KPMG’s Pensions Accounting Survey 2016

May 2016

An analysis of market trends in pension assumptions

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KPMG’s Pensions Accounting Survey 2016 looks at trends in best-estimate assumptions based on close to 250 of KPMG’s clients with UK Defined Benefit (DB) pension schemes reporting under IFRS, UK or US GAAP at 31 December 2015. The survey covers clients advised by leading consultancies and provides a detailed insight into market-wide practice, helping discussions that go beyond accounting.

Economic conditions stabilised slightly over 2015, following a particularly volatile 2014. Although the economy continues to grow steadily, recovery remains a slow process. Equity markets showed very little growth over the year and, despite small increases, corporate bond yields remained at low levels. This low yield and low growth environment continues to present a challenge for pension schemes. Many companies were left facing significant balance sheet deficits at the year end, with little improvement since the prior year. As a result, pension disclosures are likely to continue to attract scrutiny from shareholders and analysts where the pensions exposure represents a material proportion of overall balance sheets.

The choice of assumptions remains pivotal in influencing the company balance sheet, as well as recording the impact of pension risk management strategies such as implementing benefit changes or member options. KPMG’s survey can help companies understand the factors underlying assumptions and highlight current market trends to inform their assumption setting methodology.

Financial headlines

Our analysis shows that the range of assumptions adopted remains relatively narrow, with the market packed tightly around the median.

- 73% of companies surveyed had an inflation assumption within 0.1% of the median, and 75% of companies were within 0.1% of the median discount rate assumption
- Discount rates have started to recover from the historic lows seen last year, but they are still a long way off the level they were in 2013. The median discount rate assumption has increased from 3.6% to 3.8% for 2015
- We are also seeing a wider range of methodologies being used to derive the discount rate assumptions. We discuss this further in section 4.
- In March 2015 the Office for Budget Responsibility (“OBR”) reduced their estimate of the long run wedge between RPI and CPI down from 1.4% to 1%. This announcement did little to put the brakes on the trend of companies moving towards a higher RPI – CPI wedge. For 2015 reporters we saw 25% of companies adopting an assumption greater than 1% compared to 22% last year.
Demographic headlines

› We have started to see an unravelling of the recent trend of year on year increases in life expectancies for current pensioners. 2015 marks the first time the average life expectancy has fallen since our survey began, with the median falling from 22.6 to 22.4 years.

› The median life expectancy for future pensioners has now remained flat at 24.2 for four years running.

› As a result of heavier than expected mortality experienced over the first half of 2015, the latest projections from the Continuous Mortality Investigation (CMI 2015) imply a reduction in life expectancy of around 0.3 years compared to 2014 projections.

› Just under 35% of companies in our survey adopted the most recent CMI 2015 model in their mortality assumptions, which could reduce company pension liabilities by around 1% compared to the 2014 model.

› It will be interesting to see what trends in future life expectancy emerge from the CMI’s on-going research, and also how many companies look to adopt the latest available models in their mortality assumptions as these trends emerge.

In June 2015 an exposure draft was issued proposing amendments to IFRIC 14. These are expected to be enforced at some point soon. We expect this to reduce the number of schemes being able to recognise a surplus in the future. We explore this topic in more detail in section 2.

The pension flexibilities announced in the 2014 Budget introduced uncertainty for Defined Benefit (DB) Schemes over whether members will look to access the flexibilities by transferring into Defined Contribution (DC) arrangements. An increasing number of schemes are building flexibility into members’ retirement options and we have seen a small proportion of companies make an explicit allowance for transfers within their accounting assumptions. We explore this topic in more detail in section 2.
Movements after 31 December 2015 remain relatively stable.

Following a particularly volatile 2014 and a volatile start to 2015, the second half of 2015 was a much more stable period for pension schemes. After some initial turbulence in the first half of the year, long-dated interest rates remained relatively flat, leading to a stable value of pension scheme liabilities.

The chart above, based on KPMG’s Fusion tool, shows how assets and liabilities may have moved for a typical scheme over the year.

In times of economic uncertainty, KPMG’s Fusion tool can be invaluable for sponsors wishing to keep track of their pension scheme in real time. Snapshot estimated accounting disclosures can be a vital tool for planning in a volatile environment.

