

# 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 2022-23, 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 throughout the year).

### Demand

- B.5** The DMO conducts regular surveys of Gilt-Edged Market Makers (GEMMs) and investor consultations, in order to inform its assessment of demand for gilts and Treasury bills.
- B.6** Both GEMMs and investors have reported ongoing demand for all instrument types. In shorter maturities, demand has been expressed both for shorter-dated gilts and for a rebuild of the Treasury bill stock, given the reduction in the Treasury bill stock in 2021-22, and the size of upcoming gilt redemptions.
- B.7** While medium-dated conventional gilts remain the most liquid and traded part of the gilt curve, market feedback supported a reduction in issuance in this sector.
- B.8** Demand is reported to remain firm for long-dated gilts, in both conventional and index-linked format, from long-term savings institutions. It was reported

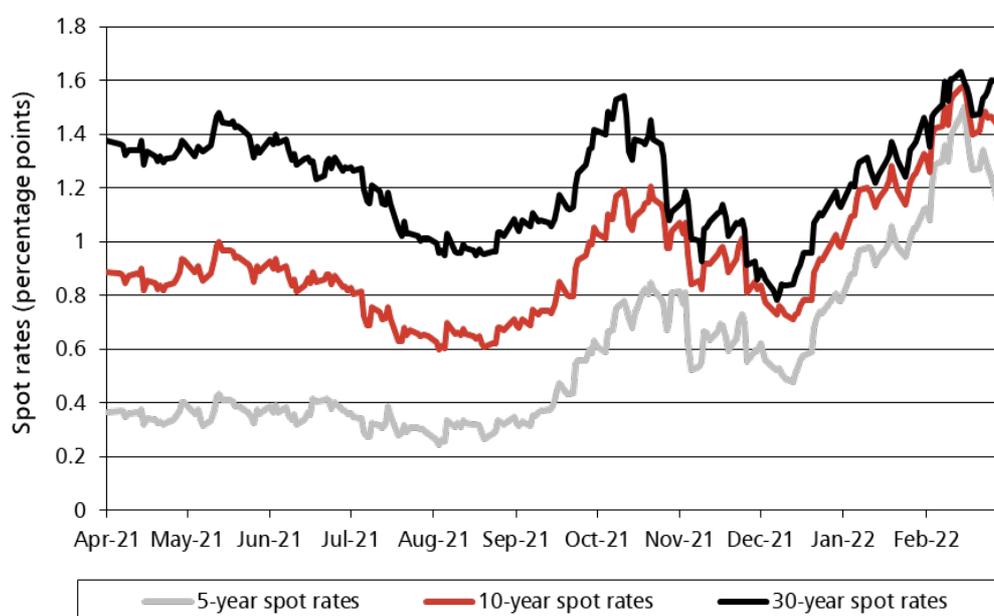
that overseas investor demand is expected to remain strong across a range of instruments.

- B.9 There is also good investor appetite for further green gilt issuance, following the successful introduction of these instruments last year, which saw record levels of investor demand at issuance.

## Cost

- B.10 This section provides an overview of cost considerations. These analyses complement the qualitative demand feedback and help inform evaluations of the relative cost effectiveness of different types of gilt issuance. Chart B.1 reports the evolution of nominal spot rates for several maturities since the beginning of 2021-22.<sup>1</sup> It shows that after a period of slow decline, there have been marked changes since the second half of September, with yields now above the levels seen at the beginning of 2021-22, especially at the short and medium sectors of the curve. The chart also illustrates that outturn yields during the remit year may differ from observations made at the time of setting an annual remit. Hence, immediately observable cost factors must be weighed carefully against other considerations.

