United Kingdom
Debt Management
Office

DMO Annual Review
2019-20

October 2020

Contents

Foreword by the DMO Chief Executive

2019-20 was the 22nd operational year for the DMO. Towards the end of 2019-20, a new and unprecedented challenge emerged in the shape of the Coronavirus (Covid-19) pandemic. Covid-19 is having a serious impact on the UK economy and public finances, and has resulted in an unprecedented increase in the DMO's financing remit in 2020-21. As of 14 October 2020, gilt sales in the financial year 2020-21 amounted to £348.9 billion (relative to plans of at least £385 billion by end-November 2020), and compared to initial planned sales of £156.1 billion for 2020-21 announced on 11 March 2020.

For the 2019-20 financial year, the DMO once again maintained its track record of successfully meeting the objectives of the financing and cash management remits set by HM Treasury ministers for the 2019-20 financial year. A total of £137.9 billion was raised by gilt sales compared with £98.6 billion in 2018-20.

In 2019-20, auctions remained the DMO's primary means of selling gilts and accounted for £115.1 billion of gilt sales. This sum included proceeds from the Post Auction Option Facility (PAOF), and represented 83.5% of the overall programme. The average cover ratio at gilt auctions in 2019-20 increased slightly to 2.18x from 2.09x in 2018-19.

The use of supplementary distribution methods, in the form of syndicated gilt offerings of long-dated conventional and index-linked gilts, again allowed the DMO to target its core domestic investor base directly. Five syndications were held in 2019-20 (one more than in the previous financial year), raising £20.4 billion (14.8% of total gilt sales).

The DMO also held four gilt tenders in 2019-20, raising £2.4 billion (1.7% of total gilt sales).

The bulk of the remaining unallocated supplementary issuance amount (£4.95 billion) was assigned to the auction programme to increase average auction sizes, which had been reduced due to take-up of the PAOF.

The gilt market continued to absorb the level of gilt supply in 2019-20 smoothly. The gilt market has grown and developed significantly over the past decade or so, with a greater diversity of investors. At the start of the global financial crisis, in 2007-08, the nominal (uplifted) value of the gilt portfolio was £479 billion. At the end of 2019-20, it was 3.38 times larger at £1,619 billion. Average daily turnover in the gilt market reported by GEMMs increased by 2.86% compared to the previous financial year to £37.4 billion. The presence of a deep and well-functioning gilt market remains critical to the DMO's ability to deliver successfully its debt management objective.

The DMO also continued to perform strongly in carrying out its cash management function in 2019-20, with all related objectives achieved despite very challenging money market conditions, particularly in the gilt repo market.

There was ongoing strong demand for Treasury bills in the financial year. As with gilts, Treasury bills continued to attract significant overseas investor interest, with around 42% of the amount outstanding at 31 March 2020 being held by this investor group.

The PWLB lending facility has continued to fulfil its statutory function. At 31 March 2020, the PWLB's loan book was £85.7 billion. Overall, 1,094 new loans totalling £10.4 billion were advanced during the financial year.

The DMO also 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 £43.7 billion at 31 March 2020.

Overall, in 2019-20, the DMO again performed very strongly across its range of activities and operations. Once again, I want to express my sincere appreciation to DMO staff, and to colleagues at HM Treasury and the Bank of England for their hard work and commitment in helping us to deliver our objectives, particularly during the current very challenging period during which Covid-19 has affected the UK. I am also grateful to our market counterparties for their professionalism and continued support throughout the year. The success of the DMO would not have been possible without all their contributions. I hope that the DMO will continue to be characterised by efficient operations and strong relationships with our stakeholders, guided by the fundamental principles of predictability and transparency, particularly during the unprecedented challenges facing us in 2020-21.

Sir Robert Stheeman

October 2020

Chapter 1: The Economy and Financial Markets

Macroeconomic developments

Global economic activity slowed sharply in the first quarter of 2020 as a result of measures introduced to control the developing Covid-19 pandemic. Travel restrictions, closure of workplaces and reduced consumer demand resulted in a very significant decline in global trade. Oil prices fell from over $65 to approximately $20 per barrel, the lowest level for nearly twenty years and many major global equity indices fell by over 30%. To bolster economic activity, governments and central banks around the world began to respond with exceptional fiscal and monetary policy measures.

Wuhan and other cities in the Hubei province of China were the first to be 'locked down' on 23 January 2020. China's Gross Domestic Product (GDP) contracted by nearly 10% in the period from January to March 2020.

In the euro area, a nationwide lockdown was imposed in Italy in early March 2020. Other countries soon followed, including the UK on 23 March 2020. Euro area GDP fell by nearly 4% in the period January to March. To support growth the European Central Bank announced plans for additional asset purchases totalling €870 billion by the end of 2019-20.

In the US the Federal Open Market Committee cut the target range for the federal funds rate from 1.5% - 1.75% to 0% - 0.25% in two meetings in March as the country recorded the highest number of confirmed Covid-19 cases in the world by the end of March and the sharpest increase in joblessness on record (in April).

Emerging market economies generally felt the adverse economic impact of Covid-19 somewhat later than advanced economies, therefore, the slowdown in their economic activity tended to be less severe in the period January to March 2020.

In the UK, real GDP on a quarter-on-quarter (q-o-q) basis contracted 2.5% in the final quarter of the 2019-20 financial year as the start of lockdown led to a sharp fall in economic activity in the latter part of March. Economic growth in the previous three quarters had been generally subdued with quarterly GDP rates of 0.0%, 0.3% and 0.1% as a lack of clarity about the terms and timing of the UK's withdrawal from the European Union (EU), in addition to political instability, were sources of uncertainty for businesses and consumers.

Consumer Prices Index (CPI) inflation was relatively stable at, or marginally above, the Bank of England's (Bank's) target rate of 2.0% year-on-year (y-o-y) in the first four months of the financial year. From July 2019 the rate fell from a financial year high of 2.1% to an in-year low of 1.3% in December 2019, largely driven by a fall in household utility prices (due to changes to the energy price cap), lower motor fuel prices and sterling weakness. Higher global oil prices and the impact of changes to an energy price cap contributed to the rate rebounding to 1.8% in January 2020 before the fall in the price of oil and impact from Covid-19 saw the rate easing to 1.5% by March 2020.

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 3.0% y-o-y before slowing steadily to an in-year low of 2.1% in October 2019. Upward pressures from motor fuels and utilities saw the rate increase to 2.7% in January 2020. As the financial year ended the rate had eased marginally to 2.6%.

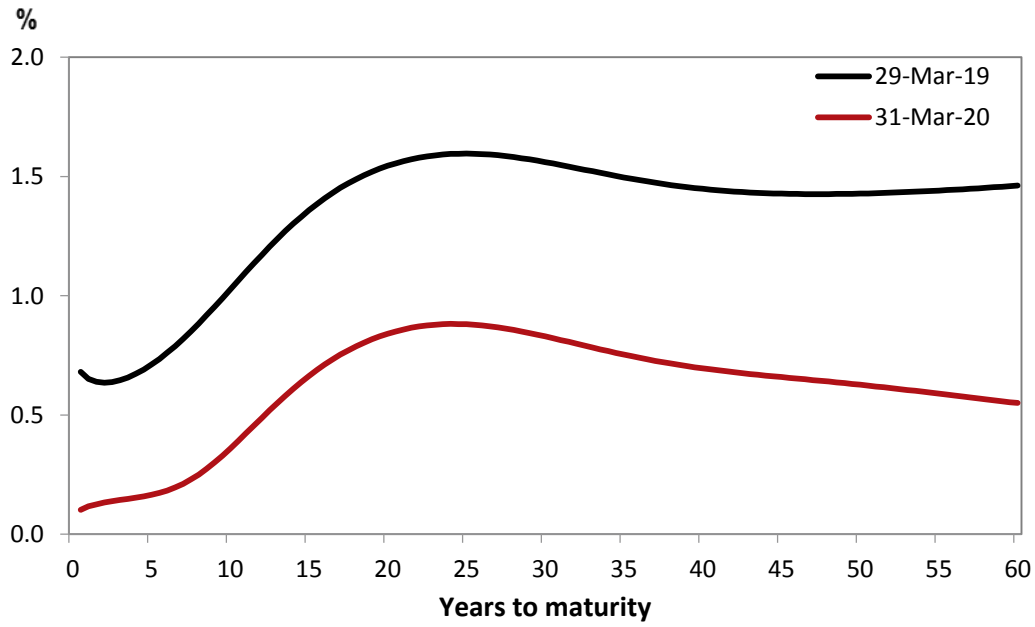
The Bank of England's Monetary Policy Committee (MPC) maintained Bank Rate at 0.75% for much of the financial year but, in response to disruption from the Covid-19 pandemic, the rate was lowered to 0.25% on 10 March 2020 and to the historic low of 0.10% on 19 March 2020, while the target stock of purchased gilts, financed by the issuance of central bank reserves, was increased from £435 billion to £625 billion.

Gilt market developments

Nominal par[1] gilt yields

Nominal par gilt yields fell significantly along the curve in 2019-20, particularly at longer maturities. 5-year par yields fell by 55bp to 0.17%, 10-year par yields fell by 67bp to 0.36%, 30-year par yields fell by 73bp to 0.82% and 50-year par yields fell by 80bp to 0.63%. See Chart 1.

