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Educational Note

Guidance for the 2022 Valuation of Insurance Contract Liabilities of Life Insurers

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Educational Note

Guidance for the 2022 Valuation of Insurance Contract Liabilities of Life Insurers

Committee on Life Insurance Financial Reporting

August 2022

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The actuary should be familiar with relevant educational notes. Educational notes are not binding; rather they are intended to illustrate the application of the standards of practice. A practice that an educational note describes for a situation is not necessarily the only accepted practice for that situation nor is it necessarily accepted practice for a different situation. Responsibility for ensuring that work is in accordance with accepted actuarial practice lies with the actuary. As accepted actuarial practice evolves, an educational note may no longer appropriately illustrate the application of standards. To assist the actuary, the CIA website contains a reference of pending changes to educational notes.

MEMORANDUM

To: Members in the Life Insurance Practice Area

From: Dean Newell, Chair
Actuarial Guidance Council

Steve Bocking, Chair
Committee on Life Insurance Financial Reporting

Date: August 16, 2022

Subject: **Educational Note: Guidance for the 2022 Valuation of Insurance Contract Liabilities of Life Insurers**

Introduction

The Committee on Life Insurance Financial Reporting (CLIFR) has prepared this educational note to provide guidance to actuaries in several areas affecting the valuation of the 2022 year-end insurance contract liabilities and other responsibilities of valuation actuaries of life insurers. In addition, the note provides an update on recently published experience studies and introductory information about potential changes in future financial reporting.

The educational note is structured into eight sections and an appendix. The eight sections provide content on the following topics:

- COVID-19
- Experience studies
- Life insurance and annuitant mortality
- Economic assumptions
- International Financial Reporting Standards
- 2022 Canadian asset liability method (CALM) guidance for investment assumptions
- Stochastic scenarios
- Capital

Appendix A contains a list of relevant educational notes and research papers, sorted by topic area.

A preliminary version of the educational note was shared with the following committees:

- Property and Casualty Financial Reporting Committee (PCFRC)
- Committee on Risk Management and Capital Requirements (CRMCR)

- Committee on the Appointed/Valuation Actuary
- International Insurance Accounting Committee (IIAC)
- Committee on Worker’s Compensation.

The educational note was also presented to the Actuarial Guidance Council (AGC) in the months preceding its approval. CLIFR and its subcommittee are satisfied that they have sufficiently addressed the material comments received by the various committees.

The creation of this memorandum and educational note has followed the AGC protocol for the adoption of educational notes. In accordance with the CIA’s *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 CLIFR and has received approval for distribution from the AGC on August 9, 2022.

The actuary should be familiar with relevant educational notes. Educational notes are not binding; rather they are intended to illustrate the application of the standards of practice. A practice that an educational note describes for a situation is not necessarily the only accepted practice for that situation nor is it necessarily accepted practice for a different situation. Responsibility for ensuring that work is in accordance with accepted actuarial practice lies with the actuary. As accepted actuarial practice evolves, an educational note may no longer appropriately illustrate the application of standards. To assist the actuary, the CIA website contains a reference of pending changes to educational notes.

CLIFR would like to acknowledge the contribution of the members of the subcommittee that assisted in the development of this educational note: Ping-Teng Lin (Co-Chair) and Steve Turmel (Co-Chair).

Questions or comments regarding this educational note may be directed to the Chair of CLIFR and this subcommittee (noted above) at guidance.feedback@cia-ica.ca.

Guidance to Members on Specific Situations

CIA members may consult¹ in confidence with the Chair and/or Vice-Chair on questions relating to the standards of practice (SOP) and educational notes. This dialogue is encouraged; however, such discussions do not constitute a formal opinion as to whether the work in question is in compliance with the CIA SOP.

Recent Standards of Practice revisions and CLIFR Guidance

The following revisions to the Standards of Practice have been approved recently:

- [Final Communication of Updated Promulgations of the Ultimate Reinvestment Rates and Calibration Criteria for Stochastic Risk-Free Interest Rates in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health \(Accident and Sickness\) Insurance \(Subsection 2330\)](#) (June 2021)

¹ Rule 13 (excerpt): “In order to foster education amongst members, thereby fulfilling the profession’s responsibility to the public, a member who has a question about the spirit or intent of the standards of practice, or of generally accepted actuarial practice when no standards exist, may consult in confidence with the chair or vice-chair of a designated council... or of an appropriate practice committee.”

