Guide

Title	Replicating Portfolio Information Summary
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- Instruction Guide for the Preparation of Actuarial Reports for Defined Benefit Pension Plans

General

The purpose of this instruction guide (the Guide) is to assist administrators of pension plans registered or having filed an application for registration under the *Pension Benefits Standards Act, 1985* (PBSA) in completing the

Replicating Portfolio Information Summary (RPIS) that is required to be filed with the Office of the Superintendent of Financial Institutions (OSFI).

The Guide does not supersede the requirements of the PBSA, the Pension Benefits Standards Regulations, 1985 (PBSR), the Directives Of The Superintendent Pursuant To The Pension Benefits Standards Act, 1985 (the Directives), or any guidelines that OSFI has issued or may issue regarding the administration of pension plans subject to the PBSA.

Who must file

The administrator or its agent must file the RPIS if a pension plan

- has defined benefit provisions;
- is registered or has filed an application for registration under the PBSA; and
- uses a replicating portfolio approach as an alternative settlement method for solvency valuation purposes.

Filing due date

The RPIS should be completed and submitted to OSFI with any actuarial report required to be filed. An actuarial report must generally be filed within six months after the end of the plan year to which it relates.Subsection 12(4) of the PBSA. An actuarial report may also be filed at other intervals or times.See section 1.0 of the OSFI Instruction Guide – Preparation of Actuarial Reports for Defined Benefit Pension Plans for more information.

Filing requirements

The administrator must file the RPIS using the Regulatory Reporting System (RRS).Returns are not considered received at OSFI until the filing process is complete and the returns have been accepted in RRS. If the plan has not registered to use RRS, it should do so immediately. The administrator must contact the Bank of Canada, as host of the RRS, to register for access to the Bank of Canada secure site and RRS. For assistance in registering, please

contact RRS Support at the Bank of Canada by phone at 1-855-865-8636, or by email at Secure-Site-Securise@bank-banque-canada.ca. The information must be entered directly into the on-line web form in RRS. Attached lists or files will not be accepted. Additional comments included in the actuarial report to clarify the information provided in the RPIS do not need to be reproduced in the form. All amounts reported in the RPIS must be expressed in dollars, not thousands of dollars, and may be rounded to the nearest thousand.

For further information on how to file using RRS, please consult the Manage Financial Returns User Guide for Insurance Companies and Private Pension Plans (PDF) and other RRS training materials. RRS training material can also be found in RRS in the Documents folder under Training and Support.

Where an actuarial report is intended to support an application for the authorization of a transaction by the Superintendent, the RPIS should be submitted directly to OSFI by electronic mail along with any required approval request form.

Replicating Portfolio Information Summary

Plan information

Line 001 – Valuation date of report

Enter the effective date as of which calculations were made in the actuarial report.

Line 002 – End date of period covered by report

Enter the valuation date on which the next actuarial report is required to be prepared.

Replicating portfolio information

A. Replicating portfolio approach

A replicating portfolio approach relates to the establishment of a portfolio of assets that produces cash flows that match the expected benefit payments to plan members. This section contains information set out in the actuarial report that is based on the assumption that a replicating portfolio would be established in the event of a plan termination.

Lines 003 to 007 – Solvency liabilities

Enter in dollar amount the solvency liabilities for members whose benefits are assumed to be settled by transfer of lump sum payment under "Settlement by Commuted Value" (first column) and through the replicating portfolio under "Settlement Through the Replicating Portfolio" (second column). If there are no liabilities, enter "0". The amounts under "Total" (third column) should be equal to the sum of the amounts under the first and second columns.

- **Line 003**: Enter the solvency liabilities for active members not entitled to an immediate pension.
- **Line 004**: Enter the solvency liabilities for active members entitled to an immediate pension.
- **Line 005**: Enter the solvency liabilities for deferred and other inactive members.
- **Line 006**: Enter the solvency liabilities for retirees and beneficiaries. Enter "0" in the first column as all solvency liabilities relating to retirees and beneficiaries would be settled through the replicating portfolio.
- **Line 007**: Enter the sum of lines 003 to 006 for each column.

Line 008 – Best estimate liabilities for benefits

Enter in dollar amount the actuarial present value of benefits included in solvency liabilities on line 007 (second column).

Line 008a – Best estimate liabilities for expenses

Enter in dollar amount the actuarial present value of expenses included in solvency liabilities on line 007 (second column).

Line 008b – Provision for economic risks

Enter in dollar amount the provision for adverse deviations for economic risks, net of the assumed available financial support from the employer, included in solvency liabilities on line 007 (second column).

