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Briefing note

2016 actuarial valuation - early indications

The 2016 actuarial valuation process is now well underway and we have met all Funds to discuss their own timetable to allow it to be completed by 31 March 2017, when the new contribution rates will come into effect. Although the primary purpose of the valuation is to set these new rates, it is also an opportune time to review the funding strategy more generally.

> After completion of the actuarial valuations, funds will be assessed in a "Section 13" report which will be carried out by the Government Actuary's Department on behalf of the Department for Communities and Local Government.

Once we receive full membership data we will start the full detailed calculations and the assumptions that we use for each Fund will not be finalised until at least then but we thought it would be helpful to give you our initial thoughts as to what the funding position might look like and, in particular, what the key financial and demographic assumptions may look like (namely discount rate, CPI inflation, salary increases and mortality) and where we propose to make any changes to our central 2013 approach.

As we use a smoothed funding model which we believe is appropriate for long-term planning such as setting contribution rates, we will use market information up to 30 June 2016 to set our standard assumptions so these will be updated. We will send a more detailed Fund-specific assumptions paper to each Fund after 30 June 2016 and the final assumptions will be agreed with the administering authority and will be consistent with the Fund's Funding Strategy Statement.

After completion of the actuarial valuations, funds will be assessed in a "Section 13" report which will be carried out by the Government Actuary's Department on behalf of the Department for Communities and Local Government. The purpose of this report is to identify any Funds that cause concerns in respect of solvency and long-term cost efficiency. This report is not expected to be published until late 2018 as it is based on the final certified contribution rates.

How has the valuation position changed?

The change in employers' contributions will mainly depend on the answers to four key questions:

- What were asset returns for the intervaluation period to 31 March 2016?
- How have the key financial and demographic assumptions changed over the intervaluation period and what discount rate, inflation and mortality assumption will be used as at 31 March 2016?
- What is the Fund's funding strategy for employers? In particular, what approach is taken to deficit recovery periods and how much flexibility do different employers get?
- How does the experience of the Fund compare to the 2013 assumptions adopted?

The third question varies by Fund, both in terms of each Fund's existing strategy and the potential updates that they make as part of the 2016 process. The fourth question can't be answered until we have member data so the remainder of this note considers the first two questions i.e. what have assets done and what might the main assumptions look like.

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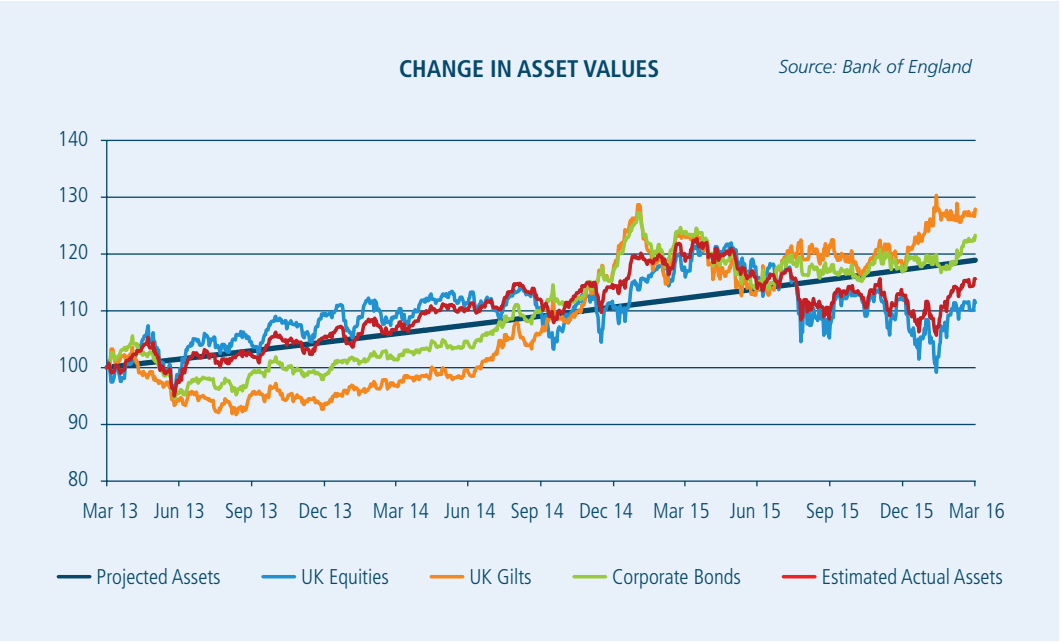
> If Fund returns have been lower than assumed as part of the 2013 valuation, this will lead to a worsening in the funding position, but whether this has increased the funding deficit depends mainly on the assumptions used to calculate the liabilities.

