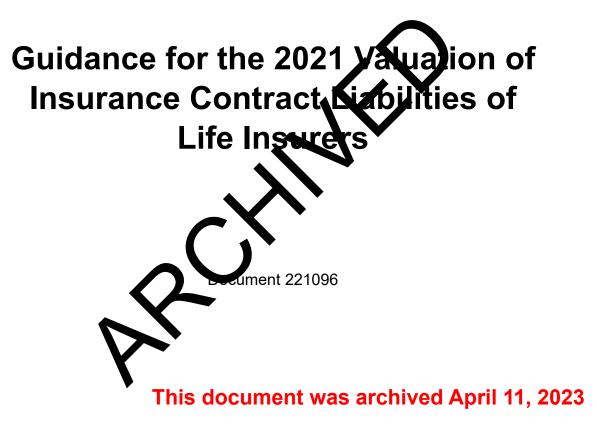


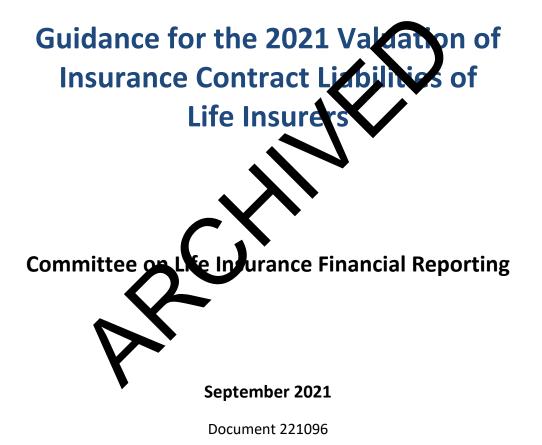
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Educational Note





Educational Note



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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. As standards of practice evolve, an educational note may not reference the most current version of the Standards of Practice; and as such, the actuary should cross-reference with current Standards. To assist the actuary, the CIA website contains an up-to-date reference document of impending changes to update educational notes.



MEMORANDUM

	Liabilities of Life Insurers
Subject:	Educational Note: Guidance for the 2021 Variation of Insurance Contract
Date:	September 1, 2021
	Marie-Andrée Boucher and Steve Bocking, Co-Chairs Committee on Life Insurance Financial Reporting
From:	Steven W. Easson, Chair Actuarial Guidance Council
То:	Members in the Life Insurance Practice Area

Introduction

The Committee on Life Insurance Financial Reporting (CLIFR) has prepared this educational note to provide guidance to actuaries in several area affecting the valuation of the 2021 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 in seven sections and an appendix. The seven sections provide content on the following topula: COVID-19, experience studies, life insurance and annuity mortality, economic as umptions, IFRS 17, stochastic scenarios and capital. Appendix A contains a list of relevant exceptional 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 at 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 cover letter and educational note has followed the AGC's protocol for the adoption of educational notes. In accordance with the Institute'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 25, 2021.

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. As standards of practice evolve, an educational note may not reference the most current version of the Standards of Practice; and as such, the actuary should cross-reference in the current Standards. To assist the actuary, the CIA website contains a reference docurrent of hopending changes to update educational notes.

CLIFR would like to acknowledge the contribution of its succommittee that assisted in the development of this educational note: Dan Doyle and Stave Armel

Questions or comments regarding this educational rate may be directed to Marie-Andrée Boucher at <u>mboucher@eckler.ca</u> or to Steve Bocking at <u>state.bocking@canadalife.com</u>.

Guidance to members on specific situations

From time to time, CIA members seek advice or guidance from CLIFR. Both the CIA and CLIFR strongly encourage such dialogue. CA members are assured that it is proper and appropriate for them to consult with the chair or vie-chair of CLIFR.

CIA members are reminded that inspondes provided by CLIFR are intended to assist them in interpreting the CIA Standards of Professional conduct, in assessing the appropriateness of certain techniques or assumptions. A response from CLIFR does not constitute a formation as to whether the work in question is in compliance with the CIA Standards of Practice. Such informal guidance provided by CLIFR is not binding upon the member.

