

Debt management report 2018-19



Debt management report 2018-19



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Chapter 1

Introduction

- 1.1 The 'Debt management report' is published in accordance with the 'Charter for Budget Responsibility'. The Charter requires the Treasury to "report through a debt management report published annually on its plans for borrowing for each financial year" and to set remits for its agents. The Charter requires the report to include:
 - the overall size of the debt financing programme for each financial year
 - the planned maturity structure of gilt issuance and the proportion of index-linked and conventional gilt issuance
 - a target for net financing through NS&I
- 1.2 The UK Debt Management Office (DMO) publishes detailed information on developments in debt management and the gilt market over the previous year in its 'Annual Review'.²
- 1.3 Chapters 2 and 3 along with Annexes A and B contain information on the government's wholesale debt management activities. Information about financing from NS&I is set out in Annex C. The Exchequer cash management remit for 2018-19 is contained in Annex D. Information on financing for the Official Reserves is set out in Annex E.

¹ 'Charter for Budget Responsibility: autumn 2016 update', HM Treasury, January 2017.

² www.dmo.gov.uk/publications/annual-reviews

Chapter 2

Debt management policy

2.1 This chapter provides an overview of the government's debt management framework and sets out medium-term considerations for debt management policy. The debt management framework is part of the overall macroeconomic framework, which includes the fiscal, macro prudential and monetary policy frameworks. These were outlined in the Autumn Budget 2017 document.¹

Debt management framework

- 2.2 The debt management framework includes:
 - the debt management objective
 - the principles that underpin the debt management policy framework
 - the roles of the Debt Management Office (DMO) and HM Treasury
 - the full funding rule

Debt management objective

2.3 The debt management objective, originally established in 1995 following the 'Debt Management Review' and set out in the 'Charter for Budget Responsibility',² 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."

2.4 While decisions on debt management policy must be taken with a long-term perspective, specific decisions on funding the government's gross financing requirement are taken annually. Those decisions are announced in advance for the forthcoming year and can be updated during the year.

^{1 &#}x27;Autumn Budget 2017', HM Treasury, November 2017. Available at www.gov.uk/government/topical-events/autumn-budget-

² 'Report of the Debt Management Review', HM Treasury and the Bank of England, July 1995, which is available at: www.dmo.gov.uk/media/2083/report95.pdf; and 'Charter for Budget Responsibility: autumn 2016 update', HM Treasury, January 2017, which is available at www.gov.uk/government/publications/charter-for-budget-responsibility-autumn-2016update

Components of the debt management objective

- 2.5 The costs of meeting the government's financing needs arise directly from the interest payable on debt (coupon payments and the difference between issuance proceeds and redemption payments) and the costs associated with issuance. "Over the long term" means that the government expects to issue debt beyond the forecast period. This expectation is reflected in the government's choice of debt management strategies.
- A number of risks are taken into account when selecting possible debt management strategies. Five particularly important risks are:
 - interest rate risk interest rate exposure arising when new debt is issued
 - refinancing risk interest rate exposure arising when debt is rolled over, with an increase in refinancing risk if redemptions are concentrated in particular years
 - inflation risk exposure to inflation from the indexation of coupons and principal of index-linked gilts
 - liquidity risk the risk that the government may not be able to borrow from a particular part of the market in the required size at a particular time, because that part of the market is insufficiently liquid
 - execution risk the risk that the government is not able to sell the offered amount of debt at a particular time, or must sell it at a large discount to the market price
- 2.7 These are the major risks that the government has taken into account in recent years and expects to take into account in future years. The weight placed on each risk can change over time. An explanation of how risk is taken into account in determining the DMO's financing remit for 2018-19 is set out in Annex B.

Debt management policy principles

- 2.8 The debt management objective is achieved by:
 - meeting the principles of openness, transparency and predictability
 - encouraging the development of a liquid and efficient gilt market
 - issuing gilts that achieve a benchmark premium
 - adjusting the maturity and nature of the government's debt portfolio
 - offering cost-effective retail financing through NS&I while balancing the interests of taxpayers, savers and the wider financial sector
- 2.9 The framework is underpinned by the institutional arrangements for debt management policy established in 1998, in particular the creation of the DMO with responsibility for the implementation and operation of debt management policy.³

³ More information about the DMO can be found here: www.dmo.gov.uk/about/who-we-are

Roles of HM Treasury and the DMO

- 2.10 The respective roles of HM Treasury and the DMO are set out in the DMO's 'Executive Agency Framework Document'.4
- 2.11 In support of the government's approach to debt management policy:
 - the DMO will conduct its operations in accordance with the principles of openness, predictability and transparency
 - HM Treasury and the DMO will explain the basis for their decisions on debt issuance as fully as possible to allow market participants to understand the rationale behind the decisions
 - the DMO will advise on and encourage the development of liquid and efficient gilt and Treasury bill markets
- 2.12 HM Treasury sets the annual financing remit using the projected financing requirement prepared on the basis of the Office for Budget Responsibility's (OBR) forecasts for the fiscal policy aggregates. The DMO has responsibility for pre-announcing the details of its issuance plans to the market, including a planned auction calendar setting out the dates and type of gilt, and details of planned average auction sizes.

The full funding rule

- 2.13 An overarching requirement of debt management policy is that the government fully finances its projected financing requirement each year through the sale of debt. This is known as the 'full funding rule'. The government therefore issues sufficient wholesale and retail debt instruments, through gilts, Treasury bills (for debt financing purposes) and NS&I products, to enable it to meet its projected financing requirement.
- 2.14 The rationale for the full funding rule is:
 - that the government believes that the principles of transparency and predictability are best met by full funding of its financing requirement
 - to avoid the perception that financial transactions of the public sector could affect monetary conditions, consistent with the institutional separation between monetary policy and debt management policy
- 2.15 The total amount of financing raised in a financial year will in practice differ marginally from the projected financing requirement. This divergence normally occurs towards the end of the financial year and can be explained by a number of different factors. These include:
 - the difference between the projected central government net cash requirement and its outturn

⁴ 'Executive Agency Framework Document', United Kingdom Debt Management Office, April 2005. Available at www.dmo.gov.uk/media/14536/fwork040405.pdf

⁵ The full funding rule is set out in 'Report of the Debt Management Review', HM Treasury and the Bank of England, July 1995, which is available at: www.dmo.gov.uk/media/2083/report95.pdf

- the difference between the projected net contribution to financing by NS&I and its outturn
- auction proceeds in the period following the Autumn Budget that are different from those required to meet relevant financing targets
- the implementation of the syndication programme at year-end
- 2.16 The difference will be reflected in a change in the DMO's cash balance at the end of the financial year. To meet the full funding rule, the government adjusts the projected net financing requirement (NFR) in the following financial year to offset any difference. However, this does not affect the DMO's cash management operations intended to smooth the government's cash flows across the financial year (see Annex D). The DMO's flexibility to vary the stock of Treasury bills for cash management purposes is implemented with full adherence to the full funding rule.

Medium-term projections for annual financing requirements

2.17 The government has published projections for financing requirements in the fiscal policy forecast period. The financing requirements include the forecast path for the central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail) (CGNCR (ex NRAM, B&B and NR)), the gilt redemption profile and planned financing for the Official Reserves. Table 2.A sets out the financing requirement projections from 2019-20 to 2022-23.

Table 2.A: Financing requirement projections, 2019-20 to 2022-23 (£ billion)¹

	2019-20	2020-21	2021-22	2022-23
CGNCR (ex NRAM, B&B and NR) ²	42.3	52.5	48.6	50.4
Gilt redemptions	99.1	97.6	79.3	73.3
Planned financing for the Official Reserves	6.0	0.0	0.0	0.0
Illustrative gross financing requirement	147.4	150.1	127.9	123.8

¹ Figures may not sum due to rounding.

Source: DMO, HM Treasury and OBR.

Debt management considerations

- 2.18 Decisions on debt management policy are taken in advance to achieve the debt management objective. Each year, the government assesses the costs and risks associated with different possible patterns of debt issuance taking into account the most up-to-date information on market conditions and demand for debt instruments.
- 2.19 At present, annual debt management decisions are also made in the context of an elevated level of debt relative to gross domestic product (GDP), high but falling government borrowing and fiscal consolidation. Consistent with the long-term focus of the debt management objective, the government takes annual decisions that enhance fiscal resilience by:

² Central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail).