Chart B.1 Nominal spot yield dynamics (to end-February 2022)<sup>1</sup>



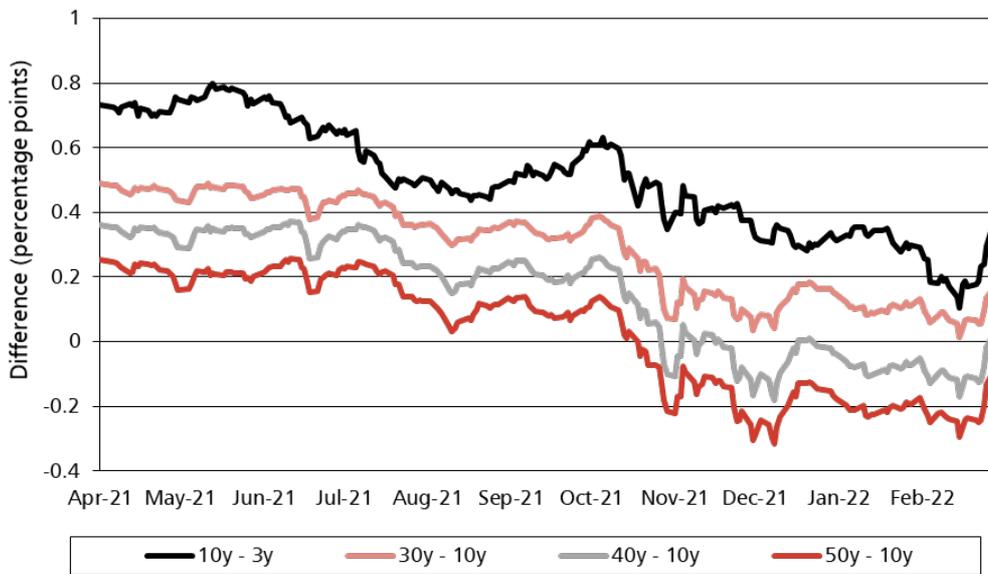
<sup>1</sup>Daily spot rates for selected maturities from 1 April 2021 to end-February 2022.

Source: DMO.

- B.11 This increase in the level of yields has been accompanied by a flattening of the yield curve, as shown in Chart B.2.

<sup>1</sup> The spot rate for any maturity is defined here as the yield on a theoretical zero-coupon gilt which gives a single payment at that maturity. The spot rate reflects the current yield at a particular point in time.

**Chart B.2 Differences across spot rates of different maturities (to end-February 2022)<sup>1</sup>**

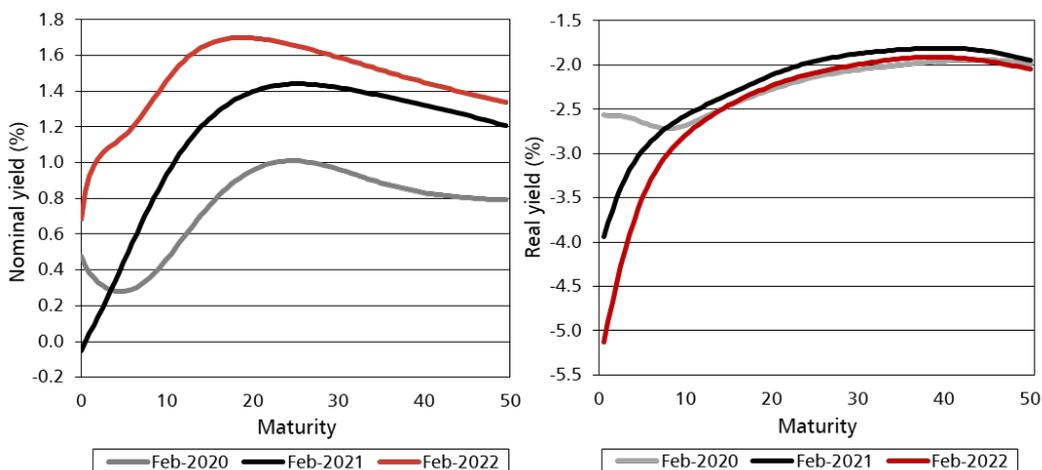


<sup>1</sup>The black line shows the difference between 10-year and 3-year spot rates. The pink, grey, and red lines show the difference between the 30-, 40-, 50-year spot rates and the 10-year spot rates, respectively.

Source: DMO.

**B.12** The changes described above, together with current demand conditions, have resulted in an upward shift in – and flattening of – the nominal yield curve, with 10-year gilts now yielding above several longer maturity gilts. This can be seen in Chart B.3, which displays the shapes of both the nominal and real spot yield curves as of end-February 2020, 2021, and 2022.

