

DECEMBER 2012

## DB SOLUTIONS Industry Watch

# Shedding light on the hidden longevity cost in Canadian pension plans

In June 2011, we published an article asking whether your pension plan had a hidden longevity cost. A new study in the U.S. is now shining a light on this issue by quantifying the previously “hidden” longevity cost.

The recently released study<sup>1</sup> by the Society of Actuaries' Retirement Plans Experience Committee (RPEC) suggests that Canadian pension plans may be underestimating their accounting and going-concern liabilities by about four per cent.

For example, a \$25 million pension plan may have a \$1 million hidden cost, while a \$100 million pension plan may have a \$4 million hidden cost. Fortunately, pension plans whose cash contributions are being driven by solvency valuation results won't have to fund this entire hidden cost immediately.

This article will examine how this hidden longevity cost has been developed and what impact the RPEC study will have on Canadian defined benefit pension plans going forward. Let's now take a step back to look at how Canadian pension plans have estimated the cost of longevity (the impact of increasing life expectancies) up until now.



<sup>1</sup> Source: Society of Actuaries, Mortality Improvement Scale BB Report, September 2012.

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### **WE'VE HEARD IT BEFORE: RETIREES ARE LIVING LONGER**

It is no secret that a 65-year-old who retires today will live longer than a 65-year-old who retired 20 years ago. Pension plans realize this and most are assuming that members will continue to live longer in the future (as we have seen in the past). Estimating exactly how much longer has proven tricky, but it is ultimately very important for pension plans. As pensioners are expected to live longer in the future, plans must set aside more money today to make these future payments.

### **THE RUSTING STANDARD: AA SCALE**

For the past 20 years, the only real choice that plan sponsors had was to use the AA scale to project future increases in life expectancy. The AA scale was developed in 1994 by looking at U.S. experience between 1977 and 1993. The RPEC recognizes that the AA scale is outdated and is working to produce a new table using more recent population data from 1994 to 2007. In fact, prior to the study's completion at the end of 2013, the RPEC rushed to release the interim BB scale so that plans could start using it right away.

### **OUT WITH THE OLD, IN WITH THE NEW**

Why couldn't the RPEC wait until the end of 2013 when the study was complete to release the table? While working on the new table, the RPEC realized that the AA scale significantly underestimated the life expectancy of pension plan members (people were living longer than they had estimated 20 years ago). The RPEC recognized that this could have a significant impact on pension plans and subsequently released the BB scale prior to study completion in order to give plan sponsors and consultants an early warning.

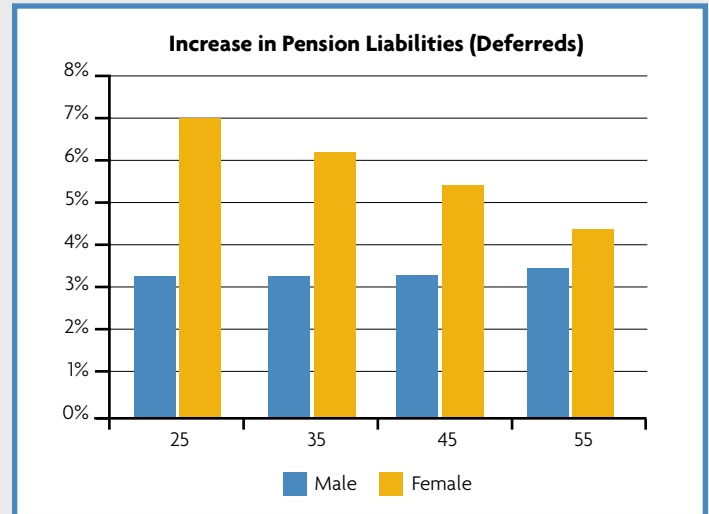
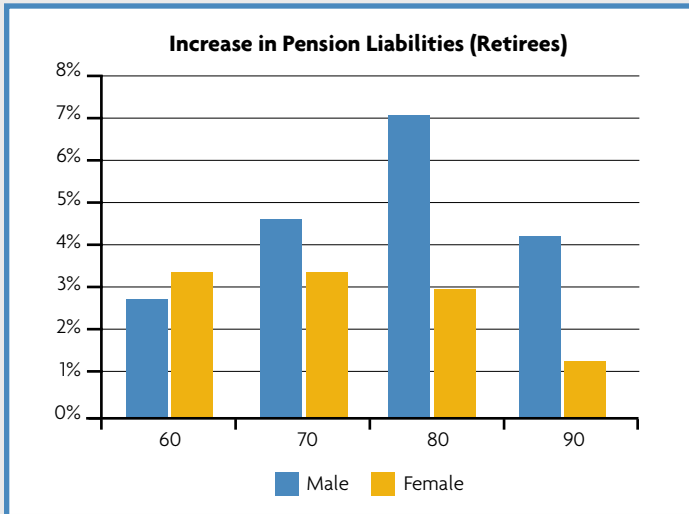
Although the BB scale is based on U.S. data, it provides an indication to Canadian pension plans that their members may also be living longer than expected. A new improvement scale based on Canadian data is in progress and we will report on it when more information is available.