- mitigating refinancing risk, that is, the need to roll over high levels of debt continuously and to avoid concentrating redemptions in particular years, by taking decisions which spread gilt issuance along the maturity spectrum
- encouraging the liquidity and efficiency of the gilt market
- maintaining a diversity of exposure, both real and nominal, across the maturity spectrum, reflecting its preference for a balanced portfolio
- 2.20 As a result, subject to cost-effective financing, the government will:
 - maintain a relatively long average maturity debt portfolio to limit exposure to refinancing risk
 - issue an appropriate balance of conventional and index-linked gilts over a range of maturities, taking account of structural demand, the diversity of the investor base and the government's preferences for inflation exposure (see Box 2.A)
 - maintain the Treasury bill stock at a level that will support market liquidity and the cash management objective

Borrowing by devolved administrations

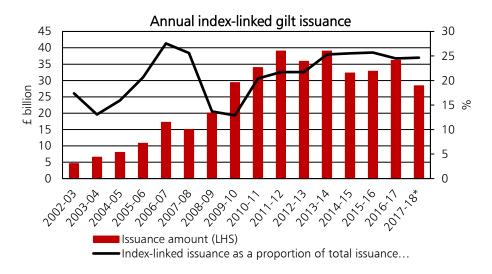
- 2.21 The Scottish government, Welsh government and Northern Ireland Executive have the power to borrow for capital investment, as set out in the Scotland Act 1998, Wales Act 2006, and Northern Ireland (Loans) Act 1975 respectively. The Scottish and Welsh governments' capital borrowing powers were updated in the ensuing Scotland Act 2016 and Wales Act 2017, with further detail set out in the Scottish and Welsh government's respective fiscal frameworks. The Northern Ireland Executive's borrowing powers were updated in the Northern Ireland (Miscellaneous Provisions) Act 2006.
- 2.22 Both the Scottish and Welsh governments also have the power to issue bonds to finance capital investment. The Scottish and Welsh governments will be solely responsible for meeting their liabilities and the UK government will provide no guarantee on any bonds issued by the Scottish and Welsh governments. If there is an increase in the Scottish or Welsh governments' borrowing limits, the UK government will also review devolved administrations' powers to issue bonds. In addition, the Scottish and Welsh governments would need further approval from HM Treasury to issue in any currency other than sterling.
- 2.23 The Scottish government, Welsh government and Northern Ireland Executive also have resource borrowing powers to manage their budgets, as set out in Acts above. Further detail on the Scottish and Welsh government's resource borrowing powers are included in their respective fiscal frameworks.

⁶ The Scottish government's fiscal framework was agreed in March 2016 and the Welsh government's government's fiscal framework was agreed in December 2016. They can be found here: www.gov.uk/government/publications/the-agreement-between-the-scottish-government-and-the-united-kingdom-government-on-the-scottish-governments-fiscal-framework and www.gov.uk/government/publications/the-agreement-between-the-welsh-government-and-the-united-kingdom-government-on-the-welsh-governments-fiscal-framework

Box 2.A: Index-linked gilts

Over the last 4 years, around 25% of the government's annual debt issuance has been through index-linked gilts (Chart 2.A), for which both the principal and interest payments are linked to the Retail Prices Index (RPI).

Chart 2.A: Annual index-linked gilt issuance

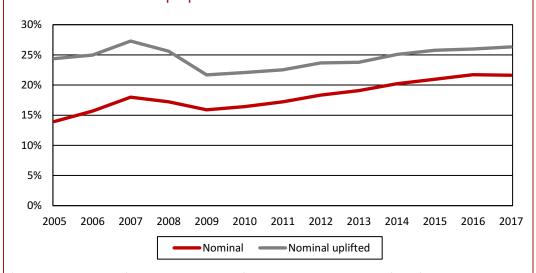


^{*}Spring Statement 2018 projection.

Source: DMO.

The stock of index-linked gilts has increased over time and stood at around £400 billion in nominal uplifted terms at the end of 2017. Index-linked gilts now make up 26% of the government's debt portfolio in nominal uplifted terms (Chart 2.B).

Chart 2.B: Index-linked proportion of the debt stock¹



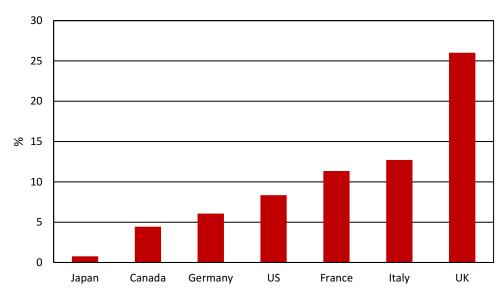
¹The term 'nominal value' refers to the nominal amount of gilts in issue; the term 'nominal uplifted' refers to the nominal amount in issue multiplied by the known inflation uplift on the gilts to date.

Source: DMO.

The index-linked proportion of the UK's debt stock is considerably higher than in other G7 countries (Chart 2.C), and is more than double that of Italy, the next

closest G7 member. To some extent, this reflects the particular strength of demand for index-linked gilts in the UK, especially from institutional investors, such as domestic pension funds and insurance companies. This has underpinned the cost-effectiveness of issuing index-linked gilts as part of the government's annual financing strategy.

Chart 2.C: International comparisons of index-linked debt as a share of total government debt, 2016



Source: OECD Sovereign Borrowing Outlook 2017.

The volume of index-linked gilt issuance in recent years, combined with the longer average maturity for index-linked gilts of 20 years (compared with 14 years for conventional gilts), has consequences for the long-term inflation exposure in the public finances – an issue the government highlighted at Autumn Budget 2017. The inflation risks associated with index-linked gilts have also been raised by the OBR, the National Audit Office and House of Commons' Committee of Public Accounts.⁷

The government is considering the appropriate balance between index-linked and conventional gilts, taking account of structural demand, the diversity of the investor base and the government's preferences for inflation exposure. The 2018-19 financing remit reflects the government's current view on the appropriate balance between these factors, and in the coming years the government will further consider the appropriate balance between index-linked and conventional gilts. The government will provide additional reflections in its response to the OBR's 'Fiscal risks report' in the summer of 2018.

⁷ 'Fiscal risks report', OBR, July 2017; 'Evaluating the government balance sheet: borrowing Report', National Audit Office, November 2017; and 'Government borrowing and the Whole of Government Accounts : Sixteenth Report of Session 2017–19', House of Commons, Committee of Public Accounts, January 2018.

Borrowing by local authorities

- 2.24 Under the prudential code, each local authority is responsible for meeting its own liabilities, including those taken on through extending guarantees. The UK government provides no guarantee on local authority borrowing.
- 2.25 Local authorities undertake the bulk of their borrowing via the Public Works Loan Board (PWLB). Following a consultation, the government has confirmed its plans to abolish the PWLB Commissioners and transfer the relevant powers from the PWLB to the Treasury.8 The government plans to implement these changes, pursuant to its powers in the Public Bodies Act 2011, following a draft Order to be laid before Parliament. This change is about governance only: local authorities will continue to be able to access borrowing from central government.
- 2.26 Local authority capital financing decisions are subject to prudential guidance published by the Ministry of Housing, Communities & Local Government and the Chartered Institute of Public Finance and Accountancy (CIPFA). Taken together, these documents form the prudential framework. Following consultation last year, the government and CIPFA have updated their respective elements of the framework. Local authorities are required by statute to have regard for this guidance. The new guidance will apply from 2018-19. The government's changes:
 - extend the requirement to consider security, liquidity and yield in that order of importance to all investments, not just financial investments
 - enhance transparency requirements
 - require authorities to demonstrate how they have ensured those signing off commercial decisions understand the risks and opportunities
 - make it clear that borrowing more than or in advance of need solely to generate a profit is not prudential
 - require local authorities to demonstrate that the level of debt taken on and aggregate risk from investments is proportionate to the size of the authority
 - update the guidance on calculating minimum revenue provision to make it clear that local authorities should not make imprudent assumptions to minimise their debt servicing costs

⁸ 'Transfer of Functions from the Public Works Loan Board: response to the consultation', HM Treasury, May 2016. Available at: www.gov.uk/government/consultations/transfer-of-functions-from-the-public-works-loan-board-new-governance-arrangements

⁹ 'Consultation on the proposed changes to the prudential framework of capital finance: Summary of consultation responses and Government response', Ministry of Housing, Communities & Local Government, February 2018; and 'Consultation on Proposed Changes to the Prudential Code', The Chartered Institute of Public Finance and Accountancy, August 2017.

Chapter 3

The Debt Management Office's financing remit for 2018-19

Introduction

3.1 The financing arithmetic sets out the components of the government's net financing requirement (NFR) and the contributions from various sources of financing. The Debt Management Office's (DMO) financing remit sets out how the DMO, acting as the government's agent, will fund the projected NFR.

