion per month in January 2018. In emerging economies overall growth recovered steadily during the period helped by increased demand from advanced economies. Net commodity exporters additionally benefitted from rising commodity prices (for example, oil prices rose nearly 30% in the period).

In the UK, real GDP on a q-o-q basis averaged 0.3%[2] throughout the financial year, with relatively lower growth in Q2 2017 and Q1 2018. Services continued to be the main driver of growth throughout the period despite some weakening in activity in the sector. Negotiations relating to the UK's withdrawal from the European Union (EU) were ongoing throughout the period and continued to be a key source of uncertainty.

Consumer Prices Index (CPI) inflation was above the Bank of England's (Bank's) target rate of 2.0% year-on-year (y-o-y) throughout the financial year starting at 2.7% in April 2017 and peaking at 3.1% in November before slowing to 2.5% in March 2018. The drivers of higher inflation were broad-based with all major sub-categories (including transport costs, food and drink, clothing and housing costs) making positive contributions each month throughout the financial year. In November 2017, with CPI at an elevated level, the Bank's Monetary Policy Committee (MPC) voted to increase Bank Rate by 0.25% to 0.5%. This was the first increase in Bank Rate since July 2007.

The Retail Prices Index (RPI) measure of inflation, which is used to set the cash flows on index-linked gilts, started the financial year at 3.5% y-o-y, rising to a financial year peak of 4.1% in December 2017 before slowing to 3.3% in March 2018.

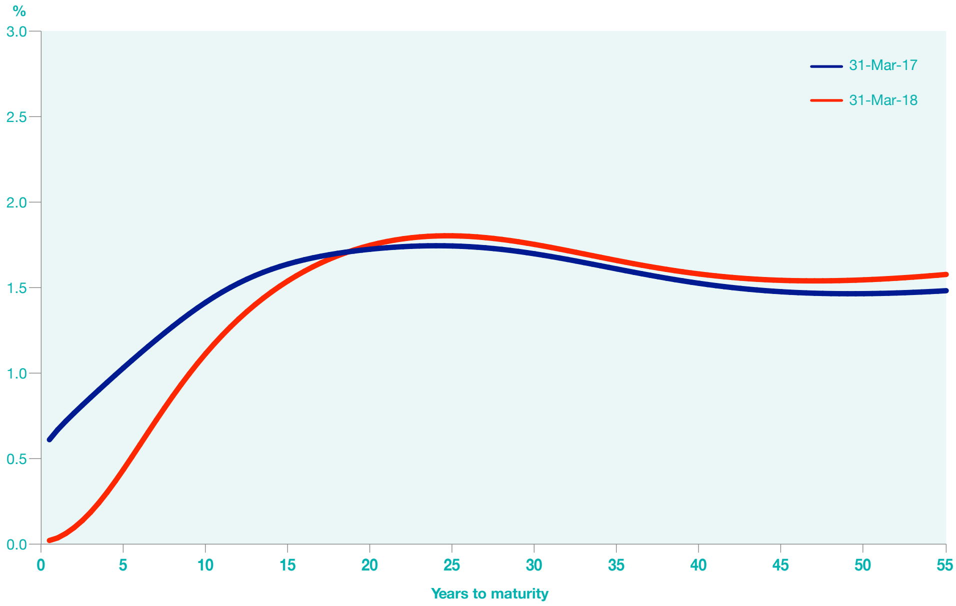
[2] Quarterly averages for financial years 2016-17 and 2015-16 were 0.45% and 0.5% respectively.

Gilt market developments

Par gilt yields

Nominal gilt yields fell at the long end of the curve in 2017-18, whilst the shorter end of the curve (up to 19 years to maturity) saw an increase in yields. Over the course of the financial year, 2-year yields rose by 67 basis points (bps)[3] to 0.77%, 5-year yields by 59bps to 1.03% and 10-year yields by 30bps to 1.41%, whilst 30-year yields fell by 5bps to 1.70% and 50-year yields by 8bps to 1.46% (see Chart 1).

Chart 1: Nominal par gilt yields curves



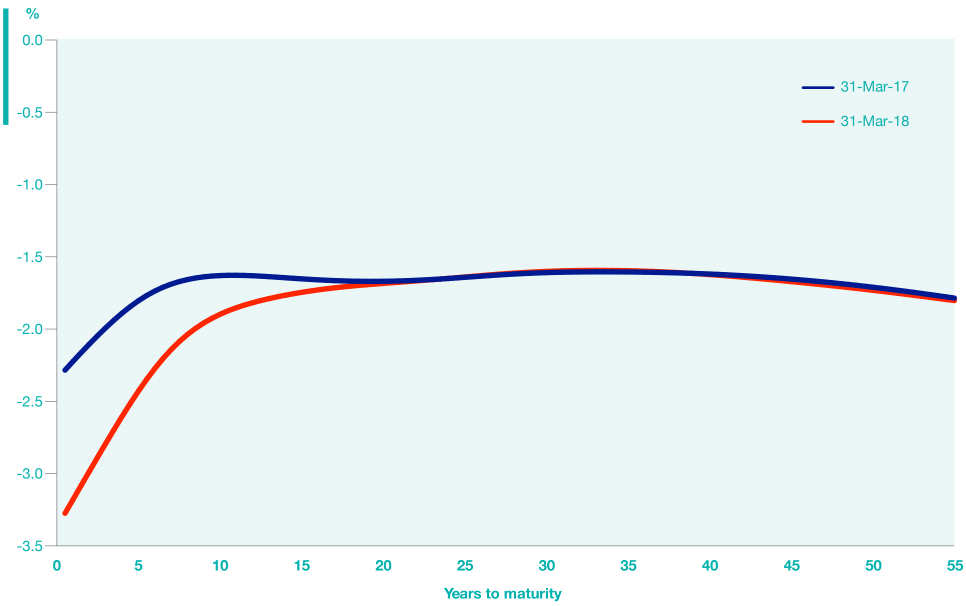
Source: DMO

Real yields

Real yields remained broadly the same at the longer end of the curve, whilst the shorter maturities (up to 19 years to maturity) saw some significant increases. Real yields remained at strongly negative levels. 5-year real par yields increased by 63bps to -1.80%, and 10-year real par yields by 27bps to -1.63%, whilst 30-year real par gilt yields fell by 1bp to -1.61% and 50-year real par yields increased by 2bps to -1.71% (see Chart 2).

[3] One basis point =100th of one per cent.

Chart 2: Real par gilt yields curves



Source: DMO

Nominal yields

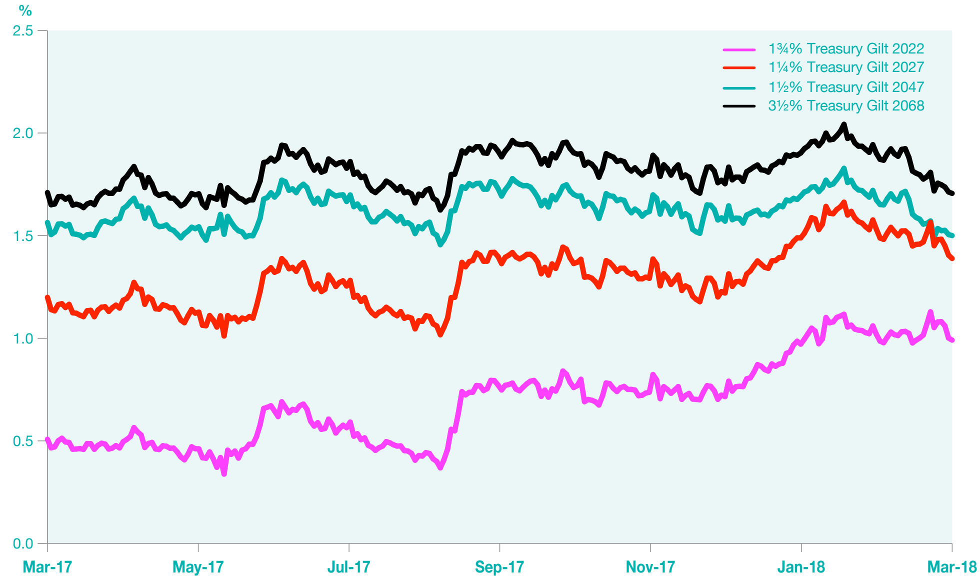
Market focus at the start of the financial year was on the UK General Election, with the election results prompting underperformance in sterling assets. Particularly heightened volatility was observed at the end of June 2017 as hawkish central bank statements created volatility in market sentiment and oil prices declined sharply. This resulted in a significant re-pricing, with the sell-off in bonds during late June initially continuing into July before coming to a halt as expectations of a more hawkish shift by central banks were reined in. Through August, sovereign bond yields fell, reflecting demand for "safe haven" assets in the context of escalating tensions between the US and North Korea. The lack of hawkish sentiment from central banks' governors, Janet Yellen and Mario Draghi at the Jackson Hole conference in the US also supported this trend.

September opened with bond markets retracing gains made in the preceding period after stronger-than-expected domestic manufacturing production data. Renewed strength in global equity markets and higher-than-expected UK inflation resulted in a steep rise in yields during early to mid-September. This was driven further by the MPC decision to keep Bank Rate and the level of gilts held in its Asset Purchase Facility (APF) unchanged. Whilst this decision was largely expected by the market, the statement was seen as reflecting the potential for withdrawal of monetary stimulus over the subsequent months.

During the fourth quarter of the financial year, much of the higher move in yields occurred in January 2018, reflecting growth and inflation expectations as macroeconomic data continued to be positive. 10-year yields in major developed markets stood around 30bps higher by the end of January and edged higher in February, as the broad global interest rate market sell-off continued, with the front end of the yield curve underperforming. Core[4] sovereign bond yields started to decline, however, in early March, as risk sentiment started to turn negative, reflecting a number of factors including risks of a potential trade war between China and the US, the underperformance of technology stocks and market fears for global growth after disappointing Purchasing Managers Index (PMI) data.

[4] i.e. France, Germany, UK and US.

Chart 3: Nominal gilt yields

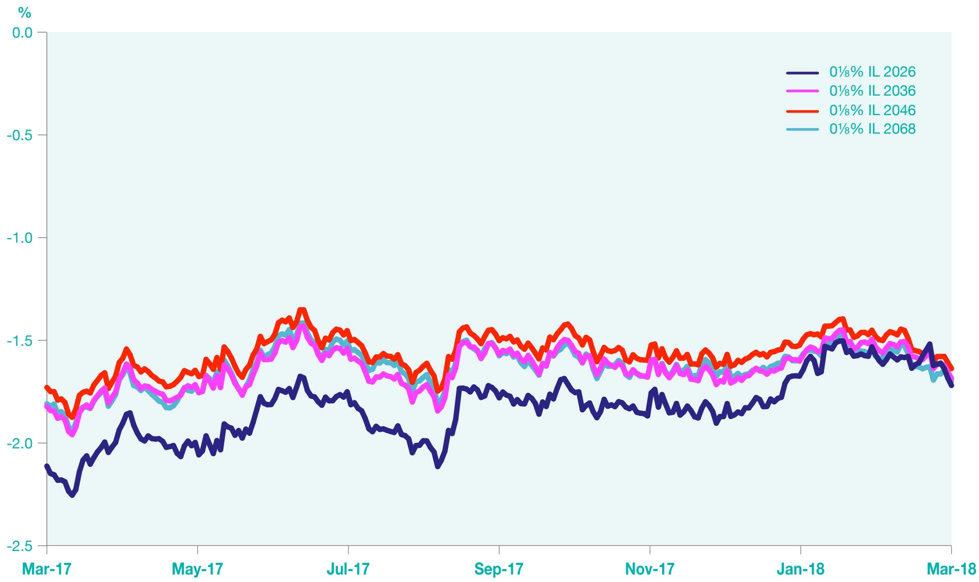


Source: Bloomberg

Real gilt yields

Chart 4 shows the real yields on selected index-linked gilts in 2017-18, all of which rose (albeit marginally in some cases) over the course of the financial year. The real yield on 0⅛% Index-linked Treasury Gilt 2026 rose by 32bps to -1.72%, and the real yield on 0⅛% Index-linked Treasury Gilt 2036 rose by 6bps to -1.69%. Among longer maturities the real yield on 0⅛% Index-linked Treasury Gilt 2046 rose by 2bps to -1.64% and the real yield on 0⅛% Index-linked Treasury Gilt 2068 by 4bps to -1.70%.

