November 5, 2021

To: Actuaries and other stakeholders of pension plans with defined benefit provisions registered or having filed an application for registration under the *Pension Benefits Standards Act, 1985*

Subject: Instruction Guide for the Preparation of Actuarial Reports for Defined Benefit Pension Plans

The Office of the Superintendent of Financial Institutions (OSFI) is issuing the final version of the Instruction Guide for the Preparation of Actuarial Reports for Defined Benefit Pension Plans (the Guide) following revisions made to section 2.7.4, which provides updated expectations for plans that may use a replicating portfolio approach. Minor changes to other sections of the Guide that have no impact on funding requirements were also made to clarify other expectations. The purpose of the Guide is to set out the reporting requirements of actuarial reports filed with OSFI for defined benefit pension plans, including those with a defined contribution component.

OSFI's mandate is to protect pension plan members and other beneficiaries by:

- developing guidance on risk management and mitigation;
- assessing whether federally registered private pension plans are meeting their funding requirements and managing risks effectively; and
- intervening promptly when corrective actions need to be taken.

OSFI holds pension plan administrators ultimately responsible for sound and prudent management of their plans.

OSFI issued a revised section 2.7.4. of the Guide in draft form (the Draft Guide) for consultation with pension plan stakeholders on July 9, 2021, for a 2-month period. OSFI received 12 responses in total:

- 5 from pension consulting firms;
- 4 from employers sponsoring pension plans;
- 1 from an insurance company;
- 1 from the Association of Canadian Pension Management (ACPM); and
- 1 from the Canadian Institute of Actuaries (CIA).

Several changes proposed to in the Draft Guide over the consultation period were positively acknowledged by the industry respondents. OSFI considered all comments provided and, in many cases, made adjustments to the approach. Some changes proposed by respondents were not adopted as OSFI continues to believe that certain adjustments reflected in the Draft Guide are necessary at this time to protect pension benefits of pension plan members and beneficiaries.

The attached table in Annex 1 presents a summary of the comments that were received and how OSFI has addressed them. We thank those who participated in the consultation process. Annex 2 contains a Guidance Impact Analysis Statement supporting the revisions to the Guide.

Some of the comments that were received (i.e. solvency reserve accounts) relate to changes to the current legislation for federally registered private pension plans, which does not fall under OSFI's responsibility. These comments have been forwarded to the Department of Finance.

For further information or questions, please visit the OSFI website or contact us at information@osfi.bsif.gc.ca.

Yours truly,

Tamara DeMos
Managing Director
Private Pension Plans Division

Annex 1
July 2021 Consultation on the Draft Guide
Summary of Comments Received and OSFI Response

Item	Comment	OSFI Response
General comments	Several sponsors indicated that the proposed changes are increasing solvency liabilities of pension plans and are not necessary. Respondents also suggested that OSFI delay the effective date until the federal government consultation process around solvency funding and reserve accounts is completed.	The main objective for updating OSFI's expectations with respect to the replicating portfolio approach is to ensure similar benefit security across defined benefit pension plans subject to the *Pension Benefits Standards Act, 1985*, by addressing issues such as: • fairness with plans that cannot use a replicating portfolio; • appropriateness of approach for plans that choose not to use a replicating portfolio despite this being considered best practice by the CIA where it is believed that a large plan cannot settle their pension benefits through a single or a series of group annuity purchases[1]; • consistency of approach between plans using a replicating portfolio, i.e. modelling methodology, asset mix of the portfolio, and level of margins for economic and non-economic risks; and • ease of supervision. OSFI's mandate of protecting the security of member's benefits requires that it ensure that the assumptions underlying the establishment of the replicating portfolio are reasonable. Margins for adverse deviations should be appropriate and consistent with the risk profile of the employer to ensure that the high probability that the pension promise be met is similar between pension plans.

[1] See the CIA letter to the Financial Services Commission of Ontario for more information.

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		OSFI continues to believe that certain adjustments reflected in the Draft Guide are necessary at this time to protect pension benefits of pension plan members and beneficiaries. Revised expectations on replicating portfolios will not have the same financial impact for pension plans. While some plans may see an increase in their solvency liabilities, this will not necessarily result in additional funding if the 3-year average adjusted solvency ratio remains above 1.0.
Replicating portfolio assets	A few respondents opined that OSFI's definition of high-quality investments is not aligned with Canadian insurers' practices, and suggested that the Guide remain principles-based in that regard.	CIA Guidance provides that a substantial allocation of the portfolio of assets should include high-quality fixed-income investments, but does not define what is meant by this terminology. Also, there is no explicit reference to an insurance company portfolio under CIA Guidance. The comparison to Canadian insurers' practices is useful in understanding the methodology used in the establishment of a replicating portfolio, but has some limitations. The underlying investment portfolios for insurance companies and pension plans vary given they are subject to different regulatory expectations and risk appetites. After observing a lack of uniformity in actuarial reports about what constitutes high-quality fixed-income investments for the establishment of a replicating portfolio, OSFI added to the Guide in 2016 the criteria that "high-quality" investments be rated AA or better. OSFI considered the *CIA Educational Note on Accounting Discount Rate Assumption for Pension and Post-employment Benefit Plans* (CIA