Asset returns

The following chart plots returns from the major asset classes since 31 March 2013 alongside the assumed return achieved by a sample LGPS Fund with assets invested 70% in equities, 15% in a mixture of bonds and property and 15% in gilts. In practice, Funds invest in a wider range of asset classes than this but this gives a broad indication of movements for a typical Fund.



As we see, there has been volatility in the returns over the intervaluation period and assets were performing ahead of where they were projected to be to around June 2015. However, based on the performance to 31 March 2016 and the allocation outlined above, it is unlikely that a typical LGPS Fund will have performed better than assumed at the 2013 valuation but this will vary considerably depending on each Fund's investment strategy.

If Fund returns have been lower than assumed as part of the 2013 valuation, this will lead to a worsening in the funding position, but whether this has increased the funding deficit depends mainly on the assumptions used to calculate the liabilities.

For consistency with the approach taken to value the liabilities, the asset values we use are then smoothed based on market conditions in a six month period straddling the valuation date.

Key assumptions

We do not propose any fundamental changes to the overall approach to setting contributions. In particular, we will continue to use a smoothed approach and the discount rate will be based on a weighted average of prudent estimates of long-term asset returns.

Price inflation (RPI)

Our starting assumption for inflation is the (smoothed) 20 year point on the Bank of England implied Retail Price Index inflation curve which is consistent with the typical duration of a Fund's liabilities.

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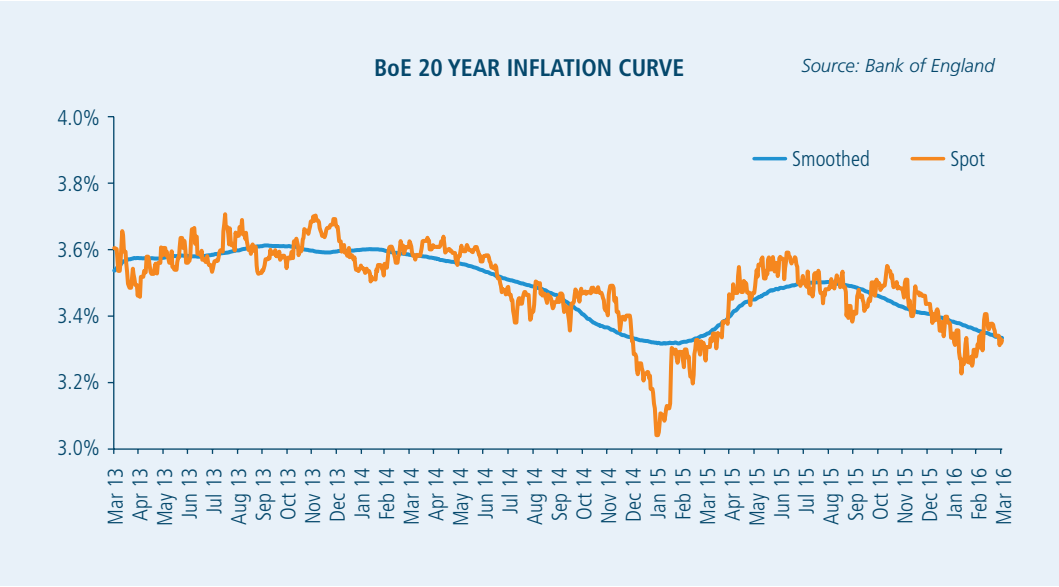
> During the inter-valuation period, there have been further studies into the long-term difference between RPI and CPI and after consideration we are proposing to reduce our central assumption for CPI to 0.9% p.a. less than RPI.



