United Kingdom
Debt Management
Office

DMO Annual Review 2021-22

4 August 2022

Contents

Foreword by the DMO Chief Executive

2021-22, the 24th operational year for the DMO, was a year of significant challenge. Although our gilt financing requirement was much lower than the record borrowing that took place in 2020-21, it was nevertheless high relative to pre-pandemic levels. The ongoing impact of the COVID-19 pandemic continued to contribute to uncertainty in the government's financing forecasts and market volatility, which presented challenges to the DMO and the wider gilt market, as we had to remain flexible and adapt our approach to the evolving picture. Reflecting better-than-expected public finances, the DMO's gilt financing requirement was reduced by one third in the middle of the year. A notable feature of the 2021-22 issuance programme was the launch of the first two green gilts.

In addition to the programme of gilt sales, the DMO's cash management activities generated trading turnover of a record £7.4 trillion during 2021-22 (out of a total of £7.9 trillion from all activities).

Gilt and cash management operations, local authority lending via the PWLB lending facility, and investment of public sector funds via the Commissioners for the Reduction of the National Debt (CRND) were again successfully delivered.

The original gilt financing remit for 2021-22 was announced on 3 March 2021 with planned gilt sales of £295.9 billion to be delivered via 93 gilt auctions (including the continued scheduling of two auctions on the same day which had been introduced in 2020-21) and six syndications. As part of the total remit, the Chancellor if the Exchequer announced that for the first time green gilt sales of at least £15.0 billion were planned.

In both April and October 2021, the gilt sales target was reduced sharply, by £43.3 billion and £57.8 billion respectively, as, firstly, the government's outturn financing positon for 2020-21 was confirmed and then better economic data emerged on the state of the UK economy. The October adjustment resulted in a reduction in total planned gilt sales for the year to £194.8 billion. In addition, planned net sales of Treasury bills for debt management purposes were reduced by £25.0 billion, which resulted in a stock reduction of £23.2 billion in 2021-22. The final outturn for gilt sales in 2021-22 was £194.7 billion.

Notwithstanding the overall reduction in gilt sales, the planned green gilt issuance proceeded with a slightly larger cash value of £16.1 billion across two syndicated offerings in September and October, raising funds for projects such as zero-emissions buses, offshore wind, and schemes to decarbonise homes and buildings.

Raising £10 billion, the September sale was the largest green bond issuance by any sovereign issuer at that time, with the order book being 12 times oversubscribed, showing the strong demand for UK green gilts. The combined size of the two transactions meant that the UK became one of the top three sovereign issuers of green bonds in the world.

Auctions remained the DMO's primary means of selling gilts and accounted for £151.6 billion of gilt sales, including £16.4 billion of proceeds from the Post Auction Option Facility. This total represented 77.9% of overall sales. The average cover ratio at gilt auctions in 2021-22 was 2.41 times, a marginal decline from 2.49 times in 2020-21.

The auction programme was supplemented by seven syndicated offerings (five of conventional gilts, of which two were for the inaugural green gilt issues, and two of index-linked gilts). In all, syndications raised £43.0 billion (22.1% of total gilt sales).

There was sustained strong demand for Treasury bills in the year. As with gilts, Treasury bills continued to attract significant overseas investor interest, with around 50% of the outstanding amount of bills at 31 December 2021 being held by this group.

The DMO also continued to perform strongly in carrying out its cash management function in 2021-22, despite considerable challenges arising from the exceptional circumstances generated by COVID-19.

The PWLB lending facility has continued to fulfil its statutory function. At 31 March 2022, the PWLB's loan book was £90.7 billion (outstanding principal). 675 new loans totalling £8.3 billion were advanced during the financial year.

The DMO again successfully provided a cost-effective service to its clients through the fund management operations of the CRND. The market value of these funds was £66.2 billion at 31 March 2022.

Our achievements in 2021-22 were also delivered against the backdrop of the continued impact of COVID-19, which again heavily influenced the way we worked. While certain critical operational staff continued to work at the DMO office throughout the year, a number of DMO staff continued to work remotely, reflecting government guidelines to work from home where possible.

Looking ahead, the DMO's financing remit for 2022-23 was published on 23 March 2022 when planned gilt sales of £124.7 billion were announced (including planned green gilt sales of £10.0 billion as the UK looks to develop a green yield curve). The DMO's financing remit for 2022-23 was then revised on 26 April 2022, following the publication of the outturn of the 2021-22 financing requirement. Planned gilt sales were increased by £6.8 billion to £131.5 billion.

Once again, I would like to express my sincere thanks to DMO employees for their great contribution to the DMO's achievements in 2021-22. I am also very grateful to all our market counterparties for their professionalism and continued support throughout the year. The success of the DMO in meeting the exceptional challenges of 2021-22 would not have been possible without all these contributions.

Sir Robert Stheeman

Chief Executive

4 August 2022

Chapter 1: The Economy and Financial Markets

Macroeconomic developments

The global economy continued to recover from the initial unprecedented disruption during the financial year 2020-21 as a result of the COVID-19 pandemic and the public health measures designed to contain it. A rapid global recovery coupled with pandemic-related constraints on supply also resulted in rising inflation globally. The emergence of new COVID-19 variants during 2021-22 caused significant disruption to activity in many regions despite the development and rollout of several highly-effective vaccines. Towards the end of the period, Russia's illegal and unprovoked invasion of Ukraine exacerbated existing global inflationary pressures and multi-decade high inflation rates were reached in many countries, which weighed on the growth outlook. Energy price increases were a significant contributor to higher inflation. Prices initially rose last year due to a rapid recovery in global energy demand and production below pre-pandemic levels, then increased significantly more due to uncertainty in the run up to and fallout from the invasion. Brent crude oil prices and European natural gas prices were up 41% and 854% year-on-year by the end of March 2022.

As global inflationary pressures continued to build, the extraordinary fiscal and monetary policy support from many governments and central banks around the world, which had helped activity to rebound from the effects of the pandemic, started to be scaled-back or withdrawn at the end of the period. In the US the Federal Open Market Committee (FOMC) raised the Federal Funds rate by 25 basis points (bp) in March 2022 and announced a reduction in the monthly pace of its net asset purchases in December 2021, before it ended net asset purchases in March 2022. In the euro area, the European Central Bank (ECB) Governing Council also announced a reduction in the pace of net asset purchases under the Pandemic Emergency Purchase Programme (PEPP) at its December 2021 meeting and an intention to cease such purchases at the end of March 2022.

In the UK, real GDP growth on a quarter-on-quarter (q-o-q) basis was a relatively high 5.6% in the first quarter of the 2021-22 financial year as restrictions were eased and the economy continued to recover from the sharpest fall in economic activity on record. Growth subsequently slowed over the rest of the year as international supply chain issues and staff shortages weighed on output but GDP reached and exceeded its pre-pandemic level in November.

At the start of the financial year Consumer Prices Index (CPI) inflation was 0.5% below the Bank of England's (Bank's) target rate of 2.0% year-on-year (y-o-y). However, by the year end CPI had reached a 30-year high rate of 7.0% driven by a wide-range of price rises in categories including transport costs, clothing & footwear and food & drink and most notably in household energy. The Retail Prices Index (RPI) measure of inflation, which is used to set the cash flows on index-linked gilts, also increased rapidly in the financial year ending the period at a multi-decade high rate of 9%, up from a rate of 2.9% in April 2021.

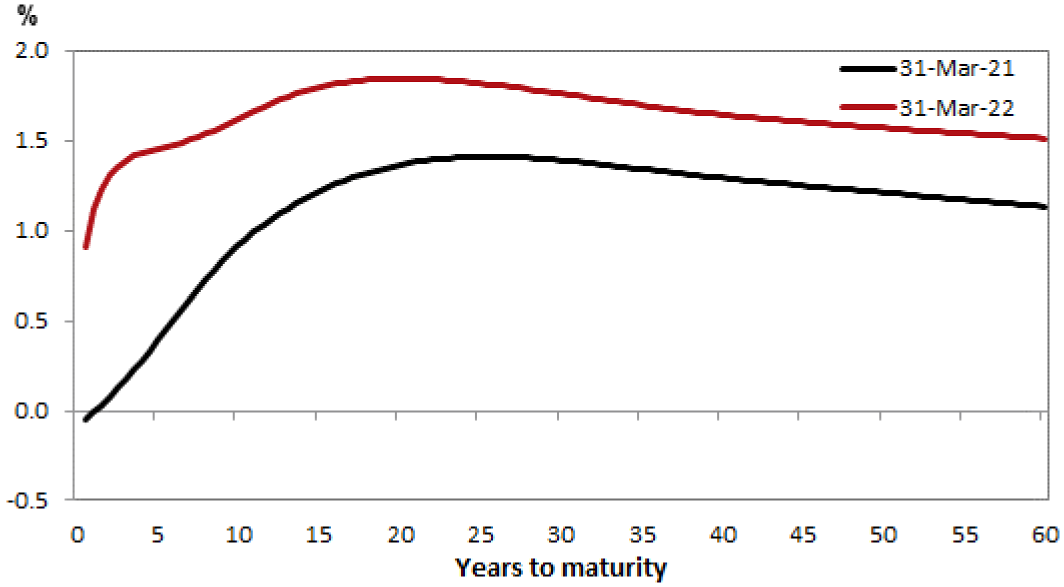
The Bank of England's Monetary Policy Committee (MPC) maintained Bank Rate at the historic low rate of 0.1% for the first few months of the financial year. However, with some signs of greater persistence in domestic cost and price pressures and ongoing tightness in the labour market, Bank Rate was raised by 0.15% at the December 2021 meeting and by a further 0.25% in February and March 2022 taking the rate to 0.75% at the financial year end. The Bank's target stock of purchased bonds (primarily gilts) financed by the issuance of central bank reserves, was maintained at £895 billion for most of the period but with Bank Rate reaching 0.5% in February 2022 the MPC took the decision to cease reinvesting maturing gilts, as outlined following its August 2021 policy decision.