Chart 1: Nominal par gilt yield curves



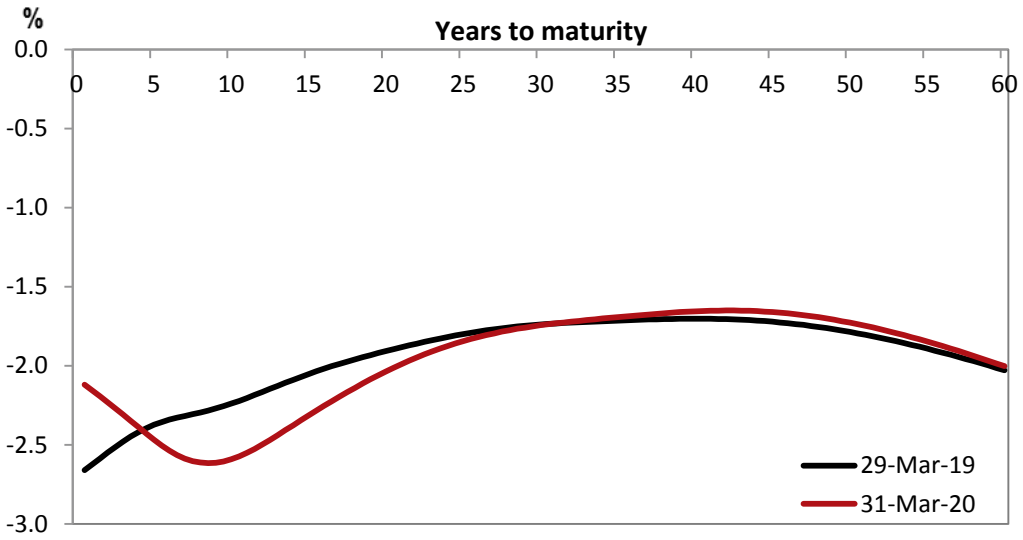
Source: DMO

Real par yields

Real par yields were, by contrast, relatively stable at the longer end of the curve. There were some moves at the shorter end of the curve, largely mirroring currency fluctuations. While 5-year real par yields fell by 10bp to -2.47% and 10-year par yields fell by 35bp to -2.59%, 30-year real par yields fell by only 0.5bp to -1.74%. By, contrast, 50-year real par yields rose by 6bp to 1.73%. 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.

Chart 2: Real par gilt yield curves



Source: DMO

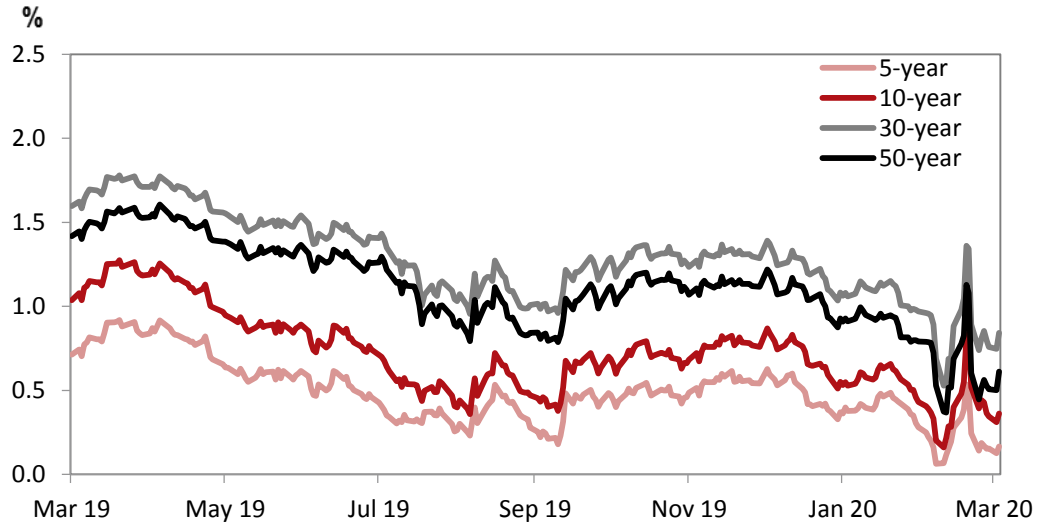
Nominal yields

Chart 3 shows the path of conventional benchmark gilt yields at 5-,10-, 30- and 50-year maturities in 2019-20. Yields fell steadily in the first half of the financial year reflecting bearish sentiment on global economic prospects exacerbated by geo-political developments, in particular concerning relations between the US and China: this led to safe haven flows into core bond markets.

Sentiment improved in the third quarter before the growing impact of Covid-19 in the final quarter of the financial year led to sharply declining economic activity, renewed safe haven flows and rapidly falling bond yields. In early-mid March 2020 the gilt (and other government bond) market had become dysfunctional, before concerted central bank intervention restored market equilibrium. The impact is illustrated in Chart 3.

Over the financial year the yield on the 5-year benchmark gilt fell by 55bp to 0.17% and that on the 10-year by 65bp to 0.36%, whereas the 30-year benchmark yield fell by 75bp to 0.84% and that on the 50-year fell by 81bp to 0.61%. See Chart 3.

Chart 3: Nominal gilt yields

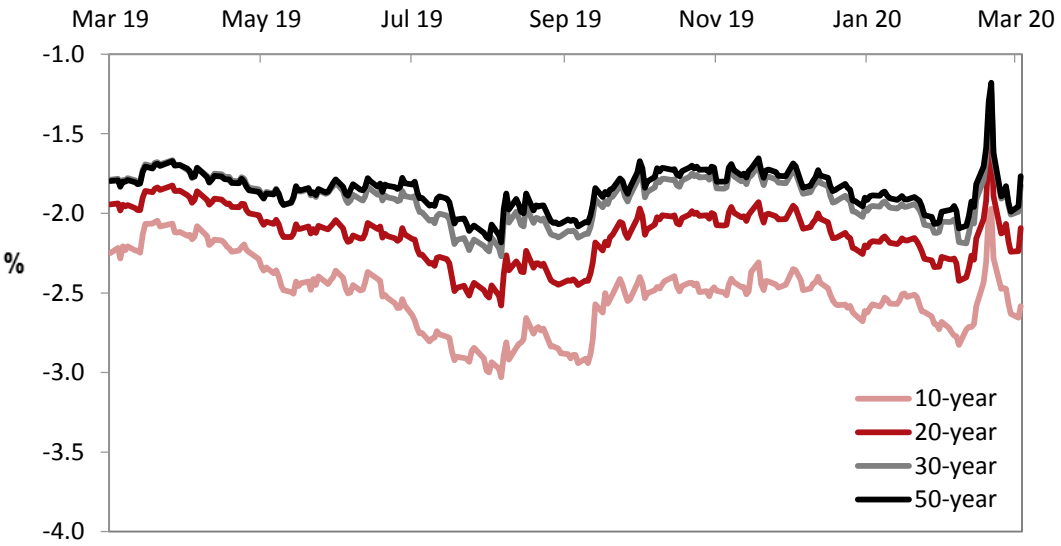


Source: DMO

Real gilt yields

Chart 4 shows the real yields on selected benchmark index-linked maturities in 2019-20, all of which fell over the course of the financial year. The real yield on the 10-year benchmark fell by 33bp to -2.58% over 2019-20 and the real yield on the 10-year fell by 15bp to -2.09%. Among longer maturities the real yield on the 30-year fell by only 3bp to -1.82% while that on the 50-year rose by 3bp to -1.77%.

Chart 4: Real gilt yields

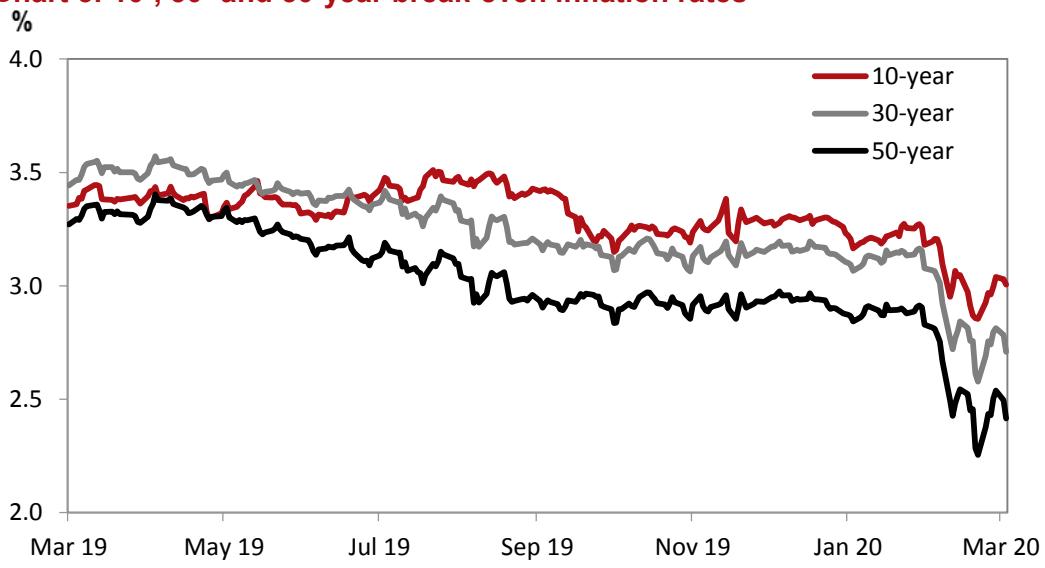


Source: DMO

Break-even inflation rates

Over the course of 2019-20, 10-year break-even inflation rates (BEIRs) fell by 35bp (to 3.01%), while 30-year and 50-year BEIRs fell more sharply by 73bp (to 2.71%) and 86bp (to 2.42%) respectively. Index-linked gilts, as measured by BEIRs, therefore, underperformed their conventional gilt counterparts significantly over the course of the financial year, to a greater extent at longer maturities. The under-performance at the start of March 2020 is likely to be reflective of the backdrop of the RPI consultation process. See Chart 5.