- [Standards of Practice \(effective January 1, 2023\)](#)
 - Changes to Part 1000 and Part 2000 of the Standard of Practice required by the adoption of IFRS 17 in Canada.

Recent CLIFR guidance includes the following material:

- Revised Educational Note Supplement: [Calibration of Stochastic Risk-Free Interest Rate Models for Use in CALM Valuation](#) (June 2021)

These publications can be found on the CIA website under [Publications](#). A list of relevant educational notes and research papers can be found in Appendix A.

Some guidance provided last year is still appropriate and has been duplicated in this educational note. The guidance is labelled as unchanged. Other guidance has been modified, either to reflect recent developments or to improve clarity and is labelled as modified. Previous versions of this document can also be found in Appendix A.

The topics covered herein are:

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2. Experience studies (<i>modified</i>).....	6
3. Life insurance and annuity mortality (<i>unchanged</i>).....	7
4. Economic assumptions (<i>modified</i>).....	7
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DN, SB

1. COVID-19 (*modified*)

The COVID-19 pandemic continues to pose a broad set of challenges for actuaries as the virus becomes endemic.

The CIA and representatives of several Canadian life insurance companies published various research reports assessing COVID's impact on the industry. The research is expected to continue throughout 2022 as data from emerging variants and subsequent waves are analyzed. The previous iterations of the research report are as follows:

- [October 2020](#)
- [November 2021](#)
- [February 2021](#)
- [March 2022](#)
- [June 2021](#)

The CIA is engaged in informing members about COVID-19 through its [Seeing Beyond Risk](#) website. The COVID-19 Trending section contains analyses, webcasts, links and articles relevant to actuarial practice in the face of the current situation.

During the last two pandemic years, companies may have made short-term adjustments to valuation assumptions. As data around the public health effects of vaccinations, subsequent variants and general resumption of normal activities emerge, the actuary would review the continued appropriateness of any such valuation adjustments.

Another emerging challenge area relates to experience studies. With two years of actual experience since the pandemic's inception, the actuary will need to assess how to best incorporate the 2020 and 2021 exposure years into the study results. Here are some considerations when evaluating the data:

- As the experience study is to generally assist in setting a long-term basis, it may be appropriate to adjust the study data for short-term COVID-19 effects. An example could be policyholder behavior patterns from enactment and subsequent conclusion of an extended premium grace period. Also, direct and indirect impacts on other causes of death could be considered before stripping out some of the excess deaths from the mortality experience study.
- Companies that have experienced a significant decrease in critical illness incidence during the period could consider adjusting valuation assumptions for a potential spike when medical testing returns to pre-pandemic regularity.
- While COVID-19 may have had a limited direct impact on disability incidence and termination rates, the actuary would be mindful of the potential indirect impacts of the pandemic on some types of disabilities, particularly mental and nervous diseases. The actuary would monitor the experience related to the disability products to detect any new emerging trends.

Lastly, the COVID-19 pandemic may have made lasting changes to how the Canadian population lives and works. The increasing prevalence of remote work and general awareness of hygiene and health could alter the future emergence pattern of insurance claims. On the other hand, the potential impact of long COVID and the severity of future variants are still unknown and could

also impact future mortality experience. While it may be too early to draw conclusions, these developments may be useful context when analyzing future experience.

There are many considerations, such as the ones described above, that the actuary would be encouraged to analyze and review as they assess the continued appropriateness of their current processes, methods, and assumptions. Each actuary would need to take the necessary steps to determine and introduce changes if required.

2. Experience studies (*modified*)

The Experience Research Committee (of the Research Council) has published the following studies since the beginning of 2021:

- Mortality study – [Canadian Individual Life Experience: Interim Study to 2020Q2](#) (October 2021)

This interim study on the mortality experience of individual insurance policies uses data in the same form as the annual study but with experience cut off at June 30, 2020 if the anniversary in 2020 is later in the year. The main reason for doing an interim study was to get an early indication of the impact of COVID-19 on mortality experience.

