July 2019

# Global Report: Global Survey of Retirement Plan Accounting Assumptions

*This report presents the results of Aon's global survey of accounting assumptions used for employee benefit plans at 2018 year-end. The results of this survey may be useful to companies when setting preliminary assumptions for 2019 year-end and budgets for 2020. In addition, companies should consider the following:*

- During 2018, discount rates increased in most countries from 2017 year-end, to varying degrees. The largest increases were in the United States and the United Kingdom; there was a slight decrease in Canada. During 2019 to date, the yields on corporate bonds in countries with large pension liabilities (i.e., Canada, the Eurozone, Switzerland, the United Kingdom, and the United States) have all moved significantly downwards. Any planning for 2019 year-end or budgeting for 2020 should take these and subsequent movements into consideration.

- Changes in bond yields mentioned above may be due, in part, to changes in inflationary expectations. When plan sponsors consider a change in their discount rate, they should review other assumptions linked to inflation.

- The average expected rate of return on plan assets in many countries is also at a historically low level in many countries, due to a combination of increased allocations to fixed-income investments and reduced future outlooks for long-term returns on some asset classes.

- We are seeing companies, especially those with closed or frozen plans, establish a "glide path" as part of their investment and risk policy, with a view to automatically adjusting the risk level in the plans as market conditions vary. The glide path typically sets a specific asset allocation the investment manager must follow based on predefined triggers such as the funded status of the pension plan. If such a policy is applied, plan sponsors using U.S. GAAP should consider how the asset allocation in the relevant plans may vary when setting an assumption for the expected rate of return on assets.

- Most countries in which defined benefit plans are prevalent have mortality assumptions that recognize anticipated future mortality improvements. Below are comments concerning mortality assumptions in several countries:

  – United Kingdom—In March 2019, the Continuous Mortality Investigation (CMI) released a further update to UK mortality projections, CMI_2018. This update showed a continued trend from earlier years of reduced improvements to future mortality rates. The CMI has recognised that this low improvement trend is likely to represent a shift to the new norm of lower mortality improvements, so it has adjusted the core smoothing parameter within the model to place more weight on recent mortality data. Because recent mortality improvements have been low, this change

further reduces projected future improvements. Updating mortality projections from CMI_2017 to CMI_2018 is typically expected to result in reductions to pension obligations of 1.5%-2.5%, although impacts can vary outside this range depending on a given plan's specific circumstances.

- United States—In October 2014, new mortality assumptions were issued in the United States. Many plan sponsors adopted these new assumptions for 2014 year-end. Some clients performed mortality studies and adjusted the standard tables to better fit their experience. Since 2014, additional data has shown a slowdown in mortality improvements for the general population in the U.S., and new mortality improvement scales reflecting this experience have been issued each year in 2015–2018, with the next update expected in 2019. These updated improvement scales have been adopted by many companies. An exposure draft of an updated study of U.S. private pension plan mortality was issued in May 2019 and is expected to be finalized later in the year. The impact of this new study is expected to be fairly small for most plans.

- Germany—new mortality tables (Heubeck RT 2018 G) were issued in Germany in the second half of 2018 in place of the prior tables Heubeck RT 2005 G. The revision of the tables results in an anticipated increase to liabilities of 1-2% in most cases. A few companies have shown an interest in using together with the new Heubeck base tables alternate mortality improvement projections based on the CMI model used in the UK, which was a trend also seen in Switzerland in 2017-2018.

- Japan—Most plan sponsors adopt MHLW2015 since this is the latest mortality table, issued in 2015. A new table is expected to be released in early 2020, and we expect most plan sponsors will change to this table for their accounting valuations starting late 2020. Aon does have the capability to apply projected mortality improvements using the projected future mortality rate issued by IPSS (National Institute of Population and Social Security Research) in 2017. Interest from plan sponsors remains limited however, as pension plans in Japan have a lower exposure to longevity risk due to lifetime annuities generally not being offered.

- Companies have been continuing to undertake exercises to reduce the financial risks related to their pension plans, such as lump-sum windows, buy-ins, buy-outs and longevity swaps. The accounting treatment of these exercises (in particular, whether settlement accounting may be required) should be considered, based on the nature of the exercise and the accounting standard being applied.

- In August 2018, the U.S. Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2018-14, which changes the disclosure requirements for pension and other postretirement benefits under U.S. GAAP, eliminating certain existing disclosures and adding certain new disclosures. Among the new disclosures is a description of significant sources of gain or loss in the benefit obligation. The new requirements are generally effective for fiscal years ending after December 15, 2020 for public business entities, with early adoption permitted. Retrospective application of the changes is required. Some plan sponsors may want to consider early adoption if the benefit of eliminating certain disclosures would outweigh the effort required to add the new disclosures. Plan sponsors not adopting early should also consider tracking sources of liability gain or loss now to prepare for retrospective application upon adoption.