Financing arithmetic

- 3.2 The Office for Budget Responsibility's (OBR) forecast for the central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail) (CGNCR (ex NRAM, B&B and NR)) in 2018-19 is £40.6 billion. This is the fiscal aggregate that determines gross debt sales and is derived from public sector net borrowing (PSNB). The relationship between PSNB and the CGNCR (ex NRAM, B&B and NR) is set out in the OBR's March 2018 'Economic and fiscal outlook'.1
- 3.3 The forecast NFR in 2018-19 of £102.9 billion also reflects: projected gilt redemptions of £66.7 billion; a planned short-term financing adjustment of -£4.5 billion resulting from unanticipated overfunding in 2017-18; and additional sterling financing for the Official Reserves of £6.0 billion. Details of financing plans for the Official Reserves are set out in Annex E.
- Proceeds from NS&I are expected to make a £6.0 billion net contribution to financing in 2018-19, following a forecast net contribution of £10.2 billion in 2017-18. The projection for 2018-19 assumes gross inflows of £32.3 billion. Details of NS&I's Net Financing Target are set out in Annex C.
- 3.5 Gilt issuance is the government's primary means by which it meets the NFR. Treasury bill issuance may also make a net contribution to meeting the NFR.
- In 2018-19, the NFR will be met by gross gilt issuance of £102.9 billion while net issuance of Treasury bills for debt management purposes will be zero (i.e. the stock of Treasury bills in issue for debt financing purposes is planned to remain at £60.0 billion).
- 3.7 Table 3.A sets out details of the financing arithmetic for 2017-18 and 2018-19.

¹ 'Economic and fiscal outlook', Office for Budget Responsibility, March 2018.

Table 3.A: Financing arithmetic in 2017-18 and 2018-19 (£ billion)¹

	2017-18	2018-19
CGNCR (ex NRAM, B&B and NR) ²	40.3	40.6
Gilt redemptions	80.0	66.7
Planned financing for the Official Reserves	6.0	6.0
Financing adjustment carried forward from previous financial years	-15.2	-4.5
Gross financing requirement	111.0	108.9
less:		
NS&I net financing	10.2	6.0
Other financing ³	-0.2	0.0
Net financing requirement (NFR) for the Debt Management Office (DMO)	101.1	102.9
DMO's NFR will be financed through:		
Gilt sales, through sales of:		
Short conventional gilts	29.3	24.9
Medium conventional gilts	23.4	20.3
Long conventional gilts	34.0	29.4
Index-linked gilts	28.4	21.7
Unallocated amount of gilts	0.0	6.6
Total gilt sales for debt financing	115.1	102.9
Total net contribution of Treasury bills for debt financing	-9.5	0.0
Total financing	105.6	102.9
DMO net cash position	5.0	0.5

¹ Figures may not sum due to rounding.

Source: DMO, HM Treasury, NS&I and OBR.

Other short-term debt

- 3.8 The projected level of the Ways and Means Advance at the Bank of England at 31 March 2018 is £0.4 billion.² No changes to the level of the Ways and Means Advance are planned in 2018-19.
- 3.9 The projected level of the DMO's net cash balance at 31 March 2018 is £5.0 billion, £4.5 billion above the level projected at Autumn Budget 2017. The level will be reduced to £0.5 billion during 2018-19, as shown by the

² Central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail).

³ Prior to the publication of the end-year outturn in April each year, this financing item will mainly comprise estimated revenue from coinage.

² This is in line with the decision set out in 'Debt and reserves management report 2008-09', HM Treasury, March 2008.

planned short-term financing adjustment, and this will in turn reduce the NFR in 2018-19.

Gilt issuance by method, type and maturity

- 3.10 Auctions will remain the government's primary method of gilt issuance. In addition, the government has decided to continue the use of issuance via syndications. Any type and maturity of gilts can be issued via syndication. However, the current planning assumption is that they will be used to launch new gilts or to re-open high duration conventional and index-linked gilts.
- 3.11 The government may also continue to sell gilts via gilt tenders. These can take place for any type and maturity of gilt, and be sized flexibly in advance of each operation, but will in general be smaller than auctions of comparable gilts. Gilt tenders may also be used at any time during the financial year for market management purposes. Gilt tenders will be used only as a market management instrument in exceptional circumstances.
- 3.12 The government plans gilt sales via auction of £79.3 billion (or 77.1% of total issuance) which will be split by maturity³ and type as follows:
 - £24.9 billion of short conventional gilts (24.2% of total issuance)
 - £20.3 billion of medium conventional gilts (19.7% of total issuance)
 - £20.4 billion of long conventional gilts (19.8% of total issuance)
 - £13.7 billion of index-linked gilts (13.3% of total issuance)
- 3.13 The government is also currently planning to sell a minimum of £17.0 billion of gilts (16.5% of total issuance) via syndication, split as follows:
 - a minimum of £9.0 billion of long conventional gilts in 2 transactions
 - a minimum of £8.0 billion of index-linked gilts in 2 transactions
- 3.14 In addition, the DMO's financing remit includes an initially unallocated portion of £6.6 billion (6.4% of total issuance), through which gilts of any type or maturity may be sold, via any issuance method. It is anticipated that such issuance will take place principally via any increases in sales through syndications and/or auctions. However, the unallocated portion can also be used for sales via gilt tenders, should there be market demand for such operations.
- 3.15 The deployment of the unallocated amount of gilt sales is designed to facilitate the effective delivery of the gilt issuance programme while remaining consistent with the debt management principles of openness, predictability and transparency.
- 3.16 To maintain the operational viability of syndicated offerings at the end of each financial year, the overall size of the syndication programmes (conventional and/or index-linked) may be increased by up to 10% at the time of the final syndicated offering of each type. The programmes would

³ Maturities are defined as follows: short (1-7 years), medium (7-15 years), and long (over 15 years).

- only be upsized if, at the time of the final operations, the entire unallocated issuance amount had been exhausted.
- 3.17 Through its gilt issuance programme, the government aims at regular issuance across the maturity spectrum throughout the financial year and at building up benchmarks at key maturities in both conventional and indexlinked gilts.
- 3.18 The planning assumption for gilt issuance in 2018-19 by type, maturity and method of issue is shown in Table 3.B.

Table 3.B: Breakdown of planned gilt issuance in 2018-19 by type, maturity and issuance method (£ billion and % of total)¹

	Auction	Syndication	Gilt tender	Unallocated	Total
Short	24.9	-	-	-	24.9
					(24.2%)
Medium	20.3	-	-	-	20.3
					(19.7%)
Long	20.4	9.0	-	-	29.4
					(28.5%)
Index-linked	13.7	8.0	-	-	21.7
					(21.1%)
Unallocated	-	-	-	6.6	6.6
					(6.4%)
Total	79.3	17.0	-	6.6	102.9
	(77.1%)	(16.5%)		(6.4%)	

¹ Figures may not sum due to rounding.

Source: DMO.

Gilt auction calendar

3.19 On the same day as the publication of the 'Debt management report', the DMO will publish a planning assumption for the gilt auction calendar consistent with the remit. The planned auction calendar may be adjusted, at the margin, to accommodate any in-year changes to the planned split of issuance methods. The DMO will explain the parameters for this alongside the publication of the auction calendar.

Post-Auction Option Facility

3.20 In 2018-19, the DMO will continue to offer successful bidders at auction (both primary dealers and investors) the option to purchase additional stock. The details of how this facility works are set out in the DMO's gilt market Operational Notice.⁴ Any changes to the facility over the course of the year

⁴ 'Official Operations in the Gilt Market : An Operational Notice', DMO, September 2017. Available at www.dmo.gov.uk/media/15031/opnot010917.pdf

will be communicated by the DMO in its Operational Notices. Any amounts sold via this facility in 2018-19 will count towards the remit sales targets on an auction by auction basis and will, all else equal, be used progressively to reduce the average sizes for the remaining auctions of the maturity/type of gilt in question.

The Standing Repo Facility

3.21 For the purposes of market management, the DMO may create and repo out gilts in accordance with the provisions of its Standing Repo Facility launched on 1 June 2000 and most recently revised on 22 December 2017.⁵ Any such gilts created will not be sold outright to the market and will be cancelled on return.

