United Kingdom
Debt Management
Office

Super-long and perpetual gilts
Response to consultation

5 December 2012

Any enquiries about this document should be addressed to:

HM Treasury
Richard Curtis
Debt and Reserves Management Team
HM Treasury
1 Horse Guards Road
London SW1A 2HQ
richard.curtis@hmtreasury.gsi.gov.uk
+44 (0) 20 7270 5471

UK Debt Management Office
James Knight
UK Debt Management Office
Eastcheap Court
11 Philpot Lane
London EC3M 8UD
james.knight@dmo.gsi.gov.uk
+44 (0) 20 7862 6571

Executive Summary

After thorough consideration, taking into account the feedback received in response to the DMO's consultation, the Government has taken the following decisions:

- **to remove the current maturity cap on gilt issuance set at around 50 years;**
- **in 2013-14 to look to launch new issuance in the 50-60 year area, subject to demand and market conditions; and**
- **not to introduce new perpetual gilts at the current time.**

When evaluating the feedback to the consultation, and in reaching its conclusions on issuance of super-long and perpetual gilts, the Government has taken into account the potential benefits, as well as the costs and risks of issuance, for itself and for the gilt market. A full list of the criteria against which feedback has been assessed can be found in the Introduction to this document.

Respondents to the consultation suggested that there may be demand for gilts with maturities slightly longer than those currently in issue (e.g. 60 years) from a sub-set of investors looking to hedge liabilities in excess of 50 years, but that demand for gilts with much longer maturities would be more limited. In the case of perpetual gilts, the consultation provided little evidence of demand for such instruments at the current time.

The Government judges that issuance of super-long gilts with maturities in excess of 50 years could represent cost-effective financing for the Exchequer, while contributing to effective risk management of the Government's debt portfolio. However, it recognises that the strength of demand for these instruments is uncertain and that a cautious approach to issuance and, therefore, to extension of the yield curve is appropriate. As such, and consistent with the Government's debt management strategy, it anticipates that **in 2013-14 the DMO will look to launch new issuance in the 50-60 year area, subject to demand and market conditions.** Decisions on specific maturities for issuance in-year would be taken by the DMO after consultation with the market through the normal channels.

In the case of perpetual gilts, the Government judges that these would be unlikely to represent a cost effective source of financing at present in the absence of tangible market demand. Therefore, **the Government will not introduce new perpetual gilts at the current time.** The Government's current approach to the existing undated gilts remains unchanged.

Introduction

The Government announced at Budget 2012 that, in light of evidence of strong demand for gilts of long maturities and against the backdrop of historically low long-term interest rates, it would consult on the case for issuance of gilts with maturities significantly longer than those currently in issue (i.e. in excess of 50 years) and/or perpetual gilts. Following this announcement, the DMO launched a twelve week consultation on the issuance of super-long and perpetual gilts. The consultation opened on 25 May 2012 and closed on 17 August 2012.

The consultation document asked eighteen questions on market demand for super-long and perpetual gilts; the supply of new instruments; the potential risks of issuance; instrument design; the lead time for implementation; and issues of gilt market management.

The questions were designed to enable the DMO to build an evidence base to inform a decision on whether or not to issue such instruments. Respondents were asked to provide data and/or analysis in support of their views, taking into account the key criteria that the DMO set out against which it would assess the case for the potential issuance of super-long and/or perpetual gilts. These criteria, which apply to the launch of any new instrument, are:

- consistency with the debt management objective and the principles of openness, predictability and transparency on which debt management policy is based;
- the impact on liquidity and the good functioning of the gilt market more generally;
- the likely demand for these instruments in the context of investor preferences;
- the risk management benefits and risks to Government of issuing such instruments; and
- an assessment of the cost and resource commitment required for implementation in comparison with the potential size of demand.

In total, 44 written responses were received, which comprised responses from the Gilt-edged Market Makers (GEMMs), end investors, industry bodies and three private individuals. A full list of respondents is provided in the Annex. The DMO is grateful for the constructive feedback provided during the consultation, which helped to inform the Government's views on the issuance of super-long and perpetual gilts.

Respondents provided a range of views in response to the questions in the consultation, and set out a number of pertinent issues for the Government to take into account in making decisions on whether it should proceed with issuance of super-long and/or perpetual gilts. In general, respondents concluded that the Government should proceed cautiously with super-long gilt issuance but should not proceed with perpetual gilt issuance.

