KPMG Pensions Accounting Survey in the Netherlands

2017 Year-End preview and 2016 Year-End retrospective
Introduction

Post-employment employee benefit plans are classified as either defined contribution or defined benefit plans, depending on the economic substance of the plan as derived from its principal terms and conditions. The classification determines the accounting treatment.

This survey will focus on the accounting treatment of pension plans under IFRS. Under US GAAP post-retirement benefits (provided during retirement) are accounted for similarly to IFRS in general, with some specific differences like asset ceiling, minimum funding requirement and restricted asset recognition.

Dutch GAAP pension accounting requirements differ fundamentally from IFRS and US GAAP. The Dutch accounting rules are more aligned with the Dutch pension environment and are based on a liability approach. However, Dutch GAAP provides options to apply the full requirements of either IFRS or US GAAP to all pension plans, or to the non-Dutch pension plans within the company which are not comparable with Dutch pension plans.

IFRS prescribes companies to estimate the value of their pension liability. IAS 19 describes several assumptions to calculate the liability and asset values necessary to estimate the pension liabilities of a company. The guidelines regarding these assumptions can be found in paragraph 75 till 98 of IAS 19. These guidelines are open for interpretation. This results in a wide range of actuarial assumptions applied by company directors in practice.

In this year’s KPMG Pension Accounting Survey we take a closer look at the developments in assumptions that listed companies in the Netherlands have used to value their pension liabilities at Year-End 2016.

The presented numbers and figures are based on publicly available information of companies quoted on the Euronext Amsterdam stock exchange. The companies are advised by all the major actuarial consultancy firms active in the country. This survey provides insight on how the IFRS guidelines described in IAS 19 are applied in market practice in the Netherlands.
Headlines

- The average discount rate applied at Year-End 2016 decreased when compared to Year-End 2015, whereas 2015 showed an increase with respect to 2014. The applied discount rate varies per advisor and per methodology. Using the KPMG zero coupon guidance curve, the Year-End 2016 yields also show a decrease compared to Year-End 2015 over the entire term structure. Over the course of 2016 discount rates for the shortest maturities even became negative.

- An ongoing trend that we also observe in 2016 and 2017 is that companies are closing their defined benefit plans, and opening defined contribution plans for new participants. We also see that some companies transfer closed benefit plans into defined contribution plans.

- The total defined benefit obligation per Year-End 2016 increased by 6.3% compared to Year-End 2015. This increase is explained by the decrease in the discount rates applied. Over all companies, the total of the plan assets increased by 6.5%.

- A significant number of companies reported actuarial losses over the year 2016, mostly due to changes in financial assumptions for the valuation of the liabilities. The actuarial losses on the DBO per Year-End 2016 amounted to about EUR 17 billion, which is an increase with respect to the losses of EUR 8 billion reported per Year-End 2015, and is partly offset by the assets.

- In 2016 a new mortality table was issued by the Dutch Actuarial Association (AG2016). We see that the vast majority of listed companies implemented the new table. In comparison with the AG2014 table the AG2016 table shows an increase in life expectancy for females and a stable life expectancy for males.

- The decrease in discount rates over 2016 and 2017 might result in higher required contributions, and a decrease in funding ratios of pension funds.

Change in pension legislation

As of 1 January 2016, new pension legislation in the Netherlands allows multiple pension plans to be administered by one general pension fund (Dutch: Algemeen Pensioenfonds, APF). We observe that some companies have transitioned to this structure. The arrangements that we observe are mostly collective defined contributions schemes (CDC). The basic principle of CDC schemes is that the method to determine the pension contribution is fixed, and there is no obligation with the employer to fund any possible deficit within the pension fund. CDC schemes can be defined benefit schemes. However, CDC schemes do not bear the same risks for the employer that are typically associated with defined benefit schemes, and can therefore be treated as defined contribution plans under IAS 19.
Developments in IAS 19

The Exposure Draft by the International Accounting Standards Board (IASB) to IAS 19 and IFRIC 14 discussed in previous surveys is still outstanding. The Interpretation Committee considered and discussed the letters regarding this Exposure Draft and advised the board to finalise the proposed amendments.

At the meeting in April 2017, the Board agreed with the Committee’s recommendation and tentatively decided not to exclude minor plan events from the scope of the amendments to IAS 19. The Board also agreed with the Committee’s recommendations on the transition requirements for the amendments to IAS 19 and IFRIC 14.

It tentatively decided that:

a. An entity should apply the amendments to IFRIC 14 retrospectively (with an exemption for adjustments to the carrying amount of assets outside the scope of IAS 19).
b. An entity should apply the amendments to IAS 19 prospectively to plan events occurring on or after the effective date; and
c. The amendments should provide no transition relief for first-time adopters.

The board did not yet discuss the effective date and due process steps, but will discuss this in a future meeting.

