

ILA – Life Finance & Valuation, Canada Exam

Spring 2019/Fall 2019

Important Exam Information:

[Exam Registration](#)

Candidates may register online or with an application.

[Order Study Notes](#)

Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.

[Introductory Study Note](#)

The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.

Case Study

A case study will not be used for this examination.

[Past Exams](#)

Past Exams from 2000-present are available on SOA website.

[Updates](#)

Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

1. Topic: Accounting, Financial Statements and Disclosures

Learning Objectives

The candidate will understand financial statements and reports of Canadian life insurance companies as well as the professional standards addressing financial reporting and valuation.

Learning Outcomes

The Candidate will be able to:

- a) Construct, analyze and evaluate basic financial statements for a life insurance company
- b) Describe the structure of the Canadian Annual Statement and explain the purpose of its statements, key exhibits and schedules
- c) Describe, apply and evaluate regulatory documentation and disclosure requirements
- d) Describe, apply and evaluate the appropriate accounting treatments for insurance products, separate accounts, assets, derivatives and reinsurance
- e) Apply and recommend methods for performing reviews of financial statements including reserves

Resources

- *Canadian Insurance Taxation*, Swales, et. al., 4th Edition, 2015
 - Ch. 3-6, 9 & 24
- LFV-102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities
- LFV-618-13: OSFI Guideline D-10: Accounting for Financial Instruments Designated as Fair Value Option
- LFV-620-14: OSFI Guideline E15: Appointed Actuary – Legal Requirements, Qualifications and External Review, Sep 2012
- LFV-634-19: CIA Standards of Practice: Insurance Sections 2400 & 2700, Feb 2018
- LFV-635-13: Participating Account Management and Disclosure to Participating Policyholders and Adjustable Policyholders
- LFV-646-19: Chapter 1 (excluding 1.10, 1.12 & 1.13) of *Statutory Valuation of Individual Life and Annuity Contracts - Volume I*, Claire, D., Lombardi, L. and Summers, S., 5th Edition, 2018
- CIA Educational Note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables, Dec 2010
- CIA Educational Note: CALM Implication of AcSB Section 3855 Financial Instruments – Recognition and Measurement, Jun 2006
- CIA Educational Note on IFRS: Classification of Contracts under IFRS (IASP 3), Jun 2009
- CIA Educational Note on IFRS: Measurement of Investment Contracts and Service Contracts under IFRS (IASP 4), Jun 2009
- CIA Research Paper on IFRS: Embedded Derivatives and Derivatives under IFRS (IASP 10), Dec 2009
- CIA Research Paper: IFRS Disclosure Requirements for Life Insurers, Dec 2010

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- Future Income and Alternative Taxes, CIA Educational Note, Dec 2012
- Actuarial Aspects of SOX 404, Financial Reporter, Issue 59, Dec 2004
- Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice, Financial Reporter, Issue 59, Dec 2004
- CIA Educational Note: Guidance on Fairness Opinions Required Under the Insurance Companies Act Pursuant to Bill C-57 (2005)
- CIA Educational Note: Dividend Determination for Participating Policies, Jan 2014

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2. Topic: Valuation
Learning Objectives
The candidate will understand and apply valuation principles to individual life insurance and annuity products issued by Canadian life insurance companies.
Learning Outcomes
The Candidate will be able to: a) Compare and apply methods for life and annuity product reserves b) Evaluate, calculate, and interpret liabilities c) Recommend and justify appropriate valuation assumptions
Resources
<ul style="list-style-type: none">• LFV-133-16: Cluster Analysis: A Spatial Approach to Actuarial Modeling, Milliman, 2008• LFV-634-19: CIA Standards of Practice: Insurance Sections 2100, 2300, 2500, Feb 2018• LFV-637-13: OSFI Letter Evidence for Mean Reversion in Equity Prices• LFV-646-19: Chapter 1 (excluding 1.10, 1.12 & 1.13) of <i>Statutory Valuation of Individual Life and Annuity Contracts - Volume I</i>, Claire, D., Lombardi, L. and Summers, S., 5th Edition, 2018• <u>CIA Educational Note: Best Estimates Assumptions for Expenses</u>, Nov 2006• <u>CIA Educational Note: Margins for Adverse Deviations (MfAD)</u>, Nov 2006• <u>CIA: Valuation of Segregated Fund Investment Guarantees</u>, Oct 2005• <u>CIA Educational Note: Approximations to the Canadian Asset Liability Method (CALM)</u>, Nov 2006• <u>CIA Educational Note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies</u>, Jul 2002 (excluding Appendices)• <u>Report of the Task Force on Segregated Fund Liability and Capital Methodologies</u>, Aug 2010• <u>CIA Educational Note: Reflection of Hedging in Segregated Fund Valuation</u>, May 2012• <u>CIA Educational Note: Future Income and Alternative Taxes</u>, Dec 2012 (excluding Appendix D)• <u>CIA Final Communication of a Promulgation of Prescribed Mortality Improvement Rates</u>, Jul 2017• <u>CIA Draft Report: Task Force on Mortality Improvement</u>, Apr 2017• <u>CIA Educational Note: Valuation of Universal Life Policy Liabilities</u>, Feb 2012• <u>CIA Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations</u>, Nov 2006• <u>CIA Educational Note, Currency Risk in the Valuation of Policy Liabilities for Life & Health Insurers</u>, Dec 2009• <u>CIA Education Note, Investment Returns for Non-fixed Income Returns for Assets</u>, Mar 2011