Chart 4: Real gilt yields

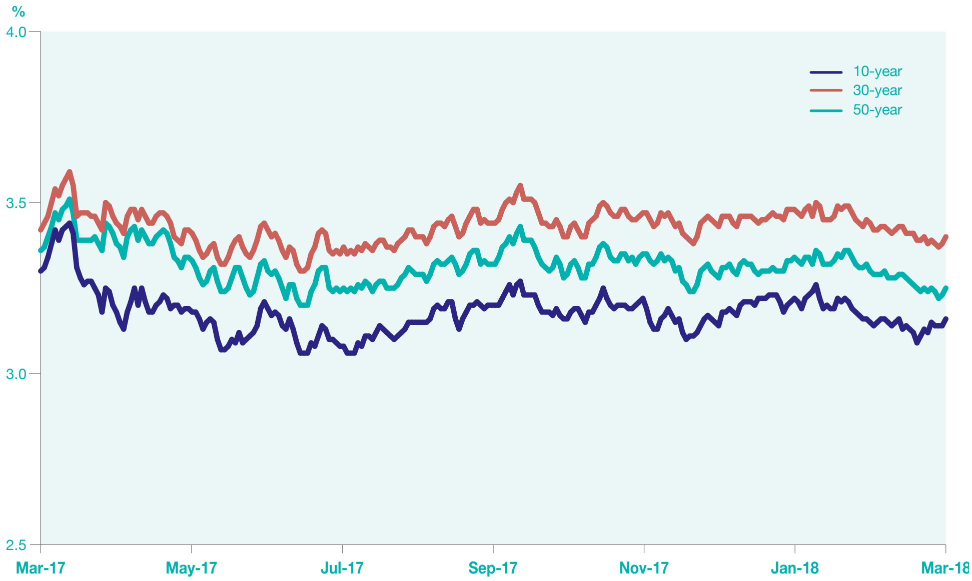


Source: Bloomberg

Break-even inflation rates

Over the course of 2017-18, 10-year break-even inflation rates (BEIRs) fell by 14bps (to 3.16%), while 30-year and 50-year BEIRs fell by 2bps (to 3.40%) and 11bps (to 3.25%) respectively (see Chart 5). Index-linked gilts, as measured by BEIRs, outperformed their conventional gilt counterparts from mid-July until mid-October 2017, reflecting in part a rise in inflation expectations due to the depreciation of sterling. Following the announcement in mid-October of the 3.0% (y-o-y) CPI inflation rate in the year to September, index-linked gilts marginally underperformed relative to their conventional gilt counterparts. From the day of the CPI data release on 17 October 2017 until financial year-end, 10-year BEIRs fell by 7bps while 30-year and 50-year BEIRs fell by 10bps and 12bps respectively, reflecting marginally increased expectations of a fall in inflation.

Chart 5: 10-, 30- and 50-year break-even inflation rates

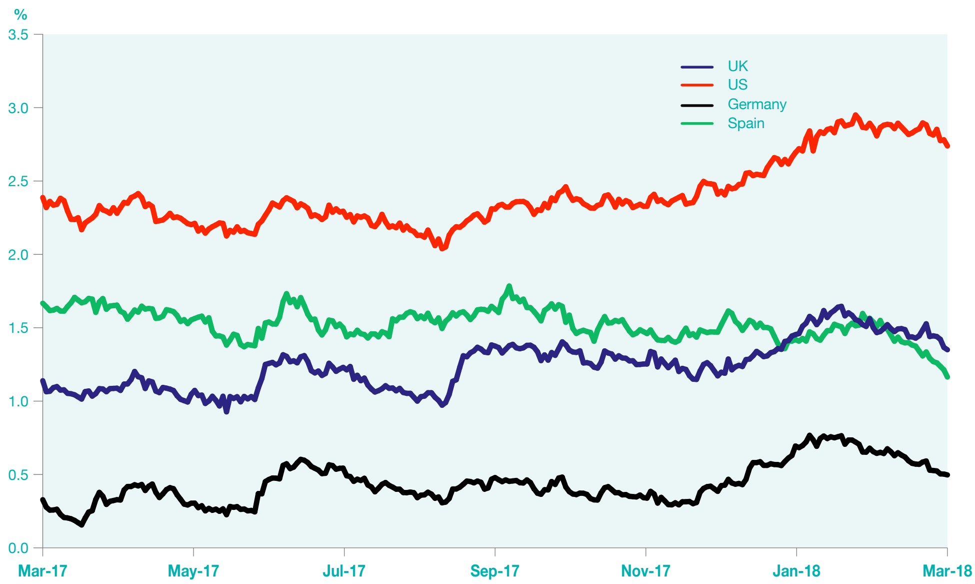


Source: Bloomberg/DMO

International comparisons

Yields on 10-year UK, US and German government bonds all ended the financial year higher: in the UK yields rose by 21bps, in the US by 35bps and in Germany by 17bps. By contrast, 10-year Spanish government bond yields fell by 50bps (see Chart 6).

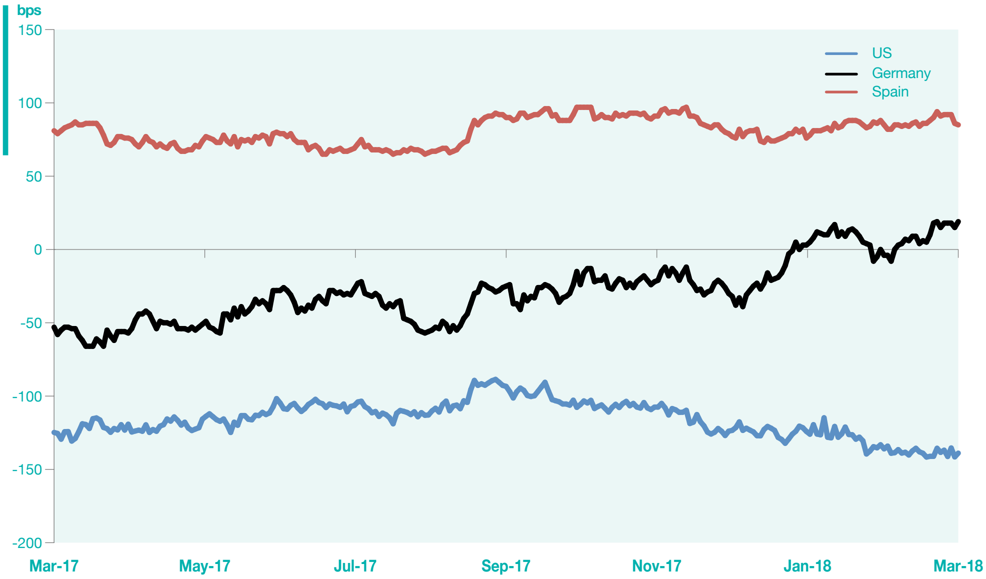
Chart 6: Selected international 10-year benchmark yields



Source: Bloomberg

The spread between 10-year gilt yields and both comparable 10-year US Treasury yields and German government bond (Bund) yields widened over the financial year, from -125bps to -140bps and +81bps to +85bps respectively. In contrast, the spread between 10-year gilts and Spanish government bonds ("obligaciones") narrowed, with the spread beginning the financial year at -53bps and ending at +19bps (see Chart 7).

Chart 7: Selected international 10-year benchmark bond yield spreads to 10-year gilts



Source: DMO

Gilt market turnover

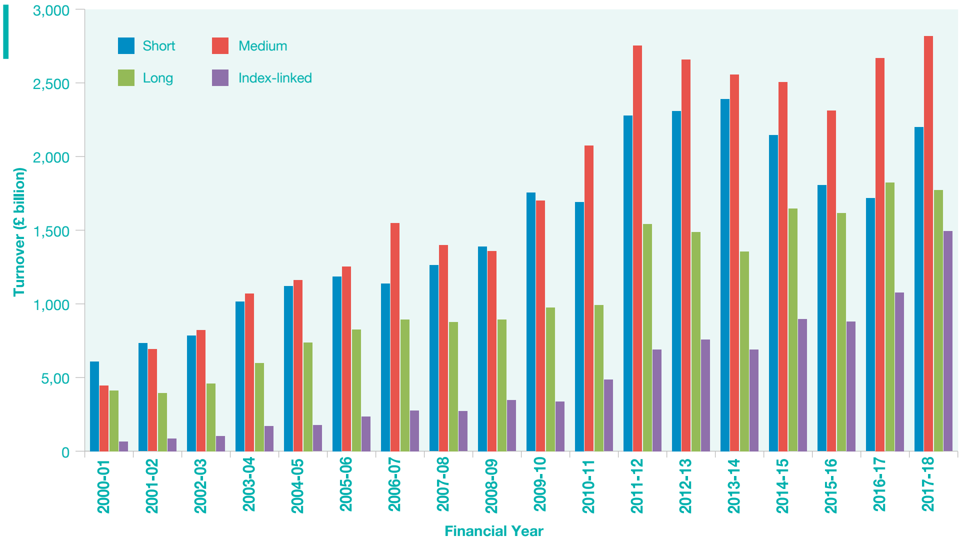
Aggregate gilt market turnover in 2017-18 rose by £996 billion (14%) compared with the previous financial year (from £7.29 trillion to a record high of £8.28 trillion). Turnover rose in short conventional gilts by 28% to £2.20 trillion, in medium conventional gilts by 5% to £2.82 trillion and in index-linked gilts by 38% to £1.49 trillion. Turnover in long conventional gilts fell by 3% to £1.77 trillion (see Table 1 and Chart 8).

Table 1: Aggregate gilt market turnover

£bn	Short	Medium	Long	Index-linked	Total
2000-01	608	446	412	65	**1,531**
2001-02	733	692	396	86	**1,907**
2002-03	784	822	460	103	**2,168**
2003-04	1,016	1,071	599	172	**2,858**
2004-05	1,120	1,161	738	176	**3,195**
2005-06	1,186	1,252	825	236	**3,500**
2006-07	1,139	1,548	893	276	**3,856**
2007-08	1,262	1,399	877	271	**3,808**
2008-09	1,389	1,358	894	346	**3,988**
2009-10	1,754	1,702	976	336	**4,769**
2010-11	1,691	2,073	991	485	**5,240**
2011-12	2,280	2,753	1,541	689	**7,263**
2012-13	2,308	2,659	1,488	757	**7,213**
2013-14	2,391	2,555	1,356	690	**6,992**
2014-15	2,145	2,506	1,646	898	**7,196**
2015-16	1,805	2,313	1,615	880	**6,613**
2016-17	1,717	2,670	1,822	1,078	**7,288**
2017-18	2,201	2,817	1,773	1,493	**8,284**

Source: Gilt-edged Market Makers (GEMMs.

Chart 8:
Gilt market turnover



Source: Gilt-edged Market Makers (GEMMs)

Money market developments

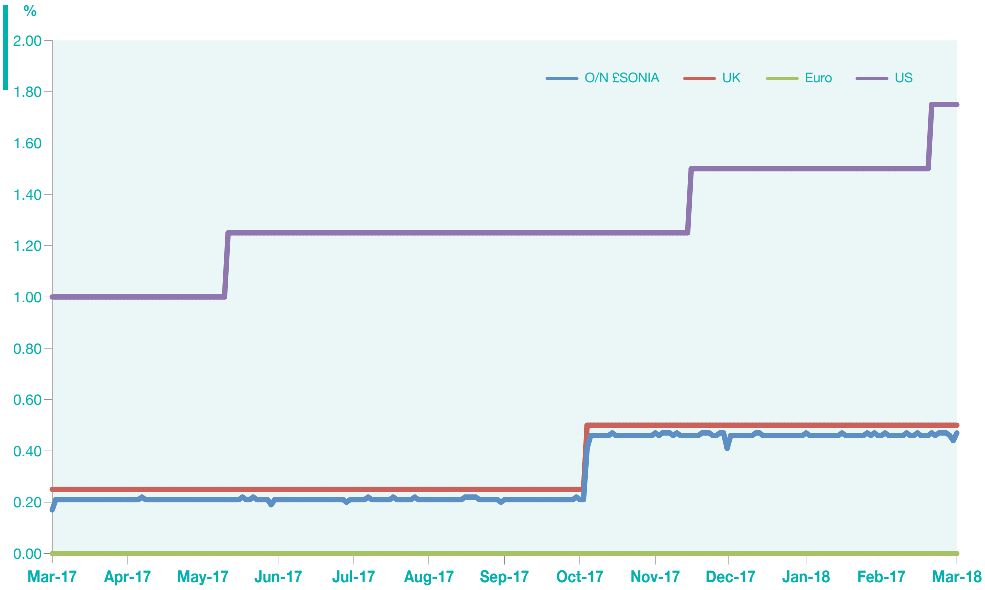
In the UK, the MPC voted in November 2017 to increase the Bank Rate from 0.25% to 0.5%. This level was maintained for the remainder of the financial year. The MPC voted to maintain the stock of purchased gilts at £435 billion.