It should be noted that the impact of the BB scale is broadly consistent with the impact of the CLIFR scale, which is based on Canadian data and was released by the Committee for Life Insurance Financial Reporting (CLIFR), a committee of the Canadian Institute of Actuaries (CIA), for use by Canadian life insurers in 2010.



**THE BOTTOM LINE**

We have estimated that for a typical Canadian pension plan, using the currently accepted AA scale with the UP94 mortality table, accounting and going-concern liabilities could increase by about four per cent when switching to the new BB scale. The exact amount of the increase will vary by plan based on its characteristics (e.g., gender mix, average age, pension form):



The increases could be even larger if the plan has indexed benefits or if the plan is using an older assumption than the AA scale with the UP94 mortality table. Early indications suggest that the new Canadian improvement scale may have an **even bigger impact** on pension liabilities.

**WHAT DOES ALL THIS MEAN FOR THE AVERAGE CANADIAN PENSION PLAN?***a) Commuted value costs will likely increase*

Current CIA standards for commuted values require that the AA scale is used to estimate increases in life expectancy. This basis is likely to change to the BB scale or to a new Canadian scale, increasing the amount that plans must pay to members electing to commute their pensions.

*b) Annuity purchase costs may increase*

To the extent that insurers are not already reflecting this increase in life expectancies in their pricing assumptions, the cost of purchasing annuities may increase. This is unlikely as insurers are already using the CLIFR scale, which is broadly consistent with the BB scale.

*c) Solvency valuation liabilities will likely increase*

Solvency valuation assumptions are based on commuted value and annuity purchase costs, meaning that solvency valuation liabilities will likely increase.

*d) Going-concern valuation liabilities may increase*

Canadian pension actuaries are required to state that the valuation assumptions being used are reasonable. The BB scale and CLIFR scale make it increasingly difficult for the signing actuary to make this statement when using the AA scale for the valuation, meaning that going-concern valuation liabilities will likely increase.

## LOOKING AHEAD

Plan sponsors finally have an alternative to the AA scale thanks to the RPEC study. The introduction of its successor, the BB scale, can help Canadian pension plans' quantify their hidden longevity cost. One conclusion is clear. Canadian pension plans will be required to make changes to how they measure increases in life expectancy going forward. It is just a matter of how and when.

### BB SCALE VS. AA SCALE – A LEADING-EDGE METHODOLOGY

The AA scale only looks at historical data and assumes that what has happened in the past will continue to happen in the future. There is a lot more to forecasting such a complex phenomenon, which is why the BB scale uses leading-edge methods developed by the Continuous Mortality Investigation (CMI) group in the U.K., the country recognized as a leader in longevity research. This new method allows historical data to be combined with future expectations and predictions. The future expectations can include new changes in the population that are expected to occur (new drugs, medical advances and rising obesity) and exclude historical changes in the population that are not expected to occur again (decrease in smoking rates).

For more information about how longevity improvement affects your pension plan, contact your pension consultant.

For more information about Sun Life Financial's de-risking solutions for defined benefit pension plans, please contact:

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