New features such as Journey Planning and Insurance Solutions allow sponsors to plan ahead over the future lifetime of the scheme.
Both nominal and real discount rates (based on the difference between AA corporate bond yields and assumed RPI inflation) increased over the year from a historically low rate in January 2015 (illustrated in the chart opposite).

Real yields finished around 0.20% higher than at the start of the year. For a typical scheme with a duration of around 20 years, we estimate this meant a small decrease to defined benefit obligations of around 4% over the year (which would be largely offset by interest on the defined benefit obligations over the year).
The Fusion Snapshot shows assets were also relatively stable over the year, with little growth from asset returns. A typical pension scheme invested in a combination of equities and bonds would have seen asset returns of around 1% over the year. This low asset performance, coupled with the relatively stable liabilities over the year, meant that deficits remained at broadly similar levels to the beginning of the year.

Typical asset class returns over the year are set out below:

- Rising corporate bond yields resulted in a low annual return of <1%, compared to 12% over 2014 (IBOXX ALL £CORP AA)
- Gilt yields performed even more poorly, with negative returns on index-linked bonds:
  - Conventional gilts returned <1% (FTSE GOVT FIXED INTEREST OVER 15 YRS)
  - Index-linked gilts returned -1% (FTSE GOVT INDEX-LINKED OVER 15 YRS)
- The Stock market was relatively stable over the year providing sub-par returns similar to those achieved last year
  - UK equity returned 1% (FTSE ALL SHARE)
  - Global equity returned 4% (FTSE AW ALLWORLD EX UK)
- The UK property market remains strong and generated total returns of around 14% over the year. (UK IPD)
IFRIC 14

Proposed amendments to IFRIC14 could have a major impact on the Company balance sheet.

IFRIC 14 determines the level of a pension scheme’s surplus that can be recognised on the Company balance sheet. This depends on whether the entity is able to get economic benefit from the surplus in the long run.

In June 2015 proposed amendments to IFRIC 14 were published and these are expected to be enforced at some point during 2016 or 2017.

The proposed changes will limit the circumstances when a company can recognise a surplus in full on the balance sheet. Where a company does ultimately have a right to a refund from a surplus in the pension scheme, certain trustee powers could limit the company’s economic benefit. For example where the scheme Trustees have the right to improve the scheme benefits without the agreement of the Company the Trustees could change the benefits of the scheme, removing the surplus entirely.

The amendments give more clarity on how different Trustee powers should be treated and whether they will cause additional surplus restrictions where they haven’t previously. The impact of this will be to make surplus recognition less likely in the future.

Companies who have interpreted IFRIC14 as having no impact on them in the past, need to review that interpretation to check whether or not it remains valid following the changes.

It is important for companies to review the existing Trustee powers within the scheme rules to help identify any issues at an early stage.

Pensions freedoms

The extra flexibility for DC pension savings arising from the 2014 Budget came into effect from April 2015.

Last year we anticipated that this would result in more companies starting to make an explicit allowance for the proportion of members who transfer out of the scheme in order to access this flexibility. This year, a small proportion of companies have made an allowance for members transferring out of the scheme. Although as expected these companies are in the minority as most are likely to wait and get a feel for whether there is any impact on member behaviour in practice before making a decision.

With a number of schemes running communications exercises highlighting the new flexibilities to members, and with some beginning to introduce access to the new flexibilities as standard retirement options for their members, we expect the number of companies making an explicit allowance to increase over the next few years.

Of 141 companies where we have information available, 5% made an explicit allowance for the proportion of members who will transfer out from the scheme.
KPMG Pilot

Our technology solution helps your members understand and make the most of the new retirement flexibilities whilst also reducing IFA costs and your governance burden and improving your workforce management.

If you’d like a demo of our new technology and to discuss how KPMG Pilot could help you, please get in touch.

Kpmg.com/uk/pilot
Financial assumptions

The median discount rate was 3.80%, compared to the iBoxx over 15 year corporate bond index of 3.68%. This reflects an increase of 0.20% compared to the median last year.

The median RPI inflation rate remained unchanged from the previous year at 3.10%. The median CPI inflation assumption adjustment and inflation risk premium also remained stable compared to previous years, at 1.00% and 0.20% respectively.