Gilt market developments

Nominal par gilt yields[1]

Nominal par gilt yields increased significantly along the curve in 2021-22. 5-year par yields increased by 106bp to 1.45%, 10-year par yields increased by 71bp to 1.62%, 30-year par yields increased by 37bp to 1.76% and 50-year par yields increased by 36bp to 1.57%. See Chart 1.

Chart 1: Nominal par gilt yield curves 2021-22



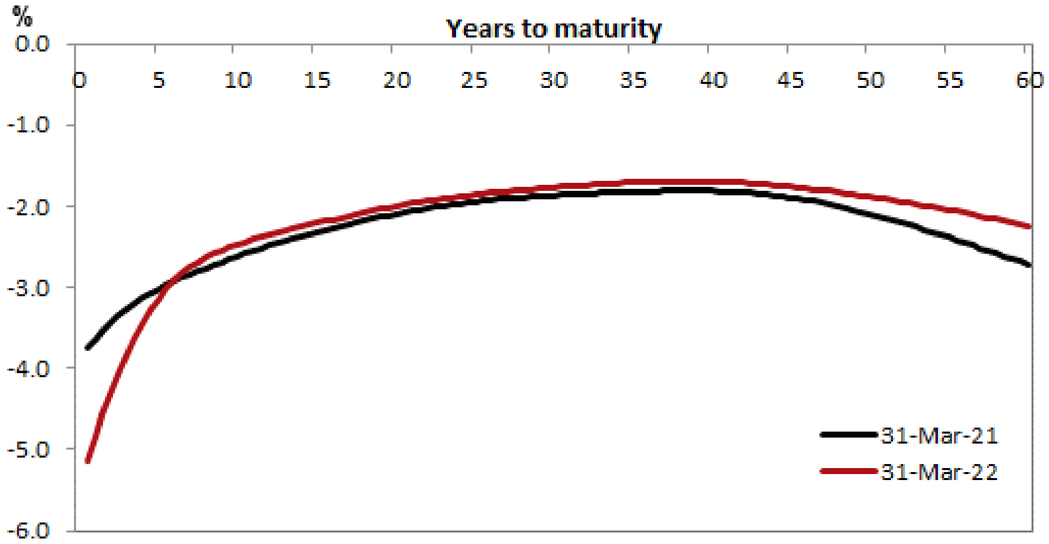
Source: DMO

Real par yields

Real par yields, however, fell at the short end of the curve whereas they increased at the long end; notably, they remained fairly unchanged in the 5- to 40-year area. More specifically, real par yields fell by 12bp at the 5-year point to -3.14% whereas they increased by 21bp at the 50-year point to -1.88%. At the 10-year and 30-year points real par yields increased by 15bp to -2.47% and by 9bp to -1.77%, respectively. See Chart 2.

[1] A par yield curve is a graphical representation of the yields of a range of bonds with different maturities, priced at par. On the par yield curve, the coupon rate on each bond will equal the yield-to-maturity of that bond. The changes referred to here are obtained by comparing yields at 31 March 2020 and 31 March 2021.

Chart 2: Real par gilt yield curves 2021-22



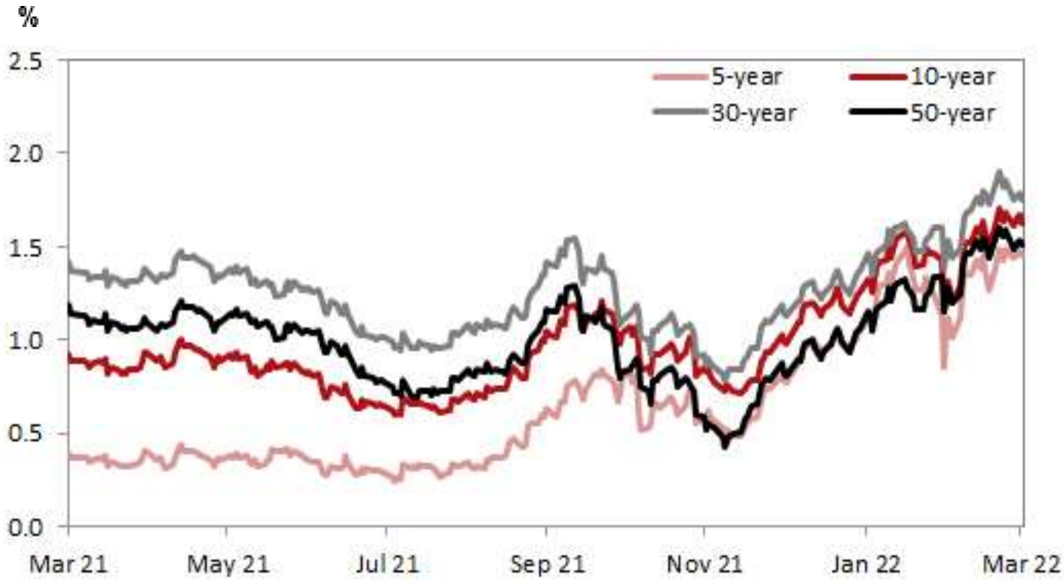
Source: DMO

Nominal yields

Chart 3 shows the path of conventional benchmark gilt yields at 5-, 10-, 30- and 50-year maturities in 2021-22. After fluctuating in the earlier part of the financial year, yields (in particular at short and medium maturities), rose markedly in the final third of the financial year as concerns grew about global inflationary pressures and as central banks began to tighten monetary policy.

Over the financial year, the yield on the 5-year benchmark gilt increased by 107bp to 1.46%, that on the 10-year by 70bp to 1.63%, that on the 30-year by 34bp to 1.76% and that on the 50-year by 33bp to 1.51%. See Chart 3.

Chart 3: Nominal gilt yields 2021-22

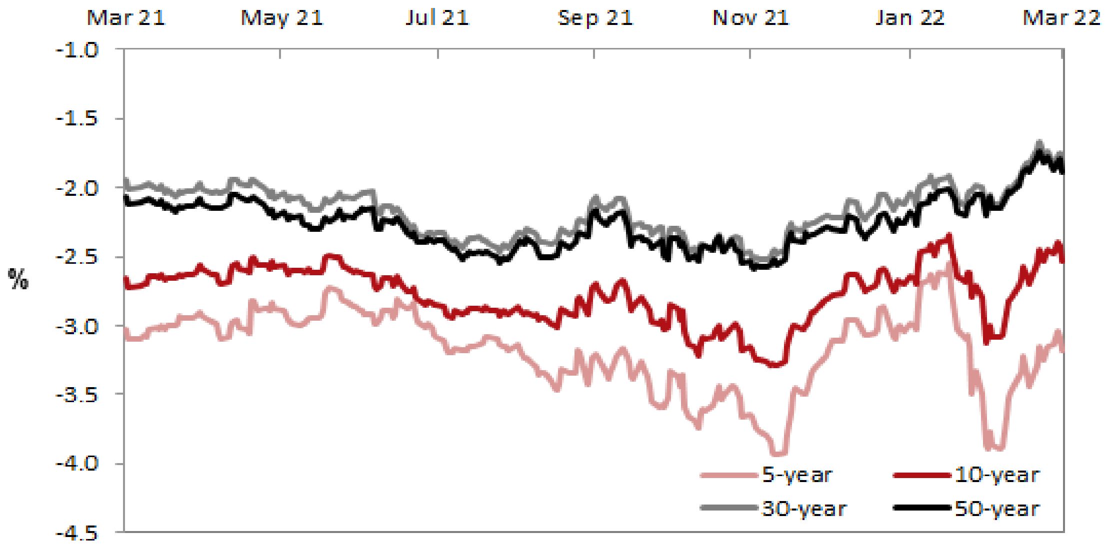


Source: DMO

Real gilt yields

Chart 4 shows the real yields on selected benchmark index-linked maturities in 2021-22. While real yields were on a generally downward trend in the earlier part of the financial year they were mostly rising strongly towards the end. The real yield on the 5-year benchmark fell by 16bp to -3.19%, while that on the 10-year rose by 12bp to -2.53%. Among longer maturities, the real yield on the 30-year benchmark rose by 9bp to -1.85% and that on the 50-year by 17bp to -1.89%.

Chart 4: Real gilt yields 2021-22

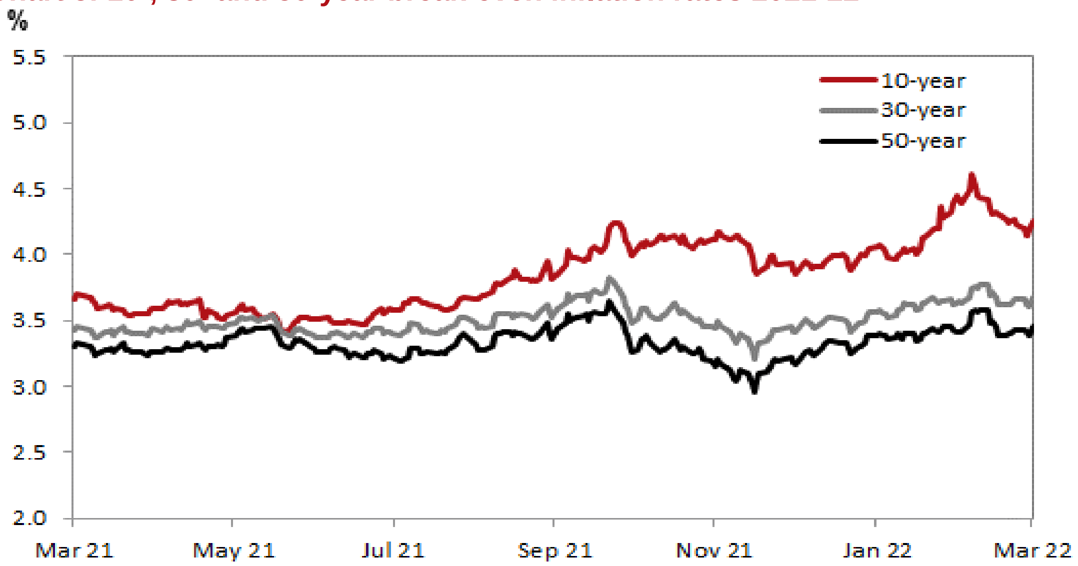


Source: DMO

Break-even inflation rates

Over the course of 2021-22, 10-year break-even inflation rates (BEIRs) rose strongly by 60bp (to 4.26%), while 30-year and 50-year BEIRs rose more modestly by 25bp (to 3.68%) and 16bp (to 3.46%) respectively. Index-linked gilts, therefore significantly outperformed their conventional gilt counterparts over the course of the financial year. See Chart 5.

