briefing note

Police and Fire Pension Schemes: Accounting Assumptions for 31 March 2015

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# Police and Fire Pension Scheme: Accounting Assumptions for 31 March 2015

This briefing note has been prepared by Gemma Sefton, on behalf of Hymans Robertson, to outline the approach taken to derive the assumptions recommended for IAS19 reporting for the Police and Fire Pension Schemes as at 31 March 2015.

New pension arrangements for both the Police and Fire Pension Schemes come into force from 1 April 2015. This note also summarises how we have allowed for these changes in this year’s reports.

We have discussed the approach to set our recommended assumptions and methodology with the Audit Commission, who have not raised any significant concerns.

## Changes in market conditions since 31 March 2014

The change in market conditions since 31 March 2014 is expected to lead to a lower net discount rate as at 31 March 2015. This would increase the value placed on the IAS19 liabilities.

At the end of January 2015, the change to the net discount rate for a typical Police and Fire Pension Scheme Authority over the period from 31 March 2014 was a fall of around 0.8%.

Ultimately, the impact of this change in discount rate could vary significantly between individual Authorities although it is likely that most, based on current market conditions, will see a deterioration in their balance sheet over the 2014/15 year.

Any market movements between now and 31 March 2015 could change this further.

## Discount Rate

IAS19 implies that liabilities should be discounted at a rate equivalent to the "current rate of return available on a high quality corporate bond of equivalent currency and term to the scheme liabilities". It further defines a high quality corporate bond as one that "has been rated at the level of AA or equivalent status".

The principle behind our approach to setting the recommended discount rate as at 31 March 2015 has remained unchanged since 31 March 2014 i.e. the discount rate is still derived from a corporate bond yield curve whilst recognising the weighted average duration (or term) of the benefit obligation for each separate Authority and scheme.

However, the way we have constructed the corporate bond yield curve has been revised.

### Corporate bond yield curve

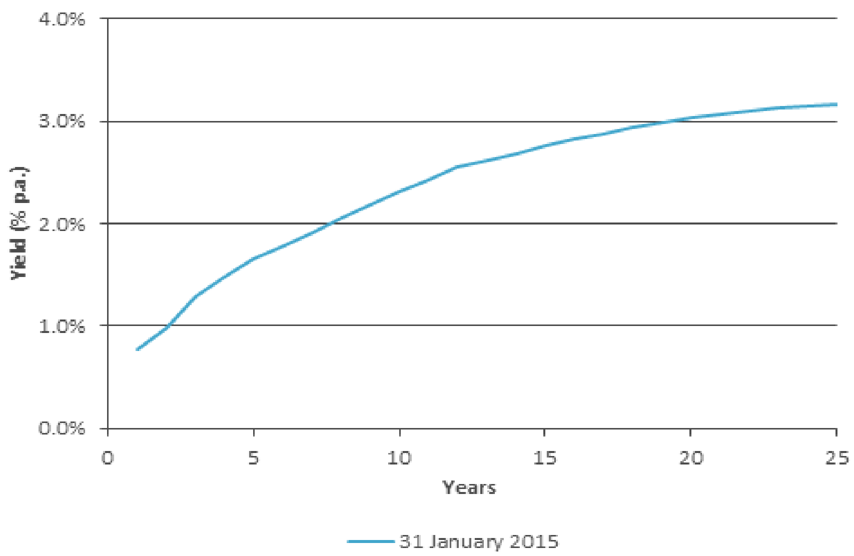
Government bond yield curves are updated and available on a daily basis from the Bank of England. It is therefore relatively easy to identify a spot yield on Government bonds at any duration and at any date. Unfortunately, a similarly accessible corporate bond yield curve is not so readily available.

At 31 March 2014, our corporate bond yield curve was based on the constituents of the iBoxx £ Corporates AA index using the UBS delta curve fitting methodology. Currently, the UBS curve produces a discount rate that, at longer durations, is lower than what we understand auditors would typically expect. Our understanding is based on recent discussions we have had with auditors.

For this reason, we have adopted an approach whereby a corporate bond yield curve is now constructed in the following manner:

- Use the UBS corporate bond curve (derived by applying the UBS delta curve fitting methodology to the constituents of the iBoxx £ Corporates AA index) for durations up to 8 years
- From 12 years onwards use a gilts curve plus a long term average credit spread of 1.0% p.a. (based on my judgement of market conditions as at 31 January 2015)
- Interpolate between the two approaches for durations between 8 and 12 years.