- Mortality study – [Canadian Individual Life Experience for Policy Year 2018-2019](#) (October 2021)

This annual study covers the mortality experience of Canadian individual life insurance policies for policy year 2018-2019. The study covers the one-year period beginning with the policy anniversary in 2018 on an age-nearest-birthday basis.

- Lapse study – [Lapse Experience under Universal Life Level Cost of Insurance \(UL LCOI\) Policies](#) (December 2021)

This is a refresh of the 2015 lapse experience study covering UL LCOI insurance policies. This updated study covers the calendar years 2013-2019.

- Lapse study – [Lapse Experience under Term-to-100 Insurance Policies](#) (December 2021)

This is a refresh of the 2015 lapse experience study covering Term-to-100 insurance policies. This updated study covers the calendar years 2013-2019.

- Canadian Mortality Table – [CIA2014 – A Mortality Table Constructed from the CIA Individual Insurance Data of Policy Years 2009–2019](#) (April 2022)

Report on the new Canadian Individual Life mortality tables using more recent data. The new tables, called CIA2014, are based on the experience of policy years 2009 through 2019 and adjusted with improvement to be applicable to January 1, 2014, with a select period of 20 years.

- Canadian Mortality Table – [Canadian Mortality Table Construction Alternative Methods – Generalized Additive Model and Neural Network Model](#) (May 2022)

Report on alternative methods to construct mortality tables based on the same 2009-2019 industry data used in the construction of the CIA2014 tables.

The Experience Research Committee plans to publish the following studies in the near future:

- Individual Life Mortality Study (Annually)
This annual report will reflect the mortality experience of Canadian individual insurance policies between their 2019 and 2020 anniversaries.
- Review of the 2017 mortality improvement scale for life insurance and annuity mortality
The CIA has established a Project Oversight Group (POG) to review the 2017 mortality improvement scale with the intention of deriving a revised basis. The review started in 2020, with completion expected in 2023.

Other studies in the Experience Research Committee pipeline include:

- Critical Illness morbidity study
This will be a refresh of the 2019 intercompany morbidity experience study for Canadian individual critical illness (CI) insurance policies with more recent data.
- Individual Annuity mortality study
This will be a refresh of the 2017 Canadian individual annuities study with more recent data.
- Universal Life yearly renewable term (YRT) cost of insurance lapse study
This will be the first lapse experience study covering UL YRT cost of insurance policies.

3. Life insurance and annuity mortality (*unchanged*)

There have been no changes in standards regarding life and annuity mortality. The most recent promulgation occurred in 2017.

The actuary is reminded that, on July 30, 2017, the Actuarial Standards Board (ASB) published a [Final Communication of a Promulgation of Prescribed Mortality Improvement Rates Referenced in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health \(Accident and Sickness\) Insurance \(Subsection 2350\)](#) with an effective date of October 30, 2017.

4. Economic assumptions (*modified*)

Inflation (*new*)

With recent increases in observed inflation in Canada and most parts of the world, the actuary may wish to review the appropriateness of the valuation inflation assumption.

The inflation assumption is usually defined as a function of interest rates and would be internally consistent with valuation interest scenarios. While this relationship is appropriate in the long run, it remains unclear if the inflationary pressure is transitory or enduring. Nevertheless, the actuary could consider adjusting the short-term projected inflation for the emerging experience.

Areas that the actuary would consider regarding inflation include:

- Benefits payments that are tied to inflation

- Projected inflation on expense cashflows

The actuary may also want to consider other indirect impacts that inflation may have on other assumptions. An example could be policyholder behavior regarding disposable income and/or the perceived value of their insurance coverage.

Credit spreads (*unchanged*)

In 2020, a designated group (DG) was formed to review the economic promulgations, including the promulgated net credit spread. The [final promulgation](#) was published by the ASB in June 2021, and the effective date was October 15, 2021.

Ultimate reinvestment rate (*unchanged*)

The ASB is responsible for promulgating the calibration criteria for stochastic risk-free interest rate models and the ultimate reinvestment rates (URRs) from time to time. The ongoing low interest rate environment has prompted the ASB to monitor these developments closely, and the ASB promulgated updated URRs and calibration criteria for year-end 2021. The [final promulgation](#) was published in June 2021, and the effective date was October 15, 2021. For further information on the calibration criteria, see Section 6 below.