Line 008c – Provision for longevity risk

Enter in dollar amount the provision for adverse deviations for longevity risk, net of the assumed available financial

support from the employer, included in solvency liabilities on line 007 (second column).

Line 008d – Provision for expense risk

Enter in dollar amount the provision for adverse deviations for expense risk, net of the assumed available financial support from the employer, included in solvency liabilities on line 007 (second column).

Line 008e – Adjustment for correlation

Enter in negative dollar amount the adjustment to the total provision for economic, longevity, and expense risks for correlation between economic and non-economic risks, included in solvency liabilities on line 007 (second column).

Line 009 – Credit rating

Select the credit rating categorySee section 2.7.4 of the OSFI Instruction Guide – Preparation of Actuarial Reports for Defined Benefit Pension Plans for more information. of senior unsecured and unsubordinated debt of the employer, or the credit rating category of the organization fully liable for actions undertaken by the employer acting within its mandate, as applicable, at the valuation date, used to determine the provisions for economic and non-economic risks on lines 008b, 008c, and 008d.

Line 009a – Number of scenarios

Enter the number of scenarios used in the stochastic model to determine the provision for economic risks on line 008b.

Line 009b – Mortality adjustment

Select the adjustment to the best estimate assumption for mortality rates, prior to any adjustment for credit rating, reflected in the provision for longevity risk on line 008c. If an adjustment other than that listed was used, select "Other".

Line 009c – Other

If "Other" has been selected on line 009b, specify the adjustment used.

Line 010 – Solvency ratio

Enter in decimal format (2 decimal places) the ratio of solvency assetsSubsection 2(1) of the PBSR. at the valuation date to solvency liabilities on line 007, third column.

Line 011 – Annual solvency special payments

Enter in dollar amount the solvency special payments to be made during the 12-month period following the valuation date in accordance with the PBSA and PBSR. If there are no payments, enter "0".

Lines 012 to 018 – Investment portfolio

Specify each major asset class represented in the replicating portfolio under "Asset Class" (first column). For each major asset class identified in the first column, enter in percentage format (2 decimal places) the proportion of the portfolio allocated to the asset class under "Weight/Allocation" (second column), the assumed initial yield on assets under "Initial Yield" (third column), the assumed ultimate yield on assets under "Ultimate Yield" (fourth column), and the expected default and downgrade impact under "Expected Default and Downgrade" (fifth column).

Line 019 – Total / Average

Enter in percentage format (2 decimal places) the weighted average yields (third and fourth column), and weighted average impact of asset default and downgrade (fifth column), using the allocations on lines 012 to 018 under "Weight/Allocation" (second column).

Line 020 – Proportion of assets allocated to investment-grade fixed income investments

Enter in decimal format (2 decimal places) the proportion of assets allocated to investment-grade fixed income investments in the replicating portfolio.

Line 021 – Proportion of high-quality fixed income investments included in investment-grade fixed income investments

Enter in decimal format (2 decimal places) the proportion of high-quality fixed income investments included in investment-grade fixed income investments on line 020.

Line 022 – Rate of return before adjustments and margins

Enter in percentage format (2 decimal places) the best estimate nominal rate of return before adjustments and margins of the replicating portfolio.

Line 023 – Diversification and rebalancing

Enter in percentage format (2 decimal places) the adjustment for diversification and rebalancing.

Line 024 – Expected asset default and downgrade

Enter in negative percentage format (2 decimal places) the adjustment for the expected impact of asset default and downgrade on line 019, fifth column.

Line 025 – Investment management expenses

Enter in negative percentage format (2 decimal places) the margin for investment management expenses.

Line 026 – Administration expenses

Enter in negative percentage format (2 decimal places) the margin for administration expenses.

Line 032 – Nominal discount rate

Enter the sum of lines 022 to 026.

Line 033 – Indexation rate

If pensions are indexed, enter in percentage format (2 decimal places) the assumed indexation rate used in the calculation of solvency liabilities for benefits to be settled through the replicating portfolio. Otherwise, enter "0".

Line 034 – Net real discount rate

Enter the difference between lines 032 and 033.

Line 035 – Inflation rate

Enter in percentage format (2 decimal places) the assumed inflation rate used in the calculation of solvency liabilities for benefits to be settled through the replicating portfolio.

Line 036 – Mortality table and improvement scale

Select the mortality assumption used in the solvency valuation for benefits to be settled through the replicating portfolio.

If the valuation uses a modified version of a table listed, select the applicable mortality table, and enter the adjustment factors for size, industry and plan experience on lines 038 to 040. If the valuation uses any other table or adjustment factors other than those listed on lines 038 to 040, select "Other".

