Canadian Institute of Actuaries
Institut canadien des actuaires

Educational Note

Performance of DCAT in 2017 for Life and Health Insurers

Document 217018

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Committee on Risk Management and Capital Requirements

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Members should be familiar with educational notes. Educational notes describe but do not recommend practice in illustrative situations. They do not constitute standards of practice and are, therefore, not binding. They are, however, intended to illustrate the application (but not necessarily the only application) of the Standards of Practice, so there should be no conflict between them. They are intended to assist actuaries in applying standards of practice in respect of specific matters. 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: Members in the life insurance area

From: Pierre Dionne, Chair
Practice Council

Marco Fillion, Chair
Committee on Risk Management and Capital Requirements

Date: February 9, 2017

Subject: **Educational Note: Performance of DCAT in 2017 for Life and Health Insurers**

The CIA educational note Guidance for the 2016 Valuation of Insurance Contract Liabilities of Life Insurers (August 2016) provided guidance to actuaries on performing their Dynamic Capital Adequacy Testing (DCAT) projections for 2016 (based on fiscal year 2015). Given that the Life Insurance Capital Adequacy Test (LICAT) guideline of the Office of the Superintendent of Financial Institutions (OSFI) and the Capital Adequacy Requirements for Life and Health Insurance (CARLI) (English version soon available) guideline of the Autorité des marchés financiers (AMF), and together referred as LICAT in this educational note, were not final at the time, Appointed Actuaries were not yet in a position to perform their 2016 DCAT projections on this new basis. Hence, continuing to perform the 2016 DCAT using OSFI's Minimum Continuing Capital and Surplus Requirements (MCCSR) and the AMF's Capital Adequacy Requirements (CAR), and together referred to as MCCSR in this educational note, was an appropriate practice.

The educational note advised that once the final LICAT guideline was available, the Committee on Risk Management and Capital Requirements (CRMCR) would provide additional guidance for DCAT reporting. The new LICAT guideline is now available and will replace the MCCSR effective January 1, 2018.

The purpose of this educational note is to provide actuaries performing DCAT with guidance in the application of the LICAT guideline only for the DCAT report issued in 2017 based on fiscal year 2016 (2017 DCAT).

Addressing LICAT in the 2017 DCAT is necessary for the following reasons:

- The LICAT guideline is final and public;
- The LICAT guideline is meant to produce more representative capital requirements than the MCCSR;
- The MCCSR is no longer applicable to projection years 2018 and beyond in the DCAT analysis, and DCAT based on LICAT is essential to the board and the chief agent going forward; and

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- Going forward, the regulators are concerned about situations where companies would have adequate MCCSR ratios but inadequate LICAT ratios.

In performing the 2017 DCAT, the actuary would consider the following topics covered herein:

1. Introduction 4
2. Approximations 4
3. Application of the new regulatory capital guidelines 4
4. New guideline discount rate.. 5
5. Recent and current financial position 5
6. Results analysis.. 6
7. Draft LICAT educational note 6

Other relevant guidance

Revised Educational Note: Dynamic Capital Adequacy Testing (November 2013).

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 educational note has been prepared by the CRMCR, and has received final approval for distribution by the Practice Council on February 8, 2017.

As outlined in subsection 1220 of the Standards of Practice, "The actuary should be familiar with relevant Educational Notes and other designated educational material." That subsection explains further 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." As well, "Educational Notes are intended to illustrate the application (but not necessarily the only application) of the standards, so there should be no conflict between them."

Questions or comments regarding this educational note may be directed to Marco Fillion at marco.fillion@pwc.com.

PD, MF

1. Introduction

The purpose of this educational note is to provide actuaries performing Dynamic Capital Adequacy Testing (DCAT) with guidance in the application of the Life Insurance Capital Adequacy Test (LICAT) guideline only for the DCAT report issued in 2017 based on fiscal year 2016 (2017 DCAT).

Addressing LICAT in the 2017 DCAT is necessary for the following reasons:

- The LICAT guideline is final and public;
- The LICAT guideline is meant to produce more representative capital requirements than the Minimum Continuing Capital and Surplus Requirements (MCCSR);
- The MCCSR is no longer applicable to projection years 2018 and beyond in the DCAT analysis, and DCAT based on LICAT is essential to the board and the chief agent going forward; and
- Going forward, the regulators are concerned about situations where companies would have adequate MCCSR ratios but inadequate LICAT ratios.

This educational note provides actuaries performing DCAT for Life & Health insurers with guidance in the application of the LICAT guideline only for the DCAT report issued in 2017.

2. Approximations

Given that the final guideline was released late in 2016, insurers may not have the capability to embed Life Insurance Capital Adequacy Test (LICAT)/Capital Adequacy Requirements for Life and Health Insurance (CARLI) (English version available soon) into a Dynamic Capital Adequacy Testing (DCAT) analysis. In addition, insurers' current LICAT infrastructure may not allow for a robust understanding of how the LICAT will behave under certain plausible adverse scenarios. Therefore, it is reasonable to expect that the manner in which the 2017 DCAT will address the new LICAT guideline may require significant approximations and judgment. For instance, the actuary could conclude that projections on a LICAT basis may not be necessary based on testing and analysis performed, provide a qualitative discussion of the impact on a LICAT basis, and discuss the testing and analysis performed to reach the appropriate conclusions, recommendations and opinion on financial condition.