5. International Financial Reporting Standards (*modified*)

IFRS 17 (*modified*)

In June 2020, the International Accounting Standards Board (IASB) published the final standard for Insurance Contracts, IFRS 17. The implementation date will be fiscal years beginning on or after January 1, 2023. The IASB website contains the most current information.

The actuary will be required to perform the upcoming fiscal year-end valuation under the new accounting standard for the comparative year reporting. Thus, the actuary should be fully aware of all changes related to IFRS 17.

The ASB has established two designated groups: one pertaining to revisions to the Canadian Insurance Contract Standards of Practice (SoP) to reflect IFRS 17 and one pertaining to the role of the Appointed Actuary under IFRS 17. These Designated Groups have identified required changes to the general standards (Part 1000) and to the practice-specific standards for insurance (Part 2000). The ASB has approved [Final Standards – Changes Required by the Adoption in Canada of IFRS 17 \(Insurance Contracts\)](#) with an effective date of January 1, 2023.

The Canadian Accounting Standards Board has decided that IFRS 17 will be adopted without modification for the valuation of insurance contracts in Canadian generally accepted accounting principles (GAAP) financial statements.

The AGC released the following educational note prepared by the CIA Committee on International Insurance Accounting (IIAC):

- [Comparison of IFRS 17 to Current CIA Standards of Practice](#) highlights the key differences between CALM and IFRS 17, which was published in final form in June 2022.

The [International Actuarial Association](#) has developed an International Actuarial Note (IAN 100). The AGC reviewed the final version of IAN 100 and released it as an educational note

[Application of IFRS 17 Insurance Contracts](#), in October 2021. This educational note is accompanied by a preamble that outlines a number of additional clarifications on the topics discussed in the IAN 100, which CIA members should be aware of.

CLIFR has also been active in reviewing and developing educational notes to provide guidance for life insurance practitioners that supplement international actuarial notes. Subcommittees were formed to provide guidance to members in the form of educational notes and reports. The guiding principles followed by the subcommittees are as follows:

- First and foremost, consider Canadian-specific perspectives rather than simply repeating international actuarial guidance.
- Provide application guidance that is consistent with the IFRS 17 standard and applicable Canadian actuarial standards of practice and educational notes, without unnecessarily narrowing the policy choices available in the IFRS 17 Standard.
- Consider practical implications associated with the implementation of potential methods; in particular, ensure that due consideration is given to options that do not require undue cost and effort to implement.

The following educational notes or explanatory reports have been published or are forthcoming in 2022.

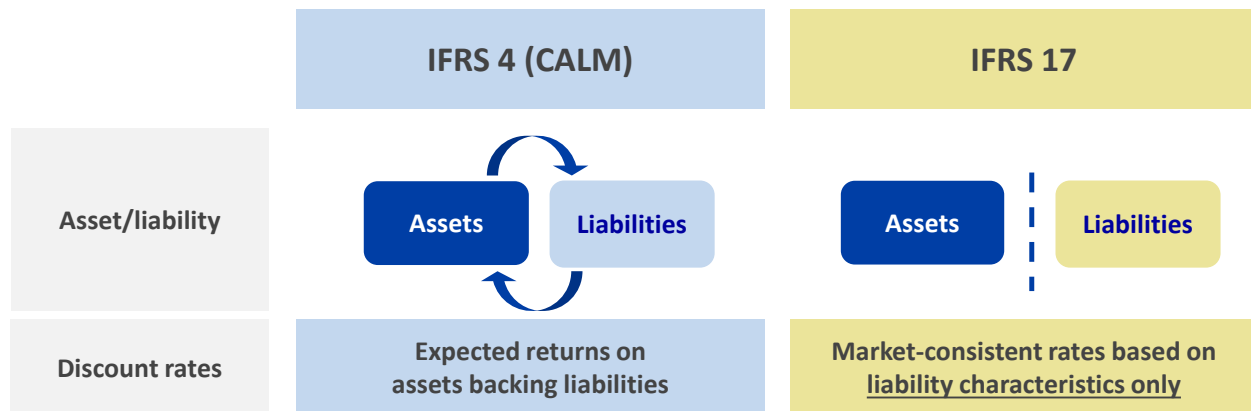
- [IFRS 17 Risk Adjustment for Non-Financial Risk for Life and Health Insurance Contracts](#)
- [IFRS 17 Estimates of Future Cash Flows for Life and Health Insurance Contracts](#)
- [IFRS 17 Coverage Units for Life and Health Insurance Contracts](#) (Draft)
- [IFRS 17 Market Consistent Valuation of Financial Guarantees for Life and Health Insurance Contracts](#)
- [IFRS 17 Discount Rates for Life and Health Insurance Contracts](#)
- [Assessing Eligibility for Premium Allocation Approach Under IFRS 17 for Property & Casualty and Life & Health Insurance](#) ²
- [IFRS 17 Measurement and Presentation of Canadian Participating Insurance Contracts](#)
- [IFRS 17 Expenses](#) ²
- [Update to draft educational notes: Changes to the reference curves outlined in CLIFR's and PCFRC's draft educational notes on IFRS 17 discount rates](#) ²
- [IFRS 17 Fair Value of Insurance Contracts](#) ²
- [IFRS 17 Assets for Acquisition Cash Flows](#) ²
- IFRS 17 Application of Discount Rates for Life and Health Insurance Contracts DRAFT (expected publication 2022)