CPI inflation rose from an average of 2.7% in the first quarter to reach a fiscal-year peak of 3.1% in November 2017 before falling to 2.5% by financial year-end. The overshoot in inflation above the Bank's 2% target triggered an exchange of letters between the Governor and the Chancellor. This was described by the Bank as being "almost entirely due to the effects of higher import prices following sterling's depreciation", with the rises in oil prices also contributing. The Bank anticipated in its projections that higher import prices would to continue to push up inflation, albeit to a diminishing degree. At the end of the financial year sterling market rates implied that the level of Bank Rate was likely to be increased by a further 25bps in 2018.

The ECB maintained an accommodative monetary policy stance during 2017-18 keeping its main Refinancing Rate at a historic low of 0.0%. It also maintained a -0.40% rate on the deposit facility, the rate at which banks may make overnight deposits with the ECB. The first three quarters of the fiscal year saw ECB asset purchases average €60 billion per month dropping to €30 billion in the final quarter. This approach reflected the ECB's tapering of its net asset purchases in advance of an end to its reinvestment phase.

By contrast, the Federal Reserve increased the target range for the federal funds rate three times, all by 0.25%, from 0.75%-1.00% to 1.00%-1.25% in June 2017, to 1.25%-1.50% in December 2017 and from 1.50%-1.75% in March 2018. With the new Federal Reserve Chair Powell addressing congress for the first time towards the end of the fiscal year (in February), Powell's testimony was taken as marginally more bullish on the economy and as such more hawkish on the outlook for interest rates.

Chart 9: Official interest rates



Source: Bloomberg

The changing path of future interest rate expectations over the financial year can be seen in the implied rates of short sterling contracts shown in Chart 10. Sterling market rates generally implied that Bank Rate was most likely to rise, albeit gradually, during the financial year 2017-18.

Chart 10: Implied interest rate expectations

Source: Bloomberg

Chapter 2: 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, while ensuring that debt management policy is consistent with the aims of monetary policy."

The objective is achieved by:

- meeting the principles of openness, transparency and predictability;
- encouraging the development of a liquid and efficient gilt market;
- issuing gilts that achieve a benchmark premium;
- adjusting the maturity and nature of the government's debt portfolio; and
- offering cost-effective savings instruments to the retail sector through NS&I while balancing the interests of taxpayers, savers and the wider financial sector.

Maturity and composition of debt issuance

In order to determine the maturity and composition of debt issuance, the government needs to take into account 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;
- investors' demand for gilts; and
- changes to the stock of Treasury bills and other short-term debt instruments.

The DMO’s financing remit for 2017-18

Spring Budget March 2017

The DMO’s financing remit for 2017-18 was published alongside Spring Budget 2017 on 8 March 2017. The DMO’s Net Financing Requirement (NFR) was forecast to be £105.6 billion (cash)[5]; this was planned to be financed by outright gilt sales of £115.1 billion and a reduction in the net contribution to financing from Treasury bills of £9.5 billion

The gilt financing remit structure

The remit for 2017-18 provided that gilt sales were to be split as follows:

- £87.6 billion via 40 auctions;
- A minimum of £21.0 billion via five syndications; and
- £6.6 billion of initially unallocated supplementary gilt issuance that could be used to issue any type or maturity gilt via any issuance method. It was expected, however, that this flexibility would primarily be used to increase the size of syndicated offerings (where warranted by the size and quality of demand) and/or to increase average sizes of gilt auctions (for example if they were reduced by take-up of the Post Auction Option Facility (PAOF). The unallocated portion could also be used to schedule gilt tenders.

A breakdown of the initially planned split of gilt issuance in 2017-18, as announced at Spring Budget 2017 compared with the plans for 2016-17 announced at Budget 2016, are shown in Table 2 below.

The overall planned split of issuance for 2017-18 was very similar to that originally planned for 2016-17.

Table 2: The planned structure of gilt financing remits in 2016-17 and 2017-18 (as initially announced)

	2016-17		2017-18	
	£bn	%	£bn	%
Total	**129.4**		**115.1**	
Short	30.4	23.5%	27.4	23.8%
Medium	24.8	19.2%	22.2	19.3%
Long	36.2	28.0%	32.3	28.1%
Index-linked	30.0	23.2%	26.6	23.1%
Unallocated	8.0	6.2%	6.6	5.7%
Auctions	**95.9**	**74.1%**	**87.5**	**76.0%**
of which				
Short	30.4		27.4	
Medium	24.8		22.2	
Long	26.7		23.3	
Index-linked	14.0		14.6	
Syndications*	**25.5**	**19.7%**	**21.0**	**18.2%**
Long	9.5		9.0	
Index-linked	16.0		12.0	
**Minimum*				
Figures may not sum due to rounding.				

Source: DMO

[5] All reported values are in cash terms unless specified otherwise.

Other operations

There were no plans to hold any switch auctions, reverse auctions or conversion offers in 2017-18 and none were held.

Outturn of the 2016-17 CGNCR (ex NRAM, B&B and NR)[6]: 25 April 2017

Planned gilt sales were reduced by £0.9 billion to £114.2 billion following the publication of the outturn of the 2016-17 CGNCR (ex NRAM, B&B and NR) on 25 April 2017. The reductions were entirely in planned gilt sales as shown in Table 3. There was no change to the planned net contribution of Treasury bills to financing, which remained at -£9.5 billion. The reduction in planned gilt sales was accommodated predominantly via the auction programme, resulting in slightly lower average (cash) auction sizes (see Table 3). There were no changes to planned gilt sales by syndication.

Table 3: Reductions in gilt sales announced at the April 2017 remit revision

(£bn)	Spring Budget 2017	April revision	Reduction
Short conventional	27.4	27.2	-0.2
Medium conventional	22.2	22.0	-0.2
Long conventional	32.3	32.1	-0.2
Index-linked	26.6	26.4	-0.2
Unallocated	6.6	6.5	-0.1
Totals	**115.1**	**114.2**	**-0.9**

Source: DMO

The impact on the average (cash) sizes of auctions is shown in Table 4.

Table 4: Reduction in average auction sizes announced at the April 2017 remit revision

(£bn)	Spring Budget 2017	April revision	Average auction sizes at Spring Budget	Average auction sizes at April Revision
Short conventional	27.4	27.2	2.74	2.67
Medium conventional	22.2	22.0	2.47	2.39
Long conventional	23.3	23.1	2.33	2.31
Index-linked	14.6	14.4	1.33	1.31
Totals	**87.5**	**86.7**		

Source: DMO

Autumn Budget 2017

At Autumn Budget 2017 on 23 November 2017, the NFR for the DMO rose by £0.9 billion, with planned gilt sales rising back to the £115.1 billion level originally announced at Spring Budget. The additional financing was accommodated by an increase of £0.9 billion in the size of the remaining unallocated portion of gilt issuance to £1.7 billion.

The impact of the £0.9 billion increase in planned gilt sales is shown in Table 5 along with the resultant change in issuance splits. Table 5 also shows the impact of draw-downs of the unallocated portion of gilt issuance, which fell from £6.5 billion to £0.8 billion between April and Autumn Budget 2017[7]

[6] Central Government Net Cash Requirement (excluding Northern Rock (Asset Management) plc, Bradford & Bingley and Network Rail).

[7] £2.0 billion was allocated to short auctions, £1.0 billion to medium auctions, £1.3 billion to long syndications and £1.4 billion to index-lined syndications.

Table 5:
Planned gilt sales splits pre- and post-Autumn Budget 2017

	April 2017 Revision	Pre-Autumn Budget plans	Autumn Budget 2017	Autumn Budget in comparison with April 2017 revision
(%)				
Short	23.8%	25.6%	**25.4%**	1.6%
Medium	19.3%	20.1%	**20.0%**	0.7%
Long	28.1%	29.2%	**29.0%**	0.9%
Index-linked	23.1%	24.3%	**24.2%**	1.0%
Unallocated	*5.7%*	*0.7%*	***1.5%***	*-4.2%*
(£bn)				
Short	27.2	29.2	**29.2**	2.0
Medium	22.0	23.0	**23.0**	1.0
Long	32.1	33.4	**33.4**	1.3
Index-linked	26.4	27.8	**27.8**	1.4
Unallocated	*6.5*	*0.8*	***1.7***	*-4.8*
Total	**114.2**	**114.2**	**115.1**	**0.9**

Figures may not sum due to rounding.

Source: DMO

Spring Statement March 2018

The DMO's NFR for 2017-18 fell by £4.5 billion to £101.1 billion at the Spring Statement 2018 compared with Autumn Budget 2017, primarily reflecting a reduction of £3.1 billion in the forecast CGNCR (ex NRAM, B&B and NR) for 2017-18 and a £2.2 billion higher forecast net contribution to financing by NS&I. No change was announced to planned gilt sales, which remained at £115.1 billion or to net Treasury bill sales which remained at -£9.5 billion.

As a result, the size of the DMO's net cash position at end-March 2018 was forecast to rise by £4.5 billion to £5.0 billion. It was assumed that this would be unwound by £4.5 billion in 2018-19, correspondingly reducing the NFR in that financial year.

Outturn CGNCR (ex NRAM, B&B and NR) for 2017-18 and the impact on financing in 2018-19

The DMO's net cash position at the end of 2017-18 fell by £3.1 billion to £1.9 billion compared with Spring Statement 2018, primarily reflecting changes to the CGNCR (ex NRAM, B&B and NR) gilt sales and the contribution to financing from other items. The DMO's end-March 2018 cash position is planned to be reduced by £1.4 billion in 2018-19 to its planned level of £0.5 billion, reducing the NFR for 2018-19 accordingly.

The in-year changes to the 2017-18 financing arithmetic are shown in Table 6.

Table 6:
The 2016-17 financing arithmetic

£bn	Spring Budget 2017	April 2017 outturn	Autumn Budget 2017	Spring Statement 2018[3]	April 2018 outturn
CGNCR (ex NRAM, B&B and NR)[1]	47.4	47.4	43.4	40.3	40.7
Gilt redemptions	79.5	79.5	79.5	79.5	79.5
Planned financing for the reserves	6.0	6.0	6.0	6.0	6.0
Financing adjustment carried forward from previous financial years	-14.3	-15.2	-15.2	-15.2	-15.2
Gross Financing Requirement	**118.6**	**117.7**	**113.6**	**110.6**	**110.9**
Less:					
NS&I net financing	13.0	13.0	8.0	10.2	9.8
Other financing[2]	0.0	0.0	0.0	-0.7	-3.5
Net Financing Requirement (NFR) for the DMO	**105.6**	**104.7**	**105.6**	**101.1**	**104.5**
The DMO's NFR will be financed through:					
a) Gilt sales	**115.1**	**114.2**	**115.1**	**115.1**	**115.5**
of which:					
– Short conventional gilts	27.4	27.2	29.2	29.3	29.3
– Medium conventional gilts	22.2	22.0	23.0	23.4	23.8
– Long conventional gilts	32.3	32.1	33.4	34.0	34.0
– Index-linked gilts	26.6	26.4	27.8	28.4	28.5
– Unallocated amount of gilts	6.6	6.5	1.7	0.0	0.0
b) Planned net contribution to financing from Treasury bills	-9.5	-9.5	-9.5	-9.5	-9.5
Total financing	**105.6**	**104.7**	**105.6**	**105.6**	**106.0**
DMO net cash position	0.5	0.5	0.5	5.0	1.9

Figures may not sum due to rounding.

[1]Central Government Net Cash Requirement (excluding NRAM plc, Bradford and Bingley and Network Rail).

[2]Prior to publication of the end-year outturn in April each year, this financing item will mainly comprise estimated revenue from coinage. At outturn it will include outturn revenue from coinage and additional financing through non-governmental deposits, certificates of tax deposit and foreign exchange transactions relating to the Exchange Equalisation Account.

[3]Re-stated here to reflect the subsequent decision to include £0.5 billion of near maturity purchases (in January 2018) of 1¾% 2019 (which redeemed in July 2018) in the "Other financing" line rather than in "Gilt redemptions" in 2017-18.