Super-long gilts

In terms of market feedback on super-long gilts, respondents in general suggested that any potential demand for issuance would be concentrated at relatively short (e.g. 60-year) maturities, with demand limited for much longer maturity gilts. This demand was expected to come from a sub-set of the gilt investor base, specifically from pension funds seeking to match liabilities in excess of 50 years. However, respondents expected that these liabilities would decline over time, and potentially reduce the appetite for issuance in the future.

Reflecting this anticipated demand for super-long gilts, respondents suggested in the main that shorter-dated super-long issuance would be more cost-effective than longer-dated issuance. The general expectation was that shorter-dated issuance would price to yield flat or slightly

above existing ultra-long gilt yields, whereas super-long gilts with very long maturities were more likely to yield at a significant spread over existing issuance.

Respondents highlighted a number of potential risks associated with issuance of super-long gilts, including the risk of fragmenting market liquidity in the ultra-long sector, as well as the potential impact of supply on the shape of the yield curve and consequent implications for the cost effectiveness of existing maturities of issuance. To mitigate these risks, the majority view among respondents was that the Government should take a cautious approach to any super-long issuance, balancing supply with demand as it emerges and focusing supply on a small number of new gilts at maturities close to the end of the existing yield curve.

Perpetual gilts

The consultation yielded little evidence of demand for perpetual gilts, in the absence of a natural investor base for such instruments. Respondents saw new perpetual gilts as being an imperfect match for the liabilities of investors such as pension funds or insurance companies, and expected the appetite for these instruments from other investor groups (such as fund managers or international investors) to be small because of their unique structure and cashflow profile.

Given the limited demand anticipated for perpetual gilts, they were expected to be relatively expensive when compared against existing instruments, and were unlikely to represent a cost effective source of financing for the Government.

Summary of Responses to Consultation Questions

This section sets out an overview of responses to each of the questions in the consultation document, focusing on key themes, topics and issues raised by respondents.

Reflecting the general weight of feedback to the consultation, this summary of responses focuses primarily on super-long, rather than perpetual, gilt issuance.

A. Market demand for super-long or perpetual issuance

1. What are the potential sources and scale of demand (both new and existing) for super-long and perpetual gilts?

Respondents views on the potential sources and scale of demand for super-long gilts varied by investor type. Overall, respondents to the consultation expected that investors would have a relatively limited appetite for gilts with maturities significantly longer than those currently in issue, although a number of respondents argued that there could be some demand for shorter-dated super-long issuance from domestic pension funds undertaking Liability Driven Investment (LDI) strategies.

Demand for perpetual gilts from investors was widely thought to be limited. Perpetual gilts were not viewed as being a suitable hedge for the liabilities of long-term investors such as pension funds or insurance companies, given their uncertain, and potentially infinite, maturity. Likewise, respondents expected very limited demand from other sources, for example given the potential exclusion of perpetual gilts from gilt market indices. The complexity of pricing and yield behaviour close to par (negative convexity), suitability as collateral and systems issues were all additional factors put forward as diminishing their attractiveness to investors.

In terms of super-long gilts, the following investor groups were seen as having potential demand:

Pension funds and insurance companies

Some respondents suggested that there could be demand for super-long gilts from pension funds seeking to hedge liabilities that exceed 50 years. However, these respondents noted that pension liabilities tended to decline significantly after the 60-year maturity point, and so they generally expected that any demand for longer maturity gilts would be concentrated at maturities close to the end of the existing yield curve.

A sub-set of respondents commented that pension funds could be expected to prefer index-linked relative to conventional super-long issuance, reflecting the nature of their liabilities. One respondent suggested that defined contribution (DC) schemes could be a potential future source of demand over a longer time horizon, but noted that any demand would be very small to begin with.

In terms of insurance companies, the majority of respondents anticipated that there would be limited demand for super-long gilts, on the basis that super-long issuance would be too long in maturity terms for liability matching of the majority of business lines. The potential

implementation of Solvency II[1] was also viewed as a potential impediment to demand for super-long gilts from insurers.

Fund managers

Some respondents suggested that investors passively tracking gilt market indices could be an additional source of demand for super-long gilts, if such issuance is included in relevant indices, because the duration and composition of specific gilt indices would change in light of any super-long issuance. More 'active' investors were viewed by some respondents as a potential source of speculative demand for super-long gilts, subject to outright yield levels, and given the additional convexity of issuance. However, the lack of bonds with equivalent maturities internationally was seen as a factor limiting relative value opportunities for these investors.

Overseas investors

On the whole, respondents expected overseas interest in super-long gilts to be limited, given the lack of equivalent instruments internationally. However, a small number of respondents suggested that there could be potential demand from some international investors with sufficiently long maturity investment mandates, such as some Sovereign Wealth Funds.