Following proposals in the IASB 2015 Exposure Draft, changes to IAS 19 were issued in February 2018. The standard was revised to the extent that:

- the expense for remaining reporting period after an amendment, curtailment, or settlement is recognized in a way to reflect those events similar to U.S. GAAP (i.e. the pension cost components for the remaining reporting period are calculated on the basis of assumptions as of the date of the special event), and

- IAS 19 clarifies the treatment of the IFRIC 14 asset ceiling in the event of an amendment, curtailment or settlement.

- However, "clarification" regarding the availability of a surplus under IFRIC 14 (IAS 19 – The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction) has been deferred.  The IASB is planning a broader, more principles-based project focusing on what it means for an employer to have an unconditional right to a refund.

- In the UK, there has been a significant increase in deferred members and members approaching retirement transferring their benefits out of DB plans to DC vehicles via a cash equivalent transfer value, as a result of the increased flexibilities which have been made available, such as the ability to take the entire DC account balance as a lump sum. This has in some cases resulted in a settlement event. We would recommend tracking such payments from UK plans during the course of the year in order to assess the likelihood of a settlement event being triggered.

If you would like an update on current economic indices or the current status of changes in accounting standards, please contact your local Aon consultant.

# Background

Aon conducted this survey of fiscal 2018 year-end accounting assumptions by gathering assumptions used by our clients. Previous surveys also included results for companies that may have used other actuarial firms.

As in previous surveys, we have focused on four economic assumptions that companies select under ASC 715, IAS 19, FRS 102 and other accounting standards with similar requirements for assumption setting. The assumptions are:

- Discount rate;

- Expected long-term rate of return (U.S. GAAP only);

- Salary increase; and

- Pension increase assumptions (for certain countries only).

Similar to last year, we are only showing assumptions for companies with fiscal years ending on December 31, 2018. The tables on the following pages show the average assumption as of the end of 2017 and 2018.

The Appendix provides the following additional information about 2018 year-end assumptions:

- Average discount rate by duration of the pension liabilities for countries with larger pension obligations (Canada, Eurozone, Japan, Switzerland, and the U.K.);

- Range of assumptions used at 2018 year-end for specific countries; and

- Prevalent mortality table along with life expectancies for countries with larger pension liabilities.

# Discount Rate at Year-End 2018

The following table shows the survey results for the discount rate assumption for the 2017 and 2018 fiscal year-ends.

| Country | Year-End 2017 Average | Year-End 2018 Average | Country | Year-End 2017 Average | Year-End 2018 Average |
|---|---|---|---|---|---|
| Australia | 3.64% | 3.67% | India | 7.11% | 7.59% |
| Brazil | 9.92 | 9.21 | Japan | 0.46 | 0.42 |
| Canada | 3.87 | 3.68 | Mexico | 7.46 | 9.18 |
| Eurozone | | | Philippines | 5.43 | 7.15 |
| Austria | 1.50 | 1.68 | Poland | 3.17 | 2.98 |
| Belgium | 1.43 | 1.59 | South Africa | 9.01 | 9.36 |
| Finland | 1.54 | 1.62 | South Korea | 3.03 | 2.62 |
| France | 1.51 | 1.65 | Sweden | 2.31 | 2.28 |
| Germany | 1.72 | 1.86 | Switzerland | 0.64 | 0.85 |
| Greece | 1.56 | 1.69 | Taiwan | 1.35 | 1.09 |
| Ireland | 1.76 | 2.01 | Thailand | 2.61 | 2.90 |
| Italy | 1.53 | 1.50 | United Kingdom | 2.55 | 2.87 |
| Netherlands | 1.68 | 1.81 | United States | 3.65 | 4.31 |
| Spain | 1.61 | 1.63 | | | |

The values above represent an average discount rate for all post-employment plans (pension, retiree medical, and termination indemnities), as well as in-service benefits such as long-service leave or jubilee awards.

A comparison of a company's discount rate to the rates shown above should take into consideration: 1) the maturity of the company's plan(s) may differ from the maturities of the plans included in this survey; and 2) some clients use yield curves which may support a higher discount rate while others may only refer to yields of indices.

See the Appendix for additional details about discount rates for selected countries.