Source: DMO

The DMO's gilt financing operations in 2017-18

Implementing the 2017-18 remit

a) Auctions

Auctions continued to be the primary issuance method for delivery of the DMO's gilt sales programme in 2017-18 and, together with associated proceeds from the PAOF, raised £90.5 billion, accounting for 78.3% of overall gilt sales. The auction calendar for the whole financial year is usually announced before the start of each financial year, but the choice of gilts to be sold on each date is made quarter-by-quarter following the regular quarterly cycle of separate consultation meetings with representatives of the GEMMs and end-investors. In 2017-18 these meetings again also considered the interaction between choices over gilts to be issued via auctions and those issued at syndicated offerings.

The consultation meetings were held in March 2017 (to discuss issuance in April-June), May 2017 (to discuss issuance in July-September), August 2017 (to discuss issuance in October-December) and December 2017 (to discuss issuance in January-March 2018).

Ahead of the meetings the DMO published, on its wire service screens and website, an agenda to steer the discussion. The morning after each meeting, summary minutes were published recording the main areas of discussion. The quarterly operations calendars, which specify the particular bonds to be sold at each auction together with advance notice of some details of forthcoming syndicated offerings, were published on 24 March, 31 May, 31 August and on 30 November 2017 respectively.

On 31 August 2017, as part of the October-December 2017 gilt operations calendar announcement, the DMO reported that £3.0 billion (cash) was being transferred from the unallocated portion of issuance into the conventional gilt auction programme to maintain relative stability in average auction sizes, which had fallen as a result of the previous take-up of the PAOF. The cash transfers were:

- £2.0 billion to the short conventional auction programme; and
- £1.0 billion to the medium conventional auction programme.

40 gilt auctions were held in 2017-18: 10 of short, 9 of medium and 10 of long conventional gilts, and 11 of index-linked gilts. The results of gilt auctions and other operations are available on the DMO's website at:

https://www.dmo.gov.uk/data/pdfdatareport?reportCode=D2.1PROF7

The average cover ratio at gilt auctions in 2017-18 was 2.30x, 16% higher than the average of 1.98x in 2016-17, despite average auction sizes of auctions being very similar in both financial years.

The average concentration of bidding at conventional gilt auctions, as measured by the tail[8], remained tight, at an average of 0.3bps, compared with 0.5bps in the previous financial year. Details are shown in Table 7.

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[8] The tail is the difference in basis points between the yield at the average and lowest accepted prices at multiple price auctions (conventional gilts only).

Table 7:
Auction cover and tail
2016-17 and 2017-18

Gilt auctions	Average cover ratio		Average tail (bps)	
	2017-18	2016-17	**2017-18**	2016-17
Short conventional	**2.42**	2.13	**0.3**	0.4
Medium conventional	**2.30**	2.10	**0.2**	0.3
Long conventional	**1.97**	1.75	**0.5**	0.8
Index-linked	**2.50**	1.95	**na**	na
All	**2.30**	1.98	**0.3**	0.5

Source: DMO

b) Syndicated offerings

The DMO again used syndications as an integral part of the remit in 2017-18 to supplement auctions and facilitate the primary gilt distribution process to end-investors. Continued usage of syndications reflected the ongoing historically high level of the financing requirement. In particular, syndications enable the DMO to issue more long conventional and index-linked gilts than it judges would be practicable via auctions alone.

The DMO stated in its remit announcement alongside Spring Budget 2017 that it again planned to use the syndication programme to launch new gilts and for re-openings of high duration gilts, with an initial planning assumption that it would raise a minimum of £21.0 billion via syndication (£9.0 billion of long conventional and £12.0 billion of index-linked gilts).

Subject to market feedback the DMO said that it envisaged holding five syndications (three index-linked and two long conventional). The remit allowed the DMO to vary the size of each syndicated sale having regard to the size and quality of end-investor demand in the order book.

An outline pattern for the approximate timing of syndications and the scheduling of gilt sales by type of instrument in the quarter ahead was discussed at the quarterly consultation meetings in 2017-18 and planning assumptions about the syndication programme were published in the quarterly operations calendar announcements. A greater level of precision is typically given in the announcement about the type and maturity of those sales by syndication planned closest to the date of the calendar announcement. Around two weeks in advance of the anticipated operation, a series of further DMO announcements begin, including the announcement of the appointment of the Lead Managers and the specific maturity of the bond to be sold.

£24.3 billion was raised through the five syndications in 2017-18 (£10.4 billion of long conventional and £14.0 billion of index-linked gilts)[9]. The total raised by the programme was £3.3 billion more than the original plan, reflecting allocations into the syndication programme from the unallocated supplementary portion. All five of the transactions were increased above initial (even-flow sized) planning assumptions to take account of the size and quality of demand received at those transactions.

[9] Figures may not sum due to rounding.

The results of the syndication programme in 2017-18 are summarised in Table 8.

Table 8:
Syndications in 2017-18

Date	Gilt	Size (£mn nom)	Issue Price (£)	Issue Yield %	Proceeds (£mn cash)
16-May-17	1¾% Treasury Gilt 2057	5,000	101.744	1.690	5,077
11-Jul-17	0⅛% Index-linked Treasury Gilt 2056	2,500	177.716	-1.361	4,540
05-Sep-17	2½% Treasury Gilt 2065	4,000	132.145	1.547	5,278
07-Nov-17	0⅛% Index-linked Treasury Gilt 2048	3,000	165.868	-1.541	4,970
06-Feb-18	0⅛% Index-linked Treasury Gilt 2048	2,750	161.931	-1.475	4,473
Figures may not sum due to rounding.					**24,338**

Source: DMO

As in the previous financial years, strong domestic order books were a feature throughout the 2017-18 syndication programme, with the domestic investor base taking an average of 89% of each sale (just below the 92% figure for 2016-17). Domestic investor orders were largely from asset managers, pension funds and insurance companies, reflecting their structural demand for liability-matching long-dated fixed income assets.

The size of order books for both conventional and index-linked syndications also grew significantly in 2017-18 with an average nominal size of £21.3 billion, compared with £15.9 billion in the previous financial year – an increase of 34%. The average cash size of order books in 2017-18 was £30.5 billion, a rise of 36% compared with £22.4 billion in 2016-17.

c) Gilt tenders

All types and maturities of gilt were eligible for sale via gilt tenders in 2017-18. Gilt tenders are designed to bring a degree of responsiveness at the margins to the delivery of the financing programme in response to evolving market and demand conditions during the year. Any financing via tenders represents a use of the unallocated supplementary portion of gilt issuance.

Only one gilt tender was held in 2017-18 raising £0.7 billion (cash). The result is summarised in Table 9.

Table 9:
Gilt tender in 2017-18

Date	Gilt	Size (£mn nom)	Cover	Price (£)	Yield (%)	Proceeds (£mn)
28-Nov-17	4% Treasury Gilt 2060	400	2.21	172.05	1.63	688.2

Source: DMO

New gilts issued

The DMO issued three new gilts in 2017-18: two conventional and one index-linked. The new index-linked gilt maturing in 2048 was launched via syndication, and the new 5- and 10-year conventional gilts were launched via auction. The maturities and the first issue dates of the new gilts issued in 2017-18 are shown in Table 10. The coupon on the new 1⅝% Treasury Gilt 2028, which was initially issued on 15 March 2018, was the first conventional gilt to have a coupon fixed in increments of ⅛%[10].

[10] On 2 December 2016 the DMO announced its intention to begin setting coupons on conventional gilts in increments of ⅛% with effect from 1 April 2017.

Table 10: New gilts issued in 2017-18[11]

Issue date	Gilt
20-Jul-17	0¾% Treasury Gilt 2023
08-Nov-17	0⅛% Index-linked Treasury Gilt 2048
16-Mar-18	1⅝% Treasury Gilt 2028

Source: DMO

Gilt sales outturn for 2017-18

The outturn for gilt sales in 2017-18 is shown in Table 11. Total gilt sales amounted to £115.5 billion relative to the plan announced at Autumn Budget 2017 of £115.1 billion.

The outturns for gilt sales by maturities, type and issuance method against the various remit targets are also shown in Table 11.

Table 11: Gilt sales outturns by maturity, type and issuance method

(£mn)	Plan	Outturn	Relative to plan (£mn)	Relative to plan (%)
Total gilt sales	**115,100**	**115,487**	**387**	**0.3%**
Auctions[1]	**90,129**	**90,461**	**332**	**0.4%**
Short	29,200	29,276	76	0.3%
Medium	23,429	23,766	337	1.4%
Long	23,100	22,921	-179	-0.8%
Index-linked	14,400	14,497	97	0.7%
Syndications[2]	**24,283**	**24,338**	**55**	**0.2%**
Long	10,300	10,355	55	0.5%
Index-linked	13,983	13,983	0	0.0%
Gilt tenders[3]	**N/A**	**688**	**N/A**	**N/A**
Figures may not sum due to rounding.				
[1]Sales include PAOF proceeds and transfers from the unallocated portion.				
[2]Syndication targets are final totals as revised in-year.				
[3]No ex-ante targets were set for gilt tenders.				

Source: DMO

Proceeds from the PAOF in 2017-18

In 2017-18 the PAOF was triggered (either in full or in part) at 22 out of the 40 auctions held. The total amount raised was £5.6 billion which increased the overall proceeds from auctions by an additional 6.6%. The additional sums raised ranged from 2.1% of auction proceeds at index-linked auctions to 8.5% at short conventional auctions (see Table 12).

Table 12: Auction and PAOF proceeds 2017-18

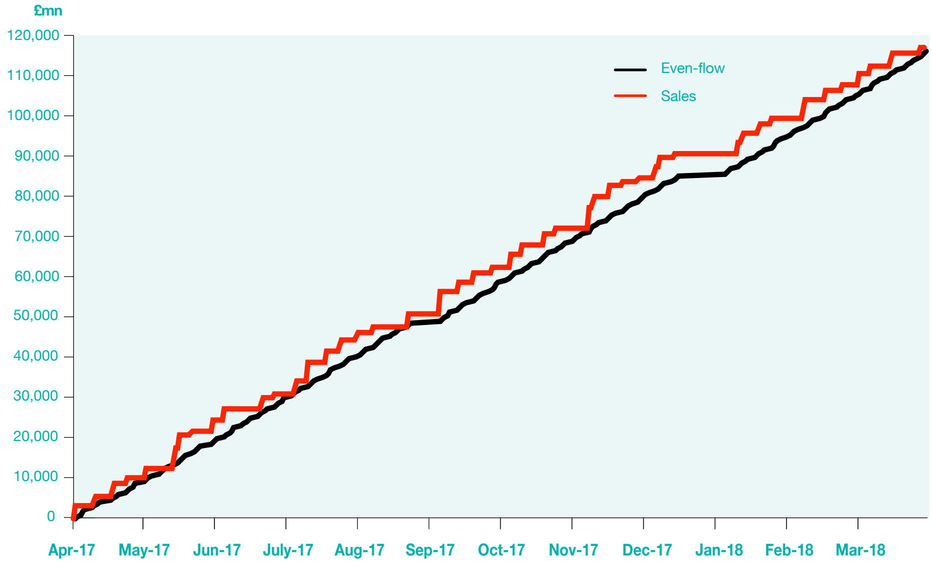
(£bn)	Conventional Gilts			Index-linked gilts	Total
	Short	Medium	Long		
Auction proceeds	26,972	22,009	21,681	14,198	84,860
PAOF proceeds	2,304	1,757	1,240	299	5,600
Auction and PAOF proceeds	**29,276**	**23,766**	**22,921**	**14,497**	**90,461**
PAOF as a percentage of auction proceeds	*8.5%*	*8.0%*	*5.7%*	*2.1%*	*6.6%*

Source: DMO

[11] These are the dates on which the relevant operations settled and the initial tranche of stock was created (i.e. the day after the operations themselves). 1⅝% Treasury Gilt 2028 was the first conventional gilt to be issued with a coupon set in increments of ⅛%.

Gilt sales proceeds were received on a broadly even-flow basis throughout the year as illustrated in Chart 11, which shows cumulative proceeds from all operations including proceeds from the PAOF in 2017-18.

Chart 11: Cumulative gilt sales proceeds and business day even-flow 2017-18



Source: DMO

DMO remit 2018-19 (Spring Statement 2018)

The DMO's financing remit for 2018-19 was published alongside the Spring Statement on 12 March 2018. The DMO's NFR for 2018-19 was forecast to be £102.9 billion, to be financed exclusively by gilt sales of £102.9 billion with no planned net contribution to financing by Treasury bills.

