Explanatory Report

Bank of Canada Revisions to Real Return Bond Data

Committee on Pension Plan Financial Reporting

May 2021

Document 221051

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The actuary should be familiar with relevant other guidance. They expand or update the guidance provided in an educational note. They do not constitute standards of practice and are, therefore, not binding. They are, however, intended to illustrate the application of the Standards of Practice, so there should be no conflict between them. The actuary should note however that a practice that the other guidance describe for a situation is not necessarily the only accepted practice for that situation and is not necessarily accepted actuarial practice for a different situation. Responsibility for the manner of application of standards of practice in specific circumstances remains that of the members. As standards of practice evolve, other guidance may not reference the most current version of the Standards of Practice; and as such, the actuary should cross-reference with current Standards. To assist the actuary, the CIA website contains an up-to-date reference document of impending changes to update other guidance.

MEMORANDUM

To: Members in the pension area

From: Steven W. Easson, Chair
Actuarial Guidance Council

Jared Mickall, Chair
Committee on Pension Plan Financial Reporting

Date: May 26, 2021

Subject: **Explanatory Report: Bank of Canada Revisions to Real Return Bond Data**

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On May 10, 2021, the Bank of Canada revised the daily (V39057), weekly (V80691347), and monthly (V122553) rates for real return bond data from June 1, 2020, to capture the rollover of the 2050 bond, starting June 1, 2020. The previously published rates were based on the 2044 bond. The purpose of this explanatory report is to outline how the pension practice area may be affected in the context of these revisions by the Bank of Canada.

Section 3500 (Pension Commuted Values)

The rates on the last Wednesday of each month from June 2020 to March 2021 under CANSIM Series V122553[1]: Real return bond – long term decreased by one to six basis points, as shown in the following table:

Month	Previously published V122553	Updated V122553		Month	Previously published V122553	Updated V122553
June 2020	-0.01	-0.07		November 2020	-0.26	-0.30
July 2020	-0.17	-0.21		December 2020	-0.24	-0.27
August 2020	-0.18	-0.19		January 2021	-0.08	-0.12
September 2020	-0.18	-0.21		February 2021	0.24	0.20
October 2020	-0.24	-0.28		March 2021	0.28	0.22

The Committee on Pension Plan Financial Reporting (PPFRC) reviewed the Standards of Practice including, but not limited to, Section 3500 and subsections 1140 (e.g., spirit and intent of the standards, constraints on time and resources), 1230 (Unusual and unforeseen situations), 1240 (Materiality), 1420 (Event), and 1430 (Subsequent events). For pension commuted values

[1] This change may affect calculations that require, or depend on, the use of V122553. For example, paragraphs 3540.05 and .06 of the Standards of Practice use V122553 in the determination of r_L and r_7, respectively.

1740-360 Albert, Ottawa, ON K1R 7X7 ☎ 613-236-8196 🖷 613-233-4552
head.office@cia-ica.ca / siege.social@cia-ica.ca cia-ica.ca

determined within the scope of Section 3500 for calculation dates from July 1, 2020, to April 30, 2021, the PPFRC's interpretation of the application of *Standards of Practice* in the context of these revisions by the Bank of Canada is:

- for a commuted value that has been paid, the actuary would not recompute the commuted value to reflect the updated V122553 rates; and
- for a commuted value that has been communicated to the member and not paid, the actuary would not recompute the commuted value to reflect the updated V122553 rates; and
- for a commuted value that has not been communicated to the member, the actuary would compute the commuted value using the updated V122553 rates. However, the actuary may consider the application of subsections 1140 and 1240 and determine that it would be appropriate to use the previously published V122553 rates.

Regardless, the terms of an appropriate engagement may require the actuary to use the updated V122553 rates (e.g., a plan administrator or a pension supervisory authority).

Guidance for indexed pensions

In regards to the cost of purchasing indexed annuities and the updated V39057 rates, the PPFRC has concluded that there is no change to the previously published spreads since June 30, 2020, relative to the unadjusted CANSIM Series V39057. That is,

Date	**Previously published unadjusted CANSIM V39057***	**Updated unadjusted CANSIM V39057**	**Fully CPI-indexed** *Spread relative to unadjusted CANSIM V39057*
Mar 31, 2021	0.28%	0.22%	- 50 bps
Dec 31, 2020	-0.28%	-0.31%	- 50 bps
Sep 30, 2020	-0.18%	-0.21%	- 50 bps
Jun 30, 2020	-0.02%	-0.09%	- 50 bps
Mortality table: CPM2014 combined with mortality improvement scale CPM-B with no adjustments for sub- or super-standard mortality.			

* Unadjusted yield on Government of Canada real-return long-term bonds (CANSIM V39057).

While the spread guidance has not changed, the resulting discount rate may have changed. An actuary would review the *Standards of Practice* (e.g., subsections 1140, 1240, and 1430) considering:

- the engagement;
- the purpose of the work (e.g., estimated solvency ratio for monitoring purposes, filed actuarial funding valuation report with a hypothetical wind-up or solvency balance sheet, a wind-up report); and
- when the actuary became aware of the event in relation to the calculation date and the report date.

The actuary may determine either that it would be appropriate to use the updated V39057 rates, or that it would be appropriate to use the previously published V39057 rates.

Regardless, the terms of an appropriate engagement may require the actuary to use the updated V39057 rates.

Other applications within the pension practice area

The retroactive changes to the daily, weekly, and monthly rates may affect other work or reports prepared within the pension practice area. An actuary would review the *Standards of Practice* (e.g., subsections 1140, 1240, and 1430) and consider:

- the engagement;
- the purpose of the work; and
- when the actuary became aware of the event in relation to the calculation date and the report date.

The actuary may determine either that it would be appropriate to use the updated daily, weekly, or monthly rates as applicable, or that it would be appropriate to use the previously published daily, weekly, or monthly rates as applicable.

Regardless, the terms of an appropriate engagement may require the actuary to use the updated daily, weekly, or monthly rates as applicable.

SWE, JM