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);
- <u>Standard of Practice</u>;
 - Revisions to Part 3000 and Section 3500 of the Practice-Specific Standards for Pension Plans pertaining to Pension Communated Values, effective December 1, 2020.

 Revisions to Part 1000 and Section 2500 within the Practice-Specific Standards for Insurance pertaining to Financial Condition Testing (FCT) replacing Dynamic Capital Adequacy Testing (DCAT), effective January 1, 2020.

Recent CLIFR guidance includes the following material:

• Revised Educational Note Supplement: <u>Calibration of Stochastic Risk-Free Interest Rate</u> <u>Models for Use in CALM Valuation</u> (June 2021)

These publications can be found on the CIA website under <u>Publications</u>. 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	
1. COVID-19 (modified)	5
2. Experience studies (modified)	5
3. Life insurance and annuity mortality (slightly modified	7
4. Economic assumptions (modified)	
5. International Financial Reporting Standards (midified)	8
6. Stochastic scenarios (slightly modified)	
7. Capital (slightly modified)	11
Appendix A: CIA guidance	12

SWE, MAB, SB

1. COVID-19 (modified)

The COVID-19 pandemic has generated a broad set of challenges for actuaries. In April 2020, the CIA and representatives of a number of Canadian life insurance companies agreed to a program of data collection and analysis in order to answer key questions, including:

- Is the overall level of life insurance claims in 2020 different from previous years?
- Has COVID-19 had a material impact on insurance claims in Canada?

An <u>initial report</u> was published in October 2020 followed by reports published in <u>February</u> and <u>June</u> 2021. The CIA continues to collect monthly data from Canadian life insurance companies, and is expected to provide additional updates as new data are analyzed.

The CIA is engaged in informing members about COVID-19, through its <u>Seeing Beyond Risk</u> website. The COVID-19 Trending section contains analyses, webcasts, links and articles that are relevant to actuarial practice in the face of the current situation.

Adjustments to mortality experience may be required for companies using their own company's recent experience to adjust valuation assumptions. While GOVID 19 related claims could be identified, this unfavorable experience could have been companies at to a certain degree by favorable outcomes coming from indirect impacts of COVD-13. For example, more favorable accidental and/or flu death experience could also be sonsidered when adjusting post February 2020 experience results.

With the use of extended grace period program during 2020, the actuary would pay attention to the impact this has on experience, including the tapact on future policyholder experience studies. Lapses could have reduced ranking the extended grace period but could spike immediately after. The actuary would consider differentiating changes in short-term lapse behaviour from long-term/percentet changes in lapse behaviour when assessing persistency assumptions.

Companies that have experienced a significant decrease in the number of reported Critical Illness claims since March 2020 could consider making adjustments to their projected claim amounts to account for protential claims spike when the pandemic situation subsides.

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 related to the pandemic situation on some types of disabilities, in particular on mental and nervous diseases. The actuary would monitor the experience related to the disability products to detect any new emerging trends.

There are many considerations (including those listed 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 2020:

 Canadian Post-Level Premium Lapse and Mortality study – <u>Report on the Lapse and</u> <u>Mortality Experience of Post-Level Premium Period Term Plans</u> (December 2020)

The <u>Phase 1 report</u>, published in April 2020, presented the results of the survey performed on the mortality and lapse assumptions used for level premium term products. This Phase 2 report presents a study of the mortality and lapse experience of level premium term policies as they transition out of the level premium period.

 Mortality study – <u>Mortality Study: Canadian Standard Ordinary Life Experience 2017–</u> 2018 Using 86–92 and 97-04 Tables (July 2020)

This annual study covers the mortality experience of Canadian standard individual ordinary insurance over 2017 and 2018 on a policy year basis.

