National Audit Office

REPORT

Managing government borrowing

HM Treasury

SESSION 2022-23
5 JULY 2023
HC 1658

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National Audit Office

Managing government borrowing

HM Treasury

Report by the Comptroller and Auditor General

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Gareth Davies
Comptroller and Auditor General
National Audit Office

27 June 2023

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Key facts

£110.6bn

of central government debt interest payments in 2022-23, net of the Asset Purchase Facility (APF), compared with £60.8 billion in 2021-22

£242.8bn

the Debt Management Office's (DMO's) 2023-24 total target for net borrowing on behalf of government

£7.5bn

the National Savings and Investments' (NS&I's) 2023-24 target for net borrowing on behalf of government

£486 billion	of debt the DMO raised in 2020-21 from gilts issued
25%	of government gilts are inflation-linked
£120 billion	total money invested in NS&I Premium Bonds at 31 March 2022 – 58% of its total portfolio

Summary

1 Government borrows when it spends more than it raises, for example from taxes. Government spending has exceeded income in every year after 2000-01, and in all but five years from 1970-71. In any year where government borrows more than it repays, its stock of debt increases. Borrowing provides government with flexibility to deliver policies and support the economy, particularly if tax receipts fall and spending increases. Government needs to pay interest on the money it borrows.

2 Central government borrowing takes place within a legislative and policy framework. HM Treasury (HMT) is responsible for fiscal policy (public finances) within government, and for delivering the government's overall debt management objective. HMT's objective in relation to debt management policy is "to minimise, over the long term, the costs of meeting the government's financing needs, taking into account risk, while ensuring that debt management policy is consistent with the aims of monetary policy".

3 The Debt Management Office (DMO) and National Savings and Investments (NS&I) are HMT's agents for implementing debt management policy. The DMO borrows on government's behalf from wholesale investors such as financial institutions through products such as 'gilts' which are government bonds, while NS&I borrows on behalf of government from retail investors through products such as Premium Bonds. The Office for Budget Responsibility (OBR) has responsibilities that include forecasting the government's borrowing needs. The Bank of England (BoE) has relevant responsibilities, including: setting monetary policy independently of government to achieve an inflation target of 2%;[1] and identifying and monitoring risks that threaten the resilience of the UK financial system in order to maintain financial stability.

4 Government's actions to protect the economy and public health in response to 'shocks' have contributed to debt rising over time, which has in turn played a part in higher debt interest payments. Debt has increased since 2000 mainly because of the 2007–2009 global financial crisis when the government provided support to the banking sector, and the response to the COVID-19 pandemic, alongside the wider economic impact of these shocks on tax receipts, which fell. Other reasons include government support on energy bills provided to households and businesses in the wake of Russia's invasion of Ukraine. Increasing debt means increased interest payments, as does increasing interest rates. Inflation was more than 10% at March 2023, and around 25% of government's gilts are inflation-linked.[2]

1 As measured by the Consumer Prices Index (CPI).
2 General price inflation is measured by CPI; government gilts are linked to the Retail Prices Index (RPI).

5 Since our 2017 report, *Evaluating the government balance sheet: borrowing*, the environment within which government borrows has become more challenging.[3] The stock of government debt, as measured by public sector net debt excluding the Bank of England, was an estimated £2,247 billion at the end of 2022-23.[4] As a percentage of gross domestic product (GDP), this was the highest level since the 1960s and the OBR forecasts debt using this measure will peak in 2026-27, while in monetary terms the OBR forecasts debt will rise further in 2027-28. Rising debt following the financial crisis is a trend similar to other developed economies. Net borrowing for the 2020-21 financial year, measured by public sector net borrowing excluding public sector banks (PSNB ex) reached £331 billion, higher than any year from 1955-56 onwards, because of pandemic-related spending. Government debt interest payments were an estimated £110.6 billion in 2022-23, compared with £60.8 billion in 2021-22.

6 The increasing cost of government debt has significant implications. If debt costs rise, borrowing may need to increase further so that government can meet higher debt interest payments. There is a range of factors determining debt costs, including the level of borrowing, the composition of debt and the confidence of private markets in government's ability to repay debt, which informs investors' willingness to lend. As debt servicing costs rise, choices about spending in different government areas become more acute, particularly at a time when higher inflation places greater pressure on existing budgets. Ministers are responsible for making judgements about taxation, spending and borrowing, including assessments of the affordability of debt and borrowing levels.

Scope of this report

7 This report examines how public bodies pursue the government's debt management objective, and particularly how government manages the risks of borrowing. It focuses on debt that central government issues. The report does not seek to comment on the merits of fiscal and monetary policy objectives, and levels of tax, spending and borrowing, which are decisions for ministers. Nor does it evaluate whether government is meetings its fiscal objectives and targets, which is the OBR's responsibility.

3 Comptroller and Auditor General, HM Treasury, *Evaluating the government balance sheet: borrowing*, Session 2017-2019, HC 526, National Audit Office, November 2017.

4 In this report, we have shown OBR and Office for National Statistics (ONS) data on public sector net debt, public sector net borrowing and debt interest in 2022-23 prices. Unless otherwise stated, all other amounts are shown in current prices at the time they were reported.

Key findings

The government's debt management approach and performance

8 **Government's debt management approach is long-established and reviews of individual elements to date have found that it is operating effectively.** The processes of issuing debt through the DMO and NS&I have remained broadly unchanged since the late 1990s, when the DMO was set up. While the framework has been tested – most notably during the financial crisis and the pandemic – external conditions affecting the framework have changed over time and events can move quickly. HMT has undertaken separate 'Tailored Reviews' of the DMO and NS&I which found they were operating effectively; and the OBR's evaluation of its forecasts for net borrowing found that they are more accurate than HMT's were before the OBR's creation. There are opportunities for HMT, the DMO and NS&I to capture and apply lessons from those testing conditions, to inform assessment of whether the framework is still optimal as external circumstances change. To date HMT has not conducted a review of how the debt management framework as a whole is adapting to a changing external environment, or how well the individual elements of the framework fit together (paragraphs 2.18 to 2.22).

9 **Government has been able to borrow to meet its spending needs, including during the financial crisis and the pandemic**. HMT ministers set the DMO and NS&I each an annual target, called a 'remit', to borrow what government needs. The DMO delivered its remit in 2020-21 when its gilt remit increased by £330 billion during the year to £486 billion of borrowing to support the government's pandemic response. NS&I has borrowed on government's behalf at or above HMT's expectations in the past 10 years except in 2020-21, when it raised £24 billion after its remit was revised upwards from £6 billion to £35 billion. At times the DMO may need to prioritise delivering its remit over other factors, including minimising the impact on borrowing costs (paragraphs 2.2, 2.3 and 2.12 to 2.15 and Figure 7).

10 **The parties who hold most government debt have changed over the past 15 years.** In 2008, during the financial crisis, insurance companies and pensions funds collectively held the highest proportion of government debt. In 2009 the BoE began a quantitative easing (QE) programme with the aim of lowering interest rates, encouraging spending in the economy, and meeting the Monetary Policy Committee's (MPC's) inflation target. It does this by creating new money electronically to buy government gilts in the secondary market (from financial institutions, rather than directly from the DMO). At the end of December 2022, the BoE held the highest proportion of government gilts, at £650 billion (paragraphs 2.8 and 3.17, and Figure 13).

11 Measuring performance against government's debt management objective is complex. The objective (paragraph 2) is high-level and not directly measurable. It also requires simultaneous assessments of both cost and risk "over the long term" of the debt portfolio. HMT and the DMO do not have a set of more measurable intermediate objectives, success criteria and indicators allowing a quantitative assessment of whether government is meeting the debt management objective. Instead, government takes assurance about cost-effectiveness from a range of factors, including the healthy functioning of the competitive auctions by which the DMO raises most debt, and the DMO's analysis of different maturities and which mix of gilts can be expected to offer better value at different levels of inflation. These factors should be seen in the context of comments made in our interviews with the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), who told us that the UK debt management framework and the DMO's role in it is widely respected internationally. NS&I used a 'Value Indicator' that provided some evidence over time that its borrowing on government's behalf was cost-effective. However, HMT has withdrawn the Value Indicator for formal monitoring purposes because NS&I had limited influence over factors upon which the calculation was based (paragraphs 1.4, 1.5 and 2.15 to 2.17).

Managing risks to debt management objectives

Maintaining confidence among investors

12 DMO's ability to borrow on government's behalf depends on the willingness of lenders. In deciding what type of gilts to issue, and over what period, the DMO seeks to meet the government's objective around long-term cost minimisation subject to appropriate management of risk, while also considering market appetite to ensure government's borrowing needs are met. Market confidence is critical to borrowing costs, as events following the Growth Plan, also known as the mini-budget, in September 2022 illustrated. The DMO maintains market confidence by being transparent and predictable in its market engagement. We interviewed representatives of approved intermediaries, called Gilt-edged Market Makers (GEMMs), through which the DMO issues gilts, who were strongly positive about DMO's approach (paragraphs 3.5 and 3.19 to 3.21).

Striking a balance between benefits and risks

13 Government must weigh up the benefits and risks when deciding for how long to borrow. When issuing gilts, government must consider how long it wishes to borrow for – the debt's 'maturity'. The longer the maturity, the longer the interest rate is locked in on a fixed-rate gilt and the lower the government's exposure to changes in interest rates. But investors may prefer shorter maturities as it means they will not be locked into a poor rate if interest rates go up. During the COVID-19 pandemic the DMO was able to sell very high amounts of short-dated debt to fulfil its remit. When demand is high for short maturity gilts, the DMO must balance meeting this demand with the fact that short-dated debt exposes government to the risk of having to regularly refinance the debt, potentially at a worse rate. The BoE's QE programme bought large volumes of gilts and created new central bank reserves to finance these purchases. This means that this portion of government debt is more sensitive to the BoE's 'Bank Rate' movements because the interest rate on gilts is usually fixed, and rates on central bank reserves are variable. As the Bank Rate rises, government's debt interest payments rise faster than they would have done in the absence of the QE programme. The converse applies when the Bank Rate falls (paragraphs 1.13, 2.7, 3.6 and 3.10 to 3.14, and Figure 9).

14 Government must also decide how much of the debt it issues is linked to inflation. In the UK around 25% of total government gilts in issue are index-linked – which means the debt payments are linked to inflation. In 2018, following OBR analysis, HMT decided to reduce the proportion of new index-linked gilts issued in a "measured fashion over the medium term", as it was concerned about potential exposure to inflation.[5] In 2022 HMT decided that the proportion of index-linked gilts issued each year was appropriate. UK investors' demand for index-linked gilts is higher than in other countries partly because of demand from defined benefit pension schemes, which are more common in the UK than elsewhere. At times when borrowing needs are most acute, achieving a balance is complex – in recent years the DMO has been able to secure better value on its index-linked gilts because of strong demand from investors seeking inflation protection. The DMO's analysis prior to the Spring Budget in March 2023 showed that index-linked gilts were forecast to be more cost-effective than conventional gilts at maturities greater than or equal to 20 years, if inflation (RPI) does not exceed an average of 3% over the gilts' life (paragraphs 2.6, 3.5 to 3.9, and Figure 8).

5 HM Treasury, *Budget 2018*, October 2018.

15 **In providing savings products for retail investors, NS&I must balance three factors.** HMT requires that NS&I balances three factors: the interests of savers; the interests of taxpayers; and the stability of the broader financial services sector, including by maintaining an appropriate competitive position. NS&I has 25 million savers and more than half (58%) of its debt portfolio, nearly £120 billion invested, is in one product – Premium Bonds. NS&I told us its average customer age is 51 and that one of the challenges it faces to attract younger customers, who tend to follow market-leading rates, is that it cannot match these rates as it needs to maintain an appropriate competitive position. If NS&I were to always offer market-leading rates, it would not be balancing its three factors. NS&I told us it is taking steps to address the ageing demographic of its customers by making products more accessible, and appealing, to a younger age group (paragraphs 2.9 to 2.11 and 3.24, and Figure 6).

Making the system work

16 **Government's financing needs have changed in-year more frequently recently than in the past.** Between 2019-20 and 2021-22, government changed the amount it expected NS&I and DMO to borrow on its behalf outside of the usual Budget cycle (the March Budget and the autumn fiscal event). For example, in responding to the pandemic, HMT revised upwards DMO's gilt remit for 2020-21 through successive increases, from £156 billion in March 2020 to £486 billion in November 2020, and NS&I's remit from £6 billion to £35 billion in July 2020. To minimise risks of an impact on monetary policy, HMT instructs DMO to borrow no more than it needs in-year; this means, for example, that if the DMO's remit reduces in-year, the DMO will likely reduce the pace and volume of sales. HMT asks the OBR for forecasts at least twice each year, which are used to make remit-setting as accurate as possible. However, forecasting is time-consuming and costly, so HMT does not always ask for additional forecasts before changing remits in-year. The OBR told us that it could support remit revision reviews at other times, which could improve accuracy. It acknowledged that, because of the cost, this would need to be done in a proportionate way (paragraphs 2.3, 2.12 to 2.14, 3.15 and 3.16).

17 **The DMO is liaising operationally with the BoE regarding unwinding of its QE programme.** The BoE's MPC is responsible for monetary policy decisions. In our 2017 report we recommended that, consistent with the MPC's statements, the BoE should liaise closely with the DMO when carrying out market operations to reduce the stock of assets held under the QE programme. We noted that effective coordination was required to mitigate the risk of disruption to gilt market conditions. The MPC voted to reduce the stock of UK government bonds held under the QE programme by £80 billion in the 12 months from September 2022, through gilt sales, and gilts maturing; the BoE began selling gilts in November 2022. The DMO and the BoE are engaging with each other operationally over their respective gilt sales to manage potential risks as the BoE unwinds the QE programme (paragraphs 1.6, 3.17 to 3.18).

18 DMO and NS&I are managing organisational risks. Debt management activities are often complex, requiring experience and judgement.

- The DMO's role requires it to recruit and retain skills most commonly found in financial markets. These skills often attract remuneration beyond the DMO's 'offer', which presents recruitment and retention risks. Additionally, there are risks regarding key personnel retiring. The DMO has established a team to look at recruitment and retention challenges, and succession planning; the DMO is identifying areas, including its resources, to discuss with HMT (paragraphs 3.22 and 3.23).
- NS&I relies on one service provider – Atos – which operates its entire back-office and customer-facing operations. The Tailored Review found that NS&I believes this contract works well, but there have been issues with change and transformation projects. NS&I is undertaking a transformation programme moving to a model involving several service providers. This is aimed at ensuring NS&I can respond proactively to market changes and scale up its business more efficiently when required. The Atos contract was due to expire in 2024 but, because of delays to the transformation programme, NS&I activated a contract clause to retain Atos until April 2025 at the earliest. NS&I has shared with us documentation relating to planning for its future operating model and transition to a multi-provider model. However, we have not seen an NS&I plan specifically around internal skills and capacity needed to deliver this work (paragraphs 2.21, 3.22, 3.24 and 3.25).

