Revised Educational Note

Regulatory Capital Filing Certification for Life Insurers

Committee on Risk Management and Capital Requirements

July 2018

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The actuary should be familiar with relevant educational notes. 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 educational notes 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.

Canadian Institute of Actuaries / Institut canadien des actuaires

MEMORANDUM

To: All Fellows, Affiliates, Associates, and Correspondents of the Canadian Institute of Actuaries

From: Faisal Siddiqi, Chair
Practice Council

Michelle Lindo, Chair
Committee on Risk Management and Capital Requirements

Date: July 12, 2018

Subject: **Revised Educational Note – Regulatory Capital Filing Certification for Life Insurers**

The Committee on Risk Management and Capital Requirements (CRMCR) has updated the educational note regarding the certification of regulatory capital filings in Canada. The note references the standards of practice and other guidance on the appropriateness of internal models used to determine required capital for segregated fund guarantees and to account for the new Life Insurance Capital Adequacy Test (LICAT) guideline effective January 1, 2018.

In accordance with the Canadian Institute of Actuaries' (CIA) Policy on Due Process for the Approval of Guidance Material Other than Standards of Practice and Research Documents, this revised educational note was approved by the CRMCR and it received approval for distribution from the Practice Council on June 27, 2018.

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Questions or comments regarding this revised educational note may be directed to Michelle Lindo at Mlindo@munichre.ca.

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1. Introduction

This revised educational note provides guidance to the Appointed Actuary providing a certification of capital filings as outlined in subsection 2470 of the CIA Standards of Practice. The note highlights potential areas for regulatory capital filing certification where judgment may be required for interpretation of the capital guideline(s) in relation to the calculation of the capital ratios.

For simplicity, the remainder of this note will refer to the Life Insurance Capital Adequacy Test (LICAT) filing but it is also applicable to the Life Insurance Margin Adequacy Test (LIMAT) filing of the Office of the Superintendent of Financial Institutions (OSFI) as well as the Capital Adequacy Requirements for Life and Health Insurance (CARLI) of the Autorité des marchés financiers (AMF).

Below are excerpts from subsection 2470 of the Standards of Practice. Please refer to the standards for the full text:

2470 Certification of capital filings as required by the regulator

.01 This subsection 2470 applies to the appointed actuary of a life insurer when giving an opinion on the appropriateness of regulatory capital calculations pursuant to law or on the appropriateness of internal models used to determine required capital for segregated fund guarantees pursuant to requirements of the regulator.

.02 Such certifications should contain an opinion signed by the appointed actuary. [Effective April 15, 2017]

Appropriateness of regulatory capital calculations

.03 The appointed actuary should prepare a report to support the opinion on the appropriateness of regulatory capital calculations that outlines the areas where the calculation required discretion or significant technical calculations, and the methods and judgments that were applied. The report should be completed before the provision of a signed opinion pursuant to subsection 2470. [Effective February 22, 2018]

.04 The opinion would be provided annually in support of the fiscal year-end regulatory capital filing on form(s) as directed by the regulator.

.05 In providing such an opinion, the actuary would not be opining on whether the underlying factors or specified methods to be followed are appropriate but rather on the appropriateness of any interpretation and discretionary technical calculations and methods with respect to such guidelines.

Appropriateness of internal models used to determine required capital for segregated fund guarantees

.07 The appointed actuary should prepare a report to support the opinion on the appropriateness of internal models used to determine required capital for segregated fund guarantees that outlines how the models comply with the related requirements of the regulator. The report should be completed before the provision of a signed opinion pursuant to subsection 2470. [Effective April 15, 2017]

.08 The opinion would be provided annually in support of the fiscal year-end regulatory capital filing on form(s) as directed by the regulator. The opinion would also be provided to the regulator upon a new application to the regulator for permission to use such a model for required capital purposes and upon request of the regulator when making a modification to an existing model approved by the regulator.

.09 In providing such an opinion, the actuary would not be opining on whether the underlying factors or specified methods to be followed are appropriate, but rather on the compliance with the requirements of the regulator.

2. Overview of Appointed Actuary's Responsibilities

The starting point for certification is a thorough understanding of the regulatory capital guidance for which the certification is to be provided. Guidance includes the LICAT guideline, as well as any supplementary documentation issued by the regulator. The Appointed Actuary would also have a comprehensive knowledge of the company affairs (including capital structure, commitments and obligations, on and off balance sheet assets and liabilities), and would review any other educational notes that may be relevant to LICAT, including the educational note Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI).

The Appointed Actuary would select a materiality standard for the calculation of the LICAT ratio. The selection of a materiality level would vary by insurer; however, the standard of materiality would become more rigorous whenever capital adequacy is closer to the established targets. For more guidance on materiality, refer to subsection 1240 of the Standards of Practice.

