



Institute for Fiscal Studies

IFS Green Budget 2020: Chapter 5

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Managing much elevated public debt



5. Managing much-elevated public debt

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Key findings

- 1 The COVID-19 crisis has pushed up government borrowing substantially, meaning that the Debt Management Office (DMO) will need to sell a much larger value of gilts than normal. **Our central scenario is for over £1.5 trillion to be raised through gilt issuance over the next five years, double the £760 billion forecast in the March 2020 Budget.** There is considerable uncertainty around this amount.
- 2 The characteristics of the gilts that the DMO issues will have implications for the public finances in the longer term. **The enormous value of debt being issued means that the costs of financing it just slightly wrong will be large.**
- 3 Short- and long-maturity gilt yields have fallen even further from the already low rates seen prior to the pandemic. A similar phenomenon can be seen in the Eurozone and the US, where – as in the UK – **yields are now much closer to the very low rates that have become typical for Japan.**
- 4 The expansion of the Bank of England’s programme of quantitative easing means it bought £236 billion of gilts between March and September 2020, almost exactly the same as the £227 billion of gilts issued by the DMO over the same period. As a result, **private borrowing has not been crowded out by**

government borrowing. The financing cost of quantitative easing is Bank Rate, which is at record low levels, and has therefore further depressed government debt interest spending from already record lows as a share of receipts. However, **the tilt towards Bank of England held debt means that the government's debt interest bill will rise sharply if Bank Rate rises.**

- 5 A much larger share of the UK's debt is linked to an inflation index than is the case for many other countries. About a quarter of its debt is index-linked, compared with an average of 3–8% across OECD countries over the last decade. It also borrows on a longer time frame with an average maturity of over 15 years compared with, for example, less than 9 years in France, Germany, Italy and Spain. But quantitative easing reduces the effective maturity of government borrowing. This – combined with elevated issuance over the next five years – means that **a 1 percentage point increase in all yields would now add £19 billion to debt interest spending in 2024–25, some 76% higher than the £11 billion forecast in March 2020.**
- 6 Rising yields accompanied by stronger growth would be welcome. The risk to the public finances is that yields rise but growth prospects do not. **One way to address this risk is by selling more long gilts.** Long-term rates are extraordinarily – some would say unsustainably – low. Even 50-year gilts are consistently offering just 0.5% a year since April 2020. In the long run, we might expect inflation to return to the target level of 2% which, when combined with a nominal return of 0.5% a year, would imply a real annual return of –1.5% a year.
- 7 The latest auction of long-maturity index-linked gilts led to £459 million being raised at a real yield to maturity (based on RPI indexation) of –2.0% a year through to 2056. **Contrary to the direction of recent policy, there could be considerable benefits from tilting the UK's debt portfolio more towards index-linked gilts.** This would have the advantage of locking in

the current very low real rates for a greater share of government debt.

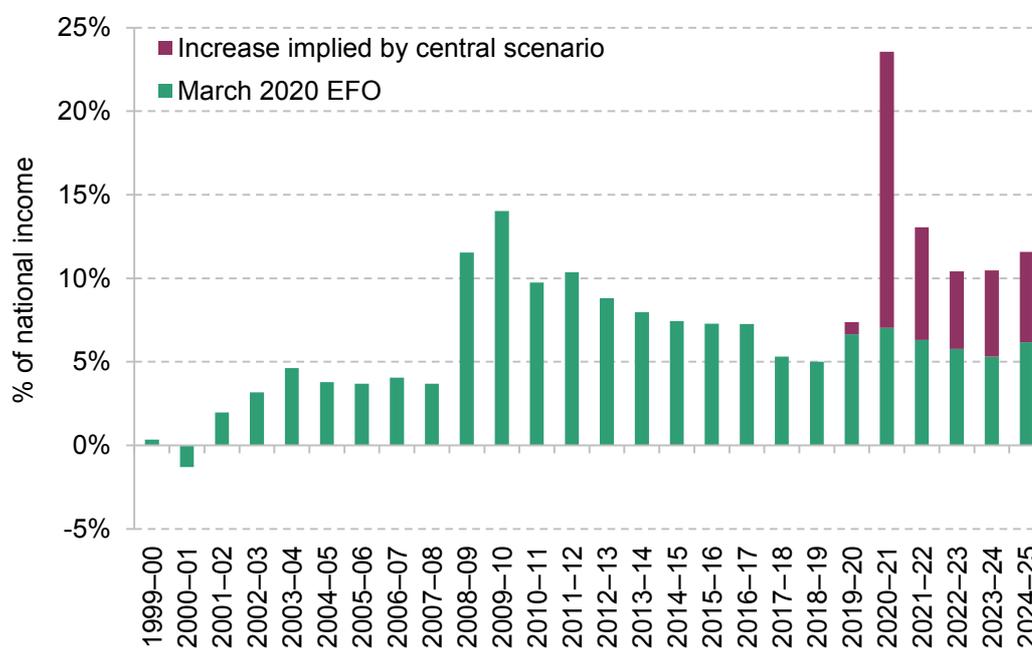
- 8 Changes – or even just a perceived appetite for changes – to the institutional structure of UK fiscal and monetary policy could put upward pressure on the risk premium for gilts, even if the underlying natural rate of interest, and expected growth, remain very low. **It will be particularly important to maintain the credible independence of the Monetary Policy Committee in setting monetary policy**, since the government has a more direct stake in Bank Rate now that it has more effect on its debt interest bill.
- 9 The Chancellor needs to signal that he takes the long-run health of the public finances seriously, that he fully respects the independence of the Monetary Policy Committee, and that he will not water down the inflation target in an attempt to help manage the public finances. **Issuing a larger share of gilts on a long-term, indexed basis could only help to signal that intent.**

5.1 Introduction

During the COVID-19 pandemic, sharply reduced economic activity and substantial tax cuts and spending increases to support public services, businesses and households through the lockdown mean that government borrowing will be increased enormously in 2020–21. Continued weakness in the economy will mean it is elevated for some years to come. This is the correct response: a sizeable one-off adverse shock to the public finances should be associated with a large increase in government debt that is allowed to persist for many years. But as a result, the Debt Management Office (DMO) will need to sell many more gilts over coming years. This will make it even more important that the sale of these gilts is designed appropriately with respect to the costs and risks to the public purse, and the needs of the wider economy.

Figure 5.1 shows the likely scale of gross issuance – that is, the combined total of new cash borrowing and the need to refinance existing borrowing as gilts reach their maturity – over the next few years, and how this compares with the period since 1999–2000. The green bars show the issuance forecast by the Office for Budget Responsibility (OBR) at the time of the March 2020 Budget, which was produced largely before any of the economic impact of COVID-19 on the UK economy had become clear. This showed that, having fallen as a share of national income over the period since the 2008–09 financial crisis, issuance had risen slightly since 2018–19. Over the next five years, issuance was already forecast to run about 50% higher as a share of national income than over the five years in the run-up to the financial crisis. This was due to the combined impact of the government no longer attempting to reduce the deficit – being content to finance its desired increases in spending through increases in borrowing – and rising redemptions arising from borrowing done over the previous decade.

Figure 5.1. Forecast gross financing requirement, March 2020 Economic and Fiscal Outlook (EFO) and central scenario compared



Source: As for Figure 4.2 plus chart 3.11 on page 100 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

The purple additions on Figure 5.1 give a sense of how substantial the post-pandemic increase in issuance might be, using the outlook for government borrowing presented in Chapter 4 under the central economic scenario prepared by Citi for this Green Budget and outlined in Chapter 2. Under this scenario, we forecast gross issuance to reach 24% of national income in 2020–21 (almost £500 billion). This would be the same as that financed cumulatively over the previous four years, or the total amount financed over the nine years from 1999–2000 to the eve of the financial crisis in 2007–08.

There is obviously a huge amount of uncertainty around these forecasts. Some sense of this is provided in Table 5.1, which compares gross financing, this time in cash terms, under each of the three scenarios for the public finances presented in Chapter 4 alongside the OBR’s March 2020 Budget forecast. Over the five years shown, under our central scenario just over £1.5 trillion would need to be financed, double the £760 billion forecast in the March 2020 Budget. Our different scenarios illustrate that there is a wide range of possible outcomes, with our forecasts ranging from a little over £1.3 trillion to more than £1.8 trillion.

Table 5.1. Forecasts for gross financing requirement compared (£ billion)

	2020–21	2021–22	2022–23	2023–24	2024–25	Total
March 2020 EFO	163	152	143	136	163	757
Green Budget central	483	282	237	249	285	1,536
Green Budget pessimistic	507	351	295	302	334	1,789
Green Budget optimistic	476	235	178	190	225	1,305

Source: As for Figure 5.1.

The task of raising this finance, largely through the sale of gilts, will fall to the DMO. Its primary 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’. This strategy was set out in July 1995 and has not been changed since (HM Treasury and Bank of England, 1995; HM Treasury, 2020).

But much has changed over the last quarter of a century: public sector net debt has increased from 35% of national income prior to the financial crisis to around 100% of national income today; the Bank of England now has operational independence over monetary policy; there has been a huge expansion in the size of the Bank of England’s balance sheet as a result of its programme of quantitative easing. In the light of these changes, and with much greater issuance over the next few years, a review of the strategy pursued by the DMO would be appropriate.

How government debt is financed will have a number of important implications. These include: the likely cost of financing government borrowing; the sensitivity of the public finances to different types of shocks; the risks that are borne by the private and public sectors; and the incentives faced by different institutions. Discussion in this area is often about the high costs of getting it very wrong, most obviously by creating sovereign debt crises. But the costs of getting it slightly wrong can also be substantial. If gross issuance of £1.5 trillion were done over the next five years at just $\frac{1}{3}$ of a percentage point higher rate of interest than it needed to be, then this would eventually add £5 billion a year to debt interest spending (equivalent to one-sixth of the total bill in 2019–20).

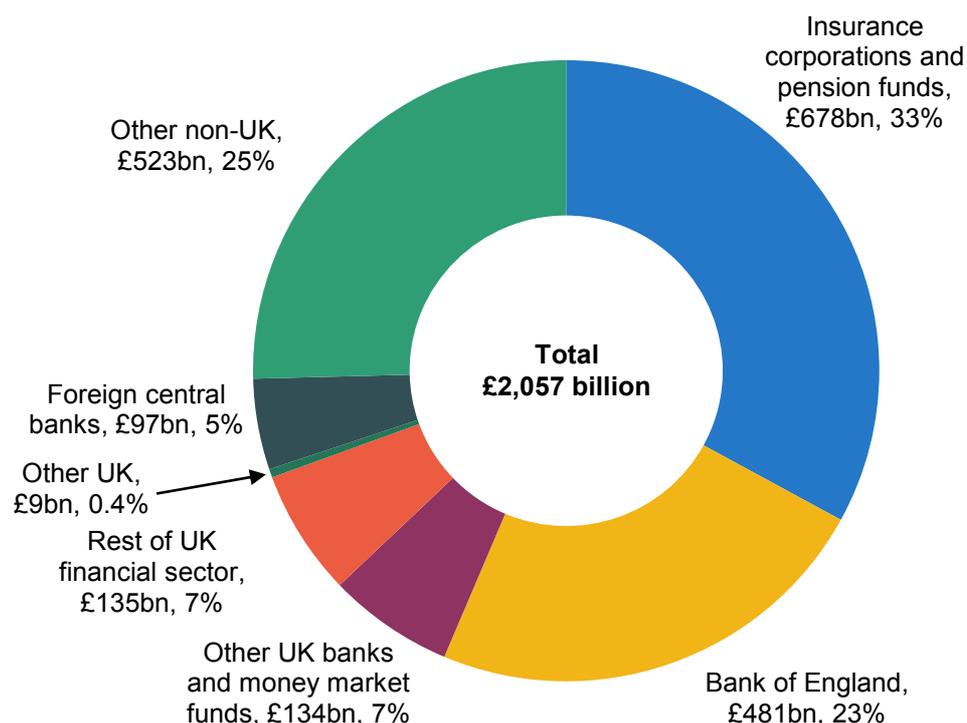
This chapter discusses the cost and composition of UK government debt, how these have changed over time and how they compare with those of other countries. Section 5.2 looks at who lends to the UK government and how this has changed – highlighting the rise in importance of gilts held by the Asset Purchase Facility of the Bank of England as a result of its programme of quantitative easing. This section also sets out how the composition of government debt has – and in some cases has not – changed over time. Section 5.3 documents what has been happening to the price of government borrowing – that is, the interest rate on different types of gilts – in the recent past, and how the markets now expect it to evolve going forwards. Section 5.4 shows how forecast spending on debt interest has, despite the sharp rise in forecast borrowing, actually fallen since March 2020 while the sensitivity of debt interest spending to increases in interest rates has increased

substantially. Section 5.5 concludes with some recommendations for fiscal strategy as we strive to accommodate elevated debt in the best possible way.