Concluding remarks

19 The environment for borrowing and debt management has become more challenging since our last report in 2017. As in other countries, the pandemic led to a large increase in borrowing to accommodate higher government spending to protect public health and the economy. More recently, interest rates have increased as central banks seek to combat inflation – this raises the interest costs of new government borrowing. Against this backdrop the government has been able to borrow its target amounts through the work of the DMO and NS&I. But at the time of this report, debt interest payments are one of the largest items in government spending.

20 The environment within which the DMO and NS&I borrow on behalf of government continues to change, and there are substantial challenges ahead for debt management including refinancing the borrowing made in response to the pandemic. The DMO and NS&I recognise these challenges, but some risks require an increased focus. For example, the DMO faces significant retention risk that it and HMT will need to manage carefully, and NS&I is concentrated in its operations, products and investors and will need to develop ways of diversifying these risks.

Recommendations

21 We make the following recommendations:

a **HMT should consider ways to align and extend how it measures progress against the debt management objective, while recognising the inherent challenges.** This should include developing further its quantitative and qualitative evidence base to feed into an overall assessment, aligning with performance metrics and monitoring of the DMO and NS&I where appropriate.

b **HMT should periodically review the appropriateness of individual elements of the debt management framework, and how the individual elements work together.** It should formally capture lessons from when the framework has responded to testing conditions.

c **HMT, working with the OBR, should explore how remit revisions outside regular fiscal events can be supported by quicker, more focused OBR assurance.** This assurance should be proportionate, taking account of the event under assessment and the costs to public bodies in producing forecasts.

d **The government should ensure that it has plans to manage skills and capacity risks to its debt management operations.**

- The DMO should implement a plan for mitigating the risks of losing key personnel.
- The NS&I should implement a plan for internal skills and capacity, clearly linking this to how it manages major projects and to its plans for contract management as it moves away from a single provider model.
- HMT should review these plans and examine whether the resources needed to deliver the plans are appropriate.

Part One

Background

1.1 This Part outlines why government borrows and describes the government's fiscal framework (how it manages public finances). It summarises trends and forecasts for debt, borrowing and debt interest, and outlines our previous findings on government borrowing.

1.2 The government must borrow if its receipts, for example from taxes, fall below its spending needs. Borrowing provides government with flexibility to support the economy, particularly if tax receipts fall and spending increases. Government spending has exceeded income in every year after 2000-01, and in all but five years from 1970-71. In any year where government borrows more than it repays, its stock of debt increases.

1.3 Government borrowing carries costs, including paying investors interest on the money they lend it. The government must ultimately repay its debt and manage the risk that debt becomes unsustainable in the longer term.

The fiscal framework

1.4 The government's fiscal framework and debt management policy is set out in the Charter for Budget Responsibility, which the Budget Responsibility and National Audit Act 2011 requires the government to produce and update. HM Treasury (HMT) is responsible for the government's fiscal and debt management policy, and for delivering the government's overall debt management objective. Ministers are responsible for making judgements about taxation, spending and borrowing, including assessments of the affordability of debt and borrowing levels.

1.5 HMT's debt management objective is "to minimise, over the long term, the costs of meeting the government's financing needs, taking into account risk, while ensuring that debt management policy is consistent with the aims of monetary policy".[6] The Debt Management Office (DMO) and National Savings and Investments (NS&I) are HMT's agents for implementing debt management policy. The DMO borrows on government's behalf from wholesale investors such as financial institutions through products such as 'gilts', which are government bonds, while NS&I borrows on behalf of government from retail investors through products such as Premium Bonds. HMT has said the debt management objective is achieved by:

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

1.6 The Office for Budget Responsibility (OBR) is independent of government and its main duty is to examine and report on the sustainability of the public finances. This duty includes forecasting the government's cash and borrowing needs. The OBR is also responsible for making judgements at each fiscal event on whether the government is likely to meet its fiscal objective. The Bank of England (BoE) has relevant responsibilities, including: setting monetary policy independently of government through its Monetary Policy Committee (MPC), to achieve an inflation target of 2%;[7] and identifying and monitoring risks that threaten the resilience of the UK financial system in order to maintain financial stability.

Our 2017 report on government borrowing

1.7 In our 2017 report, *Evaluating the government balance sheet: borrowing*, we found that borrowing had been high since the financial crisis and debt had grown, but at relatively low cost. We said risks and uncertainty around revenue and spending, including changes in the economy or government policies, have a considerable impact on borrowing levels. We found that managing the public finances had become more difficult, and HMT's work to strengthen its approach to analysing the government's balance sheet and evaluating fiscal risk was at an early stage.

6 HM Treasury, *Debt Management Report 2023-24*, March 2023.
7 As measured by the Consumer Prices Index (CPI).

Trends and forecasts for debt, borrowing and debt interest

Debt

1.8 The stock of government debt, as measured by public sector net debt excluding the Bank of England (PSND ex BoE), was an estimated £2,247 billion at the end of 2022-23.[8] This amounted to 88.8% of gross domestic product (GDP), the highest level since the 1960s and an increase from below 40% of GDP immediately before the financial crisis (**Figure 1** overleaf). The OBR forecasts that PSND ex BoE will reach a peak of 94.8% of GDP in 2026-27. In monetary terms, the OBR forecasts that PSND ex BoE will continue rising in 2027-28.

1.9 The trend in UK government debt following the financial crisis is similar to other G7 countries.[9] In 2022, UK general government gross debt amounted to 103% of GDP, compared with a range from 67% to 261% for the countries included in **Figure 2** on page 17.[10]

Borrowing

1.10 Borrowing, as measured by public sector net borrowing excluding public sector banks (PSNB ex), amounted to £129 billion in 2021-22. Borrowing fell year-on-year in most years to 2019-20, from a peak of £213 billion in 2009-10. However, the stock of debt continued to grow in each year because government was still borrowing in net terms. In 2020-21 net borrowing amounted to £331 billion, higher than any year from 1955-56 onwards, because of pandemic-related spending (**Figure 3** on page 18). The OBR estimates that borrowing will be £137 billion in 2022-23, falling to £46 billion in 2027-28.

8 In this report, we have shown OBR and Office for National Statistics (ONS) data on PSND ex BoE, PSNB ex and debt interest in 2022-23 prices. Unless otherwise stated, all other amounts are shown in current prices at the time they were reported.

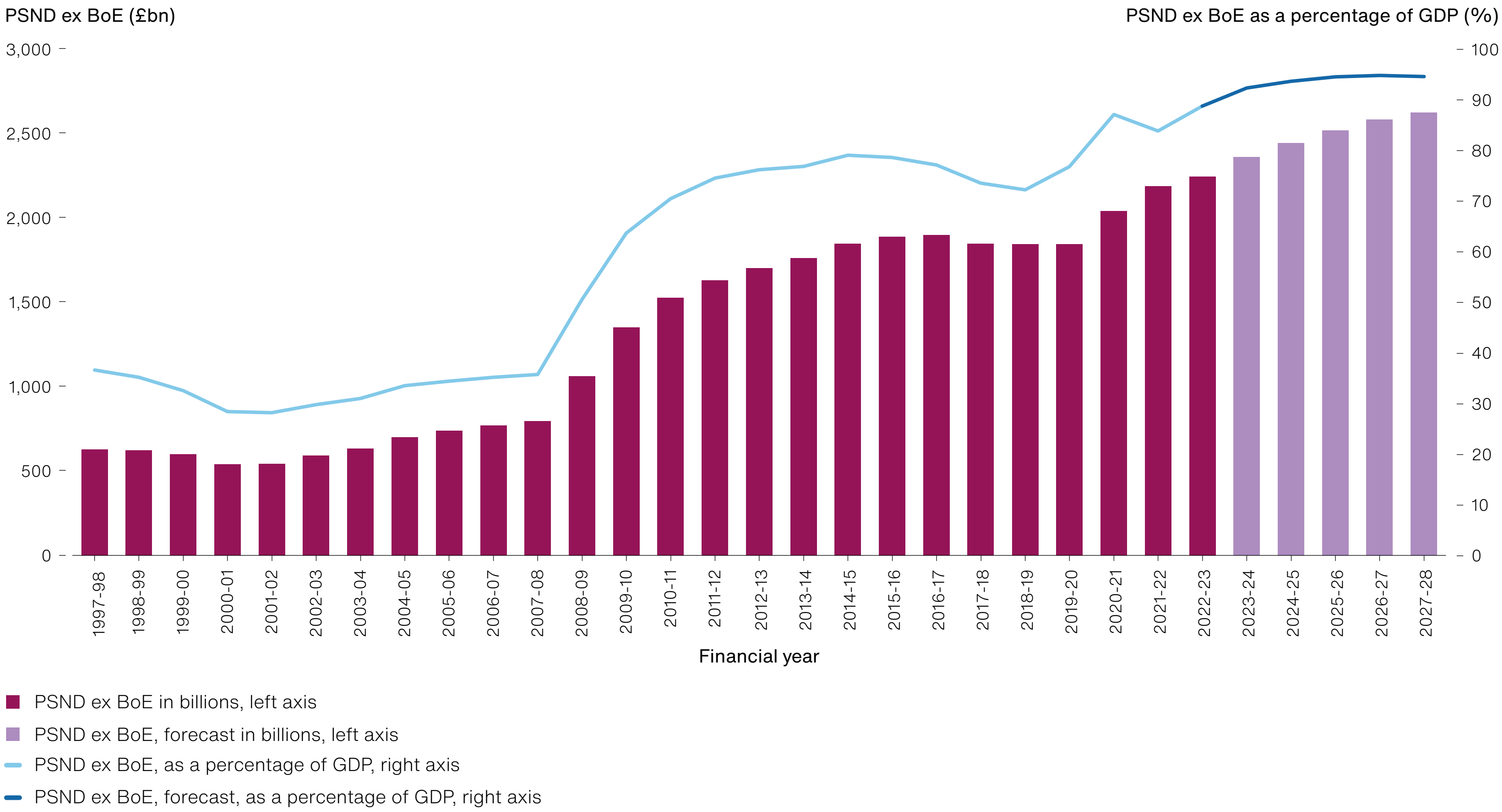
9 The Group of Seven (G7) is an informal grouping of seven of the world's advanced economies, including Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. The G7 meets annually to discuss issues such as global economic governance, international security and energy policy.

10 UK general government gross debt includes all central and local government liabilities, including: currency and deposits; department securities; loans; insurance; pensions and standardised guarantee schemes, and other accounts payable. When making international comparisons, HMT prefers gross government debt because it allows greater comparability.

Figure 1

Public Sector Net Debt, excluding the Bank of England (PSND ex BoE) between 1997-98 and 2022-23, and forecasts to 2027-28

PSND ex BoE is forecast to peak as a percentage of Gross Domestic Product (GDP) at 94.8% by 2026-27



Notes

1 PSND ex BoE is the amount by which total spending exceeds total receipts excluding the assets and liabilities held on the BoE's balance sheet.

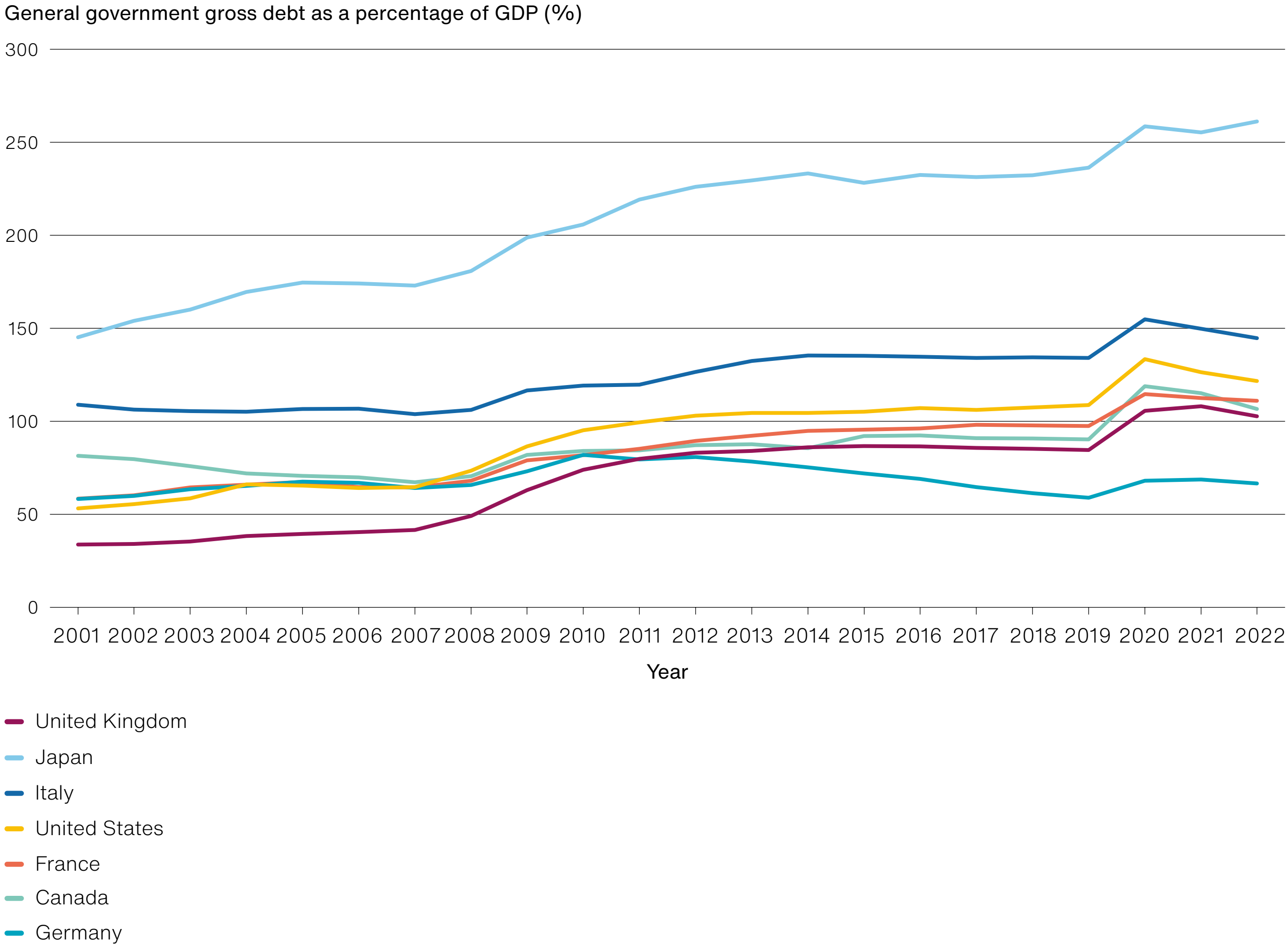
2 Data are in 2022-23 prices and as at May 2023.

Source: National Audit Office analysis of Office for Budget Responsibility and Office for National Statistics data

Figure 2

General government gross debt compared with other countries in the G7 between 2001 and 2022

In 2022, United Kingdom general government gross debt as a percentage of Gross Domestic Product (GDP) was the second lowest compared with other countries in the G7



Notes

1 General government gross debt includes all central and local government liabilities, including: currency and deposits; department securities; loans; insurance; pensions and standardised guarantee schemes, and other accounts payable.

2 When making international comparisons, HM Treasury prefers general government gross debt because it allows greater comparability.