Real AA discount rates averaged 0.70% for December reporters, up slightly from the record lows of 0.50% a year earlier.
Demographic assumptions

Although the median life expectancy for future pensioners remains stable, the median life expectancy for current pensioners has decreased by 0.2 years compared to last year. This is primarily due to companies moving to the latest CMI 2015 and 2014 series of projections, which reflect a decrease in the expected rates of future improvements in mortality.

Median assumed life expectancy for current pensioners has fallen slightly compared to last year, marking the first decrease in recent years.

Movement in life expectancies

- Future pensioners (currently aged 45)
- Current pensioners (aged 65)

Source: KPMG Analysis
The discount rate assumptions seen in 2015 increased from the record lows seen in 2014. Despite these increases, rates still remain significantly below assumptions seen in 2013.

The yield on the iBoxx Sterling AA Corporate Over 15 Year index, which has a duration of around 14 years, increased by around 0.3% over the year. The graph on the right illustrates how a typical yield curve has changed since last year. AA corporate bond yields (and hence discount rates) have increased at all durations over the year, with the general shape of the curve remaining broadly unchanged.

Changes to discount rate approaches

We are continuing to see developments in how companies derive their discount rate assumption. We describe some of these methods below.

Yield curve modelling – flexibility of different approaches

The most common approach to setting the discount rate assumption is to use an AA rated corporate bond yield curve. Companies are becoming more selective in how they derive the underlying discount rate curve.

Flexibility in the underlying curve may be justified by considering

– The AA bond universe used
– How the curve is fitted to the underlying data
– The approach for extrapolating the market yield curves beyond the last available data point.

Different approaches can lead to a range of assumptions, particularly for less mature schemes. We have illustrated various curves opposite.
Discount rate approaches – Refining your approach

We are starting to see changes to the way companies are calculating the interest cost and service cost included within the P&L. This is under particular focus for US GAAP reporters following announcements permitting this approach from the SEC at the end of last year.

Calculating the service cost and interest cost using the full yield curve (rather than the single equivalent rate used to calculate the liabilities) may lower the P&L charge in current market conditions.

Using different discount rates derived from the same curve for different categories of members is also becoming more prevalent. Using different discount rates for insured and non-insured pensioners may improve the balance sheet position.

An upward sloping yield curve results in a lower interest cost.

Using a discount rate based on the (longer term) active cashflows may result in a lower service cost.
The graph on the right shows the overall distribution of discount rates adopted by companies at 31 December 2015. The median discount rate has increased by 0.20% over the year to 3.80% at 31 December 2015.

### Distribution of discount rate assumptions

<table>
<thead>
<tr>
<th>Discount Rate (%)</th>
<th>Duration (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90%</td>
<td>&lt;15</td>
</tr>
<tr>
<td>3.80%</td>
<td>16–17</td>
</tr>
<tr>
<td>3.70%</td>
<td>18–19</td>
</tr>
<tr>
<td>3.60%</td>
<td>20–21</td>
</tr>
<tr>
<td>3.50%</td>
<td>22–23</td>
</tr>
<tr>
<td>3.40%</td>
<td>24–25</td>
</tr>
<tr>
<td>3.30%</td>
<td>&gt;25</td>
</tr>
</tbody>
</table>

Source: KPMG Analysis

The graph on the right shows the discount rates used by schemes grouped by the duration of their liabilities. This uses our survey sample in 2014 and 2015. Discount rates for schemes have risen over the year by similar amounts for both mature schemes (shorter duration) and immature schemes (longer durations).

### Distribution of discount rate assumptions by duration

<table>
<thead>
<tr>
<th>Discount Rate (%)</th>
<th>Duration (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.95%</td>
<td>&lt;15</td>
</tr>
<tr>
<td>3.90%</td>
<td>16–17</td>
</tr>
<tr>
<td>3.85%</td>
<td>18–19</td>
</tr>
<tr>
<td>3.80%</td>
<td>20–21</td>
</tr>
<tr>
<td>3.75%</td>
<td>22–23</td>
</tr>
<tr>
<td>3.70%</td>
<td>24–25</td>
</tr>
<tr>
<td>3.65%</td>
<td>&gt;25</td>
</tr>
</tbody>
</table>

Source: KPMG Analysis

The increase in discount rates together with relatively stable inflation expectations has resulted in an upward shift in net discount rates compared with last year, with the median increasing from 0.50% last year to 0.70% at 31 December 2015.