**Chart B.3 Nominal and real spot yield curves (as of end-February 2020, 2021, and 2022)<sup>1</sup>**



<sup>1</sup>The left-hand (right-hand) side panel shows the shape of nominal (real) spot yield curves as of end-February 2020, 2021, and 2022.

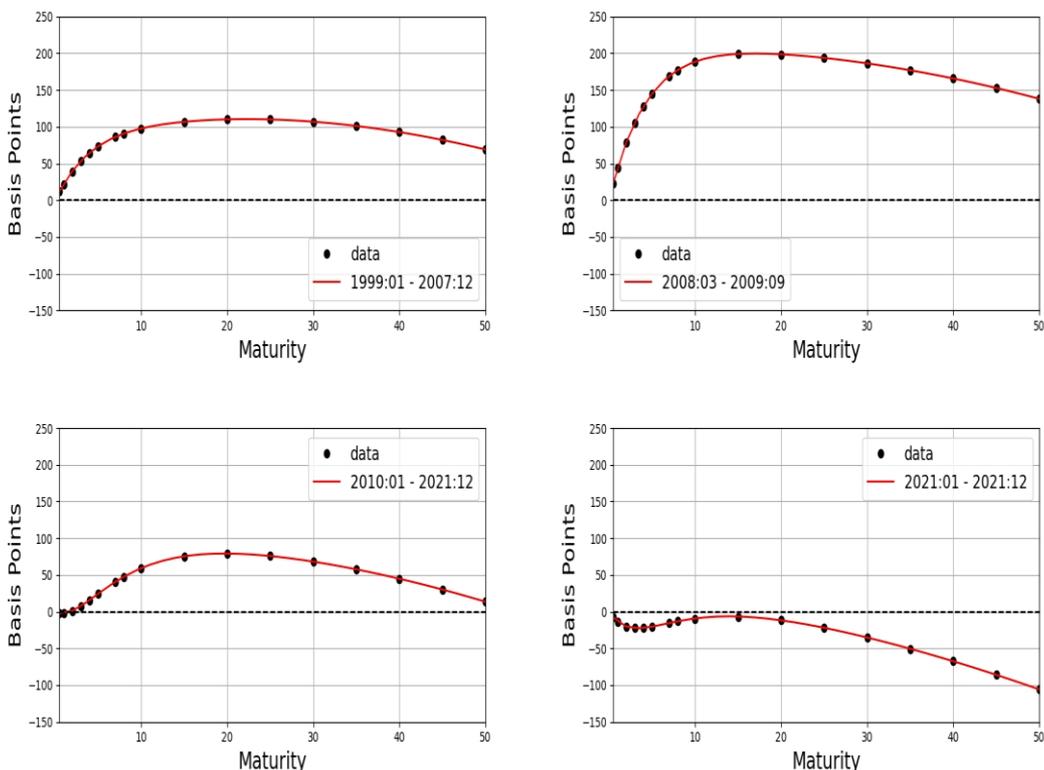
Source: DMO.

- B.13** Understanding the market pricing of gilts can be a useful consideration in determining the appropriate composition of maturities to issue. To illustrate, yields of a long-term, zero-coupon gilt can be decomposed into two components: a 'risk neutral' yield and a risk premium (also called a term premium). The former corresponds to the average expected future short-term interest rates over the life of the gilt. The latter is normally thought of as the additional return that risk-averse investors demand as compensation for the possibility of capital loss if a gilt is sold before maturity and, in the case of conventional gilts, the risk of the bond value being eroded by inflation.
- B.14** The risk premium may also be determined by supply and demand imbalances for a specific instrument.<sup>2</sup> All else being equal, cost considerations would tend to prompt a government to issue at maturities where the risk premium demanded by investors is lowest relative to other maturities.
- B.15** Risk premia are typically maturity-specific and time-varying. Several factors contribute to the variation and trends in risk premia, among which are changes in investors' risk preferences and expectations, and unanticipated macroeconomic shocks.
- B.16** Chart B.4 displays the term structure of risk premia, with each individual panel showing averages over a selected time period. The top left panel focuses on the period before the financial crisis, when yields and risk premia were higher than today. Risk premia increased during the global financial crisis (top right panel). Since then, there has been a steady decline and risk premia are currently at historically low levels across all maturities (bottom right panel) despite a modest rise in the past few months. This analysis suggests that issuance of conventional gilts across the maturity spectrum is currently more cost-effective than has historically been the case.