Line 037 – Other

If "Other" has been selected on line 036, specify the table used.

Line 038 – Adjustment for size

Enter in decimal format (2 decimal places) the adjustment to the mortality table used for males (first column) and females (second column) for size. If there is no adjustment, enter “0”.

Line 039 – Adjustment for industry

Enter in decimal format (2 decimal places) the adjustment to the mortality table used for males (first column) and females (second column) for industry. If there is no adjustment, enter “0”.

Line 040 – Adjustment for plan experience

Enter in decimal format (2 decimal places) the adjustment to the mortality table used for males (first column) and females (second column) for plan experience. If there is no adjustment, enter “0”.

Line 044 – Probability that all future pension obligations will be met

Enter in decimal format (2 decimal places) the probability that all future pension obligations will be met based on actuarial assumptions, margins and provisions for adverse deviations used in the calculation of solvency liabilities for benefits to be settled through the replicating portfolio.

Line 045 – Average payout ratio

Enter in decimal format (2 decimal places) the average payout ratio where future pension benefits are not expected to be fully paid.

Line 046 – Expenses for the establishment of the replicating portfolio

Enter in dollar amount the expenses associated with the establishment of the replicating portfolio included in the provision for termination expenses reflected in the solvency assets.

B. Canadian Institute of Actuaries (CIA) annuity proxy basis

This section contains information set out in the actuarial report that is based on the assumption that a replicating portfolio was not used, but rather that some benefits would be settled by annuity purchase in the event of a plan

termination.

Lines 047 to 051 – Solvency liabilities

Enter in dollar amount the solvency liabilities for members whose benefits are assumed to be settled by transfer of lump sum payment under “Settlement by Commuted value” (first column) and by deferred or immediate annuity purchase under “Settlement by Annuity Purchase” (second column). If there are no liabilities, enter “0”. The amounts under “Total” (third column) should be equal to the sum of the amounts under the first and second columns.

- **Line 047**: Enter the solvency liabilities for active members not entitled to an immediate pension.
- **Line 048**: Enter the solvency liabilities for active members entitled to an immediate pension.
- **Line 049**: Enter the solvency liabilities for deferred and other inactive members.
- **Line 050**: Enter the solvency liabilities for retirees and beneficiaries. Enter “0” in the first column as all solvency liabilities relating to retirees and beneficiaries would be settled by annuity purchase.
- **Line 051**: Enter the sum of lines 047 to 050 for each column.

Line 052 – Solvency ratio

Enter in decimal format (2 decimal places) the ratio of solvency assets at the valuation date to solvency liabilities on line 051, third column.

Line 053 – Duration

If benefits are not fully indexed, enter in decimal format (2 decimal places) the duration of liabilities for members whose benefits are assumed to be settled by annuity purchase, and used in the determination of the interest rate (to be entered on line 054). Otherwise, enter “0”.

Line 054 – Discount rate

Enter in percentage format (2 decimal places) the assumed discount rate used in the calculation of solvency liabilities for benefits to be settled by annuity purchase.

Line 055 – Implied break-even inflation rate

Enter in percentage format (2 decimal places) the assumed implied break-even inflation rate (i.e. best estimate of future inflation plus inflation risk premium) used in the calculation of solvency liabilities for benefits to be settled by annuity purchase.

Line 056 – Indexation rate

If pensions are indexed, enter in percentage format (2 decimal places) the assumed indexation rate used in the calculation of solvency liabilities for benefits to be settled by annuity purchase. Otherwise, enter “0”.

Line 057 – Mortality table and improvement scale

Select the mortality assumption used in the solvency valuation for benefits to be settled by the purchase of deferred or immediate annuities.

If the valuation uses a modified version of a table listed, select the applicable mortality table, and enter the adjustment factors on line 059. If the valuation uses any other table or adjustment factors other than those listed on line 059, select "Other".

Line 058 – Other

If "Other" has been selected on line 057, specify the table used.

Line 059 – Mortality adjustment

Enter in decimal format (2 decimal places) the adjustment to the mortality table used for males (first column) and females (second column). If there is no adjustment, enter “0”.

C. Comparison with CIA annuity proxy basis

Line 060 – Underlying equivalent CIA annuity proxy rate

Enter in percentage format (2 decimal places) the annuity proxy rate that would reproduce solvency liabilities on line 007, second column. In determining this net discount rate, the mortality and indexation assumptions should be the same as those on lines 056 to 059.

Contact details

For further information, please contact us at:

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