Other operations

3.22 The DMO has no current plans for a programme of reverse or switch auctions or conversion offers in 2018-19.

Coupons

3.23 As far as possible, the DMO will set coupons on new issues to price the gilt close to par at the time of issue.

Purchases of short maturity debt

3.24 The DMO may buy-in gilts close to maturity to help manage Exchequer cash flows.

Treasury bill issuance

3.25 It is currently anticipated that Treasury bills will make a zero net contribution to debt financing in 2018-19. The amount which Treasury bills have contributed to debt financing up to, and including, 2017-18 will be reported by the DMO shortly after the end of 2017-18.

New gilt instruments

3.26 There are no current plans to introduce new types of gilt instruments in 2018-19.

Revisions to the remit

- 3.27 In addition to planned updates to the remit, any aspect of this remit may be revised during the year in light of exceptional circumstances and/or substantial changes in the following:
 - the government's forecast for the NFR
 - the level and/or shape of the gilt yield curves
 - market expectations of future interest and inflation rates
 - market volatility

⁵ www.dmo.gov.uk/media/15276/sa221217.pdf

Any such unplanned revisions will be announced transparently to the market.

3.28

Annex A

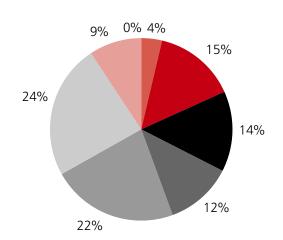
Debt portfolio

Debt stock

- A.1 The total nominal outstanding stock of central government sterling debt excluding official holdings by central government was £1,506.2 billion at end-December 2017.1 The components of this stock are set out in Table A.1.
- A.2 Chart A.1 shows the composition of the government's debt portfolio at end-December 2017. Conventional and index-linked gilts made up the largest proportion of government debt at 87%.

Chart A.1 Composition of central government sterling debt (end-December 2017)¹





Source: DMO and NS&I.

A.3 Chart A.2 shows the composition of gilt stock over time. Conventional gilts continue to make up the largest share of gilt stock. The proportion between different maturities and index-linked gilts has remained relatively stable over the past decade.

¹ Figures may not sum due to rounding.

Official holdings of gilts comprise holdings by the Debt Management Office (DMO) of gilts created for use as collateral in the conduct of its Exchequer cash management operations (such gilts are not available for outright sale to the market). This also includes any DMO purchases of near-maturity gilts. It does not include gilts held by the Bank of England's Asset Purchase Facility.

Table A.1: Composition of central government wholesale and retail debt1

£ billion nominal value	End-December 2016	End-December 2017
Wholesale		
Conventional gilts	1,124.8	1,153.4
Less government holdings	110.2	104.6
_	1,014.5	1,048.8
Index-linked gilts	304.1	309.8
less government holdings	4.0	3.7
plus accrued inflation uplift	79.4	90.3
-	379.4	396.4
Treasury bills	95.4	80.5
less bills for cash management	27.9	19.5
_	67.5	61.0
Total wholesale debt	1,461.5	1,506.2
Retail		
NS&I	143.0	153.7
Other		
Balance on Ways and Means Advance	0.4	0.4
Total central government sterling debt	1,604.8	1,660.3
Other government debt less liquid assets	92.4	99.3
Public sector net debt	1,697.2	1,759.6
Public sector net debt to GDP (%) ²	84.7%	85.4%
Statistics: Wholesale debt		
Wholesale debt to GDP (%) ²	72.9%	73.1%
Average time to maturity (years) ³	14.9 years	15.2 years
Debt maturing in one year (%)	10.2%	8.2%
1 Figures may not sum due to rounding		

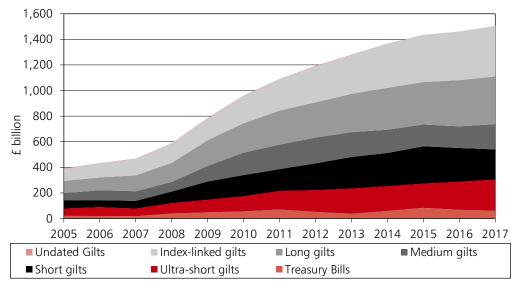
¹ Figures may not sum due to rounding.

Source: DMO, OBR, ONS and NS&I.

 $^{^2\,\}mbox{GDP}$ centred on end-December.

 $^{^3}$ Calculated on a nominal weighted basis, excluding government holdings, including accrued inflation uplift.

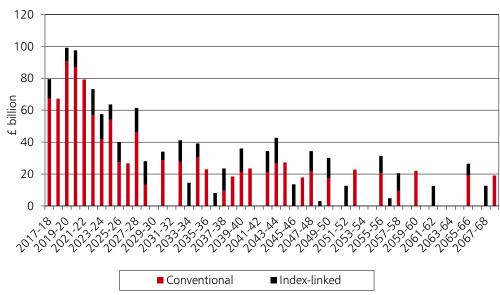
Chart A.2 Composition of central government gilt stock (end-December values)



Source: DMO.

A.4 Chart A.3 shows the government's gilt redemption profile as of end-December 2017. The longest maturity gilt in issuance is due to redeem in 2068-69. While the majority of gilts in issue are conventional, particularly at shorter maturities, the split between conventional and index-linked gilts becomes more even at higher maturities.

Chart A.3 Gilt redemption profile (end-December 2017)

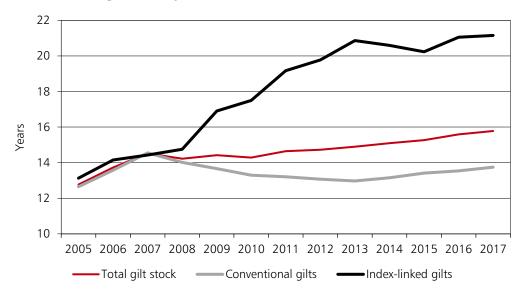


Source: DMO.

Maturity and duration of the debt stock

A.5 By end-December 2017, the average maturity of the stock of total gilts had risen to 15.8 years, as shown in Chart A.4. The average maturity of the stock of conventional gilts had also risen to 13.8 years, with the average maturity of index-linked gilts continuing to be above 20 years. The average maturity of the government's wholesale debt has been consistently longer than the average across the G7 group of advanced economies, as shown in Chart A.5.

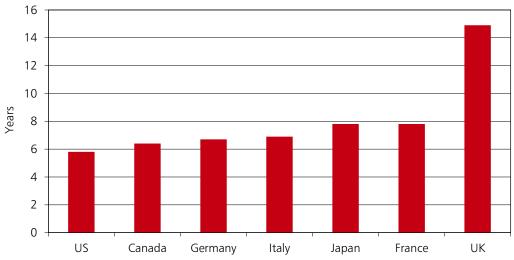
Chart A.4 Average maturity of UK debt stock (end-December values)¹



¹ Calculated on a nominal weighted basis, excluding official holdings, including accrued inflation uplifts.

Source: DMO.

Chart A.5 Average maturity of the debt stock by country (end-December 2017)¹



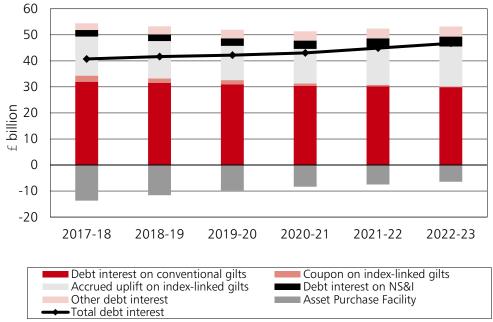
¹ Calculated on a nominal weighted basis, excluding inflation uplift.

Source: Bloomberg L.P.

Debt interest

A.6 Chart A.6 shows that while debt interest on conventional gilts is forecast to fall in nominal terms over the 5-year period, an increase in forecast inflation pushes up total debt interest costs in future financial years.

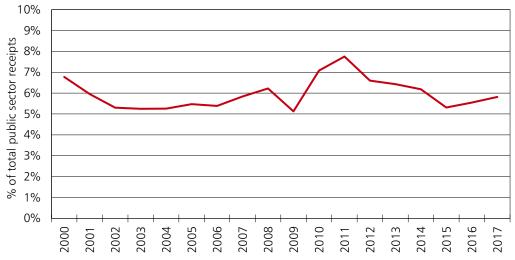
Chart A.6 Breakdown of debt interest forecast



Source: OBR.

A.7 Net debt interest is forecast to rise in cash terms. Debt interest as a share of public sector receipts reached its post-war low in 2009. From 2011, debt interest as a share of public sector receipts fell, although it has begun to rise more recently (Chart A.7).

Chart A.7 Debt interest as % of public sector receipts¹



¹ 2017 figures only include January-September.