In providing the certification, the Appointed Actuary would satisfy himself or herself of the following:

- The integrity of the source data used in the LICAT calculations;
- The completeness and accuracy of the data used in the calculation of the LICAT components (available capital/margin, surplus allowance, eligible deposits, base solvency buffer/required margin);
- The mapping of the data to the relevant LICAT factors, shocks and stresses, and the methodologies where calculations and projections are required;
- The appropriateness of any material interpretation, approximation, or judgment that has been applied in the application of the LICAT guideline;
- The appropriateness of the assumptions and methods used in internal models used to determine required capital for segregated fund guarantees (if applicable); and
- The accuracy of the calculations.

Also, as required by paragraph 2470.03 of the standards of practice, the Appointed Actuary would prepare a report to support the LICAT certification. This educational note provides guidance for that report.

If applicable, as required by paragraph 2470.07 of the standards of practice, the Appointed Actuary would also prepare a report to support the appropriateness of internal models used to determine required capital for segregated fund guarantees. Guidance is available from the regulators on the reporting of these internal models.

3. Specific Requirements

The LICAT guideline contains a number of areas where technical calculations to support the determination of the LICAT components would be performed.

The LICAT framework uses factors, shocks, and stresses. However, as is common with any framework, the written methodology in the guideline cannot envision all balance sheet and risk exposure circumstances and provide guidance on how these circumstances would be reflected in the LICAT calculation. In this situation, judgment would be applied. Exercise of judgment would reflect a thorough understanding of the risk exposure of the insurer so that the interpretation reflected in the LICAT calculation is appropriate and consistent with the risk exposure of the insurer.

The appendix provides a list of some aspects of the guideline where technical calculations would be reviewed or validated, as well as highlighting some sections where judgment or interpretation may be required. The list is intended to be illustrative and not exhaustive, as circumstances will differ by insurer.

4. Documentation – Requirement for LICAT Report

To support the LICAT certification for the calculation of LICAT components and discretionary items, a LICAT report would be prepared by the Appointed Actuary. The following outlines the features of the LICAT report:

- As required by the standards of practice, the report would be prepared annually in accordance with any disclosure or filing requirements as specified by the regulator and would be completed before the provision of a signed opinion.
- The report would summarize areas where the Appointed Actuary applied material interpretations and/or judgment and include the rationale. This would focus on material items and could be at a high level, provided the Appointed Actuary is satisfied that appropriate supporting documentation exists. For example, if the interpretations and/or judgment follow a separately documented internal policy, then reference to that policy would be sufficient.
- The report would discuss the material technical calculations and approximations and how the Appointed Actuary is satisfied that those calculations are accurate and the appropriateness of those approximations. To avoid duplication, references may be made to the LICAT guideline and additional information released by the regulator.
- The report would disclose and discuss the standard of materiality that has been applied in the LICAT calculation.

Appendix

Potential areas where technical calculations, interpretations and approximations would be reviewed or validated include, but are not limited to, the following:

For all calculations

i. Data collection and processing; and

ii. Software and processes utilized in the determination of the capital ratios.

Areas related mainly to the determination of the base solvency buffer/required margin

i. Requirements based on projected cash flows:

   a. Insurance risk – approximations or manual adjustments for blocks with no cash flow projections;

   b. Interest rate risk – projection of complex cash flows, e.g., non-fixed income, inflation, re-projecting participating dividends and interest-sensitive products;

   c. Investment property – obtaining contractual lease cash flows by rating category.

ii. Indexed-linked products:

   a. Correlation between earnings on the portfolio and interest credited to the policyholder.

iii. Designation tests:

   a. Life and death supported business for mortality risk; and

   b. Lapse supported and lapse sensitive business for lapse risk.

iv. Credits for pass-through:

   a. Participating products; and

   b. Adjustable products.

v. Credits for reinsurance and special policyholder arrangements:

   a. Policyholder deposits; and

   b. Adjustments for group business.

vi. Use of the total balance sheet approach with respect to segregated fund guarantees.

vii. Diversification credits;

viii. Conditions for

   a. Participating/adjustable/index-linked product classifications;

   b. Reinsurance risk transfer;

   c. Use of ratings – applying criteria for inferring ratings; and

   d. Use of collateral.

ix. Initial scenario discount rates.

x. Treatment of new types of assets, liabilities or off-balance sheet instruments.

Areas related mainly to the determination of the surplus allowance, eligible deposits, and available capital/margin

i. Qualifying criteria for tier 1 and tier 2 capital.

ii. Determination of the surplus allowance:

   a. Quantification of the specific provisions for adverse deviations (PfADs) included in the surplus allowance.

iii. Determination of the eligible deposits:

   a. Unregistered reinsurance;

   b. Reinsurance claims fluctuation reserves; and

   c. Calculation of limits on the eligible deposits.

iv. Deductions from available capital/margin:

   a. Cash value deficiencies;

   b. Policy-by-policy negative reserves and reductions allowed for amounts recoverable on surrender.

      i. Marginal insurance risk requirement calculations;

   c. Aggregate positive policy liabilities ceded to unregistered reinsurers (net of letters of credit and collateral);

   d. Encumbered assets;

   e. Deferred tax assets (DTAs);

   f. Amortization of the impact on available capital/margin on account of the net defined benefit pension plans; and

   g. Subsidiaries.

v. Limited recognition of capital instruments held by third-party investor and non-controlling interests.