The structure of the gilt financing remit

The planned split of gilt issuance in 2018-19 was very similar to that in the 2017-18 remit, as announced at Spring Budget 2017, with the main difference being a reduction of two percentage points in the initially planned proportion of index-linked gilt issuance compared with 2017-18.

The initial structure of the remits for 2017-18 and 2018-19, both with respect to the split of issuance and the type of operation, is shown in Table 13. Auctions remain the primary means of sale, accounting for 77% of total planned gilt sales in 2018-19.

Table 13:
The structure of financing remits in 2017-18 and 2018-19 (as initially announced)

	2017-18		2018-19	
	£bn	%	£bn	%
Total	**115.1**		**102.9**	
Short	27.4	23.8%	24.9	24.2%
Medium	22.2	19.3%	20.3	19.7%
Long	32.3	28.1%	29.4	28.6%
Index-linked	26.6	23.1%	21.7	21.1%
Unallocated	6.6	5.7%	6.6	6.4%
Auctions	**87.5**	**76.0%**	**79.3**	**77.1%**
of which				
Short	27.4		24.9	
Medium	22.2		20.3	
Long	23.3		20.4	
Index-linked	14.6		13.7	
Syndications*	**21.0**	**18.2%**	**17.0**	**16.5%**
Long	9.0		9.0	
Index-linked	12.0		8.0	
**Minimum.*				
Figures may not sum due to rounding.				

Source: DMO

Post Auction Option Facility (PAOF)

In 2018-19 the remit continued to include the facility whereby successful bidders (both primary dealers and investors) have the option to purchase additional stock via the PAOF. In 2018-19, the option remains at 15%[12] of the nominal amount allocated to bidders at the average accepted price at conventional gilt auctions and at the clearing (or strike) price at index-linked gilt auctions.

The PAOF is available between midday and 2.00pm on the day of an auction and any proceeds raised via the PAOF will count towards remit auction targets and be factored into average auction size calculations on an auction-by-auction basis throughout the financial year. All else equal, PAOF proceeds will be used progressively to reduce implied average auction sizes throughout the year. Average auction sizes are re-stated after every auction.

The supplementary distribution programme

- Syndications

The remit specified that four syndications were envisaged for 2018-19, aiming to raise a minimum of £17.0 billion (£9.0 billion via two syndications of long conventional gilts and £8.0 billion via two syndications of index-linked gilts).

- Gilt tenders

Gilt tenders (for any type and maturity of gilt) may be scheduled after consultation with the market in response to evolving market and demand conditions during the financial year. The DMO will aim to announce the date, the choice of gilt to be sold, and the minimum size of the gilt tender at least two business days in advance.

[12] From its introduction in June 2010 until the end of 2015-16, PAOF had been for 10% of the amount allocated; the option was increased to 15% for the 2016-17 remit and has continued at that percentage since then.

Gilt tenders may also be scheduled with shorter notice as required for market management purposes.

Initially unallocated issuance

A £6.6 billion portion of issuance was initially unallocated regarding type and maturity of gilt to be issued and issuance method. It was expected that this portion of issuance would primarily be used to increase the size of syndications (where warranted by the size and quality of demand received) and/or to increase average auction sizes where, for example, they had been reduced by take-up of the PAOF. The unallocated portion can be used to schedule gilt tenders. Any such re-allocations will be announced.

Other operations

The remit specified that the DMO has no current plans for a programme of reverse or switch auctions, or conversion offers in 2018-19.

New gilt instruments

The remit stated that there were no current plans to introduce new types of gilt instruments in 2018-19.

Treasury bill issuance for debt financing

The remit assumes that Treasury bill sales will make a zero net contribution to debt financing in 2018-19, with the implication that the stock of Treasury bills in issue for debt management purposes at end-March 2019 will be £60.0 billion. Any changes to that assumption will be announced as part of any future remit revision. The outturn net contribution of Treasury bills to debt financing in 2018-19 will be reported by the DMO in April 2019.

Future illustrative gross financing projections

Spring Statement 2018 included new projections by the Office for Budget Responsibility (OBR) for the CGNCR (ex NRAM, B&B and NR) as a percentage of GDP to 2022-23. Table 14 sets out the published projections in cash terms together with prevailing redemption totals to produce illustrative gross financing projections. Note that these are not gilt sales forecasts, as they take no account of possible contributions to financing by NS&I or net Treasury bill sales for debt management purposes.

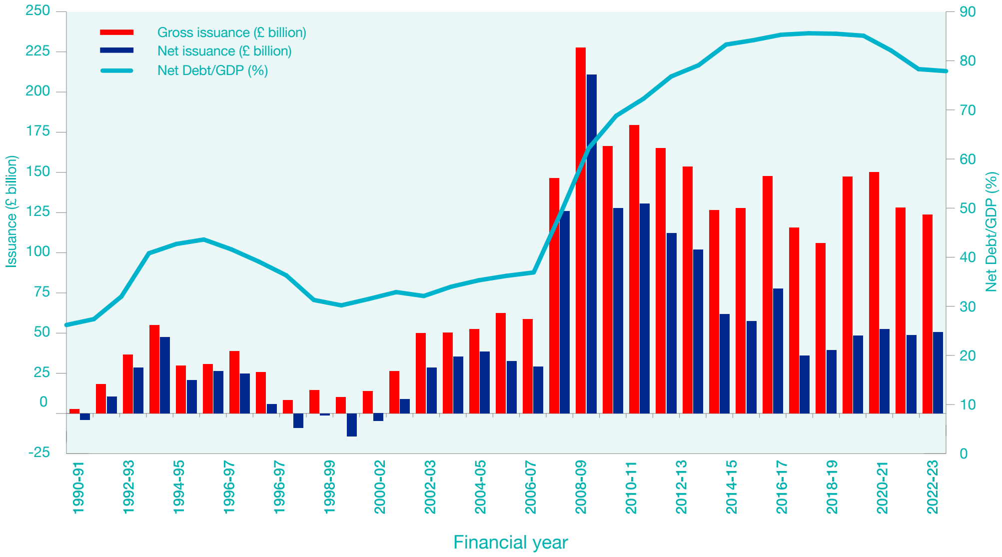
Table 14: Spring Statement 2018: illustrative gross financing requirement projections

(£bn)	2019-20	2020-21	2021-22	2022-23
CGNCR (ex NRAM, B&B and NR)	42.3	52.5	48.6	50.4
Gilt redemptions	99.1	97.6	79.3	73.3
Planned financing for the Official Reserves	6.0	0.0	0.0	0.0
Total illustrative gross financing requirement	**147.4**	**150.1**	**127.9**	**123.8**
Figures may not sum due to rounding.				

Sources: Office for Budget Responsibility (OBR)/DMO/HM Treasury

Chart 12 shows past and projected gross and net gilt issuance levels (and net debt/GDP ratio) as published at the Spring Statement on 12 March 2018.

Chart 12: Gross and net gilt issuance history and projections



Source: DMO/OBR

In-year revisions to the remit

There are two main events which may routinely be expected to trigger revisions to the remit in any financial year:

- the publication, usually in the third week of April, of an outturn CGNCR for the previous financial year, if the outturn and/or overall NFR differs from the forecast published in the Budget; and/or
- the publication, at the Autumn Budget, of a different forecast financing requirement for the prevailing financial year.

2017-18 CGNCR outturn revision to the 2018-19 financing remit

The outturn CGNCR (ex NRAM, B&B and NR) for 2017-18 was published on 24 April 2018 and, in the associated remit revision, the DMO's NFR for 2018-19 rose by £3.1 billion to £106.0 billion, primarily reflecting an increase of £3.3 billion in the negative contribution to financing in 2017-18 from other financing items since the Spring Statement 2018. The updated financing arithmetic as published on 24 April 2018 is shown in Table 15.

Table 15: The outturn financing arithmetic for 2017-18 and the revised arithmetic for 2018-19

£ billion	2017-18	2018-19
CGNCR (ex NRAM, B&B and NR)[1]	40.7	40.6
Gilt redemptions	79.5	66.7
Planned financing for the Official Reserves	6.0	6.0
Financing adjustment carried forward from previous financial years	-15.2	-1.4
Gross Financing Requirement	**110.9**	**112.0**
Less:		
NS&I net financing	9.8	6.0
Other financing[2]	-3.5	0.0
Net Financing Requirement (NFR) for the DMO	**104.6**	**106.0**
DMO's NFR will be financed through:		
Gilt sales, through sales of:		
– Short conventional gilts	29.3	25.6
– Medium conventional gilts	23.8	21.0
– Long conventional gilts	34.0	30.3
– Index-linked gilts	28.5	22.4
– Unallocated amount of gilts	0.0	6.7
Total gilt sales for debt financing	**115.5**	**106.0**
Total net contribution of Treasury bills for debt financing	**-9.5**	**0.0**
Total financing	**106.0**	**106.0**
DMO net cash position	1.9	0.5

Figures may not sum due to rounding.

[1]Central Government Net Cash Requirement (excluding NRAM plc, Bradford and Bingley and Network Rail).

[2]Prior to publication of the end-year outturn in April each year, this financing item will mainly comprise estimated revenue from coinage. At outturn it will include outturn revenue from coinage and additional financing through non-governmental deposits, certificates of tax deposit and foreign exchange transactions relating to the Exchange Equalisation Account.

Source: DMO

The increase in the NFR was accommodated entirely by higher planned gilt sales, which rose to £106.0 billion. Planned gilt sales by auction were increased by £2.0 billion, taking these sales to £81.3 billion, and the minimum planned sales via syndication rose by £1.0 billion to £18.0 billion. The remaining £0.1 billion was added to the unallocated portion of issuance, which rose to £6.7 billion. The increases were designed to maintain as far as practicable the split of issuance announced at Spring Statement 2018. The changes are shown in Table 16.

Table 16: Increases to gilt sales announced on 24 April 2018)

	2018-19 financing remit						
	Spring Statement 2018			April 2018 revision			
	(£bn)	(%)		Increase (£bn)	(£bn)	(%)	% Change
Short	24.9	24.2%		0.7	25.6	24.2%	-0.0%
Medium	20.3	19.7%		0.7	21.0	19.8%	0.1%
Long	29.4	28.6%		0.9	30.3	28.6%	0.0%
Index-linked	21.7	21.1%		0.7	22.4	21.1%	0.0%
Unallocated	6.6	6.4%		0.1	6.7	6.3%	-0.1%
	102.9			**3.1**	**106.0**		
Sales by auction			**Number**				**Number**
Short	24.9		9	0.7	25.6		9
Medium	20.3		8	0.7	21.0		8
Long	20.4		9	0.4	20.8		9
Index-linked	13.7		10	0.2	13.9		10
	79.3	**77.1%**	**36**	**2.0**	**81.3**	**76.7%**	**36**
Sales by syndication			**Number**				**Number**
Long	9.0		2	0.5	9.5		2
Index-linked	8.0		2	0.5	8.5		2
	17.0	**16.5%**	**4**	**1.0**	**18.0**	**17.0%**	**4**
Figures may not sum due to roundng.							

Source: DMO

Chapter 3: Exchequer Cash Management

Exchequer cash management remit 2017-18

The DMO's cash management remit for 2017-18, published alongside Spring Budget on 8 March 2017, 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 net 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 to 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 2017-18 the DMO carried out its cash management objective primarily through a combination of:

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

The average accepted yields achieved at the weekly Treasury bill tenders are assessed against the SONIA rates for the relevant maturities. These are reported in Annex B.

The stock of Treasury bills in issue can vary within year and across the financial year-end according to cash management requirements. Table 17 shows the split of issuance of Treasury bills by maturity at tenders over the course of the financial year.

Bilateral Treasury bill facility

Since November 2007, the DMO has had in place a facility which allows 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). In particular, Treasury bills sold through the bilateral facility can contribute to smoothing cumulative cash positions. Monthly issuance of Treasury bills via the bilateral facility is shown in Table 17.