3 For 2022 data, the International Monetary Fund (IMF) uses estimates for France, Japan and United States.

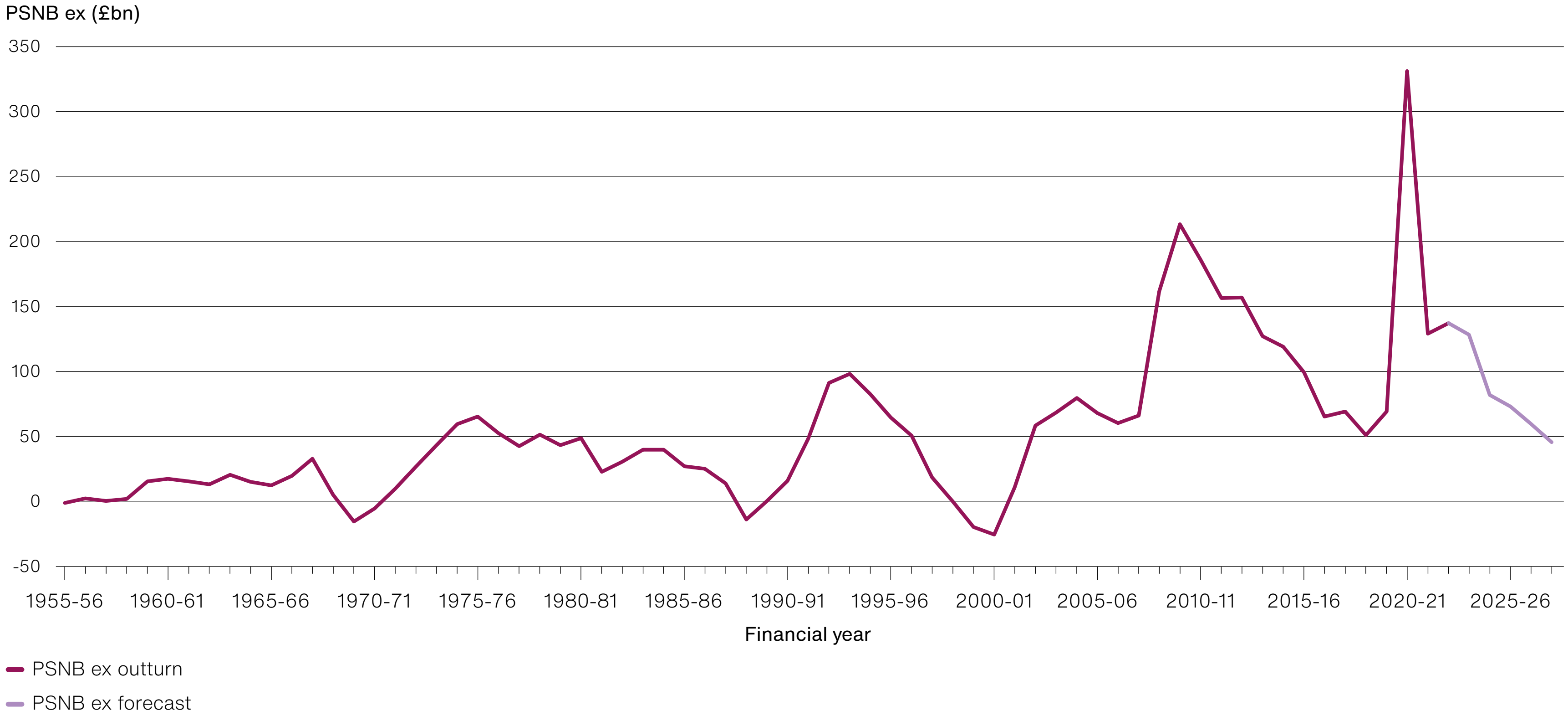
4 G7 is an intergovernmental political forum consisting of Canada, France, Germany, Italy, Japan, United Kingdom and United States.

Source: National Audit Office analysis of International Monetary Fund data

Figure 3

Public Sector Net Borrowing excluding public sector banks (PSNB ex), between 1955-56 and 2022-23, and forecasts to 2027-28

Borrowing reached £331 billion in 2020-21, higher than any year since 1955-56



Notes

1 PSNB ex data as at May 2023, shown in 2022-23 prices.

2 PSNB ex public banks measures the difference between total public sector receipts and expenditure on an accrued basis each year meaning that receipts and expenditure are recorded when the transactions occur rather than when payments are received or paid.

Source: National Audit Office analysis of Office for Budget Responsibility and Office for National Statistic data

Debt interest

1.11 The OBR estimates that debt interest in 2022-23 will amount to £110.6 billion, up from £60.8 billion in 2021-22, and the highest level since the 1950s. The OBR forecasts for debt interest will be £91.7 billion in 2023-24, and £89.2 billion in 2027-28 (**Figure 4** overleaf). The OBR estimates debt interest at 4.4% of GDP in 2022-23. Debt interest was the fifth largest category of public spending in 2021-22 (**Figure 5** on page 21).

Context for trends and forecasts

1.12 There are two main causes of the increase in debt since 2000. The government's borrowing increased considerably with HMT's support to the banking sector following the financial crisis, which included £137 billion in cash support between 2007 and 2010. Borrowing increased further still to pay for the government's response to the COVID-19 pandemic, including measures to protect health and to support businesses and the economy. The OBR reported that relative to pre-pandemic plans, £229 billion was added on pandemic spending in 2020-21 alone.[11] In both cases, these were accompanied by the wider economic impact of these shocks on tax receipts, which fell. Other reasons include the impact on the energy markets of Russia's invasion of Ukraine and resulting support government provided to households and businesses.

1.13 This increase in debt levels causes the amount of interest government pays to increase. The OBR notes two additional causes of higher debt interest payments: interest rates increased owing to the MPC, which is responsible for monetary policy decisions, increasing them in pursuit of its 2% inflation target; and the rate of inflation has increased, to more than 10% in March 2023, which has an impact on government's inflation-linked borrowing. The BoE's quantitative easing (QE) programme since the financial crisis has had the effect of increasing government's sensitivity to interest rate movements (see paragraph 3.14, Part Three).

1.14 Forecasts of debt, borrowing and debt interest carry substantial uncertainty because they are based on assumptions, including about macroeconomic factors such as inflation; and future policy, that can change over time. The OBR's November 2022 forecast of debt interest in 2022-23 was £120 billion, compared with its forecast of March 2022 of £83 billion. The OBR estimated in October 2021 that every 1% increase in Retail Prices Index (RPI) inflation would add £5.1 billion to debt interest spending in 2022-23.

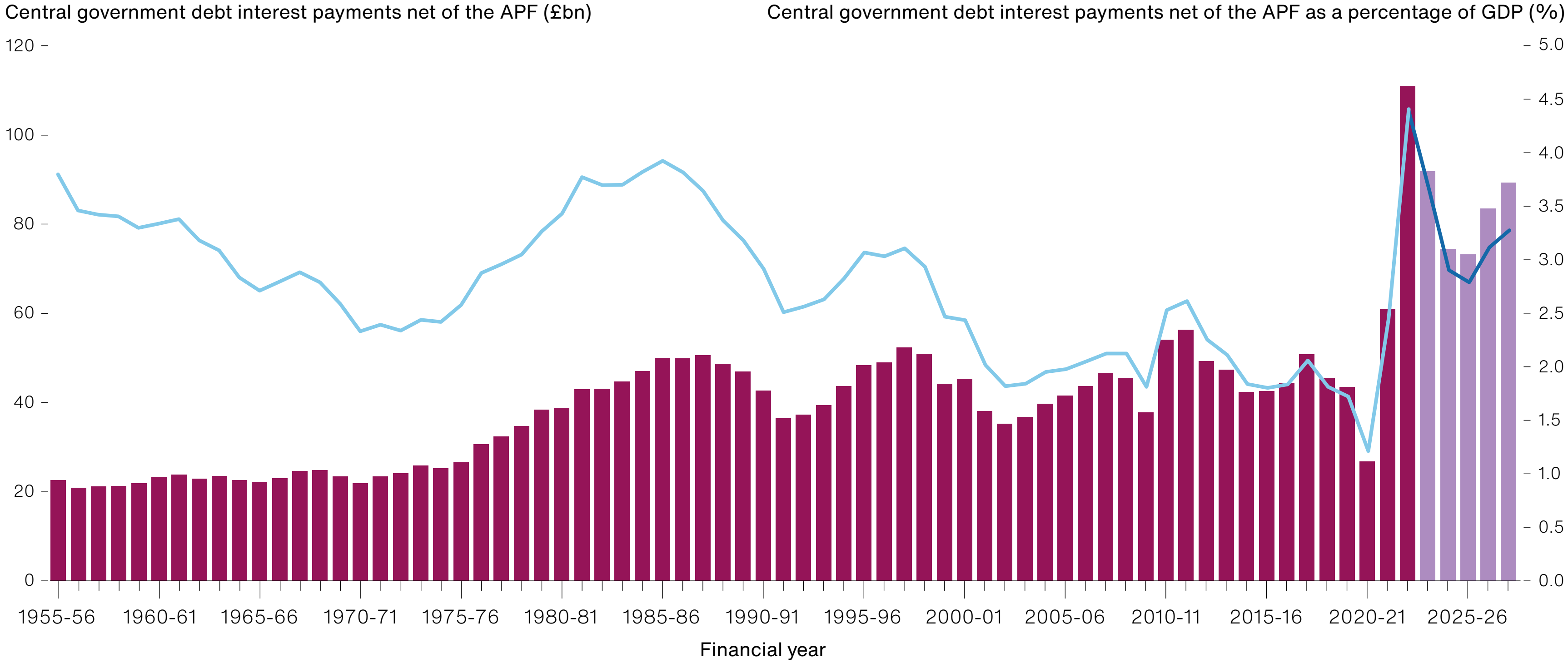
1.15 If debt costs increase, borrowing may also need to increase so that government can meet higher debt repayments. As debt servicing costs rise, choices about spending in different government areas become more acute, particularly at a time when higher inflation places greater pressure on existing budgets.

11 Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021.

Figure 4

Central government debt interest payments net of the Asset Purchase Facility (APF), 1955-56 to 2022-23 and forecasts to 2027-28

Central government debt interest payments net of the APF increased to £110.6 billion for 2022-23



- Central government debt interest net of the APF, in billions, left axis
- Central government debt interest net of the APF, forecast in billions, left axis
- Central government debt interest net of the APF, as a percentage of Gross Domestic Product (GDP), right axis
- Central government debt interest net of the APF, forecast as a percentage of GDP, right axis

Notes

1 Central government debt interest net of the APF is a measure used by the Office for Budget Responsibility (OBR).

2 The APF is a subsidiary of the Bank of England and houses the assets purchased through the quantitative easing programme.

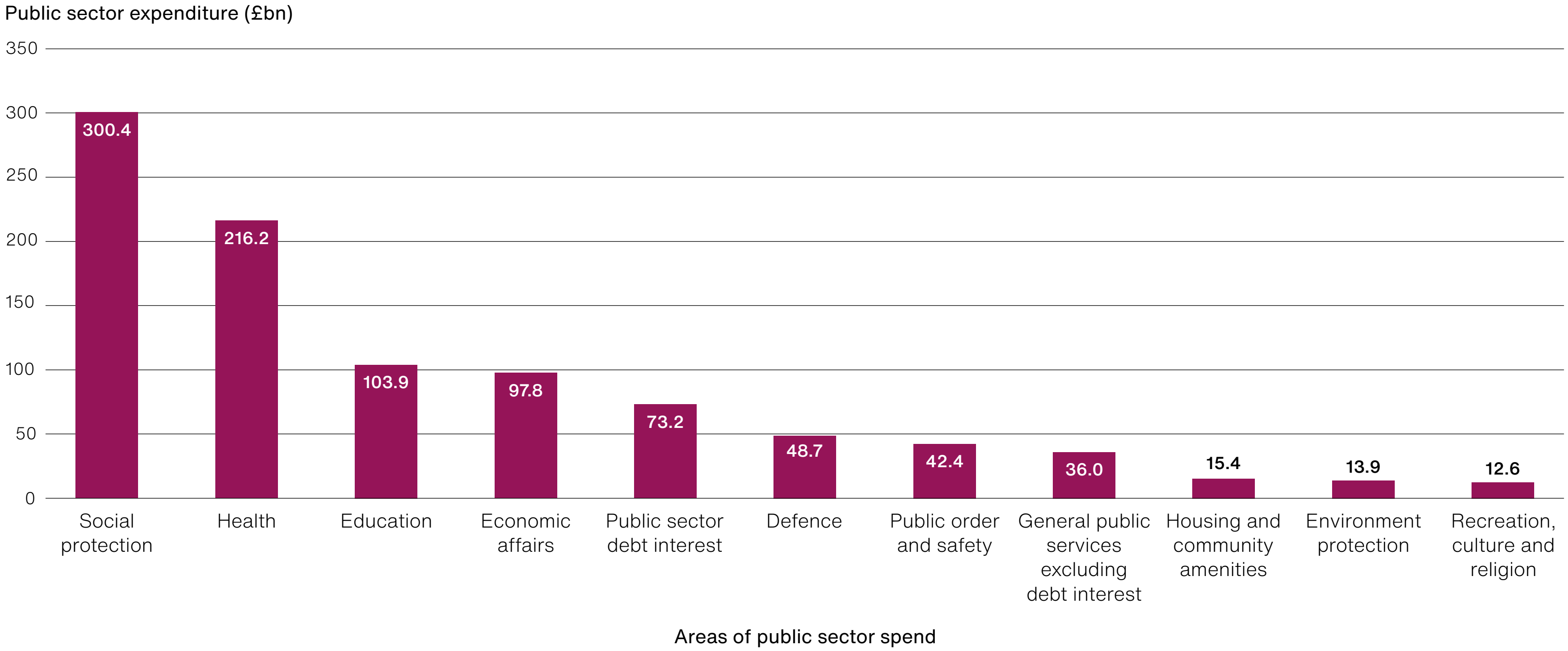
3 Data as at May 2023, shown in 2022-23 prices.

Source: National Audit Office analysis of Office for Budget Responsibility and Office for National Statistics data

Figure 5

Public sector debt interest compared with other areas of public sector spending, 2021-22

Public sector debt interest represents the fifth largest component of public sector spending in 2021-22



Notes

1 Public sector spending statistics are taken from the May 2023 ONS statistics release. Data shown are in 2021-22 prices. Data for 2022-23 were not available at the time of our report.

2 Areas of spending are defined by Eurostat, the statistical office of the European Union, in the appendix of the Eurostat manual on sources and methods for classification of the functions of government.

3 Public sector debt interest is used instead of debt interest net of the Asset Purchase Facility (APF), as it is a wider measure comparable with areas of public sector expenditure as defined below. As a result, debt interest figures in this chart will differ to debt interest figures elsewhere in the report.

4 Public sector debt interest has been split out of the general public services data group, and it includes the overall aggregate amount recorded for all subsectors of the public sector, that is, also includes local government, public corporations, and public sector funded pension schemes.

5 Social protection group covers a range of services including sickness and disability benefits, state pensions, unemployment and housing benefits.

6 Economic affairs group covers administration of general economic affairs, agriculture, fuel and energy, mining and construction, transport, communication and other industries such as tourism.