### Distribution of net discount rates

<table>
<thead>
<tr>
<th>Net Discount (%)</th>
<th>Average Discount Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2%</td>
<td>7%</td>
</tr>
<tr>
<td>0.3%</td>
<td>10%</td>
</tr>
<tr>
<td>0.4%</td>
<td>17%</td>
</tr>
<tr>
<td>0.5%</td>
<td>17%</td>
</tr>
<tr>
<td>0.6%</td>
<td>14%</td>
</tr>
<tr>
<td>0.7%</td>
<td>16%</td>
</tr>
<tr>
<td>0.8%</td>
<td>4%</td>
</tr>
<tr>
<td>0.9%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Source: KPMG Analysis

Similar to last year, around 75% of companies adopted an assumption within 0.10% from the median.
The inflation assumption is typically used as a basis to set other assumptions used for pensions accounting such as pension increases in payment, deferred revaluation and long-term salary growth. The median RPI inflation assumption at 31 December 2015 remains unchanged since last year at 3.10%.

RPI Inflation

The graph on the right shows that long-term RPI inflation expectations have fallen at shorter durations and risen at longer durations (greater than 15 years) since 31 December 2014. After some volatility at the start of the year, long-term rates remained reasonably stable over the year.

The graph on the right shows the distribution of RPI inflation rates adopted by companies at 31 December 2015. The median RPI inflation is 3.10% which is in line with the median last year.

73% of companies are using an assumption within 0.10% of the median, compared with 75% last year.
CPI Inflation

CPI inflation is typically used for deferred revaluation and pension increases, depending on scheme rules. As there are no market indicators for CPI inflation, it is typically set using an offset to the RPI inflation assumption. The graph below shows the spread of the RPI-CPI ‘wedge’ used by companies as at 31 December 2015. There is a clear trend with the majority of companies adopting the median of 1.00%, which is unchanged from last year.

The trend for companies moving towards higher assumptions for the RPI-CPI wedge has continued this year. The proportion of companies adopting an assumption greater than 1.0% has increased from 22% last year to 25% this year. In particular, the proportion of companies adopting an assumption of 1.1% has increased from 15% to 22%, but beyond this there are few data points. At the time companies were setting their 2014 year end assumptions, the latest estimate from the Office for Budget Responsibility (“OBR”) was a long run wedge between RPI and CPI of 1.4%. This was subsequently revised to 1.0% in March 2015, but this downward revision by the OBR has not stemmed the trend for companies adopting a higher RPI-CPI wedge.

Distribution of CPI inflation assumptions

Inflation risk premium

An inflation risk premium (IRP) is often applied to reflect certain supply and demand effects on the gilts market. These are argued to keep break-even inflation rates artificially high.

At 31 December 2015, around 80% of companies used an IRP adjustment which is slightly higher than last year where 75% used an IRP adjustment.

Distribution of Inflation Risk Premium assumptions

The average IRP remains unchanged since 2012 at 0.20%

Around 90% of companies are adopting a RPI-CPI wedge of within 0.10% of the median, compared to around 75% last year.
Pension increases

The most common pension increase is inflation capped at 5.00% each year which is known as Limited Price Inflation (LPI). This assumption is usually set with reference to the RPI inflation assumption by applying an adjustment based on the expected future volatility of inflation. As inflation rates have remained broadly stable compared to last year, similar offsets have been applied to RPI inflation in order to derive the LPI assumption.

Over half the companies surveyed are using an adjustment of 0.1%.

Salary increases

Salary increases are generally linked to economic growth and inflation levels.

We are starting to see a trend of more companies adopting a salary increase assumption linked to CPI inflation, as opposed to RPI inflation. At 31 December 2015 around 25% of companies set their salary increase assumption relative to CPI inflation, with the majority referencing RPI inflation.

The median RPI linked salary increase has reduced to 0.30% above RPI inflation at 31 December 2015, compared to 0.50% above RPI inflation last year.
As more companies close their pension schemes to future accrual and active member populations reduce in general, the salary increase assumption becomes less important. Around half of the companies in our sample are closed to future accrual with more already closed to new entrants. This trend is only expected to continue as companies try to reduce uncertainty in relation to their future pension liabilities. Intermediate measures such as capping pensionable salary increases are also increasingly common and around 15% of companies adopting a salary increase assumption had introduced a salary cap.