As you can see from the graph, price inflation has fallen over the inter-valuation period which would cause a fall in the value of the liabilities.

Price inflation (CPI)

At the 2013 valuation, we assumed that Consumer Price Index (CPI) inflation would be 0.8% p.a. less than RPI inflation. During the inter-valuation period, there have been further studies into the long-term difference between RPI and CPI and after consideration we are proposing to reduce our central assumption for CPI to 0.9% p.a. less than RPI.

> At the last valuation, we assumed longterm pay increases would average CPI plus 1.8% and we are proposing to reduce our central assumption for long-term salary increases to CPI plus 1.5%.

Pay increases

As the LGPS is now a CARE scheme so that benefits earned after 1 April 2014 are revalued with inflation rather than a final salary scheme, the overall effect of the pay increase assumption is less significant than it was previously.

At the last valuation, we assumed long-term pay increases would average CPI plus 1.8% and we are proposing to reduce our central assumption for long-term salary increases to CPI plus 1.5%. The Scheme Advisory Board's salary increase assumption for the standardised assumptions is also CPI plus 1.5%.

For short-term salary increases, the Government has announced that average pay increases in the public sector will be restricted to 1% p.a. for the four years from 2016 i.e. through to 31 March 2020. We propose to use this as our central short-term assumption.

The effect of the short term salary increases and the reduction to the long term salary increase assumption will help to improve the funding position of each Fund.

Discount rate

To determine the value of accrued liabilities and future contribution requirements at any given point in time it is necessary to discount future payments to and from the Fund. There are a number of different approaches which can be adopted in deriving the discount rate to be used and the approach that is most appropriate will depend on the purpose of the valuation and the overall funding objectives.

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We believe that the most appropriate starting point for a valuation that sets employer contribution rates is to consider the expected returns from each Fund's investment strategy. We do this by grouping the various asset classes, deriving an assumed return for each asset class (which may include an explicit prudence allowance) and then using the Fund's asset allocation to get an overall discount rate assumption.

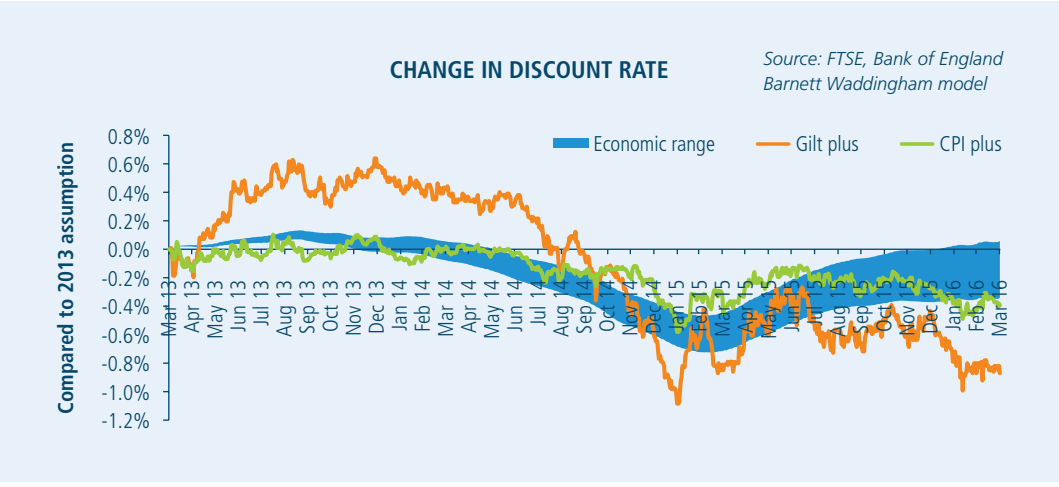
In doing this, we can consider the current asset allocation or an allocation that reflects the long-term strategy. It is usually our preference to reflect the long-term strategy, where known and so we will be engaging with Funds to understand if there have been any changes to this.