5.2 From whom does the UK government borrow?

At the end of 2019, before the onset of the COVID-19 pandemic in the UK, outstanding gilts totalled £2,057 billion. Figure 5.2 shows a breakdown of who owned these gilts, while Figure 5.3 shows how the composition of gilt holdings has changed over the period since 1987. At the end of 2019, 30% of gilts were held by foreign investors. Among those, the share held by investors other than foreign

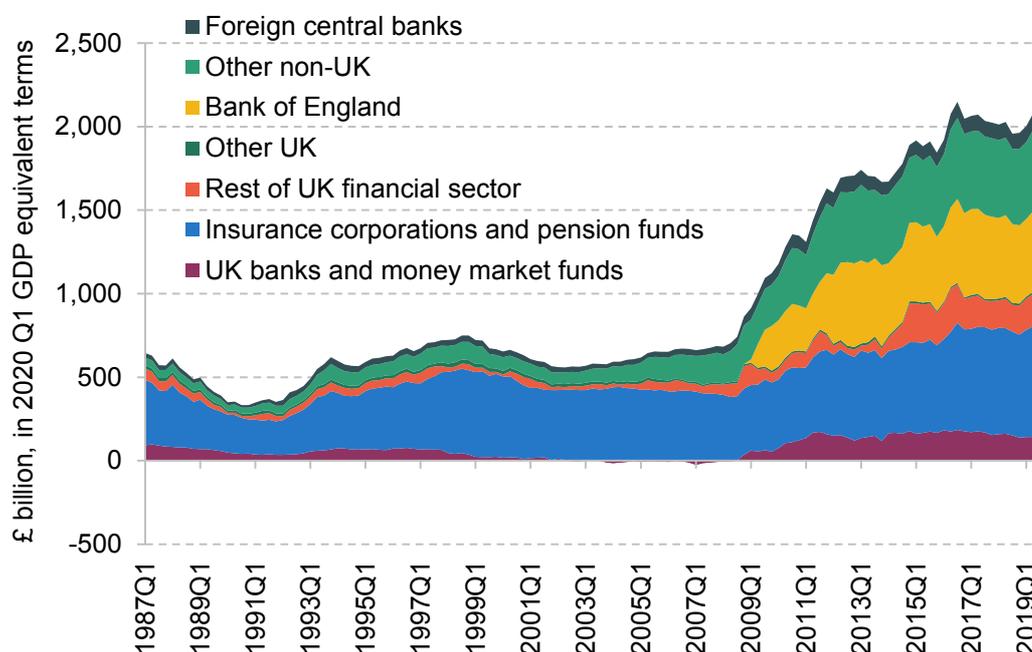
Figure 5.2. Breakdown of UK gilts by holder, 2019 Q4



Note: 'Other UK' includes UK households, UK non-profits serving households, UK private and public non-financial corporations, and local government. 'Other UK banks and money market funds' includes building societies.

Source: Office for National Statistics, United Kingdom Economic Accounts: Quarter 1 (Jan to Mar) 2020.

Figure 5.3. Holders of UK gilts (£ billion)



Note: Negative values represent repo positions. Values for the Asset Purchase Facility in 2009 Q1 and Q2 are total amounts outstanding on 26 March and 25 June, respectively.

Source: Office for National Statistics, United Kingdom Economic Accounts: Quarter 1 (Jan to Mar) 2020; Debt Management Office, Quarterly Reports 2010 Q1 to 2020 Q1; Bank of England, Asset Purchase Facility Quarterly Report 2009 Q2. Updated to 2020 Q1 terms using growth in nominal GDP (ONS series BKTL).

central banks has increased substantially since 1990 due to increased financial globalisation; it has stabilised at around four-fifths since the mid 2010s.

Among domestic creditors, the biggest gilt holders were insurance companies and pension funds, which held one-third of all gilts on the eve of the pandemic. These institutions have long-term liabilities (specifically, defined benefit pension commitments and annuities sold by insurance companies) and are natural holders of longer-dated gilts which hedge risks. But the share of gilts held by insurance companies and pension funds is much lower than it once was: as recently as 2004, they held three-quarters of all gilts. While their holdings of gilts did grow slightly more than national income over subsequent years, their holdings did not grow as fast as the sharp increase in debt that occurred as a result of the financial crisis.

The Bank of England's programme of quantitative easing, which began in 2009, meant that its holdings of gilts accounted for just under a quarter of the overall

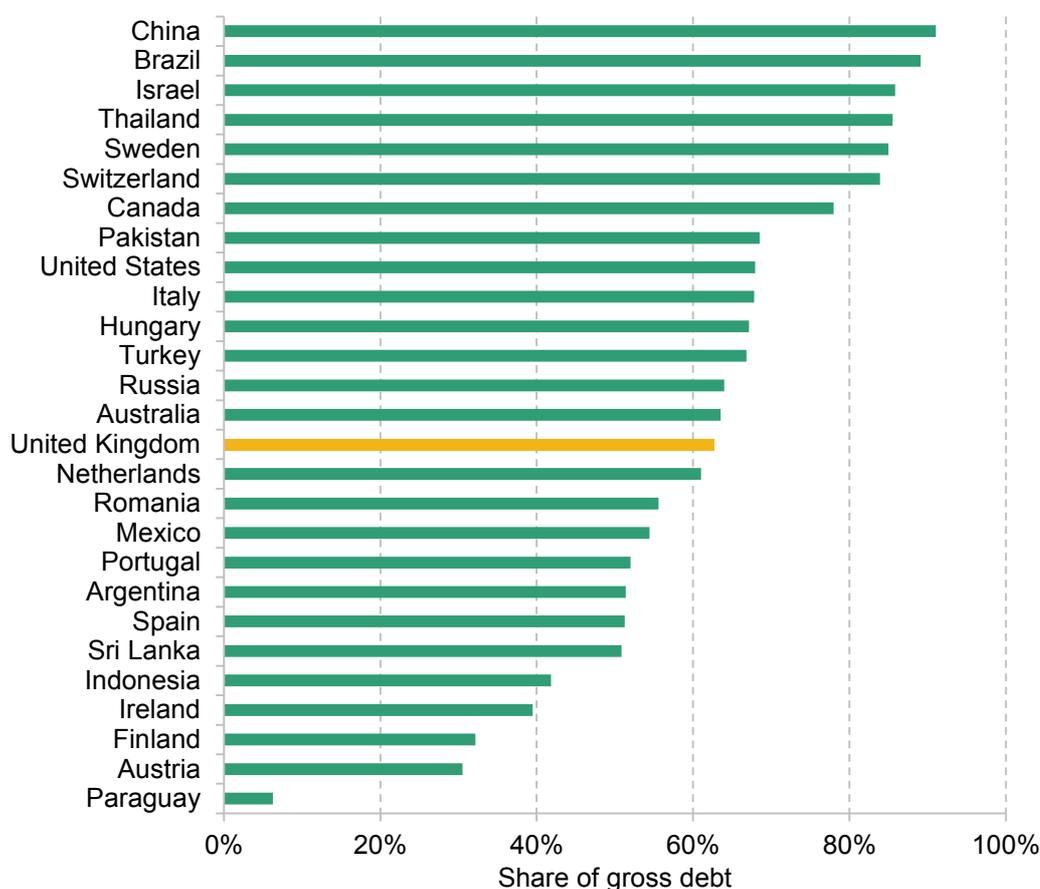
stock of gilts by the end of 2019. Expansions of quantitative easing were announced in the years following the financial crisis and also, on a smaller scale, following the EU referendum result (further details of this are provided in Figure 5.5 and the surrounding text later). Whilst decisions to expand quantitative easing are taken in discrete steps, the process of buying the extra gilts takes several months, which is why the Bank holdings in Figure 5.3 do not show stepwise increases. The Asset Purchase Facility also purchases new gilts to replace ones that have matured, so the gilts held by the Bank of England have not fallen consistently at any point over this period.

At the end of 2019, the rest of the UK financial sector, including commercial banks, building societies, funds, brokers and other financial corporations, held 13% of all gilts. Their share declined in the late 1990s and early 2000s and their holdings were consistently negative from the end of 2003 until just before the financial crisis, reflecting their use of repos. (A repo, or repurchase agreement, is a form of short-term borrowing where an asset – in this case, a gilt – is sold with an agreement to buy it back later at a set price.) Their share has increased again since then, as UK gilts allowed banks to comply with tightened regulations intended to reduce their exposure to risk.

To the extent to which domestic demand for gilts is at least in part determined by the liabilities of pension funds and insurance companies, and the requirements of their regulators, the marginal private purchaser of gilts may disproportionately be foreign investors. As a result, these foreign investors may be particularly important in determining how the market price – and therefore interest rate – on gilts adjusts to developments.

Figure 5.2 showed that about 70% of UK gilts were held domestically while 30% were foreign-owned. Data from the International Monetary Fund (IMF) and the World Bank – presented in Figure 5.4 – show that there is considerable variation across countries in the share of their government debt that is domestically owned and that the UK's share is about average.