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

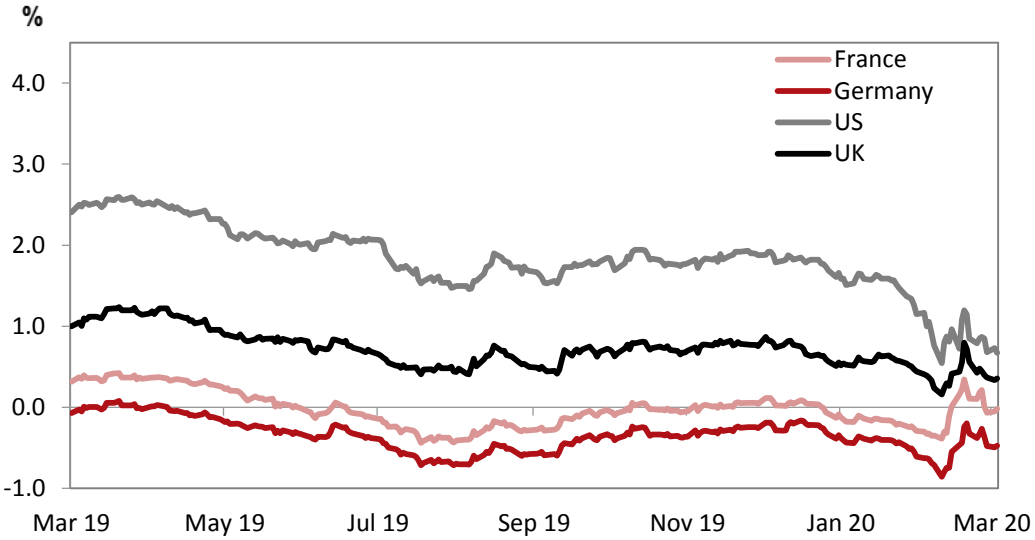


Source: Bloomberg/DMO

International comparisons

Yields on 10-year UK, US, German and French government bonds all ended the financial year lower. In the UK 10-year yields fell by 65bp, by 34bp in France by 40bp in Germany and 174bp in the US. See Chart 6.

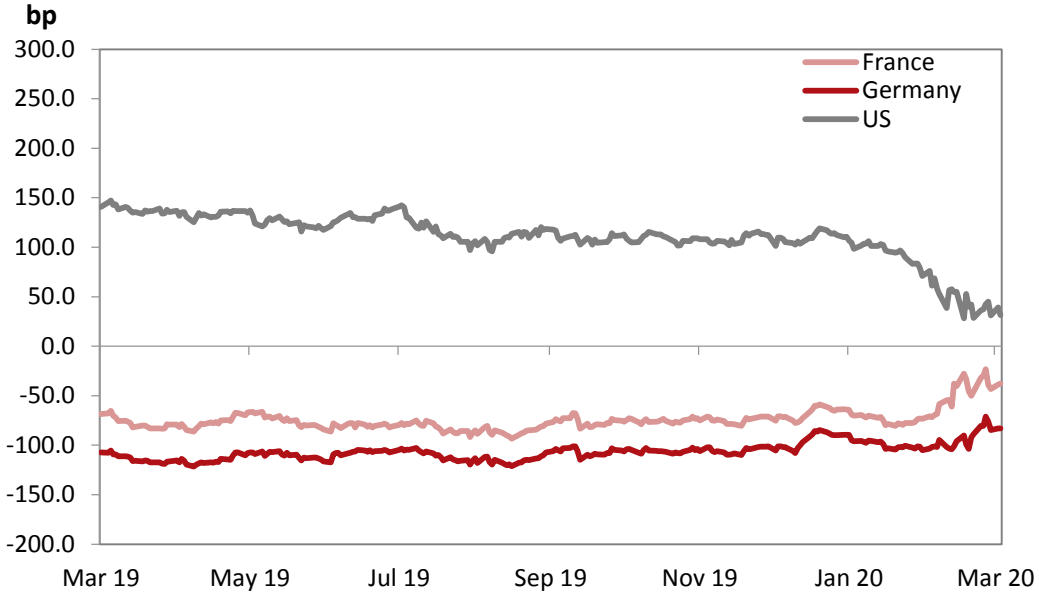
Chart 6: Selected international 10-year benchmark yields



Source: Bloomberg

The spread between 10-year gilt yields and comparable 10-year US Treasury yields and French and German bond yields narrowed significantly over the course of 2019-20 particularly so against US Treasuries, reflecting the extent of the reduction in official interest rates in the US towards the end of the financial year (see Chart 9). The spread against US Treasuries compressed by 110bp to 31bp, while against French bonds it narrowed by 30bp to -38bp. The spread between gilts and 10-year German bunds fell by 24bp to -83bp. See Chart 7.

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



Source: DMO

Gilt market turnover

Average daily turnover in the gilt market in 2019-20 was £37.4 billion, an increase of £1.1 billion from 2018-19. A deep, liquid and well-functioning gilt market is a key factor in enabling the DMO to deliver its financing requirements.

Aggregate gilt market turnover in 2019-20, as reported by the Gilt-edged Market Makers (GEMMs) rose by £300 billion (3%) compared with the previous financial year (from £9.19 trillion to a new record high of £9.49 trillion). Turnover fell in short conventional gilts by 0.6% to £2.23 trillion, in medium conventional gilts it rose by 1.7% to £3.38 trillion, by 9.2% in long conventional gilts to £2.11 trillion and in index-linked gilts by 4.8% to £1.77 trillion. Developments in gilt market turnover are shown in Table 1 and Chart 8.

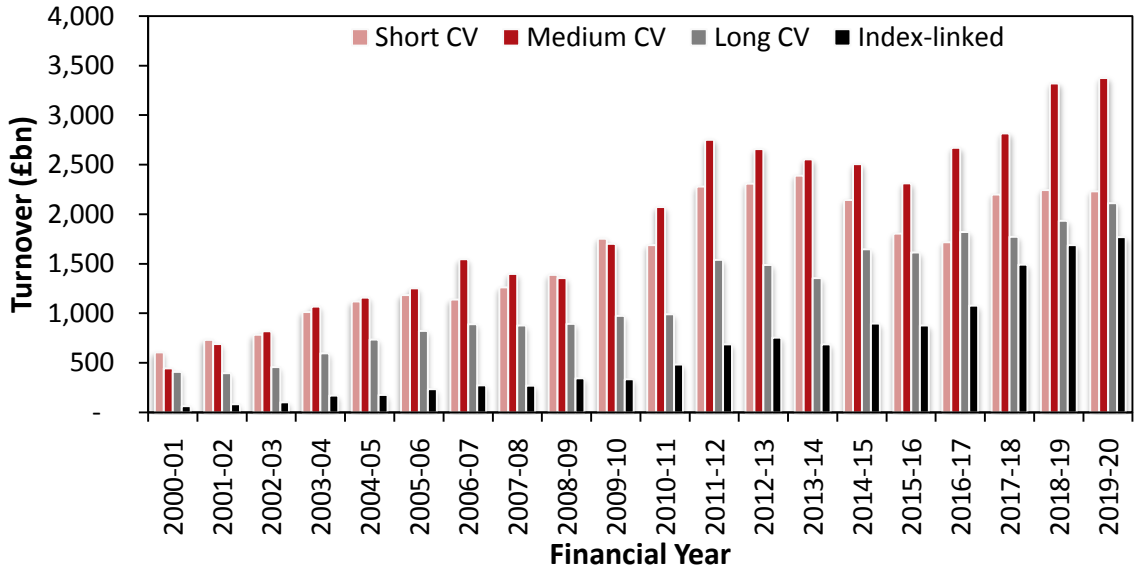
Table 1: Aggregate gilt market turnover by GEMMs (£ billion)[2]