# Long-Term Rate of Return for 2019

The following table shows the survey results for the average expected long-term rate of return on plan assets used to determine expense for the 2018 and 2019 fiscal years for companies reporting using U.S. GAAP.

| Country | 2018 Average | 2019 Average | Country | 2018 Average | 2019 Average |
|---|---|---|---|---|---|
| Canada | 5.36% | 5.06% | South Korea | 2.33% | 2.30% |
| Eurozone | | | Switzerland | 2.26 | 2.27 |
| Belgium | 3.54 | 3.29 | Taiwan | 1.44 | 1.47 |
| Germany | 3.18 | 3.46 | United Kingdom | 4.49 | 4.05 |
| Ireland | 3.60 | 3.39 | United States | 6.26 | 6.15 |
| Netherlands | 2.35 | 2.35 | | | |

The concept of an expected return on plan assets no longer exists under IAS 19—it is set equal to the discount rate. For that reason, in this survey, we only included the expected return for companies reporting under U.S. GAAP.

The expected rates of return shown above for all countries reflect the asset allocations of the plans included in this survey. A comparison of your company's expected rate of return to the rates shown above should take into consideration that the asset allocation for your company's plan(s) may differ from the asset allocations of the plans included in this survey.

See the Appendix for additional details about the expected long-term rate of return assumption for selected countries.

# Salary Increase at Year-End 2018

The following table shows the survey results for the salary increase assumption for 2017 and 2018 fiscal year-ends.

| Country | Year-End 2017 Average | Year-End 2018 Average | Country | Year-End 2017 Average | Year-End 2018 Average |
|---|---|---|---|---|---|
| Australia | 3.13% | 3.05% | India | 9.04% | 8.68% |
| Canada | 3.04 | 3.03 | Japan | 2.24 | 2.20 |
| Eurozone | | | Mexico | 5.25 | 5.24 |
| Austria | 2.55 | 2.63 | Philippines | 5.00 | 5.52 |
| Belgium | 2.87 | 2.81 | Poland | 2.85 | 3.16 |
| Finland | 2.20 | 2.10 | South Korea | 4.67 | 4.46 |
| France | 2.39 | 2.39 | Sweden | 2.68 | 2.83 |
| Germany | 2.53 | 2.60 | Switzerland | 1.41 | 1.46 |
| Greece | 1.96 | 1.88 | Taiwan | 3.32 | 3.26 |
| Ireland | 2.56 | 2.54 | Thailand | 5.16 | 5.12 |
| Italy | 2.44 | 2.42 | United Kingdom | 2.93 | 3.00 |
| Netherlands | 2.17 | 2.27 | United States | 3.74 | 3.81 |
| Spain | 2.16 | 2.06 | | | |

The salary increase assumptions shown above reflect the situation of each company included in this survey. Your company's situation may differ from that of the companies included in the survey; hence, a different salary increase assumption may be appropriate.

See the Appendix for additional details about the salary increase assumption for selected countries.

# Pension Increase for Year-End 2018

The following table shows the survey results for the pension increase assumption for 2017 and 2018 fiscal year-ends. Note that the results are shown for those plans where a portion of the benefits paid to pensioners is adjusted annually and is correlated with current inflationary expectations.

| Country | Year-End 2017 Average | Year-End 2018 Average |
|---|---|---|
| Eurozone | | |
| Germany | 1.68% | 1.70% |
| Ireland | 1.85 | 1.78 |
| Netherlands | 0.83 | 0.93 |
| Sweden | 1.78 | 1.97 |
| Switzerland | 0.02 | 0.02 |
| United Kingdom | 3.43/2.36 | 3.46/2.37 |

For the United Kingdom, our 2018 year-end survey results produced an average assumption for each of the Retail Price Index (RPI) and the Consumer Price Index (CPI).

For Switzerland, we have shown the average pension indexation assumptions for all plans which call for pension indexation, including those with an assumption of 0%.

See the Appendix for additional details about the pension increase assumption for selected countries.

# Appendix

The Appendix provides the following additional information about 2018 year-end assumptions:

- For countries with larger pension obligations (Canada, Eurozone, Japan, Switzerland, and the U.K.), the average discount rate by duration. Note: We were only able to include plans for which the duration of the plan was available;

- For specific countries, the range of assumptions used at 2018 year-end; and

- For certain countries, the prevalent mortality table used at 2018 year-end along with life expectancies.

The following charts show the average discount rate selected for plans with durations falling within the ranges shown. We also show the number of plans falling within each range. Please note that duration was not provided for all plans included in the survey. Therefore, the number of plans included in the charts below may differ from the number of plans used in other parts of this survey.

