# **Important Exam Information:**

Exam Date and Time 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.

<u>Exam Registration</u> Candidates may register online or with an application.

Study Note Order Form Study notes are part of the required syllabus and are not available

electronically.

Introductory Study Note The Introductory Study Note has a complete listing of all study notes as

well as errata and other important information.

Past Exams from 2000-present are available on SOA web site.

<u>Updates</u> Candidates should be sure to check the Updates page on the exam home

page periodically for additional corrections or notices.

### Syllabus for Individual Life and Annuities U.S Company/Sponsor Perspective Exam:

The candidate should be very familiar with the Learning Objectives as described in this syllabus document. These Learning Objectives are the first ingredient in developing the syllabus and also guide the examination committee when writing questions. The Learning Objectives set out the cognitive level needed to pass this exam. You will notice that the candidates are expected to "analyze," "explain," "calculate," "describe," "apply," etc. While studying the syllabus material, candidates may want to refer to the Learning Objectives to remain focused on the goals of the exam.

Exam: ILA - CSP TOP	C: Financial Reporting
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#### **Learning Objective**

1. The candidate will understand the preparation of financial statements and reports of U.S. life insurance companies and be able to analyze the data in them.

### **Learning Outcomes**

The candidate will be able to:

- A. Prepare the basic financial statements for a life insurance company under U.S. GAAP, U.S Statutory and U.S. Tax methods and regulations.
- B. Describe the structure of the U.S. 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. Explain fair value accounting principles
- E. Explain the appropriate accounting treatments for:
  - i) Separate Accounts
  - ii) Embedded options (FAS 133)
  - iii) Derivatives
  - iv) Secondary guarantees (AG 38, SOP 03-1)
  - v) Internal Replacements (SOP 05-1)
- F. Describe international accounting standards

#### **Syllabus Resources**

• US GAAP For Life Insurers, Herget, T., Second Edition, 2006:

Chapter 1 GAAP Objectives and Their Implications to Life Insurers

Chapter 2 Authorities

Chapter 13 Investment Accounting (excl. 13.7)

Chapter 18 (excl. 18.4) Other Topics

Chapter 19 Financial Statement Presentations

• Valuation of Life Insurance Liabilitie, Lombardi, Fourth Edition 2006:

Chapter 1, Overview of Valuation Requirements

Chapter 2, NAIC Annual Statement

Chapter 6, Whole Life

• ILA-C100-07: Financial Reporting Developments Accounting for Derivative Instruments and Hedging

- Activities: A Comprehensive Analysis of FAS 133 (Overview and Appendix C)
- ILA-C807-09:Market Value margins for Insurance Liabilities in Financial Reporting and Solvency Applications, E7Y October 2007- through page 65
- ILA-C122-09: PWC IFRS Insurance Alert: Phase II Discussion Paper, May 2007
- ILA-C123-09: IASA Phase II Preliminary Views Discussion Paper, Ch. 3
- ILA-C800-07: IASA, 2001 Chapter. 12 (up to page 15 and pages 32-33 only) Federal Income Taxation
- ILA-C805-08: NAIC AG-38
- ILA-C809-09: Emerging Financial Reporting Issues, E&Y
- ILA-C810-09: AAA Practice Note: Draft Notes on FAS 157 and 159
- AICPA Releases SOP 05-1- Accounting by Insurance Enterprises for Deferred Acquisition Costs in Connection
  with Modifications or Exchanges of Insurance Contracts, Financial Reporter Article 03/06
  http://www.soa.org/library/newsletters/financial-reporter/2006/march/frn0603.pdf
- "An Approach to Fair Valuation of Insurance Liabilities Using the Firm's Cost of Capital", NAAJ, Apr 2002, http://www.soa.org/library/journals/north-american-actuarial-journal/2002/april/naaj0204\_3.pdf
- ASOP 10 "Methods and Assumptions for Use in Life Insurance Company Financial Statements Prepared in Accordance With GAAP <a href="http://www.actuarialstandardsboard.org/pdf/asops/asop010\_068.pdf">http://www.actuarialstandardsboard.org/pdf/asops/asop010\_068.pdf</a>
- "Fair Value of Liabilities: The Financial Economic Perspective", NAAJ Jan 2002
   http://www.soa.org/library/journals/north-american-actuarial-journal/2002/january/naaj0201\_2.pdf
- SFAS 157 Fair Value Measurements, paragraphs 1-30 http://72.3.243.42/pdf/fas157.pdf
- SFAS 159, The Fair Value Option for Financial Assets and Financial Liabilities, paragraphs 1-15 http://72.3.243.42/pdf/fas159.pdf
- SOA Research Project on Financial Reporting for Insurance Contracts under Possible Future International Standards, pp. 6-43, 67-70, 74-81
   <a href="http://www.soa.org/files/pdf/research-2008-ifrs-report.pdf">http://www.soa.org/files/pdf/research-2008-ifrs-report.pdf</a>

