

ILA – Life Finance & Valuation, Canada Exam

Spring/Fall 2016

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.

Individual Life and Annuity Life Finance & Valuation – Canada Spring & Fall 2016

Exam: ILA - LFV	TOPIC: <u>Accounting, Financial Statements and Disclosures</u>
Learning Objectives	
1. 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:	
<ul style="list-style-type: none"> A. Construct the basic financial statement or its components 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 how to compute the taxable income of a life insurance company D. Describe, use and recommend methods for performing actuarial reviews of reserves E. Explain the role and responsibilities of the appointed / valuation actuary F. Identify and apply relevant professional actuarial qualification standards G. Identify and apply actuarial standards of practice relevant to financial reporting and valuation H. Explain the actuary's professional responsibilities to stakeholders including obligations under Sarbanes-Oxley 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Insurance Taxation</i>, Borgmann et. al., 3rd Edition, Ch. 3, 4, 5, 6, 11, 27 • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4th Edition, Ch. 1 • 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-634-16: CIA Standards of Practice: Insurance Sections 2400 & 2700, March 2015 • LFV-635-13: Participating Account Management and Disclosure to Participating Policyholders and Adjustable Policyholders • CIA Educational Note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables, December 2010 	

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- [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 \(IASP 3\)](#)
- [CIA Educational Note on IFRS: Measurement of Investment Contracts and Service Contracts under IFRS \(IASP 4\)](#)
- [CIA Research Paper on IFRS: Embedded Derivatives and Derivatives under IFRS](#) (IASP 10)
- [CIA Research Paper, IFRS Disclosure Requirements for Life Insurers](#) (December, 2010)
- [Future Income and Alternative Taxes](#), CIA Educational Note, December 2012
- [Actuarial Aspects of SOX 404](#), Financial Reporter #59, 12/04
- [Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice](#), Financial Reporter #59, 12/04
- [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, January 2014](#)

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Exam: ILA – LFV	TOPIC: <u>Principles of Valuation</u>
Learning Objectives	
2. The candidate will be able to 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. Describe valuation methods	
B. Recommend appropriate valuation assumptions.	
C. Calculate liabilities for life and annuity products and their associated riders.	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4th Edition, Ch. 1 • LFV-133-16: Cluster Analysis: A Spatial Approach to Actuarial Modeling, Milliman, 2008 • LFV-634-16: CIA Standards of Practice: Insurance Sections 2100, 2300, 2500, March 2015 • LFV-637-13: OSFI Letter Evidence for Mean Reversion in Equity Prices • 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 (December 2003 and 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 (excl. 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 excluding Appendix D (December 2012) • CIA 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) July 2011 • CIA Research Paper: Mortality Improvement Research Paper (September 2010) • 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: Considerations in Valuation of Seg Fund Products – November 2007 	

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- [CIA Educational Note, Currency Risk in the Valuation of Policy Liabilities for Life & Health Insurers, Dec 2009](#)
- [CIA Educational Note, Aggregation and Allocation of Policy Liabilities, September 2003](#)
- [CIA Education Note, Investment Returns for Non-fixed Income Returns for Assets, March 2011](#)
- [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](#)
- [CIA Educational Note: Investment Assumptions Used in the Valuation of Life and Health Insurance Contract Liabilities Sept. 2014](#)

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Exam: ILA - LFV	TOPIC: <u>Emerging Standards</u>
Learning Objectives	
3. The candidate will be able to understand and analyze the implications of emerging financial and valuation standards.	
Learning Outcomes	
<p>The candidate will be able to:</p> <p style="margin-left: 40px;">A. Describe emerging developments impacting Canadian valuation and International Financial Reporting frameworks, and assess their impact on the valuation of reserves and financial statements</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • LFV-132-14: Practical Guide to IFRS, PwC, (July 2013) • 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-628-10: OSFI: Framework for a New Standard Approach to Setting Capital Requirements • LFV-640-14: OSFI: Life Insurance Regulatory Framework (September 2012) • LFV-642-16: OSFI: Life Insurance Capital Framework Standard Approach – Jan 2015 • LFV-643-16: OSFI: Update to the Life Insurance Regulatory Framework, Nov 2013 • 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 	