The UBS fitting approach is complex and specific details on this can be provided if required. This approach gives a smooth curve of locally averaged yields along the term structure. The chart below shows a representative yield curve as at 31 January 2015.



## Weighted average duration

As mentioned above, the discount rate should reflect the term of the benefit obligation. We have interpreted 'term' to be the weighted average duration of the benefit obligation. This is broadly defined as;

*The weighted average time until payment of all expected future discounted cashflows, determined based on membership and the financial and demographic assumptions at a particular time. The shorter the duration, the more 'mature' the scheme.*

Historically, the weighted average duration of the benefit obligation for each scheme was similar. However, it is important that we recognise if there are significant differences between the old and new schemes weighted average durations if these are likely to make material difference to the results.

In accordance with the approach adopted at 31 March 2014, we recommend separate discount rates (and corresponding RPI/CPI inflation assumptions – see below) for each scheme, dependent on their own weighted average duration. The first step in this is to allocate each scheme to a duration category as defined below:

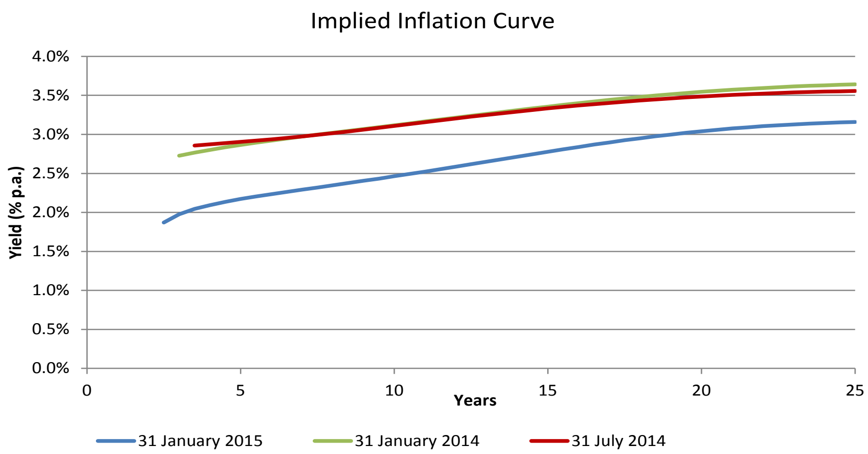
| Weighted average duration | Discount rate category |
|---|---|
| Less than 17 years | Short |
| Between 17 and 23 years | Medium |
| More than 23 years | Long |

The weighted average duration used to identify the appropriate category for each scheme is that determined at the most recent full valuation of membership data.

## Retail Prices Inflation

This assumption is typically derived from yields available on fixed interest and index linked government bonds, and should be consistent with the derivation of the discount rate.

The chart below show the Bank of England implied inflation curve over a range of maturities at 31 January 2015, 31 July 2014 and 31 January 2014. The recommended RPI inflation assumption for each discount rate category defined above will be identified at appropriate durations from this curve as at 31 March 2015.




Source: Bank of England (31 January 2015)

### Pension Increases

In the Police and Fire Pension Scheme pension increases are linked to the rate of CPI as opposed to RPI. As a market in CPI linked bonds does not exist, we need to estimate the long term gap between RPI and CPI in order to derive a CPI assumption for IAS19 purposes.

In the past we have estimated that CPI would be approximately 0.8% below RPI. This was based on our estimate of the 'formula effect'. The Office for National Statistics (ONS) publish the size of the actual formula effect on a monthly basis and over the last four years it has varied between 0.8% and 1.0%. Based on this evidence and as a result of discussions we have had with auditors, we are increasing our assumed RPI-CPI gap to 0.9% p.a. at 31 March 2015. This will lead to a reduction in the assumed rate of CPI (all else being equal).

### Indicative financial assumptions based on market conditions as at 31 January 2015

The following table shows the indicative financial assumptions based on this methodology and **market conditions as at 31 January 2015**. It is unlikely that market conditions as at 31 March 2015 will be identical to those as at 31 January 2015 therefore the actual 31 March 2015 assumptions are likely to differ to those shown below.

| Weighted average duration | Discount rate | RPI inflation (CPI) |
|---|---|---|
| Less than 17 years (Short) | 2.9% | 2.8% (1.9%) |
| Between 17 and 23 years (Medium) | 3.0% | 3.1% (2.2%) |
| More than 23 years (Long) | 3.1% | 3.2% (2.3%) |

### Longevity Assumptions

The baseline assumption that we recommend is adopted for the 2015 IAS19 exercise are the S1NMA and S1NFA year of birth tables, which is the same as last year.