7 General public services excluding debt interest group covers a range of services including financial and fiscal affairs, including management of public funds and public debt, foreign affairs and aid, and general personnel services.

Source: National Audit Office analysis of Office for National Statistics data and Eurostat information

Part Two

Debt management processes and performance

2.1 This Part examines how government borrows to meet its cash needs, and evidence on the performance of the debt management framework over time.

How government borrows

Quantifying borrowing needs

2.2 HM Treasury (HMT) ministers make decisions on borrowing levels and set the annual borrowing 'remits' for the Debt Management Office (DMO) and National Savings and Investments (NS&I). The remit tells them how much to borrow and, for the DMO, how to structure the debt. The DMO, NS&I, Office for Budget Responsibility (OBR) and HMT officials provide ministers with information on which they base their decisions.

2.3 The government's borrowing process begins with OBR's forecasts of the government's cash needs (central government net cash requirement, or CGNCR) for the following financial year. The Debt and Reserves Management team (DRM) within HMT works with the DMO and NS&I in preparing their remits, including with DMO to decide how best to structure and profile borrowing. In deciding this, government takes account of its forecast cash needs, the likely appetite for government debt among market investors and the number of upcoming gilt redemptions which require refinancing. HMT ministers ultimately decide the financing remits and these are announced at the Spring Budget (usually in March). HMT, with ministerial approval, updates the remit in April, to reflect outturn data from the previous financial year becoming available, and also at the time of the autumn fiscal event, usually in October or November.

Borrowing through the DMO

2.4 The government receives cash when it issues gilts, for a fixed period, to private investors. It must repay the amount borrowed (the 'principal') when that period ends (the 'redemption date'). The government must also make interest payments (the coupon, paid every six months) over the gilt's life, which is a 'return' to investors.

2.5 The DMO issues gilts to the market through approved intermediaries, called Gilt-edged Market Makers (GEMMs). Most gilts are sold through a programme of auctions, where GEMMs make competitive bids for gilts offered. After gilts are issued to GEMMs, they sell them into the secondary bond market. In the meantime, they hold the gilts on their balance sheets, which means they are taking a risk should prices change. Alternatively, the DMO can use syndications, a method whereby gilts are sold directly to investors by GEMMs on behalf of the DMO. Syndications allow the DMO to sell higher-risk gilts, in larger quantities than possible at equivalent auctions, such as long-dated gilts where prices are more sensitive to interest rate changes, without passing the risk onto GEMMs' balance sheets.[12]

2.6 The DMO can issue:

- **conventional gilts**, which guarantee to pay the holder a fixed cash payment (coupon) every six months until the redemption date, when the government repays the principal; and
- **index-linked gilts,** which are similar except that the coupon payments and the principal are adjusted in line with inflation, as measured by the UK Retail Prices Index (RPI). Index-linked gilts are attractive to investors looking for protection against inflation risk.

Since 2021 the DMO has issued 'green gilts' (sovereign green bonds), to finance infrastructure investment in projects aimed at helping tackle climate change. The DMO can issue other forms of debt including Treasury bills, which are short-term debt instruments designed primarily to meet the government's daily cash needs, but which can be used to provide flexibility if borrowing needs change in-year.

2.7 The period between a gilt being issued and its redemption date is known as its 'maturity'. Investors generally consider shorter-dated conventional gilts less risky, as price volatility is usually lower compared with longer-dated gilts. The DMO issues conventional gilts in three maturity brackets:

- Short – gilts with a maturity of up to seven years;
- Medium – gilts with a maturity of between seven and 15 years; and
- Long – gilts with a maturity of more than 15 years.

12 The DMO does not define 'larger quantities' and does not target upper or lower thresholds for syndication sizes. Between 2020-21 and 2022-23, amounts sold at individual syndications in nominal terms ranged from £1.1 billion to £12 billion.

2.8 In 2009 the Bank of England (BoE) initiated a quantitative easing (QE) programme, to lower interest rates, encourage spending in the economy and meet the Monetary Policy Committee's (MPC's) inflation target. It does this by creating new money electronically to buy assets, including government gilts, in the 'secondary market' from financial institutions (not directly from the DMO). This pushes up the prices of bonds, bringing down the long-term interest rates on savings and loans. Lower long-term interest rates alongside the cash injection lowers the cost of borrowing for businesses and increases asset prices to support spending. As part of the QE programme, the BoE became a major holder of gilts.

Borrowing through NS&I

2.9 NS&I raises debt for the government by selling savings products to retail investors. It has around 25 million customers. NS&I's most popular product is Premium Bonds, which are saving bonds on which no interest is earned, but savers can win tax-free prizes through a monthly draw. NS&I also offers a range of interest-bearing products. The most popular of these currently is the Direct Saver, an easy access savings account with a variable interest rate (**Figure 6**).

2.10 HMT requires NS&I to balance three factors:

- the interests of savers, by offering a fair rate;
- the interests of the taxpayer, by delivering long-term cost-effective finance; and
- the stability of the broader financial services sector, by acting transparently and maintaining an appropriate competitive position.

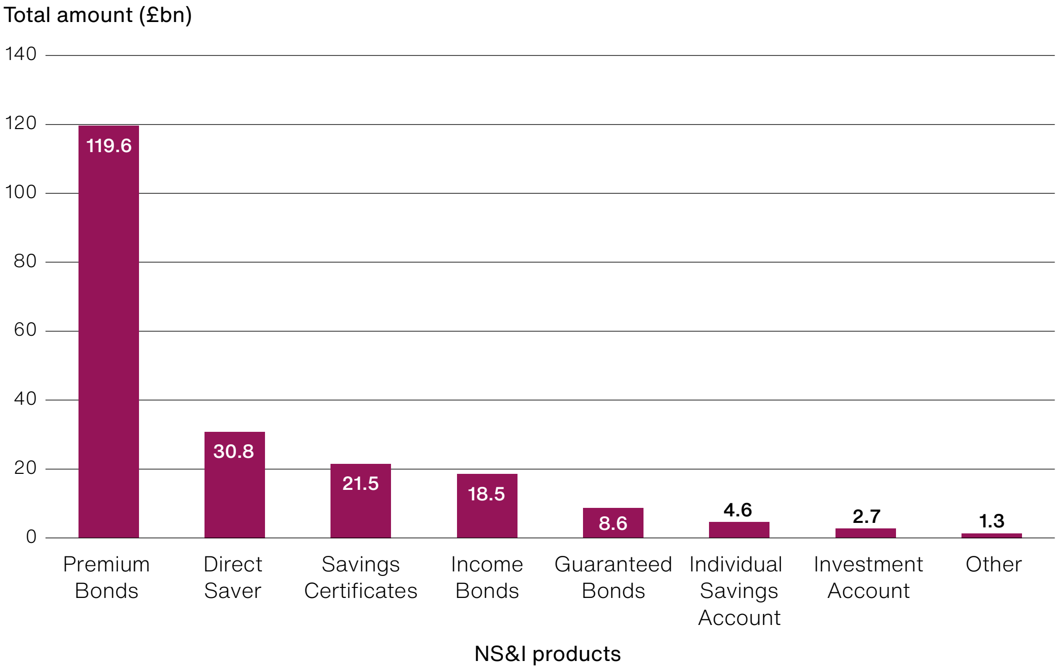
This requirement means NS&I must provide interest rates which are sufficiently high to attract savers, but not so high that they are excessive in the context of using public funds, or distort competition in the retail savings market.

2.11 HMT can introduce some NS&I products for policy reasons, rather than to raise funds for government specifically. In October 2021 NS&I launched the Green Savings Bond, a three-year fixed savings account that uses savers' cash to fund green infrastructure projects aimed at helping tackle climate change, which had raised £0.8 billion between launch and February 2023. Policy products fall outside NS&I's 'balance of three' requirement.

Figure 6

National Savings and Investments (NS&I) products at the end of 2021-22

As at 31 March 2022, NS&I had nearly £120 billion invested in Premium Bonds, more than all its other products combined



Notes

1 Premium Bonds are saving bonds on which no interest is earned, but the interest rate funds a monthly prize draw for tax-free prizes.

2 Direct Saver is an easy access savings account with a variable interest rate.

3 Savings Certificates are fixed-term investments, index-linked or fixed rate and offer tax-free returns.

4 Income Bonds provide a monthly interest income at a variable interest rate.

5 Guaranteed Bonds are bonds that earn a fixed rate of interest over a set time period.

6 Individual Savings Account are tax-free savings accounts with a limit of £20,000 with variable interest rates.

7 Investment Account is a postal-only account with a variable interest rate which is not available online.

8 'Other' includes Residual Account, Junior Individual Savings Account, Green Savings Bonds, and Children's Bonds.

9 Data are from NS&I's 2021-22 Annual Report and Accounts. The 2022-23 Annual Report and Accounts was not available at the time of our report.

Source: National Audit Office analysis of National Savings and Investments data

Debt management performance

Delivering remits

2.12 Government's increased borrowing need has led to increases in the annual debt remits for the DMO and NS&I over time. This is most evident in 2020-21 during the pandemic (**Figure 7**).

2.13 The DMO has delivered its gilt financing remit, plus or minus around 1%, in each of the past 20 years. In response to the financial crisis, the DMO issued £228 billion of gilts in 2009-10, nearly four times greater than its gilt remit two years before. In most years HMT has revised DMO's remit twice, once in April after the Office for National Statistics (ONS) first publishes outturn data for the previous financial year, and again in autumn around fiscal events. In March 2020 HMT set the DMO a target to borrow £156 billion in gilts during 2020-21, but HMT made four revisions increasing the DMO's gilt remit to a final target of £486 billion, which DMO ultimately met. To achieve this, the DMO introduced more frequent auctions and, from April 2020, increased the extent to which GEMMs and investors can make use of a Post-Auction Option Facility – which, since 2009, gives successful auction bidders the opportunity to top up their purchase in the hours following an auction. In 2023-24 the DMO's total remit target after the April revision is £242.8 billion.

2.14 HMT also sets NS&I an annual 'net financing' target, which for 2022-23 was £6 billion +/- £3 billion. In the 10 years to 2022-23, NS&I exceeded its target in eight years and in 2021-22 delivered below target but within the acceptable range.[13] In 2020-21, during the pandemic, HMT initially set NS&I a target of £6 billion but revised this in July 2020 to £35 billion. NS&I achieved £23.8 billion, which was below the target range but higher than its previous peak of £18.2 billion in 2014-15. NS&I-issued debt had remained broadly static until 2013-14 (£106 billion) but has increased substantially since. At the end of 2021-22, NS&I held a debt portfolio of £208 billion. In 2023-24 NS&I's remit target is £7.5 billion.

Cost-effectiveness and the overall debt management objective

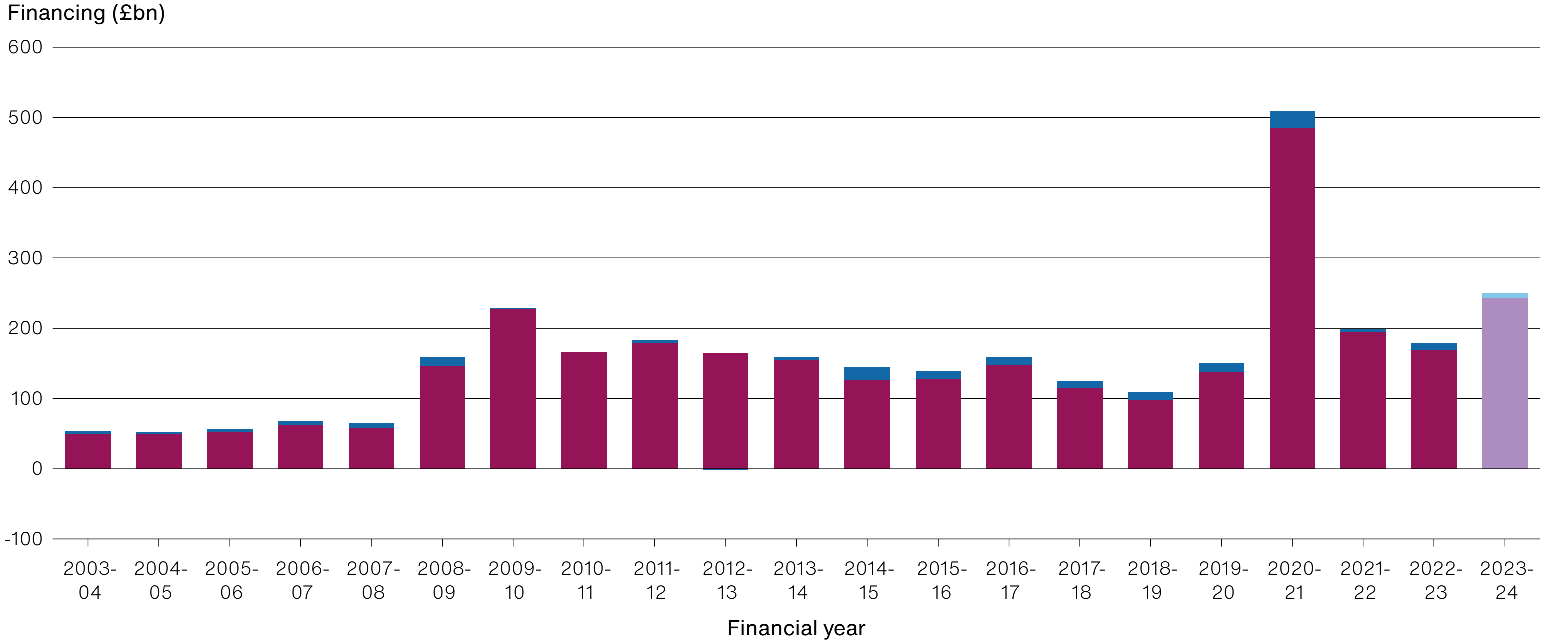
2.15 Government's debt management objective is high-level and not directly measurable, and HMT and the DMO do not have measurable success criteria and indicators allowing a quantitative assessment of whether government is meeting the debt management objective. This is important as there may be times when the DMO needs to prioritise delivering its remit over other factors including minimising the impact on borrowing costs. In other contexts, we have found that government has translated high-level objectives into more specific and measurable intermediate objectives. Some of HMT's five principles (see paragraph 1.5), such as encouraging the development of a liquid and efficient gilt market, are possible to measure and may form the basis for such intermediate objectives.

13 In 2022-23, NS&I's provisional net financing outturn was both above its central target and above the upper limit of the +/- £3 billion range that HMT set.

Figure 7

Gilts issued by the Debt Management Office (DMO) and debt raised by National Savings and Investments (NS&I) for 2003-04 to 2022-23, and forecast 2023-24

The DMO provided the majority of the debt financing for government over the past 20 years to 2022-23



	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
DMO outturn	49.9	50.1	52.4	62.5	58.5	146.5	227.6	166.3	179.4	165.1	155.4	126.4	127.7	147.6	115.5	98.6	137.9	485.8	194.7	169.5	
Forecast DMO																					237.8
NS&I outturn	3.4	2.0	4.8	5.6	5.9	12.5	1.6	0.1	4.0	-0.7	3.4	18.2	11.3	11.8	9.8	10.8	11.6	23.8	4.4	10.0	
Forecast NS&I																					7.5

Notes

1 DMO data are for gilts only. For 2023-24, the DMO's gilt remit of £237.8 billion, combined with its Treasury bills remit of £5.0 billion, sum to a total financing remit of £242.8 billion.