² These are joint CLIFR and PCFRC publications.

The IFRS 17 explanatory reports are intended to provide information concerning specific topics within the IFRS 17 requirements. They do not attempt to propose that the specific illustrations of practice are intended to be followed.

6. 2022 CALM guidance for investment assumptions (*new*)

As noted in the previous section, the Canadian insurance industry is going through a fundamental change with the move to IFRS 17. A key change when moving from IFRS 4 to IFRS 17 is how assets are reflected in the measurement of insurance contract liabilities.



As a result of this foundational change, insurers may adjust their investment strategies when moving from IFRS 4 to IFRS 17.

Although IFRS 17 is effective January 1, 2023³, companies making changes to their investment strategies may choose to transition to them prior to the implementation of IFRS 17. This will allow a more gradual transition in assets holdings rather than an immediate shift on January 1, 2023. The latter may not be possible (or desirable) depending on the volume of trading activity and/or asset class (e.g., non-fixed income, fixed income) involved.

First and foremost, it is important to note that a CALM valuation starts with current assets backing liabilities and that any interpretations to the SoP only apply to CALM reinvestment/disinvestment assumptions.

Prior to the IFRS 17 effective date, where CALM valuation still applies, some companies may make changes to their investment strategy in order to prepare for IFRS 17. These changes may impact their CALM results. The statement “investment strategy for each scenario would be consistent with the insurer’s current investment policy and would be consistent with the insurer’s expected practice” within the SOP (2330.05) requires additional interpretation given the unique situation where an entity’s investment strategy is changing as a result of the adoption of IFRS 17.

The insurer’s expected practice is dependent on the context of the situation. The two interpretations could be:

³ According to IFRS Paragraph C1, “An entity shall apply IFRS 17 for annual reporting periods beginning on or after 1 January 2023.” This means that an entity that has an annual reporting period starting later in 2023 will have an effective date after January 1st, 2023.

- 1) The “investment strategy” and “expected practice” would be consistent with the accounting regime under which this testing is being completed (i.e., assume that the CALM regime persists). Therefore, any changes to an insurer’s investment strategy due to IFRS 17 should be excluded, and thus the CALM valuation would assume a rebalancing of the portfolio to the IFRS 4 investment strategy⁴.
- 2) The “investment strategy” and “expected practice” would be independent of the accounting regime. Therefore, the CALM valuation should reflect the change to the investment strategy as a result of the adoption of IFRS 17⁵.

When the SOP was written, it likely did not anticipate a fundamental change such as IFRS 17. Although the SOP could lead to two interpretations, it is important to note the importance of exercising reasonable judgment as outlined in SOP 1140.01, and thus either of these interpretations may be reasonable.

Simple example

An entity currently has an investment strategy under IFRS 4 with a target investment of 10% of assets invested in Canadian equity. The actual amount of investment in Canadian equity may be different (e.g., due to market movements) than the 10% at a reporting date. The entity’s CALM valuation assumes that they rebalance to their 10% target over a one-year period.

The entity is planning to reduce its investment in Canadian equity from 10% of assets to 5% of assets due to IFRS 17. Although they will not be reporting under IFRS 17 until 2023, they plan on starting to divest from 10% down to 5% evenly over 2022 to avoid a large asset rebalancing at the start of 2023.