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		Guidance on Accounting), which states that in the U.S., the Securities Exchange Commission (the U.S. SEC) has provided an interpretation that "*high-quality" means the two highest credit ratings given by a recognized ratings agency...*". OSFI considers that the definition remains appropriate.
Credit rating	Most of the respondents agree that the use of credit rating in setting an appropriate confidence level is appropriate, but raised the following issues about the proposed provisions for the Guide: • Some sponsors may have different ratings from different agencies • Some sponsors do not issue subordinated debt or that the existence of such debt may change over time and may not be appropriate for the funding requirements of pension plans • The Guide is silent about situations where credit rating does not exist One respondent raised a concern about the insidious effect of basing the security of pension benefits on credit rating, which may cause funding to increase during economic slowdowns.	In line with the feedback received, the Guide will refer to the credit rating for senior unsecured and unsubordinated debt of the employer. For an entity that does not issue its own debt, this could mean a deemed rating based on the organization fully liable for actions undertaken by the employer. OSFI's expectations with respect to margins for adverse deviations included in the Guide represent a minimum requirement. To better manage available cash, some employers establish a funding policy that provides for building margins during good times, either by increasing the provision for adverse deviations or by making additional payments in excess of minimum funding requirements. Further, where the approach results in additional funding, the impact is expected to be gradual given that funding requirements are based on an average solvency ratio and special payments are payable over a 5-year period.
Confidence level for setting margins	Several respondents proposed alternative scales for setting confidence levels in reference to the credit rating of the employer, arguing that:	In accordance with the feedback received, OSFI accepts that the minimum confidence level to achieve a "high probability" of meeting the pension promise be lowered. The

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	• lower confidence levels would be appropriate for investment-grade entities; • the ultimate confidence level of 99.5% is a greater standard than that which applies to insurance companies; and • a lower level would mitigate the potential for differences in modelling outcomes at the extreme tail of the probability distribution.	confidence level was set to 80% in line with CIA Standards applicable for insurance companies (Part 2000) and recommendations included in some submissions. An additional band to the credit rating categories was introduced to accommodate this adjustment. At the other end of the scale, OSFI agrees that a confidence level of 97.5% over the liability runoff period would be more similar to the benefit security obtained from a group annuity purchase, given capital requirements applicable to insurance companies (i.e. conditional tail expectation at the 99% level for the first year, plus a terminal provision for the runoff period of the liabilities at the end of the first year). This would also alleviate the model risk concern that was raised by a few respondents. The revised confidence level scale ranges from 80% to 97.5%, depending on the credit rating of the sponsoring entity.
Longevity Risk	Several respondents questioned how the proposed adjustments (10% reduction in mortality rates and 75% increase for the improvement scale) relate to the 99.5% objective. Respondents noted that plans using the replicating portfolio approach should have credible mortality experience, and some suggested that the 10% adjustment may be excessive. Also, feedback received mentioned that the improvement in mortality rates is highly uncertain and that a lower adverse scenario may be appropriate. Several respondents noted that the corresponding margin be reduced or	The respective shocks of 10% and 75% in mortality rates and improvement rates were imported from capital requirements applicable to life insurance companies. OSFI recognizes that a large pension plan may have credible experience to set its base mortality assumption. In such case, a decrease in mortality rates over the short term would likely be due to trend deterioration (mortality improvement) rather than mortality rate volatility. The Guide was adjusted so that the actuary may consider whether the full 10% adjustment is necessary.

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	eliminated in cases where a longevity swap is in place and that no margin be required for the portion of liability related to buy-in annuity contracts.	OSFI considers that it is reasonable to build higher rather than lower margins given that future mortality improvement rates are subject to a high level of uncertainty. The Guide already allows for margins to be adjusted for the portion of liability that is subject to a longevity swap or a buy-in annuity contract.
Expense Risk	One respondent asked why the Guide provides for a 20% margin in the first year, considering that first year expenses are already more significant than in remaining years?	OSFI has observed that assumed termination expenses for the solvency valuation for an ongoing pension plan are often underestimated, and sometimes by a significant amount. An article on the provision for termination expenses was included in InfoPensions – Issue 24. Based on this observation, OSFI considers that a shock of 20% for setting the margin for plan expenses in the first year to be reasonable.
Correlation	Respondents consider that correlation between economic and non-economic risks is weak and that the proposed minimum of 50% is too high. Many further suggested it could more appropriately be set to zero. Another approach would be to leave this consideration to the judgment of the actuary and that the CIA be encouraged to research this.	The adjustment to reflect that risk margins may not be required all at once should be made in a prudent manner, considering the uncertainty that these benefits may not be realized during periods of stress and that a significant level of expert judgment is involved. OSFI's analysis indicates positive correlation between longevity and economic risks, but the relationship is weak. Plan expenses, on the other hand, appear to be intuitively more correlated than longevity to economic risks. OSFI considered the opinion of the respondents and reduced its minimum expectation for correlation between economic and non-economic risks from