• Mortality and Lapse survey – <u>Report on the Survey of Post-Level Premium Period Lapse</u> <u>and Mortality Assumptions for Level Premium Term Plans</u> (<u>April 2</u>020)

This is the Phase 1 report of this mortality and lapse study. A survey was performed at the end of 2017 on the mortality deterioration and large assumptions used for pricing and modeling level premium term products. The report summarizes the findings from the 15 survey responses received.

• Morbidity Study – <u>Canadian Group Life Waiver Study (2009-2015)</u> (January 2020)

This study updates the disabled life mortality and recovery experience using the recent Canadian Institute of Actuaries (CIA) 2000–2005 Group Long-Term Disability (LTD) Termination Study. It is anticipated that the Group Life Waiver review will become a regular study.

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

• UL Level Cost of Insurance (LCO), and Term-to-100 Lapse Studies

These are refreshed Services with more recent data than the 2015 lapse experience studies covering 11 LCO, term-to-100 and similar insurance policies.

Canadian Morta , Table Construction

Development of new Canadian Life mortality tables using more recent data to replace the CIA9704 tables.

• Individual Life Mortality Study (Annually)

This annual report will reflect the mortality experience of Canadian individual insurance policies between their 2018 and 2019 anniversaries. An interim report using data up to June 30, 2020 will also be published. This later report will include a cause of death analysis, including COVID-19 impact.

Other studies in the Experience Research Committee pipeline include:

• 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 scale. The review started in 2020 with an expected completion in 2022.

• 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.

3. Life insurance and annuity mortality (slightly modified)

There have been no changes in standards with regards to 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 Mortuity Improvement Rates Referenced in the Standards of Practice for the Valuation of Insurance Contract Vabilities: Life and Health* (Accident and Sickness) Insurance (Subsection 2350) with an ensure date of October 30, 2017.

4. Economic assumptions (modified)

Negative interest rates (unchanged)

Globally, there are developed markets where regarge interest rates are or have been prevalent. The actuary would consider the implications of the valuation of insurance contract liabilities when interest rates are negative. CLIFR believes that the construction of the prescribed CALM scenarios remains appropriate over a finitial risk-free interest rates are negative.

Section 4.1 of the 2015 revised e ucational note <u>Investment Assumptions Used in the Valuation</u> of Life and Health Insurance contract Liabilities discussed the development of interest rate scenarios. The following is an exerpt from this Section: "In developing deterministic scenarios, any negative or zero follow diraces would be set to one basis point." CLIFR believes that this statement may have been included for practical (e.g., system limitation) or other reasons. We feel that it is appropriate to reflect negative interest rates when they occur within the valuation. The actuary would ensure that they are modeled appropriately and do not lead to any unintended consequences.

Credit spreads (modified)

In 2020, a designated group (DG) was formed to review the economic promulgations including the promulgated net credit spread. The mandate of the DG was to update the data used by the prior group for recent years, and assess if there was a need to recommend a change to the promulgated net credit spread that was last updated in <u>May 2014</u>.

The <u>final promulgation</u> was published by the ASB in June 2021, and the effective date is October 15, 2021.

Ultimate reinvestment rate (modified)

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 updated calibration criteria for year-end 2021. The <u>final promulgation</u> was published in June 2021, and the effective date is 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 <u>IASB website</u> contains the most current information. Note that an eIFRS professional account is required to access the final standard and related documents.

The CIA is very active in this area, with several committees include in reviewing the IFRS 17 standard and related guidance.

An IFRS 17 Steering Committee was created by the CIA Bhardaro epidere that members are provided with the education and guidance needed on a timely basis to be ready for the implementation of IFRS 17. This committee is also wonling with other interested parties to understand areas of potential overlap or gaps.

The ASB has established two designated groups one pertaining to revisions to the Canadian Insurance Contract Standards of Practice (Sec) to reflect IFRS 17 and one pertaining to the role of the Appointed Actuary under IFRs 17. These Designated Groups published the following document in February 2021: <u>Second Revised Exposure Draft to Incorporate changes required by</u> <u>the adoption in Canada of IFPs 17. Insurance Contracts, including Principles of International</u> <u>Standard of Actuarial Practice 4. Actuarial Practice in Relation to IFRS 17 Insurance Contracts,</u> <u>into the Canadian Standards of Practice</u>.