We recommend that the allowance for future improvements should be based on the CMI 2010 model with a long term rate of improvement of 1.25% per annum.

### Retirement Age

In line with the 2014 calculations, we have assumed that officers will retire when they reach 30 years of service, unless they reach the normal retirement age for their rank before this date.

### Salary Scales

The promotional salary scales for all schemes are based on published salary scale tables and are as per those used last year. Details of the salary scales can be found in the appendix to the relevant report.

### Salary Growth

In line with the 2014 calculations, the assumption for the rate of increase in pensionable salaries is 1% per annum above market derived CPI. This assumption makes allowance for the current conditions and pay restraints, whilst assuming that pay awards will return in the longer term.

### Allowance for Contingent Injury Benefits

An approximate allowance has been made for contingent injury pensions in line with last year's disclosures.

Historic data was not available to allow the required analysis to be carried out so that the assumptions could be set with reference to incidence rate and amount of injury benefit awarded. Therefore, the assumption was set following a high level analysis of injury liabilities and pension amounts relative to normal pension liability and pension amounts.

This approach in effect assumes that the historic relationship between injury and pension benefit liabilities has been broadly consistent and will continue to be so. Having reconsidered this position, we have continued with the assumptions adopted last year. However we will continue to monitor this.

### Changes to the Police and Fire Pension Schemes

From 1 April 2015 a new benefit structure will come into effect for the Police and Firefighters Pension Schemes. These changes will not affect the balance sheet, P&L or OCI disclosures as at 31 March 2015, but will affect the projected pension expense for the year ending 31 March 2016. In particular it will affect projected current service cost for that year.

The new regulations state that all current active members will move into the new scheme from 1 April 2015 unless they qualify for protections that allow them to remain in their current scheme. As some members will be able to stay in their current scheme and others will transfer to the new scheme, the calculation of the projected current service cost is more complicated compared to previous years. The methodology we have agreed with the Audit Commission to allow for the change in benefits accrued from 1 April 2015 is described below:

1) Calculate the projected current service cost for the final salary benefits that will be accrued in the 1992 and 2006 schemes;

2) Calculate the projected current service cost for the career average revalued earnings benefits that will be accrued in the 2015 scheme; and

3) Use 1) and 2) to calculate a weighted average projected current service cost allowing for the proportion of members expected to qualify for protection and stay in the 1992 and 2006 schemes and those expected to transfer to the 2015 scheme. A standard proportion will be used for each scheme and is set following high level analysis of membership data from several large authorities.

This methodology will be used for this year only.

### Risks and Uncertainties

There are risks and uncertainties associated with whatever assumptions are adopted. IAS19 requires the assumptions to be determined on a 'best estimate' basis. However, the assumptions are effectively projections of future investment returns and demographic experience many years into the future and there is inevitably a great deal of uncertainty inherent in what constitutes as 'best estimate' with such projections. For the purpose of this paper, best estimate means that the proposed assumptions are 'neutral': there is an equal chance of actual experience being better or worse than the assumptions proposed.

It is also important to note that IAS19 requires the discount rate to be set by reference to the yields on high quality corporate bonds.

The Police and Fire Pension Schemes are unfunded and the figures shown in your IAS19 report are unlikely to reflect either the contributions due or the eventual cost of providing the benefits.

One risk to the Authority is that it determines assumptions that are more prudent (for example a lower discount rate, higher longevity) than its peers, leading to a relatively poorer reported financial position.

The Authority therefore needs to take into account both the requirement for a 'best estimate' set of assumptions and the need not to overstate the pension liabilities relative to its peers.

There is also a risk that the Authority determines assumptions that are less prudent than its peers. As noted above, this does not have an impact on the underlying cost of the scheme. But analysts may take a view that you are understating your pension liabilities if you use weak assumptions and this may have adverse consequences.

## Next steps

Unless otherwise advised, any IAS19 reports commissioned will be based on our default recommended assumptions.

Our recommended assumptions are intended to fully comply with IAS19. As prescribed we have aimed for best estimate assumptions and have not tried to be prudent.

We have discussed the approach and methodology to set our recommended assumptions with the Audit Commission, who have not raised any significant concerns with this.

We recommend that each Authority should discuss the proposed assumptions with their auditor.