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<sup>2</sup> More generally, the risk premium can be decomposed into several components, including: (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 discount or premium owing to the different levels of liquidity in some bonds or maturities, which enhances or restricts investors' ability to hedge; and (iv) an inflation risk premium to compensate investors in nominal bonds for uncertainty owing to inflation.

Chart B.4 The term structure of risk premia in the UK conventional gilt market over selected sample periods<sup>1</sup>



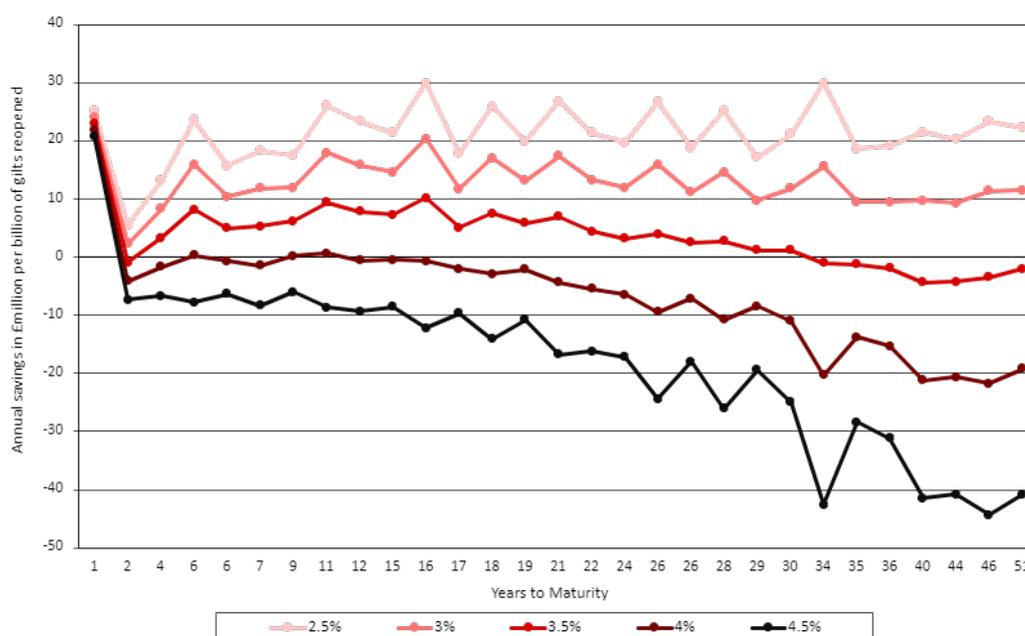
<sup>1</sup>Averages over selected time period, of time-varying risk premia based on the AFNS model of Christensen, J. H., Diebold, F. X., & Rudebusch, G. D. (2011). "The affine arbitrage-free class of Nelson-Siegel term structure models". *Journal of Econometrics*, 164(1), 4-20.

Source: DMO.

- B.17** The government also undertakes an evaluation of the relative cost-effectiveness of index-linked gilts (ILGs), in addition to its analysis of conventional gilts. ILGs differ from conventional gilts as both the principal and coupon payments are indexed to the value of the Retail Prices Index (RPI). One cost consideration for issuing ILGs is whether investors are typically willing to pay an additional premium for the protection from inflation that these securities provide.
- B.18** One way to take account of the cost-effectiveness of ILGs against conventional gilts is to evaluate the break-even inflation rate (BEIR). It is typically calculated as the difference between the yield of a nominal gilt and the yield of an ILG of the same maturity. The BEIR can be seen as the average rate of inflation, over the life of a gilt, at which an issuer should be indifferent on cost grounds between issuing either a conventional or an ILG.
- B.19** The BEIR can be decomposed into an expected inflation component and two additional factors: the additional premium investors are willing to pay for protection against inflation, and the discount they require for holding less liquid bonds. Consequently, one possible way to assess the cost-effectiveness of an ILG relative to a conventional gilt is to compare actual inflation outturn over the life of the gilt with market-implied BEIR.