Source: ONS.

Gilt holdings by sector

A.8 Chart A.8 shows gilt holdings by sector using data published by the Office for National Statistics (ONS) and Bank of England. In September 2017, the 3 largest investor groups were insurance companies and pension funds (31%), overseas investors (28%), and the Bank of England's Asset Purchase Facility (25%).

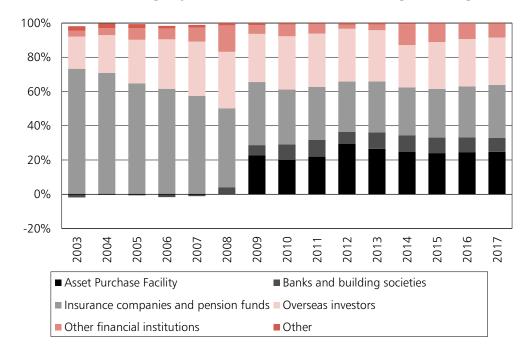


Chart A.8 Gilt holdings by sector (% of total market value gilt holdings)¹

Source: ONS and Bank of England.

A.9 The introduction of quantitative easing through the Asset Purchase Facility has caused the largest change to gilt holdings by sector over time, as shown in Chart A.8. The value of holdings in the Asset Purchase Facility increased to just under £470 billion (as of end-September 2017) since its introduction in 2008. Domestic insurance companies and pension funds have frequently been the largest holders of gilts, though the share of gilts held by overseas investors has increased over time to make up a similar share of the investor base.

Gilt issuance

- A.10 The central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail) (CGNCR (ex NRAM, B&B and NR)), gilt redemptions, and the volume of gilt sales for each year since 2007-08 is shown in Table A.2. In 2018-19, CGNCR (ex NRAM, B&B and NR) will be lower than redemptions for the second consecutive year.
- A.11 Chart A.9 shows the expected gross financing requirement as a share of GDP for all G7 countries. This illustrates the supportive impact the UK's long average debt stock maturity has on the UK's gross financing requirement, lowering refinancing risk.

¹ All end-December, except 2017 for which data is only available until end-September. The Bank of England's holdings of gilts not related to the Asset Purchase Facility are included in the 'Banks and building societies' category.

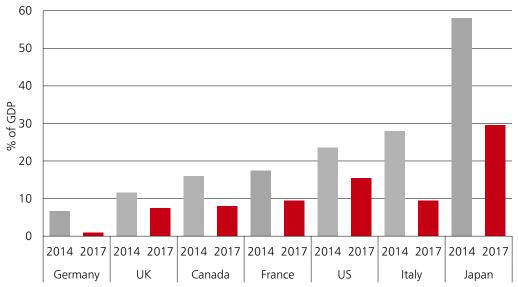
Table A.2: Central government net cash requirement, gilt redemptions and gilt sales (£ billion)

	CGNCR (ex NRAM, B&B and NR) ¹	Redemptions	Gross gilt sales²
2007-08	32.6	29.2	58.5
2008-09	162.4	18.3	146.5
2009-10	198.8	16.6	227.6
2010-11	139.6	38.6	166.4
2011-12	126.5	49.0	179.4
2012-13	98.6	52.9	165.1
2013-14	79.3	51.5	153.4
2014-15	92.3	64.5	126.4
2015-16	78.5	70.2	127.7
2016-17	70.9	69.9	147.6
2017-18 ³	40.3	80.0	115.1
2018-19 ³	40.6	66.7	102.9

¹Central government net cash requirement (excluding NRAM plc, Bradford and Bingley and Network Rail).

Source: DMO, HM Treasury, ONS and OBR.

Chart A.9 Annual gross financing requirement as % of GDP



Source: IMF Fiscal Monitor October 2014/2017 and Bloomberg L.P.

² Figures are in cash terms.

 $^{^{\}scriptscriptstyle 3}\,\text{Spring}$ Statement 2018 projections.

Annex B

Context for decisions on the Debt Management Office's financing remit

Introduction

- B.1 This annex provides the context for the government's decisions on gilt and Treasury bill issuance in 2018-19, setting out the qualitative and quantitative considerations that have influenced them.
- B.2 The government's decisions on the structure of the financing remit, which are taken annually, are made in accordance with the debt management objective, the debt management framework and wider policy considerations (see Chapter 2).
- B.3 In determining the overall structure of the financing remit, the government assesses the costs and risks of debt issuance by maturity and type of instrument. Decisions on the composition of debt issuance are also informed by an assessment of investor demand for debt instruments by maturity and type as reported by stakeholders, and as manifested in the shape of the nominal and real yield curves, as well as the government's appetite for risk.
- B.4 Alongside these considerations, the government takes into account the practical implications of issuance (for example, the scheduling of operations during the course of the year and the appropriate use of different issuance methods).

Demand

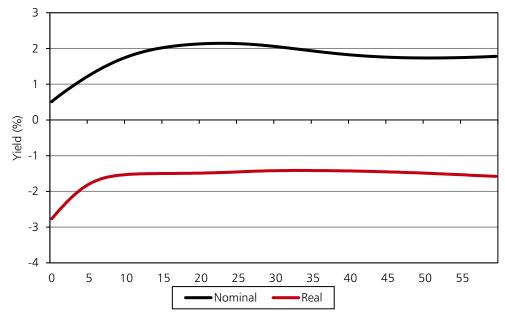
- B.5 Both Gilt-Edged Market Makers (GEMMs) and end-investors have reported ongoing demand for conventional and index-linked gilts that is well diversified across the maturity spectrum and by investor type.
- B.6 At the annual consultation meetings in January and February 2018, attendees noted that demand for long conventional bonds was anticipated to be particularly strong at the ultra-long area, and for index-linked gilts it was expected to move from the ultra-long area to the 15- to 30-year maturity area.1

¹ Minutes of the meetings are available at: www.dmo.gov.uk/media/15325/sa300118.pdf and www.dmo.gov.uk/media/15330/sa050218.pdf

Cost

B.7 In assessing the cost of different types of debt issuance by maturity and type, the government undertakes an analysis of the nominal and real yield curves.
Chart B.1 shows the shape of the nominal and real spot curves at 15 February 2018.

Chart B.1 Nominal and real spot yield curves (15 February 2018)



Source: DMO.

- B.8 Conventional asset pricing theory suggests the observed yield on a bond can be decomposed into 2 components: a 'risk neutral' yield and a risk premium. The risk neutral yield is the interest rate under 'pure expectations'.² In practice, forward yields follow a different path, as markets demand higher yields in order to protect investments against a variety of risks. This gives rise to a risk premium.³ The variability and trends in risk premia reflect investors' risk preferences over time. It is cost-effective for a government to issue at maturities where the risk premium demanded by investors is lowest relative to other maturities.
- B.9 Chart B.2 shows risk premia in the nominal yield curve between January 1999 and December 2017.4 Results indicate the existence of a time-varying

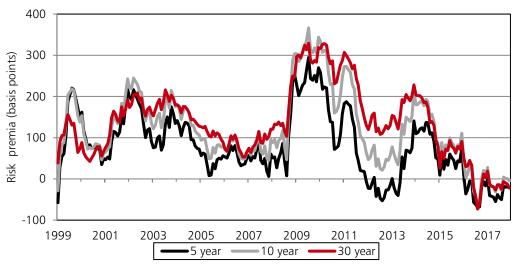
² The investor typically charges the issuer through yields for risks associated with investment in bonds. For example, the investor may charge a premium for illiquidity and/or inflation risk. The 'pure expectations' referred to here excludes these premia.

³ The risk premium has several components, including, but not limited to: (i) a premium which compensates investors for duration risk that increases for longer maturity investments; (ii) a credit and default risk premium; (iii) a liquidity premium owing to the lower level of liquidity in some bonds or maturities, which restricts investors' ability to hedge; and (iv) an inflation risk premium to compensate investors in nominal bonds for uncertainty owing to inflation. In general, the premium is the extra return investors expect to obtain from holding long-term bonds as opposed to holding and rolling over a sequence of short-term securities over the same period. The risk premium estimated by the DMO's model also includes a 'convexity premium' component – this increases with maturity and yield volatility and it offsets to some degree the other risk premium components as it represents a 'charge' that the investor pays the issuer.

