

Individual Life and Annuity Life Finance & Valuation – Canada Spring and Fall 2015

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 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 2015

Exam: ILA - LFV	TOPIC: <u>Financial Reporting</u>
Learning Objectives	
<p>1. The candidate will understand financial statements and reports of Canadian life insurance companies and be able to analyze the data in them.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Construct the basic financial statement or its components for a life insurance company.</p> <p>B. Describe the structure of the Canadian Annual Statement and explain the purpose of its statements, key exhibits and schedules.</p> <p>C. Describe how to compute the taxable income of a life insurance company</p> <p>D. Describe, use and recommend methods for performing actuarial reviews of reserves</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Insurance Taxation</i>, Borgmann et. al., 3rd Edition, Ch. 1-11, 26, 27. Note: Chapters 1, 2, 7 – 10, and 26 are for background reading only. • <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 • 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) • 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 	

**Individual Life and Annuity Life Finance & Valuation – Canada
Spring & Fall 2015**

Exam: ILA – LFV	TOPIC: <u>Principles of Valuation</u>
Learning Objectives	
2. The candidate will be able to understand and apply valuation principles of 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-634-15: CIA Standards of Practice: Practice-Specific Standards for Insurers (Sections 2100, 2300, 2500) (January 1, 2014) • 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) • 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) • 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 • CIA Educational Note, Currency Risk in the Valuation of Policy Liabilities for Life & Hlth 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 	

Individual Life and Annuity Life Finance & Valuation – Canada Spring & Fall 2015

- [Revision to Standards of Practice for Promulgations of the Maximum Net Credit Spread, Ultimate Reinvestment Rates, and Calibration Criteria for Stochastic Risk-Free Interest Rates, May 2014](#)
- [Memorandum of the Final Standards - Revisions to Economic Reinvestment Assumptions, May 2014](#)
- [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](#)

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-127-15: IASB Staff Paper, Effect of Board Deliberations on the 2013 Exposure Draft Insurance Contracts, July 2014 • LFV-132-14: Practical Guide to IFRS, PwC, (July 2013) • LFV-609-07: Canadian Institute of Actuaries OSFI Submission: Future Direction of Insurance Capital Rules, March 2005 • LFV-631-11: Key Principles for the Future Direction of the Canadian Regulatory Capital Framework on Insurance • LFV-640-14: OSFI: Life Insurance Regulatory Framework (September 2012) • LFV-641-15: OSFI: Own Risk and Solvency Assessment (E-19) (January 2014) 	

Individual Life and Annuity Life Finance & Valuation – Canada Spring & Fall 2015

Exam: ILA – LFV	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
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.	
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. 	
Syllabus Resources	
<ul style="list-style-type: none"> • LFV-106-07: Chapter 4 of <i>Insurance Industry Mergers & Acquisitions</i> (Sections 4.1-4.6) • LFV-128-13: <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, Ch. 16 • 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? • 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. 	

Individual Life and Annuity Life Finance & Valuation – Canada Spring & Fall 2015

Exam: ILA - LFV	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
5. The candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC and Economic Capital.	
Learning Outcomes	
The candidate will be able to:	
<p>A. Describe the MCCR/RBC regulatory framework and the principles underlying the determination of Regulatory RBC.</p> <p>B. Compute MCCR for a life insurance company, including:</p> <ol style="list-style-type: none"> i) Identification of significant risk components ii) Identification of specialized product MCCR requirements iii) Interpreting results from a regulatory perspective <p>C. Explain and apply the concepts, approaches and method for determining Economic Capital</p> <ol style="list-style-type: none"> i) Identification of the significant risk components ii) Selecting calculation methods appropriate to stakeholder's perspectives iii) Describing 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-121-08: Economic Capital Modeling: Practical Considerations (pp.4-34 only) • LFV-131-14: Economic Capital Overview: Chad Runchey, August 2012 • LFV-606-15: OSFI Guideline – Minimum Continuing Capital and Surplus Requirements (MCCR) For Life Insurance Companies, Sections 1 – 5, 8 – 9, January 1, 2014 • LFV-628-10: Framework for a New Standard Approach to Setting Capital Requirements • LFV-636-13: OSFI Guideline A-4 Internal Target Capital Ratio for Insurance Companies • 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 	

**Individual Life and Annuity Life Finance & Valuation – Canada
Spring & Fall 2015**

Exam: ILA – LFV	TOPIC: <u>Reinsurance</u>
Learning Objectives	
6. 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	
The candidate will be able to:	
A. Describe the considerations and evaluate the appropriate reinsurance form from the ceding and assuming company perspectives	
B. Explain the consequences and calculate the effect on both ceding and assuming companies with respect to:	
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• LFV-606-15: OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies Section 10 only (January 1, 2014)• 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)	

Individual Life and Annuity Life Finance & Valuation – Canada Spring & Fall 2015

Exam: ILA - LFV	TOPIC: Professional Considerations
Learning Objectives	
7. The candidate will understand the professional standards addressing financial reporting and valuation.	
Learning Outcomes	
The candidate will be able to:	
<ul style="list-style-type: none"> A. Explain the role and responsibilities of the appointed / valuation actuary. B. Identify and apply relevant professional actuarial qualification standards. C. Identify and apply actuarial standards of practice relevant to financial reporting and valuation. D. Explain the actuary’s professional responsibilities to stakeholders including obligations under Sarbanes-Oxley 	
Syllabus Resources	
<ul style="list-style-type: none"> • LFV-620-14: OSFI Guideline E15: Appointed Actuary – Legal Requirements, Qualifications and External Review (September 2012) • LFV-634-15 CIA Standards of Practice: Practice-Specific Standards for Insurers (Sections 2400 & 2700) (January 1, 2014) • LFV-635-13: Participating Account Management and Disclosure to Participating Policyholders and Adjustable Policyholders • 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 	