Under interpretation 1, the entity would maintain the 10% target within the CALM valuation since the actuary’s view is that IFRS 17 investment strategy changes should be excluded, and thus the CALM valuation would assume a rebalancing of the portfolio to the IFRS 4 investment strategy. If the actual Canadian equity holdings were different than the 10% at the reporting date, the entity would continue to assume that they would transition back to their 10% target over a 1-year period⁶ within their CALM valuation. This is consistent with the current investment strategy under IFRS 4 and CALM modeling practices.

Under interpretation 2, the entity would transition to the 5% target within the CALM valuation since the actuary views the CALM valuation should reflect the change to the investment strategy as a result of the adoption of IFRS 17 (i.e., the “investment strategy” and “expected practice” should be independent of the accounting regime).

⁴ IFRS 4 investment strategy: The insurer’s investment strategy consistent with their expected practice assuming IFRS 4 persists.

⁵ IFRS 17 investment strategy: The insurer’s revised investment strategy consistent with their expected practice under IFRS 17

⁶ The actuary would have to judge whether the one-year transition period would be reasonable depending on the nature of the trading activity required to re-balance.

7. Stochastic scenarios (*unchanged*)

Calibration criteria for risk-free interest rate models used in CALM valuation

CLIFR created a subcommittee in order to update the calibration criteria for stochastic risk-free interest rate models, and published a [revised educational note supplement](#) in March 2021. The [final promulgation](#) was published in June 2021, and the effective date was October 15, 2021.

Included in the revised educational note supplement are updates to the guidance for the long-term (term to maturity of 20 years and longer) risk-free interest rate and for the short-term (one-year maturity) risk-free interest rate, medium-term (five to ten-year maturity) risk-free interest rates, and the slope of the yield curve. The previous exercise considered data to mid-year 2018; the current group updated data to mid-year 2020, but otherwise preserved the *methodology applied in the previous educational note supplement from 2019*.

8. Capital (*slightly modified*)

The CRMCR publishes an annual educational note that provides an overview of guidance relevant for capital and risk management purposes, including updates to guidelines and/or CIA guidance on the Life Insurance Capital Adequacy Test (LICAT)/Capital Adequacy Requirements Guideline – Insurance of Persons (CARLI), Financial Condition Testing (FCT) and Own Risk and Solvency Assessment (ORSA).

This educational note includes links to relevant capital educational notes, regulatory guidelines, and other useful references. It also covers introductory information about potential changes in regulatory capital reporting. The 2022 version ([Guidance for the 2022 Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers](#)) was released in February 2022.

9. Appendix A: CIA Guidance

The following link contains the current Standards of Practice of the Canadian Institute of Actuaries, as well as archived standards: [Standards of Practice \(cia-ica.ca\)](https://cia-ica.ca/standards-of-practice)

Accession Number	Title	Publication Date
General		
219120	Research paper: The Application of Credibility Theory in the Canadian Life Insurance Industry	November 6, 2019
217007	Educational note: Use of Models	January 26, 2017
210088	Research paper: IFRS Disclosure Requirements for Life Insurers	December 13, 2010
210086	Educational note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables	December 1, 2010
209125	Educational note: Accounting for Reinsurance Contracts under International Financial Reporting Standards	December 11, 2009
209058	Educational note: Current Estimates under International Financial Reporting Standards	June 25, 2009
209057	Educational note: Measurement of Investment Contracts and Service Contracts under International Financial Reporting Standards	June 25, 2009
206147	Educational note: Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations	November 30, 2006
206132	Educational note: Margins for Adverse Deviations	November 8, 2006
205122	Educational note: Applicability of Rules, Standards, and Other Guidance to CIA Members	November 30, 2005
20169	Research paper: Use of Stochastic Techniques to Value Actuarial Liabilities Under Canadian GAAP	August 15, 2001
Economic and CALM		
221066	Revised educational note supplement: Calibration of Stochastic Risk-Free Interest Rate Models for Use in CALM Valuation	June 24, 2021
219078	Final Communication of Updated Promulgations of the Ultimate Reinvestment Rates and Calibration Criteria for Stochastic Risk-Free Interest Rates in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2330)	July 3, 2019
219046	Educational note supplement: Calibration of Stochastic Risk-Free Interest Rate Models for Use in CALM Valuation	April 18, 2019