2. To what extent would demand for super-long and perpetual gilts translate into more cost-effective financing for the Government relative to existing instruments?

Generally, shorter-dated super-long issuance was seen as being relatively more cost effective than very long maturity issuance.

However, there were a variety of views expressed about whether or not super-long issuance would be a cost-effective source of financing for the Government reflecting differing views on the likely demand for such instruments, the extent to which the market would compensate the Government for the additional convexity that such issuance would offer and the impact that an extension of the yield curve could have on the pricing of existing ultra-long gilts. With respect to pricing in the context of a potential yield curve extension, a few respondents highlighted the role that existing 50-year gilt issuance currently plays as a substitute hedge for the liabilities that exceed this maturity, in the absence of other investment options. These responses noted that super-long gilt supply could cause ultra-long yields to rise and the yield curve to steepen.

A sub-set of respondents highlighted potential additional benefits to the Government from the issuance of super-long gilts, including helping to reduce the Government's near-term exposure to refinancing risk by further extending the average maturity of the Government's debt portfolio, or allowing the Government to 'lock in' current yield levels. One respondent cited the potential 'public good' benefits of super-long issuance in the context of acting as a comparator for the valuation of long-term public infrastructure projects. However, other respondents highlighted the risks of super-long issuance for the Government, suggesting that increasing the overall maturity of the Government debt portfolio could be better achieved by altering the profile of existing issuance or that the Government should give greater consideration to the regret risk of locking in borrowing over such a period of time.

[1] Known formally as: Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

The majority of respondents did not see issuance of perpetual gilts as a cost effective source of financing for the Government, reflecting both the absence of demand and the additional costs associated with issuing such instruments.

3. How would issuance price relative to existing ultra-long gilts?

There was a general view from respondents that shorter-dated issuance (e.g. 60-year) could be expected to price to yield flat or at a spread over existing ultra-long issuance. However, longer-dated super-long issuance was seen as being likely to represent a more expensive form of funding for the Government.

There was a significant degree of variation in the pricing estimates provided, given the number of different factors taken into consideration by various respondents, as well as the differences in methodologies used in determining the pricing of such instruments, which included both extrapolations of the existing yield curve and considerations of the individual components of super-long gilt yields.

Overall, responses to the consultation highlighted significant uncertainty in the pricing of super-long gilt issuance, increasing with maturity, reflecting differing assessments of the strength of demand for issuance; the willingness of end-investors to incorporate an appropriate valuation for convexity in pricing of such instruments; the potential illiquidity of super-long gilts relative to other instruments; and the impact that super-long supply could have on the overall shape of the yield curve.

Respondents noted the difficulty in establishing a fair value for perpetual gilts, reflecting the lack of suitable comparators and the complexities in valuing any embedded optionality in such instruments. Overall, respondents expected perpetual gilts to price to yield a significant spread over existing ultra-long issuance, with the current yield level of existing undated gilts being cited as a suitable comparator for any initial issuance.

4. To what extent would issuance of super-long and/or perpetual gilts displace demand for existing ultra-long gilts?

The majority of respondents were of the view that issuance of super-long gilts could result in the displacement of some demand from existing ultra-long gilts, particularly in the short term. However, views varied on the extent and duration of such displacement.

Those respondents that anticipated some displacement of demand from existing issuance saw the close substitutability between ultra-long and shorter-dated super-long gilts making some displacement of demand between the two maturity sectors particularly likely. The greater convexity of super-long gilts (for relatively similar duration and potentially similar yield) was considered to be a potential driver of displacement of demand, as was the current use of gilts at the 50-year maturity point as a general hedge for longer-dated liabilities.

In the case of perpetual gilts, respondents were of the opinion that the lack of outright demand for such instruments would mean that any demand displacement from existing ultra-long gilts would be very limited.

5. How sustainable would demand be for super-long and perpetual gilts?

The majority of respondents noted that the sustainability of demand for super-long gilts would depend on the future evolution of the liability profile of investors. As such, most expected demand for super-long gilts to decline over time, reflecting the fact that most defined benefit

(DB) pension schemes are closed to new members and, therefore, the duration of liabilities is shortening over time.

Some respondents suggested that there could be some incremental demand for super-long gilts that would emerge over time in light of interest from active investors, although it was noted that this demand would be expected to ebb and flow in line with market conditions.

Reflecting the lack of outright demand for perpetual gilts, demand for these instruments was not seen as being sustainable.

6. If the longest maturity at which the Government issues conventional and index-linked gilts was to be extended, at which new maturities would there be most potential demand for issuance?