Chart 5: 10-, 30- and 50-year break-even inflation rates 2021-22

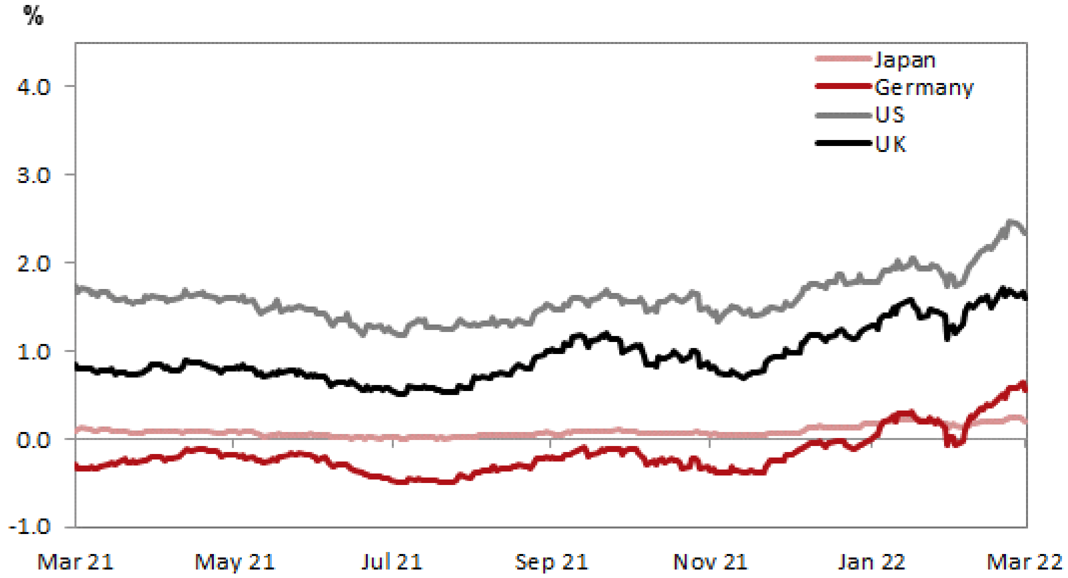


Source: Bloomberg/DMO

International comparisons

Yields on 10-year UK, US and German government bonds rose notably in the second half of the financial year, whereas those on Japanese government bonds remained range bound. In the UK 10-year yields rose by 77bp, by 84bp in the US and by 160bp in Germany, whereas corresponding yields in Japan rose by only 12bp. See Chart 6.

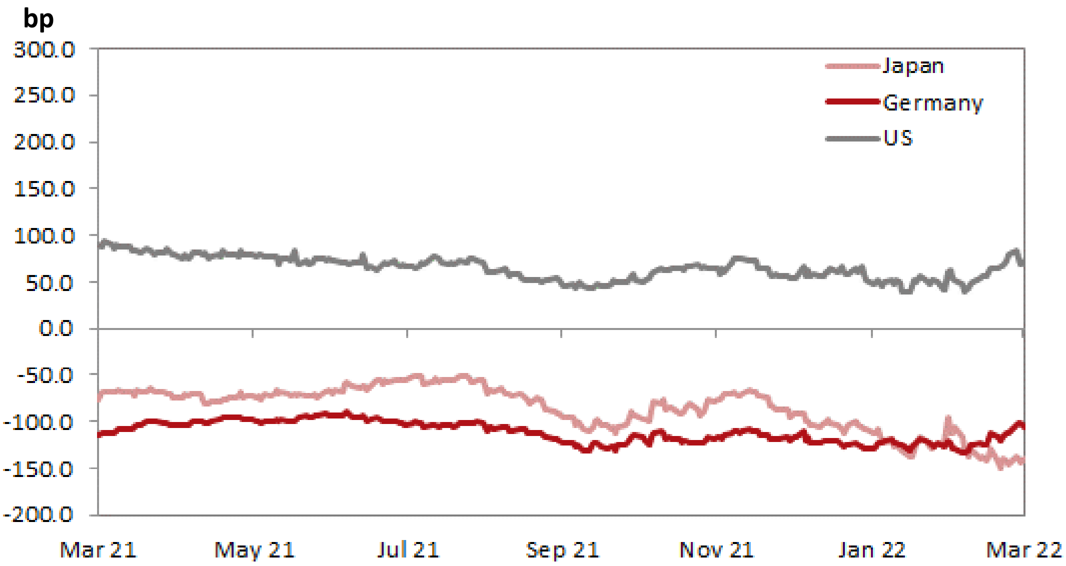
Chart 6: Selected international 10-year benchmark yields 2020-21



Source: Bloomberg

10-year gilts slightly underperformed comparable maturity US Treasuries with the spread falling by 17bp to 73bp in 2021-22. Gilts marginally outperformed comparable German government bonds, however, with the spread between 10-year gilts and German bonds rising by 7bp to -107bp, while the spread versus 10-year Japanese bonds fell by 64bp to -140bp. 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 2021-22, as reported by the Gilt-edged Market Makers (GEMMs)[2] fell by £857 billion (9%) compared with the previous financial year (from £10.46 trillion to £9.60 trillion). Turnover fell in short conventional gilts by 0.3% to £2.41 trillion, in medium conventional gilts by 9.1% to £3.89 trillion, in long conventional gilts by 22.5% to £1.92 trillion whereas in index-linked gilts it rose by 7.5% to £1.39 trillion. Developments in gilt market turnover are shown in Table 1 and Chart 8.

Table 1: Aggregate gilt market turnover by GEMMs 2000-01 to 2021-22(£ billion)[3]

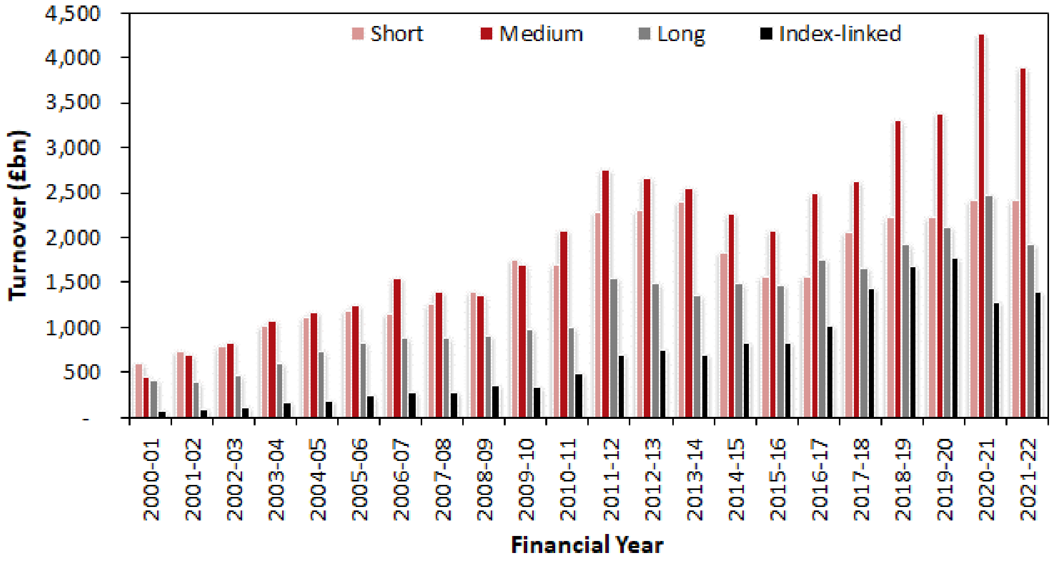
	Short	Medium	Long	Index-linked	Total
2000-01	608	446	412	65	**1,531**
2001-02	733	692	396	86	**1,907**
2002-03	784	822	460	103	**2,168**
2003-04	1,016	1,071	599	172	**2,858**
2004-05	1,120	1,161	738	176	**3,195**
2005-06	1,186	1,252	825	236	**3,500**
2006-07	1,139	1,548	893	276	**3,856**
2007-08	1,262	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**
2018-19	2,244	3,321	1,936	1,690	**9,191**
2019-20	2,231	3,375	2,114	1,771	**9,491**
2020-21	2,417	4,275	2,476	1,290	**10,457**
2021-22	2,409	3,885	1,920	1,387	**9,600**

Source: GEMMs

[2] The current list of GEMMs and their web addresses are available on the DMO website via https://www.dmo.gov.uk/responsibilities/gilt-market/market-participants/

[3] These data cover only those transactions conducted by GEMMs, and are therefore not wholly comprehensive in terms of turnover in the entire gilt market. Nevertheless, they should represent a significant proportion of total transaction volume.

Chart 8: GEMM gilt market turnover 2021-22



Source: GEMMs

Monetary policy background

The MPC maintained Bank Rate at the historically low rate of 0.10% for the majority of the financial year. However, with underlying inflationary pressures growing Bank Rate was raised by 0.15% at the December 2021 meeting and by a further 0.25% in February and March 2022 taking the rate to 0.75% at the financial year end. The Bank's target stock of purchased bonds (primarily gilts) financed by the issuance of central bank reserves, was maintained at £895 billion for most of the period but, with Bank Rate reaching 0.5% in February 2022, the MPC took the decision to cease reinvesting maturing gilts, as outlined following the August 2021 policy meeting, to begin the process of balance sheet normalisation.