	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**

Source: GEMMs

[2] 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



Source: GEMMs

Money market developments

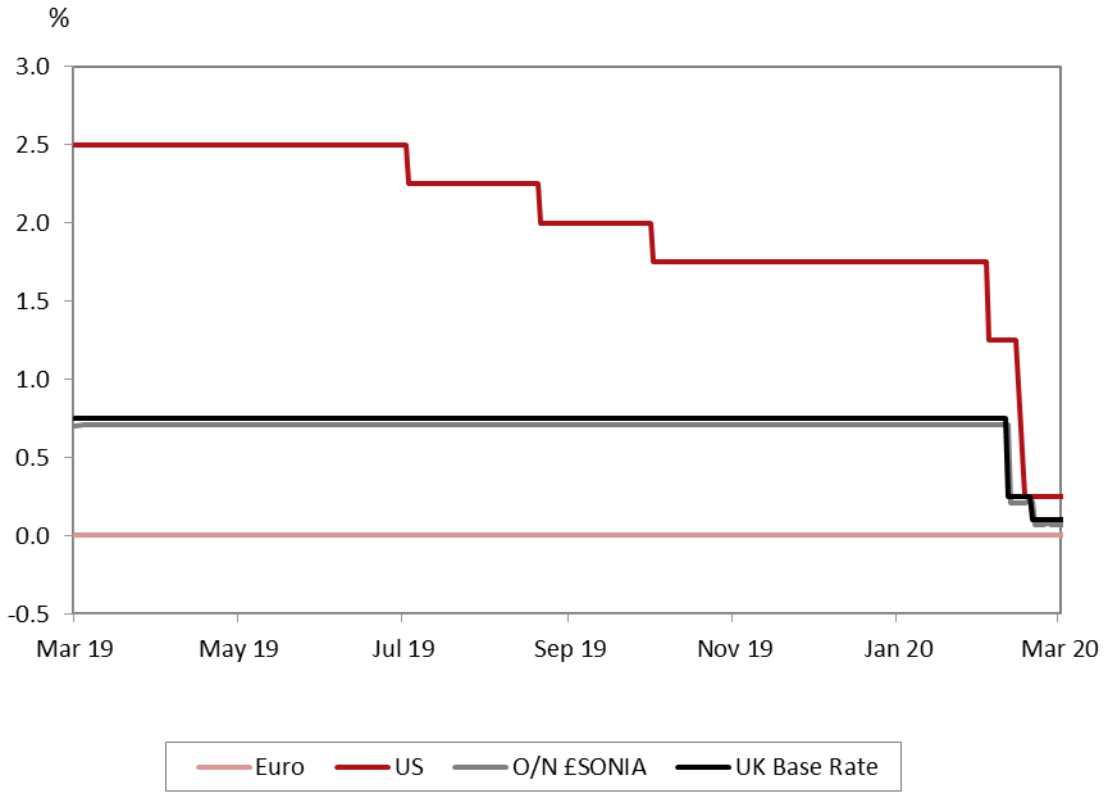
In the UK, Bank Rate was maintained at 0.75% for much of the financial year, but following special meetings on 10 and 19 March 2020, the MPC voted to reduce Bank Rate first to 0.25% and then to 0.10% to help support business and consumer confidence affected by the spread of Covid-19. This historic low level was maintained for the remainder of the financial year. To further support the economy, the MPC also decided at the special meetings to introduce a Term Funding Scheme to help small and medium-sized businesses, and increased the stock of purchased gilts from £435 billion to £625 billion. These purchases, financed by the issuance of central bank reserves, were scheduled to be completed by mid-June 2020.

The ECB maintained an accommodative monetary policy stance during 2019-20 keeping its main Refinancing Rate at a historic low of 0.0%. In September 2019 it reduced the deposit facility, the rate at which banks may make overnight deposits with the ECB, to a record low of -0.50% from -0.40% previously. In response to the economic disruption caused by the Covid-19 pandemic it also announced plans for additional asset purchases totalling €270 billion.

In the US, the Federal Reserve reduced the target range for the Federal Funds Rate by 1.50% in March to 0%-0.25%, and committed to purchasing over $1.5 trillion of US Treasuries, corporate bonds and asset-backed securities.

The pattern of official interest rates is shown in Chart 9.

Chart 9: Official interest rates



Source: Bloomberg

Chapter 2: Government Debt Management

The DMO's financing remit for 2019-20

In 2019-20, the DMO successfully delivered the gilt sales programme, as needed to meet the government's net financing requirement for the financial year. The DMO's planned gilt sales started the year at £114.2 billion, as announced in the Spring Statement on 13 March 2019. This amount was increased slightly to £117.8 billion, following the outturn for the Central Government's Net Cash Requirement (ex NRAM, B&B and NR) for 2018-19 on 24 April 2019. It was further increased to £122.8 billion at a remit adjustment on 12 November 2019 and then to £136.8 billion at a remit adjustment on 7 January 2020.

Net sales of Treasury bills were initially planned to make a £4.0 billion contribution to debt financing in 2019-20. This planning assumption was changed at the remit adjustment on 7 January 2020, when net sales of Treasury bills for debt management purposes were increased by £2.0 billion to a planned net contribution to financing of £6.0 billion.

A total of 43 gilt auctions were held in 2019-20, with an average release time for auction results of 4.0 minutes. Gilt auctions remained the core of the financing programme, raising £115.1 billion (83.5% of total gilt sales).

The auction programme was supplemented by a programme of five syndicated offerings (three of long-dated conventional and two of index-linked gilts) which raised £20.4 billion (14.8% of total gilt sales). Two of the syndications were increased in size above initial planning assumptions. This resulted in £0.7 billion of a £8.0 billion unallocated supplementary issuance amount being allocated to the syndication programme to accommodate these increases.

The bulk of the unallocated supplementary issuance amount (£4.95 billion) was allocated to the auction programme to increase average auction sizes, which had been reduced due to take-up of the Post Auction Option Facility (PAOF). In addition, £2.4 billion of the unallocated amount was sold at the four gilt tenders held in 2019-20.

The PAOF, through which successful bidders at gilt auctions have the right to acquire up to an additional set percentage (15% in 2019-20) of their auction allocation, was activated 26 times out of 43 auctions, raising £7.8 billion of the £115.1 billion proceeds from gilt auctions.

The major differences in the gilt issuance profile in 2019-20 compared to the previous financial year were increases in the short-dated and medium-dated proportions - reflecting the impact of the January 2020 remit adjustment (which focused on these maturities) and a further reduction in the proportion of index-linked issuance. The latter reflected the government's planned reform of RPI and preferences regarding inflation exposure.

The DMO also delivered a large Treasury bill sales programme comprising sales for both debt and cash management purposes. The stock of Treasury bills issued for debt management purposes rose by £6.0 billion during the year to £62.0 billion at 31 March 2020, more than reversing the reduction of £4.0 billion in 2018-19.

Table 2: The 2019-20 gilt financing remit structure at Spring Statement 2019

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	29.4	-	-	-	29.4 (25.8%)
Medium	24.8	-	-	-	24.8 (21.7%)
Long	17.8	13.0	-	-	30.8 (27.0%)
Index-linked	13.8	8.0	-	-	21.8 (19.1%)
Unallocated	-	-	-	7.3	7.3 (6.4%)
Total	**85.8 (75.2%)**	**21.0 (18.4%)**	**- -**	**7.3 (6.4%)**	**114.1**

Figures may not sum due to rounding.

Source: DMO

Table 3: The revised remit structure at 24 April 2019

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	30.5	-	-	-	30.5 (25.9%)
Medium	25.8	-	-	-	25.9 (21.9%)
Long	18.9	13.0	-	-	31.9 (27.1%)
Index-linked	14.1	8.0	0.5	-	22.6 (19.2%)
Unallocated	-	-	-	7.0	7.0 (5.9%)
Total	**89.3 (75.8%)**	**21.0 (17.8 %)**	**0.5 (0.4%)**	**7.0 (5.9%)**	**117.8**

Figures may not sum due to rounding.

Source: DMO

Table 4: The revised remit structure (12 November 2019 adjustment)

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	34.3	-	-	-	34.3 (27.9%)
Medium	26.9	-	-	-	26.9 (21.9%)
Long	21.3	13.7	0.9	-	35.9 (29.2%)
Index-linked	14.1	8.0	0.5	-	22.6 (18.4%)
Unallocated	-	-	-	3.1	3.1 (1.5%)
Total	**96.6 (78.7%)**	**21.7 (17.7%)**	**1.4 (1.1%)**	**3.1 (2.6%)**	**122.8**

Figures may not sum due to rounding.

Source: DMO

Table 5: The revised remit structure (7 January 2020 adjustment)

(£ billion Proportions in brackets)	Auction	Syndication	Gilt tender	Unallocated	Total
Short	42.8	-	-	-	42.8 (31.3%)
Medium	33.8	-	-	-	33.8 (24.7%)
Long	21.8	13.7	0.9	-	36.4 (26.6%)
Index-linked	14.1	8.0	0.5	-	22.6 (16.5%)
Unallocated	-	-	-	1.3	1.3 (1.0%)
Total	**112.5 (82.2%)**	**21.7 (15.9%)**	**1.4 (1.0%)**	**1.3 (0.9%)**	**136.8**

Figures may not sum due to roundin.5.

Remit 2019-20: Gilt sales outturn

The outturn for gross gilt sales in 2019-20 was £137.9 billion, £1.1 billion above the remit target set on 7 January 2020; this largely reflected the high level of take-up of the PAOF at auctions towards the end of the financial year. The gilt sales position at the end of 2019-20 is shown in Table 6 below.