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

The <u>International Actuarial Association</u> (IAA) adopted the International Standard of Actuarial Practice 4 (ISAP 4) on IFRS 17 Insurance Contracts in November 2019. ISAP 4 covers actuarial practice in support of valuation of insurance contract liabilities in accordance with IFRS 17. The significant changes proposed in the CIA exposure draft align the SoP with the requirements of IFRS 17 and incorporate the guidance of ISAP 4.

The CIA Committee on International Insurance Accounting (IIAC) under the International Affairs Council has the following mandate with regards to international accounting and actuarial standards for the valuation of insurance and related products:

 Monitor developments and ensure that news of relevant and material developments is dispersed appropriately within the CIA;

- Recommend where specific additional Canadian guidance may be helpful, and if so, assist in its development; and
- Where relevant and appropriate, provide input from a CIA perspective to the international governing bodies.

The CIA Actuarial Guidance Council (AGC) released the following draft educational notes prepared by the IIAC:

- <u>Comparison of IFRS 17 to Current CIA Standards of Practice</u> highlighting the key differences between CALM and IFRS 17, which was re-published in draft form in November 2020;
- <u>Transition from CALM to IFRS 17 Valuation of Canadian Participating Insurance Contracts</u> identifying the key components involved in the valuation of participating contracts, and how those components might change under the IFRS 17 framework compared to the current CALM framework, which was published in draft for 1 in Warch 2019.

The IAA has developed an International Actuarial Note (IAN 100). The AGO reviewed the initial exposure draft of IAN 100 and released it as a draft educational rote <u>Application of IFRS 17</u> <u>Insurance Contracts</u> in February 2019. This draft educational rote is intended to assist CIA members in the application of IFRS 17. The current exposure on for of IAN 100 is dated October 2020. It is anticipated that the IAA will shortly release the inal version of IAN 100.

CLIFR is also very active in reviewing and developing educational notes to provide guidance for life insurance practitioners that supplement international actuarial notes. Subcommittees have been formed to look at relevant topics. The prandate of these subcommittees includes providing 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 Categorian-specific perspectives, rather than simply repeating international actual all guidence.
- Provide application guidance that is consistent with the IFRS 17 standard and applicable Canadian actualial scalalards of practice and educational notes, without unnecessarily narrowing the policy choices available in the IFRS 17 Standard.
- Consider practical implications associated with 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 draft educational notes or reports have already been published or are planned to be published in 2021 or 2022.

- <u>Compliance with IFRS 17 Applicable Guidance</u>¹
- IFRS 17 Risk Adjustment for Non-Financial Risk for Life and Health Insurance Contracts

¹ This is a joint CLIFR, PCFRC and the Committee on Workers' Compensation publication.

- IFRS 17 Estimates of Future Cash Flows for Life and Health Insurance Contracts
- IFRS 17 Coverage Units for Life and Health Insurance Contracts
- IFRS 17 Market Consistent Valuation of Financial Guarantees for Life and Health Insurance Contracts
- IFRS 17 Discount Rates for Life and Health Insurance Contracts
- <u>Assessing Eligibility for Premium Allocation Approach Under IFRS 17 for Property &</u> <u>Casualty and Life & Health Insurance</u>²
- IFRS 17 Measurement and Presentation of Canadian Participating Insurance Contracts
- IFRS 17 Expenses ²
- <u>Update to draft educational notes: Changes to the reference curves outlined in CLIFR's</u> and PCFRC's draft educational notes on IFRS 17 discount rates
- IFRS 17 Fair Value Approach (Q3 2021)²
- IFRS 17 Disclosure requirements (Q4 2021-Q1 202
- IFRS 17 Recoverability of acquisition expenses (Q 2021-Q1 2022)²
- IFRS 17 Application of Discount Rates for Line and Health Insurance Contracts (Q4 2021-Q1 2022)

The CIA is also engaged in educating members about NRS 17, through webcasts, sessions at CIA meetings, and other forums. The CIA website has an <u>FRS blog</u> (log in required to view the page). This members-only resource center derives as prepository for everything about IFRS 17, including documents, links to important websites, and updates from the committees working to help members for this significant charge. Moreover, the <u>mandates</u> of each of the subcommittees mentioned above can be found on the blog.

