Canadian Institute of Actuaries
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Educational Note Supplement

Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective March 31, 2013, and Applicable to Valuations with Effective Dates between March 31, 2013, and December 30, 2013

Document 213048

Memorandum

To: All Pension Actuaries

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

Date: June 25, 2013

Subject: **Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective March 31, 2013, and Applicable to Valuations with Effective Dates between March 31, 2013, and December 30, 2013**

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PREVIOUS GUIDANCE

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 dated June 11, 2013. That guidance concluded that for valuations with effective dates on and after December 31, 2012 (but no later than December 30, 2013), 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 marketable bonds with maturities over 10 years (CANSIM series V39062) increased arithmetically by 70 bps, in conjunction with the UP94 generational mortality tables. That guidance applied to both immediate and deferred pensions and also applied regardless of the overall size of a group annuity purchase.

METHODOLOGY

The guidance published on June 11, 2013, as to estimated purchase costs for non-indexed group annuities was based on quotes provided by eight insurance companies on illustrative group annuities using pricing conditions as at December 31, 2012, supplemented by data from certain actuarial consulting firms on actual group annuity purchases during the fourth quarter 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 December 31, 2012, but based on pricing

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conditions as at March 31, 2013. The illustrative non-indexed quotations at December 31, 2012 and March 31, 2013, may be summarized as follows:

AVERAGE OF THE THREE MOST COMPETITIVE QUOTES (USING UP94 GENERATIONAL MORTALITY TABLES)				
	Large Purchase		Small Purchase	
	31/12/2012	31/03/2013	31/12/2012	31/03/2013
Retirees				
• Discount rate	2.86%	2.96%	3.01%	3.05%
• Spread over CANSIM V39062	+ 0.60%	+ 0.61%	+ 0.75%	+ 0.70%
Deferred vesteds				
• Discount rate	3.14%	3.21%	3.24%	3.25%
• Spread over CANSIM V39062	+ 0.88%	+ 0.86%	+ 0.98%	+ 0.90%
Combined				
• Discount rate	2.92%	3.03%	3.15%	3.18%
• Spread over CANSIM V39062	+ 0.66%	+ 0.68%	+ 0.[illegible]9%	+ 0.83%

There has been a relatively limited change in the spreads that may be suggested by the March 31, 2013, illustrative quotes compared to the December 31, 2012 illustrative quotes.

Further, the actual group annuity purchase data obtained by the PPFRC for the first quarter of 2013 were limited but, nonetheless, did not exhibit a pattern which caused the PPFRC to conclude that the guidance provided in the June 11, 2013, educational note has become inappropriate.

Accordingly, the PPFRC has concluded that there is not sufficient evidence at this time to warrant changing the guidance provided in the June 11, 2013, educational note.

GUIDANCE FOR INDEXED PENSIONS

The data regarding the pricing of annuities indexed to the Consumer Price Index (CPI) continue to be extremely limited. Of the actual group annuity purchase data available to the PPFRC for the first quarter of 2013, none of the actual annuities purchased pertained to CPI-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 June 11, 2013, educational note continues to apply.

VALIDITY OF JUNE 2013 EDUCATIONAL NOTE

Actuaries would continue to reference the June 11, 2013, educational note for guidance with respect to the selection of assumptions for hypothetical wind-up and solvency valuations with effective dates between December 31, 2012, and December 30, 2013.

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.

ADDITIONAL COMMENTS

The PPFRC intends to continue monitoring group annuity pricing on a quarterly basis. Actuaries may use the spreads indicated above for valuations with effective dates on and after March 31, 2013, up to December 30, 2013, pending any future guidance or other evidence of change in annuity pricing.

The PPFRC is reviewing several aspects of group annuity purchase pricing that may result in revisions to future guidance. In particular:

- **Duration**: the PPFRC has observed that the duration of obligations being purchased may have had a significant effect on annuity pricing during 2011 and 2012. The differential in the hypothetical annuity quotes between deferred vested and retired members may be related to differences in the duration of the obligations of each group. Future guidance may better reflect the effect of the duration of the obligations being valued.
- **Indexed annuities**: the PPFRC's review includes confirmation that the insurers would be willing to actually transact on the basis reflected in the illustrative annuity quotes for indexed pensions provided to the PPFRC and the relationship between indexed annuity premiums and yields on Government of Canada real-return long-term bonds.
- **Underlying basis**: currently, the annuity guidance is expressed as a spread over yields on Government of Canada long-term bonds in conjunction with the UP94 generational mortality tables, irrespective of the basis used by insurers when submitting quotes. The PPFRC is exploring whether other bases may be more appropriate to provide more stability in the resulting spread.
- **Alternative settlement methods**: on December 14, 2012, the CIA published a draft educational note on alternative settlement methods for hypothetical wind-up and solvency valuations, which may also result in future guidance for plans affected by capacity constraints within the Canadian group annuity purchase market.

It may be noted that the spreads versus Government of Canada long-term bonds for group annuity pricing have been volatile during the past three to four years. Actuaries may wish to be mindful of this volatility when communicating advice related to future hypothetical wind-up and solvency valuations.