⁴ This analysis is based on academic research: 'The Affine Arbitrage-Free Class of Nelson-Siegel Term Structure Models', Christensen, Diebold and Rudebusch, Journal of Econometrics, 2011. The model has not been adjusted to account for 'zero bound effects'.

risk premium in the conventional gilt market which is usually positive and, as a general rule, increases with maturity, although the premia at different maturities have recently been in a compressed range. In 2017-18, risk premia remained close to historically low levels at all key benchmark maturities. This suggests that, on this measure, conventional gilts across the maturity spectrum are more cost-effective than has historically been the case.

Chart B.2 Risk premia



Source: DMO.

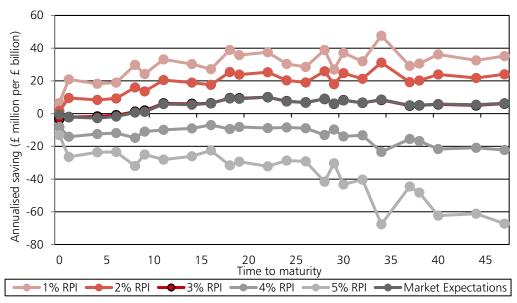
- B.10 Alongside this analysis of the relative cost-effectiveness of conventional gilts across different maturity sectors, the government undertakes an evaluation of the cost-effectiveness of index-linked gilts, using conventional gilts as a benchmark for comparison, by examining breakeven inflation rates, which reflect the difference between nominal and real yields.⁵
- B.11 Similar to nominal yields, breakeven inflation rates can also be decomposed into 2 components: a 'risk neutral' inflation rate, which is the pure market-implied expectation of future inflation embedded in nominal yields, and a risk premium, which includes the premium for inflation risk in conventional gilt yields. The government can choose either to pay the inflation risk premium and the level of inflation priced in the conventional gilt yield, which is 'fixed' at issue for the life of the bond, or it can issue an inflation-linked gilt, pay future realised inflation at a later time and bear the inflation risk. The 2 strategies are cost-equivalent if future realised inflation turns out to be equal to the level implied in the breakeven rate at issue. Chart B.3 shows the cost-effectiveness of the issuance of index-linked gilts, relative to

⁵ A more detailed explanation of the methodology used in this analysis can be found at: www.oecd-ilibrary.org/finance-and-investment/assessing-the-cost-effectiveness-of-index-linked-bond-issuance_5k481881kjwh-en and www.bankofengland.co.uk/working-paper/2015/the-informational-content-of-maket-based-measures-of-inflation-expectations-derived-from

⁶ There is an additional risk due to liquidity conditions in the 2 markets. This relates to the cost of financing the purchase of the bond in the money market and transacting in the secondary market. A more detailed explanation of the methodology for estimating breakeven inflation risk premia can be found at: www.bankofengland.co.uk/working-paper/2015/the-informational-content-of-maket-based-measures-of-inflation-expectations-derived-from

- conventional gilts, under a range of paths for future inflation, which also includes market-implied 'pure expectations'.⁷
- B.12 At end-January 2018, the model shows that for an assumption that the Retail Prices Index (RPI) remains constant at 3% over the life of the bond, index-linked gilts are generally neutral to slightly more expensive than equivalent conventional gilts until around the 10-year maturity point, whereafter they generate savings. Results using the market-implied inflation forecast are very similar. Compared with a year ago, the expected cost-effectiveness of index-linked gilts has decreased across the curve, especially in short and medium gilts, which are now more costly than conventional gilts.

Chart B.3 The cost-effectiveness of index-linked gilts under different RPI assumptions (end-January 2018)



Source: DMO.

Risk

- B.13 In the context of the long-term focus of the debt management objective, the other key determinant in the government's decisions on debt issuance by maturity and type of instrument is its assessment of risk. In reaching a decision on the overall structure of the remit, the government considers the risks to which the Exchequer is exposed through its debt issuance decisions and assesses the relative importance of each risk in accordance with its risk appetite.
- B.14 The government places a high weight on minimising near-term exposure to refinancing risk. This exposure is managed partly by maintaining a sizeable proportion of long-dated debt in the portfolio, which reduces the need to refinance debt frequently. The government places importance on avoiding, when practicable, large concentrations of redemptions in any one year. To

⁷ See previous footnote.

- achieve this, the government will issue debt across a range of maturities, smoothing the profile of gilt redemptions.
- B.15 The government is mindful of the long-term inflation exposure in the public finances and gives due consideration to ensuring inflation risk is prudently managed. The government will manage this exposure through its decisions on the appropriate balance between index-linked and conventional gilts in its debt issuance in the coming years.
- B.16 Prudent debt management is also served by promoting sustainable market access, which the remit is designed to support. The government places significant importance on encouraging a deep, liquid and efficient gilt market and a diverse investor base in order to maintain continuous access to cost-effective financing in all market conditions.
- B.17 Promoting these features of the gilt market will also serve to minimise debt costs to the government because investors reward an issuer for providing a continuous and ready market and a globally recognised benchmark product.

Modelling of cost, interest rate and refinancing risk

- B.18 The analysis underpinning the government's decisions on its issuance strategy includes an exercise in which debt interest cost and risk simulations are generated to illustrate the cost-risk trade-off associated with different issuance strategies. This allows the government to investigate the mediumterm implications of different possible future issuance skews relative to the current annual issuance strategy.
- B.19 Debt interest cost is defined as the cost of the coupon payments and redemptions associated with government debt, accrued over the life of each bond, measured in terms of the relevant yield. Risk is defined as the standard deviation of debt interest cost or debt interest cost volatility, reflecting potential variation in the relevant yield. This can be seen as a measure combining both interest rate risk and refinancing risk.
- B.20 As in previous years the exercise has been carried out over a 15-year horizon, close to the average maturity of the gilt portfolio, and therefore captures a rollover of approximately half of it. The metrics resulting from this analysis combine the impact from alternative issuance strategies for financing new government debt (to meet the central government net cash requirement and the refinancing of redemptions) with the existing characteristics of the debt portfolio inherited from previous financial years.
- B.21 The Debt Management Office's (DMO) Portfolio Simulation Tool (PST), which calculates debt interest cost, is used in conjunction with a macroeconomic-based Vector Autoregressive (VAR) model, which provides 2 alternative distribution assumptions for simulating the yield curve, to depict risk in cost terms. In this way, the PST maps the projected yield curve distributions to a debt interest cost distribution so that simulated cost and risk metrics can be analysed.
- B.22 As an example, Table B.1 shows the issuance skew planned by the DMO at the start of 2017-18, which was well diversified across maturity ranges.

Table B.1: Gilt issuance strategy composition for 2017-18 (%)¹

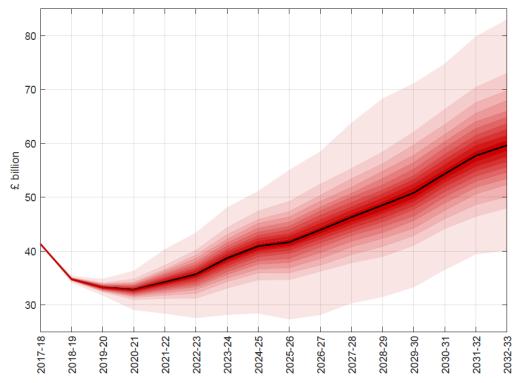
	Short conventional ²	Medium conventional ²	Long conventional ²	Index-linked	Unallocated
Issuance skew	23.8	19.3	28.1	23.1	5.7
for 2017-18					

¹ Figures may not sum due to rounding.

Source: Debt management report 2017-18.

B.23 The resulting probability distributions of debt interest costs (if issuance continued to follow the current issuance maturity skew for the next 15 years) are shown in Charts B.4 and B.5. It is worth noting that the choice of distribution has a significant impact on the resulting projected yields and that neither distribution used generates short and long-run yields that are in line with current market expectations. This supports the view that there are currently negative risk premia priced in to the gilt yield curve.

Chart B.4 Probability distribution of debt service costs (normal distribution)¹

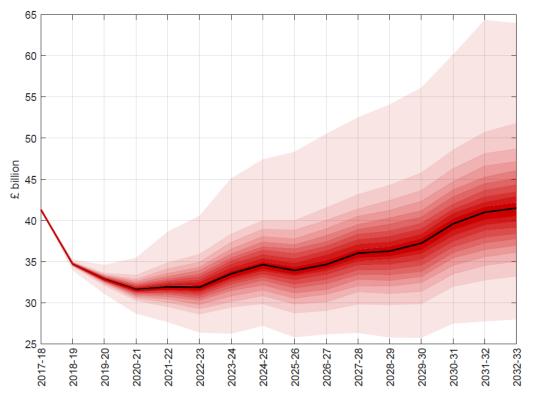


 $^{^{\}mbox{\scriptsize 1}}$ This is net of the Bank of England's Asset Purchase Facility.