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- 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, May 2014 (section 2 only)
- Final Communication of Updated Promulgations of the Ultimate Reinvestment Rates and Calibration Criteria for Stochastic Risk-Free Interest Rates, Jul 2017
- CIA Educational Note: Investment Assumptions Used in the Valuation of Life and Health Insurance Contract Liabilities, Sep 2015
- CIA Research Paper, Fixed Income Calibration, Apr 2014
- CIA Educational Note, Development of the Equilibrium Risk-Free Market Curve for the Base Scenario, Dec 2015
- CIA Educational Note: Selective Lapsation for Renewable Term Insurance Products, Feb 2017

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3. Topic: Emerging Standards
Learning Objectives
The candidate will understand and apply emerging financial and valuation standards, principles and methodologies.
Learning Outcomes
The Candidate will be able to: a) Describe emerging developments impacting Canadian valuation, capital, and International Financial Reporting frameworks, and assess their impact on the valuation of reserves, capital and financial statements
Resources
<ul style="list-style-type: none">• LFV-141-18: IFRS 17 Insurance Contracts – IFRS Standards Effects Analysis, May 2017, IASB (sections 1, 2, 4, 6, 7 and Appendices A & B)• LFV-648-19: PwC In depth A look at current financial reporting issues IFRS 17, Jun 2017• CIA Educational Note: Comparison of IFRS 17 to Current CIA Standards of Practice, Sep 2018

4. Topic: Financial and Capital Management
Learning Objectives
The candidate will understand how to explain and apply the methods, approaches and tools of financial management and value creation in a life insurance company context.
Learning Outcomes
The Candidate will be able to: <ul style="list-style-type: none">a) Assess financial performance, including analyzing and interpreting the financial performance of a product line or companyb) Apply methods and principles of embedded valuec) Explain and apply methods in determining regulatory capital and economic capitald) Explain and evaluate the respective perspectives of regulators, investors, policyholders and insurance company management regarding the role and determination of capitale) Explain Canadian regulatory capital framework and principlesf) Explain and apply methods in earnings management and capital management
Resources
<ul style="list-style-type: none">• LFV-106-07: Chapter 4 of Insurance Industry Mergers & Acquisitions (sections 4.1-4.6)• LFV-136-16: Life Insurance Products and Finance, Atkinson & Dallas, Ch.11, pp. 499-502• LFV-137-16: EVARAROC vs MCEV Earnings – A Unification Approach, Kraus, 2011• LFV-138-16: Prudential Financial Stockholder’s Equity and Operating Leverage, HBR, 2008• LFV-603-13: OSFI Guideline D-9 -Source of Earning Disclosure (Life Insurance Companies)• LFV-626-10: Session PD-28: Embedded Value (EV) and Market-Consistent Embedded Value (MCEV). What is the Difference?• LFV-636-18: OSFI Guideline A-4 Internal Target Capital Ratio for Insurance Companies• LFV-641-19: OSFI: Own Risk and Solvency Assessment (E-19), Dec 2017• LFV-645-19: OSFI Guideline – Life Insurance Capital Adequacy Test (LICAT), Chapters 1-3, 5-9, 11, November 2017• LFV-646-19: Chapter 1 (1.12 & 1.13 only) of <i>Statutory Valuation of Individual Life and Annuity Contracts - Volume I</i>, Claire, D., Lombardi, L. and Summers, S., 5th Edition, 2018• LFV-647-19: CIA Educational Note: Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI), March 2018• <u>CIA: Sources of Earnings: Determination and Disclosure</u>, Aug 2004• <u>Economic Capital for Life Insurance Companies</u>, SOA, Feb 2008, Ch. 1, 3-6• <u>A Multi-Stakeholder Approach to Capital Adequacy</u>, Conning Research

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- Strategic Management of Life Insurance Company Surplus, TSA XXXVIII, pp. 105-116
- Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum, Mar 2009

5. Topic: Reinsurance
Learning Objectives
The candidate will understand the nature and uses of basic reinsurance arrangements used by life insurance companies.
Learning Outcomes
The Candidate will be able to understand the various forms of reinsurance, and be able to, with respect to both the ceding and assuming parties, analyze and evaluate: <ul style="list-style-type: none">a) Risk transfer considerationsb) Cash flow mechanicsc) Accounting and financial statement impactsd) Reserve credit considerations
Resources
<ul style="list-style-type: none">• <i>Life, Health & Annuity Reinsurance</i>, Tiller, John E. and Tiller, Denise, 4th Edition, 2015<ul style="list-style-type: none">○ Ch. 4, 5, 6 (pp. 157-160 and 173-174), 7, 8 (Canadian content only), 12 & 17• LFV-632-12: OSFI Guideline B-3: Sound Reinsurance Practices and Procedures• LFV-645-19: OSFI Guideline – Life Insurance Capital Adequacy Test (LICAT), Chapter 10, Nov 2017• <u>Accounting for Reinsurance Contracts under International Financial Reporting Standards, (IASP 9)</u>, (excluding Appendices C & D)