Given the liability profile of investors, the majority of respondents suggested that potential demand for super-long gilts would be mostly for maturities out to 60 years, with a small number suggesting demand for issuance out to 70 years.

There were isolated calls for issuance of gilts with even longer maturities.

B. Supply of new instruments

7. How should the Government seek to integrate issuance of super-long and/or perpetual gilts within its existing issuance programme?

Some respondents advocated providing a more granular breakdown of supply in the event that the Government decided to issue super-long gilts, on the grounds that the market would benefit from clarification within the Remit on the amount of super-long supply in any one year. However, others suggested that super-long issuance should form part of existing issuance brackets, in order to ensure that supply remained flexible and responsive to evolving and uncertain market demand. A number of respondents mentioned the syndication programme as a means by which the Government could achieve this flexibility of issuance.

8. If the Government proceeds with issuance of super-long gilts, how much should it seek to supply per financial year?

A wide range of views was presented by respondents to the consultation on the potential amount of super-long issuance that could be supplied to the market on an annual basis. Generally, views on supply were in the range of £5-10bn per annum, with a few respondents suggesting issuance amounts outside this range.

A number of respondents suggested that the Government should take a relatively cautious approach to issuance to ensure that it managed effectively the balance between supply and demand for super-long gilts and did not saturate the market too quickly. However, other respondents highlighted the need for sufficient issuance to ensure a degree of liquidity in any new issue.

9. Should the yield curve be extended gradually through issuance of super-long gilts, or are there specific maturities at which issuance should be directed?

The majority of respondents suggested that the yield curve should be extended gradually, with a new 60-year gilt being mentioned most often. A gradual extension of the yield curve was favoured on the basis that it would make price discovery for new issuance easier and would allow for demand for super-long issuance to be tested incrementally.

A minority of respondents proposed targeting issuance further out along the yield curve, generally out as far as 75 years. A more targeted approach was favoured by these respondents as a means to concentrate liquidity in one (or a small number of) super-long issue(s), as well as to spread the Government's refinancing risk exposure even further along the maturity spectrum.

In relation to the supply of super-long conventional and index-linked gilts, a few respondents suggested that in the event of issuance, a super-long conventional gilt should be issued prior to the launch of an equivalent index-linked gilt to facilitate the calculation of break-even inflation rates to improve price discovery.

10. If the Government proceeds with issuance of perpetual gilts, how much should it seek to issue and over what period of time?

Reflecting the general feedback to the consultation that the Government should not proceed with issuance of perpetual gilts at the current time, responses to this question were limited.

Of those respondents that put forward a proposed issuance amount (including respondents who were not in favour of perpetual issuance), most suggested no more than £1-2bn of issuance per annum. There were a small number of responses that argued in favour of a larger issuance amount.

11. What would be the appropriate method(s) of issuance of super-long and perpetual gilts?

The majority of respondents suggested that syndicated offerings would be the most appropriate method to launch issuance of super-long gilts, given the risk characteristics of these instruments (in particular their significant duration) and the capacity afforded by syndication to identify investor demand, maximise price discovery and minimise operational risk.

Auctions and/or mini-tenders were seen as potential alternative mechanisms for the sale of super-long gilts once individual issues had been established and were sufficiently liquid.

C. Risks of issuance

12. To what extent would issuance of super-long and/or perpetual gilts risk fragmenting long-dated conventional or index-linked gilt supply or liquidity? What steps, if any, could the Government take to minimise this risk?

The risk of fragmenting ultra-long supply and liquidity was highlighted by a number of respondents to the consultation, although respondents' views varied on the potential severity and persistence of such fragmentation. Fragmentation of supply was seen as potentially reducing liquidity in the 30- to 50-year area of the yield curve in the event that issuance of super-long gilts was not well managed.

In order to mitigate the risk of fragmenting supply in long-dated conventional and index-linked gilts, respondents generally proposed that the Government should focus any super-long issuance on a small number of new issues. Other proposals to minimise the risk of fragmentation included taking a cautious approach to the overall supply of super-long gilts, being transparent about likely issuance and offering a strategic commitment to the super-long sector.

13. Are there any other issues and risks that the Government should be aware of in launching super-long or perpetual gilts? If so, how might any such risks be managed and what is their relative importance in determining which (if any) instruments to issue?

In addition to the risk of fragmentation set out in response to question 12, respondents enumerated a number of other risks that the Government should take into account when considering the potential issuance of super-long gilts.

