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## Educational Note Supplement

**Guidance for Assumptions for  
Hypothetical Wind-Up and Solvency  
Valuations Update –  
Effective September 30, 2011**

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## Memorandum

**To:** All Pension Actuaries

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

**Date:** November 17, 2011

**Subject:** **Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective September 30, 2011**

*Document 211115*

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 September 8, 2011, which was based on a review of data collected in the second and early third quarters of 2011. The review concluded that there was not sufficient evidence to warrant changing the guidance provided in the June 7, 2011 [educational note](#) supplement. This guidance concluded that for valuations with effective dates on and after March 31, 2011, an appropriate discount rate for estimating the cost of purchasing a non-indexed group annuity would be determined as the unadjusted yield on GoC long-term bonds (CANSIM series V39062) increased arithmetically by 70 bps, in conjunction with the UP94 mortality table with generational projection. This guidance applies to both immediate and deferred pensions and also applies regardless of the overall size of a group annuity purchase.

### Methodology

The September 8, 2011 guidance as to estimated purchase costs for non-indexed group annuities was partially based on quotes provided by six insurance companies on illustrative group annuities using pricing conditions as at June 30, 2011, and supplemented by data on actual group annuity purchases during the second and early third quarters of 2011 provided by certain actuarial consulting firms.

### Analysis

In an effort to continue to monitor group annuity pricing, the PPFRC obtained illustrative quotes on a similar basis to those obtained at June 30, 2011, but based on pricing conditions as at September 30, 2011. In addition, the PPFRC obtained limited data on the pricing of actual group annuity purchases in the third quarter of 2011 from certain actuarial consulting firms.

The illustrative non-indexed quotations at June 30, 2011 and September 30, 2011 may be summarized as follows:

| <b>AVERAGE OF THE THREE MOST COMPETITIVE QUOTES<br/>(USING UP94 GENERATIONAL MORTALITY TABLES)</b> |                       |                   |                       |                   |
|----------------------------------------------------------------------------------------------------|-----------------------|-------------------|-----------------------|-------------------|
|                                                                                                    | <b>Large Purchase</b> |                   | <b>Small Purchase</b> |                   |
|                                                                                                    | <b>30/06/2011</b>     | <b>30/09/2011</b> | <b>30/06/2011</b>     | <b>30/09/2011</b> |
| <b>Retirees</b>                                                                                    |                       |                   |                       |                   |
| • Discount rate                                                                                    | 4.05%                 | 3.57%             | 4.12%                 | 3.56%             |
| • Spread over CANSIM V39062                                                                        | + 0.56%               | + 0.89%           | + 0.63%               | + 0.88%           |
| <b>Deferred vesteds</b>                                                                            |                       |                   |                       |                   |
| • Discount rate                                                                                    | 4.14%                 | 3.59%             | 4.11%                 | 3.52%             |
| • Spread over CANSIM V39062                                                                        | + 0.65%               | + 0.91%           | + 0.62%               | + 0.84%           |

The illustrative quotes suggest that an appropriate discount rate for estimating the cost of purchasing non-indexed group annuities be determined as the unadjusted yield on GoC long-term bonds (CANSIM V39062) increased arithmetically by 90 bps, in conjunction with the UP94 mortality table with generational projection.

The actual group annuity purchase data obtained by the PPFRC for the third quarter of 2011 were very limited. Furthermore, most of the group annuity purchases occurred during the financial market turmoil that commenced in early August, and did not display any credible pattern. Consequently, the PPFRC concluded that the illustrative quotes provided a better indicator of annuity prices going forward than the actual annuity pricing data.

As a result, the PPFRC concluded that, effective September 30, 2011, a revision to the guidance contained in the September 8, 2011 educational note supplement 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 September 30, 2011, an appropriate discount rate for estimating the cost of purchasing a non-indexed group annuity would be determined as the unadjusted yield on GoC long-term bonds (CANSIM series V39062) increased arithmetically by 90 bps, in conjunction with the UP94 mortality table with generational projection. This guidance applies to both immediate and deferred pensions and also applies regardless of the overall size of a group annuity purchase.

The revised guidance spreads applies to valuations with effective dates on and after September 30, 2011 up to December 30, 2011, pending any further guidance or other evidence of change in annuity pricing.

#### **Example**

As at September 30, 2011, the unadjusted CANSIM V39062 rate was 2.68%. This rate would form the basis for developing an appropriate underlying discount rate for valuations of non-indexed group annuities with effective dates of September 30, 2011. Prior to rounding, an applicable underlying discount rate would then be determined as  $2.68\% + 0.90\% = 3.58\%$ .

#### **Validity of May 2011 Educational Note**

With the exception of the revisions to the guidance contained in this memo, and the update of the recommended mortality table used to estimate the cost of purchasing indexed annuities provided in the June 7, 2011 guidance, actuaries would continue to reference the May 10, 2011 [educational note](#) for guidance with respect to the selection of assumptions for hypothetical wind-up and solvency valuations with effective dates between September 30, 2011 and December 30, 2011.