**Canada**
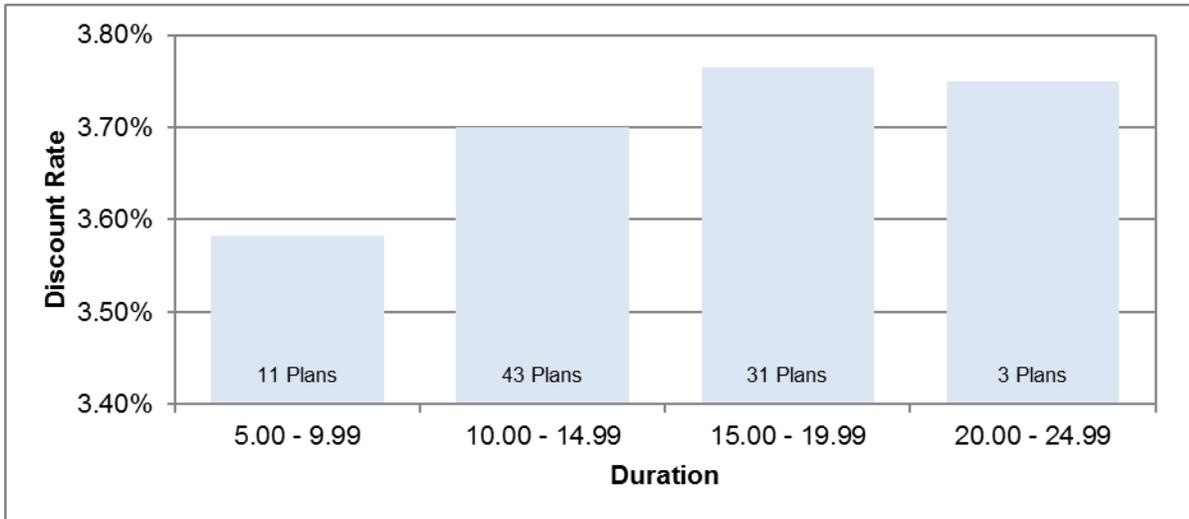


**Eurozone**
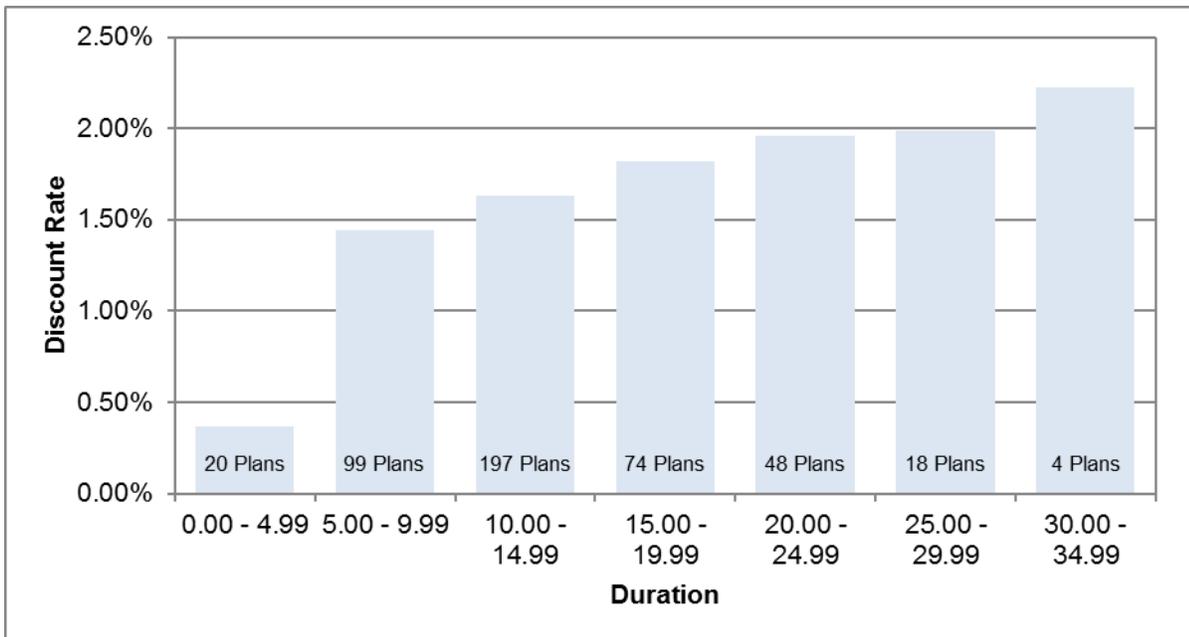
**Japan**
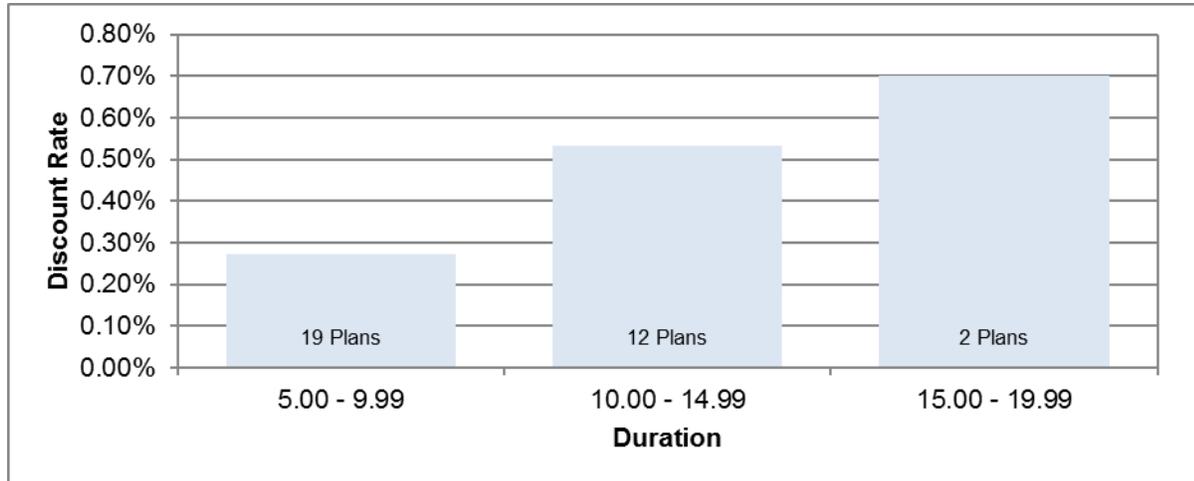


