

# Individual Life and Annuity Life Finance & Valuation – Canada Fall 2013

## Important Exam Information:

<a href="#">Exam Date and Time</a>	A read-through time will be given prior to the start of the exam—15 minutes in the morning session and 15 minutes in the afternoon session.
<a href="#">Exam Registration</a>	Candidates may register online or with an application.
<a href="#">Order Study Notes</a>	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
<a href="#">Introductory Study Note</a>	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
<a href="#">Case Study</a>	There is no case study for this examination.
<a href="#">Past Exams</a>	Past Exams from 2000-present are available on SOA website.
<a href="#">Updates</a>	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 Fall 2013

Exam: ILA - LFV	TOPIC: <b>Financial Reporting</b>
Learning Objectives	
<b>1. The candidate will understand financial statements and reports of Canada life insurance companies and be able to analyze the data in them.</b>	
Learning Outcomes	
The candidate will be able to:	
<p>A. Construct the basic financial statement or its components for a life insurance company.</p> <p>B. Describe the structure of the Canada 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"> <li>• <i>Canadian Insurance Taxation</i>, Borgmann et. al., 3<sup>rd</sup> Edition, Ch. 3, 4, 5, 6, 11 and 27 (Ch. 1, 2, 7-10 &amp; 26 background only)</li> <li>• <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4<sup>th</sup> Edition, Ch. 1</li> <li>• LFV-100-07: Financial Reporting Developments -Accounting for Derivative Instruments and Hedging Activities: A Comprehensive Analysis of FASB Statement 133, as Amended and Interpreted (Overview and appendix C only) (same as ILA-C100-07)</li> <li>• LFV-102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities (same as ILA-C102-09)</li> <li>• LFV-618-13: OSFI Guideline D-10: Accounting for Financial Instruments Designated as Fair Value Option (same as ILA-C618-13)</li> <li>• <a href="#">CIA Educational Note: Valuation of Gross Policy Liabilities and Reinsurance Recoverables</a>, December 2010</li> </ul>	

## Individual Life and Annuity Life Finance & Valuation – Canada Fall 2013

Exam: ILA – LFV	TOPIC: <b><u>Principles of Valuation</u></b>
Learning Objectives	
<b>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.</b>	
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"> <li>• <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4<sup>th</sup> Edition, Ch. 1</li> <li>• LFV-634-13: CIA Standards of Practice: Practice-Specific Standards for Insurers (Sections 2100, 2300, 2500) (same as ILA-C634-13)</li> <li>• LFV-637-13: OSFI Letter Evidence for Mean Reversion in Equity Prices (same as ILA-C637-13)</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>• CIA: Valuation of Segregated Fund Investment Guarantees (<a href="#">December 2003</a> and <a href="#">October 2005</a>)</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 (excl. appendices)</li> <li>• <a href="#">Report of the Task Force on Segregated Fund Liability and Capital Methodologies</a> (August 2010)</li> <li>• <a href="#">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)</a></li> <li>• <a href="#">CIA Draft Educational Note: Valuation of Universal Life Policy Liabilities</a>, November, 2006</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: Considerations in Valuation of Segregated Fund Products</a> – November 2007</li> <li>• Rubin, et. al., <a href="#">Fair Value Accounting: Trouble-maker or Life-saver?</a>, Financial Reporter Article April 2009</li> <li>• Gutterman, et al., <a href="#">An Approach for measurement of the Fair Value of Insurance Contracts</a>, Actuarial Practice Forum, May 2007</li> <li>• <a href="#">CIA Educational note, Currency Risk in the Valuation of Policy Liabilities for Life and Health Insurers</a>, December 2009</li> <li>• <a href="#">CIA Educational Note, Aggregation and Allocation of Policy Liabilities</a>, September 2003</li> <li>• <a href="#">CIA Education Note, Investment Return Assumptions for Non-fixed Income Assets for Life Insurers</a>, 2011</li> </ul>	

**Individual Life and Annuity Life Finance & Valuation – Canada  
Fall 2013**

Exam: ILA - LFV	TOPIC: <b><u>Emerging Standards</u></b>
Learning Objectives	
<b>3. The candidate will be able to understand and analyze the implications of emerging financial and valuation standards.</b>	
Learning Outcomes	
The candidate will be able to:  A. Describe emerging developments impacting Canadian valuation and International Financial Reporting frameworks, and assess their impact on the valuation of reserves and financial statements	
Syllabus Resources	
<ul style="list-style-type: none"><li>• LFV-127-13: IASB Staff Paper July 2012: Effect of Board Redeliberations on Exposure Draft <i>Insurance Contracts</i> (same as ILA-C127-13)</li><li>• LFV-129-13: An Approach to Fair Valuation of Insurance Liabilities Using the Firm's Cost of Capital, NAAJ, Apr 2002, pp. 18-23</li><li>• LFV-130-13: Fair Value of Liabilities: The Financial Economic Perspective, NAAJ Jan 2002</li><li>• LFV-609-07: Canadian Institute of Actuaries OSFI Submission: Future Direction of Insurance Capital Rules, March 2005 (same as ILA-C609-07)</li><li>• LFV-629-11: Conversion to International Financial Reporting Standards (IFRSs) by Federally Regulated Entities (FREs) (same as ILA-C629-11)</li><li>• LFV-631-11: Key Principles for the Future Direction of the Canadian Regulatory Capital Framework on Insurance (same as ILA-C631-11)</li><li>• <a href="#">Educational Note: Classification of Contracts under International Financial Reporting Standards</a></li></ul>	