Exam: ILA – CSP TOPIC: Principles of Valuation

#### **Learning Objective**

2. The candidate will be able to understand and apply valuation principles of individual life insurance and annuity products issued by U.S. life insurance companies.

### **Learning Outcomes**

The candidate will be able to:

- A. Describe, compare, and contrast valuation methods under the following standards:
  - i) U.S. statutory
  - ii) U.S. GAAP
  - iii) U.S. tax
  - iv) Fair value accounting
- B. Select appropriate valuation assumptions under the following standards:
  - i) U.S. statutory
  - ii) U.S. GAAP
  - iii) U.S. tax
  - iv) Fair value accounting
- C. Compute liabilities under U.S. statutory, U.S. tax, U.S. GAAP, and DAC assets under U.S. GAAP for the following products:
  - i) Traditional life insurance
  - ii) Term life insurance
  - iii) Universal life insurance
  - iv) Universal life insurance with secondary guarantees
  - v) Deferred annuity
  - vi) Payout annuity
  - vii) Variable annuity with guaranteed minimum death benefits
  - viii) Variable annuity with guaranteed living benefits
  - ix) Equity-indexed annuities
  - x) Equity-indexed life insurance
  - xi) Variable life insurance with guaranteed minimum death benefits
  - xii) Riders
- D. Devise and use methods for reviewing reserves
- E. Describe and calculate Investment Maintenance and Asset Valuation Reserves
- F. Describe concepts underlying SVL II (principle-based reserves)

- US GAAP For Life Insurers, Herget, Second Edition, 2006, Chapters 3, 4, 6–9
- Valuation of Life Insurance Liabilities, Lombardi, Fourth Edition, 2006, Chapters 1, 4–12
- ILA-C102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities, Robbins
- ILA-C104-07 Valuation of Living and Death Benefit Guarantees for Variable Annuities
- ILA-C800-07: *IASA*, Chapter 8, pages 12-16 only
- ILA-C802-07U. S. Tax Reserves for Life Insurers, Robbins and Bush, 2006, Chapters 2 and 7
- ILA-C803-07 NAIC Standard Valuation Law
- SVL II Connecting the Dots", by Shao, SoA Financial Reporter
   <a href="http://www.soa.org/library/newsletters/financial-reporter/2005/june/frn0506.pdf">http://www.soa.org/library/newsletters/financial-reporter/2005/june/frn0506.pdf</a>

Exam: ILA - CSP	TOPIC: Reinsurance
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### **Learning Objective**

3. The candidate will be able to evaluate various forms of reinsurance, what the financial impact is of each form, and describe the circumstances that would make each type of reinsurance appropriate.

### **Learning Outcomes**

The candidate will be able to:

- A. For traditional and financial reinsurance, 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) tax, and
  - v) reserve credit requirements
- B. Describe what considerations would be examined to determine the appropriate reinsurance form from the ceding and assuming company perspectives

- Life and Health and Annuity Reinsurance, Tiller, Third Edition, 2005, Chapters 4–6, 10–12, 14
- ASOP #11: The Treatment of Reinsurance Transactions in Life and Health Insurance Company Financial Statements <a href="http://www.actuarialstandardsboard.org/pdf/asops/asop011">http://www.actuarialstandardsboard.org/pdf/asops/asop011</a> 098.pdf

Exam: ILA - CSP TOPIC: Financial and Capital Management

### **Learning Objective**

4. The candidate will be able to explain and apply the basic methods, approaches and tools of financial management in a life insurance company context.