IFRS 9 (unchanged)

Many insurers will not dot. EPS 9 until IFRS 17 becomes effective in 2023. However, some entities have already advoted, most notably those that are part of larger financial institutions, such as bank-owned insurers. For those entities, the actuary could have seen changes in the carrying value of assets that potentially affected the CALM valuation. There could also have been new credit loss provisions established by the accountants under IFRS 9; if so, the actuary would have taken steps to avoid any double-counting with the credit provisions included in the CALM liability.

² These are joint CLIFR and PCFRC publications.

6. Stochastic scenarios (slightly modified)

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 <u>revised educational note supplement</u> in March, 2021. The <u>final promulgation</u> was published in June 2021, and the effective date is October 15, 2021.

Included in the revised educational note supplement are updates to the guidance for the longterm (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 midyear 2018; the current group updated data to mid-year 2020, but otherwise preserved the methodology applied in the previous educational note supplement from 2019.

7. Capital (slightly modified)

Starting in 2019, the Committee on Risk Management and Capita nents (CRMCR) has Require published a similar annual educational note that provides an w of. uidance relevant for capital and risk management purposes, including updates, guie eline nd/or CIA guidance on LICAT, Financial Condition Testing (FCT) and ORSA. This du ional ote includes links to relevant capital educational notes, regulatory guidelines nd ð useful references. It also covers introductory information about potential charges in regulatory capital reporting. The 2021 version – Guidance for the 2021 Reporting d Financial Condition Testing for apitar Life, P&C, and Mortgage Insurers – was release il 2021. n A



Appendix A: CIA guidance

Accession Number	Title	Publication Date
General		
219120	Research Paper: <u>The Application of Credibility Theory in the</u> <u>Canadian Life Insurance Industry</u>	November 6, 2019
219113	Final Standards: <u>Revisions within the Practice-Specific Standards</u> for Insurance (Section 2500 and Part 1000)	October 15, 2019
219058	Final Standards: <u>Revisions to Sections 1400 and 1500 of General</u> <u>Standards of Practice (Part 1000)</u>	May 13, 2019
219057	Memorandum: <u>Revisions to Sections 1400 and 1500 of General</u> <u>Standards of Practice (Part 1000)</u>	May 13, 2019
218076	Exposure draft to incorporate changes required by the adoption in Canada of IFRS 17 Insurance Contracts, including Prince, lea of International Standard of Actuarial Practice 4 – Actuarial Practice in Relation to IFRS 17 Insurance Contracts, introduce Canadian Standards of Practice	May 16, 2018
218023	Final Standards: <u>Revisions within the Prectice-5, ecific Standards</u> for Insurance (Sections 2400 and 25, 0)	February 22, 2018
218024	Memorandum: <u>Revisions with the Practice-Specific Standards</u> for Insurance (Sections 2, ou and 5, 500)	February 22, 2018
217125	Final Standards: <u>Genera (Part 1000)</u>	December 12, 2017
217126	Memorandum: Final Standard - Revisions to General Standards (Part 1000)	December 12, 2017
217015	Memorance (<u>art 2009</u>)	February 3, 2017
217014	Final Standar s: <u>Practice-Specific Standards for Insurance (Part</u> 2000)	February 3, 2017
217007	Educational Note: Use of Models	January 26, 2017
217005	Final Standards: <u>Revisions to General Standards to Reflect the</u> <u>Use of Models</u>	January 26, 2017
217006	Memorandum: <u>Final Standards – Revisions to General Standards</u> to Reflect the Use of Models	January 26, 2017
214128	Memorandum: <u>Final Standards – Revisions to the General and</u> <u>Practice-Specific Standards – Consistency of Reporting and</u> <u>Conformance with International Standard of Actuarial Practice 1</u>	December 9, 2014