Table 17: Treasury bill issuance (gross) and stock in 2017-18 (£ million)

Month End	One Month	Three Month	Six Month	Ad Hoc Issuance	Bilateral Issuance	Total Issuance	Total Stock Outstanding	T-bill stock for debt financing
2017-18								
Apr	2,000	2,000	4,000	0	168	8,168	53,022	
May	2,500	2,500	6,000	0	3,716	14,716	48,040	
Jun	5,000	2,500	4,000	0	3,563	15,063	51,048	
Jul	2,500	5,000	8,500	0	138	16,138	43,506	
Aug	6,000	5,500	7,500	0	520	19,520	54,026	
Sep	6,000	6,000	8,000	0	348	20,348	61,618	
Oct	2,500	8,000	10,000	0	668	21,168	64,094	
Nov	3,000	4,000	8,000	0	3,539	18,539	70,633	
Dec	6,000	4,000	6,500	0	6,610	23,110	80,492	
Jan	2,000	2,000	8,000	0	1,373	13,373	60,029	
Feb	2,000	2,000	8,000	0	827	12,827	59,227	
Mar	5,000	5,000	8,000	0	2,000	20,000	65,227	60,000

Source: DMO

The breakdown of the Treasury bill portfolio by maturity date (including amounts issued bilaterally) at end-March 2018 is shown in Table 18.

Table 18: Treasury bills outstanding at 31 March 2018 by maturity date

Maturity date	Size (£mn)	Maturity date	Size (£mn)
3-Apr-18	4,000	25-Jun-18	2,500
9-Apr-18	4,500	9-Jul-18	2,000
16-Apr-18	3,000	16-Jul-18	2,000
20-Apr-18	2,725	23-Jul-18	2,000
23-Apr-18	3,000	30-Jul-18	2,000
30-Apr-18	2,501	6-Aug-18	2,000
8-May-18	2,500	13-Aug-18	2,000
14-May-18	2,500	20-Aug-18	2,000
21-May-18	2,500	28-Aug-18	2,000
29-May-18	2,500	3-Sep-18	2,000
4-Jun-18	3,500	10-Sep-18	2,000
11-Jun-18	2,501	17-Sep-18	2,000
18-Jun-18	3,000	24-Sep-18	2,000
	Total		**65,227**

Source: DMO

Bilateral cash management operations

In practice, the most significant portion of cash management operations in 2017-18, as in previous years, was 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.

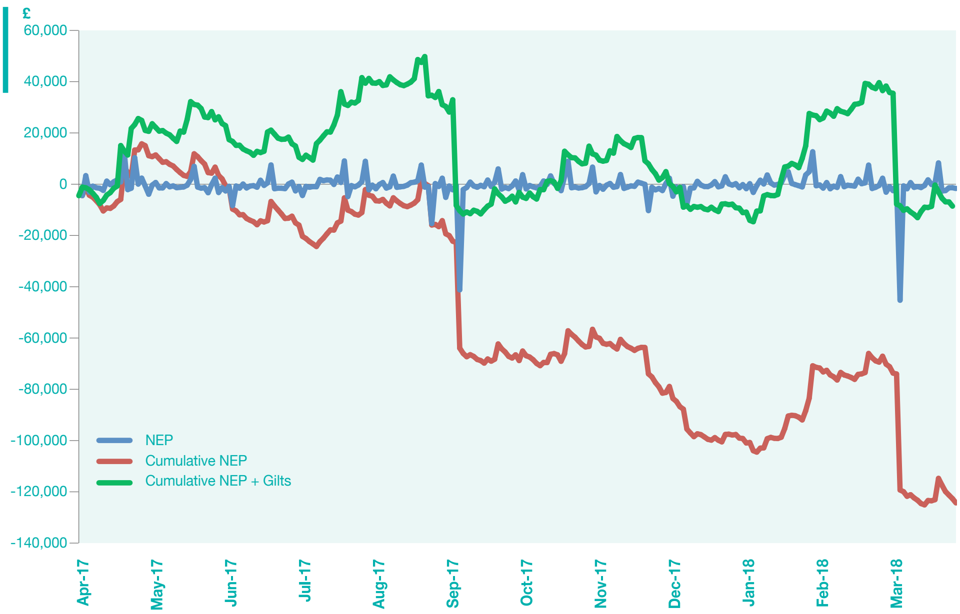
Cash management is conducted using market instruments in order to minimise cost whilst operating within agreed risk limits. Sterling-denominated repurchase agreements (repo) and reverse repurchase agreements currently dominate these transactions, though short-dated cash bonds, Certificates of Deposit, Commercial Paper, reverse repo of foreign currency bonds swapped into sterling, unsecured loans and deposits can also be used.

The DMO's money market dealers borrow from and/or lend to the market on each business day to balance the position on the NLF. In order to do so the DMO receives from HM Treasury forecasts of each business day's cash flows into and out of central government. Additionally, the DMO obtains 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 that 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. Outflows associated with gilt coupons and redemptions are also known in advance.

Chart 13 shows the scale of daily cash flows measured in terms of the Net Exchequer Position (NEP) in 2017-18 on a daily and cumulative basis. The NEP excludes the effects of gilt sales, Treasury bill issuance and NS&I's overall net contribution to financing, and therefore shows the cumulative in-year deficit which has to be financed. Chart 13 also shows the net effect including gilt sales demonstrating how the timing of these flows makes a significant contribution to reducing the in-year financing required by Exchequer cash management operations.

Chart 13: Exchequer cash flows 2017-18



Source: HM Treasury/DMO

Active cash management performance framework

Since 2000, the in-year cash needs of the government have been managed actively by HM Treasury and the DMO, with HM 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 is designed to allow specialist cash managers to select appropriate counterparties, instruments and maturities with which to deliver the cash management remit at minimum cost subject to the agreed risk limits. Formal performance reporting is in place as a means of enhancing effectiveness and ensuring accountability and the results for 2017-18 are presented in Annex B. HM Treasury and the DMO recognise that performance measurement needs to capture the wider policy objectives the government sets the DMO as its cash manager, as well as the cost minimisation objective, and for this reason a number of key performance indicators are used, including a quantifiable measure of net interest saving which is shown under key performance indicator (KPI) 1.4.

HM 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 full report on performance in 2017-18 is presented in Annex B.

Chapter 4: Fund Management

The origins of the Commissioners for the Reduction of the National Debt (CRND) date back to the passing of the National Debt Reduction Act of 1786. From their earliest days the Commissioners also had associations with the stock market and this led to a diversification of CRND operations, including in particular responsibility for the investment of major government funds. This now constitutes the main function of CRND, which since 2002 has been carried out under the auspices of the DMO.

CRND had £32.0 billion under management at end-March 2018, 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 or risk profiles agreed with fund owners, but essentially investments are restricted to cash deposits or government-issued 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 main funds under CRND management at 31 March 2018 were as follows:

- National Insurance Fund Investment Account
- Court Funds Investment Account
- National Lottery Distribution Fund Investment Account
- Northern Ireland National Insurance Fund Investment Account
- Insolvency Services Investment Account
- Northern Ireland Court Service Investment Account
- Various smaller legacy administrative accounts, including the Donations and Bequests Account, which processes any gifts to the nation for the purpose of debt reduction.

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.

Annexes:

A) List of GEMMs and Inter Dealer Brokers (IDBs) at 31 March 2018

B) Debt and cash management performance

C) The gilt portfolio

ANNEX A: List of GEMMs and IDBs at 31 March 2018[13]

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

Gilt-edged Market Makers

Name and Address	Website
Banco Santander SA London Branch 2 Triton Square Regent's Place London NW1 3AN	www.santander.com
BofA Merrill Lynch 2 King Edward Street London EC1A 1HQ	www.baml.com
Barclays Bank plc 5 The North Colonnade Canary Wharf London E14 4BB	www.barclays.com
BNP Paribas (London Branch) 10 Harewood Avenue London NW1 6AA	www.bnpparibas.com
Citigroup Global Markets Limited Citigroup Centre 33 Canada Square London E14 5LB	www.citigroup.com
Deutsche Bank AG (London Branch) Winchester House 1 Great Winchester Street London EC2N 2DB	https://gm-secure.db.com
Goldman Sachs International Bank Peterborough Court 133 Fleet Street London EC4A 2BB	www.gs.com

[13] Scotiabank Europe plc are listed here on the basis that they were a GEMM at 31 March 2018. Scotiabank subsequently resigned as a GEMM with effect from close of business on Friday 18 May 2018. The names of the GEMM firms of Lloyds and Santander shown below are those in place at the time of publication (August 2018). Lloyds adopted the name shown below on 29 May 2018 and Santander adopted the name shown below on 5 July 2018.

HSBC Bank PLC — www.hsbcgroup.com
8 Canada Square
London
E14 5HQ

Jefferies International Limited* — www.jefferies.com
Vintners Place
68 Upper Thames Street
London
EC4V 3BJ

JP Morgan Securities PLC — www.jpmorgan.com
25 Bank Street
Canary Wharf
London
E14 5JP

Lloyds Bank Corporate Markets plc — www.lloydsbankcommercial.com
25 Gresham Street
London
EC2V 7AE

Morgan Stanley & Co. International plc — www.morganstanley.com
20 Cabot Square
Canary Wharf
LondonE14 4QW

NatWest (Markets) plc — www.natwestmarkets.com
250 Bishopsgate
London
EC2M 4AA

Nomura International plc — www.nomura.com
One Angel Lane
London
EC4R 3AB

Royal Bank of Canada Europe Limited — www.rbccm.com
Thames Court
One Queenhithe
London
EC4V 4DE

Scotiabank Europe plc *(until close on 18 May 2018)* — www.scotiabank.com
201 Bishopsgate
London
EC2M 3NS

The Toronto-Dominion Bank (London Branch)* — www.td.com
60 Threadneedle Street
London
EC2R 8AP

UBS Limited — www.ubs.com/investmentbank/
1 Finsbury Avenue
London
EC2M 2PP

Winterflood Securities Limited* — www.wins.co.uk
The Atrium Building
Cannon Bridge
25 Dowgate Hill
London
EC4R 2GA

Inter Dealer Brokers — Website

BGC Brokers L.P. — www.bgcpartners.com
One Churchill Place
Canary Wharf
London
E14 5RD

BrokerTec Europe Limited — www.nextmarkets.com
2 Broadgate
London
EC2M 7UR

Dowgate — www.ksbb.com
6th Floor
Candlewick House
120 Cannon Street
London
EC4N 6AS

GFI Securities Limited — www.gfigroup.com
1 Snowden Street
London
EC2A 2DQ

Icap Securities Limited — www.icap.com
2 Broadgate
London
EC2M 7UR

Tullett Prebon Gilts — www.tulletprebon.com
155 Bishopsgate
London
EC2N 3DA

* Retail GEMM
^ Strips market participant

ANNEX B: Debt and cash management performance

This Annex includes data on the DMO's performance in execution of the gilt financing and Exchequer cash management remits in 2017-18.

The gilt data compare the actual cost of gilt issuance (measured by the average yield at which gilts were sold in accordance with the DMO's financing remit) with illustrative counterfactual costs of different patterns of gilt financing. It also looks at the performance of gilt auctions by comparing the average accepted/strike price of an auction with prevailing secondary market price levels.

Table 7 on page 19 of this Review reports on the average cover ratios at all gilt auctions in 2017-18 and on the concentration of bidding (the tail) at conventional gilt auctions.

The cash management material in this Annex comprises a formal report on compliance with the DMO's published Key Performance Indicators (KPIs) in respect of Exchequer cash management and a comparison of the average yields achieved at weekly Treasury bill tenders with the prevailing SONIA rate for comparable maturities.

Other aspects of the DMO's performance each financial year are reported in the DMO's Annual Report and Accounts[14]. These comprise (page references refer to the 2017-18 Accounts published on 19 July 2018):

- A review of the DMO's main activities (pages 16-19);
- A report on achievements against agency objectives as set by HM Treasury (pages 22-23);
- A report on performance against agency targets (pages 24-27), including:
  - Compliance with the financing remit
  - Gilt and Treasury bill operation results – release times
  - Accuracy of the recording of transactions through the Debt Management Account
  - Compliance with the Freedom of Information Act 2000
  - Avoidance of breaches of operational notices
  - Compliance with the schedule for reporting cash management operational balances
  - Accurate and timely administration of settlement procedures
  - Accuracy of publications and timeliness of announcements
  - Timeliness of processing of local authority loan and early repayment applications
  - Appropriate operation of the DMO (retail) gilt purchase and sales service
  - Appropriate administration of the National Loan Guarantee Scheme.

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[14] The Annual Report and Accounts for 2017-18 are available at:
https://www.dmo.gov.uk/media/15583/dmodmarep2018.pdf

a) Gilt issuance counterfactuals

Since 2001 the DMO has published in its Annual Reviews the results of its measurement of relative performance of outright issuance in each financial year against counterfactuals. Although the UK's debt management objective is concerned with minimising the cost of issuance "over the long term" rather than in any one year, the intention here is to illustrate whether different non-discretionary issuance patterns during a particular year could have resulted in higher or lower costs of financing.

The calculations compare 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).