**Switzerland**
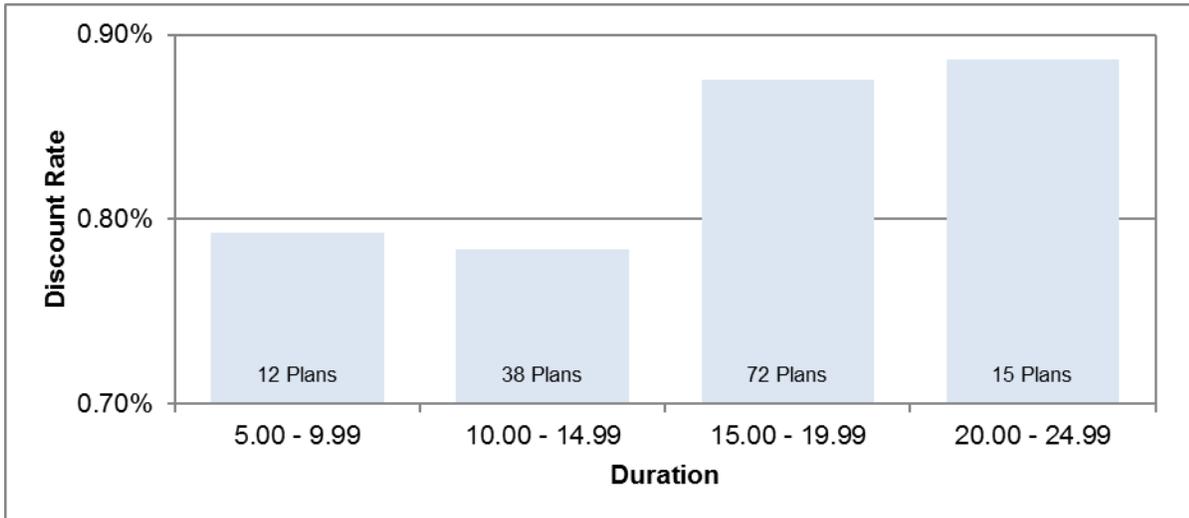
**U.K.**
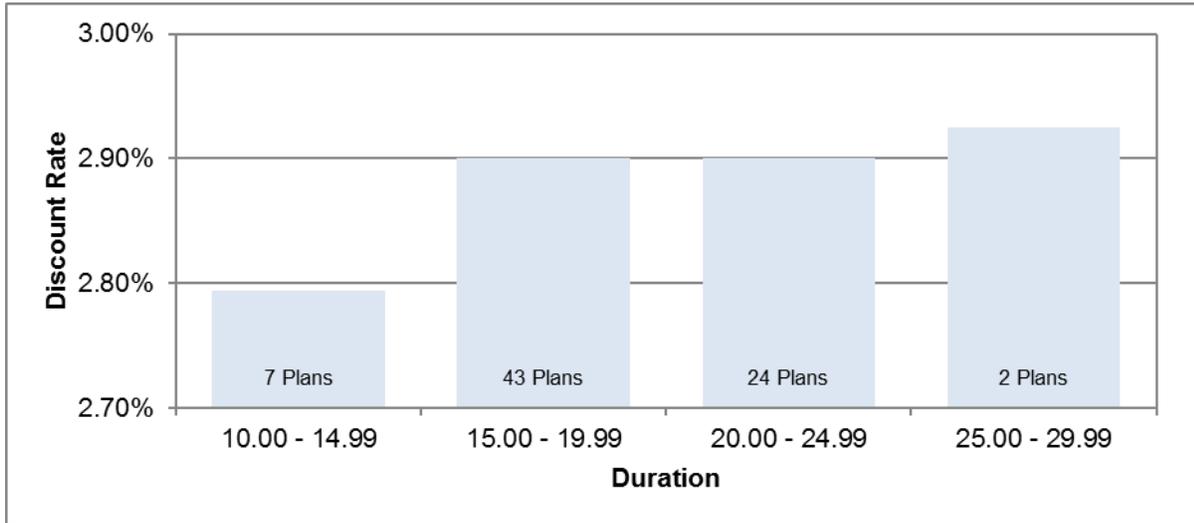
The following charts show range of assumptions employers selected for 2018 year-end for specific countries.