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Exam: ILA – LFV	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
<p>4. 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. In addition the candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC and Economic Capital.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> A. Describe and calculate performance measures. B. Perform financial analysis by product line and total company. C. Explain and create a product line “gains by source” analysis. D. Apply methods of valuation to business and asset acquisitions and sales. This includes explaining and applying the methods and principles of embedded value. E. Explain and apply the methods and approaches of surplus management and earnings management. F. Describe and apply the principles of how insurance companies create value from a financial economics perspective. G. Describe the MCCR/RBC regulatory framework and the principles underlying the determination of Regulatory RBC. H. Compute the MCCR for a life insurance company including: <ul style="list-style-type: none"> a. Identification of significant risk components b. Identification of specialized product MCCR requirements c. Interpreting results from a regulatory perspective I. Explain and apply the concepts, approaches and method for determining Economic Capital <ul style="list-style-type: none"> a. Identify the significant risk components b. Select calculation methods appropriate to stakeholder’s perspectives c. Describe how a company would implement an Economic Capital Program 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Liabilities</i>, Lombardi, 4th Edition, Ch. 16 (excl. 16.6) • LFV-106-07: Chapter 4 of <i>Insurance Industry Mergers & Acquisitions</i> (Sections 4.1-4.6) • LFV-131-14: Economic Capital Overview: Chad Runchey, August 2012 • LFV-136-16: Life Insurance Products and Finance, Atkinson & Dallas, Chapter 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) 	

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- LFV-606-16: OSFI Guideline – Minimum Continuing Capital and Surplus Requirements (MCCSR) For Life Insurance Companies, Sections 1 – 5, 8 – 9, January 1, 2015
- LFV-626-10: Session PD-28: Embedded Value (EV) and Market-Consistent Embedded Value (MCEV). What is the Difference?
- LFV-636-13: OSFI Guideline A-4 Internal Target Capital Ratio for Insurance Companies
- LFV-641-15: OSFI: Own Risk and Solvency Assessment (E-19) (January 2014)
- [Strategic Management of Life Insurance Company Surplus](#), TSA XXXVIII (pages 105-116)
- [CIA: Sources of Earnings: Determination and Disclosure](#), August 2004
- [Embedded Value: Practice and Theory](#), SOA, Actuarial Practice Forum, March 2009.
- [A Multi-Stakeholder Approach to Capital Adequacy](#), Conning Research & Consulting
- [Economic Capital for Life Insurance Companies](#), SOA Research paper, Feb 2008, Ch. 1 and 3-6

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Exam: ILA – LFV	TOPIC: <u>Reinsurance</u>
Learning Objectives	
5. The candidate will be able to evaluate various forms of reinsurance, the financial impact of each form, and the circumstances that would make each type of reinsurance appropriate.	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe the considerations and evaluate the appropriate reinsurance form from the ceding and assuming company perspectives</p> <p>B. Explain the consequences and calculate the effect on both ceding and assuming companies with respect to:</p> <ul style="list-style-type: none"> i) risk transfer ii) cash flow, iii) financial statements iv) reserve credit requirements v) tax 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life, Health & Annuity Reinsurance</i>, Tiller, 3rd Edition, Ch. 4-6. Candidates may also use the 4th Edition, Ch. 4, Ch. 5 pp. 105-149 only, Ch. 7 pp. 181-192 only, Ch. 8 • LFV-606-16: OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies Section 10 only, January 1, 2015 • LFV-632-12: OSFI Guideline B-3: Sound Reinsurance Practices and Procedures • Report of the CIA Task Force on the Appropriate Treatment of Reinsurance, Oct 2007 • Accounting for Reinsurance Contracts under International Financial Reporting Standards (IASP 9), (exclude Appendices C and D) 	