There are a number of limitations to this analysis. In particular, a major assumption that is unlikely to hold in practice is that the shape of the yield curve remains fixed over time. This is particularly relevant when considering the refinancing timeframes associated with different maturities of debt (i.e. short issuance needs to be refinanced much more frequently than long issuance) so this analysis is not comparing like-for-like in this regard. In principle, therefore, if yields evolve as reflected by the forward yield curve it would be too simplistic to say that, in any one year, one issuance pattern has outperformed another.

Another relevant assumption is that the counterfactual issuance patterns themselves would not have had any impact on yields. This is unlikely to hold in practice particularly where the gilt issuance pattern under the counterfactual is 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, market expectations of interest rates, and other external factors over which the debt manager has no control, establishing the extent to which changes in volumes and patterns of supply might affect yields is more difficult.

The underlying rationale for considering issuance 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, in particular regarding the decisions on the split between maturities/types of gilt sold in a given year. It is worth noting in this context that measuring performance against the primary debt management objective is not straightforward, a fact widely acknowledged by many other sovereign debt managers. Hence, presentation of annual counterfactuals should not be interpreted as a complete or authoritative means by which to test achievement against the debt management objective – which as noted above is a long-term test.

For these reasons, caution is required when interpreting the yield impact of counterfactual issuance patterns set out in this annex in comparison with the actual issuance yield.

The cash weighted average yield of actual issuance at the gilt auctions, syndicated offerings and the gilt tender in 2017-18 was 1.297%[15] (0.1bp higher than the 1.296% in the previous financial year). The cash weighted average yield of issuance by type of gilt and maturity is shown in Table B1.

Table B1: Average issuance yield by type and maturity of gilt in 2017-18

	Cash (£mn)	Yield (%)
All issuance	**115,487**	**1.297**
Conventional		
Short	29,276	0.712
Medium	23,766	1.293
Long	33,964	1.743
Total conventional	**87,007**	**1.273**
Index-linked		
Medium	5,011	1.079
Long	23,469	1.433
Total Index-linked	**28,480**	**1.371**

Source: DMO

The actual yield of 1.297% can be compared with yields derived by applying the actual annual cash weighted yield on total issuance for that year of different maturities/ types of gilt to different gilt issuance patterns. Table B2 contrasts the actual average issuance yield in 2017-18 with three counterfactuals which assume the same yields by maturity and type as shown above, but with alternative issuance skews, namely:

- a significantly greater skew towards short issuance;
- a more even-distribution of financing between maturity buckets; and
- a significantly greater skew towards long issuance.

Table B2: Illustrative average issuance yields assuming different issuance patterns

	Yield %	Actual distribution £mn	Shorter distribution £mn	Even distribution £mn	Longer distribution £mn
Conventional					
Short	0.712	29,276	43,504	29,002	21,752
Medium	1.293	23,766	21,752	29,002	21,752
Long	1.743	33,964	21,752	29,002	43,504
Total conventional	**1.273**	**87,007**	**87,007**	**87,007**	**87,007**
Index-linked					
Medium	1.079	5,011	19,081	14,240	2,848
Long	1.433	23,469	9,398	14,240	25,632
Total Index-linked	1.371	28,480	28,480	28,480	28,480
Total all		**115,487**	**115,487**	**115,487**	**115,487**
Ave. Issuance yield		**1.297**	**1.135**	**1.251**	**1.379**
Difference (bps)			**-16.2**	**-4.6**	**8.2**
Figures may not sum due to rounding.					

Source: DMO

[15] Index-linked real yields have been converted to nominal equivalents, assuming 3% RPI inflation.

The more even distribution to financing by maturity produces an average yield of issuance 4.6bps lower than the actual average yield, mainly reflecting the greater proportion of lower yielding medium gilts at the expense of long conventional gilts. As expected given the current shape of the yield curve, the shorter distribution[16] produces an implied issuance yield significantly (16.2bps) lower than the actual average yield while the longer distribution[17] produces an issuance yield 8.2bps higher than the actual average yield.

The results 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 into account 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
- investors' demand for gilts.

[16] This skew assumes 50% of conventional issuance is short with medium and long shares of 25% each. Index-linked issuance is assumed to be split 67% medium/33% long.

[17] This skew assumes 50% of conventional issuance is long with short and medium shares of 25% each. Index-linked issuance is assumed to be split 10% medium/90% long.

b) Auction concession analysis

There are a number of ways to measure auction concessions. The method presented in Table B3 shows the extent of any concession/premium at auctions by measuring the difference between the actual proceeds received and those that would have been generated had each gilt at auction been sold at the secondary market price of the gilt at the close of bidding (i.e. 10.30am).

Table B3: Concession (-) and premium (+) ahead of gilt auctions and tender in 2017-18

Date	Gilt	Concession (–) Premium (£mn)
4-Apr-17	1Q Treasury Gilt 2027	1.30
12-Apr-17	2H Treasury Gilt 2065	3.48
20-Apr-17	0H Treasury Gilt 2022	1.35
26-Apr-17	0A Index-linked Treasury Gilt 2046	2.05
4-May-17	1T Treasury Gilt 2037	2.20
18-May-17	1T Treasury Gilt 2019	0.17
23-May-17	0A Index-linked Treasury Gilt 2036	4.15
1-Jun-17	1Q Treasury Gilt 2027	1.40
6-Jun-17	0H Treasury Gilt 2022	1.07
22-Jun-17	1H Treasury Gilt 2047	6.08
27-Jun-17	0A Index-linked Treasury Gilt 2026	2.22
6-Jul-17	1Q Treasury Gilt 2027	2.15
19-Jul-17	0T Treasury Gilt 2023	1.32
25-Jul-17	1H Treasury Gilt 2047	4.02
1-Aug-17	1Q Treasury Gilt 2027	1.58
8-Aug-17	0A Index-linked Treasury Gilt 2026	1.53
23-Aug-17	0T Treasury Gilt 2023	1.40
13-Sep-17	1Q Treasury Gilt 2027	1.73
19-Sep-17	1H Treasury Gilt 2047	2.58
27-Sep-17	0A Index-linked Treasury Gilt 2036	3.24
5-Oct-17	0T Treasury Gilt 2023	1.59
10-Oct-17	1T Treasury Gilt 2037	2.07
19-Oct-17	1Q Treasury Gilt 2027	1.15
24-Oct-17	0C Index-linked Treasury Gilt 2042	4.17
9-Nov-17	0T Treasury Gilt 2023	1.21
16-Nov-17	1Q Treasury Gilt 2027	1.27
21-Nov-17	0A Index-linked Treasury Gilt 2026	1.01
28-Nov-17	4% Treasury Gilt 2060 (Tender)	2.19
5-Dec-17	0T Treasury Gilt 2023	1.21
7-Dec-17	1H Treasury Gilt 2047	1.78
13-Dec-17	0A Index-linked Treasury Gilt 2036	**-0.47**
9-Jan-18	1Q Treasury Gilt 2027	1.28
11-Jan-18	1T Treasury Gilt 2037	2.21
18-Jan-18	0T Treasury Gilt 2023	1.27
23-Jan-18	0A Index-linked Treasury Gilt 2026	1.36
15-Feb-18	1T Treasury Gilt 2057	3.40
22-Feb-18	0A Index-linked Treasury Gilt 2036	0.82
1-Mar-18	0T Treasury Gilt 2023	1.18
6-Mar-18	1H Treasury Gilt 2047	3.26
15-Mar-18	1C Treasury Gilt 2028	1.33
27-Mar-18	0A Index-linked Treasury Gilt 2056	0.66
	Auction premia 2017-18[1]	**(£mn)**
[1]The data below exclude the gilt tender on 28 November 2017.		
	Aggregate all auctions	**76.78**
	Average all auctions	**1.92**
	Average conventional auctions	**1.93**
	Short-dated conventional auctions	1.18
	Medium-dated conventional auctions	1.47
	Long-dated conventional auctions	3.11
	Average Index-linked auctions	**1.89**

Source: DMO

A total premium of £76.8 million occurred across the 40 auctions held in 2017-18 (an average premium of £1.9 million per auction – compared to £1.5 million in 2016-17). The average premium at both conventional and index-linked auctions was £1.9 million.

The largest premium was £6.1 million at the auction of 1½% Treasury Gilt 2047 on 22 June 2017 and the only concession was -£0.5 million at the auction of 0⅛% index-linked Treasury Gilt 2036 on 13 December 2017.

c) The DMO's cash management objective: performance report

The DMO's high level cash management objective as set out in Chapter 3 has been subdivided into a series of objectives, to each of which has been attached a KPI. The following section explains how performance was delivered against these objectives in 2017-18.

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 B4: Components of the cash management objective

CASH MANAGEMENT OBJECTIVE	KEY PERFORMANCE INDICATORS AND CONTROLS
The DMO must supply sufficient cash each day to enable government to meet its payment obligations. This is fundamental and unconditional.	Ways and Means transfers must be avoided for cash management purposes by ensuring that there is always a positive DMA/DMA balance. (NB: HM Treasury is responsible for monitoring and reporting performance of the forecasting function against outturns).
Cash management operations and arrangements should be conducted in a way that does not interfere with monetary policy operations.	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.
Cash management operations and arrangements should be conducted without impeding the efficient working of the Sterling money markets.	The DMO will advise HM Treasury as appropriate on the impact of Exchequer cash flows on liquidity conditions in the Sterling money markets.

CASH MANAGEMENT OBJECTIVE	KEY PERFORMANCE INDICATORS AND CONTROLS
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 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.
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.	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.

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 the government Ways and Means (II) account 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 for the whole of 2017-18.

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 weekly target 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.

- The DMO achieved its target weekly cumulative balance for the DMA within a very small range (+/-2% of its weekly cumulative target) in 28 out of 52 weeks in 2017-18[18]. 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 as clashing 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 transacts 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 1.3, limits and controls are intended to avoid concentration of exposures and are reviewed regularly to ensure consistency with market trends and developments; they find their expression in KPI 1.3.

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 2017-18, the DMO undertook 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 also maintained frequent and regular dialogue to update HM Treasury on market liquidity and, working with HM Treasury, reviewed its trading policies and risk controls to respond to significant sterling liquidity trends and developments.

[18] The +/-2% target pre-dates the current challenging money market conditions. Measured against, for example, a +/- 5% target, the weekly cumulative target balance would have been achieved in 47 out of 52 weeks.

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 preferences 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 cash management performance after cost of funds and the liquidity, interest rate, foreign exchange and credit risks incurred. Performance may also be reported in the DMO Annual Review.

- The DMO duly reported to HM Treasury on a quarterly cycle the details of Exchequer cash management activity carried out through the DMA, including active cash management performance and usage of liquidity, interest rate, foreign exchange and credit risk limits.
- Net returns on active cash management (over cost of funds) to the DMA are affected by market conditions, including any differential between the DMA's internal cost of funds and prevailing market rates, and the non-discretionary size and volatility of the Exchequer's cumulative cash position, both of which vary significantly over time. The Exchequer cash management results should not therefore be considered a reflection of, for example, the DMO's cash management trading strategies or performance.
- The Exchequer cash management activity is carried out in accordance with the government's ethos of cost minimisation: cash transactions are intended to support the statutory objectives of the DMA and in particular to enable the Exchequer's daily net cash positions to be offset over time by using a range of products and instruments, within agreed risk parameters, and are not intended to seek risk opportunities to generate excess return.
- Active cash management recorded positive net interest after cost of funds, but before transaction and management costs, of £11.0 million for 2017-18. The DMO's estimated transaction and management costs during 2017-18 were £9.6 million.
- Positive net interest after cost of funds has been recorded by virtue of funding the Exchequer's daily cash needs in the wholesale money markets at rates that have been on average below the DMA's internal cost of funds (Bank Rate) and from investing surpluses at market rates that were on average above this.
- There were no breaches of the credit, interest rate, foreign exchange or liquidity risk limits in 2017-18 and the Exchequer's net cash position was successfully offset each day.

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 stated in the report on KPI 1.3 above, in 2017-18 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 (percentage by value on the due date[19]) or the timing of the announcement of Treasury bill tender results[20]. There were no breaches of the cash management operational notice in 2017-18.

[19] The target is to settle at least 99% of trades by value on the due date: the level achieved was 99.5%.

[20] The target is to release tender results within 15 minutes: the average release time was 5.9 minutes.

d) Treasury bill tender performance

Table B5 and Charts B1-3 compare the results (in terms of the average accepted yield) of all Treasury bill tenders held in 2017-18 with the corresponding SONIA rates. Over the financial year the average accepted yields at one-, three- and six-month tenders outperformed the corresponding SONIA rates by 15.9bps, 13.8bps and 8.1bps respectively.