## Canada



| Statistic | Discount Rate | Expected Return | Salary Scale | Pension Indexation |
|---|---|---|---|---|
| Count | 92 | 32 | 68 | 11 |
| Average | 3.68% | 5.06% | 3.03% | 1.81% |
| 90th %ile | 3.90% | 6.50% | 3.50% | 2.75% |
| 75th %ile | 3.80% | 5.76% | 3.50% | 2.11% |
| Median | 3.70% | 5.23% | 3.00% | 2.00% |
| 25th %ile | 3.60% | 4.45% | 2.75% | 1.41% |
| 10th %ile | 3.50% | 3.77% | 2.50% | 1.00% |

| Legend | |
|---|---|
| - Average | |
| 75th-90th %ile | |
| 25th-75th %ile | |
| 10th-25th %ile | |

# France



| Statistic | Discount Rate | Expected Return | Salary Scale | Pension Indexation | Inflation |
|-----------|---------------|-----------------|--------------|--------------------|-----------|
| Count | 32 | 6 | 27 | 5 | 32 |
| Average | 1.65% | 1.49% | 2.39% | 1.72% | 1.80% |
| 90th %ile | 1.89% | 1.65% | 3.50% | 2.35% | 2.00% |
| 75th %ile | 1.75% | 1.50% | 2.75% | 1.75% | 2.00% |
| Median | 1.67% | 1.50% | 2.00% | 1.75% | 1.75% |
| 25th %ile | 1.55% | 1.43% | 2.00% | 1.54% | 1.75% |
| 10th %ile | 1.46% | 1.33% | 1.78% | 1.11% | 1.56% |

| Legend | |
|--------|--|
| - Average | |
| 75th-90th %ile | |
| 25th-75th %ile | |
| 10th-25th %ile | |

## Germany



| Statistic | Discount Rate | Expected Return | Salary Scale | Pension Indexation |
|---|---|---|---|---|
| Count | 95 | 11 | 87 | 88 |
| Average | 1.86% | 3.46% | 2.60% | 1.70% |
| 90th %ile | 2.05% | 6.00% | 3.00% | 1.86% |
| 75th %ile | 2.00% | 4.98% | 2.85% | 1.75% |
| Median | 1.90% | 3.00% | 2.50% | 1.75% |
| 25th %ile | 1.75% | 1.89% | 2.50% | 1.54% |
| 10th %ile | 1.62% | 1.50% | 2.00% | 1.50% |

| Legend |
|---|
| - Average |
| 75th-90th %ile |
| 25th-75th %ile |
| 10th-25th %ile |