Table 6: Gilt sales outturn 2019-20

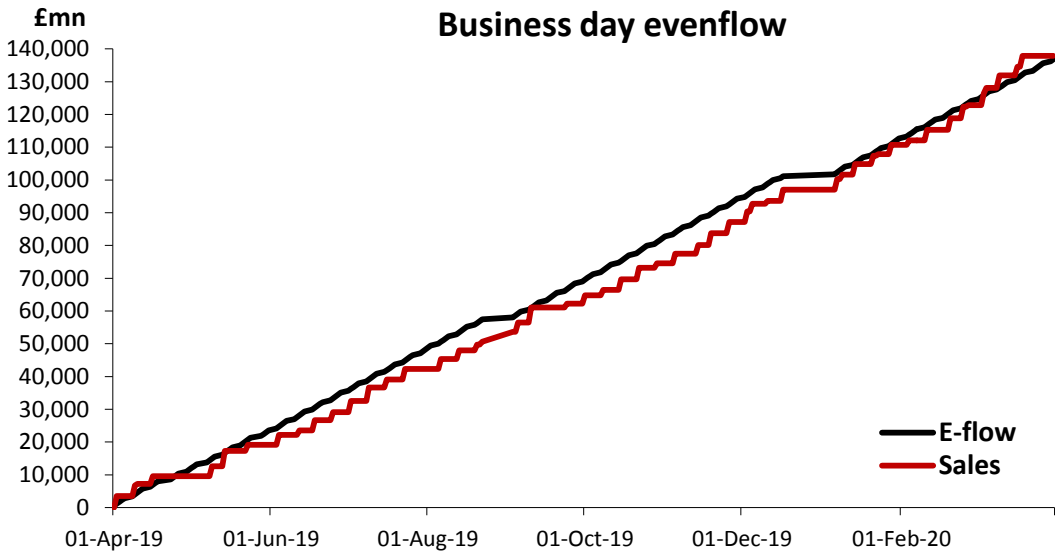
(£ million)	Conventional gilts			Index-linked gilts	Total
	Short	Medium	Long		
Auction proceeds	40,794	31,908	21,379	13,299	107,370
PAOF proceeds	2,201	3,252	1,211	1,094	7,758
Auction and PAOF proceeds	**42,995**	**35,160**	**22,590**	**14,393**	**115,138**
Syndication sales	-	-	12,590	7,787	20,377
Gilt tender sales	-	-	1,397	955	2,352
Total gilt sales	**42,995**	**35,160**	**36,577**	**23,134**	**137,867**
Planned gilt sales at auctions	42,840	34,008	21,800	14,100	112,478
Number of auctions scheduled	13	11	9	10	43
Syndication sales plans	-	-	13,700	8,000	21,700
Total planned supplementary gilt sales	-	-	-	-	24,052
Total planned gilt sales	**-**	**-**	**-**	**-**	**136,800**

Figures may not sum due to rounding.

Source: DMO

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 2019-20.

Chart 11: Cumulative gilt sales proceeds and business day even-flow 2019-20



Source: DMO

The in-year changes to the 2019-20 financing arithmetic are shown in Table 7.

Table 7: The 2019-20 financing arithmetic[1]

(£ billion)	Spring Statement 2019	April 2019 outturn	November 2019 revision	January 2020 revision	Spring Budget 2020	April 2020 outturn
CGNCR (ex NRAM, B&B and NR)	23.7	23.7	23.7	23.7	43.1	56.5
Adjustment to the DMO's financing remit	n.a.	n.a.	5.0	21.0	n.a.	n.a
Gilt redemptions	98.9	98.9	98.9	98.9	98.9	98.9
Redemption of the sovereign Sukuk	0.2	0.2	0.2	0.2	0.2	0.2
Planned financing for the Official Reserves	6.0	6.0	6.0	6.0	6.0	6.0
Financing adjustment carried forward from previous financial years	0.3	4.0	4.0	4.0	4.0	4.0
Gross financing requirement	**129.1**	**132.8**	**137.8**	**153.8**	**152.2**	**165.5**
less:						
NS&I net financing	11.0	11.0	11.0	11.0	10.1	11.4
Other financing[2]	0.0	0.0	0.0	0.0	0.0	-8.1
NFR for the DMO	**118.1**	**121.8**	**126.8**	**142.8**	**142.1**	**162.2**
DMO's NFR will be financed through:						
a) Gilt sales of which:	**114.1**	**117.8**	**122.8**	**136.8**	**136.9**	**137.9**
Short conventional gilts	29.4	30.5	34.3	42.8	42.8	43.0
Medium conventional gilts	24.8	25.8	26.9	33.8	34.0	35.2
Long conventional gilts	30.8	31.9	35.9	36.4	36.9	36.6
Index-linked gilts	21.8	22.6	22.6	22.6	23.1	23.1
Unallocated amount of gilts	7.3	7.0	3.1	1.3	0.0	0.0
b) Total net contribution of Treasury bills for debt financing	**4.0**	**4.0**	**4.0**	**6.0**	**6.0**	**6.0**
Total financing	**118.1**	**121.8**	**126.8**	**142.8**	**142.9**	**143.9**
DMO net cash position	0.5	0.5	0.5	0.5	0.5	-17.9

1 Figures may not sum due to rounding.

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 DMO's gilt financing operations in 2019-20

• Auctions

Auctions continued to be the primary issuance method for delivery of the DMO's gilt sales, accounting for £115.1 billion or 83.5% of gross gilt sales. 43 gilt auctions were held in 2019-20: 13 of short, 11 of medium and 9 of long conventional gilts, and 10 of index-linked gilts[3].

The average cover ratio at gilt auctions in 2019-10 was 2.18x, 4% higher than the average of 2.09x in 2018-19. The average concentration of bidding at conventional gilt auctions, as measured by the tail[4], remained tight, at an average of 0.5bp, the same as in the previous financial year. Details are shown in Table 8.

Table 8: Auction cover and tail 2018-19 and 2019-20

	Average cover ratio (x)		Average yield tail (bp)	
	2019-20	**2018-19**	**2019-20**	**2018-19**
Short conventional	2.10	1.99	0.7	0.5
Medium conventional	2.22	2.16	0.4	0.2
Long conventional	2.03	2.06	0.6	0.9
Index-linked	2.36	2.18	N/A	N/A
All	**2.18**	**2.09**	**0.6**	**0.5**

Source: DMO

• Syndicated offerings

Five syndicated offerings were held in 2019-20, raising £20.4 billion or 14.8% of gross gilt sales. The results of the syndication programme in 2019-20 are summarised in Table 9.

Table 9: Syndications in 2019-20

Date	Gilt	Size (£mn nominal)	Issue Price (£)	Issue Yield (%)	Proceeds (£mn cash)
14 May 2019	1⅝% Treasury Gilt 2054	4,750	100.607	1.603	4,768
9 Jul 2019	0⅛% Index-linked Treasury Gilt 2041	2,500	162.728	-2.094	4,186
10 Sep 2019	1⅝% Treasury Gilt 2054	4,000	115.557	1.091	4,614
19 Nov 2019	0⅛% Index-linked Treasury Gilt 2041	2,250	154.050	-1.878	3,601
11 Feb 2020	1⅝% Treasury Gilt 2071	2,500	128.494	0.930	3,207
Total					**20,377**

Source: DMO

[3] 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

[4] 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).

- **Gilt tenders**

Four gilt tenders were held in 2019-20 (there had been none in 2018-19). Proceeds from these operations totalled £2.4 billion or 1.7% of gross gilt sales. The results are summarised in Table 10.

Table 10: Gilt tenders in 2019-20

Date	Gilt	Size (£mn nominal)	Issue Price (£)	Issue Yield (%)	Proceeds (£mn cash)
10 Apr 2019	0⅛% Index-linked Treasury Gilt 2036	300	145.812	-2.026	477
22 Aug 2019	4¼% Treasury Gilt 2046	500	176.65	1.024	883
23 Jan 2020	0⅛% Index-linked Treasury Gilt 2048	250	180.41	-1.963	477
27 Feb 2020	1¾% Treasury Gilt 2057	400	128.48	0.858	514
Total					**2,352**

Source: DMO

The DMO's financing remit in 2020-21

The DMO's financing remit for 2020-21 was published on 11 March 2020. Planned gilt sales of £156.1 billion were announced, an increase of £42.0 billion (36.8%) compared to initial planned sales in 2019-20.

However, the size of the DMO's remit needed to be revised very quickly owing to the scale of the economic uncertainty surrounding Covid-19 and the package of measures announced by HM Treasury to support the economy through this period of disruption. It also became clear that, because of the level of uncertainty associated with expenditure on Covid-19 and its impact on the economy, it would not be practicable to estimate a financing requirement for the whole financial year; consequently, for the first time, the DMO structured its operations to deliver a series of partial extensions to the in-year financing programme (see below).

On 31 March 2020, the size of the previously planned gilt programme in April 2020 was increased to £45 billion and 11 gilt auctions were added to the calendar for that month alone. In the announcement on 31 March 2020, it was made clear that a further substantive revision to the remit would follow on 23 April 2020.

On 23 April 2020, the size of the planned gilt programme was significantly increased again: planned gilt sales for May-July 2020 of £180.0 billion were announced, taking planned sales for the first four months of 2020-21 to £225.0 billion. Further increases were announced on 29 June 2020 (taking planned sales to the end of August 2020 to £275 billion) and on 16 July 2020 (taking planned sales to the end of November 2020 to a minimum of £385 billion). The gilt auction programme from April to November 2020 includes 118 gilt auctions. In addition five syndications and one gilt tender have been held.[5]

This unprecedented increase in the financing requirement in 2020-21 required the DMO to make a number of significant changes to the way in which it manages its gilt sales activities:

- With effect from the week commencing 6 April 2020, for the first time, the DMO began scheduling two gilt auctions a day on two consecutive days (i.e. at least four auctions per week).
- Two bidding windows were established: from 9.00am to 10.00am for the first auction and from 10.30am to 11.30am for the second.
- The PAOF windows associated with the two auctions were 12.30pm to 1.00pm and 2.00pm to 2.30pm respectively.
- The rate of the PAOF was increased from 15% to 25% to incentivise auction participation.