The resulting discount rate is then a prudent estimate of the future long-term asset returns. We have reviewed the underlying model and the level of prudence that we included in the 2013 valuation and we will be recommending that Funds use a more prudent assumption for future returns from growth assets such as equities.

We refer to our approach as the Economic model but there are other approaches used which can be considered when we set the discount rate assumption as follows:

- CPI + 3% is the standardised basis expected to be used for the Scheme Advisory Board KPIs and as part of the Section 13 valuations carried out by GAD. At the recent budget on 16 March 2016 changes were announced to what is known as the SCAPE discount rate reducing the rate from CPI + 3% to CPI + 2.8%. So, if also adopted for these purposes, then this will essentially increase the degree of difficulty in meeting these tests.
- Gilt plus is the approach taken by many private sector schemes and some other LGPS Fund actuaries which assumes that asset returns will exceed the return from gilts by a fixed margin.
- Economic is our approach as described above.

We have shown below the discount rate that each of these models gives, with a range shown for the Economic model as this will vary by Fund, depending on the investment strategy and the extent that the assumptions for return on the growth assets are reduced.



The Economic model therefore gives a more stable discount rate than setting the discount rate in relation to CPI and both are more stable than the gilts plus model.

The discount rate at 31 March 2016 under the Economic model is likely to be slightly lower to that used at 31 March 2013 in most cases i.e. increasing the value of the liabilities.

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Post-retirement mortality

The key demographic assumption required for determining the pension liabilities is the mortality assumption.

There are two aspects to consider in determining appropriate post retirement mortality assumptions:

1. Choosing an appropriate mortality base table assumption applicable today taking into account characteristics of the Fund members

As part of the valuation we undertake an analysis of pensioner mortality over the intervaluation period for all Funds in order to calculate an appropriate percentage rating to make to the standard mortality tables.

Some Funds have chosen to do a more detailed analysis with our Longevity team in a more bespoke way and this information will be used to adjust the standard mortality tables to better reflect the future mortality experience of the Fund as well as choosing a suitable assumption on the rate of future mortality improvements. The Longevity team will create a Fund specific report in June detailing the appropriate assumptions to use for the 2016 actuarial valuation.

2. Making an appropriate allowance for mortality to improve in future.

At the 2013 valuation, to project mortality into the future we used the CMI projections as released in 2012, with a long-term improvement of 1.5% p.a. although some Funds used 1.25% p.a.

The latest version of the CMI model is the 2015 version which suggests a slowing in projected mortality improvement rates over recent years. We plan to incorporate this updated model and our central assumption will be to maintain the same long-term improvement rate as used previously. The updated model will result in a small reduction in the valuation of the liabilities.

What does this all mean when we bring it all together?

The first caveat is that no Fund is average and so any prediction of what might apply to an average Fund may not necessarily apply to every, or indeed any, Fund. Each Fund will be able to vary their assumptions as appropriate with advice from us as the Fund Actuary.

Based on the changes to the key assumptions as discussed in this report, we are expecting most Funds to see a relatively similar funding position to 2013 or a small fall in the funding level. This will be due to the fall in the discount rate assumption increasing the value of the liabilities, although this will have been offset by the change in the inflation, salary and mortality assumptions. The final results will depend on the experience of each Fund over the intervaluation period including asset performance, deficit contributions paid as well as any changes in the funding strategy and policies. In particular where employers have paid stepped contributions and any changes in employer covenants.

We will produce a more detailed Fund specific report after 30 June 2016 with full detail of the assumptions used last time and the proposed assumptions for 2016.

Please contact your Barnett Waddingham consultant if you would like to discuss any of the above topics in more detail. Alternatively contact us via the following:

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