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James Knight
UK Debt Management Office
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Dear Mr Knight

ACA response to “Super-long and Perpetual Gilts:A Consultation Document”

I am writing on behalf of the Association of Consulting Actuaries (ACA), in response to your consultation on the above.

Members of the ACA provide advice to thousands of pension schemes, including most of the country's largest schemes. Members of the Association are all qualified actuaries and all actuarial advice given by members is subject to the Actuaries' Code. Advice given to clients is independent and impartial. ACA members include the scheme actuaries to schemes covering the majority of members of defined benefit pension schemes.

The ACA is the representative body of consulting actuaries, whilst the Institute and Faculty of Actuaries is the professional body.

On the investment front, many of our members are asked to advise on scheme investment objectives and on asset allocation strategies appropriate to these objectives, taking into account each particular scheme's liabilities.

We welcome the opportunity to respond to the DMO on its consultation paper “Super-long and Perpetual Gilts” given the significant benefits such issuance would provide to UK pension funds who are seeking to hedge their long-dated fixed and inflation-linked liabilities. We have responded to the specific questions in the consultation paper below.

Yours sincerely

Hemal Popat

Chairman, ACA Investment Committee

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?

UK occupational pension fund liabilities comprise a mixture of fixed and inflation-linked benefits, with schemes typically having a material proportion (5-10% by present value, or 10-20% by interest rate sensitivity) of its accrued liabilities payable more than 50 years in the future. Additionally, with falling yields in recent years, demand for assets able to match this sensitivity has increased. Please refer to Appendix 1 for an estimate of current and future demand for gilts.

Assuming defined benefit pension schemes were to target a hedge ratio of 25% for liabilities of £100bn beyond 50 year maturities, and these were 70% inflation-linked in nature, this would translate into current demand for £18bn of index-linked gilts and £32bn of conventional gilts, assuming a 60 year maturity and coupon levels of 0.125% real and 3% respectively. We observe that whilst 94% of the present value of a 60 year index-linked gilt corresponds to cashflows beyond 50 year maturities, only 23% of the present value of the equivalent conventional gilt corresponds to cashflows beyond 50 year maturities.

It is not clear to us that perpetual bonds could satisfy hedging requirements in the way envisaged above, as they lack a principal payment and there is thus a significant reinvestment risk. Without a principal payment a perpetual bond carries a shorter duration and holding perpetuals to target a given level of hedging of over 50 year liability cashflows is likely to result in significant portfolio disruption with short to medium-dated gilts needing to be sold to avoid overhedging of shorter-dated cashflows. However, we note that index-linked perpetual gilts may be attractive for pension schemes as a “tail hedge” against rising inflation expectations, rather than as an explicit match for specific liability cashflows.

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?

Our expectation is that by issuing super-long gilts the Government would be able to achieve further diversification by maturity, and reduce refinancing risk from current levels. As noted in the response to the previous question, we consider there to be material demand for conventional and index-linked super-long issues. Demand for perpetual bonds from pension schemes is unclear.

With both nominal and real gilt yields at very low levels in historic terms, super-long issuance presents an opportunity for the Government to lock into attractive financing rates for longer durations than through the usage of shorter-dated instruments. This is particularly so in comparison to issuance at short to medium-dated maturities where the lower initial yield needs to be considered alongside the risk of future refinancing rates being materially higher.

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

Our expectation is that super-long gilts would price at similar levels to existing ultra-long gilts. As noted above, the majority of demand for these gilts is expected to arise from pension schemes and from insurers offering annuities to secure pension scheme

liabilities. It is possible that super-long gilts may be priced at lower yields than ultra-long gilts as the longest dated gilts will often be held for convexity reasons as well as to hedge specific liability cashflows.

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

In our view any such reduction in demand for ultra-long gilts is likely to be modest in view of the size of unhedged interest rate risk exposure of the pension scheme sector. We note that the Government has been able to successfully raise conventional and index-linked funds at existing ultra-long maturities without difficulty in recent years (bid to cover ratios typically significantly above 1.5), and see this as evidence of demand.

Additionally we would expect pension schemes to continue to be net buyers of gilts at all maturities, including ultra-long gilts, as they progressively de-risk over time.

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

The above demand estimates for £18bn of index-linked gilts and £32bn of conventional gilts, based on a 60 year maturity, are based on defined benefit pension schemes targeting hedge ratios of 25% of interest rate sensitivity at maturities exceeding 50 years. Over time, we would expect defined benefit pension schemes to increase their levels of hedging beyond this level as their funding ratios improve. As such we see this source of demand as sustainable over the medium-term.

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?

In our view it would be appropriate for the Government to initially issue a 60 year conventional gilt and a 60 year index-linked gilt. These could be followed by 70 year conventional and index-linked gilts. As noted in the response to question 1, we estimate there to be demand at the current time from defined benefit pension schemes for approximately £17bn of index-linked cashflows and £8bn of fixed cashflows at maturities beyond 50 years, with an expectation that demand will increase from these levels over time.