[5] As at 14 October 2020.

Chapter 3: Exchequer Cash Management

Exchequer cash management remit 2019-20

The DMO's cash management remit for 2019-20, published alongside the Spring Statement on 13 March 2019, 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 2019-20. 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 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.

Instruments and operations used in Exchequer cash management

In 2019-20 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[6].

[6] 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 2019-20, 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.

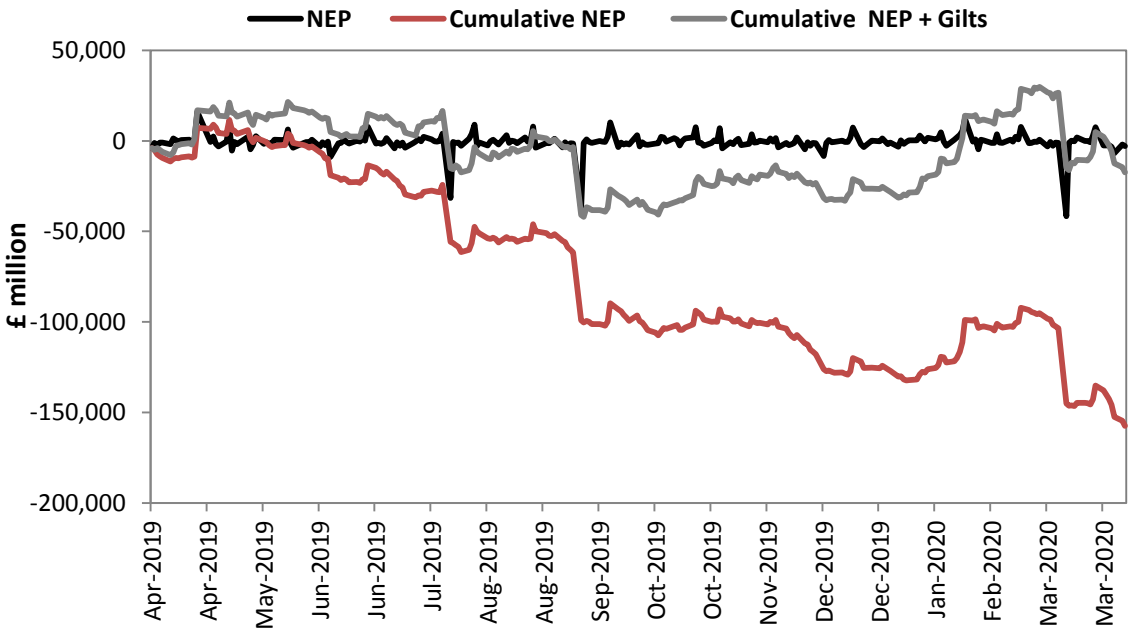
Cash management is conducted using market instruments in order to minimise cost whilst operating within agreed risk limits. Sterling-denominated repurchase agreements (repo) and reverse repurchase agreements currently dominate these transactions, though short-dated cash bonds, certificates of deposit, 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 12 shows the scale of daily cash flows measured in terms of the Net Exchequer Position (NEP) in 2019-20 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 12 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 12: Exchequer cash flows 2019-20



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 2019-20 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 2019-20 is at 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 funds under management of £43.7 billion by market value at end-March 2020, 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 2020 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) GEMMs and Inter Dealer Brokers (IDBs)[7]

B) Debt and cash management performance

C) The gilt portfolio

[7] See the DMO's website at: www.dmo.gov.uk/responsibilities/gilt-market/market-participants/

ANNEX B: Debt and cash management performance

This Annex includes data on the DMO's performance in the execution of the gilt financing and Exchequer cash management remits in 2019-20.

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 on page 19 of this publication reports on the average cover ratios at all gilt auctions in 2019-20 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[8]. These comprise (page references refer to the 2019-20 Accounts published on 14 July 2020):

- A performance summary of the DMO's main activities (pages 16-19);
- A report on achievements against agency objectives as set by HM Treasury (pages 22-24);
- A report on performance against agency targets (pages 26-29), 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.

[8] The Annual Report and Accounts for 2018-19 are available at: https://www.dmo.gov.uk/media/16024/dmodmarep2019.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 and syndicated offerings in 2019-20 was 0.779% (64.1bp lower than the 1.420% in the previous financial year).

The cash weighted average yield of issuance by type of gilt and maturity is shown in Table B1. Note that the index-linked yields reported in Tables B1 and B2 are nominalised yield equivalents of real yields assuming 3% RPI inflation.

Table B1: Average issuance yield by type and maturity of gilt in 2019-20

	Cash (£mn)	Yield (%)
Conventional		
Short	42,995	0.525
Medium	35,160	0.682
Long	36,577	1.226
Total conventional	**114,733**	**0.796**
Index-linked		
Medium	6,594	0.164
Long	16,539	0.837
Total index-linked	**23,134**	**0.645**
All issuance	**137,867**	**0.779**

Source: DMO

The actual yield of 0.779% 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 2019-20 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.

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Table B2: Illustrative average issuance yields assuming different issuance distributions

	Yield (%)	Actual distribution £mn	Shorter distribution £mn	Even distribution £mn	Longer distribution £mn
Conventional					
Short	0.525	42,995	57,366	38,244	28,683
Medium	0.682	35,160	28,683	38,244	28,683
Long	1.226	36,577	28,683	38,244	57,3665
Total conventional	**0.796**	**114,733**	**114,733**	**114,773**	**114,733**
Index-linked					
Medium	0.164	6,594	17,350	11,567	5,783
Long	0.837	16,539	5,783	11,567	17,350
Total index-linked	**0.645**	**23,134**	**23,134**	**23,134**	**23,134**
All issuance		**137,867**	**137,867**	**137,867**	**137,867**
Average issuance	**0.779**	**0.779**	**0.671**	**0.674**	**0.873**
Difference (bp)			**-10.8**	**-10.5**	**9.5**

Figures may not sum due to rounding.

Source: DMO

The more even distribution to financing by maturity produces an average yield of issuance 10.5bp lower than the actual average yield, reflecting the greater proportion of lower yielding short and medium conventional gilts at the expense of long conventional gilts. The shorter distribution[9] produces an implied issuance yield 10.8bp lower than the actual average yield while the longer distribution[10] produces an issuance yield 9.5bp 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.

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 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 2019-20 (i.e.10.30am).

[9] 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.
[10] 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.

Table B3: Auction concession analysis

Date	Gilt	Concession (-) Premium (£mn)
01-Apr-19	1% Treasury Gilt 2024	1.08
09-Apr-19	1⅝% Treasury Gilt 2028	1.37
19-Apr-19	1¾% Treasury Gilt 2037	2.27
09-May-19	1% Treasury Gilt 2024	0.75
23-May-19	0⅛% Index-linked Treasury Gilt 2028	-0.51
04-Jun-19	1% Treasury Gilt 2024	0.69
12-Jun-19	0⅛% Index-linked Treasury Gilt 2048	2.50
18-Jun-19	0⅞% Treasury Gilt 2029	0.72
25-Jun-19	1¾% Treasury Gilt 2049	2.25
02-Jul-19	0⅝% Treasury Gilt 2025	0.63
16-Jul-19	1¾% Treasury Gilt 2037	2.61
23-Jul-19	0⅞% Treasury Gilt 2029	0.99
06-Aug-19	0⅝% Treasury Gilt 2025	0.54
13-Aug-19	1¾% Treasury Gilt 2049	2.78
20-Aug-19	0⅛% Index-linked Treasury Gilt 2028	1.56
03-Sep-19	0⅝% Treasury Gilt 2025	0.54
05-Sep-19	0⅞% Treasury Gilt 2029	0.08
24-Sep-19	0⅛% Index-linked Treasury Gilt 2048	2.15
01-Oct-19	1¾% Treasury Gilt 2037	2.05
08-Oct-19	0⅛% Index-linked Treasury Gilt 2036	-1.63
15-Oct-19	0⅞% Treasury Gilt 2029	0.52
22-Oct-19	0⅝% Treasury Gilt 2025	0.75
29-Oct-19	0⅛% Index-linked Treasury Gilt 2028	0.61
5-Nov-19	0⅞% Treasury Gilt 2029	1.02
14-Nov-19	1¾% Treasury Gilt 2049	0.45
26-Nov-19	0⅝% Treasury Gilt 2025	0.54
03-Dec-19	0⅞% Treasury Gilt 2029	0.69
05-Dec-19	1¾% Treasury Gilt 2049	1.58
11-Dec-19	0⅛% Index-linked Treasury Gilt 2048	2.72
17-Dec-19	2% Treasury Gilt 2025	1.43
07-Jan-20	0⅞% Treasury Gilt 2029	0.77
09-Jan-20	0⅛% Index-linked Treasury Gilt 2028	0.50
14-Jan-20	0⅝% Treasury Gilt 2025	1.01
21-Jan-20	1¼% Treasury Gilt 2041	1.71
28-Jan-20	0⅞% Treasury Gilt 2029	1.07
04-Feb-20	0⅛% Index-linked Treasury Gilt 2036	0.08
20-Feb-20	1½% Treasury Gilt 2026	-0.03
25-Feb-20	0⅞% Treasury Gilt 2029	0.29
04-Mar-20	0⅝% Treasury Gilt 2025	-0.53
05-Mar-20	0⅛% Index-linked Treasury Gilt 2028	-0.07
10-Mar-20	4¾% Treasury Gilt 2030	0.56
17-Mar-20	1¾% Treasury Gilt 2049	-0.98
19-Mar-20	0⅝% Treasury Gilt 2025	-0.42
Aggregate all auctions		**37.69**
Average all auctions		**0.88**
Average conventional auctions		**0.90**
Short-dated conventional auctions		0.54
Medium-dated conventional auctions		0.73
Long-dated conventional auctions		1.64
Average index-linked auctions		**0.79**

Source: DMO

A total premium of £37.69 million was achieved across the 43 gilt auctions held in 2019-20, an average of £0.88 million per auction - the corresponding numbers in 2018-19 were £49.13 million and £1.36 million.