Source: DMO.

² Maturities are defined as follows: short (1-7 years), medium (7-15 years), and long (over 15 years).

Chart B.5 Probability distribution of debt service costs (bootstrapped distribution)¹



¹ This is net of the Bank of England's Asset Purchase Facility.

Source: DMO.

- B.24 The central line of each fan chart represents the median debt interest cost after 1,000 simulations using the PST model (each simulation has an alternative yield curve) for each financial year. The shaded red areas (from darker to lighter red respectively) around the median debt interest cost projection represent the percentiles of the probability distribution, with each colour area representing an additional 5% probability. The debt interest values in the lightest shades of red at the top and at the bottom of the fan chart represent the 'tails' of the distribution, with only 5% probability associated with each. For example, debt interest values on the upper tail of the distribution would not be expected to be reached with a 95% probability. Forecast uncertainty increases further into the future and, therefore, the 'fan' widens over the horizon. Overall, at the 15-year horizon, under a normal distribution it can be said with 90% certainty (i.e. excluding the 10% top and bottom 'tails' of the distribution) that debt interest costs will be between £50 billion and £70 billion, with a median value of around £60 billion. Under a bootstrapped distribution there is a 90% probability that debt interest costs will be between £35 billion and £49 billion, with a median value of around £41 billion.
- B.25 It is important to note that the debt interest simulations in Charts B.4 and B.5 reflect the combination of simulated future yields and projected debt issuance together with the unfolding of existing portfolio dynamics. As a consequence, debt interest appears to pick up in the latter part of the horizon. This reflects the redemption profile of the debt portfolio, with a higher volume of redemptions that will mature and be refinanced at new

interest rates, among other factors. Given the long average maturity of the UK's debt, which creates 'stickiness' in the evolution of the portfolio,8 any impact from debt issuance is slow to take effect. In the 2017-18 issuance skew example, only about half of the entire debt interest cost bill would have been refinanced at new yield levels after 15 years.

Gilt distribution

- B.26 Auctions will remain the primary method of issuance.
- B.27 The government will continue the syndication programme in 2018-19. Gilts of any type and maturity can be sold via syndication. However, the current planning assumption is that:
 - syndications will be used to launch new gilts or to re-open high duration conventional and index-linked gilts
 - the size of transactions will be determined in response to the size and quality of market demand for the gilt being sold
- B.28 Reflecting the somewhat lower financing requirement in 2018-19 relative to 2017-18, the government expects to hold 4 syndicated offerings in 2018-19.
- B.29 Gilt tenders will be made available in 2018-19 for the issuance of conventional and index-linked gilts across maturities. The purpose of gilt tenders is to allow the government to respond more flexibly to changing market and demand conditions.
- B.30 The government remains committed to the GEMM model to distribute gilts through auctions, syndications and tenders and the government recognises that GEMMs play an important role in helping to facilitate liquidity in the secondary market.

Gilt issuance by maturity and type in 2018-19

- B.31 In determining the split of gilt issuance, the government has considered its analysis of the relative cost-effectiveness of the different gilt types and maturities, its risk preferences including for the portfolio as well as the issuance programme, and the market feedback it has received.
- B.32 Continuing demand for short conventional gilts is anticipated, including due to redemption reinvestment flows, and from overseas investors. However, the relatively high weight that the government places on managing its nearterm exposure to refinancing risk has also continued to influence its decision on the amount of short-dated conventional gilts to be issued.
- B.33 In deciding the proportion of medium conventional gilts to issue, the government recognises the important role that medium conventional gilts (particularly in the 10-year maturity) play in facilitating the hedging of a wide range of gilt market exposures through the futures market, which helps underpin liquidity in the sector.

⁸ Owing to the maturity structure and outstanding size of the debt portfolio, any change in issuance takes a long time to affect its composition.

- B.34 Market feedback suggests ongoing demand exists for long-dated conventional gilts from domestic investors in particular. Additionally, in determining the amount of long-dated conventional gilts to issue, the government has taken into account the role of long conventional issuance in mitigating its near-term exposure to refinancing risk.
- B.35 For conventional gilts, the risk premia analysis suggests that issuance across the maturity spectrum is more cost-effective than has historically been the case. Under market-implied inflation expectations, index-linked gilts are expected to be more cost-effective to issue than equivalent maturity conventional gilts for longer maturities.
- B.36 In relation to risk, the government is aware that the volume of index-linked gilt issuance in recent years has consequences for the long-term inflation exposure in the public finances. The UK's relatively high level of index-linked debt was one of the issues highlighted in the Office for Budget Responsibility's (OBR) 'Fiscal risks report' in July 2017. The government is considering the appropriate balance between index-linked and conventional gilts, taking account of structural demand, the diversity of the investor base and the government's preferences for inflation exposure. The 2018-19 financing remit reflects the government's current view on the appropriate balance between these factors, and in the coming years the government will further consider the appropriate balance between index-linked and conventional gilts. The government will provide additional reflections in its response to the OBR's 'Fiscal risks report' in the summer of 2018.
- B.37 Taking these considerations into account, the government's intention is to deliver in 2018-19 a gilt issuance programme that is well diversified among different types and maturities of gilts, but with a slight bias towards longer maturities.
- B.38 A similar portion of issuance will be held in an initially unallocated form in 2018-19 compared with 2017-18. The main purpose of the unallocated portion of issuance is to give increased flexibility to the DMO to issue any type or maturity of gilt by any issuance method in response to in-year evolution in demand and market conditions, while remaining consistent with the principles of predictability and transparency.

Treasury bill issuance in 2018-19

- B.39 Treasury bills are used for both debt and cash management purposes. With regards to the former, changes to the Treasury bill stock have historically offered an efficient way to accommodate in-year changes to the financing requirement.
- B.40 As in 2016-17 and 2017-18, the government will not target a planned endyear Treasury bill stock in 2018-19. Information on the outstanding stock of Treasury bills will continue to be published monthly in arrears on the DMO's website.9

⁹ www.dmo.gov.uk/data/treasury-bills



Annex C

NS&I's financing remit for 2018-19

Introduction

- C.1 This annex sets out information on the activities of NS&I in 2017-18 and 2018-19. NS&I is both a government department and an executive agency of the Chancellor of the Exchequer. Its activities are conducted in accordance with its remit, which is to provide cost-effective finance now and in the future for the government. It does this by raising deposits and investments from retail customers. This will remain the case in 2018-19.
- C.2 NS&I's contribution to financing is agreed with HM Treasury each year, and is based on the government's gross financing requirement, conditions in the retail financial services market and NS&I's ability to raise the funding without distorting the market.

Volume of financing in 2017-18

- C.3 NS&I's contribution to financing in 2017-18 is projected to be £10.2 billion with gross inflows (including reinvestments and gross accrued interest) of approximately £45.9 billion. This is within NS&I's revised 2017-18 target range of £5.0 billion to £11.0 billion, set at Autumn Budget 2017.¹ Table C.1 shows changes in NS&I's product stock during 2017-18.
- C.4 The financing projections include projected sales of the Investment Guaranteed Growth Bond, launched in April 2017.² NS&I will report full inflows into Investment Guaranteed Growth Bonds in their 2017-18 Annual Report and Accounts.

Table C.1: Changes in NS&I's product stock in 2017-18 (£ billion)¹

	End-March 2017	End-March 2018 ²
Variable rate	106.4	111.5
Fixed rate	20.5	25.7
Index-linked	20.0	19.9
Total	146.9	157.1

¹ Figures may not sum due to rounding.

Source: NS&I.

² Projections.

¹ Available at: www.gov.uk/government/topical-events/autumn-budget-2017

² Further detail on the Investment Guaranteed Growth Bond available at: www.gov.uk/government/topical-events/spring-budget-2017

- C.5 NS&I calculates the value it creates for the government using the Value Indicator, which compares the cost of funds raised to comparable gilt yields (see Table C.2).³ These comparator rates have continued to be at or close to historic lows over the course of the year. On this basis, NS&I projects a Value Indicator return of £224.5 million in 2017-18. This is lower than the target £250 million set by HM Treasury at Spring Budget 2017, but above the 'floor' Value Indicator of -£100 million.⁴
- C.6 The cost of the Investment Guaranteed Growth Bond launched by NS&I in April 2017 was set out at Autumn Statement 2016 and so is not reflected in NS&I's Value Indicator calculation for 2017-18.5

Table C.2: Calculator of Value Indicator

	Value Indicator
Equals	Comparator cost to the government ¹
Less	Interest and prizes earned by investors in NS&I's products
Less	Management costs of NS&I products (net of the equivalent of the Debt Management Office's costs and leveraging revenue)
Less	Tax foregone on NS&I's total stock of 'tax-free' products

¹ This is the cost of raising funds in the wholesale market of an equivalent term. For fixed-rate products it is the term of the product, while for variable rate products it is the average length of time the product is held by the customer.