Figure 5.4. Share of domestic creditors in selected countries, 2019 Q4

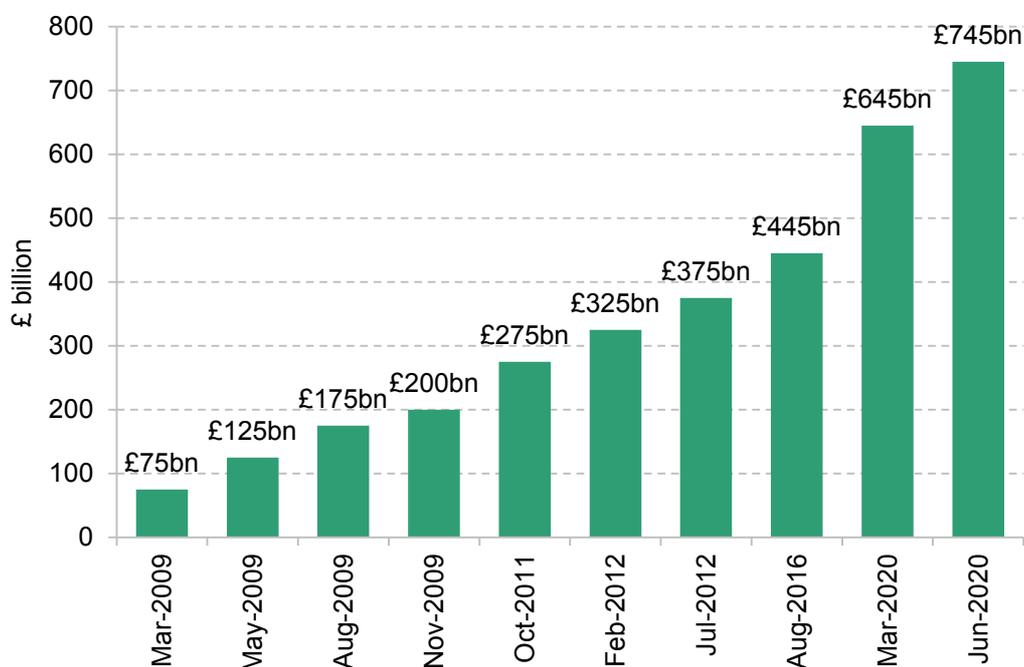


Source: IMF and World Bank, Quarterly Public Sector Debt databank, <https://databank.worldbank.org/reports.aspx?source=public-sector#>.

The growing importance of quantitative easing

As Figure 5.3 shows, the Bank of England's programme of quantitative easing has substantially changed the pattern of holdings. This is a form of 'unconventional' monetary policy that the Monetary Policy Committee of the Bank of England has deployed in an attempt to help ensure financial stability and to expand the economy and push inflation back up towards target when it judges there is little scope for further cuts to interest rates. Quantitative easing was first announced in March 2009, when the Bank committed to buying £75 billion in assets. The vast majority of the assets were and continue to be UK gilts, but the programme also purchases small amounts of private sector, corporate bonds. Since then, the Monetary Policy Committee has expanded the scheme on multiple occasions, including adding a substantial £300 billion across its March 2020 and June 2020 meetings in response to the current crisis (Figure 5.5).

Figure 5.5. Growth in the planned size of the programme of quantitative easing



Note: Total asset purchases financed with central bank reserves shown, adding £10 billion of corporate bond purchases at times when the decision was to buy 'up to' that amount.

Source: Monetary policy summary and minutes, <https://www.bankofengland.co.uk/-/media/boe/files/monetary-policy-summary-and-minutes/mpcvoting.xlsx>.

In quantitative easing, the central bank purchases financial assets, which are overwhelmingly government bonds. The increase in demand for bonds can push up their price and lower yields (or prevent what might otherwise be a fall in price and rise in yields). Lower gilt yields put downward pressure on a variety of other interest rates, and will raise the value of a broader class of assets unless offset by rises in the risk premiums on other assets relative to gilts.

To finance these purchases, the Bank of England creates reserves, which are deposits of commercial banks held at the central bank which pay interest at Bank Rate. The Bank of England holds the gilts it purchased in the Asset Purchase Facility.¹ The cost to the Bank from quantitative easing operations is the interest

¹ The Asset Purchase Facility is a subsidiary of the Bank of England. Technically, it is the Asset Purchase Facility that carries out quantitative easing, using a loan from the Bank of England. For simplicity, we (and many commentators) say that 'the Bank' is buying bonds, which does accurately describe the fundamental economic process, even if the legal arrangement is more complex.

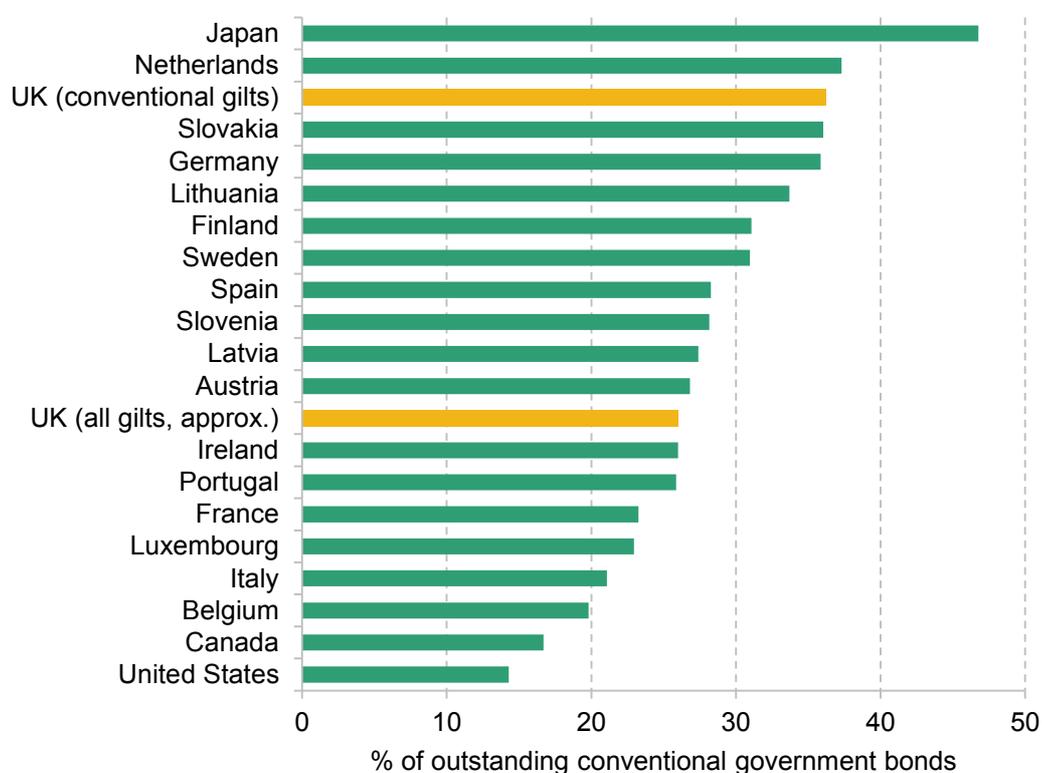
that it pays on the reserves it has created to make the purchases, which is Bank Rate. But the Bank of England also receives interest income from the gilts held in the Asset Purchase Facility, just as would any other investor holding them.

Presently, the interest income that the Asset Purchase Facility receives is greater than the interest rate that it pays on reserves because Bank Rate is lower than the effective interest rate on the gilts it owns. As a result, the Asset Purchase Facility is currently making a profit (quantified in Section 5.3), which is returned to the Treasury. Should Bank Rate rise enough that the interest the Bank of England pays on the reserves that it has created exceeds the interest income it receives from holding the gilts, the Treasury would compensate the Bank – instead of receiving a dividend, money would flow in the other direction.

The Monetary Policy Committee of the Bank of England has stated that the programme of quantitative easing will start to be unwound when demand has risen sufficiently to create inflationary pressures. This would involve selling gilts back to the private sector and so reducing the size of reserves held by commercial banks at the Bank of England. Andrew Bailey, the new Governor of the Bank of England, suggested at the end of August 2020 that some gilts might be sold in order to create headroom for further expansion in future if needed, arguing that ‘it could be preferable, and consistent with setting monetary conditions consistent with the inflation target, to seek to ensure there is sufficient headroom for more potent expansion in central bank balance sheets when needed in the future – to “go big” and “go fast” decisively’ (Bailey, 2020).

The extent to which the Bank of England will ultimately unwind the huge expansion in its holdings of gilts will depend on the demand for reserves from the banking sector. Should commercial banks want to hold far greater reserves than in the past then the Bank will almost certainly wish to allow this to happen so that its balance sheet would not shrink back to where it was before quantitative easing operations began just after the financial crisis. This would mean that the Bank would have a larger balance sheet than it did before quantitative easing operations, making it likely that only some of the gilts bought since 2009 will ultimately be sold. (Technically, the gilts would move from the Asset Purchase Facility to the Bank’s own balance sheet, but in essence this just means the assets stay with the central bank.) This is likely since, just before the financial crisis, reserves at the Bank were small and far below what is now considered prudent by commercial banks.

Figure 5.6. Central bank holdings of domestic government bonds as a % of outstanding conventional bonds, selected countries, May 2020



Note: For the United Kingdom, Asset Purchase Facility holdings as a share of outstanding conventional gilts, at market value. For the United States, marketable Treasury securities, excluding Treasury bills, held by the Federal Reserve as a share of outstanding marketable Treasury securities, excluding Treasury bills, at market value. For Canada, government bonds, excluding Treasury bills, held by the Bank of Canada as a share of outstanding Canadian government bonds. For Japan, government bonds held by the Bank of Japan as a share of outstanding Treasury securities, excluding Treasury discount bills and including FILP bonds, at nominal value. For the Eurozone countries, cumulative net purchases of government bonds in the Eurosystem's Public Sector Purchase Programme and the Pandemic Emergency Purchase Programme at book value as of end-May 2020 as a share of outstanding general government bonds at face value as of end-April 2020. For Sweden, the purchases of government bonds (355.4 billion SEK as of 15 May 2020) as a share of outstanding government bonds as of end-April 2020, at face value.

Source: OECD, 'Sovereign borrowing outlook for OECD countries 2020', <https://www.oecd.org/finance/financial-markets/oecdsovereignborrowingoutlook.htm>.

The Bank of England is not the only central bank that has been making large purchases of government bonds. Figure 5.6 presents OECD data from the end of May 2020 that show the share of outstanding conventional government bonds held by central banks across 20 advanced economies. Across these countries, the share varies from 14% in the United States to 47% in Japan. On the measure used by the

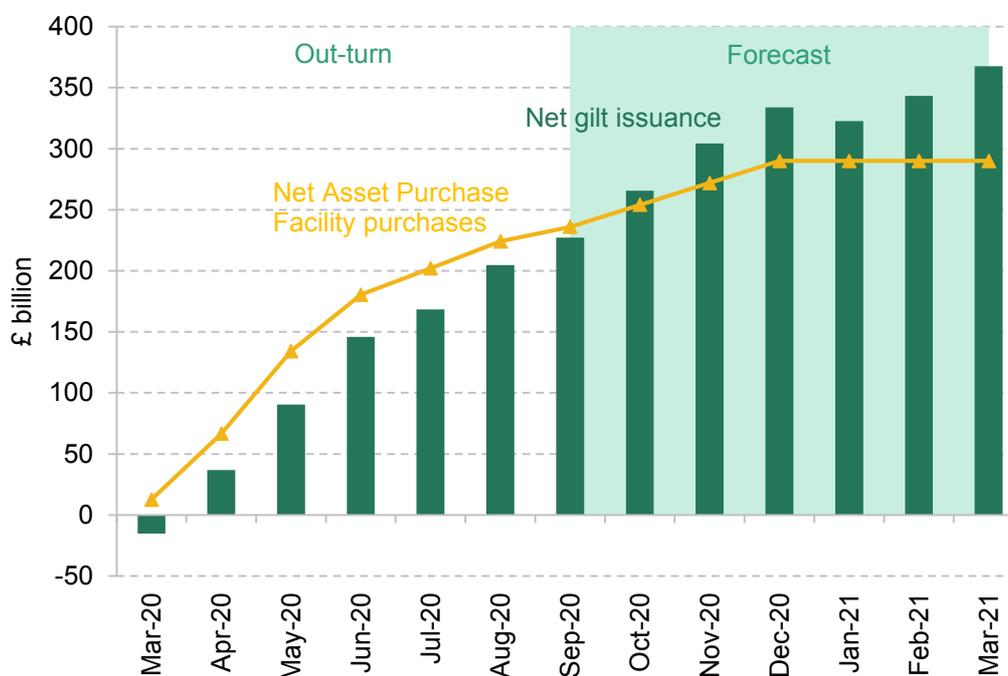
OECD, the Bank of England's holding is relatively high (36%), and indeed only a shade lower than for the Netherlands (37%), the country with the second-highest share out of those for which comparable data are available. However, this figure overstates the role of quantitative easing in the UK somewhat relative to other countries, as it shows the share of conventional (non-index-linked) gilts only. As we will discuss in Section 5.3, the share of inflation-indexed gilts is much higher in the UK than elsewhere (and these are typically held by pension funds and other domestic investors, not by the central bank). Using the proportion of index-linked gilts in 2019–20 would imply that the Bank of England holds approximately 26% of *all* UK gilts. In the other countries, the corresponding adjustment would be significantly smaller.