2 In 2012-13 NS&I had a final target of -£1 billion, plus or minus £2 billion.

3 Outturns for 2022-23 are based on data as at April 2023, at which point NS&I's outturn was provisional.

Source: National Audit Office analysis of Debt Management Office, National Savings and Investments and HM Treasury data

2.16 Measuring performance against the objective is complex as it requires simultaneous assessments of both cost and risk over a long-term period covering the lifetime of the debt portfolio. It is also important, when developing performance measures and targets, to avoid unintended consequences and unwanted behavioural incentives. The DMO told us that its assessment of cost-effectiveness involves quantitative and qualitative factors. At a higher level its assessment is qualitative, involving, for example, monitoring market demand and sentiment through its engagement with market participants. Factors that give some more quantitative assurance include the role that competitive auctions play in setting government's borrowing costs, and the DMO's work before and after individual auctions to analyse and evaluate them against expectations and to feed lessons into future auctions. The DMO also measures the cost-effectiveness of specific elements of the debt management process including whether index-linked gilts offer better value than conventional gilts at different levels of inflation. We interviewed officials from the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), who told us that the UK debt management framework and the DMO's role in it is widely respected internationally. They also noted the challenges of measuring cost-effectiveness of debt management operations.

2.17 HMT has over time measured NS&I's cost-effectiveness through a 'Value Indicator', aimed at comparing the cost of borrowing through NS&I with the cost of issuing gilts. A positive figure indicates the value created by borrowing through NS&I; a negative indicates the value lost by borrowing through NS&I. While NS&I met its 2021-22 target, HMT has decided that the Value Indicator will no longer be a formal performance measure, although NS&I will continue to calculate and report it informally to HMT. The measure was discontinued as a formal metric because NS&I has no influence over gilt costs, a significant element of the Value Indicator calculation. HMT and NS&I have considered options but have not yet identified a replacement performance indicator.

Reviewing the debt management framework

2.18 The processes of issuing debt through the DMO and NS&I have remained broadly unchanged since the late 1990s, when the DMO was set up. Incremental developments include new NS&I products and changes in the way DMO issues debt, such as the Post-Auction Option Facility (see paragraph 2.13).

2.19 Elements of the framework have been reviewed over time. HMT has published separate 'Tailored Reviews' of both the DMO and NS&I since 2020. Tailored Reviews seek to provide robust challenge and assurance of non-departmental public bodies and executive agencies. The OBR publishes an annual forecast evaluation report, which reviews forecasts against subsequent outturn data and identifies lessons for future forecasts. The OBR's evaluation of its forecasts for net borrowing found that they are more accurate than HMT's were before the creation of the OBR. We have not seen evidence of review of HMT's activities in the debt management framework.

2.20 The 2021 Tailored Review of the DMO concluded that the DMO had continued to perform strongly in carrying out its debt management function. The review provided 10 recommendations, with the sharing of expertise between HMT and the DMO highlighted on multiple occasions. As of December 2022, the outstanding actions to address the recommendations were to review and update ways of working and the DMO's framework document.

2.21 The 2020 Tailored Review of NS&I concluded NS&I had consistently met its primary objective of raising cost-effective financing. The review provided 11 recommendations, including streamlining the process for pricing changes. In 2022-23 NS&I trialled a new autonomy framework giving NS&I freedom to make pricing decisions within set parameters agreed with HMT, except for Premium Bonds and policy products.

2.22 The debt management framework has been tested, most notably during the financial crisis and the COVID-19 pandemic, when in each case government was able to borrow the amounts it needed. There are opportunities for HMT, the DMO and NS&I to capture and apply lessons from those testing conditions, to inform assessment of whether the framework is still optimal as external circumstances change. To date HMT has not conducted a review of how the debt management framework as a whole is adapting to a changing external environment, or how well the individual elements of the framework fit together.

Part Three

Managing risks

3.1 This Part examines the risks to delivering the government's debt management objectives, and how government manages them.

The framework for managing debt management risks

Operational risks

3.2 There are two main categories of risk associated with the government's debt management: fiscal risks such as inflation; and operational risks, for example relating to processes. The HM Treasury (HMT) Fiscal Risks Group (FRG) and its sub-group provide forums to discuss, escalate, and report on fiscal risks and inform policy advice sent to HMT's Executive Management Board. In addition to the FRG, the Operating Committee provides a risk assurance role related to financial, corporate and people risks. The Debt Management Office (DMO) and National Savings and Investments (NS&I) have their own risk frameworks and assessment methodologies.[14] The DMO and NS&I strategic risk reporting is a blend of fiscal and operational risk. The Debt and Reserves Management team (DRM) within HMT is responsible for escalating any NS&I and DMO risks to the relevant risk group and HMT's Audit and Risk Committee as appropriate. The DMO may also raise risks directly with HMT's Audit and Risk Committee.

Cash and balance sheet management

3.3 HMT must have enough cash each day to meet the government's spending commitments. To ensure spending is in line with budgets allocated to government departments, and to anticipate major cash flow needs, HMT monitors the daily fiscal position by collecting and analysing information relating to tax revenue, spending and cash.

3.4 In response to the Committee of Public Accounts' recommendations in 2016, HMT allocated more resources to analysing its balance sheet and evaluating fiscal risks. HMT officials told us of benefits from this, for example, balance sheet considerations have been added into the fiscal framework meaning that debt reduction would be carried out in a way that is more sustainable for the government's balance sheet.

14 Both organisations have their own accounting officers supported by audit and risk committees.

Management of specific risks

Debt composition and market conditions

Conventional and index-linked gilts

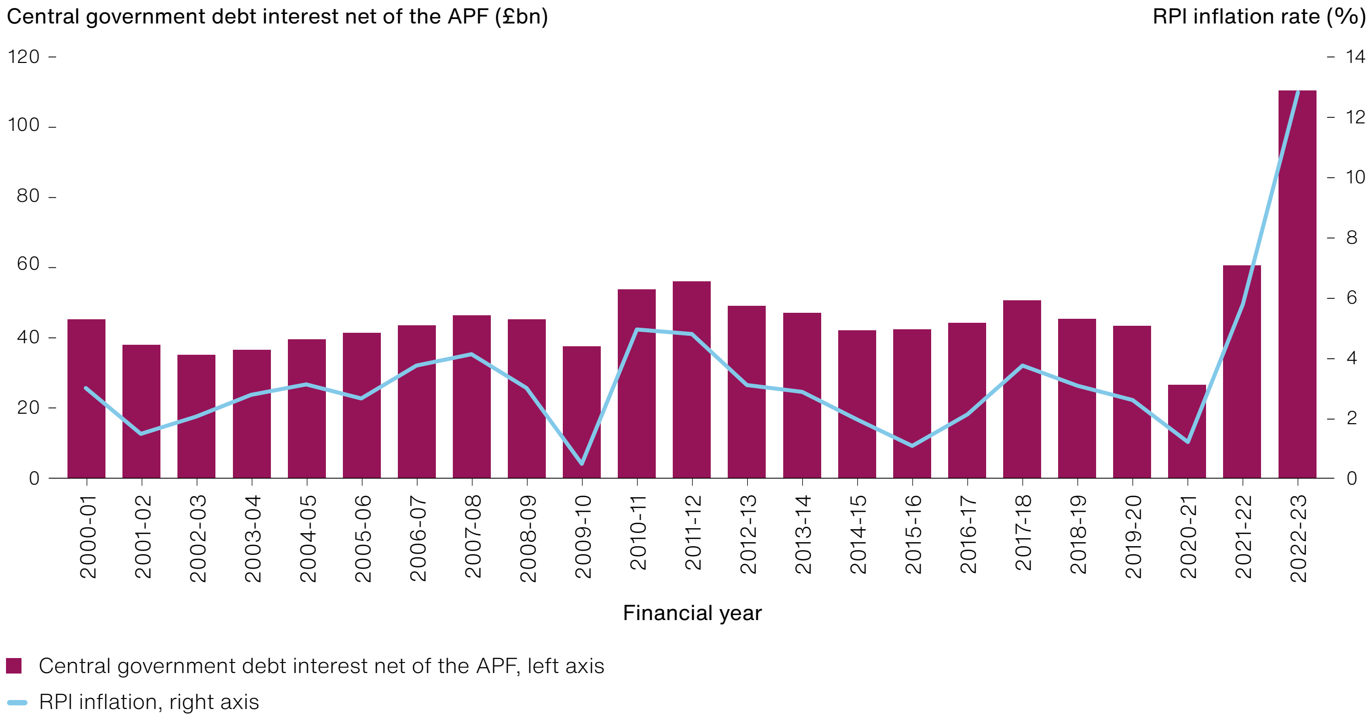
3.5 When deciding on debt composition, the government assesses the costs and risks of issuing different types and maturities of debt. It must also balance several other factors including investor demand and government's appetite for different risks. As a repeat borrower, government places importance on maintaining a deep and liquid gilt market to retain its ability to issue gilts to a diverse range of investors across and in all market conditions. It does this by issuing gilts of different types and maturities matched to demand and liquidity. However, during times of greater uncertainty, the DMO places more emphasis on the practical delivery of the remit, to maximise the chances that government raises the cash it needs in a predictable and smooth manner.

3.6 The type and maturity of debt that government issues can affect borrowing costs. The DMO told us that there are many different issuance strategies that can be adopted with similar costs. For conventional gilts, the coupon is fixed when the gilt is issued, meaning government pays a fixed return until the gilt matures. Rising interest rates only result in higher borrowing costs for government when new gilts are issued or when gilts mature and need refinancing. Selling gilts that are long-dated locks in these fixed interest rates for longer. With index-linked gilts an increase in inflation has an immediate impact on government's borrowing costs, because both the interest and principal payments are adjusted by the Retail Prices Index (RPI) (**Figure 8** overleaf).

Figure 8

Central government debt interest net of the Asset Purchase Facility (APF) compared with the Retail Prices Index (RPI) from 2000-01 to 2022-23

Inflation and debt interest payments tend to move together over time



Notes

1 Central government debt interest net of the APF is a measure used by the Office for Budget Responsibility (OBR).

2 The APF is a subsidiary of the Bank of England and houses the assets purchased through its quantitative easing programme.

3 Retail Prices Index (RPI) is a measure of the level of retail prices in the UK. It is used as the basis for index-linked gilts but does not meet the required standard for designation as a National Statistic.

4 Data are in 2022-23 prices and as at May 2023.

Source: National Audit Office analysis of Office for National Statistics and Office for Budget Responsibility data

3.7 Index-linked gilts make up 25% (£549.4 billion at the end of 2022) of the total gilt portfolio (**Figure 9** overleaf), which is the highest among G7 countries and more than double that of Italy, the country with the next highest share. The UK's higher proportion of index-linked gilts can be partly explained by strong demand from defined benefit pension schemes looking to offset their inflation-linked liabilities, which is less common in other countries where pension funds are more likely to be financed on a pay-as-you-go basis or funded without the pensions being linked to inflation. In 2018, following Office for Budget Responsibility (OBR) analysis, HMT took a policy decision to "reduce the proportion of index-linked gilt issuance in a measured fashion over the medium term," (around 25% in each of the five years prior to 2018-19) in line with the one to two percentage point reduction planned for 2018-19, as it was concerned about potential exposure to inflation.[15] The government made progress against this policy in both 2018-19 and 2019-20. In 2020-21, the proportion of index-linked gilts issued that year fell by around 10 percentage points (compared with 2019-20) because of the large volume of conventional gilts issued to finance the COVID-19 response. This policy was dropped for 2022-23 because the government viewed the annual index-linked gilt issuance level (around 15%) as "appropriate in the context of moderating the level of inflation exposure in the debt portfolio".[16]

3.8 The DMO seeks to maintain its credibility with financial markets through transparency and predictability, rather than changing the debt remit in response to shocks to inflation or interest rates. The DMO views as fundamentally important consistency between the debt management objectives and monetary policy; and, when designing its financing remit, it does not seek to anticipate, nor respond to, the Bank of England's (BoE's) Monetary Policy Committee's (MPC's) decisions.

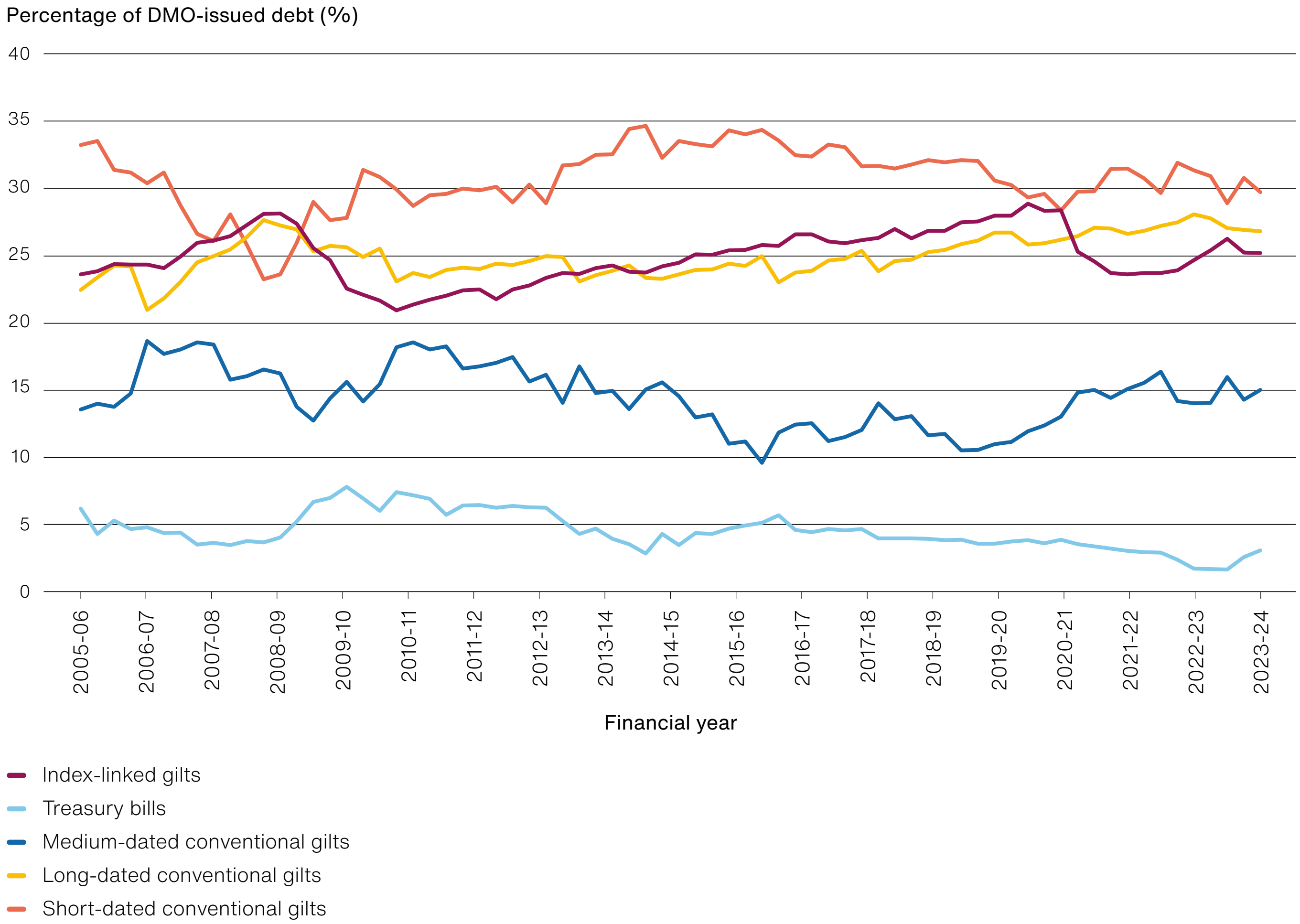
3.9 When determining what proportion of gilts should be index-linked, the DMO analyses their cost-effectiveness relative to conventional gilts of equivalent maturities under a range of RPI inflation scenarios.[17] In recent years the DMO has been able to secure high prices and low real yields on index-linked gilts because of strong demand from investors seeking inflation protection. The DMO's analysis prior to the Spring Budget in March 2023 showed that index-linked gilts would be more cost-effective than conventional gilts at maturities greater than or equal to 20 years, when RPI does not exceed an average of 3% over the life of the gilt. When the RPI assumption is increased to 3.5%, conventional gilts are more cost-effective at all maturities.[18] The government has set the BoE a target of keeping Consumer Prices Index (CPI) inflation at 2%. Typically, RPI is around one percentage point higher than CPI. On that basis, for index-linked gilts to be less cost-effective than conventional gilts, a sustained period of inflation 1.5 percentage points above the BoE's target would be required.