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?

In our view it would be possible for 60 year gilt issuance to commence in the current year (2012/13). These could be included within existing planned issuance through reduced issuance of ultra-long gilts over the next one or two years.

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

Given the estimates above, we consider there to be sufficient demand to permit issuance of £15bn per annum of 60 year gilts, split equally between conventional and index-linked, for an initial two year period. Depending on investor views, it may be appropriate to introduce 70 year gilts or continue to deepen existing issues at that point.

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

We would recommend focussing issuance on 60 year maturities, and in due course, 70 year maturities.

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

In our view there is materially greater demand from at the defined benefit pension schemes for super-long gilts than perpetual gilts.

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

We believe that the GEMMs will be best placed to comment on this.

C. Risks of issuance

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

In our view the introduction of super-long or perpetual gilts would not detract from existing long-dated or index-linked supply. Given that the longest available maturities are currently the 2062 index-linked gilt and the 2060 conventional gilt, our view is that there would be minimal risk of fragmentation from the introduction of new 60 gilts which would mature in 2072, and similarly for new 70 year gilts subsequently. To the extent that fragmentation is a concern we would suggest limiting the number of new issues beyond 2050 maturities, noting that at the present time there are only 3 each of index-linked and conventional gilts with 2050 or later maturities.

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?*

We believe that the GEMMs will be best placed to comment on this.

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?*

We do not consider any design changes to be necessary.

- 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?*

As noted above we do not consider there to be significant demand from defined benefit pension schemes for perpetual gilts as they would typically invest in long-dated gilts to hedge the interest rate risks arising from specific liability cashflows.

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?*

We believe that the GEMMs will be best placed to comment on the first aspect. Pension scheme investors would require a lead time of perhaps 2-3 months to incorporate the new gilts into their hedging programmes.

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?*

We believe that the GEMMs will be best placed to comment on this.

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?*

If there is a new perpetual gilt issued it would seem appropriate to offer conversion options to holders of the 8 existing perpetual gilts, given their illiquidity. We note that the 3½% War Loan is by far the largest of these issues and this is still significantly smaller in issue size, and hence liquidity, than any of the conventional or index-linked gilts in issue.

Appendix 1: Analysis of size of potential demand

The Pension Protection Fund's Purple Book 2011 is the most definitive source of data for UK occupational pension funds. It quotes aggregate liabilities of £970bn on a s179 basis (scaled back benefits measured using a discount rate above that implied by the gilts curve) and £1,436bn on a buy out basis (full benefits measured using a risk-free discount rate, with margins to cover basis risks and insurer profit loadings, expenses and capital requirements).

Additionally, the Purple Book quotes an inflation sensitivity for the s179 liabilities of 0.9% per 0.1% pa increase in inflation expectations, and an interest rate sensitivity of 1.8% per 0.1% pa reduction in interest rates (corresponding to a liability duration of 18 years). Similarly, the interest rate sensitivity of assets is given as 0.4% per 0.1% pa reduction in interest rates.

Due to the 2.5% cap on post-retirement indexation in the s179 basis, the inflation sensitivity of full benefits will be somewhat higher than that of s179 benefits.

On the basis of the above data, we make the following estimate of demand from defined benefit pension schemes for gilt assets exceeding 50 year maturities:

- Gilt-based liabilities based on unreduced scheme benefits: £1,300bn as at 31 March 2011
- Estimated liabilities exceeding 50 year maturity: 5-10% by present value (gilt curve)
- Split of liabilities exceeding 50 year maturity: 70% inflation-linked / 30% fixed for unreduced scheme benefits, allowing for inflation caps and floors (cf 50/50 for s179 benefits across all maturities)
- Average scheme hedge ratio below 50 year maturity: 23-25% of liability interest rate risk hedged (it is unclear if the inflation hedge ratio is above or below this level from the Purple Book data, but our understanding is that this is broadly comparable)
- Minimal levels of accruing benefits beyond 50 year maturities, as most defined benefit pension schemes are closed to new members and therefore have an ageing (or no) contributing membership

Taking the midpoint of the above figures, this suggests that there would be current demand for over 50 year maturity gilt assets of some £25bn assuming pension schemes target a hedge ratio of 25%. This would split 70% / 30% into index-linked gilts and conventional gilts. The above figures would translate into higher gilt values, particularly for conventional gilts, once allowance is made for sub-50 year coupon payments. Additionally, we would expect hedge ratios to increase over time on the assumption that pension schemes will seek to reduce risk as their funding levels improve from current levels, resulting in continuing demand for assets of such maturity.

There is (of course) a range of views on demand, and some members of the ACA feel it could be considerably lower than the estimates set out above.

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