The size of the programme of quantitative easing has been increased in response to the pandemic – as shown in Figure 5.5, a further £200 billion was announced alongside the March 2020 Budget and an additional £100 billion followed in June 2020. Once the purchases have been made, this will bring the overall size of the programme to £745 billion (36% of national income under our central scenario and, very roughly, a similar share of gilts in issuance). As with previous quantitative easing operations, the purchases of gilts are being made gradually and from the open market (rather than directly from the DMO's gilt auctions).

Is this monetary financing?

The size of the cumulative net issuance of gilts, by month, since March 2020 (when the first increase in quantitative easing in response to the pandemic was announced) is shown in Figure 5.7 alongside the size of the Asset Purchase Facility's new gilt purchases. Since March, both have increased in lockstep: the growing size of net gilt issuance by the DMO has been largely matched in scale by growth in gilt purchases by the Bank of England. OBR numbers from September suggest that, by the end of September 2020, net issuance of (new) gilts by the DMO since the start of March will have been £227 billion, while over the same period the net purchase of (existing) gilts by the Bank of England will have been £236 billion; holdings of UK gilts other than by the Bank of England will essentially have not changed since the outbreak of the pandemic in the UK. There should have been no direct crowding out of private borrowing arising from the increase in government borrowing over this period.

Figure 5.7. OBR forecast for cumulative debt issuance and planned Bank of England gilt purchases from March 2020 to March 2021



Source: Page 9 of Office for Budget Responsibility, 'Commentary on the Public Sector Finances: August 2020', 25 September 2020, <https://obr.uk/docs/September-2020-PSF-Commentary.pdf>.

Looking forwards over the period from the start of October 2020, the figures from the OBR shown in Figure 5.7 suggest that net gilt issuance by the DMO will exceed planned gilt purchases by the Bank of England. In part, this is because the figures imply that gilt purchases from the recent expansion in the programme of quantitative easing will be completed by the end of December 2020. It is of course possible that the Monetary Policy Committee will decide to expand the scheme further.

The fact that Bank of England purchases of gilts have aligned so closely with the government's need to auction gilts to finance its spending has raised the question of whether this is, in fact, monetary financing. This would be a situation where the programme of quantitative easing was being extended in order to finance growing government borrowing (rather than to provide unconventional monetary policy support to demand and to put upward pressure on inflation). As pointed out by Ben Broadbent, Deputy Governor of the Bank of England and Monetary Policy Committee member, the fact that both are occurring at the same time does not mean one is done with the purpose of facilitating the other:

‘The main problem with this argument is that the monetary stance and the fiscal balance are both cyclical – they tend to rise in upswings and fall in downturns. You’d therefore expect them to be correlated this way. In fact, in the UK data, short-term interest rates have become more tightly correlated with economic growth since inflation targeting was introduced.’

Broadbent, 2020

The key difference lies in the reason why the programme of quantitative easing is being expanded and how it is expected to be used in future. An independent Monetary Policy Committee choosing to expand the programme of quantitative easing in order to help ensure financial stability, support activity and keep inflation on course to return to the target of 2% is not undertaking monetary financing. Once the economy recovers, and spare capacity in the economy is used up, inflationary pressures would lead to rising interest rates and prompt a gradual unwinding of quantitative easing in order to prevent inflation (and with it inflation expectations) from rising above that same target.

An alternative would be a scenario where monetary policy was not being set to meet the inflation target. As Gertjan Vlieghe, another Monetary Policy Committee member, said in a speech in April:

‘The difference would be that government would be telling the central bank what to do, implicitly or explicitly, in order to achieve fiscal objectives while subordinating any inflation objectives, a situation also known as fiscal dominance. Why would that ultimately lead to inflation? Because, once a government decides to prioritise its fiscal objectives above its inflation objectives, it is likely to involve removing central bank independence implicitly or explicitly, and crucially keeping short-

term interest rates lower than would be appropriate to meet the inflation target.’

Vlieghe, 2020

Maintaining very loose monetary policy – or even continuing to loosen it – in a situation where there was no longer spare capacity in the economy would not be consistent with the Monetary Policy Committee striving to meet the 2% target for CPI inflation: were this to happen, inflationary expectations would rise and the value of the pound would be expected to fall. Foreign investors in particular would be likely to demand a higher interest rate to entice them to continue lending to the UK government.

Higher-than-expected inflation would also reduce the real value of outstanding conventional gilts. While this would benefit the public finances in the short term, there are better ways to go about reducing debt as a share of national income: if that is the goal, it would be far better to achieve it through well-designed, carefully targeted and clearly articulated tax rises. Surprise inflation might significantly raise the cost of future gilt issuance (since investors would need to be compensated for the risk that inflation again turns out surprisingly high), so while it could reduce the debt-to-GDP ratio now, it could come at a cost of worsening the longer-term fiscal position.

A crucial element is whether the Monetary Policy Committee is, and will remain, independent and focused on meeting the inflation target, and whether this is widely believed to be the case. Market expectations of future inflation have not risen (Vlieghe, 2020). Thus far, it would seem that markets are taking a benevolent view of the recent quantitative easing operations – inclining towards seeing them largely as a means of preventing temporary liquidity issues in the gilt markets in the face of a huge and unexpected rise in issuance, and thus preserving financial stability and supporting economic activity in a way consistent with the inflation target.

The real test will come when economic conditions would seem to warrant some rise in interest rates which, in effect, will raise the cost of government borrowing because so much of it is now effectively being done at Bank Rate (indirectly through the Bank of England). If the markets come to believe that the Monetary Policy Committee will come under pressure from the government not to raise rates, it could generate a rise in inflation expectations, which in turn would drive up

(nominal) gilt yields. The Chancellor should help avoid this by reaffirming the independence of the Bank of England. Moreover, while there may be good arguments in favour of making changes to the Bank of England’s mandate – for example, the Federal Reserve in the US has recently revised its inflation target in a way that effectively weakens it – appearances are crucial. Any changes would need to be handled very carefully, and it might be better simply to provide clarity that the current mandate will be maintained.

5.3 On what basis does the UK government borrow?

Not all gilts are the same. This section sets out the composition of gilts in issuance and what this means for the risks around debt interest spending and the risks that are being held by the owners of those gilts. The section also compares the composition of UK government bonds with those of other countries, and shows what has been happening to the yields on different gilts.

Gilts vary in terms of whether the amount of interest, and the face value, is fixed in cash terms (a conventional gilt) or whether these amounts are linked to inflation (an index-linked gilt). Gilts also vary in their maturity – that is, how long they continue paying interest before the gilt expires and the principal is repaid. Further details are provided in Box 5.1.

Box 5.1. Characteristics of gilts

Gilts are the main instrument the UK government uses for borrowing. In this box, we summarise the main characteristics of gilts, and the different types of gilts offered by the UK government.

Gilt accounting. A conventional gilt has a fixed face value and fixed coupons (i.e. interest payments). For example, a 1½% Treasury Gilt 2047 with a face value of £100 will pay £1.50 every year until 2047 before returning £100. But because gilts are sold in a market, supply and demand will determine the actual price of the gilt. That means that the effective interest rate on gilts – that is, the interest paid relative to its market price – can be more or less than the nominal interest rate. For example, if the aforementioned gilt is sold above its face value, at £105, then the effective interest rate is £1.50 divided by £105, or 1.4%. So a rise in gilt prices implies a fall in the effective interest rate on gilts, and vice versa. Yields to

maturity (a better measure of the overall return and often what people mean by ‘the interest rate’) also reflect any predictable capital gain or loss when a gilt trades at a price different from its face value but will subsequently move back towards it.

Gilt maturity horizons. Gilts pay interest for a fixed number of years, after which the money loaned (the principal) is repaid. Treasury bills (or T-bills) are very short-term bonds with a maturity of less than a year used to manage the government’s immediate cash flow, which we do not consider here. The DMO issues gilts in three maturity ‘buckets’: short (1–7 years), medium (7–15 years) and long (more than 15 years). Since 2005, the DMO has also issued some ultra-long gilts (50 years or more). The relationship between maturity and the cost of borrowing (the yield curve) is an important determinant of the cost of government borrowing. Gilts of different maturities also attract different types of investors: long-maturity gilts are primarily bought by domestic pension funds and life insurance companies (which need stable, long-term assets to offset their long-term liabilities), whereas shorter gilts attract a more diverse set of investors.

Conventional versus index-linked gilts. Gilts also differ in how they define the interest that will be paid. Conventional gilts pay a fixed, nominal amount of interest; the interest on index-linked gilts depends on a measure of inflation. Index-linked gilts expose debt interest spending to inflation risk: if inflation turns out higher than expected, the government would have to pay more in nominal terms on interest on these gilts (conversely, lower-than-expected inflation leads to a smaller debt interest bill).

Index-linked gilts are currently pegged to the Retail Prices Index (RPI), which is well known to be a flawed measure of inflation based on outdated statistical techniques. The Office for National Statistics is planning effectively to replace the RPI as the index for inflation-proof bonds with the Consumer Prices Index including Housing, which is a more accurate measure of prices and in recent years has measured inflation substantially lower than RPI inflation. Depending in part on the results of a consultation that closed in August, the change is planned to be implemented between 2025 and 2030. In 2019, the OBR pointed out that the unsuitable formula had raised RPI inflation by an average of 0.7 percentage points a year over the previous four years. The consequences of RPI turning out 0.7 percentage points lower would (all else equal) lower debt interest spending by £3.1 billion in 2019–20 rising to £4.4 billion in 2023–24.^a

^a Source: Office for Budget Responsibility, 2019, box 7.1, p. 201.

The right gilts to issue will depend, at least in part, on which risks the private sector is well placed to manage. For example, defined benefit pension funds will have substantial long-term liabilities that in many cases are linked to the RPI. Therefore, they will see a natural hedge in long-maturity, index-linked gilts which are well matched to their liabilities in terms of both maturity and inflation risk. More generally, the price – or in other words the rate of return – on offer for different types of gilts will be a market signal.