15 HM Treasury, *Budget 2018*, October 2018.
16 HM Treasury, *Debt Management Report 2022-23*, March 2022.
17 The DMO also carries out this analysis under scenarios that take into account the reforms to RPI which are planned to take place in 2030. Under these reforms, the methodology and data sources used in producing the Consumer Prices Index including owner-occupiers' housing costs (CPIH) will be brought into RPI.
18 HM Treasury, *Debt Management Report 2023-24*, March 2023.

Figure 9

Composition of debt that the Debt Management Office (DMO) issued between 2005-06 and 2022-23

Short-dated gilts represented around 30% of DMO-issued debt as at the end of 2022-23



Notes

1 The data are net of government holdings.

2 These data do not include debt raised outside of the DMO or the Sukuk issue launched on 25 March 2021.

3 Conventional gilts guarantee to pay the holder a fixed cash payment (coupon) every six months until the redemption (maturity) date, when the government pays back the principal payment.

4 Index-linked gilts' principal and coupon payments are adjusted in line with inflation, measured by the Retail Prices Index.

5 Treasury bills are a zero-coupon sterling denominated instrument of up to 12 months maturity when first issued.

6 Short-dated gilts have a maturity of up to seven years. Medium-dated gilts have a maturity of between seven and 15 years. Long-dated gilts have a maturity of more than 15 years.

7 Data do not round to 100% as undated gilts are excluded. These are gilts which have no final redemption date. The final undated gilts were fully redeemed in July 2015.

8 Data starts in June 2005 and ends in March 2023.

Source: National Audit Office analysis of Debt Management Office historical statistics on its debt portfolio

Maturity of gilts

3.10 Government must also consider how long it wishes to borrow for – the debt's maturity. Different maturities offer different advantages, but also create risks for DMO to manage. For example, shorter-dated gilts allow the DMO to raise large sums of cash quickly, which was the case during the COVID-19 pandemic. This is because, from an investor's perspective, shorter-dated gilts are less sensitive to interest rate movements compared with longer-dated gilts, allowing the DMO to sell more gilts at each auction. In most cases they are also associated with lower costs for government as investors price in a lower 'risk premium'. The risk premium is the additional return that investors demand as compensation for potential losses should they sell a gilt before maturity or the risk that inflation erodes the value of a conventional gilt. This risk premium usually increases with the length of the gilt. Government will need to refinance shorter-dated gilts more regularly, which exposes it to refinancing risk – that is, the risk that it has to replace maturing debt with new debt on less favourable terms.

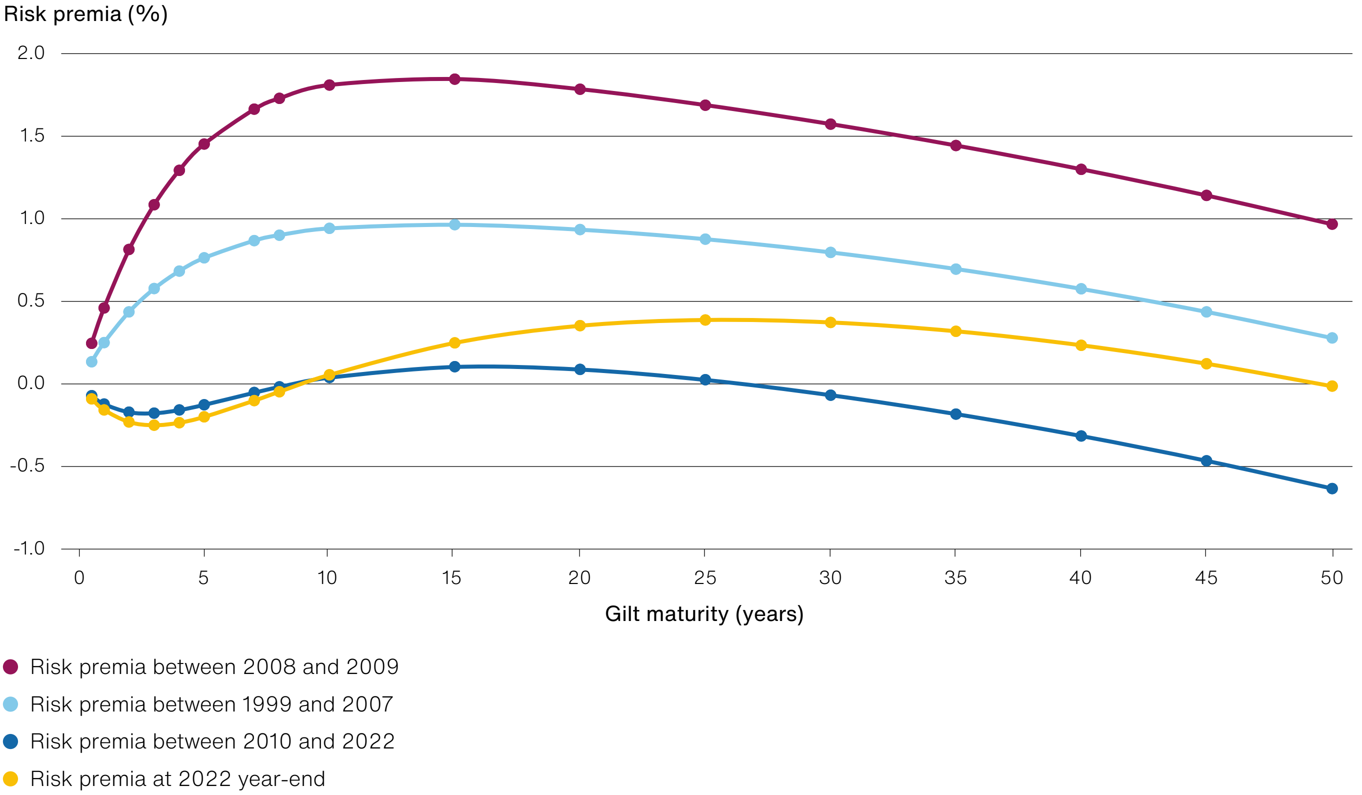
3.11 The DMO uses the risk premium to identify relative cost-effectiveness of gilts across maturities. In theory, the risk premium should be positive and larger for longer-dated debt, as investors are taking on more risk by holding the debt for longer. **Figure 10** overleaf shows risk premia for different gilt maturities at different points in time. It shows that, during 2022, gilts with maturities between 40 and 50 years offered better value (lower risk premia) compared with gilts with maturities between 20 and 30 years. Risk premia for short-dated gilts (maturities up to seven years) were negative and were the most attractive maturity range. However, the risk premia curve changes over time. For example, between 2010 and 2022, gilts with maturities greater than 35 years offered better value than short ones. The DMO therefore needs to continually monitor how risk premia are changing to identify the maturity ranges that are forecast to offer better value.

3.12 Despite the DMO's analysis showing that short-dated gilts offer better relative cost-effectiveness, the DMO aims to avoid issuing a large proportion of gilts at a specific maturity, as this can lead to a high concentration of redemptions in particular years. If there is a high concentration of gilt maturities in a single year, the DMO may be unable to sell enough gilts to fulfil its remit alongside refinancing the maturing gilts. **Figure 11** on pages 38 and 39 shows that £140 billion of gilts are due to mature in 2024-25, which will have a strong bearing on how government designs the remit for that year.

Figure 10

Debt Management Office (DMO) estimated risk premia in the UK conventional gilt market between 1999 and 2022

In 2022, the DMO estimated that short-dated gilts offered better cost-effectiveness relative to longer-dated gilts



Notes

1 The risk premia is the additional return that investors demand as compensation for potential losses should they sell a gilt before maturity, or the risk that inflation erodes the value of a conventional gilt.

2 Short-dated gilts have a maturity of up to seven years. Medium-dated gilts have a maturity of between seven and 15 years. Long-dated gilts have a maturity of more than 15 years.

3 The DMO's data covers the following time periods: pre-financial crisis (January 1999 to December 2007); during the financial crisis (March 2008 to September 2009); during the COVID-19 pandemic and the period of the Bank of England's quantitative easing programme (January 2010 to December 2022); and the year-end risk premia for 2022 (December 2022).

4 Each line reflects the estimated average risk premia over the selected period.

Source: National Audit Office analysis of Debt Management Office data

3.13 The DMO also issues gilts across a range of maturities to achieve a benchmark premium. It does this by issuing a new gilt at a specific maturity and then steadily building up its size, through subsequent sales, to around £25 billion to £30 billion. Financial markets can then use these benchmark gilts to help price other financial instruments of similar maturity. Benchmark gilts are generally more liquid than other gilts, and because of the large amounts in issue they are relatively easy to buy and sell, making them more attractive to investors, helping to minimise borrowing costs over time.

3.14 The UK government has historically pursued a policy of issuing more longer-dated debt than other G7 countries. Having longer-dated debt protects the government from interest rate shocks. At the end of 2022-23, the average maturity of the total stock of gilts was 15.0 years (13.9 years for conventional gilts and 18.2 years for index-linked gilts) (**Figure 12** on page 40), more than double that of the US, Canada, Italy and Germany. As part of the quantitative easing (QE) programme the BoE bought large volumes of gilts in the secondary market through the Asset Purchase Facility (APF) fund, a newly created subsidiary of the BoE. To finance these purchases the BoE created new central bank reserves to provide a loan to the APF.[19] The BoE pays interest on these reserves at the Bank Rate.[20] HMT indemnifies the activities of the APF. This means HMT receives any gains from QE should the interest received on the gilts held in the APF exceed the interest paid on the central bank reserves. Equally, HMT incurs any losses if this scenario is reversed. The QE programme therefore, in effect, swapped fixed interest rate gilts with reserves that carry a variable rate of interest, and are therefore more sensitive to interest rate movements. As the Bank Rate rises, government's debt interest payments rise faster than they would have done in the absence of the QE programme. The converse applies when the Bank Rate falls.

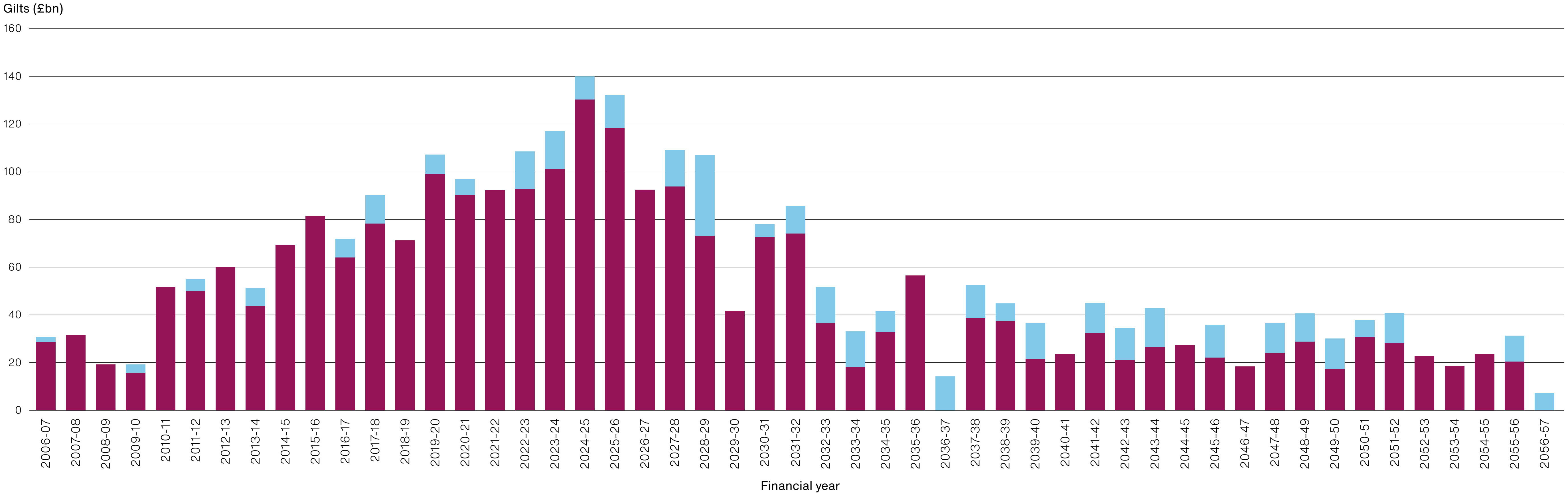
19 Central Bank reserves are deposits that eligible financial institutions hold with the BoE. This allows them to carry out transactions with the BoE. Central bank reserves are created digitally, meaning the BoE did not use money from government taxation or borrowing to buy bonds as part of the QE programme.

20 Bank Rate is the interest rate set by the BoE's MPC. Bank Rate determines the interest rate paid to eligible financial institutions that hold reserves with the BoE. It influences the rates those banks charge people to borrow money or pay interest on their savings.