**B.20** Chart B.5 illustrates potential costs or savings from ILG issuance relative to conventional issuance under different RPI inflation scenarios. Note that these are purely illustrative and not forecast scenarios. The analysis is expressed in £ millions notionally saved per £ billion of each gilt issued. The analysis shows that issuing an ILG is cost-effective at any maturity relative to its conventional equivalent in scenarios where RPI does not exceed (on average) 3% over the life of the gilt. Similarly, ILGs with a maturity of up to 32 years remain cost-effective in scenarios where RPI remains below or equal (on average) to 3.5% over this time period. In scenarios with higher average levels of RPI, conventional issuance has higher cost-effectiveness than ILG issuance according to this analysis.

**Chart B.5 The cost effectiveness of index-linked gilts relative to conventional gilts under different RPI scenarios (as of end-February 2022)<sup>1</sup>**

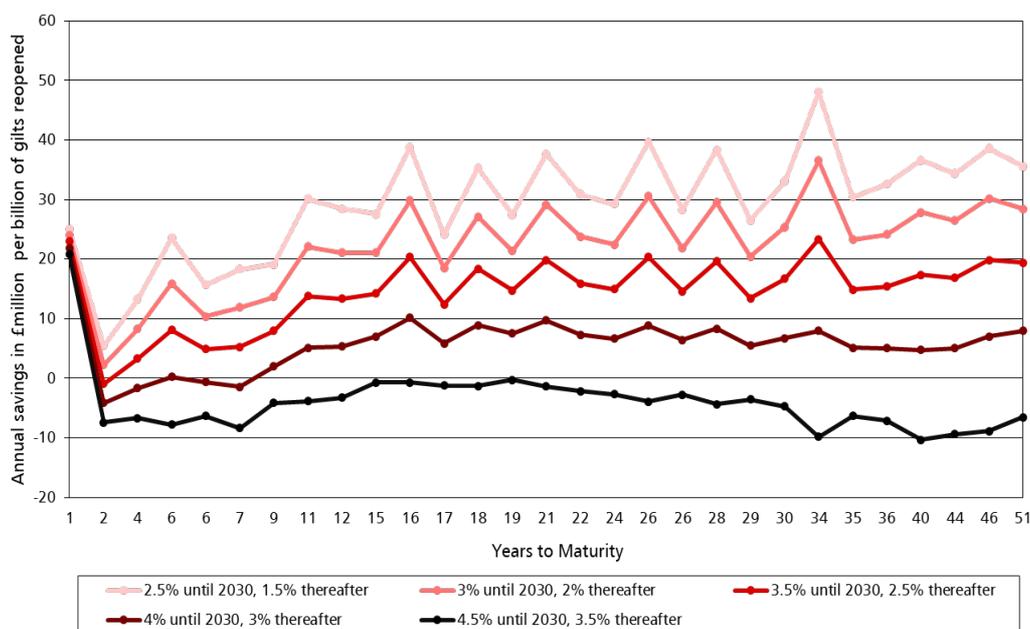


<sup>1</sup>Data markers in each line on the chart represent results from specific index-linked gilts maturing at that point in time. Gilts that have higher coupons have a greater sensitivity to the Index Ratio (i.e., the change in the price index since the gilt was first issued) and, therefore, generate either a greater saving or cost in comparison to a gilt with the same maturity but a smaller coupon. Chart B.5 illustrates these bigger changes on redemption dates for higher coupon gilts which become even more striking in scenarios with higher average levels of RPI.

Source: DMO.