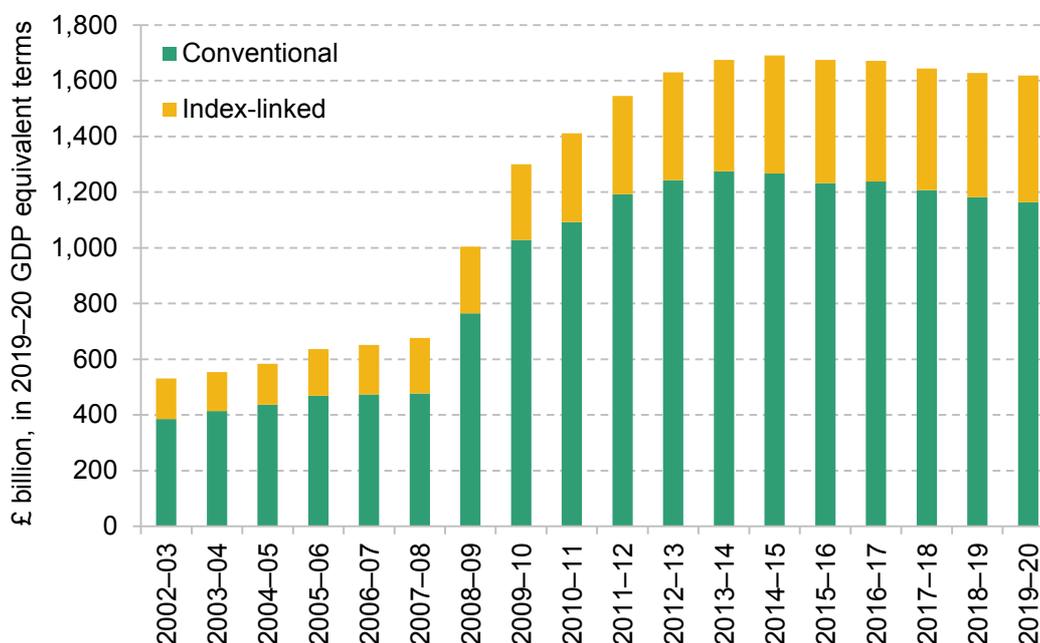
It is also sensible for the DMO to have a clearly communicated process for how the mix of gilts to be sold will be determined. This will improve market expectations of what the future supply of different types of gilts is likely to be. This can help to ensure that gilt prices are not reduced (and interest rates increased) due to an unnecessary premium to cover uncertainty over what the composition of future issuance will be.

What proportion of gilts are linked to inflation?

Following the Wilson Committee report of 1980, the UK was an early issuer of index-linked bonds, issuing the first UK gilts of this type in March 1981. The stated rationale was to demonstrate commitment to reducing inflation by lessening the incentive to try to induce surprise inflation.

Compared with other G7 countries, the UK has a much larger share of its gilts that are index linked. In 2017, 26% of the UK's gilts were index linked; this was more than twice the 12% share of Italy, which had the second-highest share. More broadly across OECD countries, the average share of government bonds that are index linked has fluctuated between 3% and 8% over the last decade, well below the share seen in the UK (OECD, 2019).

At least in part, this might reflect differences in where demand for each country's government bonds comes from. The UK has a relatively large, and mature, funded defined benefit pension provision where liabilities are inflation linked. This will generate more demand for inflation-linked government bonds, at least relative to countries where a larger share of pensions is either financed on a pay-as-you-go basis or funded but with the resulting pensions not fixed in real (inflation-adjusted) terms.

Figure 5.8. Conventional and index-linked gilts (£ billion)

Note: Face value, updated to 2019–20 terms.

Source: Debt Management Office; updated to 2019–20 terms using growth in nominal GDP (ONS series BKTL).

The share of gilts, split by whether they are conventional or index linked, for each financial year back to 2002–03 is shown in Figure 5.8. The share that is index linked has risen slightly from 23% in 2010–11 to 28% in 2019–20. Excluding gilts purchased by the Bank of England, the share of index-linked gilts is even greater, as the Bank of England only purchases conventional gilts (in part because it would appear odd for the body charged with keeping inflation on target to purchase gilts that offer insurance against higher-than-expected inflation).

The government has recently made an active decision to reduce the share of gilts issued that are index linked. The Treasury has stated that this was partly in response to the declining membership of defined benefit pension arrangements reducing demand for these gilts, and partly in response to the OBR’s inaugural Fiscal Risks Report which highlighted the exposure of public spending on debt interest to increases in the RPI. In particular, the OBR pointed out that since index-linked gilts have longer average maturity than conventional gilts, this was leading to the outstanding stock of gilts that are indexed rising as conventional gilts reached

maturity more often (Office for Budget Responsibility, 2017). In response to this OBR report, the Treasury said:

‘The government has therefore been considering the appropriate balance between index-linked and conventional gilts, taking account of the level of structural demand, the diversity of the investor base, and the government’s desired inflation exposure. The government’s current view on the balance between these considerations was reflected in the 2018-19 financing remit, which reduced index-linked gilt issuance by 2 percentage points compared to that planned at the start of the previous financial year (2017-18), from 23.1% to 21.1%.’

HM Treasury, 2018a, p. 54

Following this, in the Autumn 2018 Budget, the government said that it would ‘look to reduce index-linked gilt issuance in a measured fashion as a share of total issuance over the medium term, in line with this planned reduction’ (HM Treasury, 2018b, annex A). The March 2020 Budget followed this through, reducing the share of index-linked issuance in 2020–21 compared with 2019–20. As a result, the share of gilts being issued that are index linked is set to fall in future years, though it will still remain substantially higher than in other countries. (And, of course, the value of index-linked gilts is still set to rise with higher borrowing over the next few years; see Chapter 4.)

But there could be considerable benefits from moving in the other direction and tilting issuance more towards index-linked gilts. DMO auctions have been achieving very high prices – and therefore very low effective interest rates – on index-linked gilts. For example, on 2 September 2020, the DMO auctioned £459 million of index-linked gilts that run to 2056 at a real yield to maturity (based on RPI indexation) of –2.0%. In addition, the DMO received total bids of 2.26 times the amount being auctioned, suggesting that demand is sufficiently strong to bear at least some more issuance. Doing this would have the advantage of locking in the real cost of more government debt. While there are flaws in the RPI as a measure of inflation, these are fixable and therefore should be tackled directly

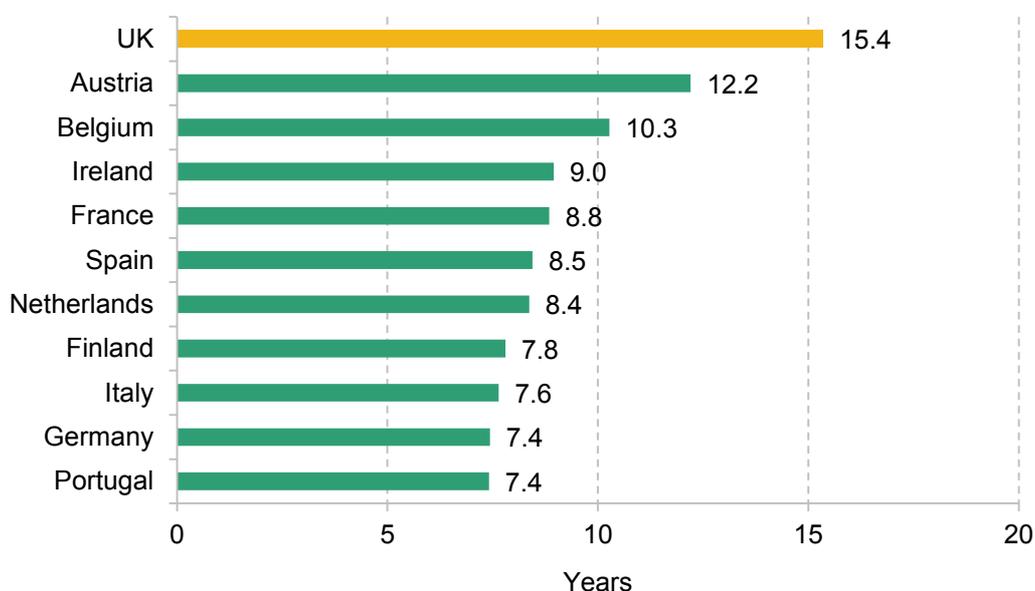
rather than used as a reason not to issue index-linked debt. A further advantage of increasing the share of index-linked debt is that it would be a visible way of demonstrating a commitment not to resort to inflation to try to reduce government debt.

How long-term are UK gilts?

Relative to other countries, the UK's debt is very long-term. Figure 5.9 shows the average maturity of government borrowing across 11 advanced economies. The UK not only has the highest average maturity, but at over 15 years it is the largest by a substantial margin. For comparison, France, Germany, Italy and Spain all have an average maturity of less than 9 years.

The average maturity of gilts also varies by whether they are conventional gilts or index linked. Of new gilts issued in 2017–18, 60% of conventional gilts (which were 75% of those issued) were either short or medium maturity. In contrast, over 80% of index-linked gilts (which were 25% of those issued) were of a long maturity.

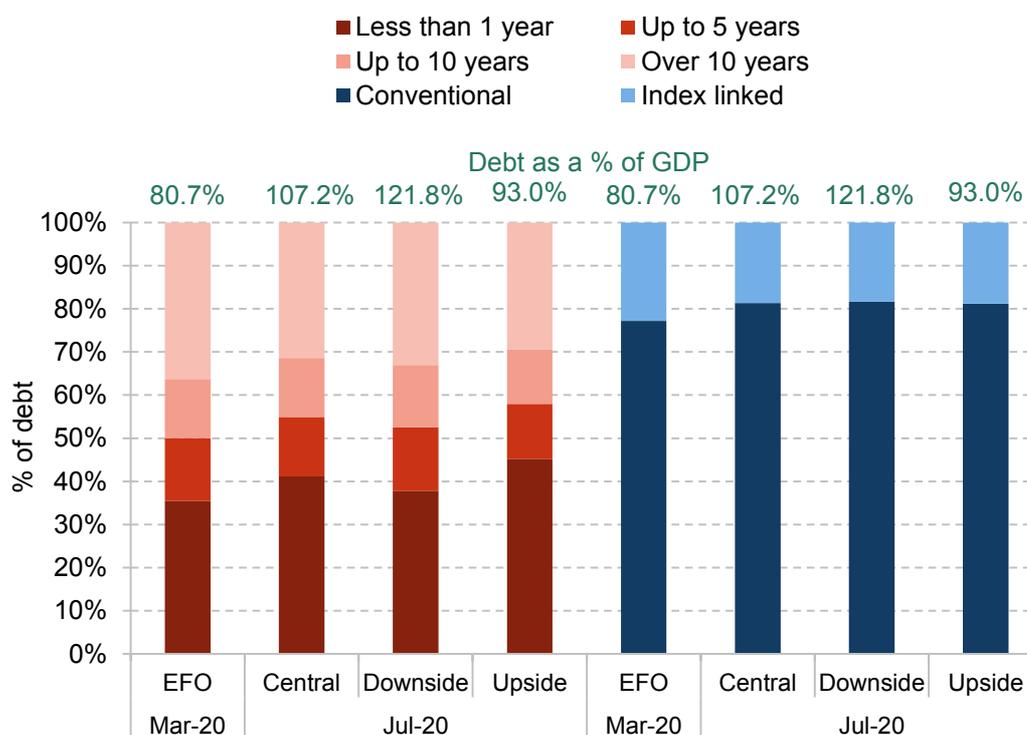
Figure 5.9. Average maturity of government borrowing



Source: Citi Research.