Figure 11

Redemption profile of Debt Management Office (DMO) issued gilts, 2006-07 to 2056-57

Government redemption profile peaks in 2024-25 with £140 billion of gilts maturing



Financial year	Conventional gilts	Index-linked gilts
2006-07	28.5	2.1
2007-08	31.5	0.0
2008-09	19.2	0.0
2009-10	15.8	3.4
2010-11	51.7	0.0
2011-12	50.2	4.8
2012-13	60.1	0.0
2013-14	43.8	7.6
2014-15	69.4	0.0
2015-16	81.4	0.0
2016-17	64.0	7.9
2017-18	78.4	11.8
2018-19	71.2	0.0
2019-20	98.9	8.2
2020-21	90.2	6.6
2021-22	92.4	0.0
2022-23	92.8	15.7
2023-24	101.2	15.7
2024-25	130.3	9.6
2025-26	118.3	13.8
2026-27	92.5	0.0
2027-28	94.0	15.2
2028-29	73.2	33.7
2029-30	41.6	0.0
2030-31	72.7	5.4
2031-32	74.2	11.5
2032-33	36.8	14.8
2033-34	18.0	15.1
2034-35	32.7	8.8
2035-36	56.5	0.0
2036-37	0.0	14.2
2037-38	38.7	13.7
2038-39	37.6	7.2
2039-40	21.6	14.9
2040-41	23.5	0.0
2041-42	32.4	12.5
2042-43	21.1	13.4
2043-44	26.7	16.0
2044-45	27.3	0.0
2045-46	22.2	13.6
2046-47	18.4	0.0
2047-48	24.2	12.5
2048-49	28.8	11.8
2049-50	17.3	12.8
2050-51	30.6	7.3
2051-52	28.0	12.7
2052-53	22.8	0.0
2053-54	18.5	0.0
2054-55	23.5	0.0
2055-56	20.5	10.9
2056-57	0.0	7.3

Notes

1 The redemption or maturity date is when government must repay the amount borrowed (the 'principal') to the investor.

2 This profile includes redeemed gilts from 2006-07 to 2022-23 and future redemptions from 2023-24 to 2056-57.

3 Data as at 28 February 2023.

4 The profile of future redemptions will change as new gilts are issued, and additional existing gilts are issued.

5 The gilt value shown is the amount outstanding at redemption.

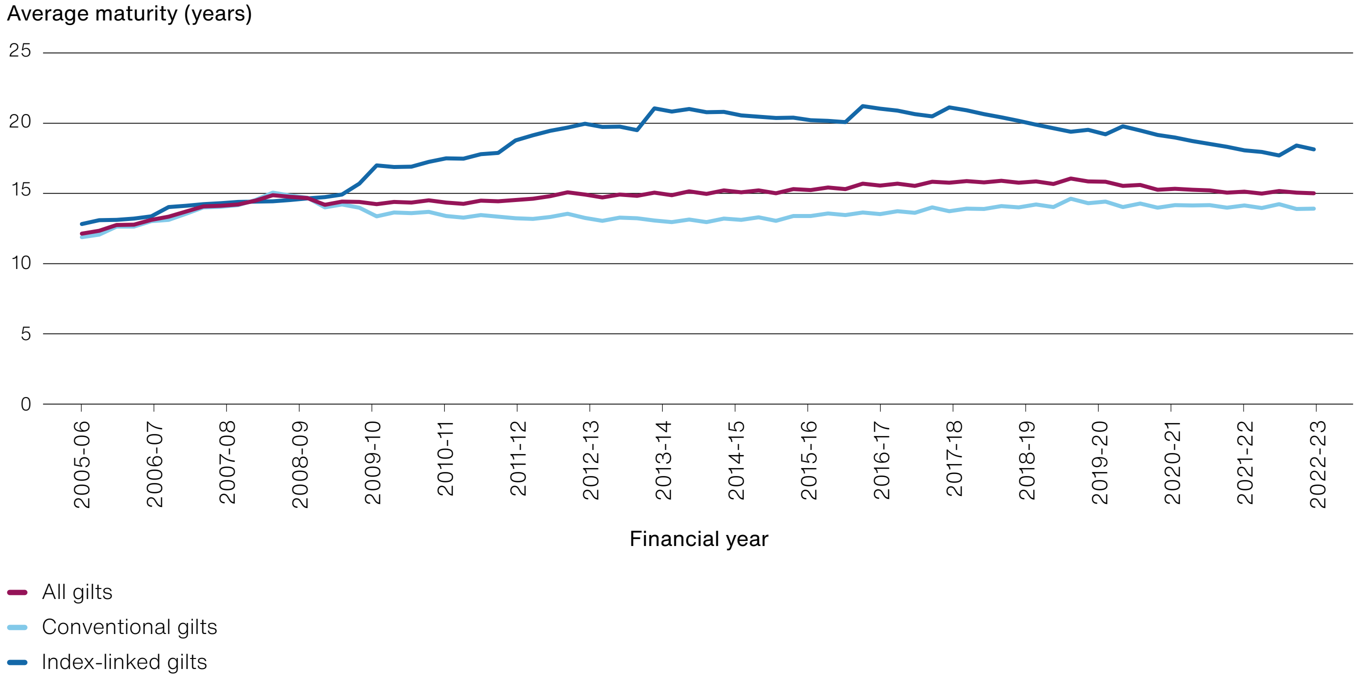
6 Figures are net of government holdings.

Source: National Audit Office analysis of Debt Management Office data

Figure 12

Average maturity of Debt Management Office (DMO) issued debt between 2005-06 and 2022-23

Since 2005-06, the average maturity of DMO issued gilts has been around 15 years, with the maturity of index-linked gilts averaging approximately 18 years



Notes

1 The data are net of government holdings in nominal values.

2 Conventional gilts guarantee to pay the holder a fixed cash payment (coupon) every six months until the redemption date, when the government pays back the principal payment.

3 Index-linked gilts' principal and coupon payments are adjusted in line with inflation, measured by the Retail Prices Index.

4 Maturity is the length of time between issuing a product and its redemption date.

Source: National Audit Office analysis of Debt Management Office historical statistics on its debt portfolio

Forecasting and remit revisions

3.15 The OBR, DMO and NS&I produce extensive analysis of government borrowing needs before HMT sets annual borrowing remits for the DMO and NS&I. In 2020-21, HMT revised DMO's remit on multiple occasions following new information on the government's pandemic response needs. This included a November 2020 revision which increased the DMO's 2020-21 gilt remit from £385 billion to £486 billion, requiring the DMO to raise £101 billion over the final four months of the year. In October 2021 HMT revised the DMO's 2021-22 gilt remit downwards by £58 billion from £253 billion to £195 billion, when OBR estimated that government would not need to borrow as much as originally thought. The government is only required to request OBR forecasts covering borrowing twice each year, usually at the March Budget and at the autumn fiscal event, though it can request more.[21] HMT uses these forecasts, which cover a five-year period, to make remit-setting as accurate as possible. However, forecasting is time-consuming and costly so HMT does not always ask for additional forecasts before changing remits during the year. Other than the September 2022 Growth Plan (also known as the mini-budget) and the revisions during the COVID-19 pandemic, HMT told us that there were two other occasions since 2019 where a remit was revised without an OBR forecast. The OBR told us that it could support reviews of remit revisions at other times, which could improve accuracy, although it acknowledged that, because of the costs of forecasting exercises, this would need to be done in a proportionate way.

3.16 The DMO must operate within the 'full funding rule' – an overarching requirement of the government's debt management policy – whereby government aims to raise the exact amount of the remit. The rationale for this rule is twofold: first, government believes achieving this rule promotes better transparency and predictability; second, following the rule avoids any perception that the DMO's activities could affect monetary policy, by exchanging too much or too little government debt for investors' cash. The DMO told us that operating within annual borrowing remits can make it harder to plan for known redemption payments in the following fiscal years. For example, if there is a large number of gilts maturing at the start of the next financial year, the DMO would be unable to sell gilts in advance to raise the necessary funds if it meant the remit for the current year is exceeded. To quickly raise the required funds, the DMO might need to sell relatively more short-dated debt at the start of the next financial year (see paragraph 3.10). Equally, if – for example – the remit reduces mid-year, the DMO will likely reduce the pace and volume of sales, which may not satisfy market demand for gilts. In practice, the DMO will often not raise the exact amount of the annual financing requirement. Several things cause this, including that conventional gilt auctions take place in increments of £250 million. DMO's cash management operations cover any difference in the short term, and government adjusts the following year's net financing requirement to compensate.

21 HM Treasury, *Charter for Budget Responsibility,* January 2023. The Charter states that the Chancellor will "commission the OBR to produce its fiscal and economic forecasts at a particular date, at least twice a year, one of which will be for the Budget".

Distribution of gilt holdings and 'quantitative tightening'

3.17 The relative size of holdings of parties from which government borrows has changed in the past 10 years. In 2008-09, at the time of the financial crisis, insurance companies and pension funds collectively owned the highest proportion of government debt. Since our report in 2017, the BoE has moved from being the third largest holder of government gilts to the largest and, at the end of December 2022, held £650 billion in gilts (measured at market prices). At its peak, at the end of December 2021, the BoE held £894 billion in gilts (**Figure 13**).

3.18 In our 2017 report we recommended that consistent with the BoE's MPC's statements, the BoE should liaise closely with the DMO when carrying out market operations to reduce the stock of assets held under the QE programme. We noted that effective coordination was required to mitigate the risk of disruption to gilt market conditions.[22] The MPC is responsible for monetary policy decisions. The MPC voted to reduce the stock of UK government bonds held in the APF under the QE programme by £80 billion in the 12 months from September 2022, through gilt sales and gilts maturing; the BoE began selling gilts in November 2022. The DMO and the BoE are engaging operationally with each other over their respective gilt sales to manage potential risks as the BoE unwinds the QE programme.

Market confidence

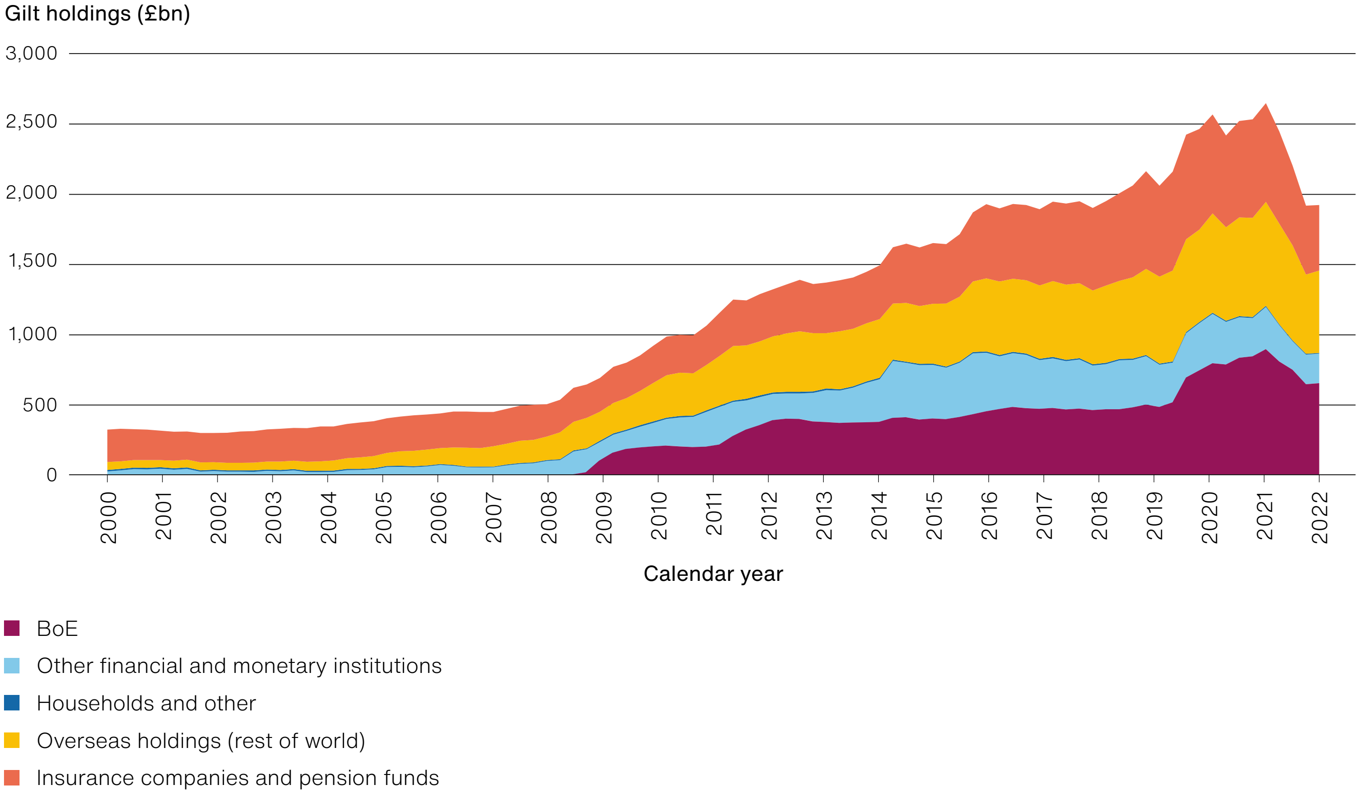
3.19 Market confidence affects borrowing costs for government, households and businesses. When setting interest rates for individuals and businesses, lenders will consider how risky a loan is compared with lending to government: the higher the risk, the higher the interest rate. Lending to government is considered 'risk-free' as it has always repaid its debt. However, this does not mean that investors are prepared to lend to government at any interest rate. If, for example, the outlook for the economy is poor, or alternative investments offer a better risk-adjusted return, investors will charge government higher interest.

22 Comptroller and Auditor General, HM Treasury, *Evaluating the government balance sheet: borrowing*, Session 2017–2019, HC 526, National Audit Office, November 2017.

Figure 13

Distribution of government gilt holdings by sector, 2000 to 2022

Quantitative easing (QE) has resulted in the Bank of England's (BoE's) Asset Purchase Facility (APF) holdings of gilts increasing over time



Notes

1 Information is based on market value, which means that some of the movement in holdings will reflect changes in market prices.

2 The 'households and other' category includes, for example, households, public corporations and local government entities.

3 BoE gilts are held in the APF.

4 The APF is a subsidiary of the BoE and houses the assets purchased through its QE programme.

5 Data as at May 2023.

Source: National Audit Office analysis of Debt Management Office distribution of gilt holdings data containing Office for National Statistics data

3.20 In September 2022 the government published a Growth Plan, also known as the mini-budget.[23] It did not ask the OBR to create forecasts based on the underlying assumptions. After the mini-budget, there was a fall in the market's confidence. The value of sterling fell, and investors sold government bonds, pushing up the effective interest rate on UK government borrowing. For example, 30-year UK government bond yields rose to around 1.4 percentage points more than the bonds of other major economies. This increase in the 'risk-free' rate raised borrowing costs for households and businesses. The BoE intervened by purchasing £19.3 billion in long-dated and index-linked government bonds to restore market stability and minimise the risk for UK households and businesses.[24] The BoE subsequently sold these gilts. Following further policy announcements in late 2022, market confidence became more positive.

3.21 The DMO contributes to maintaining market confidence by being open, transparent and predictable in its market engagement. We interviewed representatives of approved intermediaries, called Gilt-edged Market Makers (GEMMs), through which the DMO issues gilts, who were strongly positive about DMO's approach.

Debt management capability and resources

3.22 Debt management activities are complex and require experience and judgement. The DMO told us that it operates in a labour market alongside financial institutions that can offer much higher remuneration. DMO's management is concerned about the recruitment and retention of key skills, and that it risks losing staff and experience if its financial resources do not keep pace with market developments. Additionally, the DMO recognises risks regarding losing skills through key personnel retiring. HMT also faces challenges around maintaining expertise in its debt management functions, which can be affected by staff turnover levels.