The largest premium was £2.78 million at the auction of 1¾% Treasury Gilt 2049 on 13 August 2019 and the largest (of seven) auction concessions was -£1.63 million at the auction of 0⅛% index-linked Treasury Gilt 2036 on 8 October 2019.

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 2019-20.

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 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.

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 2019-20.

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 2019-20[11] (compared with 24 out of 52 weeks in 2018-19). 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

[11] 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 43 out of 52 weeks (47 in 2018-19).

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 2019-20, 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 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 £35.0 million for 2019-20. The DMO's estimated transaction and management costs during 2019-20 were £11.3 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.

- The Exchequer's net cash position was successfully offset each day, though there was one instance of a liquidity risk limit breach in 2019-20. There were also two daily settlement breaches and one minor credit limit breach 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 2019-20 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 [12]) or the timing of the announcement of Treasury bill tender results[13]. There were no breaches of the cash management operational notice in 2019-20.

[12] 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 2018-19 the corresponding figure was £99.9%).
[13] The target is to release tender results within 15 minutes: the average release time was 4.9 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 2019-20 with the corresponding SONIA rates. Over the financial year the average accepted yields at one-, three- and six- month tenders underperformed the corresponding SONIA rates by 0.2bp, 4.4bp and 8.7bp 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 three times more than that of the average for one-month tenders. The average cover ratios were, however, somewhat more consistent across the three maturities (see Table B6)[14].

Table B5: Comparison of average Treasury bill tender yields with SONIA rates in 2019-20

	Average tender yield (%)	Average SONIA rate (%)	Difference (bp)
One-month	0.665	0.663	0.2
Three-month	0.690	0.646	4.4
Six-month	0.704	0.618	8.7
Average	**0.686**	**0.642**	**4.4**

Source: DMO/Bloomberg

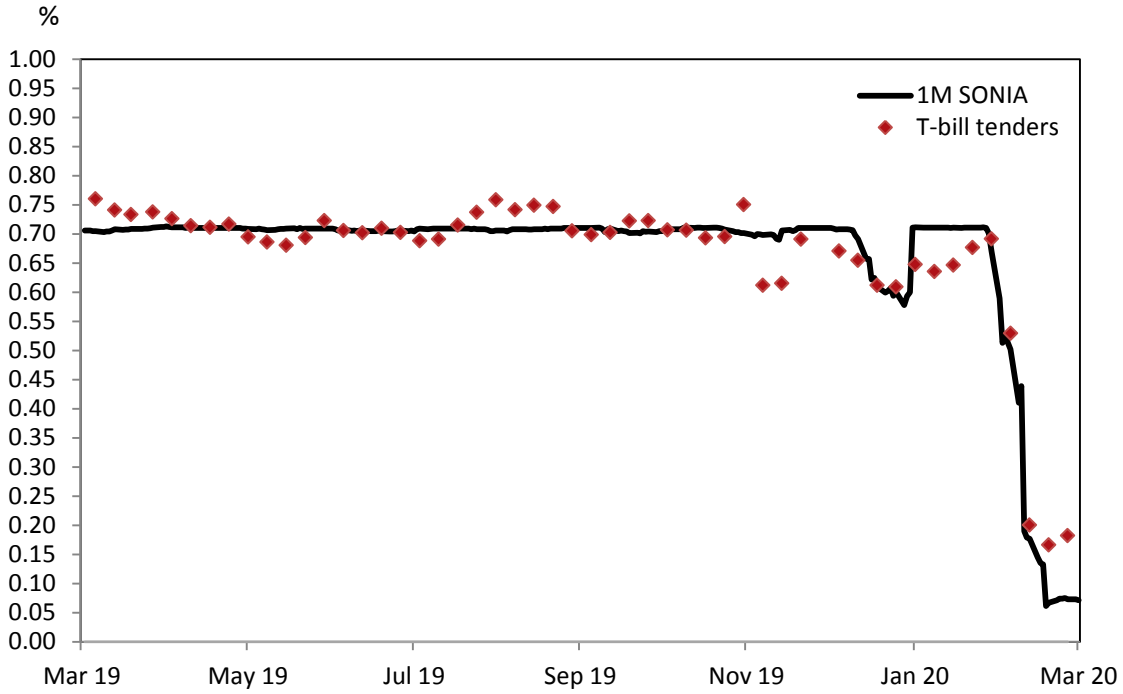
Table B6: Comparison of average Treasury bill tender sizes and cover ratios

	Average tender size (£mn)	Average cover ratio (x)
One-month	863	3.36
Three-month	1,892	2.73
Six-month	2,412	2.83

Source: DMO

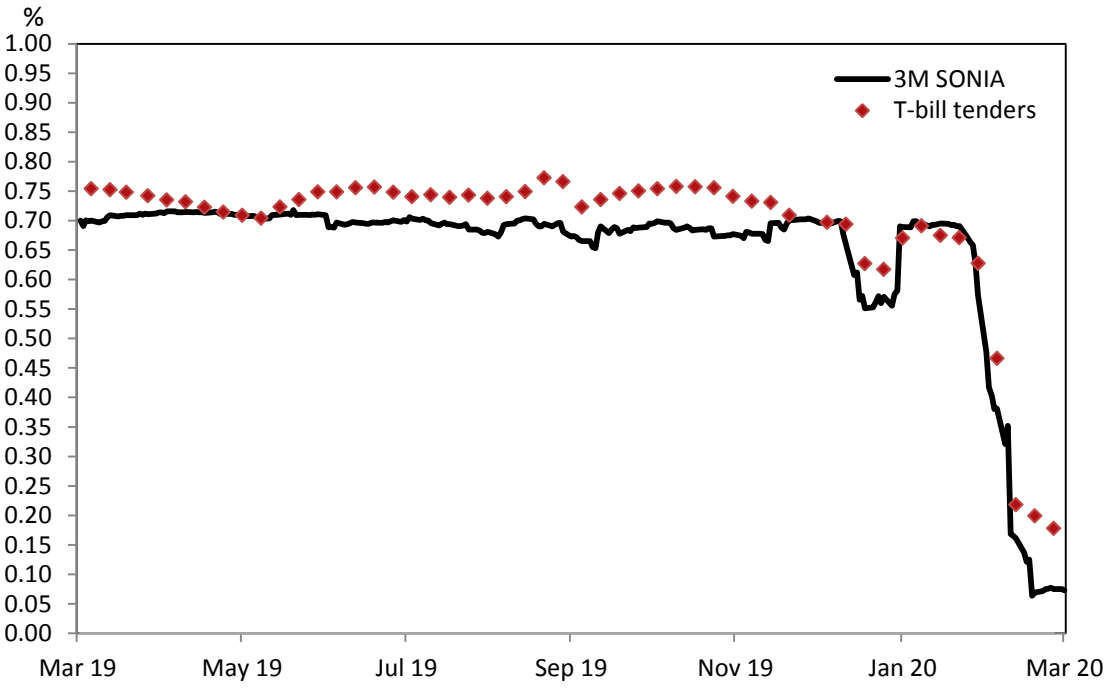
[14] In 2018-19 average cover ratios ranged from 2.44x to 3.04x.