The median CPI linked inflation assumption adopted was 0.5% above CPI inflation at 31 December 2015.

Distribution of CPI linked salary increase assumptions

As more companies close their pension schemes to future accrual and active member populations reduce in general, the salary increase assumption becomes less important. Around half of the companies in our sample are closed to future accrual with more already closed to new entrants. This trend is only expected to continue as companies try to reduce uncertainty in relation to their future pension liabilities. Intermediate measures such as capping pensionable salary increases are also increasingly common and around 15% of companies adopting a salary increase assumption had introduced a salary cap.

Around 15% of companies adopting salary increase assumptions have capped pensionable salary increases.

Proportion of companies adopting a capped salary increase assumption

Source: KPMG Analysis
6

Mortality

Mortality remains one of the key assumptions for pensions accounting. Continuing research and new approaches to scheme-specific mortality studies allows companies to more accurately quantify their longevity risk. The median assumed life expectancy for current pensioners has reduced by 0.2 years compared to last year, marking the first reduction in recent years.

Life expectancies

The graphs below show the spread of life expectancy assumptions used by companies for their current and future pensioners. A current pensioner aged 65 is expected to survive a further 22.4 years on average, whereas a future pensioner currently aged 45 would be expected to live a further 24.2 years from the age of 65.

Distribution of current pensioner life expectancies

Current pensioner life expectancy
(male currently aged 65)

Distribution of future pensioner life expectancies

Future pensioner life expectancy
(male currently aged 45 retiring at age 65)
The range of life expectancies in our sample has fallen slightly further since last year for both current pensioners and future pensioners as companies are increasingly adopting the "standard" SAPS tables and CMI projections to set mortality assumptions.

Over recent years average future pensioner life expectancy has remained stable, whilst average life expectancy for current pensioners increased at a slower rate. This year, the median life expectancy for current pensioners has decreased by 0.2 years, whereas the median life expectancy of future retirees has again remained the same. This is largely due to just under 35% of companies adopting the latest CMI 2015 series of projections, as well as more companies moving to the CMI 2014 series from earlier versions. Both of these show a decrease in the expected rates of future improvements in mortality.

**Base tables**

The vast majority of companies now adopt the SAPS tables (94% at 31 December 2015). These mortality tables are based on actual pension scheme experience rather than life insurance tables such as PAS2 and PA00.

The number of companies adopting the S2 series of tables which was published in February 2014 has increased to 49% at 31 December 2015 compared to 20% last year.

It is becoming increasingly common for schemes to apply scheme-specific loading factors to the mortality base tables. With mortality a key assumption, mortality studies including postcode analysis and medically underwritten studies can help schemes to more accurately allow for the longevity risk in their population.
Future improvements

The median gap between current pensioner and future pensioner life expectancies has remained broadly stable over the last few years. The median gap at 31 December 2015 is 0.1 years lower than last year at 1.7 years for a 20 year projection.

Previous cohort projections have now been phased out, with 99% of companies surveyed adopting projections published by the Continuous Mortality Investigation Bureau (CMIB) for future improvements compared to 95% last year.

The CMIB is continually updating its research and produces annual updates of the CMI projection model. Companies are tending to use the most recent projections available. Just under 35% of companies are using the CMI 2015 model, which was published in September 2015.

The 2015 model shows a further significant fall in expected future improvements in mortality in recent years, reflected by the median life expectancy of current pensioners falling by 0.2 years. Overall, moving from the 2014 model to the 2015 model may have resulted in a reduction in liabilities of around 1%, with a slightly greater impact for schemes with a younger membership.

CMI projection year (2014 values in brackets)

Around 35% of companies are using the CMI 2015 model for their 31 December 2015 accounting results.

The 2015 model shows the first significant fall in expected future improvements in mortality in recent years, with the median life expectancy for current pensioners falling by around 0.2 years.
Around 35% of schemes used the median long term future improvement of 1.25%, with the range from 1.00% to 2.00%.

CMI long term rate (2014 values in brackets)

Around 50% of schemes used the median long term future improvement of 1.25%, with the range from 1.00% to 2.00%.
An analysis of market trends in pension assumptions

May 2015

KPMG’s Pensions Accounting Survey 2015

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