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		a medium level (50%) to a low level (25%).
Applicability	A few respondents suggested that footnote 96 of the Guide inappropriately inflates the CIA thresholds above which a plan may have difficulty in effecting a series of group annuity purchases.	OSFI will continue to assume that generally pension plans could effectuate a series of group annuity purchases over a 5-year period and therefore settle up to 5 times the liability threshold specified in CIA Guidance through that process. The Guide was adjusted to provide that this threshold − updated with the latest annual amounts for non-indexed and indexed annuities − may effectively be lower for some plans and market conditions. If a plan uses a replicating portfolio approach for liabilities below this level, the actuarial report should explain, based on recent experience (e.g. annuity quote), plan characteristics and market conditions, why it is believed a lower threshold should be considered.

Annex 2
Guidance Impact Analysis Statement

I. Background

The Office of the Superintendent of Financial Institutions (OSFI) is responsible for administering a number of federal statutes, including the statute applicable to the regulation of federal private pension plans, the *Pension Benefits Standards Act, 1985* (PBSA). As part of the regulatory process, OSFI reviews actuarial reports filed with the Superintendent by administrators of pension plans registered or having filed an application for registration under the PBSA.

The *Instruction Guide for the Preparation of Actuarial Reports for Defined Benefit Pension Plans* (the Guide) sets out the reporting requirements of actuarial reports filed with OSFI for defined benefit pension plans, including those with a defined contribution component.

II. Problem Identification

OSFI considers that the level of benefit security should be similar from one plan to another. Some plans choose not to use a replicating portfolio approach for their solvency valuation, where it may be appropriate to do so. For plans using a replicating portfolio approach, OSFI has observed a lack of consistency in the modelling approach, asset mix (i.e. interpretation of "substantial allocation" and definition of "high-quality fixed-income"), and margins for economic and non-economic risks (i.e. interpretation of "high probability that the pension promise will be met"). This lack of consistency translates to a level of benefit security that is not comparable for all plans.

III. Objectives

The main objective for updating OSFI's expectations with respect to the replicating portfolio approach is to ensure similar benefit security across defined benefit pension plans subject to the PBSA. OSFI believes that certain adjustments to the existing OSFI guidance are necessary to protect benefits of pension plan members and beneficiaries.

IV. Options and Assessment

Option 1 – *Status Quo*

Under this option, OSFI and pension plans would continue to rely on existing OSFI guidance. However, under the existing guidance the approach varies from one plan to another as determined by the actuary based on principles outlined, but not necessarily clearly defined, in CIA Guidance.

Option 2 – *Changes Proposed in the July 2021 Draft Guide*

The Draft Guide published in July 2021 included significant changes to section 2.7.4 – Alternative Settlement Methods, including:

- specified confidence level ranging from 85% to 99.5% based on the credit rating of subordinated debt of the employer;
- specified margins for non-economic risks; and
- specified minimum correlation of 0.50% (or medium) between economic and non-economic risks.

Based on feedback received during the consultation process, some aspects of the proposed approach were considered overly conservative or not necessarily appropriate, and may result in liabilities in excess of those required to ensure similar benefit security as would be provided by a group annuity purchase.

Option 3 – *Changes Following Consultation on the July 2021 Draft Guide*

OSFI considered all comments received from industry stakeholders as part of the consultation process, and where appropriate made adjustments to the approach as a result. Such adjustments include the following:

- specified confidence level was adjusted, to range from 80% to 97.5%, based on credit rating of senior unsecured and unsubordinated debt of the employer, with an additional band added to the credit rating categories;
- flexibility was added for the longevity risk margin;
- specified minimum correlation between economic and non-economic risks was reduced to 0.25% (or low); and
- expectations as to the appropriateness of the approach (i.e. which plans should use a replicating portfolio) were modified.

This option aims for similar benefit security across all defined benefit pension plans subject to the PBSA, while ensuring the assumptions underlying the establishment of the replicating portfolio are reasonable, and margins for adverse deviations are appropriate to ensure a high probability that the pension promise will be met.

V. Consultations

OSFI issued a revised section 2.7.4 – Alternative Settlement Methods of the Guide in draft form for consultation with pension plan stakeholders in December 2019. The section includes OSFI’s expectations for pension plans using a replicating portfolio approach. Given the extent of the proposed changes and comments received, the first consultation led OSFI to postpone significant changes to section 2.7.4 when the final version of the Guide was posted in November 2020.

OSFI issued on July 9, 2021, a further revised section 2.7.4. of the Guide in draft form for a consultation period of 2 months with pension plan stakeholders.

VI. Recommendations

Option 3, which is reflected in the final version of the Guide, addresses the objectives outlined above, while taking into consideration comments that were received.

VII. Implementation and Evaluation

The final version of the Guide applies to actuarial reports with a valuation date on and after December 31, 2021. The impacts on liabilities of the revisions to the Guide will be observed and assessed when OSFI reviews future actuarial reports starting with those that will be filed by June 30, 2022.