

# ILA – Life Finance & Valuation, U.S. Exam

Spring 2019/Fall 2019

## 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

A case study will not be used 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 Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

**1. Topic: Accounting, Financial Statements and Disclosures**

**Learning Objectives**

The candidate will understand U.S. life insurance company financial statements and reports.

**Learning Outcomes**

The Candidate will be able to:

- a) Construct, analyze and evaluate basic U.S. GAAP, Statutory, and Tax financial statements for a life insurance company
- b) Describe the major exhibits and schedules of the U.S. Annual Statement and explain the purpose of each
- c) Describe, apply and evaluate regulatory documentation and disclosure requirements
- d) Describe, apply and evaluate the appropriate accounting treatments for insurance products, separate accounts, assets, derivatives and reinsurance
- e) Apply and recommend methods for performing reviews of financial statements including reserves

**Resources**

- *Statutory Valuation of Individual Life and Annuity Contracts - Volume I*, Claire, D., Lombardi, L. and Summers, S., 5<sup>th</sup> Edition, 2018
  - Ch. 1: Overview of Valuation Concepts (excluding 1.1-1.9)
  - Ch. 2: Product Classifications (excluding 2.1 & 2.3-2.5)
  - Ch. 3: NAIC Annual Statement
- *US GAAP for Life Insurers*, Herget et al., 2<sup>nd</sup> Edition, 2006
  - Ch. 13 (excluding 13.7) & 14
- LFV-100-07: Financial Reporting Developments Accounting for Derivative Instruments and Hedging Activities: A Comprehensive Analysis of FAS 133 (Overview and Appendix C only)
- LFV-102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities (excluding Appendix D)
- LFV-800-07: IASA Life and Accident and Health Insurance Accounting, Ch. 8, pp. 12-16 and Ch. 12, pp.1-15 & 32-33
- LFV-804-16: Actuarial Opinion and Memorandum Model Regulation (NAIC) (pp. 822.1-822.17)
- LFV-819-16: Greenwich Treasury – Derivative Accounting & Hedging
- LFV-828-17: Global Insurance Regulatory Issues: Implications for U.S. Policy and Regulation, Bipartisan Policy Center, November 2015 (excluding pp. 20-29)
- ASOP 10: Methods and Assumptions for Use in Life Insurance Company Financial Statements Prepared in Accordance with GAAP (excluding Transmittal Memo and Appendices)
- ASOP 11: The Treatment of Reinsurance Transactions in Life and Health Insurance Company Financial Statements (excluding Transmittal Memo and Appendices)

Individual Life and Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

- ASOP 21: Responding to the Auditor (excluding Transmittal Memo and Appendices)
- ASOP 41: Actuarial Communication (excluding Transmittal Memo and Appendices)
- Actuarial Aspects of SOX 404, Financial Reporter, Issue 59, Dec 2004
- Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice, Financial Reporter, Issue 59, Dec 2004
- AAA Model Audit Rule, Nov 2010

Individual Life and Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

**2. Topic: Valuation**

**Learning Objectives**

The candidate will understand valuation principles and methods of individual life insurance and annuity products issued by U.S. life insurance companies.

**Learning Outcomes**

As applicable to the valuation of U.S. GAAP, Statutory, and Tax reserves, the Candidate will be able to:

- a) Compare and apply methods for life and annuity product reserves
- b) Evaluate, calculate, and interpret liabilities and DAC assets
- c) Recommend and justify appropriate valuation assumptions

**Resources**

- *Statutory Valuation of Individual Life and Annuity Contracts - Volume I*, Claire, D., Lombardi, L. and Summers, S., 5<sup>th</sup> Edition, 2018  
*(note – the Lombardi text contains Excel workbook files which supplement and illustrate the content in the text. Candidates are encouraged to download and review them to gain a deeper appreciation for the methodologies and relationships being illustrated)*
  - Ch. 4: Standard Valuation Law
  - Ch. 5: The Valuation Manual
  - Ch. 10: Valuation Assumptions (excluding 10.1.3 & 10.3.8)
  - Ch. 11: Valuation Methodologies (excluding 11.3.9-11.3.11)
  - Ch. 12: Whole Life
  - Ch. 13: Term Life Insurance
  - Ch. 14: Universal Life (excluding 14.4.8, 14.4.9, 14.5.0 & 14.6.2-14.6.6)
  - Ch. 16: Indexed Universal Life
  - Ch. 18: Fixed Deferred Annuities (excluding 18.7.4 & 18.8)
  - Ch. 19: Variable Deferred Annuities
  - Ch. 20: Indexed Deferred Annuities
  - Ch. 21: Immediate Annuities
  - Ch. 22: Miscellaneous Reserves (excluding 22.3-22.4)
- *US GAAP for Life Insurers*, Herget et al., 2<sup>nd</sup> Edition, 2006
  - Ch. 3, 4 & 6-9
- LFV-133-16: Cluster Analysis: A Spatial Approach to Actuarial Modeling, Milliman, 2008
- LFV-800-07: IASA Ch. 8, pp. 12-16 and Ch. 12, pp.1-15 & 32-33
- LFV-812-10: A Discussion of Actuarial Guideline 43 for Variable Annuities, Milliman Research Report, April 2009 (excluding pp. 15-31)