As was shown in Table 5.1, a large amount of gilts will be issued over the next few years, although there is substantial uncertainty over how many more will be issued. The OBR, in its July 2020 Fiscal Sustainability Report, produced forecasts for gilt issuance – including its composition – under three scenarios for the evolution of the economy.² These are presented in Figure 5.10. They show that the composition of government bonds in 2024–25 is relatively invariant to the scenario: the share of gilts that are index linked is forecast to fall to around 20% in all three of the OBR’s scenarios. The share of gilts by maturity also does not vary much across scenarios, though the more optimistic scenario is associated with a slightly greater share of debt being on a less than 1-year basis.

Figure 5.10. Forecast composition of debt in 2024–25 under different scenarios



Source: Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

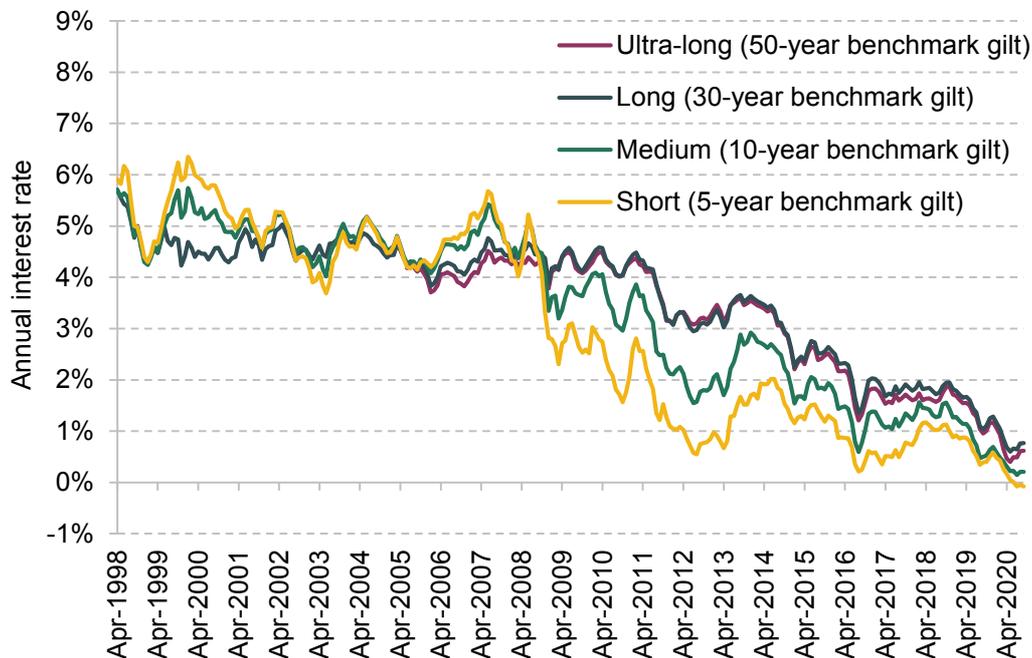
² Note that these economic forecast scenarios differ from the Citi scenarios presented in Chapter 2 and underpinning the borrowing forecasts in Chapter 4.

What interest rate does the government pay?

The interest rate on government borrowing is determined by market forces and has varied considerably over time. In particular, the period since the financial crisis has seen noticeable falls in interest rates. Interest rates at a particular point in time also vary between different types of gilts. Typically – but not always – yields are lower on short-maturity rather than longer-maturity gilts, as investors require a higher rate of interest to compensate them for tying up their funds for a longer period. But this is not always the case: when interest rates are expected to fall in the future, and then remain lower for at least some time, the yield on (say) a 5-year gilt could be above that on a 10-year gilt. This might occur when interest rates are thought to be above their natural level, or when markets are expecting a recession to occur in the near future and hold down inflation.

The time variation in yields on UK gilts is shown for the period April 1998 to September 2020 in Figure 5.11. After the financial crisis, gilt yields fell sharply,

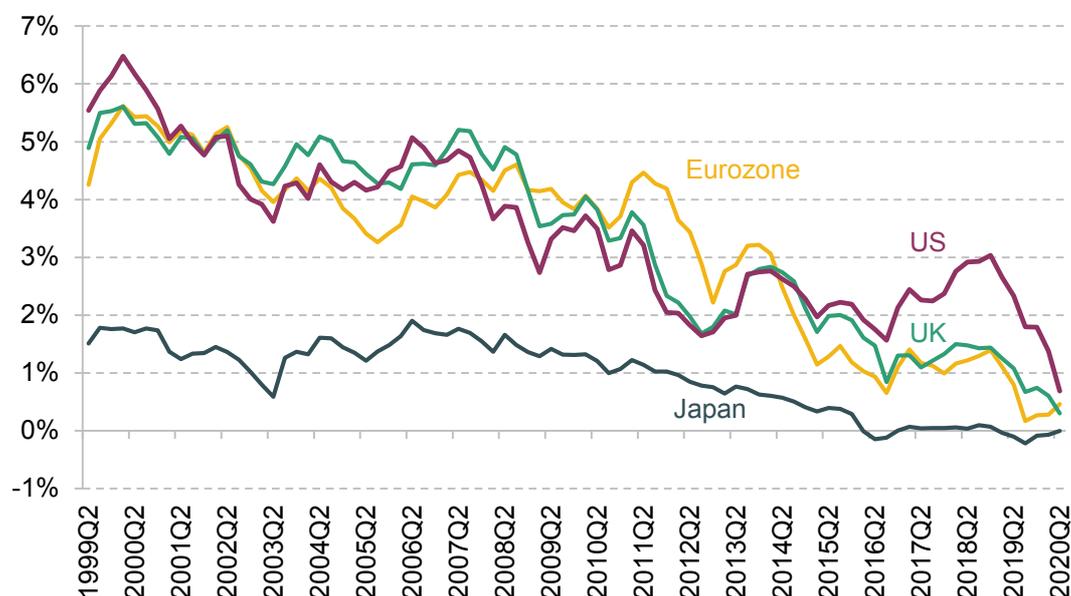
Figure 5.11. Gilt yields, April 1998 to September 2020



Note: The historical monthly average gilt yields are simple averages of the close-of-business redemption yields for each month of the prevailing benchmark gilts.

Source: Debt Management Office, 'Historical average daily conventional gilt yields', <https://www.dmo.gov.uk/data/>.

Figure 5.12. Yields on 10-year government bonds for selected economic areas



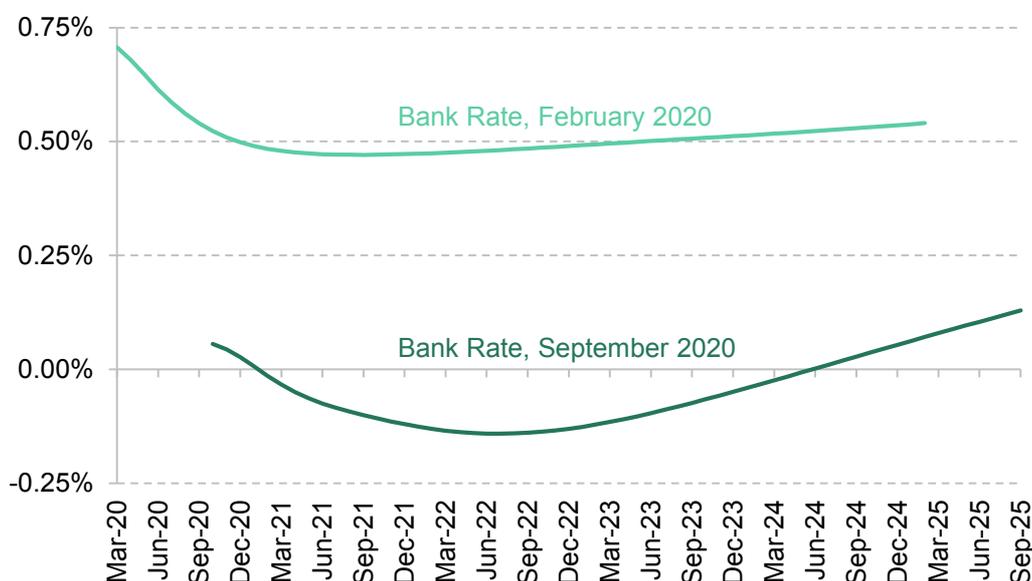
Note: Rates on 10-year government bonds. 'Eurozone' refers to the evolving composition of the monetary union, i.e. including Greece from 2001 and including Slovenia from 2007. National rates are weighted by the nominal amounts outstanding in the maturity band.

Source: OECD monthly monetary and financial statistics (Main Economic Indicators).

with particularly large falls in the rates on shorter-maturity gilts. This meant that, going into the COVID-19 crisis, gilt rates were already very low by recent historical standards; since the outbreak, they have fallen further still, and some short-maturity gilts are now offering a (small) negative return. Even 50-year gilts are consistently offering under 0.7% a year since April 2020. These are nominal yields. In the long run, we might expect inflation, as measured by the CPI, to return to the target level of 2% which, when combined with a nominal return of 0.6% a year, would imply a substantially negative real return. Moreover, it is far from obvious that, over the longer term, the chances of inflation persisting at a lower level than 2% are materially greater than the chances of it running at a higher rate.

Falling interest rates on government debt since 2008, to levels that are very low by historical standards, are not unique to the UK. Figure 5.12 shows how the yields on 10-year government bonds in the UK compare with those in the Eurozone, Japan and the United States over the period from 1999 to 2020. For all these currency zones, yields on government debt have recently been at their lowest level since at

Figure 5.13. Market expectations of Bank Rate, February and September 2020 compared



Source: Bank of England yield curves (<https://www.bankofengland.co.uk/statistics/yield-curves>), averages for 10 days up to 14 February and 18 September, respectively.

least 1999, with the rates in the UK, the Eurozone and the US now much closer to the very low rates that have become typical for Japan.

The prices of different financial instruments also allow us to see what market expectations are for interest rates in the future, and how these differ from earlier expectations. Figure 5.13 shows market expectations for Bank Rate, the rate which is the effective cost to the government on those bonds held by the Bank of England. In February 2020, largely before the impact of the pandemic on the UK economy had been felt, market expectations were already that the Bank of England would cut Bank Rate from 0.75% to around 0.5%. This was, perhaps, related to an expectation of how COVID-19 might spread at that point or other concerns about the world economy.

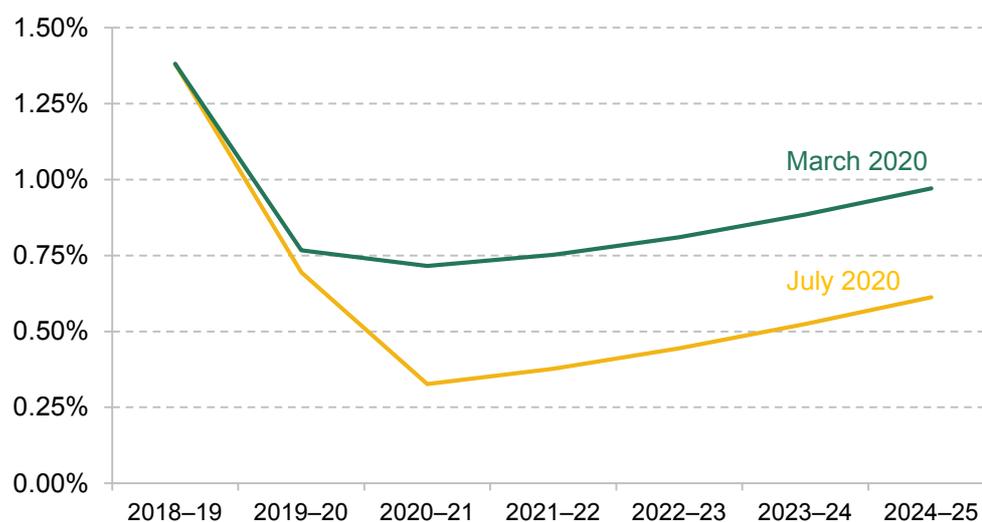
Later, in March 2020, the Bank of England reduced Bank Rate to 0.1% (alongside the expansion of its programme of bond purchases described in Section 5.2). By September 2020, market expectations for Bank Rate had fallen sharply from where they had been in February. This is because markets now expect much weaker demand in the economy, and therefore inflationary pressures to remain subdued, and as a result expect the Bank of England to keep Bank Rate very low for longer.