**B.21** This analysis can be complemented by one which factors in the planned reform to RPI which will take place in 2030, when the methodology and data sources of CPIH will be brought into RPI. To take this into account, for each RPI scenario, a simple adjustment can be made to illustrate the effect if RPI were one percentage point lower from 2030 onwards. This simplified assumption is for illustrative purposes and not a forecast. As shown in Chart B.6, with these changes, ILG issuance would be more cost-effective than conventional gilts in scenarios where RPI stayed below approximately 4.5% (on average) during the period up to 2030.

**Chart B.6 The cost effectiveness of index-linked gilts relative to conventional gilts under different RPI scenarios and RPI reform (as of end-February 2022)**



Source: DMO.

## Risk

- B.22** 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.23** 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. Relatedly, all else equal, this also reduces exposure to interest rate risk in the near term. The government places importance on avoiding, when practicable, large concentrations of redemptions in any one year. To achieve this, the government will issue debt across a range of maturities, smoothing the profile of gilt redemptions.
- B.24** 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.25** 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 the development of 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.26 Promoting these features of the gilt market will also serve to minimise debt costs to the government over the long term, because investors reward an issuer for providing a continuous and ready market and a globally recognised benchmark product.

## Gilt distribution

- B.27 Auctions will remain the primary method of issuance in 2022-23. The use of syndications will continue in 2022-23. Any type and maturity of gilt can be sold through syndication and the DMO will announce on a quarterly basis its planned syndication programme.
- B.28 Gilt tenders may be used in 2022-23 to issue any type and maturity of gilt. Further details are set out in the DMO's 2022-23 financing remit announcement.
- B.29 The scheduling of gilt operations throughout 2022-23 will, as usual, take into account the timing of gilt redemptions in the financial year.
- B.30 The government remains committed to the GEMM model to distribute gilts through auctions, syndications, and gilt 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 2022-23

- 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 strong demand for short conventional gilts is anticipated, which has been balanced against managing the government's near-term exposure to refinancing risk. Relative to 2021-22, a 2.7 percentage point proportional increase in the issuance of short-dated conventional gilts is planned in 2022-23 (at 29.8%).
- B.33 In deciding the proportion of medium conventional gilts to issue, the government recognises the important role that medium-dated conventional gilts (particularly at the 10-year maturity) play in facilitating the hedging of a wide range of gilt market exposures through the futures market, which helps to underpin liquidity in the sector. Relative to 2021-22, a 7.2 percentage point proportional decrease in the issuance of medium-dated conventional gilts is planned in 2022-23 (at 21.2%).
- B.34 Market feedback also suggests ongoing demand exists for long 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. Relative to 2021-22, a 2.6 percentage

point proportional decrease in the issuance of long-dated conventional gilts is planned in 2022-23 (at 28.5%).

- B.35** Issuing index-linked gilts has historically brought cost advantages for the government due to strong demand from the domestic pensions sector in particular, and market feedback suggests that this is ongoing.
- B.36** Relative to 2021-22, a 1.4 percentage point proportional increase in the issuance of index-linked gilts is planned in 2022-23 (at 14.9%). Details on the government's current policy position in relation to index-linked gilt issuance, as well as the specific decisions in respect of the 2022-23 remit, are provided in Chapter 2.
- B.37** A 5.6% proportion and £7.0 billion absolute amount of issuance will be initially unallocated in 2022-23. The existing purposes of the unallocated portion of issuance will continue to apply – namely, to give increased flexibility to the DMO to issue any type or maturity of gilt by any issuance method, while remaining consistent with the principles of openness, predictability, and transparency.

## Treasury bill issuance in 2022-23

- B.38** Treasury bills are used for both debt and cash management purposes. With regard 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.39** The government does not have a target for the planned end-year total Treasury bill stock (i.e., including Treasury bills issued for cash management purposes). Information on the outstanding stock of Treasury bills will continue to be published monthly in arrears on the DMO's website.<sup>3</sup>
- B.40** It is expected that net issuance of Treasury bills will make a contribution to debt financing in 2022-23 of £23.2 billion, in order to rebuild the debt-related Treasury bill stock following the exceptional reduction (of the equivalent amount) in 2021-22.

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<sup>3</sup> [www.dmo.gov.uk/data/treasury-bills](http://www.dmo.gov.uk/data/treasury-bills)