The ECB maintained the interest rate on its main refinancing operations at a historic low of 0.0% during 2021-22. However, in December 2021 it was decided to discontinue, at the end of March 2022, net asset purchases under the PEPP, a temporary asset purchase programme of private and public sector securities, which had been launched in March 2020. The ECB also took the decision in December 2021 to recalibrate net purchases under the asset purchase programme (APP) to a rate of €40 billion per month in the second quarter of the calendar year 2022, €30 billion per month in the third quarter of 2022 and €20 billion per month from October 2022 onwards.

In the US, the Federal Reserve maintained the target range for the Federal Funds Rate of 0%-0.25% for much of the financial year but, following the March 2022 policy meeting, the range was increased by 0.25%. Net asset purchases were tapered from November 2021 and net purchases ceased in March 2022.

Chapter 2: Government Debt Management

DMO financing remit for 2021-22

The DMO's initial gilt financing remit for 2021-22 was announced at the Budget on 3 March 2021, with planned gilt sales of £295.9 billion; this was the second highest total on record (after the outturn of £485.8 billion in 2020-21). It was planned that these sales would be delivered via 93 gilt auctions (including the continued scheduling of two auctions on the same day which had been introduced in 2020-21) and six syndications.

It was also announced that green gilt sales of at least £15.0 billion were planned for the first time, with these sales to come from a larger than usual initially unallocated portion of issuance of £28.0 billion.

The structure of the original gilt financing remit for 2021-22 is summarised in Table 2.

Table 2: Original remit structure for 2021-22

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	87.0	-	-	-	87.0 (29.4%)
Medium	65.4	-	-	-	65.4 (22.1%)
Long	66.3	16.5	-	-	82.8 (28.0%)
Index-linked	19.2	13.5	-	-	32.7 (11.1%)
Unallocated*	-	-	-	28.0	28.0 (9.5%)
Total	**237.9 (80.4%)**	**30.0 (10.1%)**	**- -**	**28.0 (9.5%)**	**295.9**

Figures may not sum due to rounding.

Source: DMO

*Including planned green gilt issuance of at least £15.0 billion

In addition, net Treasury bill issuance in 2021-22 for debt management purposes of £1.8 billion was announced.

On 23 April 2021 a significant (£43.3 billion) reduction in planned gilt sales was announced to coincide with the publication of a better than expected outturn for the Central Government Net Cash Requirement (excluding NRAM ltd, Bradford & Bingley and Network Rail) (CGNCR ex NRAM, B&B and NR) in 2020-21.

Planned gilt sales fell from £295.9 billion to £252.6 billion, with 11 previously planned conventional gilt auctions (five short, three medium and three long) being cancelled and one additional index-linked auction being scheduled, taking the planned total of gilt auctions in 2021-22 to 83.

In addition, one previously planned index-linked syndication was cancelled, taking the number of syndications planned in 2021-22 to five (three conventional and two index-linked). The size of the unallocated portion of gilt issuance was also reduced by £2.5 billion to £25.5 billion, but planned green gilt issuance remained unchanged at a minimum of £15.0 billion

The structure of the gilt financing remit for 2021-22 at the first in-year revision is summarised in Table 3.

Table 3: Revised remit structure for 2021-22 (April 2021)

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	72.0	-	-	-	72.0 (28.5%)
Medium	53.5	-	-	-	53.5 (21.2%)
Long	56.7	16.5	-	-	73.2 (29.0%)
Index-linked	19.4	9.0	-	-	28.4 (11.2%)
Unallocated*	-	-	-	25.5	25.5 (10.1%)
Total	**201.6 (79.8%)**	**25.5 (10.1%)**	**- -**	**25.5 (10.1%)**	**252.6**

Figures may not sum due to rounding.

Source: DMO
*Including planned green gilt issuance of at least £15.0 billion

The gilt financing remit for 2021-22 was subsequently reduced by an even larger amount of £57.8 billion to £194.8 billion on 27 October 2021 following the publication of the Office for Budget Responsibility's (OBR's) Economic and Fiscal Outlook (EFO) as better economic data emerged on the state of the UK economy.

The reduction in gilt sales was principally managed by a reduction of £49.9 billion in planned gilt sales via auctions, which fell to £151.7 billion. 19 previously scheduled gilt auctions were cancelled, leaving 14 remaining in the period November 2021-March 2022.

The then prevailing balance of the unallocated portion of issuance of £7.4 billion[4] was also reduced to zero.

[4] The original unallocated portion of issuance had been £28.0 billion, which was reduced to £25.5 billion at the April 2021 remit revision. In advance of the October 2021 remit revision, the unallocated portion had been drawn down by £18.1 billion, with £10.0 billion being allocated to medium green gilt issuance, £6.1 billion allocated to

In addition, planned net sales of Treasury bills for debt management purposes were reduced by £25.0 billion

The structure of the gilt financing remit for 2021-22 at the October 2021 revision is summarised in Table 4.

Table 4: Revised remit structure for 2021-22 (October 2021)

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	53.5	-	-	-	53.5 (27.5%)
Medium*	45.1	10.0	-	-	55.1 (28.3%)
Long**	56.7	23.0	-	-	59.9 (30.7%)
Index-linked	19.4	10.1	-	-	26.3 (13.5%)
Unallocated	-	-	-	-	0.0 (0.0%)
Total	**151.7 (77.9%)**	**43.1 (22.1%)**	**- -**	**- -**	**194.8**

Figures may not sum due to rounding.

Source: DMO
*The medium conventional syndication total includes £10.0 billion of green gilt proceeds
**The long conventional syndication total includes £6.1 billion of green gilt proceeds

The outturn for gilt sales in 2021-22 was £194.653 billion (£147 million, or 0.1% below the remit plan). The details are shown in Table 5. Green gilt sales amounted to £16.1 billion (cash) relative to a planned minimum of £15.0 billion (cash).

long green gilt issuance and £1.0 billion added to each of the index-linked and long conventional syndication programmes.

Table 5: Gilt sales outturn 2021-22

(£ million)	Conventional gilts			Index-linked gilts	Total
	Short	Medium	Long		
Auction proceeds	48,606	38,507	33,279	14,890	135,282
PAOF proceeds	4,085	6,724	4,116	1,450	16,355
Auction and PAOF proceeds	**52,672**	**45,230**	**37,359**	**16,340**	**151,638**
Syndication sales*	-	9,988	23,029	9,998	43,015
Gilt tender sales	-	-	-	-	-
Total gilt sales	**52,672**	**55,219**	**60,424**	**26,338**	**194,653**
Number of auctions held	16	16	20	12	64
Syndications held	-	1	4	2	7
Gilt tenders held	-	-	-	-	-
Total planned gilt sales	**-**	**-**	**-**	**-**	**194,800**

Figures may not sum due to rounding.

*Medium sales via syndication were exclusively of green gilts, long sales via syndication included green gilt sales of £6,121 million.

Source DMO

Pace of financing in 2021-22

The sharp in-year decline in the financing requirement saw the DMO again depart from its broadly even-flow approach to issuance throughout the year, with financing heavily weighted towards the earlier months as, in that period, the DMO was aiming to meet a financing remit that turned out to be much larger than the final financing requirement. As shown in Table 5, gilt sales averaged around £22 billion per month in the first seven months of the financial year, such that 80% of the final remit target was raised in that period. By contrast, gilt sales in the final five months of the financial year averaged around £8 billion per month.

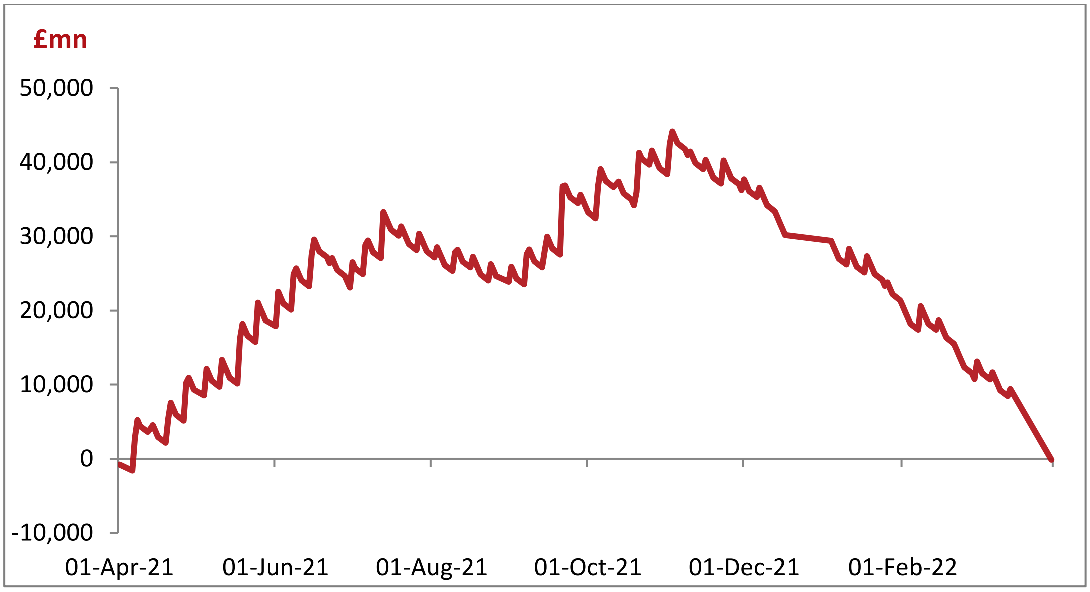
Table 6: Monthly gilt sales in 2021-22

(£bn)	Gilt sales	Cumulative	% of total
Apr-21	25.3	25.3	13.0%
May-21	24.5	49.8	25.6%
Jun-21	22.0	71.8	36.8%
Jul-21	22.5	94.2	48.4%
Aug-21	11.9	106.1	54.5%
Sep-21	27.7	133.8	68.7%
Oct-21	21.9	155.8	80.0%
Nov-21	14.6	170.4	87.5%
Dec-21	4.3	174.7	89.7%
Jan-22	7.2	181.9	93.4%
Feb-22	6.1	188.0	96.5%
Mar-22	6.7	194.7	100.0%

Source DMO

Chart 9 shows cumulative proceeds from all sales operations, compared with a counterfactual even-flow pace of financing required to deliver the final gilt sales total in 2021-22. By the start of November 2021, cumulative financing was running at around £44 billion above an even-flow position. However, this position sharply declined in the second half of the financial year as the pace of financing slowed.