Bank Rate is expected to fall to below 0% in 2021 and not to return to positive values until late in 2024. Prior to March 2020, Bank Rate had never previously fallen below 0.25%, and prior to the financial crisis it had not fallen below 3.5% since the 1950s or to below 2% since the foundation of the Bank of England in 1694.

Figure 5.14 shows that, in March 2020, financial market prices implied an expectation that the average interest rate on UK gilts would rise to just under 1% in 2024–25. This would still have been a very low level of interest rates by UK historical standards (and indeed the standards of most economies). But as of July 2020, while interest rates on gilts are expected to rise over time, by 2024–25 they are now expected to average just 0.6%. This is more than 0.3 percentage points lower than was expected in March.

Elevated gilt issuance over the next few years makes locking in low interest rates for long periods particularly attractive. While such a strategy is not risk free – gilt yields could fall further – the chances of further significant falls are plausibly lower than the chances of equivalent rises. Given this likely asymmetry, there is a case for

Figure 5.14. Market expectations of future gilt rates, March and July 2020 compared



Note: Weighted average interest rate on conventional gilts.

Source: Chart 5.3 on page 139 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

issuance to be more tilted to the long term, a case strengthened by the fact that the expansion of quantitative easing is substantially reducing the effective maturity of government borrowing (see below).

The impact of quantitative easing on the effective structure of debt

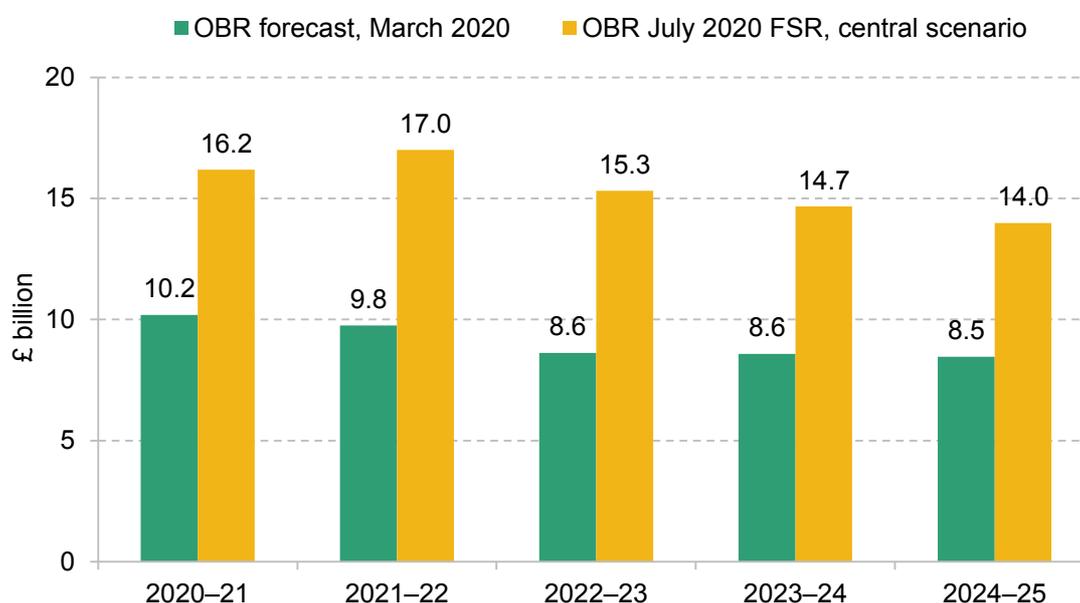
Section 5.2 explained that interest on gilts held by the Asset Purchase Facility is retained within the public sector. To purchase these gilts, the Bank of England has created reserves on which it pays Bank Rate. This has two important effects on the public finances. First, it affects the amount of net debt interest spending (taking into account remission of profits from the Bank of England to the government). Second, it reduces the effective maturity of gilts. Both effects are substantial and have been growing.

Bank Rate is currently lower than the interest that is received on the gilts that are held in the Asset Purchase Facility. The ‘profits’ made by the Asset Purchase Facility can then be used to offset some of the debt interest bill that the government owes on debt held by other purchasers. So today the overall impact is to lower debt interest spending. Expanding quantitative easing during periods when Bank Rate is below gilt rates – as has been the case recently – also reduces net debt interest spending.

Figure 5.15 quantifies the extent to which quantitative easing has been helping to hold down debt interest spending, and how much larger these effects have grown since March. At the time of the March 2020 Budget, the reduction in debt interest spending due to quantitative easing was estimated to be £10.2 billion in 2020–21, falling to £8.5 billion in 2024–25. By the time of the July 2020 Fiscal Sustainability Report (FSR), this temporary boost had increased substantially, to £16.2 billion in the current year and £14.0 billion in 2024–25. Virtually all of this increase is due to the fall in Bank Rate since March, with a relatively modest additional impact from the expansion in quantitative easing.

The second impact of quantitative easing on debt interest is that it substantially reduces the effective maturity of gilts. Instead of interest rates being locked in for 5, 10, 30 or even 50 years, borrowing is effectively being financed at contemporaneous short-term interest rates. Figure 5.10 showed that the remaining maturity on outstanding conventional gilts is, roughly, 41% less than 1 year, 27%

Figure 5.15. Temporary boost to the headline public finances arising from gilts held in the Asset Purchase Facility



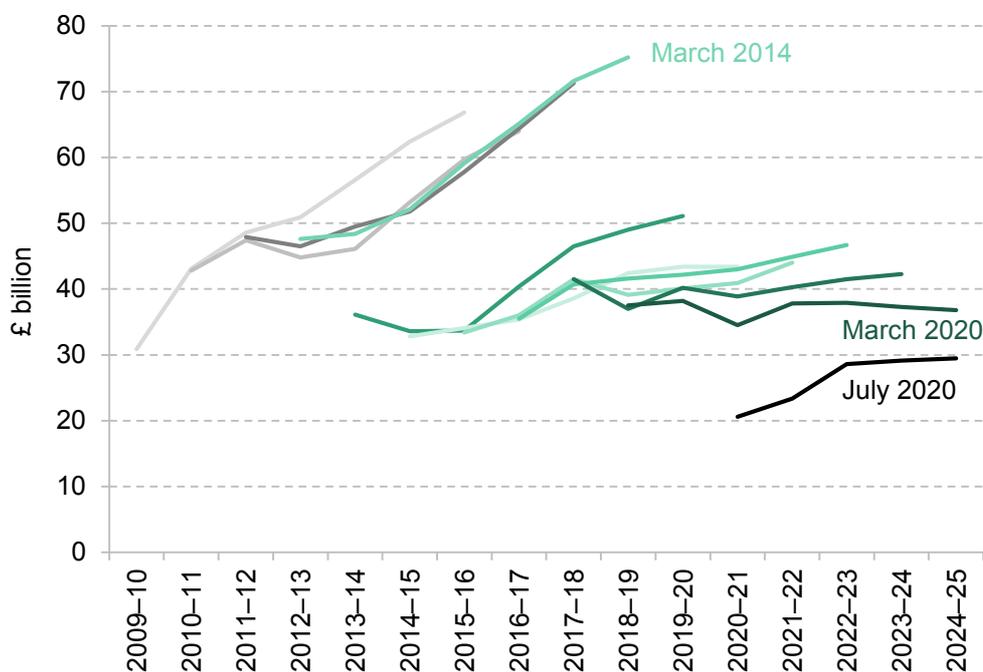
Source: Table 3.23 on page 88 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

up to 10 years and 31% over 10 years. But under quantitative easing, the Asset Purchase Facility buys gilts across the maturity spectrum and replaces it with borrowing on a zero-maturity basis. With the programme of quantitative easing proving to be much longer lived – and much larger – than was envisaged when it was first launched in 2009, it raises the question as to whether the DMO ought to respond by issuing a larger share of gilts of a long maturity. As we discuss in the next section, it also leaves debt interest spending much more sensitive to changes in interest rates.

5.4 What are the costs of elevated debt?

One clear cost of having higher government debt is that, at a given average effective interest rate, a higher stock of debt means higher spending on debt interest payments. The previous chapter showed that, despite increases in government debt relative to the size of the economy since 2007–08 (Figure 4.11), spending on debt interest had fallen to a share of total receipts not seen since before 1700 (Figure 4.14). The decline in spending on debt interest since 2007–08 is due to the fall in effective interest rates that was shown in Figure 5.11.

Figure 5.16. Successive forecasts for central government debt interest (net of income via the Asset Purchase Facility)



Note: Figures shown net off the interest paid on gilts held in the Asset Purchase Facility above and beyond Bank Rate. These payments remain in the public sector.

Source: Office for Budget Responsibility, 'Historical Official Forecasts Database – March 2020', <https://obr.uk/download/historical-official-forecasts-database/>; Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

The fall in interest spending seen in more recent years was not forecast; instead, low interest rates meant that debt interest spending repeatedly turned out much lower than had been expected. This is shown in Figure 5.16. Particularly noteworthy is the fact that in the March 2014 Budget, debt interest spending in 2018–19 was forecast to be £75.2 billion, whereas it actually turned out at around half that level at £37.5 billion. Over the same period, public sector net debt turned out £225 billion higher than had been forecast (at £1,773.5 billion compared with the March 2014 forecast of £1,548 billion). So debt interest spending came in much lower than had been forecast despite public sector net debt coming in considerably higher than had been forecast.

A similar revision has occurred between the March 2020 Budget and the central forecast published by the OBR in its July 2020 Fiscal Sustainability Report. The drop in Bank Rate and gilt rates, along with the expansion of quantitative easing in

recent months, has seen forecast debt interest spending in 2020–21 drop from £34.5 billion to just £20.6 billion. Even in 2024–25, by when the OBR is forecasting public sector debt will be £600 billion higher than forecast in the March 2020 Budget (at £2,632 billion instead of £2,031 billion), the OBR now forecasts that debt interest spending will be £29.5 billion, which is £6.3 billion (20%) lower than the £36.8 billion forecast in March. Over the five years from 2020–21 to 2024–25 (inclusive), debt interest spending is now forecast to average 1.1% of national income, compared with the 1.5% of national income that was forecast by the OBR at the time of the March Budget. This is remarkably low, and is occurring when government debt is around 100% of national income for the first time in 60 years.

But what comes down could also go up. Just as record falls in interest rates have greatly reduced debt interest spending, increases in interest rates could also rapidly increase debt interest spending. At the time of the March Budget, the OBR estimated that an immediate and permanent 1 percentage point (ppt) increase in short rates would in five years' time add just over 0.2% of national income to debt interest spending. A 1ppt rise in gilt rates would add a similar sum. So a 1ppt rise

Table 5.2. Sensitivity of debt interest spending to changes in interest rates

	March 2020	July 2020	% change
1ppt increase in gilt rates (% of GDP at the end of the forecast)	0.23%	0.37%	+63%
1ppt increase in short rates (% of GDP at the end of the forecast)	0.22%	0.41%	+89%
1ppt increase in both gilt and short rates (% of GDP at the end of the forecast)	0.44%	0.78%	+76%
1ppt increase in both gilt and short rates (£ billion at the end of the forecast)	£11bn	£19bn	+76%

Note: £ billion increases based on the central medium-term scenario in Chapter 2.