## Japan



| Statistic | Discount Rate | Expected Return | Salary Scale |
|---|---|---|---|
| Count | 43 | 6 | 40 |
| Average | 0.42% | 2.91% | 2.20% |
| 90th %ile | 0.70% | 3.95% | 3.00% |
| 75th %ile | 0.60% | 3.23% | 2.50% |
| Median | 0.40% | 2.58% | 2.00% |
| 25th %ile | 0.30% | 2.41% | 2.00% |
| 10th %ile | 0.20% | 2.20% | 1.50% |

| Legend | |
|---|---|
| - Average | |
| 75th-90th %ile | |
| 25th-75th %ile | |
| 10th-25th %ile | |

## Netherlands



| Statistic | Discount Rate | Expected Return | Salary Scale | Pension Indexation |
|-----------|---------------|-----------------|--------------|--------------------|
| Count | 63 | 16 | 50 | 22 |
| Average | 1.81% | 2.35% | 2.27% | 0.93% |
| 90th %ile | 2.08% | 3.60% | 3.00% | 1.89% |
| 75th %ile | 1.95% | 2.53% | 2.69% | 1.43% |
| Median | 1.90% | 1.95% | 2.00% | 0.80% |
| 25th %ile | 1.73% | 1.90% | 2.00% | 0.35% |
| 10th %ile | 1.43% | 1.81% | 1.80% | 0.11% |

| Legend | |
|--------|--|
| - Average | |
| 75th-90th %ile | |
| 25th-75th %ile | |
| 10th-25th %ile | |

