

# 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

<b>2. Topic: Valuation</b>
<b>Learning Objectives</b>
The candidate will understand and apply valuation principles to individual life insurance and annuity products issued by Canadian life insurance companies.
<b>Learning Outcomes</b>
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.
<b>Resources</b>
<ul style="list-style-type: none"><li>• LFV-133-16: Cluster Analysis: A Spatial Approach to Actuarial Modeling, Milliman, 2008</li><li>• LFV-634-18: CIA Standards of Practice: Insurance Sections 2100, 2300, 2500, April 2017</li><li>• LFV-637-13: OSFI Letter Evidence for Mean Reversion in Equity Prices</li><li>• LFV-646-18: Ch. 1 of <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Louis J., 4th Edition, 2006</li><li>• <a href="#">CIA Educational Note: Best Estimates Assumptions for Expenses</a>, November 2006</li><li>• <a href="#">CIA Educational Note: Margins for Adverse Deviations (MfAD)</a>, November 2006</li><li>• <a href="#">CIA: Valuation of Segregated Fund Investment Guarantees</a>, October 2005</li><li>• <a href="#">CIA Educational Note: Approximations to the Canadian Asset Liability Method (CALM)</a>, November 2006</li><li>• <a href="#">CIA Educational Note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies</a>, July 2002 (excluding appendices)</li><li>• <a href="#">Report of the Task Force on Segregated Fund Liability and Capital Methodologies</a>, August 2010</li><li>• <a href="#">CIA Educational Note: Reflection of Hedging in Segregated Fund Valuation</a>, May 2012</li><li>• <a href="#">CIA Educational Note: Future Income and Alternative Taxes</a>, December 2012 (excluding Appendix D)</li><li>• <a href="#">CIA Draft Report: Task Force Report on Mortality Improvement</a>, April 2017</li><li>• <a href="#">CIA Educational Note: Valuation of Universal Life Policy Liabilities</a>, February 2012</li><li>• <a href="#">CIA Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations</a>, November 2006</li><li>• <a href="#">CIA Educational Note, Currency Risk in the Valuation of Policy Liabilities for Life &amp; Health Insurers</a>, December 2009</li><li>• <a href="#">CIA Education Note, Investment Returns for Non-fixed Income Returns for Assets</a>, March 2011</li><li>• <a href="#">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</a></li></ul>

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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

<b>3. Topic: Emerging Standards</b>
<b>Learning Objectives</b>
The candidate will understand and apply emerging financial and valuation standards, principles and methodologies.
<b>Learning Outcomes</b>
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.
<b>Resources</b>
<ul style="list-style-type: none"><li>• LFV-134-16: IFRS PWC Ready or Not, October 2014</li><li>• LFV-135-16: How We Responded to Feedback on the 2013 Exposure Draft, IASB</li><li>• LFV-140-17: Mind the Gap?, December 2015</li><li>• LFV-141-18: IFRS 17 Insurance Contracts – IFRS Standards Effects Analysis, May 2017, IASB</li><li>• <a href="#">Analysis of Methods for Determining Margins for Uncertainty Under a Principle-Based Framework for Life Insurance and Annuity Products</a>, Ch. 3, 4, 5.1, 5.5-5.6, 6</li></ul>

<b>4. Topic: Financial and Capital Management</b>
<b>Learning Objectives</b>
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.
<b>Learning Outcomes</b>
The Candidate will be able to: <ol style="list-style-type: none"><li>Assess financial performance, including analyzing and interpreting the financial performance of a product line or company.</li><li>Apply methods and principles of embedded value.</li><li>Explain and apply methods in determining regulatory capital and economic capital.</li><li>Explain and evaluate the respective perspectives of regulators, investors, policyholders and insurance company management regarding the role and determination of capital.</li><li>Explain Canadian regulatory capital framework and principles.</li><li>Explain and apply methods in earnings management and capital management.</li></ol>
<b>Resources</b>
<ul style="list-style-type: none"><li>LFV-106-07: Chapter 4 of Insurance Industry Mergers &amp; Acquisitions (Sections 4.1-4.6)</li><li>LFV-136-16: Life Insurance Products and Finance, Atkinson &amp; Dallas, Ch.11, pp. 499 - 502</li><li>LFV-137-16: EVARAROC vs MCEV Earnings – A Unification Approach, Kraus, 2011</li><li>LFV-138-16: Prudential Financial Stockholder’s Equity and Operating Leverage, HBR, 2008</li><li>LFV-603-13: OSFI Guideline D-9 -Source of Earning Disclosure (Life Insurance Companies)</li><li>LFV-626-10: Session PD-28: Embedded Value (EV) and Market-Consistent Embedded Value (MCEV). What is the Difference?</li><li>LFV-636-18: OSFI Draft Guideline A-4: Regulatory Capital and Internal Capital Targets September 2017</li><li>LFV-641-18: OSFI: Draft Own Risk and Solvency Assessment (E-19), September 2017</li><li>LFV-645-18: OSFI Draft Guideline A – Life Insurance Capital Adequacy Test (LICAT), Chapters 1 - 3, 5 – 9, 11, September 2017</li><li>LFV-647-18: CIA Draft Educational Note: Life Insurance Capital Adequacy Test (LICAT) and Capital Adequacy Requirements for Life and Health Insurance (CARLI), June 2017</li><li><a href="#">Strategic Management of Life Insurance Company Surplus</a>, TSA XXXVIII (pp. 105-116)</li><li><a href="#">CIA: Sources of Earnings: Determination and Disclosure</a>, August 2004</li><li><a href="#">Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum</a>, March 2009</li></ul>

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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



<b>5. Topic: Reinsurance</b>
<b>Learning Objectives</b>
The candidate will understand the nature and uses of basic reinsurance arrangements used by life insurance companies.
<b>Learning Outcomes</b>
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"><li>a. Risk transfer considerations</li><li>b. Cash flow mechanics</li><li>c. Accounting and financial statement impacts</li><li>d. Reserve credit considerations</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Life, Health &amp; Annuity Reinsurance</i>, Tiller, John E. and Tiller, Denise, 4th Edition, 2015<ul style="list-style-type: none"><li>○ Ch. 4, 5, 6 (pp. 157-160 and 173-174), 7, 8 (Canadian content only), 12 and 17</li></ul></li><li>• LFV-632-12: OSFI Guideline B-3: Sound Reinsurance Practices and Procedures</li><li>• LFV-645-18: OSFI Draft Guideline – Life Insurance Capital Adequacy Test (LICAT), Ch. 10, September 2017</li><li>• <a href="#">Accounting for Reinsurance Contracts under International Financial Reporting Standards (IASP 9)</a>, (excluding Appendices C and D)</li></ul>