Accession Number	Title	Publication Date
214129	Final Standards: <u>Revisions to the General and Practice-Specific</u> <u>Standards – Consistency of Reporting and Conformance with</u> <u>International Standard of Actuarial Practice 1</u>	December 9, 2014
213008	Final Standards for Practice-Specific Standards on Insurance Contract Valuation (Section 2300) to Narrow the Range of Practice on Certain Elements	February 12, 2013
211091	Final Standards of Practice: <u>Standards of Practice for</u> <u>Recognizing Events in Work</u> (clean version)	September 26, 2011
210088	Research Paper: IFRS Disclosure Requirements for Life Insurers	December 13, 2010
210086	Educational Note: <u>Valuation of Gross Policy Liabilities and</u> <u>Reinsurance Recoverables</u>	December 1, 2010
206147	Educational Note: Use of Actuarial Judgment in Secting Assumptions and Margins for Adverse Deviations	November 30, 2006
206132	Educational Note: Margins for Adverse Deviations	November 8, 2006
205122	Educational Note: <u>Applicability of Rules, Standards, and Other</u> <u>Guidance to CIA Members</u>	November 30, 2005
20169	Research Paper: <u>Use of Stochastic Te bniques to Value Actuarial</u> <u>Liabilities Under Canadian GAAP</u>	August 15, 2001
Economic a	nd CALM	
221066	Revised Educational Note Supplement: <u>Calibration of Stochastic</u> <u>Risk-Free Interes</u> Pore Woodels for Use in CALM Valuation	June 24, 2021
219078	Final Combustication of Updated Promulgations of the Ultimate Reinvestme trates and Calibration Criteria for Stochastic Risk- Free Interest Pates 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: <u>Calibration of Stochastic Risk-</u> Free Interest Rate Models for Use in CALM Valuation	April 18, 2019
218091	Explanatory Report: <u>Development of the Ultimate Reinvestment</u> <u>Rates</u>	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: <u>Calibration of Stochastic</u> <u>Risk-Free Interest Rate Models for Use in CALM Valuation</u>	August 16, 2017

Accession Number	Title	Publication Date
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: <u>Calibration of Equity Returns and Volatility for</u> <u>Stochastic Models</u>	May 17, 2017
215111	Educational Note Supplement: <u>Development of the Equilibrium</u> <u>Risk-Free Market Curve for the Base Scenario</u>	December 17, 2015
215111T	Educational Note Supplement: <u>Development of the Equilibrium</u> <u>Risk-Free Market Curve for the Base Scenario Exce</u>	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: <u>Development of New Prescribed Interest Rate</u> <u>Scenarios for CALM Valuations</u>	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 Information Contract Liabilities: Life and Health (Accident and Chiness) Insurance (Subsection 2360) (Fixed Income Returns)	August 21, 2014
214046	Final Communitasion 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
214047	Final Standards: <u>Revisions to Economic Reinvestment</u> <u>Assumptions within the Practice-Specific Standards on Insurance</u> <u>Contract Valuation: Life and Health (Accident and Sickness)</u> <u>Insurance (Section 2300 and Subsection 1110)</u>	May 15, 2014

Accession Number	Title	Publication Date
214048	Memorandum: Final Standards – Revisions to Economic Reinvestment Assumptions within the Practice-Specific Standards on Insurance Contract Valuation: Life and Health (Accident and Sickness) Insurance (Section 2300 and Subsection 1110)	May 15, 2014
211027	Educational Note: Investment Return Assumptions for Non- Fixed Income Assets for Life Insurers	March 1, 2011
209121	Educational Note: <u>Currency Risk in the Valuation of Policy</u> Liabilities for Life and Health Insurers	December 2, 2009
206133	Educational Note: <u>Approximations to Canadian Asset Liability</u> <u>Method (CALM)</u>	November 8, 2006
206077	Educational Note: <u>CALM Implications of AcSB Section 3,55</u> <u>Financial Instruments – Recognition and Measurement</u>	June 7, 2006
203106	Educational Note: Selection of Interest Rate Mode s	December 2003
203083	Educational Note: Aggregation and Allocation of Policy Liabilities	September 15, 2003

