

ILA – Life Finance & Valuation, Canada Exam

Spring/Fall 2018

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

There is no case study for this examination.

[Past Exams](#)

Past Exams from 2000 - present are available on the 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, assets, derivatives and reinsurance
- e) Apply and recommend methods for performing reviews of financial statements including reserves.

Resources

- *Canadian Insurance Taxation*, Swales, Jason and Erinc, Erdem, 4th Edition, 2015
 - Ch. 3-6, 9 and 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, September 2012
- LFV-634-18: CIA Standards of Practice: Insurance Sections 2400 & 2700, April 2017
- LFV-635-13: Participating Account Management and Disclosure to Participating Policyholders and Adjustable Policyholders
- LFV-646-18: Ch. 1 of *Valuation of Life Insurance Liabilities*, Lombardi, Louis J., 4th Edition, 2006
- [CIA Educational Note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables](#), December 2010
- [CIA Educational Note: CALM Implication of AcSB Section 3855 Financial Instruments – Recognition and Measurement](#), June 2006
- [CIA Educational Note on IFRS: Classification of Contracts under IFRS \(IASP 3\)](#), June 2009
- [CIA Educational Note on IFRS: Measurement of Investment Contracts and Service Contracts under IFRS \(IASP 4\)](#), June 2009
- [CIA Research Paper on IFRS: Embedded Derivatives and Derivatives under IFRS \(IASP 10\)](#), December 2009

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- [CIA Research Paper, IFRS Disclosure Requirements for Life Insurers](#), December 2010
- [CIA Educational Note: Future Income and Alternative Taxes](#), December 2012
- [Actuarial Aspects of SOX 404, Financial Reporter #59](#), December 2004
- [Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice, Financial Reporter #59](#), December 2004
- [CIA Educational Note: Guidance on Fairness Opinions Required Under the Insurance Companies Act Pursuant to Bill C-57 \(2005\)](#), December 2011
- [CIA Educational Note: Dividend Determination for Participating Policies](#), January 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 liabilities. 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-634-18: CIA Standards of Practice: Insurance Sections 2100, 2300, 2500, April 2017• LFV-637-13: OSFI Letter Evidence for Mean Reversion in Equity Prices• LFV-646-18: Ch. 1 of <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Louis J., 4th Edition, 2006• CIA Educational Note: Best Estimates Assumptions for Expenses, November 2006• CIA Educational Note: Margins for Adverse Deviations (MfAD), November 2006• CIA: Valuation of Segregated Fund Investment Guarantees, October 2005• CIA Educational Note: Approximations to the Canadian Asset Liability Method (CALM), November 2006• CIA Educational Note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies, July 2002 (excluding appendices)• Report of the Task Force on Segregated Fund Liability and Capital Methodologies, August 2010• CIA Educational Note: Reflection of Hedging in Segregated Fund Valuation, May 2012• CIA Educational Note: Future Income and Alternative Taxes, December 2012 (excluding Appendix D)• CIA Draft Report: Task Force Report on Mortality Improvement, April 2017• CIA Educational Note: Valuation of Universal Life Policy Liabilities, February 2012• CIA Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations, November 2006• CIA Educational Note, Currency Risk in the Valuation of Policy Liabilities for Life & Health Insurers, December 2009• CIA Education Note, Investment Returns for Non-fixed Income Returns for Assets, March 2011• Initial 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

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[Insurance Contract Liabilities: Life and Health \(Accident and Sickness\) Insurance \(Subsection 2330\)](#),
June 2017

- [CIA Educational Note: Investment Assumptions Used in the Valuation of Life and Health Insurance Contract Liabilities](#), September 2015
- [CIA Research Paper, Fixed Income Calibration](#), April 2014
- [CIA Educational Note, Development of the Equilibrium Risk-Free Market Curve for the Base Scenario](#), December 2015
- [Final Communication of a Promulgation of Prescribed Mortality Improvement Rates and Associated Margins for Adverse Deviations, ASB](#), July 2017

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-134-16: IFRS PWC Ready or Not, October 2014• LFV-135-16: How We Responded to Feedback on the 2013 Exposure Draft, IASB• LFV-140-17: Mind the Gap?, December 2015• LFV-141-18: IFRS 17 Insurance Contracts – IFRS Standards Effects Analysis, May 2017, IASB• Analysis of Methods for Determining Margins for Uncertainty Under a Principle-Based Framework for Life Insurance and Annuity Products, Ch. 3, 4, 5.1, 5.5-5.6, 6

4. Topic: Financial and Capital Management
Learning Objectives
The candidate will be able 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: <ol style="list-style-type: none">Assess financial performance, including analyzing and interpreting the financial performance of a product line or company.Apply methods and principles of embedded value.Explain and apply methods in determining regulatory capital and economic capital.Explain and evaluate the respective perspectives of regulators, investors, policyholders and insurance company management regarding the role and determination of capital.Explain Canadian regulatory capital framework and principles.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 - 502LFV-137-16: EVARAROC vs MCEV Earnings – A Unification Approach, Kraus, 2011LFV-138-16: Prudential Financial Stockholder’s Equity and Operating Leverage, HBR, 2008LFV-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 Draft Guideline A-4: Regulatory Capital and Internal Capital Targets September 2017LFV-641-18: OSFI: Draft Own Risk and Solvency Assessment (E-19), September 2017LFV-645-18: OSFI Draft Guideline A – Life Insurance Capital Adequacy Test (LICAT), Chapters 1 - 3, 5 – 9, 11, September 2017LFV-647-18: CIA Draft Educational Note: Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI), June 2017Strategic Management of Life Insurance Company Surplus, TSA XXXVIII (pp. 105-116)CIA: Sources of Earnings: Determination and Disclosure, August 2004Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum, March 2009

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- [A Multi-Stakeholder Approach to Capital Adequacy, Conning Research & Consulting](#)
- [Economic Capital for Life Insurance Companies](#), SOA Research paper, Ch. 1 and 3-6, Feb 2008

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 and 17• LFV-632-12: OSFI Guideline B-3: Sound Reinsurance Practices and Procedures• LFV-645-18: OSFI Draft Guideline – Life Insurance Capital Adequacy Test (LICAT), Ch. 10, September 2017• Accounting for Reinsurance Contracts under International Financial Reporting Standards (IASP 9), (excluding Appendices C and D)