Source: See chart 5.7 on page 145 of Office for Budget Responsibility, 'Fiscal sustainability report – July 2020', <https://obr.uk/fsr/fiscal-sustainability-report-july-2020/>.

would push up debt interest spending by over 0.4% of national income. This is shown in the first column of Table 5.2.

The sensitivity of spending to changes in interest rates has been exacerbated by the COVID-19 crisis. There are several reasons for this. First, gross financing is higher, meaning that there is a larger stock of debt to pay interest on. Second, with the further expansion of quantitative easing, a larger share of the debt stock is now effectively financed on a short-term basis. In July, the OBR updated its estimate of the interest rate ready reckoner, calculating that a 1 percentage point increase in both short rates and gilt rates would now add almost 0.8% of national income to spending. This is 76% higher than what was thought just four months earlier: on the Citi central forecast from Chapter 2, 0.8% of national income in 2024–25 would be £19 billion, some £8 billion higher than the £11 billion that 0.4% of national income in the same year would imply.

Whilst reductions in debt interest spending have caused substantial savings in the years since 2014, it is important to remember that this period has not been characterised by an improving outlook for the public finances overall. This is because the fall in interest rates was associated with a reduced outlook for nominal growth. A smaller economy in nominal terms depresses tax receipts, and this effect tends to outweigh the savings from lower debt interest spending. To illustrate, debt interest spending was £38 billion lower in 2018–19 than forecast in March 2014. But government revenues were £54 billion lower than they would have been, had they grown as quickly between 2012–13 and 2018–19 as was forecast in March 2014.

Similarly, if a future increase in interest rates were accompanied by an improving outlook for nominal growth and a corresponding increase in revenue, the combined effect would be quite likely to help, rather than hurt, the public finances.

There are, however, risks to that calculation. Tax revenues may be slower to recover than growth, if some previously tax-rich sectors falter, or if loss reliefs lead to tax revenues remaining depressed for longer. If interest rate increases are prompted by rising inflation but weak real growth, poorly performing labour and product markets could fail to generate additional revenue.

More fundamentally, changes – or even just a perceived appetite for changes – to the institutional structure of UK fiscal and monetary policy could put upward

pressure on the risk premium for gilts, even if the underlying natural rate of interest, and expected growth, remain very low. As the OBR put it in its July 2020 Fiscal Sustainability Report, ‘investors could demand a higher risk premium on gilts in the future if the credibility of the institutional framework were to come into question’. This could be the case if markets become concerned that the UK might not retain an independent central bank committed to its inflation target, and setting monetary policy accordingly. If the central bank instead used the tools of monetary policy with the purpose of facilitating government spending, or even if there was merely such a perception, interest rates would increase to compensate for expected higher inflation.

It bears repeating that the signals from the markets suggest that investors continue, so far, to have confidence in the UK’s institutional framework. At the same time, it is notable that the past few years have seen the UK consider or undertake major institutional changes in other spheres, including Scottish independence, relationships with the European Union and, most recently, willingness to adhere to international law. Whatever the merits of any of these particular policies (or others), there is a risk that investors start to perceive the UK government as being willing to countenance major changes to institutions more generally – which might, in time, affect their views on the risks to central bank independence.

Even if there were no explicit change to its mandate, observers and investors might become concerned that, as the government comes to rely increasingly on quantitative easing to ensure that gilt auctions do not fail, the Bank of England may be more hesitant to increase interest rates, and to create a larger fiscal headache for the Chancellor.

Ultimately, an extreme scenario is one where gilt auctions end up undersubscribed and the DMO struggles to place enough gilts to fund the government’s spending. This situation could arise if investors, especially foreign investors – who, when quantitative easing is no longer being expanded, may be the marginal buyers of gilts – lose confidence in the architecture of UK fiscal and monetary policy.

5.5 Conclusion: how should the debt be managed?

Careful management of the debt is important. Plenty of historical and contemporary sovereign debt crises illustrate the enormous pain caused by getting it very wrong. But even getting it only slightly wrong, servicing the debt can easily become more expensive than it needs to be. To respond adequately to the COVID-19 crisis and support the subsequent recovery, the UK government needs to borrow large sums. Combined with the large share of gilts held by the Bank of England via quantitative easing, this leaves spending on debt interest highly exposed to changes in short-term interest rates. If Bank Rate, gilt rates and short rates increased by even $\frac{1}{3}$ of a percentage point from their currently very low levels, this would add £5 billion a year to debt interest spending in five years' time.

If this were accompanied by stronger economic growth that fed through into higher revenues – the reverse of what we have seen in recent years – then this would most likely leave the public finances in an overall stronger position. But a scenario of an increase in interest rates which is not accompanied by strong growth in revenues would be a much bigger issue for the public finances now compared with when the debt burden was lower and when a smaller share of the debt was effectively financed on a very short-term basis.

One way to address this risk is by selling more long gilts. Long-term rates are extraordinarily – some would say unsustainably – low. In September 2020, 30-year conventional bonds were trading at an annual nominal interest rate of 0.77%, and 50-year conventional bonds were trading at 0.62%. Real gilt yields on inflation-indexed (RPI-linked) debt were *minus* 2% or below. In the long run, we might expect inflation (as measured by the CPI) to return to the target level of 2%; it is far from obvious that, over the longer term, the chances of inflation continuing to undershoot its target are materially greater than the chances of it running at a higher rate.

Because of the much-expanded issuance of debt, the Debt Management Office has already been selling more long gilts in absolute terms. But there is a case for pushing this strategy further and attempting to increase the share of long gilts. There will be a limit to how far the DMO can take this strategy; for example, pension funds and insurance companies, which generate the bulk of demand for

long, index-linked gilts, will not have unlimited appetite for buying additional gilts of this type. However, the low effective interest rate at which the DMO has been successfully placing these gilts would appear to signal that we are not yet close to this limit.

In particular, there could be considerable benefits from DMO issuance tilting considerably more towards long, index-linked gilts. This would have the advantage of not cutting across the Bank of England's quantitative easing programme (which only purchases conventional gilts). This strategy runs counter to the recommendation of the OBR's 2017 Fiscal Risks Report – as it would mean debt interest spending was more exposed to changes in the RPI. But issues raised by the RPI being a poor measure of inflation should be tackled directly, rather than through simply avoiding the problem and leaving the future real cost of servicing the national debt more exposed to genuine inflation risk.

Locking in the negative real interest rates for long periods of time on much of the elevated issuance over the next few years could have considerable upside benefits. It does really feel like the time to reduce the exposure of the public finances to increases in short-term interest rates and follow the signal that the market is providing by offering such high prices (significantly negative real interest rates) on long, index-linked gilts.

This strategy is not infallible – indeed, similar arguments have been made in the past when interest rates had fallen to then-record lows, only subsequently to fall further. In fact, evidence suggests that over the past century, it would have been cheaper for the government to hold all its debt in short gilts (Ellison and Scott, 2020). The same is true over the decade following the financial crisis. It is possible that interest rates will continue to surprise us on the downside. But the risks now look asymmetric. Even if they are not, locking in the real cost of borrowing is an insurance measure.

This does not just mean that we might want to lock in these rates for a greater proportion of government debt by shifting the composition of the gilts that are being issued under current plans. It also means that we may want to consider expanding the total issuance by selling more of these gilts in order to finance high-quality long-term investment projects. Of course, this strategy would require the government (or a body set up for this purpose, if it does not have the capacity) to be

able to identify, design and deliver projects that were able to deliver sufficient returns, appropriately adjusted for the risks involved.

This is by no means an easy task, and is made more difficult by the current high levels of uncertainty. History does not make one optimistic. But the threshold of success is lowered by extremely low rates that come at a time when there is need in the areas of infrastructure spending and the facilitation of a transition to a low-carbon economy.

Finally, institutions and the credibility of our institutional framework matter. The mere fact that, since the COVID-19 crisis reached the UK in March, the Bank of England has expanded its programme of quantitative easing by nearly the same amount as the government's borrowing needs have grown does not mean it is engaging in monetary financing. Indeed, market actors do not appear to believe that this is monetary financing. It is important that this remains the case.

The Chancellor is right to borrow large sums to support the country and the economy through this crisis, and having elevated debt for decades in response to a sizeable temporary adverse shock is entirely appropriate. But the Chancellor does need to provide reassurance on several points. First, he needs to signal that he takes the long-run health of the public finances seriously (which we discuss further in Chapter 4). Second, he needs to indicate that he fully respects the independence of the Monetary Policy Committee. Third, he needs to show a commitment that the inflation target will not be watered down in an attempt to help manage the public finances. While there may be a case for a change to central bank mandates in the crisis, appearances are crucial here. Even if some reform had merit in principle, a perception that monetary policy objectives are subordinated to fiscal ones could be damaging and difficult to repair once it has taken hold. Issuing a much larger share of gilts on a long-term indexed basis would make this less likely.

References

- Bailey, A. (2020), 'The central bank balance sheet as a policy tool: past, present and future', speech to Jackson Hole Economic Policy Symposium, 28 August, <https://www.bankofengland.co.uk/speech/2020/andrew-bailey-federal-reserve-bank-of-kansas-citys-economic-policy-symposium-2020>.

- Broadbent, B. (2020), ‘Government debt and inflation’, speech delivered at the 2020 Annual Meeting of the Central Bank Research Association, 2 September, <https://www.bankofengland.co.uk/speech/2020/2020-annual-meeting-of-the-central-bank-research-association-keynote-speech-by-ben-broadbent>.
- Ellison, M. and Scott, A. (2020), ‘Managing the UK national debt 1694–2018’, *American Economic Journal: Macroeconomics*, 12, 227–57, <https://doi.org/10.1257/mac.20180263>.
- HM Treasury (2018a), ‘Managing fiscal risks: government response to the 2017 Fiscal Risks Report’, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/725913/Managing_Fiscal_Risks_web.pdf.
- HM Treasury (2018b), ‘Budget 2018’, <https://www.gov.uk/government/publications/budget-2018-documents>.
- HM Treasury (2020), ‘Debt management report 2020–21’, <https://www.dmo.gov.uk/media/16337/dmr2021.pdf>.
- HM Treasury and Bank of England (1995), *Report of the Debt Management Review*, <https://www.dmo.gov.uk/media/2083/report95.pdf>.
- OECD (2019), ‘Sovereign borrowing outlook for OECD countries’, in *OECD Sovereign Borrowing Outlook 2019*, OECD Publishing, Paris, <https://doi.org/10.1787/f56f3e2c-en>.
- Office for Budget Responsibility (2017), ‘Fiscal risk report – July 2017’, <https://obr.uk/frr/fiscal-risk-report-july-2017/>.
- Office for Budget Responsibility (2019), ‘Fiscal risks report – July 2019’, <https://obr.uk/frr/fiscal-risks-report-july-2019/>.
- Vlieghe, G. (2020), ‘Monetary policy and the Bank of England’s balance sheet’, speech during an online webinar, 23 April, <https://www.bankofengland.co.uk/speech/2020/gertjan-vlieghe-speech-monetary-policy-and-the-boes-balance-sheet>.