The range of relative performances may in part reflect the range of average tender sizes. The average size of six-month Treasury bill tenders was almost twice the average for one-month tenders. The average cover ratios were, however, somewhat more consistent across the three maturities (see Table B6).

Table B5: Comparison of average Treasury bill tender yields with SONIA rates in 2017-18

	Average tender yield (%)	Average SONIA rate (%)	Difference (bps)
One-month	0.167	0.326	-15.9
Three-month	0.217	0.354	-13.8
Six-month	0.313	0.394	-8.1
Average	**0.232**	**0.358**	**-12.6**

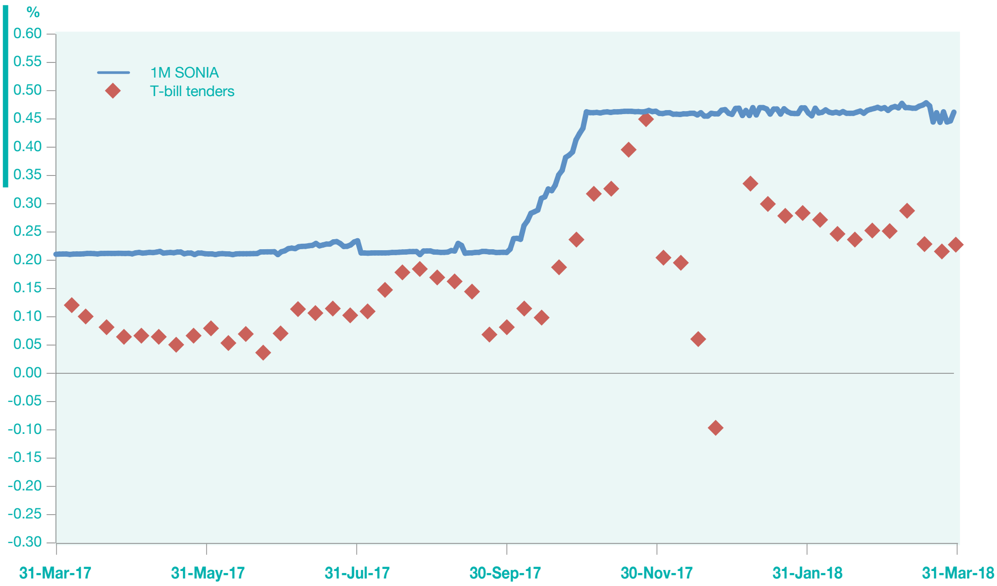
Source: DMO/Bloomberg

Table B6: Comparison of average Treasury bill tender sizes and cover ratios

	Average tender size (£mn)	Average cover ratio
One-month	873	4.15
Three-month	961	4.12
Six-month	1,716	3.16

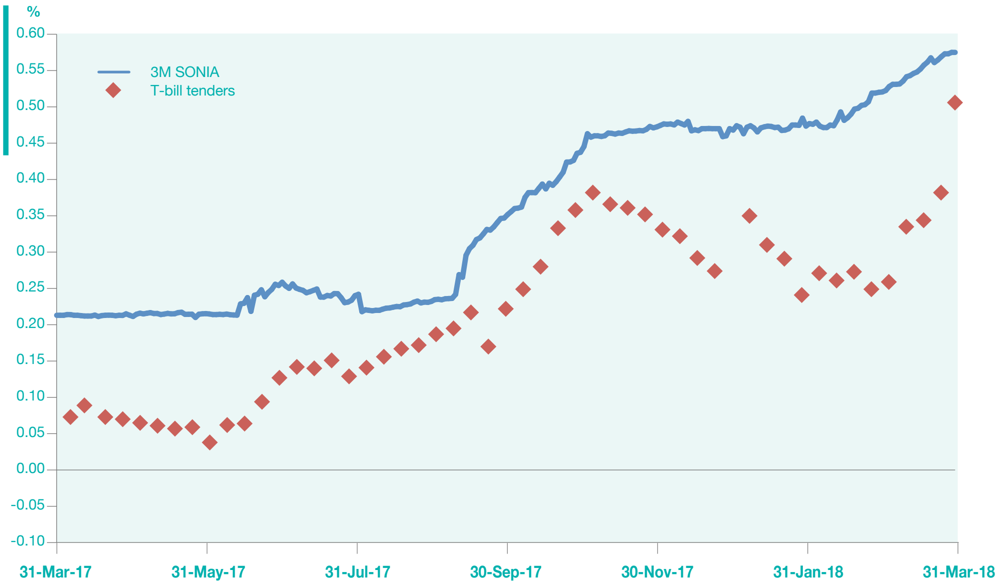
Source: DMO/Bloomberg

Chart B1: One-month Treasury bill tender yields compared with SONIA rates in 2017-18



Source: Bloomberg/DMO

Chart B2: Three-month Treasury bill tender yields compared with SONIA rates in 2017-18



Source: Bloomberg/DMO

Chart B3: Six-month Treasury bill tender yields compared with SONIA rates in 2017-18

Source: Bloomberg/DMO

Annex C: The gilt portfolio

The gilt portfolio

The key statistics of the gilt portfolio at end-March 2018 compared with the position at the end of the previous financial year are shown in Table C1 below. Figures in the 'Net' columns next to the nominal and market values of the gilt portfolio are the corresponding totals excluding central government holdings.

Table C1: Key gilt portfolio statistics

	End-March 2017		End-March 2018	
	Gross	'Net'	Gross	'Net'
Nominal value of the portfolio – inc T-bills (£bn)	1,592.04	1,474.64	1,607.38	1,500.62
Nominal value of the gilt portfolio (£bn)	1,552.54	1,405.14	1,547.38	1,440.62
– conventional gilts	1,128.46	1,019.19	1,135.95	1,037.15
– index-linked gilts	394.09	385.95	411.43	403.47
Market value of the portfolio – inc T-bills (£bn)	2,159.59	1,997.42	2,137.07	1,990.48
Market value of the gilt portfolio (£bn)	2,090.13	1,927.95	2,077.13	1,930.54
– conventional gilts (£bn)	1,437.21	1,287.24	1,412.35	1,277.26
– index-linked gilts (£bn)	652.92	640.71	664.78	653.27
Weighted average market yields				
– conventional gilts	1.00	0.99	1.30	1.29
– index-linked gilts	-1.96	-1.96	-1.72	-1.72
Gilt portfolio weighted average financing cost (%)	3.24	3.14	3.09	3.01
Portfolio average maturity – inc T-bills (years)	14.91	14.99	15.22	15.28
Portfolio average maturity – exc T-bills (years)	15.58	15.72	15.80	15.91
– conventional gilts (years)	13.80	13.75	14.01	13.94
– index-linked gilts (years)	20.70	20.92	20.73	20.95
Average modified duration				
– conventional gilts (years)	11.12	11.11	11.35	11.34
– index-linked gilts (years)	23.08	23.31	22.99	23.21

T-bills for cash management purposes are excluded from these data.
Portfolio maturity data are calculated on a nominal weighted basis, including accrued inflation uplift.
Figures may not sum due to rounding.

Source: DMO

A list of gilts, including first issue and coupon dates and nominal amounts outstanding (updated daily) is available on the DMO website at:

https://www.dmo.gov.uk/data/pdfdatareport?reportCode=D1A

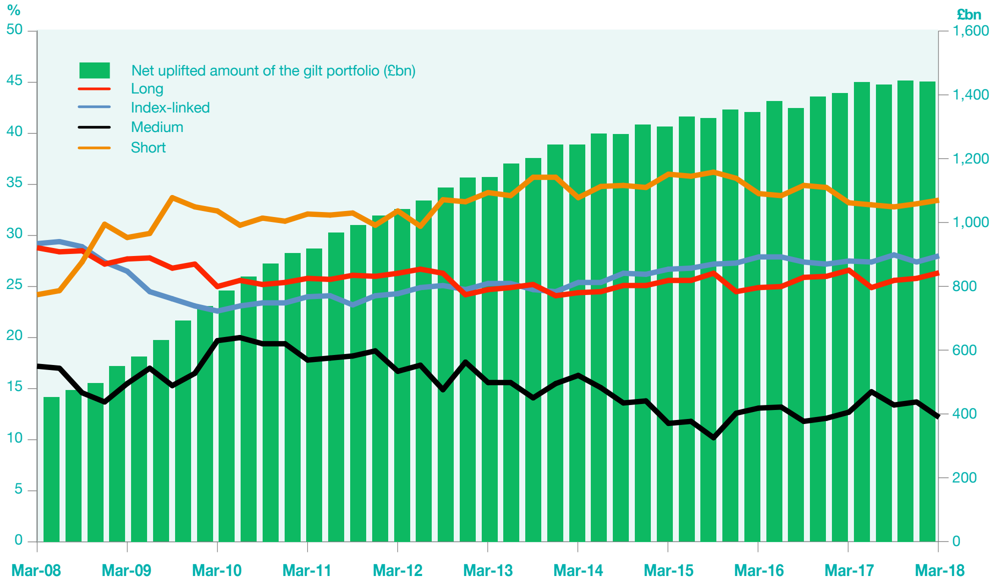
The gross nominal value[21] of the gilt portfolio rose by 1.6% to £1,547.4 billion as gross gilt issuance plus inflation accrual on index-linked gilts exceeded gilt redemptions. The market value of the portfolio fell, however, by 0.6% to £2,077.1 billion, reflecting a fall in yields over the course of the year.

[21] Including inflation uplift on index-linked gilts.

The size of the gross gilt portfolio is larger as a result of the creation (since 2008-09) of £117.4 billion (cash) of gilt collateral for the DMO's Exchequer cash management operations and the Bank's Discount Window Facility. The gilt collateral is held on the DMA and the net data above exclude these holdings.

Chart C1 shows the growth of the net (uplifted) value of the gilt portfolio since March 2007; it also shows how the composition of the portfolio has varied over the past ten years.

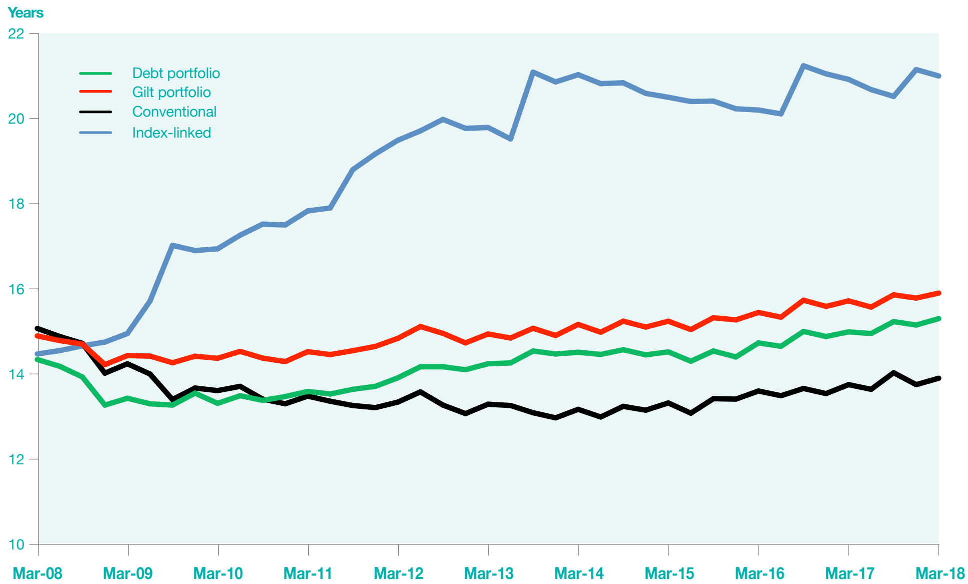
Chart C1: Nominal values of the gilt portfolio and gilt portfolio composition



Source: DMO

Chart C2 shows the maturity of the UK government marketable debt[22] and gilt portfolios from end-March 2008 to end-March 2018, at which point the maturity of the debt portfolio (based on uplifted nominal values, excluding DMO holdings) was 15.3 years and that of the gilt portfolio was 15.9 years. Within the gilt portfolio, the maturity of conventional gilts was 13.9 years and that of index-linked gilts 21.0 years.

Chart C2: Maturity of the UK marketable debt and gilt portfolios



Source: DMO

[22] The UK government marketable debt portfolio includes gilts and Treasury bills.

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