## Switzerland
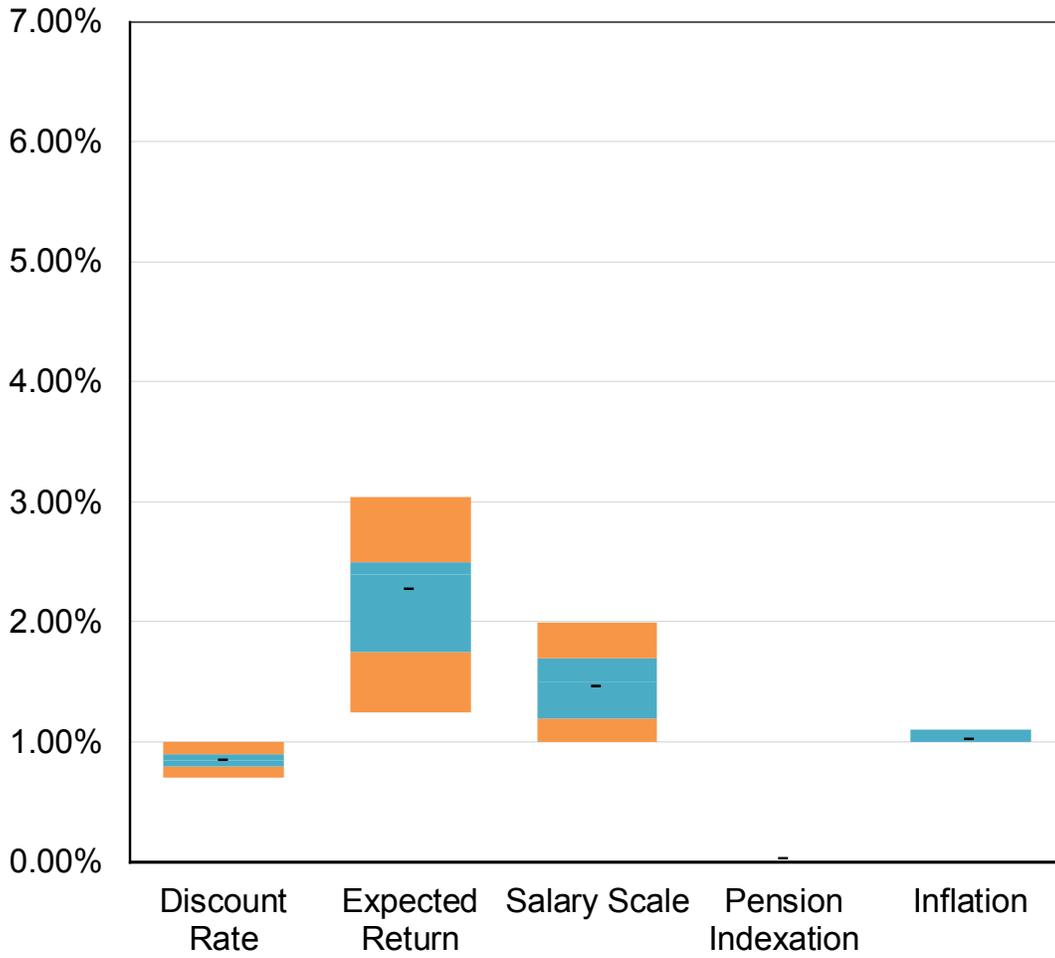


| Statistic | Discount Rate | Expected Return | Salary Scale | Pension Indexation | Inflation |
|---|---|---|---|---|---|
| Count | 148 | 37 | 145 | 145 | 146 |
| Average | 0.85% | 2.27% | 1.46% | 0.02% | 1.02% |
| 90th %ile | 1.00% | 3.04% | 2.00% | 0.00% | 1.10% |
| 75th %ile | 0.90% | 2.50% | 1.70% | 0.00% | 1.10% |
| Median | 0.85% | 2.40% | 1.50% | 0.00% | 1.00% |
| 25th %ile | 0.80% | 1.75% | 1.20% | 0.00% | 1.00% |
| 10th %ile | 0.70% | 1.25% | 1.00% | 0.00% | 1.00% |

| Legend |
|---|
| -  Average |
| 75th-90th %ile |
| 25th-75th %ile |
| 10th-25th %ile |

# United Kingdom



| Statistic | Discount Rate | Expected Return | Salary Scale | RPI Inflation | RPI-CPI Spread |
|-----------|---------------|-----------------|--------------|---------------|----------------|
| Count | 105 | 39 | 62 | 101 | 100 |
| Average | 2.87% | 4.05% | 3.00% | 3.46% | 1.09% |
| 90th %ile | 3.00% | 5.04% | 3.94% | 3.50% | 1.10% |
| 75th %ile | 2.93% | 4.65% | 3.40% | 3.50% | 1.10% |
| Median | 2.90% | 4.00% | 3.20% | 3.45% | 1.10% |
| 25th %ile | 2.85% | 3.65% | 2.26% | 3.45% | 1.10% |
| 10th %ile | 2.70% | 2.62% | 2.06% | 3.40% | 1.00% |

| Legend | |
|--------|--|
| - Average | |
| 75th-90th %ile | |
| 25th-75th %ile | |
| 10th-25th %ile | |

## U.S.

| Statistic | Discount Rate | Expected Returns | Salary Scale |
|-----------|---------------|------------------|--------------|
| Count | 255 | 214 | 129 |
| Average | 4.31% | 6.15% | 3.81% |
| 90th %ile | 4.48% | 7.47% | 5.00% |
| 75th %ile | 4.42% | 6.75% | 4.50% |
| Median | 4.32% | 6.25% | 3.75% |
| 25th %ile | 4.24% | 5.50% | 3.23% |
| 10th %ile | 4.11% | 4.78% | 3.00% |

| Legend |
|--------|
| -  Average |
| 75th-90th %ile |
| 25th-75th %ile |
| 10th-25th %ile |

Below is a table showing the prevalent mortality table used for 2018 year-end for the countries shown, along with the life expectancies for a male and female retiree age 65. Please note that we show the life expectancy for a retiree age 65 in 2019 as well as for a retiree age 65 in 2059. The difference between the two values shows the increase in longevity that is expected over the next 40 years by the mortality improvement assumption. For example, an age 65 Canadian male's longevity is expected to increase by 2.8 years over the next 40 years, from 22.0 to 24.8 years.

| Country | Base Table (Mortality Improvement if Separate From Base Table) | Life Expectancy | | | |
|---|---|---|---|---|---|
| | | Male In: | | Female In: | |
| | | 2019 | 2059 | 2019 | 2059 |
| Canada | CPM Private (MI2017) | 22.0 | 24.8 | 24.5 | 27.1 |
| Germany | Heubeck Richttafeln RT 2018 G | 20.2 | 25.5 | 23.7 | 28.0 |
| Netherlands | Prognosetafel 2018 | 20.3 | 24.7 | 23.1 | 27.2 |
| Switzerland | BVG 2015 (CMI 2016 1.50%) | 21.8 | 25.6 | 23.8 | 27.4 |
| United Kingdom | S2PMA/S2PFA (CMI 2017 s = 7.5) | 22.0 | 25.0 | 23.9 | 26.9 |
| United States | RP-2006* (MP2018) | 20.7 | 24.0 | 22.7 | 25.9 |

*  RP-2006 refers to the RP-2014 base rates projected backward to the year 2006 with Scale MP-2014

# For More Information

*If you would like further information on accounting assumptions for defined benefit plans, contact your local Aon actuarial consultant, Kirsten Miller in Glasgow, Scotland (+44.7834.609704), or Yc Tao in New York, New York (+1.212.441.2556).*

For more information on the countries in this newsletter, please refer to the Aon Country Profiles. You can learn more about the Country Profiles here.

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