Accession Number	Title	Publication Date
218091	Explanatory report: Development of the Ultimate Reinvestment Rates	June 26, 2018
218033	Educational note: Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI)	March 14, 2018
217085	Revised educational note supplement: Calibration of Stochastic Risk-Free Interest Rate Models for Use in CALM Valuation	August 16, 2017
217081	Final Communication of Updated Promulgations of the Ultimate Reinvestment Rates and Calibration Criteria for Stochastic Risk-Free Interest Rates in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2330)	July 30, 2017
217080	Final Communication of a Promulgation of Calibration Criteria for Equity Investment Returns Referenced in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2370)	July 28, 2017
217055	Research paper: Calibration of Equity Returns and Volatility for Stochastic Models	May 17, 2017
215111	Educational note supplement: Development of the Equilibrium Risk-Free Market Curve for the Base Scenario	December 17, 2015
215111T	Educational note supplement: Development of the Equilibrium Risk-Free Market Curve for the Base Scenario: Excel File	December 17, 2015
215072	Revised educational note: Investment Assumptions Used in the Valuation of Life and Health Insurance Contract Liabilities	September 16, 2015
214109	Research paper: Development of New Prescribed Interest Rate Scenarios for CALM Valuations	October 10, 2014
214096	Final Communication of a Promulgation of Calibration Criteria for Investment Returns Referenced in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2360) (Fixed Income Returns)	August 21, 2014
214046	Final Communication of Promulgations of the Maximum Net Credit Spread, Ultimate Reinvestment Rates, and Calibration Criteria for Stochastic Risk-Free Interest Rates in the Standards of Practice for the Valuation of Insurance Contract Liabilities: Life and Health (Accident and Sickness) Insurance (Subsection 2330 of the Final Standards for Revisions to the Standards of Practice)	May 15, 2014

Accession Number	Title	Publication Date
211027	Educational note: Investment Return Assumptions for Non-Fixed Income Assets for Life Insurers	March 1, 2011
209121	Educational note: Currency Risk in the Valuation of Policy Liabilities for Life and Health Insurers	December 2, 2009
206133	Educational note: Approximations to Canadian Asset Liability Method (CALM)	November 8, 2006
206077	Educational note: CALM Implications of AcSB Section 3855 Financial Instruments – Recognition and Measurement	June 7, 2006
203106	Educational note: Selection of Interest Rate Models	December 2003
203083	Educational note: Aggregation and Allocation of Policy Liabilities	September 15, 2003
Segregated Funds		
214034	Research paper: Calibration of Fixed-Income Returns for Segregated Fund Liability	April 11, 2014
212027	Educational note: Reflection of Hedging in Segregated Fund Valuation	May 10, 2012
210053	Report: Report of the Task Force on Segregated Fund Liability and Capital Methodologies	August 11, 2010
207109	Educational note: Considerations in the Valuation of Segregated Fund Products	November 22, 2007
205111	Educational note: Valuation of Segregated Fund Investment Guarantees (Revised)	October 26, 2005
202012	Final report: CIA Task Force on Segregated Fund Investment Guarantees	March 6, 2002
Universal Life		
212012	Educational note: Valuation of Universal Life Insurance Contract Liabilities	February 28, 2012
Mortality and Mortality Improvement		
217097	Task Force Report on Mortality Improvement (Final)	September 20, 2017
217097T	Task Force Report on Mortality Improvement (Final) – Excel File	September 20, 2017