Segregated Funds

Jegregateu		
214034	Research Paper: <u>Calibration of Nucl-Income Returns for</u> Segregated Fund Liabilit	April 11, 2014
213004	Final Standards: Introduction of standards Relating to Appointed Actuary Opinions with Response Use of Internal Models to Determine Required actual for Segregated Fund Guarantees	February 7, 2013
212027	Education Allote: A flection of Hedging in Segregated Fund Valuation	May 10, 2012
210053	Report: <u>Report of the Task Force on Segregated Fund Liability</u> and Capital Methodologies	August 11, 2010
207109	Educational Note: <u>Considerations in the Valuation of Segregated</u> <u>Fund Products</u>	November 22, 2007
205111	Educational Note: <u>Valuation of Segregated Fund Investment</u> <u>Guarantees (Revised)</u>	October 26, 2005
202012	Final Report: <u>CIA Task Force on Segregated Fund Investment</u> <u>Guarantees</u>	March 6, 2002

Universal L	ife	
212012	Educational Note: <u>Valuation of Universal Life Insurance Contract</u> <u>Liabilities</u>	February 28, 2012
Mortality a	nd 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
217079	Final Communication of a Promulgation of Prescribed MortalityImprovement Rates and Associated Margins for AdverseDeviations within the Practice-Specific Standards on InsuranceContract Valuation: Life and Health (Accident and Sickness)Insurance (Subsection 2350) and the AccompanyingPromulgation	July 30, 2017
217079T	Final Communication of a Promulgation of Prescubed Mostality Improvement Rates and Associated Margins for Adverse Deviations within the Practice-Specific Standards on Incarance Contract Valuation: Life and Health (Acsident and Sickness) 	July 30, 2017
217054	Research Paper on Mortality Enprovement Promulgation	May 17, 2017
217054T	Research Paper on Mortz Ary Improvement Promulgation – Excel File	May 17, 2017
211070	Final Standards of Antice, <u>Standards of Practice for the</u> Valuation of Integrand, <u>Contract Liabilities: Life and Health</u> (Accident and Sick ess) Insurance (Subsection 2350) Relating to <u>Mortality Integreement (</u> clean version)	July 12, 2011
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: <u>Model of Long-Term Health Care Cost Trends in</u> <u>Canada</u>	March 14, 2018
Group Life and Health		
210069	Educational Note: <u>Sources of Earnings Calculations – Group Life</u> and Health	October 7, 2010

210034	Educational Note: <u>Valuation of Group Life and Health Policy</u> <u>Liabilities</u>	June 4, 2010
Lapse		
217019	Educational Note Supplement: <u>Selective Lapsation for</u> <u>Renewable Term Insurance Products</u>	February 16, 2017
217019t	Educational Note Supplement: <u>Selective Lapsation for</u> <u>Renewable Term Insurance Products - Illustration of Methods</u>	February 16, 2017
Par and Ad	justable	
214008	Educational Note: <u>Dividend Determination for Participating</u> <u>Policies</u>	January 9, 2014
214006	Final Standards: Revocation of the Current Standards or PracticeEntitled Recommendations – Dividend Determination andIllustration and Explanatory Notes in Amplification of CentrinDividend Recommendations, and Introduction of a NewSubsection Relating to Participating Policy DividendDetermination in Part 2000 – Practice-Specific Standards forInsurance	January 9, 2014
211123	Educational Note: <u>Guidance on Fainless Upinions Required</u> <u>Under the Insurance Companies Act Pursuant to Bill C-57 (2005)</u>	December 14, 2011
211084	Final Standards of Practice. <u>Fractice-Specific Standards for</u> Insurance, Incorporation of Standard Wording for Fairness Opinions (subsection 24.3)	September 7, 2011
Tax and Ex	penses	I
212096	Educationa Notes Systure Income and Alternative Taxes	December 17, 2012
208004	Educational Lote: <u>Implications of Proposed Revisions to Income</u> <u>Tax Legislation (Nov 7, 2007 Department of Finance Proposal)</u>	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
Guidanas f	or the Voluction of Incurance Contract Lightilities of Life Incurance	
Guiuance f	or the Valuation of Insurance Contract Liabilities of Life Insurers	
220126	Educational Note: <u>Guidance for the 2020 Valuation of Insurance</u> <u>Contract Liabilities of Life Insurers</u>	August 13, 2020