Other trends and changes

We observe an ongoing trend over the years that Dutch companies close defined benefit plans under IAS 19 and open defined contribution arrangements for new participants.

We also see that a significant number of companies transfer existing participants towards defined contribution plans and therefore decrease the exposure to defined benefit obligations significantly.
The estimated cash flows stemming from pension obligations are discounted to derive the defined benefit obligation (DBO). IAS 19 paragraph 83 prescribes that the discount rate should be determined by reference to market yields on high quality corporate bonds at the balance sheet date. It is common market practice to derive the discount rate from AA rated corporate bonds.

**Development of the discount rate**

During 2016 the discount rates decreased significantly with respect to the discount rates of 2015, even resulting in negative yields for shorter maturities. This decrease is mainly driven by the general market situation in the Eurozone during 2016, with significant events like the Brexit referendum in June, and the ongoing quantitative easing programmes of the ECB.

In the figure below one finds the KPMG discount rate curves of Year-End 2015 and Year-End 2016, as well as the guidance curve of October 2017. The curve at Year-End 2016 almost seems to result from a downward parallel shift of the curve at Year-End 2015, where some slight divergence shows for the longer maturities. The difference between the curves at a 1 year maturity amounts to a drop of 51 basis points, whereas the yields at a maturity of 30 years differ 74 basis points.

In 2017 the yields on the shorter maturities continued to decrease, resulting in more negative yields, whilst the yields on maturities above 10 years recuperated slightly with respect to the Year-End 2016 levels.

When discount rates decrease, the DBO is expected to increase (and vice versa). The discount rates per Year-End 2016 are lower than those per Year-End 2015, and accordingly we observe higher reported DBOs per Year-End 2016 for the major surveyed companies. With slightly increasing discount rates for the longer maturities over 2017 we expect a minor decrease in DBOs and, ceteris paribus, minor actuarial gains on assumptions.
Development of 15-year spot rate

Historical and expected development of corporate AA bonds

The AA-bond market has been quite turbulent in 2016, as can be seen in the graph below, showing a vast decrease during the first half year, with the steepest decreases in January and June. The rates started to recover in October and continued to do so in 2017, during which the market remained relatively stable. In the graph it also shows that the spreads have been stable over 2016 and 2017, generally being around 75 to 85 basis points. The largest spread of 2016 is found in June, and the smallest in October, both corresponding with respectively the steepest decrease and increase in spot rates during the year. Also for 2017 the largest spread is observed in June, and the smallest in October.
Variation in advised discount rates

IAS 19 sets out principle-based requirements for the discount rates to be used to determine the DBO. This leads to a spectrum of discount curves for the Eurozone produced by various actuarial firms. The discount curves per Year-End 2016 of five different actuarial firms are plotted in the graph below. Differences between the curves are caused by several factors, like the methodologies used to derive them, the AA bond universes used to fit them on, different extrapolation techniques for longer, illiquid maturities, etc.

The graph shows three main areas of interest where the curves differ from each other. First of which is on the shortest maturities, where negative yields are derived. For parametric curves, the shape of the entire curve is defining for how negative the yields at shorter maturities are. Models that fit a monotonically increasing curve tend to prescribe lower negative yields at the shorter maturities than the ones that relax this property. The second part of interest is the difference that shows for maturities ranging from 8 to 23 years.
The advised discount rate for a 15-years maturity ranges from 1.42% to 1.72% between the different actuarial firms at Year-End 2016, and averages at 1.57%, which is 65 basis points lower than the average rate at a maturity of 15 years per Year-End 2015. The last part is on the longer maturities. The longest liquid traded maturity is usually just over 20-21 years. Hence, the curve has to be extrapolated for maturities beyond this maturity. The applied extrapolation method determines the tail of the curve and can also differ between the actuarial firms. Per Year-End 2016 the rates at a maturity of 30 years range from 2.02% to 2.25%, and diverges further for maturities beyond 30 years (not shown in the graph).

The value of the DBO depends on the discount rate applied to derive it. Therefore, differences between the advised discount rates could have a significant impact on the reported value of the DBO. The graph below provides insight into what the impact could be, comparing the estimated additional DBO to be reported when using the lowest advised discount rate opposed to when using the highest advised discount rate.

The difference between the lowest and the highest advised discount rates for a maturity of 15 years amounts to a difference of approximately 4.6% in DBO. This impact is smaller than the one reported in last year’s survey (7.4%).

The graph below demonstrates the impact on DBO of using minimum versus maximum discount rates.

Impact on DBO of minimum versus maximum discount rates

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Discount rates applied by listed companies

The graph below contains an overview of the discount rates applied per Year-End 2016 by the surveyed listed companies to derive their DBO.