Chart 9: Cumulative financing relative to the even-flow position[5] 2021-22



Source: DMO

[5] The even-flow counterfactual assumes that the same amount of cash is raised on every business day sufficient to meet the final total annual gilt sales requirement.

The gilt financing arithmetic

The initial financing arithmetic for 2021-22 as published at Budget 2021 was restated as usual at the April 2022 CGNCR ex NRAM, B&B and NR outturn and in the October 2021 revision. Developments in the 2021-22 financing arithmetic are shown in Table 7.

Table 7: The 2021-22 financing arithmetic[6]

(£ billion)	Spring Budget 2021	April 2021 revision	October 2021 revision	April 2022 outturn
CGNCR (ex NRAM, B&B and NR)	240.4	240.4	157.6	129.2
Gilt redemptions	79.3	79.3	79.3	79.3
Financing adjustment carried forward from previous financial years	-16.0	-58.8	-58.8	-58.8
Gross financing requirement	**303.7**	**260.9**	**178.1**	**149.7**
less:				
NS&I net financing	6.0	6.0	6.0	4.5
NS&I Green Savings Bonds	n.a.	n.a.	n.a.	0.3
Sale of UK Sovereign Sukuk	n.a.	0.5	0.5	0.5
Other financing[7]	0.0	0.0	0.0	6.0
Net financing requirement (NFR) for the DMO	**297.7**	**254.4**	**171.6**	**138.4**
DMO's NFR will be financed through:				
a) Gilt sales of which:	**297.7**	**252.6**	**194.8**	**194.7**
Short conventional gilts	87.0	72.0	53.5	52.7
Medium conventional gilts	65.4	53.5	55.1	55.2
Long conventional gilts	82.8	73.2	59.9	60.4
Index-linked gilts	32.7	28.4	26.3	26.3
Unallocated amount of gilts	28.0	25.5	0.0	0.0
b) Total net contribution of Treasury bills for debt financing	**1.8**	**1.8**	**-23.2**	**-23.2**
Total financing	**297.7**	**254.4**	**171.6**	**171.5**
DMO net cash position	2.3	2.3	2.3	35.4

Source: DMO

[6] Figures may not sum due to rounding.
[7] 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.

Gilt financing operations

The DMO held a total of 71 financing operations in 2021-22, 88 fewer than in the previous peak financial year. In addition, the Post Auction Option Facility (PAOF) was activated, in whole or in part, at 40 of the 64 gilt auctions; including these transactions, the number of gilt sales operations in 2021-22 was 111. The history of DMO outright gilt sales operations is shown in Table 8.

Table 8: DMO outright gilt sale operations history 1998-99 to 2021-22

	Auctions	Syndications	Tenders*	Taps**	Residual tenders***	Total	Gilt sales (£bn)
1998-99	4			4		8	8.2
1999-00	8			1	1	10	14.4
2000-01	7					7	10.0
2001-02	8					8	13.7
2002-03	13				1	14	26.3
2003-04	24					24	49.9
2004-05	26					26	50.1
2005-06	25	1				26	52.3
2006-07	36					36	62.5
2007-08	34					34	58.5
2008-09	58		8			66	146.5
2009-10	58	6	12		1	77	227.6
2010-11	49	5	7			61	166.4
2011-12	49	8	3			60	179.4
2012-13	44	8	4			56	165.1
2013-14	43	5	4			52	153.4
2014-15	41	4	1			46	126.4
2015-16	39	6	2			47	127.7
2016-17	48	7	3			58	147.6
2017-18	40	5	1	0	0	46	115.5
2018-19	36	4	0	0	0	40	98.5
2019-20	43	5	4	0	0	52	137.9
2020-21	150	7	2	0	0	159	485.8
2021-22	64	7	0	0	0	71	194.7

**Mini-tenders from 2008-09 to 2015-16. Gilt tenders thereafter.*

***Index-linked taps in 1998-99. Tap for market management in 1999-2000.*

**** Tenders of uncovered auction residuals.*

Source: DMO

- ## Gilt auctions

Auctions (including the associated PAOF proceeds) accounted for £151.6 billion or 77.9% of gross gilt sales in 2021-22. Of the 64 auctions held, 16 were of short, 16 of medium and 20 were of long conventional gilts, and 12 were of index-linked gilts[8].

The average cover ratio at gilt auctions in 2021-22 was 2.41x, a marginal decline on the average of 2.49x in 2020-21. The average concentration of bidding at conventional gilt auctions, as measured by the tail[9], was an average of 0.4bp, broadly in line with the previous financial year. Details are shown in Table 9.

Table 9: Auction cover and tail 2020-21 and 2021-22

	Average cover ratio (x)		Average yield tail (bp)	
	2021-22	**2020-21**	**2021-22**	**2020-21**
Short conventional	2.46	2.47	0.6	0.4
Medium conventional	2.55	2.66	0.3	0.2
Long conventional	2.30	2.34	0.5	0.4
Index-linked	2.36	2.62	N/A	N/A
All	**2.41**	**2.49**	**0.4**	**0.3**

Source: DMO

- ## PAOF

PAOF was taken-up in whole or in part at 40 of the 62 auctions held in 2021-22 raising £16.4 billion. The rate of take-up declined slightly compared with 2020-21, but, at 48.4% remains close to the level that might be expected (i.e. over the year as a whole on any operation day, the option may be equally likely to be in or out of the money at the close of the window). Recent PAOF performance is summarised in Table 10.

Table 10: PAOF performance 2019-20 to 2021-22

	Rate (%)	Take-up (%)	Take-up rate	Proceeds (£bn)
2019-20	15.0	7.2	48.0%	7.8
2020-21	25.0	13.1	52.4%	49.6
2021-22	25.0	12.1	48.4%	16.4

Source: DMO

[8] The results of gilt auctions and other operations are available on the DMO's website at: https://www.dmo.gov.uk/dmo_static_reports/Gilt%20Operations.pdf
[9] 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).

- ## Syndicated offerings

Seven[10] syndicated offerings were held in 2021-22, raising £43.0 billion or 22.1% of gross gilt sales. The results of the syndication programme in 2021-22 are summarised in Table 11. Notable here were the launches of the first two green gilts maturing in 2033 and 2053.

Table 11: Syndications in 2021-22

Date	Gilt	Size (£mn nominal)	Issue Price (£)	Issue Yield (%)	Proceeds (£mn cash)
27 Apr 2021	1¼% Treasury Gilt 2051	6,000	98.469	1.312	5,896
25 May 2021	0⅛% Index-linked Treasury Gilt 2039	4,000	152.293	-2.245	6,085
13 Jul 2021	1⅛% Treasury Gilt 2039	7,000	100.625	1.086	7,032
21 Sep 2021	0⅞% Green Gilt 2033	10,000	100.033	0.872	9,998
21 Oct 2021	1½% Green Gilt 2053	6,000	102.214	1.413	6,121
23 Nov 2021	0⅛% Index-linked Treasury Gilt 2073	1,100	355.948	-2.388	3,913
8 Feb 2022	1⅛% Treasury Gilt 2073	4,250	93.891	-2.023	3,981
Total					**43,015**

Source: DMO

[10] In addition to the five syndications initially announced, two additional syndications of green gilts were scheduled in-year.

Green gilt issuance

A milestone was reached in 2021 with the successful launch of the government's green financing programme.

Within 12 months of the then Chancellor of the Exchequer first announcing to Parliament in his 'Future of the UK Financial Services Sector' speech in November 2020, that the UK would be issuing its first sovereign green bond, the DMO and HM Treasury had successfully launched two green gilts at two key maturity areas (10- and 30-years) in support of the Chancellor's aim to build out a green yield curve in the coming years[11].

Publication of the UK Government Green Financing Framework

Ahead of initiating issuance of green gilts, there were a number of important milestones and ways in which the government demonstrated innovation and leadership.
The UK Government's Green Financing Framework was published on 30 June 2021. The Framework details the types of expenditures that will be financed by proceeds raised from green gilt issuance to help meet the government's climate and environmental objectives. The Framework is fully aligned to the Green Bond Principles as published by the International Capital Market Association, as well as being mapped to the United Nations Sustainable Development Goals.

The Framework Document included a number of innovations, such as a commitment by the government to report not only on the environmental impact of associated green spending but also on the social co-benefits arising from these expenditures, which may, for example, include job creation and socioeconomic advancement for disadvantaged groups. Another innovation was the inclusion of biodiversity as one of the expenditure categories in the framework.

Furthermore, the government also commissioned a pre-issuance impact assessment, which was undertaken by the Carbon Trust, to assess the alignment of the intended impacts of the funded projects and green gilt programme/retail green savings bonds with the UK Government's climate targets and environmental policies. This was another first in the sovereign green bond market.

Investor outreach programme

Prior to issuance of green gilts, the DMO and HM Treasury engaged in an investor outreach programme, primarily by holding two investor calls – one in July 2021 to discuss the contents of the Framework Document, and one in September 2021 shortly prior to execution of the first transaction. Calls were held with a diverse set of investors, both from the UK investor base but also overseas investors, including those who have increasingly been integrating environmental, social and governance (ESG) considerations into their portfolios, along with dedicated ESG investors. Notably, we were very pleased to see that a number of new investors who had never invested in gilts before were attracted to the green gilt issuance programme.

