Educational Note Supplement

Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective June 30, 2012

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Memorandum

To: All Pension Actuaries

From: Gavin Benjamin, Chair
Committee on Pension Plan Financial Reporting

Date: August 16, 2012

Subject: **Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective June 30, 2012**

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The most recent guidance from the Committee on Pension Plan Financial Reporting (PPFRC) regarding assumptions for hypothetical wind-up and solvency valuations was provided in an educational note supplement dated June 30, 2012, which was based on a review of data collected in the first quarter of 2012. The review concluded that there was not sufficient evidence to warrant changing the guidance provided in a May 24, 2012, educational note. This guidance concluded that for valuations with effective dates on and after December 31, 2011, an appropriate discount rate for estimating the cost of purchasing a non-indexed group annuity would be determined as the unadjusted average yield on Government of Canada (GoC) marketable bonds with maturities over 10 years (CANSIM series V39062) increased arithmetically by 90 bps, in conjunction with the UP94 generational mortality tables. This guidance applies to both immediate and deferred pensions and also applies regardless of the overall size of a group annuity purchase.

Methodology

The guidance published on June 30, 2012, as to estimated purchase costs for non-indexed group annuities was partially based on quotes provided by eight insurance companies on illustrative group annuities using pricing conditions as at March 31, 2012, and supplemented by data from certain actuarial consulting firms on actual group annuity purchases during the first and early second quarters of 2012.

Analysis

In an effort to continue to monitor group annuity pricing, the PPFRC obtained illustrative quotes on a similar basis to those obtained at March 31, 2012, but based on pricing conditions as at June 30, 2012 (however, it is noted that one of the eight insurers did not provide illustrative quotes at June 30, 2012). The illustrative non-indexed quotations at March 31 and June 30, 2012, may be summarized as follows:

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AVERAGE OF THE THREE MOST COMPETITIVE QUOTES (USING UP94 GENERATIONAL MORTALITY TABLES)				
	Large Purchase		**Small Purchase**	
	31/03/2012	**30/06/2012**	**31/03/2012**	**30/06/2012**
Retirees • Discount rate • Spread over CANSIM V39062	3.43% + 0.88%	2.98% + 0.73%	3.52% + 0.97%	3.05% + 0.80%
Deferred vesteds • Discount rate • Spread over CANSIM V39062	3.69% + 1.14%	3.25% + 1.00%	3.70% + 1.15%	3.31% + 1.06%

If considered in isolation, over the three-month period, the illustrative quotes show a decrease of approximately 10 to 15 bps in the spread of the discount rates over the unadjusted average yield on GoC marketable bonds with maturities over 10 years (CANSIM V39062), in conjunction with the UP94 generational mortality tables.

The pricing information for the actual group annuity purchases for non-indexed pensions in the second quarter of 2012 that was available to the PPFRC produced an average spread which was in the range of 75 to 85 bps above the prevailing unadjusted average yield on GoC marketable bonds with maturities over 10 years (CANSIM V39062).

As a result, the PPFRC concluded that, effective June 30, 2012, a revision to the guidance contained in the educational note supplement published on June 30, 2012, is appropriate.

Guidance for Non-indexed Pensions

Based on the analysis described above, the PPFRC has concluded that, for valuations with effective dates on and after June 30, 2012, an appropriate discount rate for estimating the cost of purchasing a non-indexed group annuity would be determined as the unadjusted average yield on GoC marketable bonds with maturities over 10 years (CANSIM series V39062) increased arithmetically by 80 bps, in conjunction with the UP94 generational mortality tables. This guidance applies to both immediate and deferred pensions and also applies regardless of the overall size of the group annuity purchase.

The revised guidance on spreads applies to valuations with effective dates on and after June 30, 2012 up to December 30, 2012, pending any further guidance or other evidence of change in annuity pricing.

Example

As at June 30, 2012, the unadjusted CANSIM V39062 rate was 2.25%. This rate would form the basis for developing an appropriate underlying discount rate for valuations of non-indexed group annuities with effective dates of June 30, 2012. Prior to rounding, an applicable underlying discount rate would then be determined as 2.25% + 0.80% = 3.05%.

Guidance for Indexed Pensions

The data regarding the pricing of annuities indexed to the Consumer Price Index (CPI) continue to be extremely limited. Only one actual annuity purchase during the first and second quarters of 2012 pertained to indexed annuities. In most cases, the contributing insurers did provide illustrative quote data for the sample blocks on a CPI-indexed basis. It may be noted that the premiums quoted for the illustrative quotes on this and prior occasions are substantially higher than the guidance provided by prior educational notes. The PPFRC is in the process of conducting further research regarding the pricing of indexed annuities. This research may result in the revision of future guidance for estimating the cost of purchasing indexed annuities.

Until any revised guidance is issued, the guidance for estimating the cost of purchasing indexed annuities contained in the May 24, 2012, educational note continues to apply.

Validity of May 2012 Educational Note

With the exception of the revisions to the guidance contained in this educational note supplement, actuaries would continue to reference the May 24, 2012, educational note for guidance with respect to the selection of assumptions for hypothetical wind-up and solvency valuations with effective dates between June 30, 2012, and December 30, 2012.

Actual Annuity Pricing

The purpose of this educational note supplement is to provide actuaries with guidance related to the establishment of assumptions for hypothetical wind-up and solvency valuations. It is worth noting that the pricing for an actual group annuity purchase depends on many factors, with the result that the actual price may differ from the guidance provided herein. Some of the factors that may affect pricing of a particular purchase include, but are not limited to:

- The duration of the pensions being purchased;
- The proportion of deferred vested members included in the group being purchased;
- The average pension amount for the pensions being purchased;
- The mortality experience anticipated by the insurance companies bidding on the purchase; and
- Competitive pressures in the group annuity market at the time of the purchase.

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