The surveyed companies applied discount rates ranging from 0.50% to 3.00% over 2016, with an average discount rate of 1.85%. The range of applied discount rates decreased with respect to last year’s survey (0.80%-4.34%) and the average applied discount rate decreased with 67 basis points. This is in line with the observed decrease in the zero coupon yield curve between 2015 and 2016. About 64% of the surveyed companies apply discount rates between 1.50% and 2.25%. We expect similar discount rates per Year-End 2017, given the development of the rates over 2017 until October.

Impact on DBO of minimum versus maximum discount rates

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Over 2016 the euro swap inflation rate term structure increased with respect to 2015, continuing the upward trend mentioned in last year’s survey. The term structures per Year-End 2015, Year-End 2016 and October 2017 are included in the graph below. The figures per October 2017 are similar to those per Year-End 2016.

Per Year-End 2016 the surveyed companies used an inflation rate of 1.97% on average, which is slightly higher than the average figure of 1.90% that was applied per Year-End 2015. On average, companies seem to follow the ECB long-term expected inflation rate of 2%.
Life expectancy

In 2016, the Royal Dutch Actuarial Association (Koninklijk Actuarieel Genootschap, hereafter AG) issued a new mortality table. We observe that most companies with a DBO in the Netherlands use this mortality table for the disclosure of the Year-End 2016 IAS 19 figures. Compared to the previous mortality table, AG2014, the overall life expectancies show an increasing trend. Especially for females the life expectancies increased further, while the life expectancies for males remained around the same level. The change for females is a consequence of the introduction of correlation between males and females in the determination of the life expectancies.

In practice the majority of the listed companies apply certain experience factors to the mortality table to tailor the mortality figures to their population. These experience factors are typically based on the population in a sector or the workforce of a company itself, depending on the availability of sufficient data. Below we illustrate the impact of the use of the commonly applied experience factors determined by the 'Centrum voor Verzekeringsstatistiek': the ES-P2 factors. These ES-P2 factors are based on the whole pension insured population and reflect that, in general, the mortality rates for this insured population are lower than the mortality rates of the entire Dutch population. The factors are multiplied with the AG2016 mortality rates to determine the experience adjusted mortality rates.

The tables below show the remaining life expectancies with the AG2016 table and the AG2016 table including ES-P2 factors. The table contains the remaining expected lifespan for someone of a certain age in a certain year. The tables show

<table>
<thead>
<tr>
<th>Age</th>
<th>AG2016 Males</th>
<th>AG2016 Females</th>
<th>ES-P2 Males</th>
<th>ES-P2 Females</th>
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</thead>
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<tr>
<td></td>
<td>2016</td>
<td>2041</td>
<td>2066</td>
<td>2016</td>
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<tr>
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<td>90.1</td>
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<td>43.8</td>
<td>46.4</td>
<td>43.8</td>
</tr>
<tr>
<td>65</td>
<td>20.0</td>
<td>23.2</td>
<td>25.7</td>
<td>23.1</td>
</tr>
<tr>
<td>85</td>
<td>5.8</td>
<td>7.0</td>
<td>8.0</td>
<td>6.8</td>
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</table>
that the life expectancies estimated with the adjusted mortality rates are higher than the ones estimated with regular mortality rates.

The graph below displays the remaining life expectancy at the age of 65 for males and females, estimated by the adjusted mortality rates (ES-P2) and by the regular mortality rates (AG2016), as recorded in the tables above. The graph clearly illustrates the improvements to the life expectancy of pension insured individuals as opposed to the general population. It also shows that that the difference is larger for males, implying a more significant impact for companies with a predominantly male population.

The effect of applying the ES-P2 factors to the mortality tables on the DBO is also investigated, by considering the retirement pension DBO (DBO RP) and the DBO regarding survivors pension (DBO SP) for five fictional participants. The graph below displays the impact for males with a female eligible for survivor pension. It is observed that the DBO RP increases due to the decreased mortality rates. At the other hand the DBO SP typically decreases, due to the increase of the survival rates of the insured. For the DBO SP, the effect of the ES-P2 factors decreases when the individual is older as the magnitude of increased life expectancy decreases with age. For the DBO RP, the effect is more or less the same for the different ages of the fictional participants. For females the image is rather similar, but the impacts are lower, because the impact of the ES-P2 factors on female mortality rates is smaller than for males.

Typically the DBO RP is larger than the DBO SP in absolute sense. For an average fund the DBO will increase due to the application of the ES-P2 factors. To make sure that the estimated DBO is accurate the mortality assumption should reflect the company specific mortality as well as possible. Therefore, experience factors and mortality tables should be chosen deliberately.
The effect of ES-P2 on the DBO

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
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<td>-10%</td>
</tr>
<tr>
<td>40</td>
<td>-5%</td>
</tr>
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<td>0%</td>
</tr>
<tr>
<td>60</td>
<td>5%</td>
</tr>
<tr>
<td>70</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Legend:**
- **DBO RP**
- **DBO SP**
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