3.23 The DMO is working to mitigate risks of loss of skills. In the light of a Tailored Review recommendation, the DMO has established a Remuneration, Recruitment and Retention (RRR) project team, which builds on analysis of staffing risks the DMO commissioned in 2021 and 2022. In January 2023, the DMO reported to its Advisory Board that some key posts are likely to require succession planning over the next few years.[25] The RRR team is now looking into this challenge. The DMO is identifying areas, including its resources, to discuss with HMT.

23 HM Treasury, *The Growth Plan 2022*, September 2002.
24 As investors sold UK gilts, gilt prices reduced. This sell-off triggered a self-perpetuating cycle because some defined benefit pension schemes had used leverage (borrowing) to increase their exposure to government gilts. Lenders required collateral from the pension funds to secure the borrowing. As gilt prices fell the pension funds needed to increase the collateral levels and most did so by selling their most liquid assets – government gilts – which forced prices down further. The Bank of England stepped in to buy £19.3 billion of gilts to restore market stability.
25 The DMO Advisory Board replaced the Managing Board as part of a recommendation in the 2021 DMO Tailored Review. The Advisory Board consists of the DMO senior executive team, a representative from HMT, non-executive directors, and is led by a non-executive chair.

NS&I-specific risks

3.24 NS&I is one of the largest saving organisations in the UK. At nearly £120 billion invested, Premium Bonds remain the most popular of its range of products and account for around 58% of NS&I's debt portfolio (Figure 6). NS&I told us that traditionally, Premium Bonds have been favoured by older savers, with an average customer age of 52 years (the average age of all NS&I customers is 51 years). NS&I told us that these customers purchase Premium Bonds and typically hold them for life, resulting in NS&I's more than 90% customer retention rate. NS&I told us that younger savers have different saving habits and are more willing to move money to products offering market-leading rates. NS&I typically does not offer market-leading rates as it needs to balance three factors: the interests of savers; the interests of taxpayers; and the stability of the broader financial services sector. NS&I told us it is taking steps to address the ageing demographic of its borrowers by making products more accessible, and appealing, to a younger age group.

3.25 NS&I outsources its entire back-office and customer-facing operations to a single service provider called Atos. It does this to derive long-term savings, with cost and operational risks transferred to the service provider. The 2020 Tailored Review of NS&I found that while the relationship between NS&I and Atos was "strong and mature" and NS&I believed the contract worked well, there have been issues with the delivery of change and transformation, where projects across functions have been subject to delays.[26] NS&I is undertaking a transformation of its outsourcing model. Known as the Rainbow Programme, this transformation will see NS&I move from a single outsource provider to a multi-provider model. The aim of the programme is to ensure that NS&I can respond proactively to changes in policy or the market, also enabling it to scale up its business more efficiently when required. In July 2022, the Infrastructure and Projects Authority rated the programme as Amber in the Government Major Projects Portfolio.[27] The Atos contract was due to expire in 2024 but, because of delays to the Rainbow Programme, NS&I activated a contract clause to retain Atos until April 2025 at the earliest. NS&I has shared with us documentation relating to planning for its future operating model and transition to a multi-provider model. However, we have not seen an NS&I plan specifically around internal skills and capacity, needed to deliver this work.

26 HM Treasury, *Tailored Review - National Savings and Investments*, January 2020.

27 The Government Major Projects Portfolio (GMPP) is a selection of large, high-risk government projects and programmes. The Infrastructure and Projects Authority publishes an annual report tracking the progress of projects currently in the GMPP and provides analysis of how they are performing. An amber rating means the successful delivery of a project or programme appears feasible but significant issues already exist, requiring management attention.

Appendix One

Our audit approach

Our scope

1 The objective of this report is to:

- explain the processes through which government borrows, and how it pursues its debt management objectives;
- outline the current and forecast position on central government borrowing, debt and debt costs, and the evidence on the government's success in meeting its debt management objectives; and
- examine the risks to delivering government's debt management objectives, and how government manages these risks.

2 The report does not seek to comment on the merits of fiscal and monetary policy objectives, and levels of tax, spending and borrowing, which are decisions for ministers. Nor does it evaluate whether government is meetings its fiscal objectives and targets, which is the Office for Budget Responsibility's (OBR's) role.

Our evidence base

3 The audited bodies of this report are HM Treasury (HMT), the Debt Management Office (DMO) and National Savings and Investments (NS&I). The conclusions are based our analysis of evidence we collected between October 2022 and June 2023.

Interviews

Selection

4 We carried out 14 structured interviews with officials from the audited bodies named above. Participants were selected because of their job roles and their relevance to the audit. The selection of participants was supported by our working-level contacts for the report at each audited body. This included staff responsible for, or involved in:

- policy;
- operations;
- analysis; and
- risk management.

5 In addition, we selected wider stakeholders to ensure a broad range of perspectives on government borrowing and debt management. We identified stakeholders via discussions with the audited bodies and from colleagues within the National Audit Office (NAO). We carried out structured interviews with eight wider stakeholders, including selected representatives of market participants, and selected organisations that comment on macroeconomic matters.

Fieldwork

6 Fieldwork took place between February 2023 and June 2023. Interviews were carried out online and in-person, typically lasting one hour and detailed notes were taken. In addition, the study team attended a gilt auction at the DMO. Interviews focused on the following topics and were tailored to the job roles of those being interviewed:

- cost-effectiveness and performance measurement;
- financing operations, including remit processes and NS&I product development;
- forecasting and analysis;
- governance;
- international comparisons; and
- risk management and cash management.

Analytical approach

7 We organised interview notes to facilitate comprehensive and consistent analysis. We analysed the data thematically, reviewing the data against the themes identified in our document review and quantitative analysis. We used the analysis to:

- inform further lines of enquiry that we followed up with the audited bodies;
- inform our understanding of the borrowing and debt-raising processes;
- triangulate with evidence from other sources (including our document review, quantitative analysis, and evidence from wider stakeholders); and
- report on how the government seeks to minimise the costs of servicing its debt and how it pursues its objectives.

Document review

Focus and purpose

8 We reviewed key debt management documents to understand the 'how and what' of government borrowing and debt management, and the associated risks. These documents included:

- capability, capacity and resources documents;
- DMO and NS&I Tailored Reviews;
- relevant publications by public sector bodies;
- finance remit advice and recommendations;
- debt management reports;
- framework documents;
- governance documentation, including terms of reference and framework documents, and minutes of meetings;
- internal processes documentation; and
- risk management documents.

9 Our review was carried out between October 2022 and June 2023. Meeting minutes provided by audited bodies within the period January 2022 to June 2023, remit advice covered 2020-21 to 2023-24, and framework documentation covered 1995 to 2023.

Analytical approach

10 We reviewed each document against our overarching audit questions. We used this review to refine the scope of the study and to inform our interview questions and to triangulate the findings from interviews. Where necessary, we followed up with the audited bodies to clarify our understanding of the documents and to request further documents as required.

Quantitative analysis

Analytical approach

11 We analysed data from HMT, DMO, NS&I, the Office for Budget Responsibility (OBR), the Office for National Statistics (ONS) and the International Monetary Fund (IMF). We analysed these data to understand the current debt composition, how this has changed over time and what the latest forecast position is for central government on its headline measures. The key data sources are:

a DMO gilt data;

b NS&I annual reports and accounts;

c IMF world economic outlook data;

d the OBR public finances databank; and

e ONS statistics and Eurostat information for some definitions.

12 **DMO gilt data**. These are represented as net government holdings of debt, as defined by HMT and the DMO. We have shown DMO gilt data in nominal terms rather than in market value, except in Figure 13, where market value has been used owing to how the DMO calculates the Bank of England's (BoE's) gilt holdings. Where DMO data are not adjusted to 2022-23 prices this is due to one or more of the following reasons: 2022-23 data are not available; remit revisions and targets are not retrospectively adjusted in this way.

13 **IMF world economic outlook data**. In Figure 2 we use general government gross debt for international comparison, because public sector net debt is not used internationally. HMT prefers general government gross debt for international comparison as it allows greater comparability between countries.

14 **NS&I annual reports and accounts.** We used NS&I's 2021-22 annual report and accounts to show its current and non-current liabilities in Figure 6. Figure 6 is not shown in 2022-23 prices because NS&I had not published its 2022-23 annual report and accounts at the time of our report.

15 OBR public finances databank. We have used data from the OBR's May 2023 databank which draws on ONS data. The OBR uses underlying ONS data to produce datasets in 2022-23 prices and as a percentage of GDP. The databank also includes OBR forecasts over a 5-year horizon between 2023-24 and 2027-28. Throughout our report we have used OBR's outturn and forecast data adjusted to 2022-23 prices, unless otherwise stated. ONS data at 2022-23 were already in 2022-23 prices so OBR did not adjust these. For readability we have referred to these as 'OBR estimates' as they are drawn from the OBR databank. This is the case for figures in paragraphs 1.10 and 1.11. OBR's fiscal data are consistent with the ONS and HMT May 2023 Public Sector Finances Statistical Bulletins. We used public sector net borrowing excluding public banks (PSNB ex) and public sector net debt excluding Bank of England (PSND ex BoE) because these are the government's benchmark measures, outlined in the autumn 2022 Charter for Budget Responsibility. We showed these measures, in addition to central government debt interest net of the Asset Purchase Facility (APF), in 2022-23 prices to allow comparison of these macroeconomic data over time, after adjustment for inflation.

16 ONS statistics and Eurostat information for some definitions. In Figure 5 we have used public spending statistics that are co-owned between ONS and HMT. We have used public sector debt interest, held within general public services, instead of central government debt interest net of the APF (which we use everywhere else when we refer to debt interest). This is because debt interest measures of central government, which is a subsector within the public sector, cannot be used when comparing public sector expenditure. Public sector debt interest makes this wider public sector comparison possible. Public spending statistics are not shown in 2022-23 prices because 2022-23 data were not available at the time of our report. In Figure 5, areas of spending are defined by Eurostat, the statistical office of the European Union, in the appendix of the Eurostat manual on sources and methods of classification of the functions of government. In Figure 8 we compared central government debt interest net of the APF from OBR with ONS data for RPI. We used the quarters format of the RPI data and converted these into financial years.

Limitations

17 Some data, such as public sector spending and annual report and accounts data for the 2022-23 financial year will not be published until after this report. Due to a lag in the publication of DMO gilt holdings data we were unable to analyse gilt holdings for the full 2022-23 financial year at the time of this report. Changes between calendar and financial year in the charts are because of limitations in the format of the data available. We were unable to break down the government's historical redemption payments by maturity to assess how the maturity split was affecting the timing of redemption payments as these data were not available.

Appendix Two

Glossary

Term	Description
Auction (conventional gilts)	Open to all Gilt-edged Market Makers (GEMMs) who are allowed to make competitive bids. Successful competitive bidders are allotted gilts on a bid or multiple price basis, meaning successful bidders pay the price they bid.
Auction (index-linked gilts)	Open to index-linked GEMMs only. Auctions are conducted on a single or uniform price basis, meaning all successful bidders pay the lowest accepted price.
Basis point (bp)	One hundredth of one percent.
Central government	A classification of a subsector of the public sector finances, it includes all administrative departments of the state and other government agencies. This includes, for example, taxation, defence and education.
Consumer Prices Index (CPI)	Consumer price inflation is the rate at which the prices of goods and services bought by households rise or fall. It is estimated by using price indices.
Conventional gilts	Gilts on which interest payments (the coupon) and principal repayments are fixed in nominal terms.
Coupon	Total annual interest paid on a gilt holding, usually in two equal, semi-annual instalments. Expressed as a percentage of a £100 nominal holding.
Debt interest payments	The interest payable on all government gilts in issue. Debt interest can be measured on both a cash and an accrued basis. On a cash basis, interest on a gilt is usually paid in two equal, semi-annual instalments. On an accruals basis, the interest accrues evenly over the life of the gilt. Throughout this report, 'debt interest payments' refers to interest that has been accrued, but not necessarily paid.
General government	A classification of two sub-sectors, it includes central government and local government.
Gross Domestic Product (GDP)	A measure of the value of goods and services produced in a country during a certain period. It estimates the size of and growth in the economy.
Gilt-edged Market Makers (GEMMs)	Primary dealers in gilts who actively trade in either conventional gilts, index-linked gilts or both. GEMMs are made up of some of the world's largest financial institutions (such as investment banks).
Gilt	A UK government sterling denominated bond issued by the Debt Management Office (DMO) on behalf of HM Treasury. The term gilt (or gilt-edged) is a reference to the primary characteristic of gilts as an investment – their security.
Index-linked gilts	Gilts whose coupons and final redemption payment are related to movements in the Retail Prices Index (RPI).
Liquidity	The ease with which one can undertake transactions in a particular market or instrument. A market where there are always ready buyers and sellers willing to transact at competitive prices is regarded as liquid.
Maturity date	Date on which a gilt is redeemed. Also referred to as its redemption date.
Nominal amount/ value	The face value or amount, without taking other factors into account.

Term	Description
Post-Auction Option Facility	Gives an option to successful bidders (both GEMMs and investors) to purchase additional stock up to 25% of the amount allocated to them at the auction, at the average accepted price at conventional auctions and the single clearing (or strike) price at index-linked auctions. It does not apply to auctions of green gilts.
Primary market	The issuance of gilts to the DMO's primary dealers – GEMMs.
Principal	The face value (not market value) of a gilt.
Public sector	A classification of six sub-sectors, it includes central government, local government, public non-financial corporations, public sector pensions, the Bank of England, and public sector banks.
Public Sector Net Borrowing excluding public sector banks (PSNB ex)	The difference between the income the government receives (in taxes, and so forth) and its current and capital expenditure, on an accrued basis, excluding public sector banks. Often referred to as 'the deficit'.
Public Sector Net Debt excluding Bank of England (PSND ex BoE)	The amount by which total spending exceeds total receipts excluding the assets and liabilities held on the Bank of England's balance sheet. This measure also excludes public sector banks.
Real yield	A gilt's nominal yield minus the expected inflation rate.
Redemption date	The date on which a dated gilt is redeemed. Also referred to as its maturity date.
Refinancing	When a gilt matures or redeems, the final coupon and principal need to be repaid to the original investor. This payment is financed through issuing new gilts.
Refinancing risk	The risk of refinancing a gilt at a higher rate of interest once it matures. It is also the risk of concentrating redemptions in any particular year.
Retail Prices Index (RPI)	A measure of the level of retail prices in the UK. It is used as the basis for index-linked gilts but does not meet the required standard for designation as a National Statistic. In recognition that it continues to be widely used in contracts, the Office for National Statistics (ONS) continues to publish the RPI. Cash flows on all index-linked gilts are linked to the RPI.
Risk-free rate	The rate of return an investor would expect on an investment with zero risk.
Risk premium	The additional return that investors demand as compensation for potential losses should they sell a gilt before maturity or the risk that inflation erodes the value of a conventional gilt.
Secondary market	Where investors purchase gilts from other investors rather than from the issuer.
Syndication	A process whereby the DMO appoints a group of banks (one or more GEMMs) to manage the sale of gilts on its behalf.
Treasury bill (T-bill)	A zero-coupon sterling denominated instrument of up to 12 months maturity when first issued. Treasury bills are issued at a discount and redeemed at par.
Yield	The return an investor obtains from a gilt, taking account of the price paid and the interest payable.

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