[11] A decision was also taken to issue a green retail product, sold via NS&I – this was the world's first standalone retail product to be tied to a sovereign's green bond programme. NS&I's retail Green Savings Bonds went on sale to UK savers in October 2021.

Green gilts and the debt financing programme

A key priority for the government's green gilt issuance programme is to ensure that issuance raises financing for green projects in as smooth and cost-effective a way as possible – and also in a way that is fully in line with the government's debt management objective to minimise cost over the long-term, subject to risk. In order to achieve this, the DMO considered the green gilt programme in the context of the government's overall debt financing programme; in particular, with the intention to integrate green gilt issuance into the wider gilt programme. This has been achieved primarily through: (i) designing green gilts to have the same structure as standard conventional gilts, with six monthly coupon payments and principal repayment together with final coupon payment at redemption; and (ii) launching the new green gilts via the tried and tested syndication method.

Two record breaking green gilt launches

The inaugural 12-year green gilt (which matures in 2033) was launched via syndication on Tuesday 21 September 2021. The transaction broke a number of records in the sovereign green bond market in terms of the size of the transaction and the level of investor demand. A second new green gilt (maturing in 2032) was launched on Thursday 21 October 2021, also via syndication. The October 32-year issue broke an additional record, being the longest maturity sovereign green bond to have been issued. Green gilt issuance for the financial year 2021-22 raised a total of £16.1 billion (cash), relative to a commitment to raise a minimum of £15 billion (cash).

Spring Statement 2022

As announced at Spring Statement 2022, green gilt issuance of £10.0 billion (cash) is planned in 2022-23. It is currently expected that one green gilt transaction will be scheduled each quarter, with sales focussing on re-opening of the two existing medium and long maturity green gilts. This will be the second year of the green financing programme.

All reports and documents relating to green gilts are available in the Green Gilt section of the DMO's website.

Consultation on RPI reform

On 17 January 2019, the House of Lords Economic Affairs Committee published a report on 'Measuring Inflation' at the conclusion of its inquiry into the use of the Retail Prices Index (RPI). In response to this, on 11 March 2020, the government and the UK Statistics Authority (UKSA) launched a consultation on the timing of RPI reform. Specifically, UKSA proposed addressing the shortcomings of the measure by bringing the methods and data sources of the Consumer Prices Index including owner occupiers' housing costs (CPIH) into RPI.

On 25 November 2020, the government and UKSA published the response to the consultation. Certain aspects of the proposed reform to the RPI, the consultation, and the joint response are the subject of ongoing formal judicial review proceedings.

Decisions on the relative weights of index-linked and conventional gilt issuance will continue to be taken annually through the financing remit, taking into account the appropriate balance between the level of structural demand, the diversity of the investor base, and the government's desired inflation exposure.

Debt management performance

This section includes data on the DMO's performance in the execution of the gilt financing remit in 2021-22.

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 8 above reports on the average cover ratios at all gilt auctions in 2021-22 and on the concentration of bidding (the tail) at conventional gilt auctions.

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 macroeconomic 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 and syndicated offerings in 2021-22 was 0.840% (51.0bp higher than the 0.350% in the previous financial year).

The cash weighted average yield of issuance by type of gilt and maturity is shown in Table 12. Note that the index-linked yields reported in Tables 12 and 13 are nominalised yield equivalents of real yields assuming 3% RPI inflation.

Table 12: Average issuance yield by type and maturity of gilt in 2021-22

	Cash (£mn)	Yield (%)
Conventional		
Short	52,672	0.467
Medium	55,219	0.947
Long	60,424	1.213
Total conventional	**168,315**	**0.892**
Index-linked		
Medium	8,742	0.117
Long	17,596	0.713
Total index-linked	**26,338**	**0.515**
All issuance	**194,653**	**0.840**

Source: DMO

The actual yield of 0.840% 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 13 contrasts the actual average issuance yield in 2021-22 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 13: Illustrative average issuance yields assuming different issuance distributions

	Yield (%)	Actual distribution £mn	Shorter distribution £mn	Even distribution £mn	Longer distribution £mn
Conventional					
Short	0.467	52,672	84,158	56,105	42,079
Medium	0.947	55,219	42,079	56,105	42,079
Long	1.213	60,424	42,079	56,105	84,158
Total conventional	**0.892**	**168,315**	**168,315**	**168,315**	**168,315**
Index-linked					
Medium	0.117	8,742	19,754	13,169	6,585
Long	0.713	17,596	6,585	13,169	19,754
Total index-linked	**0.515**	**26,338**	**26,338**	**26,338**	**26,338**
All issuance		**194,653**	**194,653**	**194,653**	**194,653**
Average issuance	**0.840%**	**0.840%**	**0.705%**	**0.726%**	**0.906%**
Difference (bp)			**-13.5**	**-11.4**	**6.6**

Figures may not sum due to rounding.

Source: DMO

The more even distribution to financing by maturity produces an average yield of issuance 11.4bp lower than the actual average yield, reflecting the smaller proportion of higher yielding longer maturity gilts and slightly greater proportions of lower yielding short and medium conventional gilts. The shorter distribution[12] produces an implied issuance yield 13.4bp lower than the actual average yield while the longer distribution[13] produces an issuance yield 6.6bp 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.

[12] 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 75% medium/25% long.
[13] 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 25% medium/75% long.

b) Auction concession analysis

There are a number of ways to measure auction concessions. The method presented below shows the size of any concession/premium at gilt 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 in 2021-22 (i.e. at 10.00am on days when a single auction was scheduled and at 10.00am and 11.30am on days when two auctions were scheduled).

On this basis, a total premium of £91.6 million was achieved across the 64 gilt auctions held in 2021-22: an average of £1.4 million per auction The average premia for auctions at the different maturities and types of gilt were as follows:

- Short conventional: £0.6 million
- Medium conventional: £1.0 million
- Long conventional: £2.2 million
- Index-linked: £2.3 million

The DMO's financing remit in 2022-23

The DMO's financing remit for 2022-23 was published alongside the Spring Statement on 23 March 2022. Planned gilt sales of £124.7 billion were announced, including £10.0 billion of green gilt sales, and an unallocated portion of £7.0 billion for issuance of any type or maturity of gilt (apart from green gilts). In addition, planned net sales of Treasury bills for debt management purposes of £23.2 billion were announced

The 2022-23 financing remit was revised on 26 April 2022, alongside the publication of the 2021-22 outturn of the CGNCR ex NRAM, B&B and NR. Planned gilt sales rose by £6.9 billion, to £131.5 billion and planned net sales of Treasury bills for debt management purposes rose by £7.0 billion to £30.2 billion.

Chapter 3: Exchequer Cash Management

Exchequer cash management remit 2021-22

The DMO's cash management remit for 2021-22, published alongside Budget 2021 on 3 March 2021, specified that the government's cash management objective remains:

> "*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 successfully delivered its cash management remit for 2021-22. The DMO monitored and assessed its performance using a range of key performance indicators, details of which are in Annex B.

During the year, the DMO continued to meet the government's net cash requirements primarily by raising and investing cash in the sterling repo market.

The DMO also used weekly Treasury bill tenders to support its daily cash management activities. Throughout the year, there remained a strong market demand to buy Treasury bills at tender and through bilateral agreement.

The Debt Management Account Deposit Facility (DMADF) continued to take cash deposits from local authorities and government agencies, which can place surplus funds with the Debt Management Account (DMA) for up to six months. Deposit levels remained fairly stable throughout the year.

Additionally, the DMO traded a number of other money market instruments to ensure that the government's daily cash requirements were met.

In 2021-22 the DMO carried out its cash management objective primarily through a combination of:

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

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[14].

[14] Details are published on the DMO website at: https://www.dmo.gov.uk/data/treasury-bills/treasury-bill-issuance-and-stock/ The breakdown of the Treasury bill portfolio by maturity date is published on the DMO website at: https://www.dmo.gov.uk/data/treasury-bills/treasury-bills-outstanding/

Bilateral cash management operations

In practice, the most significant portion of cash management operations in 2021-22, 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.

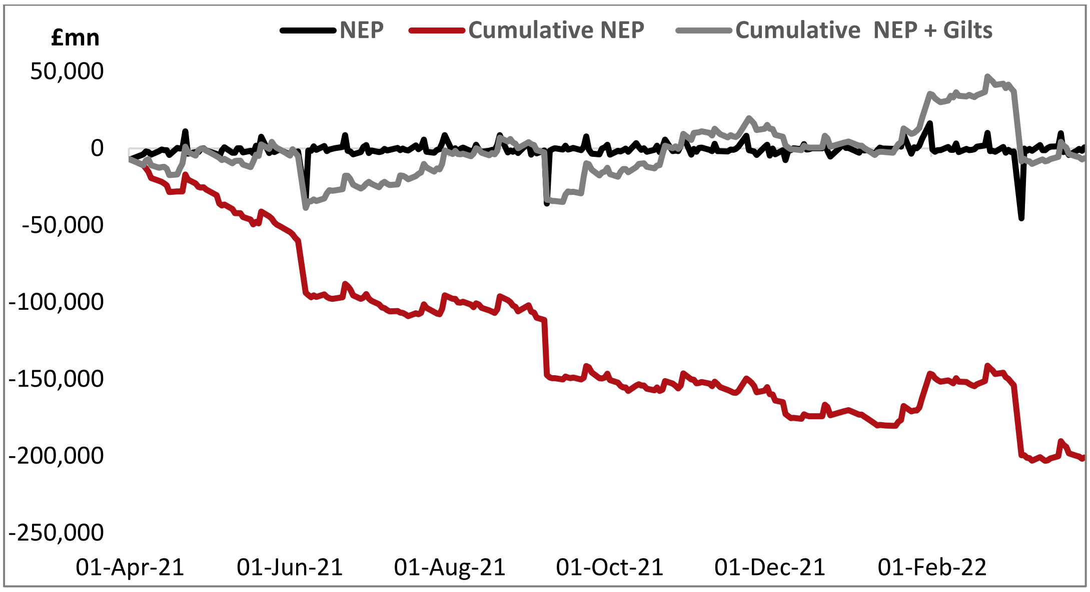
The DMO's money market dealers borrow from and/or lend to the market on each business day to balance the position on the NLF. In order to do so the DMO receives from HM Treasury forecasts of each business day's cash flows into and out of central government. Additionally, the DMO obtains up-to-date intra-day 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 10 shows the scale of daily cash flows measured in terms of the Net Exchequer Position (NEP) in 2021-22 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 10 also shows the net effect including gilt sales demonstrating how the timing of these flows made a significant contribution to reducing the in-year financing required by Exchequer cash management operations.