Individual Life and Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

- LFV-820-16: Transamerica Term Life: Understanding Post-Level Experience
- LFV-821-16: Insurance Contract Modifications or Exchanges pp. 1-3, E&Y, 2012
- LFV-822-16: Study Note on Actuarial Guidelines 38 and 48 (excluding pp. 6-8)
- LFV- 829-17: Tax Basis Assets and Liabilities of U. S. Life Insurers, Robbins and Bush, 2014
  - Ch. 2: Tax-Basis Reserves Generally
  - Ch. 7: section 807(f) and Changes in the Computation of Reserves
  - Ch. 13: Reserve Issues in Reinsurance, Section 13.2 only, Statutory Accounting for Reserves
- LFV-831-17: Actuarial Guideline 43 (excluding Appendices 2, 4, 5, 7, 8, 9, 10 & 11)
- LFV-832-17: AG 49 – A Closer Look
- LFV-836-17: AG 49 Post Standards Update
- LFV-837-19: Proposed Changes to US GAAP - An Impact Analysis of Proposed Targeted Improvements, Milliman Research Paper, 2017
- ULSG AG38 Valuation Research Report, Financial Reporter, Jun 2013, pp. 1, 4-7
- Model Efficiency Study Results, SOA Research, 2011, pp. 10-30 & 43-49
- Negative GAAP Term Insurance Reserves—to Floor or Not to Floor?, Financial Reporter, Dec 2016

Individual Life and Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

**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, evaluate and calculate the impact on reserves, income, capital, and processes of emerging developments in Statutory and U.S. GAAP reporting, International Financial Reporting Standards and Solvency Modernization
- b) Compare and contrast rules-based and principles-based approaches

**Resources**

- LFV-141-18: IFRS 17 Insurance Contracts – IFRS Standards Effects Analysis, May 2017, IASB (sections 1, 2, 4 & 6.1-2 only)
- LFV-823-16: ORSA Guidance Manual, NAIC, 2014
- LFV-824-16: Model Risk Mitigation and Cost Reduction Through Effective Documentation, PWC, 2013
- LFV-825-16: The Long and Winding Road – The IASB’s Project on Insurance Contracts, IASB, 2013
- LFV-833-18: Fundamentals of the Principle – Based Approach to Statutory Reserves for Life Insurance, 2017
- LFV-835-17: Overview of the FASB’s Proposal for Long-Duration Contracts of Insurers, PwC, October 17, 2016
- LFV-839-19: U.S. GAAP Targeted Improvements for Long Duration Insurance Contracts
- ASOP 52 - Principle-Based Reserves for Life Products under the NAIC Valuation Manual on PBR for Life Products, section 3
- 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
- An Approach for measurement of the Fair Value of Insurance Contracts, Gutterman, et al., Actuarial Practice Forum, May 2007
- Fair Value Accounting: Trouble-maker or Life-saver?, Financial Reporter, Apr 2009

#### 4. Topic: Financial and Capital Management

##### Learning Objectives

The candidate will understand basic financial management, capital management and value creation principles and methods in a life insurance company context.

##### Learning Outcomes

The Candidate will be able to:

- a) Assess financial performance, including analyzing and interpreting the financial performance of a product line or company
- b) Apply methods and principles of embedded value
- c) Explain and apply methods in determining regulatory capital and economic capital
- d) Explain and evaluate the respective perspectives of regulators, investors, policyholders and insurance company management regarding the role and determination of capital
- e) Explain U.S. Risk Based Capital (RBC) regulatory framework and principles
- f) Explain and apply methods in earnings management and capital management

##### Resources

- LFV-106-07: Ch. 4 of Insurance Industry Mergers & Acquisitions (sections 4.1-4.6)
- LFV-136-16: Life Insurance Products and Finance, Atkinson & Dallas, Ch.11, pp. 499-502
- 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-807-09: Market Value Margins for Insurance Liabilities in Financial Reporting and Solvency Applications, October 2007 (pp. 2-41 & 46-65)
- LFV-813-13: U.S. Insurance Regulation Solvency Framework and Current Topics
- LFV-815-13: Understanding Profitability in Life Insurance
- LFV-816-13: Regulatory Issues in Insurance, Sigma #3/2010 Swiss Re, pp. 3-24
- LFV-818-16: Introduction to Source of Earning Analysis, Jul 2015
- LFV-827-16: Financial Reinsurance to Address GAAP Earnings Volatility, SCOR, 2014
- LFV-834-17: Regulatory Capital Considerations for U.S. Life Insurance
- Economic Capital for Life Insurance Companies, SOA, Feb 2008, Ch. 1, 3-6
- A Multi-Stakeholder Approach to Capital Adequacy, Conning Research
- Stochastic Analysis of Long Term Multiple-Decrement Contracts, Clark and Runchey, Jan 2008 (excluding Appendices)
- Strategic Management of Life Insurance Company Surplus, TSA XXXVIII, pp. 105-116
- Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum, Mar 2009

Individual Life and Annuities - Life Finance & Valuation U.S. Exam  
Spring 2019/Fall 2019

**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:

- a) Risk transfer considerations
- b) Cash flow mechanics
- c) Accounting and financial statement impacts
- d) Reserve credit considerations

**Resources**

- *Life, Health & Annuity Reinsurance*, Tiller, John E. and Tiller, Denise, 4<sup>th</sup> Edition, 2015
  - Ch. 4, 5, 6 (pp. 157-172), 7, 8 (U.S. content only), 11, 13 & 17
- *US GAAP for Life Insurers*, Herget et al., 2<sup>nd</sup> Edition, 2006
  - Ch. 17 (sections 17.4-17.7)