## Individual Life and Annuity Life Finance & Valuation – Canada Fall 2013

Exam: ILA – LFV	TOPIC: <b><u>Financial and Capital Management</u></b>
Learning Objectives	
<b>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.</b>	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>A. Describe and calculate performance measures.</li> <li>B. Perform financial analysis by product line and total company.</li> <li>C. Explain and create a product line “gains by source” analysis.</li> <li>D. Apply methods of valuation to business and asset acquisitions and sales. This includes explaining and applying the methods and principles of embedded value.</li> <li>E. Explain and apply the methods and approaches of surplus management and earnings management.</li> <li>F. Describe and apply the principles of how insurance companies create value from a financial economics perspective.</li> </ul>	
Syllabus Resources	
<ul style="list-style-type: none"> <li>• LFV-106-07: Chapter 4 of <i>Insurance Industry Mergers &amp; Acquisitions</i> (Sections 4.1-4.6) (same as ILA-C106-07)</li> <li>• LFV-128-13: <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, Ch. 16</li> <li>• LFV-603-13: OSFI Guideline D-9 -Source of Earning Disclosure (Life Insurance Companies) (same as ILA-C603-13)</li> <li>• LFV-626-10: Session PD-28: Embedded Value (EV) and Market-Consistent Embedded Value (MCEV). What is the Difference? (same as ILA-C626-10)</li> <li>• <a href="#">“Strategic Management of Life Insurance Company Surplus,”</a> TSA XXXVIII (pages 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,</a> SOA, Actuarial Practice Forum, March 2009</li> </ul>	

## Individual Life and Annuity Life Finance & Valuation – Canada Fall 2013

Exam: ILA - LFV	TOPIC: <b><u>Financial and Capital Management</u></b>
Learning Objectives	
<b>5. The candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC and Economic Capital.</b>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe the MCCSR/RBC regulatory framework and the principles underlying the determination of Regulatory RBC.</p> <p>B. Compute MCCSR for a life insurance company, including:</p> <ol style="list-style-type: none"> <li>i) Identification of significant risk components</li> <li>ii) Identification of specialized product MCCSR requirements</li> <li>iii) Interpreting results from a regulatory perspective</li> </ol> <p>C. Explain and apply the concepts, approaches and method for determining Economic Capital</p> <ol style="list-style-type: none"> <li>i) Identification of the significant risk components</li> <li>ii) Selecting calculation methods appropriate to stakeholder's perspectives</li> <li>iii) Describing how a company would implement an Economic Capital Program</li> </ol>	
Syllabus Resources	
<ul style="list-style-type: none"> <li>• <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4<sup>th</sup> Edition, Ch. 16 (excl. 16.6)</li> <li>• LFV-121-08: Economic Capital Modeling: Practical Considerations (same as ILA-C121-08)</li> <li>• LFV-606-13: OSFI Guideline – Minimum Continuing Capital and Surplus Requirements (MCCSR) For Life Insurance Companies, January 1, 2013</li> <li>• LFV-628-10: Framework for a New Standard Approach to Setting Capital Requirements (same as ILA-C628-10)</li> <li>• LFV-636-13: OSFI Guideline A-4 Internal Target Capital Ratio for Insurance Companies (same as ILA-C636-13)</li> <li>• <a href="#"><i>A Multi-Stakeholder Approach to Capital Adequacy</i></a>, Conning Research &amp; Consulting</li> <li>• <a href="#"><i>Economic Capital for Life Insurance Companies</i></a>, SOA Research paper, Ch. 1, 3, 4, 5, 6</li> </ul>	

**Individual Life and Annuity Life Finance & Valuation – Canada  
Fall 2013**

Exam: ILA – LFV	TOPIC: <u>Reinsurance</u>
Learning Objectives	
<b>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.</b>	
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"><li>• <i>Life, Health &amp; Annuity Reinsurance</i>, Tiller, 3<sup>rd</sup> Edition, Ch. 4-6</li><li>• LFV-606-13: OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies, Ch.10 only (same as ILA-C606-13)</li><li>• LFV-632-12: OSFI Guideline B-3: Sound Reinsurance Practices and Procedures (same as ILA-C632-12)</li><li>• <a href="#">Report of the CIA Task Force on the Appropriate Treatment of Reinsurance</a>, Oct 2007</li><li>• <a href="#">Accounting for Reinsurance Contracts under International Financial Reporting Standards</a>, (excl Appendices A, C and D)</li></ul>	

## Individual Life and Annuity Life Finance & Valuation – Canada Fall 2013

Exam: ILA - LFV	TOPIC: Professional Considerations
Learning Objectives	
<b>7. The candidate will understand the professional standards addressing financial reporting and valuation.</b>	
Learning Outcomes	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>A. Explain the role and responsibilities of the appointed / valuation actuary.</li> <li>B. Identify and apply relevant professional actuarial qualification standards.</li> <li>C. Identify and apply actuarial standards of practice relevant to financial reporting and valuation.</li> <li>D. Explain the actuary’s professional responsibilities to stakeholders including obligations under Sarbanes-Oxley</li> </ul>	
Syllabus Resources	
<ul style="list-style-type: none"> <li>• LFV-620-09: OSFI Guideline E15: Appointed Actuary – Legal Requirements, Qualifications and External Review (ILA-C620-09)</li> <li>• LFV-622-12: CIA Standards of Practice: Practice-Specific Standards for Insurers (Section 2400) (same as ILA-C622-12)</li> <li>• LFV-635-13: Participating Account Management and Disclosure to Participating Policyholders and Adjustable Policyholders (same as ILA-C635-13)</li> <li>• <a href="#">Actuarial Aspects of SOX 404</a>, Financial Reporter #59, 12/04</li> <li>• <a href="#">Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice</a>, Financial Reporter #59, 12/04</li> <li>• <a href="#">CIA Educational Note: Guidance on Fairness Opinions Required Under the Insurance Companies Act Pursuant to Bill C-27</a> (2005)</li> </ul>	