The actuary may refer to paragraph 1130.13, and subsections 1340 and 1510 of the Standards of Practice for further guidance on the use of approximations.

3. Application of the new regulatory capital guidelines

Since this is a significant change, the actuary would provide adequate information on the LICAT guideline such that the audience to which the DCAT report is presented (senior management, the board or the chief agent) is aware of key potential implications resulting from the change in regulatory requirement and how that change impacts the insurer's management and reporting of its regulatory capital, the insurer's internal capital targets and operational targets[1] and their drivers. The extent of the information would depend on the level of education and reporting already communicated in separate presentations and discussions.

The manner in which the actuary addresses regulatory capital requirements in DCAT projections may vary significantly between insurers depending on the level of readiness of insurers' actuarial systems, the impact of the new guidelines on the insurer's regulatory capital levels, and related sensitivities to the risks covered in the guideline. The actuary would also consider that management and regulators are concerned about situations where companies would have adequate MCCSR/Capital Adequacy Requirements (CAR) ratios but inadequate LICAT ratios going forward. Therefore, depending on the specific facts and circumstances of the insurer, it is possible that the actuary could conclude that scenario testing under MCCSR for the 2017 projection year is not necessary, and scenario testing only on a LICAT basis is sufficient for the purpose of providing an opinion on the financial condition. It is also possible, as discussed in section 2, that the actuary could conclude that DCAT scenarios under LICAT are not necessary. Section 6 Results Analysis contains further discussion on results analysis.

Regulators are contemplating the possibility of a period over which regulatory capital would transition from MCCSR requirements to LICAT requirements. The actuary's consideration of the transition requirement in the DCAT analysis would depend, among other factors, on what is actually known of the requirement at the time the DCAT is performed.

4. New guideline discount rate

If the actuary's DCAT modeling utilizes the LICAT's ultimate interest rate (UIR) used in the interest rate risk calculation and the discount rates used in insurance risk calculations, the UIR and the discount rates used in insurance risk calculations would be kept level throughout the projection period, unless guidance is provided by regulators in time for the 2017 DCAT. This is in line with the Office of the Superintendent of Financial Institutions (OSFI)/l'Autorité des marchés financiers' (AMF) desire to have a stable capital environment and reflects the current uncertainty on the process used to reset the rate. When testing LICAT requirements for interest rate risk under an adverse scenario, adjustments to the risk-free spot rates and spreads from 0 to 20 and interpolation from year 20 to 70 would be required, while keeping the UIR unchanged.

5. Recent and current financial position

Section 4 – Reporting, of the DCAT Revised Educational Note: Dynamic Capital Adequacy Testing (November 2013), indicates that the report include a "Review of recent and current financial position". This would include the applicable regulatory tests of capital adequacy of recent years.

Although LICAT is not applicable until 2018, the actuary may want to provide relevant available LICAT historical information or estimates to give context to senior management,

[1] OSFI's Guideline A-4 Regulatory Capital and Internal Capital Targets and AMF's Capital Management Guideline.

the board or the chief agent. The actuary could show the estimated LICAT results at 2015 and 2016 year-end beside the actual results of the MCCSR. The OSFI/AMF test run #1 due in January 2017 would be a useful source for the 2015 year-end LICAT information. It would not be necessary to provide results for years prior to 2015 year-end.

6. Results analysis

A satisfactory financial condition would be met if the DCAT satisfactory condition criteria are met under MCCSR in projection year 2017, and under LICAT in subsequent years. As discussed in sections 2 and 3, the actuary may be satisfied that projections on a LICAT basis are not necessary based on sufficient and appropriate testing and analysis. In this latter case, a satisfactory financial condition would be met if the DCAT satisfactory condition criteria are met under MCCSR in all years.

As per the current 2013 Revised DCAT educational note, appropriate discussion of the results would occur. There would be ongoing focus on the implications of the new guidelines, and the depth of the discussion would depend on the timing of the report and the insurer's ability to approximate the LICAT ratios considering the milestones achieved against what was in the LICAT implementation plan filed with regulators. The discussion could include results under each regulatory capital guideline, as appropriate, and the implication of those results to the insurer, such as the risks it will be exposed to in 2018 and how this may shape recommended management actions in the DCAT report.

7. Draft LICAT educational note

The Actuarial Standards Board has issued a Notice of Intent to Review the Standards of Practice to Incorporate Changes Needed as a Result of the New Capital Standard (document 216102). LICAT will require changes to the Canadian actuarial Standards of Practice (SOP) to ensure that all references to capital in the SOP use terminology consistent with the new capital standard. In addition, an educational note will be published to provide supplementary guidance for actuaries.

If applicable to the level of approximation used in the projection of regulatory capital in the DCAT scenarios, the actuary would perform a DCAT analysis consistent with the revisions to the SOP and the supplementary guidance provided in the LICAT educational note. If the final SOP and LICAT educational note have not been published at the time the actuary conducts the DCAT analysis, consideration would instead be given to the current draft of the documents. Consistent with the 2013 revised DCAT educational note, when the final documents are published, the actuary would not be required to re-perform the DCAT analysis unless the final guidance results in material changes that could alter the conclusions of the report.