Accession Number	Title	Publication Date
217079	Final Communication of a Promulgation of Prescribed Mortality Improvement Rates and Associated Margins for Adverse Deviations within the Practice-Specific Standards on Insurance Contract Valuation: Life and Health (Accident and Sickness) Insurance (Subsection 2350) and the Accompanying Promulgation	July 30, 2017
217079T	Final Communication of a Promulgation of Prescribed Mortality Improvement Rates and Associated Margins for Adverse Deviations within the Practice-Specific Standards on Insurance Contract Valuation: Life and Health (Accident and Sickness) Insurance (Subsection 2350) and the Accompanying Promulgation – Excel Workbook	July 30, 2017
217054	Research Paper on Mortality Improvement Promulgation	May 17, 2017
217054T	Research Paper on Mortality Improvement Promulgation – Excel File	May 17, 2017
210065	Research paper: Mortality Improvement Research Paper	September 23, 2010
202037	Educational note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies	July 8, 2002
Living Benefits		
218034	Research paper: Model of Long-Term Health Care Cost Trends in Canada	March 14, 2018
Group Life and Health		
210069	Educational note: Sources of Earnings Calculations – Group Life and Health	October 7, 2010
210034	Educational note: Valuation of Group Life and Health Policy Liabilities	June 4, 2010
Lapse		
217019	Educational note supplement: Selective Lapsation for Renewable Term Insurance Products	February 16, 2017
217019t	Educational note supplement: Selective Lapsation for Renewable Term Insurance Products - Illustration of Methods	February 16, 2017

Accession Number	Title	Publication Date
Par and Adjustable		
214008	Educational note: Dividend Determination for Participating Policies	January 9, 2014
211123	Educational note: Guidance on Fairness Opinions Required Under the Insurance Companies Act Pursuant to Bill C-57 (2005)	December 14, 2011
Tax and Expenses		
212096	Educational note: Future Income and Alternative Taxes	December 17, 2012
208004	Educational note: Implications of Proposed Revisions to Income Tax Legislation (Nov 7, 2007 Department of Finance Proposal)	January 23, 2008
207029	Educational note: Implications of CICA Handbook Section 3855 – Financial Instruments on Future Income and Alternative Taxes: Update to Fall Letter	April 11, 2007
206134	Educational note: Best Estimate Assumptions for Expenses	November 8, 2006
Guidance for the Valuation of Insurance Contract Liabilities of Life Insurers		
221096	Educational note: Guidance for the 2021 Valuation of Insurance Contract Liabilities of Life Insurers	September 1, 2021
220126	Educational note: Guidance for the 2020 Valuation of Insurance Contract Liabilities of Life Insurers	August 13, 2020
219093	Educational note: Guidance for the 2019 Valuation of Insurance Contract Liabilities of Life Insurers	August 28, 2019
218115	Educational note: Guidance for the 2018 Valuation of Insurance Contract Liabilities of Life Insurers	September 12, 2018
217098	Educational note: Guidance for the 2017 Valuation of Insurance Contract Liabilities of Life Insurers	September 20, 2017
IFRS 17		
221075	Update to draft educational notes: Changes to the reference curves outlined in CLIFR's and PCFRC's draft educational notes on IFRS 17 discount rates	June 30, 2021
222092	Educational note: IFRS 17 – Actuarial Considerations Related to Liability for Remaining Coverage in P&C Insurance Contracts	June 30, 2022
222093	Educational note: IFRS 17 Measurement and Presentation of Canadian Participating Insurance Contracts	June 30, 2022

Accession Number	Title	Publication Date
222091	Educational note: Assessing Eligibility for the Premium Allocation Approach Under IFRS 17 for Property & Casualty and Life & Health Insurance Contracts	June 30, 2022
222094	Educational note: Comparison of IFRS 17 to Current CIA Standards of Practice	June 30, 2022
222097	Educational note: IFRS 17 Discount Rates for Life and Health Insurance Contracts	June 30, 2022
222073	Educational note: IFRS 17 Market Consistent Valuation of Financial Guarantees for Life and Health Insurance Contracts	June 30, 2022
220012	Draft educational note: Compliance with IFRS 17 Applicable Guidance	January 20, 2020
219131	Draft educational note: IFRS 17 Coverage Units for Life and Health Insurance Contracts	December 17, 2019
222085	Educational note: IFRS 17 Estimates of Future Cash Flows for Life and Health Insurance Contracts	June 30, 2022
222090	Educational note: IFRS 17 Risk Adjustment for Non-Financial Risk for Life and Health Insurance Contracts	June 30, 2022
221117	Educational note: Application of IFRS 17 Insurance Contracts	October 21, 2021
Guidance for Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers		
222030	Educational note: Guidance for the 2022 Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers	February 28, 2022
221037	Educational note: Guidance for the 2021 Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers	April 8, 2021
220058	Educational note: Guidance for the 2020 Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers	April 28, 2020