Chart B1: One-month Treasury bill tender yields compared with SONIA rates in 2019-20



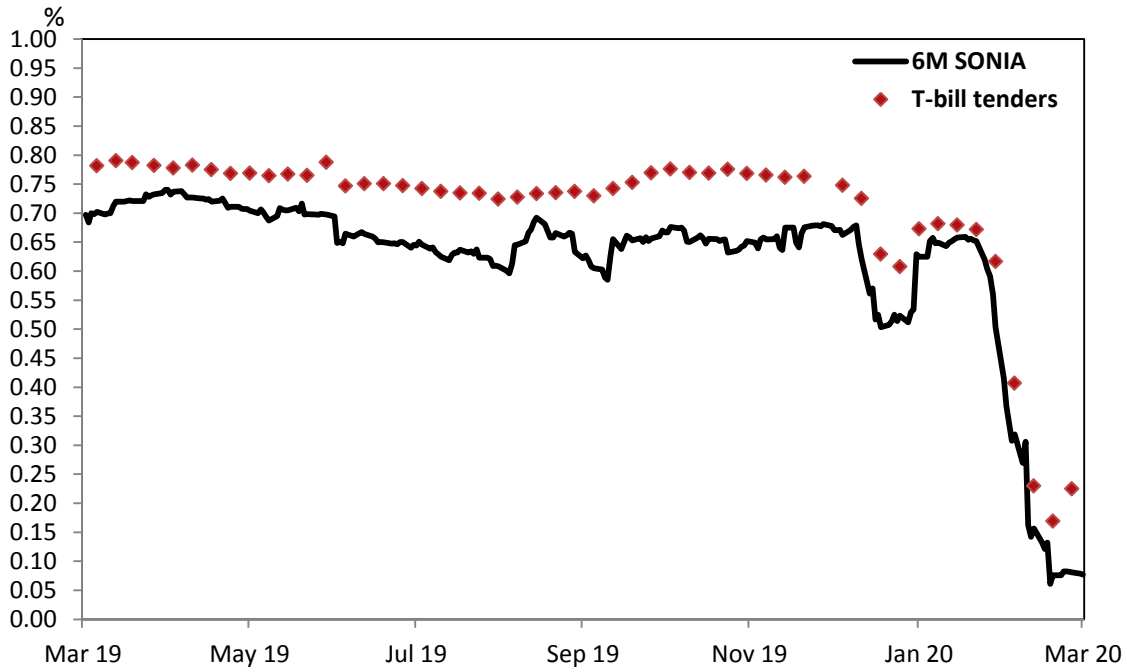
Source: DMO/Bloomberg

Chart B2: Three-month Treasury bill tender yields compared with SONIA rates in 2019-20



Source: DMO/Bloomberg

Chart B3: Six-month Treasury bill tender yields compared with SONIA rates in 2019-20



Source: DMO/Bloomberg

Annex C: The gilt portfolio

The gilt portfolio

The key statistics of the government's marketable debt portfolio at end-March 2020 compared to end-March 2019 are shown in Tables C1 and C2 below.

Tables C1 and C2: Debt portfolio statistics

Gross values (including DMO holdings)	29 March 2019	31 March 2020
Uplifted nominal value		
Debt portfolio	£1,648bn	£1,681bn
Conventional gilts	£1,155bn	£1,164bn
Index-linked gilts	£437bn	£455bn
Treasury Bills	£56bn	£62bn
Market value		
Debt portfolio	£2,224bn	£2,379bn
Conventional gilts	£1,448bn	£1,573bn
Index-linked gilts	£720bn	£745bn
Treasury Bills	£56bn	£62bn
Average maturity (nominal value-weighted)		
Debt portfolio	15.22 years	15.16 years
Gilt portfolio	15.75 years	15.74 years
Conventional gilts	14.25 years	14.45 years
Index-linked gilts	19.71 years	19.02 years
Average maturity (market value-weighted)		
Debt portfolio	17.91 years	18.19 years
Average yield (market value-weighted)		
Conventional gilts	1.11%	0.48%
Index-linked gilts	-2.06%	-2.11%
Average modified duration (market value-weighted)		
Conventional gilts	11.61	12.64
Index-linked gilts	22.18	22.06

Source: DMO

Net values (excluding DMO holdings)	29 March 2019	31 March 2020
Uplifted nominal value		
Debt portfolio	£1,533bn	£1,574bn
Conventional gilts	£1,048bn	£1,066bn
Index-linked gilts	£429bn	£447bn
Treasury Bills	£56bn	£62bn
Market value		
Debt portfolio	£2,065bn	£2,219bn
Conventional gilts	£1,301bn	£1,425bn
Index-linked gilts	£708bn	£733bn
Treasury Bills	£56bn	£62bn
Average maturity (nominal value-weighted)		
Debt portfolio	15.31 years	15.24 years
Gilt portfolio	15.89 years	15.86 years
Conventional gilts	14.23 years	14.44 years
Index-linked gilts	19.92 years	19.23 years
Average maturity (market value-weighted)		
Debt portfolio	18.09 years	18.34 years
Average yield (market value-weighted)		
Conventional gilts	1.10%	0.48%
Index-linked gilts	-2.06%	-2.11%
Average modified duration (market value-weighted)		
Conventional gilts	11.63	12.69
Index-linked gilts	22.38	22.21

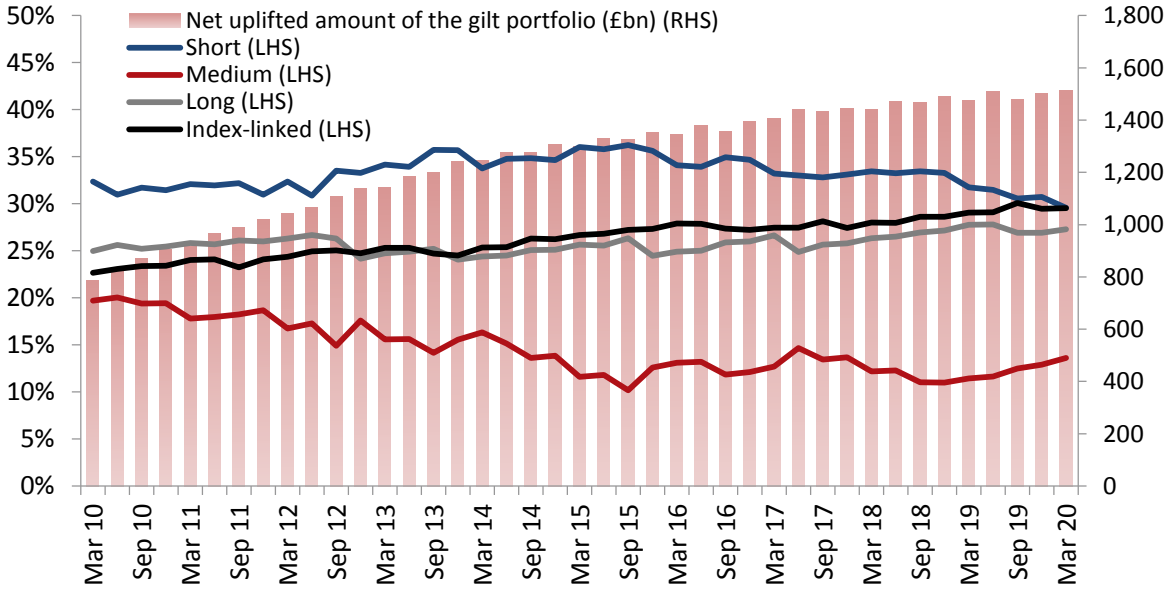
Source: DMO

The gross nominal value[15] of the gilt portfolio rose by 1.7% to £1,619 billion as gross gilt issuance plus inflation accrual on index-linked gilts exceeded gilt redemptions. The gross market value of the portfolio rose by 6.9% to £2,317 billion, reflecting the rise in the nominal value and an increase in gilt prices as indicated by the fall in yields over the course of the financial year (by 63bp in the case of nominal yields and 5bp in the case of real yields).

The growth and changing composition of the gilt portfolio is shown in Chart C1. Developments in portfolio maturity are shown in Chart C2.

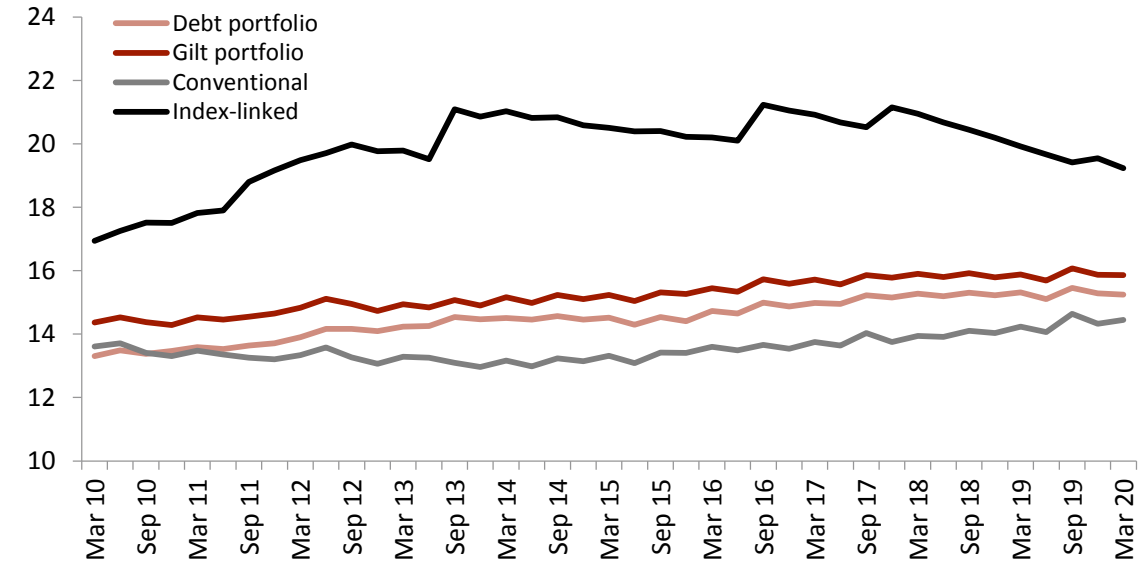
[15] Including inflation uplift on index-linked gilts.

Chart C1: Portfolio composition[16]



Source: DMO

Chart C2: Portfolio maturity (years)



Source: DMO

[16] 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