The most often identified risk was the lack of suitable hedging instruments for super-long issuance (such as very long-dated swaps and fixed income equivalents) that would make it more difficult for the market to manage the risk of any super-long issuance.

Other risks highlighted by respondents included:

- the risk that issuance of super-long gilts causes the yield curve to steepen, reducing the cost effectiveness of existing ultra-long gilts as well as any new super-long issuance;
- potential future regulatory changes that could reduce the demand for such issuance;
- the potential lack of inclusion of super-long gilts in the Bank of England's Asset Purchase Facility's list of eligible gilts, or in gilt market indices, that would create demand distortions relative to existing gilts; and
- the high duration of issuance and its impact on the ability of GEMMs to take down and maintain an inventory of stock given balance sheet constraints.

D. Instrument design

14. Are there any changes that should be made to the design of conventional or index-linked super-long gilts relative to existing instruments?

Nearly all respondents argued that there should be no change to the design of any super-long gilts relative to existing instruments.

There were isolated calls for the Government to consider issuing ultra-low coupon gilts for use as liability hedges by investors, and for any new super-long gilts to be strippable.

15. If the Government were to issue new perpetual gilts, how should they be structured? What key features should be included in their design? What features should be avoided?

Of those respondents that answered this question, a majority suggested that in order to make pricing more transparent and to allow for purchases by a slightly wider set of investors, any new

perpetual gilt should not contain an option for the Government to redeem after a set maturity date in the future, or that there should be a minimum period (e.g. 30 years) before the Government may redeem such issuance.

Other suggestions put forward by respondents included the introduction of a stepped coupon or more symmetrical redemption terms (such as the inclusion of a put option for investors).

E. Lead time required prior to issuance

16. What would be the lead time required by Gilt-edged Market Makers (GEMMs) and investors before issuance of either super-long or perpetual gilts could take place?

Respondents provided a range of views on the potential lead time required by GEMMs and investors before issuance of super-long or perpetual gilts could take place.

In the case of super-long gilts, respondents were generally of the opinion that a lead time in the range of three to six months would be appropriate to enable market participants to test systems and develop new valuation models to price super-long gilts. A number of respondents suggested that the Government could announce a decision to proceed with issuance of super-long gilts at the time of the 2012 Autumn Statement, with first issuance taking place in the 2013-14 financial year.

A longer lead time, generally in the range of six to twelve months, was expected to be necessary for the market to prepare for the issuance of perpetual gilts, given their significantly different design in comparison with gilts currently being issued by the Government.

F. Market maker responsibilities

17. If the DMO were to issue either super-long or perpetual gilts, should the roles and responsibilities of the GEMMs be identical to those for existing gilts?

Nearly all respondents suggested that there should not be any change to the roles and responsibilities of GEMMs in the event of super-long or perpetual gilt issuance.

Two respondents noted that making markets in super-long gilts would be more difficult than for existing gilts, reflecting the general lack of hedging instruments and the greater duration of such issuance.

G. Gilt market management

18. What should be the implications, if any, for existing undated gilts should the Government decide to launch a new perpetual gilt?

A majority of those that commented suggested in the event the Government were to issue a new perpetual gilt, it should give consideration to switches out of existing undated gilts alongside any new issuance. However, some respondents noted the potential risks and costs associated with such operations.

A range of other suggestions were provided by respondents, including calling existing undated gilts (either specific issues, or all bonds) or making 3½% War Loan (1952 or after) a rump gilt.

Annex. List of consultation respondents

Association of British Insurers
Association of Consulting Actuaries
Aviva Investors
AXA Investment Managers
Bank of America Merrill Lynch
Barclays Capital
BNP Paribas
BT Pension Scheme
Cazenove Capital Management
Citigroup Global Markets Limited
Con Keating
Credit Suisse Securities
Deutsche Bank AG
Goldman Sachs International Bank
Hermes Fund Managers
HSBC Bank PLC
Ignis Asset Management
Institute and Faculty of Actuaries
Investment Management Association
Jefferies International Limited
Jim Stride
JP Morgan Securities PLC
Jupiter Asset Management
Legal and General Investment Management Limited
Lloyds TSB Bank PLC
London Stock Exchange
Mercer Limited
Mike Williams
Morgan Stanley & Co. International PLC
National Association of Pension Funds
Nomura International
PIMCO
P-Solve
Royal Bank of Canada
Royal Bank of Scotland
Santander Global Banking & Markets
Scotiabank Europe PLC
Société Générale
Society of Pensions Consultants
State Street Global Advisors Limited
The Toronto-Dominion Bank
Towers Watson
UBS Limited
Winterflood Securities Limited