Source: NS&I.

Volume of financing in 2018-19

- C.7 Gross inflows (including reinvestments and gross accrued interest) of NS&I's products are projected to be around £32.3 billion in 2018-19. After allowing for expected maturities and withdrawals, NS&I will have a 2018-19 net financing target of £6.0 billion, within a range of £3.0 billion to £9.0 billion.
- C.8 Based on current market expectations for comparator gilt yields, the cost to government of NS&I's stock is expected to be lower than wholesale funding costs for the year. NS&I's target Value Indicator for 2018-19 is £125 million, with a floor of £0.
- C.9 Further details of NS&I's activities in 2018-19 will be included in its 2017-18 Annual Report and Accounts, which is scheduled to be laid in Parliament in 2018 and will be available in print form and at www.nsandi.com.

³ Further detail on the Value Indicator is available in NS&I's Annual Report and Accounts, which can be found here: www.nsandi-corporate.com/about-nsi/our-performance/our-annual-report-and-accounts

 $^{^{4}\} www.ns and i-corporate.com/wp-content/uploads/2017/06/annual-report-2016-17-complete-website-version.pdf$

⁵ www.gov.uk/government/topical-events/autumn-statement-2016

Annex D

The Exchequer cash management remit for 2018-19

Exchequer cash management objective

- D.1 The government's cash management objective is to ensure that sufficient funds are always available to meet any net daily central government cash shortfall and, on any day when there is a net cash surplus, to ensure this is used to best advantage. HM Treasury and the Debt Management Office (DMO) work together to achieve this.
- D.2 HM Treasury's role in this regard is to make arrangements for a forecast of the daily net flows into or out of the National Loans Fund; and its objective in so doing is to provide the DMO with timely and accurate forecasts of the expected net cash position over time.
- D.3 The DMO's role is to make arrangements for funding and for placing the net cash positions, primarily by carrying out market transactions in light of the forecast; and its objective in so doing is to minimise the costs of cash management while operating within the risk appetite approved by ministers.
- D.4 The government's preferences in relation to the different types of risk taking inherent in cash management are defined by a set of explicit limits covering 4 types of risk which, taken together, represent the government's overall risk appetite. The risk appetite defines objectively the bounds of appropriate government cash management in accordance with the government's ethos for cash management as a cost minimising, rather than profit maximising, activity and playing no role in the determination of interest rates. The DMO may not exceed this boundary, but, within it, the DMO will have discretion to take the actions it judges will best achieve the cost minimisation objective.

DMO's cash management objective

- D.5 The DMO's cash management objective is to minimise the cost of offsetting the government's net cash flows over time, while operating within the government's risk appetite. In so doing, the DMO will seek to avoid actions or arrangements that would:
 - undermine the efficient functioning of the sterling money markets

¹ The 4 types of risk for cash management are liquidity risk, interest rate risk, foreign exchange risk and credit risk. An explanation of these risks and the government's cash management operations more generally is set out in Chapter 5 of the DMO's Annual Review 2004-05, which is available at: www.dmo.gov.uk/media/14483/gar0405.pdf

• conflict with the operational requirements of the Bank of England for monetary policy implementation

Instruments and operations used in Exchequer cash management

- D.6 The range of instruments and operations that the DMO may use for cash management purposes, including the arrangements for the issuance of Treasury bills, are set out in the DMO's Exchequer cash management Operational Notice.²
- D.7 Treasury bills can be used for both cash and debt management purposes. In relation to the latter, any positive or negative net contribution to the government's debt financing plans that is attributable to changes in the stock of Treasury bills is set out in the financing arithmetic table (Table 3.A).
- D.8 For cash management, the DMO uses Treasury bills to help manage fluctuations in the government's cash flow profile throughout the year and does so by varying the amount raised through Treasury bills by reference to the forecast net cash position. In order to provide flexibility to the DMO to use Treasury bills across the financial year-end for cash management, no end-year target stock of Treasury bills is set. Information on the total stock of Treasury bills is published monthly on the DMO's website.³
- D.9 As a contingency measure, the DMO may issue Treasury bills to the market at the request of the Bank of England and, in agreement with HM Treasury, to assist the Bank of England's operations in the sterling money market for the purpose of implementing monetary policy while meeting the liquidity needs of the banking sector as a whole. In response to such a request, the DMO may add a specified amount to the size(s) of the next bill tender(s) and deposit the proceeds with the Bank of England, remunerated at the weighted average yield(s) of the respective tenders. The amount being offered to accommodate the Bank of England's request will be identified in the DMO's weekly Treasury bill tender announcement. Treasury bills may also be issued bilaterally to the Bank of England to support intervention schemes. Treasury bill issues made at the request of the Bank of England will be identical in all respects to Treasury bills issued in the normal course of DMO business. The DMO may also raise funds to finance advances to the Bank of England and would, in conjunction with HM Treasury, determine the appropriate instruments through which to raise those funds.

DMO collateral pool

D.10 Gilts and/or Treasury bills may be issued to the DMO to help in the efficient execution of its cash management operations. The amounts will be chosen to have a negligible effect on any relevant indices. This will normally be on the third Tuesday of April, July and October 2018 and January 2019. Any such issues to the DMO will be used as collateral and will not be available for outright sale. The precise details of any such issues to the DMO will be announced at least 2 full working days in advance of the creation date. If no

² 'Exchequer cash management in the United Kingdom : Cash Management Operational Notice & Treasury Bill Information Memorandum', DMO, September 2017. Available at: www.dmo.gov.uk/media/15026/cmopnot010917.pdf

³ www.dmo.gov.uk/data/treasury-bills

- issue is planned to take place in a particular quarter, the DMO will announce that this is the case in advance.
- D.11 In the event that the DMO requires collateral to manage short-term requirements, the DMO may create additional Treasury bill collateral at other times. Any such issues to the DMO will only be used as collateral and will not be available for outright sale by the DMO.
- D.12 The DMO's collateral pool may also be used to support HM Treasury's agreement to provide gilt collateral for the purpose of the Bank of England's Discount Window Facility. The gilt collateral will be held by the DMO and lent to the Bank of England on an 'as needed' basis; gilts created for this purpose will not be sold or issued outright into the market.⁴

Active cash management

D.13 The combination of HM Treasury's cash flow forecasts and the DMO's market operations characterises an active approach to Exchequer cash management. Since 2007-08, a performance measurement framework for active cash management – in which discretionary decisions that are informed by forecast cash flows are evaluated against a range of indicators – has been in place. These include qualitative measures as well as measures quantifying returns to active management, after deducting an interest charge representing the government's cost of funds. Performance against these key indicators is reported in the DMO's Annual Review.⁵

⁴ More information about the Discount Window Facility can be found at: www.bankofengland.co.uk/markets/the-sterling-monetary-framework

⁵ For the latest report see Annex B of the 'DMO Annual Review 2016-17', which can be found at: www.dmo.gov.uk/media/15023/gar1617.pdf

Annex E

Financing for the Official Reserves

- E.1 The financing arithmetic provides for £6.0 billion of sterling financing for the Official Reserves in 2018-19. For the purposes of the financing arithmetic in Table 3.A, it is assumed that sterling issuance through gilts will remain the main form of financing for the Official Reserves, and that no new foreign currency debt will be issued in 2018-19.
- E.2 This £6.0 billion sterling financing builds on the Autumn Statement 2014 announcement, which set a planning assumption for £6.0 billion of additional financing for the Official Reserves until 2019-20.1 The objective has been to ensure the level of foreign currency reserves would be sufficient for the UK to meet any potential calls on the Official Reserves, and to remain resilient to possible future shocks.
- E.3 The current programme of additional financing for the Official Reserves will end in 2019-20, at which point the government will have provided an additional £72 billion since the financial crisis.² There are no plans to continue increasing the Official Reserves thereafter.

¹ Available at www.gov.uk/government/topical-events/autumn-statement-2014

² More information on the financing for the Official Reserves provided to date is available at: www.gov.uk/government/collections/statistical-release-uk-official-holdings-of-international-reserves

HM Treasury contacts

This document can be downloaded from www.gov.uk

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