Chart 10: Exchequer cash flows 2021-22



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. The results for 2021-22 are presented below.

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.

The cash management performance report

The DMO's high level cash management objective as set out above has been subdivided into a series of objectives, to each of which has been attached a KPI as seen in Table 14. The following section explains how performance was delivered against these objectives in 2021-22.

Table 14: 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 Debt Management Account (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 if and 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.
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.

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.

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 every day but one in 2021-22; a very small (£3.9 million) overdraft was required on 13 December 2021, as a result of exceptional market-wide circumstances, requiring a temporary Ways and Means transfer from the Bank of England.

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 46 out of 52 weeks in 2021-22[15]

[15] 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 49 out of 52 weeks (47 in 2020-21).

(compared with 29 out of 52 weeks in 2020-21). 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 2021-22, 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.

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 which the government sets its cash manager.

Under the current approach active cash performance is measured and evaluated by comparing actual net interest paid and received with the associated cost of funds (i.e. deducting net interest on daily cash management balances using the Bank of England repo rate and also deducting any associated 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 £30.5 million for 2021-22. The DMO's estimated transaction and management costs during 2021-22 were £14.5 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 very close to this.

The Exchequer's net cash position was successfully offset each day, though there was one instance of a liquidity risk limit breach in 2021-22. There were also three daily settlement breaches and one breach of an investment tenor limit during the financial year. There were no breaches of interest rate and foreign exchange limits.

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 2021-22 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[16]) or the timing of the announcement of Treasury bill tender results[17]. There were three factual errors in published data and two instances of a market sensitive announcement being published later than scheduled. There was no consequential impact on financial markets. Appropriate steps have been taken to reduce the risk of such a breach in the future.

Treasury bill tender performance

Table 15 and Charts 11-13 compare the results (in terms of the average accepted yield) of all Treasury bill tenders held in 2021-22 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 15.3bp, 13.0bp and 14.9bp respectively.

The range of average cover ratios may in part reflect the range of average tender sizes. The average size of six-month Treasury bill tenders was almost three times more than that of the average for one-month tenders. (See Table 16)[18].

Table 15: Comparison of average Treasury bill tender yields with SONIA rates in 2021-22

	Average tender yield (%)	Average SONIA rate (%)	Difference (bp)
One-month	0.020	0.173	-15.3
Three-month	0.113	0.243	-13.0
Six-month	0.198	0.347	-14.9
Average	**0.110**	**0.254**	**-14.4**

Source: DMO/Bloomberg

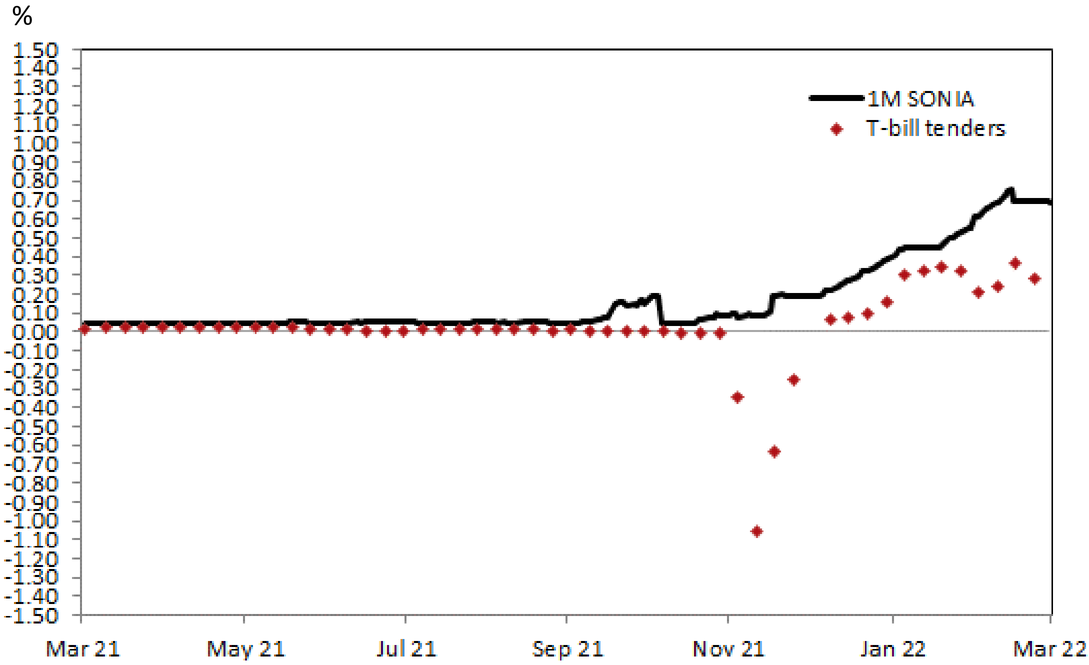
Table 16: Comparison of average Treasury bill tender sizes and cover ratios 2021-22

	Average tender size (£mn)	Average cover ratio (x)
One-month	500	4.02
Three-month	735	3.96
Six-month	1,329	2.93

Source: DMO

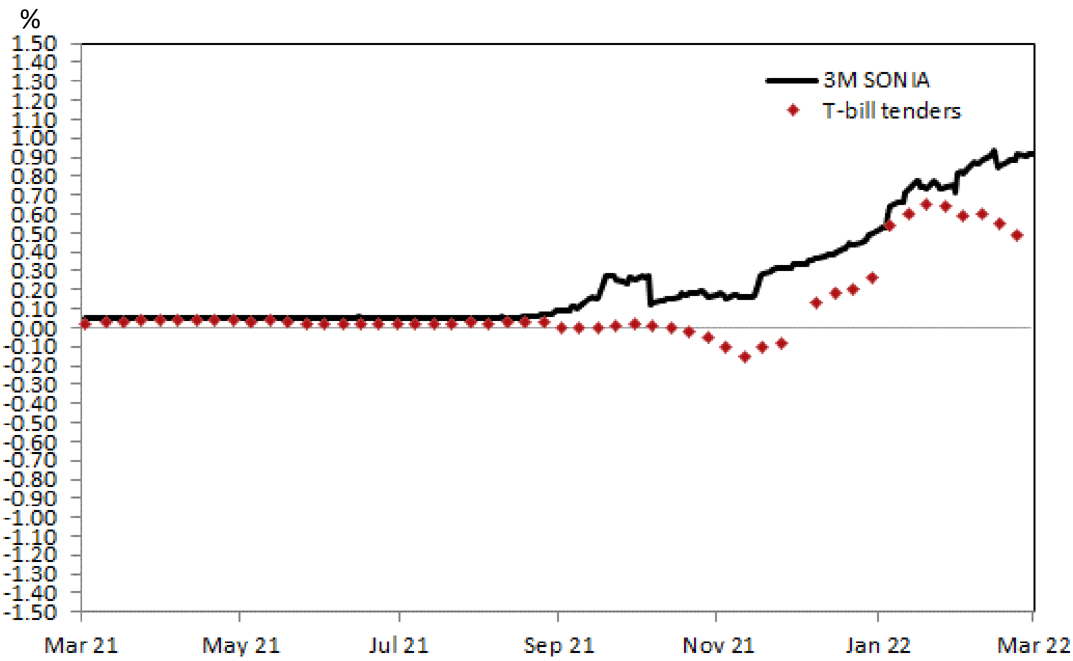
[16] The target is to settle at least 99% of trades by value on the due date, where the DMO is responsible for delivering stock or cash: the level achieved was over 99.9% (in 2020-21 the corresponding figure was also over 99.9%).
[17] The target is to release tender results within 15 minutes: the average release time was 5.5 minutes.
[18] In 2020-21 average cover ratios ranged from 3.66x to 4.51x.

Chart 11: One-month Treasury bill tender yields compared with SONIA rates in 2021-22



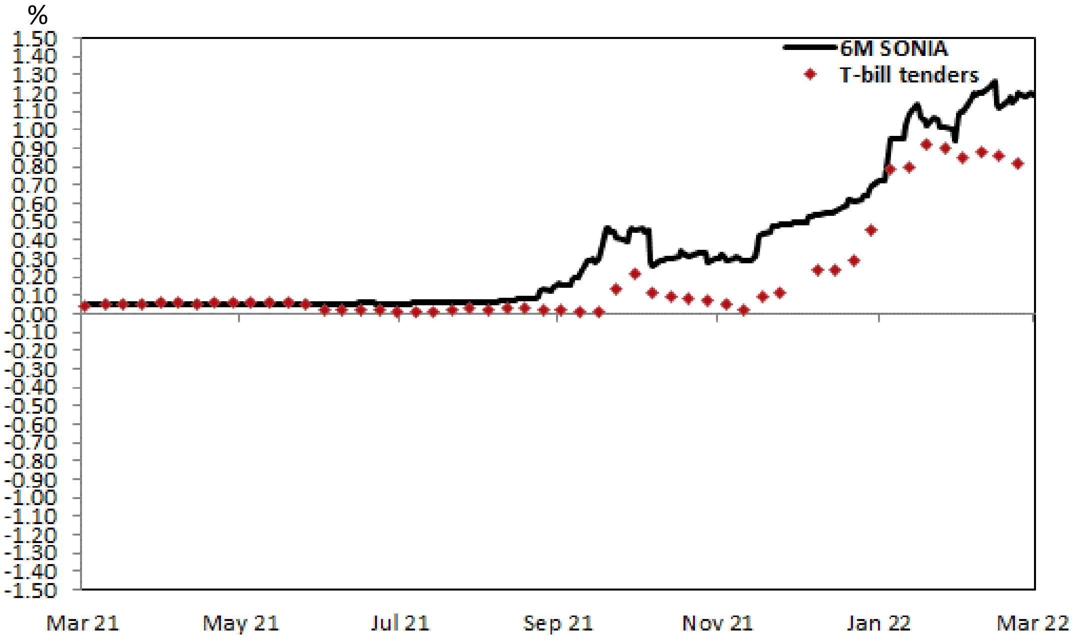
Source: DMO/Bloomberg

Chart 12: Three-month Treasury bill tender yields compared with SONIA rates in 2021-22



Source: DMO/Bloomberg

Chart 13: Six-month Treasury bill tender yields compared with SONIA rates in 2021-22



Source: DMO/Bloomberg

Annexes

a) The gilt portfolio

The key statistics of the government's marketable debt portfolio at end-March 2022 compared with end-March 2021 are shown in Tables 17 and 18 below.