219093	Educational Note: <u>Guidance for the 2019 Valuation of Insurance</u> <u>Contract Liabilities of Life Insurers</u>	August 28, 2019
218115	Educational Note: <u>Guidance for the 2018 Valuation of Insurance</u> <u>Contract Liabilities of Life Insurers</u>	September 12, 2018
217098	Educational Note: <u>Guidance for the 2017 Valuation of Insurance</u> <u>Contract Liabilities of Life Insurers</u>	September 20, 2017
IFRS 17		
221075	<u>Update to draft educational notes: Changes to the reference</u> <u>curves outlined in CLIFR's and PCFRC's draft educational notes</u> <u>on IFRS 17 discount rates</u>	June 30, 2021
221061	Draft Educational Note: <u>IFRS 17 – Actuarial Considerations</u> <u>Related to Liability for Remaining Coverage in P&C Instrance</u> <u>Contracts</u>	June 15, 2021
221039	Draft Educational Note: IFRS 17 Measurement and Presentation of Canadian Participating Insurance Contract	April 27, 2021
220103	Revised Draft Educational Note: <u>Assessing Eligibility for the</u> <u>Premium Allocation Approach Under LRS 17. SProperty &</u> <u>Casualty and Life & Health Insurance Constacts</u>	December 7, 2020
220159	Draft Educational Note: <u>Compress of SRS 17 to Current CIA</u> <u>Standards of Practice</u>	November 17, 2020
220079	Draft Educational Note: FRS 17 Discount Rates for Life and Health Insurance Contracts	June 8, 2020
220061	Draft Education 1 Nor <u>CHERS 17 Market Consistent Valuation of</u> Financial Guarantees for Life and Health Insurance Contracts	May 4, 2020
220012	Draft Education CNote: <u>Compliance with IFRS 17 Applicable</u> <u>Guidance</u>	January 20, 2020
219131	Draft Educational Note: <u>IFRS 17 Coverage Units for Life and</u> <u>Health Insurance Contracts</u>	December 17, 2019
219102	Draft Educational Note: <u>IFRS 17 Estimates of Future Cash Flows</u> for Life and Health Insurance Contracts	September 18, 2019
219081	Draft Educational Note: IFRS 17 Risk Adjustment for Non- Financial Risk for Life and Health Insurance Contracts	July 17, 2019
219036	Draft Educational Note: <u>Transition from CALM to IFRS 17</u> <u>Valuation of Canadian Participating Insurance Contracts</u>	March 27, 2019
219020	Draft Educational Not: <u>Application of IFRS 17 Insurance</u> <u>Contracts</u>	February 20, 2019

Guidance for Reporting of Capital and Financial Condition Testing for Life, P&C, and Mortgage Insurers		
221037	Educational Note: <u>Guidance for the 2021 Reporting of Capital</u> and Financial Condition Testing for Life, P&C, and Mortgage Insurers	April 8, 2021
220058	Educational Note: <u>Guidance for the 2020 Reporting of Capital</u> and Financial Condition Testing for Life, P&C, and Mortgage Insurers	April 28, 2020



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