Tables 17 and 18: Debt portfolio statistics

Gross values (including DMO holdings)	31 March 2021	31 March 2022
Uplifted nominal value		
Debt portfolio	£2,034bn	£2,140bn
Conventional gilts	£1,514bn	£1,593bn
Index-linked gilts	£460bn	£510bn
Treasury bills	£60bn	£37bn
Market value		
Debt portfolio	£2,631bn	£2,614bn
Conventional gilts	£1,803bn	£1,748bn
Index-linked gilts	£767bn	£829bn
Treasury bills	£60bn	£37bn
Average maturity (nominal value-weighted)		
Debt portfolio	14.83 years	14.86 years
Gilt portfolio	15.27 years	15.12 years
Conventional gilts	14.17 years	14.20 years
Index-linked gilts	18.87 years	17.98 years
Average maturity (market value-weighted)		
Debt portfolio	17.05 years	16.69 years
Average yield (market value-weighted)		
Conventional gilts	0.83%	1.57%
Index-linked gilts	-2.31%	-2.60%
Average modified duration (market value-weighted)		
Conventional gilts	11.87 years	11.47 years
Index-linked gilts	21.34 years	20.30 years

Source: DMO

Net values (excluding DMO holdings)	31 March 2021	31 March 2022
Uplifted nominal value		
Debt portfolio	£1,922bn	£2,040bn
Conventional gilts	£1,408bn	£1,500bn
Index-linked gilts	£454bn	£504bn
Treasury bills	£60bn	£37bn
Market value		
Debt portfolio	£2,475bn	£2,482bn
Conventional gilts	£1,657bn	£1,626bn
Index-linked gilts	£758bn	£819bn
Treasury bills	£60bn	£37bn
Average maturity (nominal value-weighted)		
Debt portfolio	14.88 years	14.88 years
Gilt portfolio	15.36 years	15.15 years
Conventional gilts	14.18 years	14.16 years
Index-linked gilts	19.00 years	18.10 years
Average maturity (market value-weighted)		
Debt portfolio	17.15 years	16.74 years
Average yield (market value-weighted)		
Conventional gilts	0.82%	1.56%
Index-linked gilts	-2.31%	-2.59%
Average modified duration (market value-weighted)		
Conventional gilts	11.91 years	11.46 years
Index-linked gilts	21.47 years	20.42 years

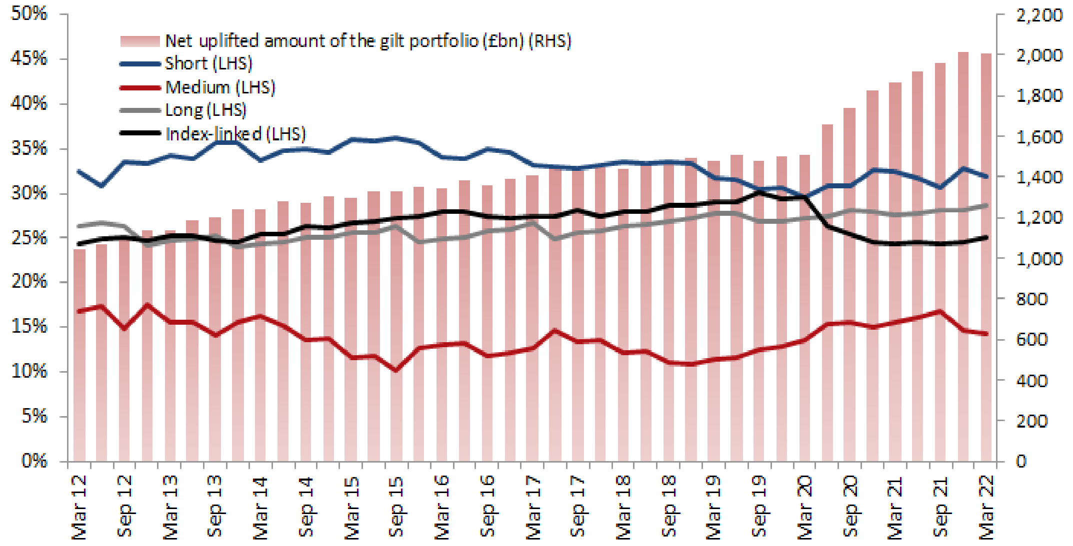
Source: DMO

The gross nominal value[19] of the gilt portfolio rose by 6.6% to £2,103 billion as gross gilt issuance together with inflation accrual on index-linked gilts exceeded gilt redemptions. The gross market value of the portfolio rose slightly by 0.3% to 2,578 billion[20], reflecting the rise in the nominal value and also the decrease in conventional gilt prices/increase in yields over the course of the financial year (an increase by 74bp in the case of nominal yields and fall by 29bp in the case of real yields).

The growth and changing composition of the gilt portfolio is shown in Chart 14. Developments in portfolio maturity are shown in Chart 15.

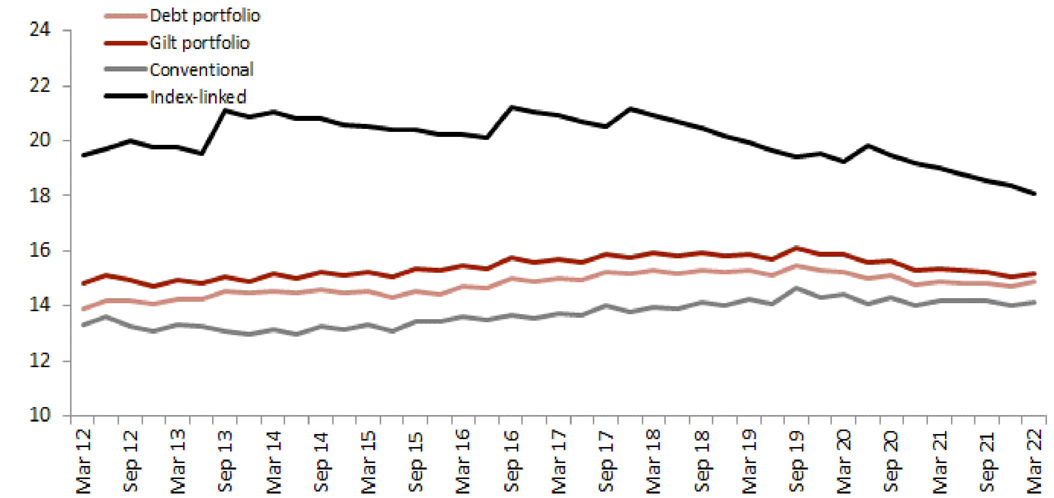
[19] Including inflation uplift on index-linked gilts.
[20] Figures may not sum due to rounding.

Chart 14: Portfolio composition[21]



Source: DMO

Chart 15: Portfolio maturity (years)



Source: DMO

[21] 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

b) Other published information on DMO activities

- ### General DMO performance

Aspects of the DMO's performance each financial year are reported in the DMO's Annual Report and Accounts. These comprise (page references refer to the 2021-22 Accounts published on 11 July 2022):

- The purpose and principal activities of the DMO (pages 11-12);
- A performance summary of the DMO's main activities (pages 16-20);
- A report on achievements against agency objectives as set by HM Treasury (pages 24-26);
- A report on performance against agency targets (pages 28-31), 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

- ### Debt management operations

The principal publications[22] describing the DMO's activities in the gilt market are:

- Official Operations in the Gilt Market – an Operational Notice, which provides details on the operational procedures conducted by the DMO in the gilt market;
- The GEMM Guidebook - a guide to the roles of the DMO and Primary dealers in the UK government bond market, which is aimed at DMO gilt market counterparties and outlines their obligations as gilt-edged market makers and the DMO's obligations to them.

The legal details behind the DMO's gilt issuance activities are set out in:

[22] These publications can be accessed via the gilt market operational rules section of the DMO website: https://dmo.gov.uk/publications/gilt-market/operational-rules/

- The Information memorandum – Issue, Stripping and Reconstitution of British Government Stock

- **Cash management operations**

The principal publication describing the DMO's activities in carrying out Exchequer Cash Management in the UK and also the legal and technical background to the issuance of Treasury bills is the:

- Cash management Operational Notice and UK Treasury Bills Information Memorandum https://dmo.gov.uk/media/17701/cmopnot200921.pdf

Other relevant sources of information include:

- About Treasury Bills:

  https://www.dmo.gov.uk/responsibilities/money-markets/about-treasury-bills/

- Discretionary Bilateral Treasury Bill Issuance

  https://www.dmo.gov.uk/responsibilities/money-markets/discretionary-bilateral-treasury-bill-facility/

- A list of Treasury Bill Primary Participants:

  https://www.dmo.gov.uk/responsibilities/money-markets/primary-participants/