### **Learning Outcomes**

The candidate will be able to:

- A. Describe and calculate basic performance measures
- B. Perform basic 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
- E. Explain and apply the basic methods and approaches of surplus management and earnings management
- F. Describe how securitization is used within capital management

#### **Syllabus Resources**

- Life Insurance Products and Finance, Atkinson and Dallas, 2000 Chapter 16
- ILA-C105-07: Value Based Financial Measurement
- ILA-C106-07:Chapt 4 (Sections 4.1-4.6) in *Insurance Industry Mergers and Acquisitions*
- ILA-C107-07: Securitization of Life Insurance Assets and Liabilities
- 1996 Val Act Symposium pages 143-168 <a href="http://www.soa.org/library/proceedings/valuation-actuary-symposium-proceedings/1985-99/1996/january/vasp965.pdf">http://www.soa.org/library/proceedings/valuation-actuary-symposium-proceedings/1985-99/1996/january/vasp965.pdf</a>
- "Strategic Management of Life Insurance Company Surplus," TSA XXXVIII (pages 105-116)
   http://www.soa.org/library/research/transactions-of-society-of-actuaries/1986/january/tsa86v387.pdf

#### **Learning Objective**

5. The candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC.

### **Learning Outcomes**

The candidate will be able to:

- A. Describe the US Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC
- B. Compute RBC for a life insurance company, including:
  - i) Identification of significant risk components
  - ii) Identification of specialized product RBC requirements
  - iii) Interpreting results from a regulatory perspective

- Valuation of Life Insurance Liabilities, Lombardi, Fourth Edition, 2006, Chapters 1 and 16
- ILA-C808-09: Fundamentals of the Principle Based Approach to Statutory Reserves and Risk Based Capital

Exam: ILA - CSP TOPIC: Financial and Capital Management

### **Learning Objective**

6. The candidate will understand the principles underlying the determination of Economic Capital.

### **Learning Outcomes**

A. The candidate will be able to explain and apply the concepts, approaches and methods for determining Economic Capital

#### **Syllabus Resources**

- ILA-C108-07: The Theory of Risk Capital in Financial Firms
- ILA-C121-08: Economic Capital Modeling: Practical Considerations, Milliman White Paper
- Economic Capital for Life Insurance Companies, SOA Research paper, Feb 2008, Ch. 1, 3, 4, 5, 6 http://www.soa.org/files/pdf/research-ec-report.pdf
- Economic Capital: The Controversy at the Watercooler, Financial Reporter, Fall 2006 http://www.soa.org/library/newsletters/risk-management-newsletter/2006/december/RMN0612.pdf

Exam: ILA - CSP TOPIC: Embedded Value, and Value Creation

### **Learning Objective**

7. The candidate will understand embedded value, and value creation conceptual frameworks.

### **Learning Outcomes**

The candidate will be able to:

- A. Explain and apply the methods and principles of embedded value
- B. Describe and apply the principles of how insurance companies create value from a financial economics perspective

- ILA-C105-07: Value-Based Financial Measurement
- ILA-C110-07: The Economics of Insurance: How Insurers Create Value for Shareholders", by Swiss Re Technical Publishing

Exam: ILA - CSP TOPIC: Model Office and Asset/Liability Modeling

### **Learning Objective**

8. The candidate will be able to integrate data from various sources into model office and asset/liability models

### **Learning Outcomes**

The candidate will be able to:

- A. For an ALM model:
  - i) Select appropriate assumptions and scenarios
  - ii) Model dynamic behavior of both assets and liabilities
  - iii) Model and explain various strategies, including hedging
  - iv) Analyze and evaluate results
  - v) Recommend appropriate strategies
- B. Apply a model office process and make appropriate recommendations.
- C. Analyze and explain actual vs. projected differences
- D. Explain limitations of models and possible sources of error
  - i) Quality of data
  - ii) Granularity of the model

- Life Insurance Products and Finance, Atkinson and Dallas, 2000, Chapters 14, 15 pp. 785-831 and 856-858 only
- ILA-C112-07: ALM for Insurers
- ILA-C113-07: Chapter 22 of Life Insurance Accounting, Asset/Liability Management
- ILA-C114-07: Life Insurance Forecasting and Liability Models . exclude appendices.
- ILA-C804-07: Actuarial Opinion and Memorandum Model Regulation (NAIC)
- ASOP # 7: Analysis of Life, Health or Property and Casualty Insurer Cash Flows <a href="http://www.actuarialstandardsboard.org/pdf/asops/asop007">http://www.actuarialstandardsboard.org/pdf/asops/asop007</a> 089.pdf
- ASOP # 22: Statements of Opinion based on Asset Adequacy Analysis http://www.actuarialstandardsboard.org/pdf/asops/asop022 083.pdf
- ASOP #23: Data Quality http://www.actuarialstandardsboard.org/pdf/asops/asop023 097.pdf
- Asset Adequacy Analysis Practice note, Dec. 2004, exclude sections B, I and K http://www.actuary.org/pdf/practnotes/life\_asset.pdf

Exam: ILA - CSP TOPIC: Risk Management And Mitigation

### **Learning Objective**

9. The candidate will understand the sources of risk faced by the enterprise and evaluate the mitigation thereof.

### **Learning Outcomes**

The candidate will be able to:

- A. Identify, categorize and evaluate potential sources of risk in products including but not limited to mortality, morbidity and lapse.
- B. Identify, categorize and evaluate potential sources of risk in investments including but not limited to credit risk, liquidity and asset-liability matching.
- C. Describe and evaluate the other risks an insurance company faces including operational, marketplace and expense risks.
- D. Describe how risks (e.g. product, investments and operational) and opportunities interact and how they influence firm strategy.
- E. Describe and apply methods of risk mitigation and hedging and to understand the limitations of such methods.
- F. Evaluate methods for measuring and controlling equity-based exposure associated with embedded options .
- G. Describe the roles of rating agencies, analysts and regulators together with their methods and impact on insurance companies.

### **Syllabus Resources**

- ILA-C104-07: Valuation of Living and Death Benefit Guarantees for Variable Annuities
- ILA-C115-07: Rethinking Risk Management
- ILA-C116-07: Mapping of Life Insurance Risks
- ILA-C117-07: Moody's Looks At Risk Management and the New Life Insurance Risks
- ILA-C118-07: Regulators' Perspective on Actuarial Opinions and Valuations
- ERM and Insurance Company Ratings One Year On, Risk Management Newsletter, March 2007 http://www.soa.org/library/newsletters/risk-management-newsletter/2007/march/RMN0703.pdf
- ERM Specialty Guide, May 2006— Chapters 1-6 <a href="http://www.soa.org/library/professional-actuarial-specialty-guides/enterprise-risk-management/2005/august/spg0605erm.pdf">http://www.soa.org/library/professional-actuarial-specialty-guides/enterprise-risk-management/2005/august/spg0605erm.pdf</a>
- Stochastic Analysis of Long Term Multiple-Decrement Contracts, Clark and Runchey, Jan 2008, Exclude Appendices

http://www.soa.org/files/pdf/research-stochastic.pdf

Exam: ILA - CSP	TOPIC: Professional Considerations
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## **Learning Objective**

### 10. The candidate will understand the professional standards addressing financial reporting and valuation.

### **Learning Outcomes**

The candidate will be able to:

- 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

- Valuation of Life Insurance Liabilities, Lombardi, Fourth Edition, 2006, Chapter 15
- ILA-C119-07: Management Reports and Reports to Regulatory Bodies, Chapter 19 of *Life and Accident and Health Insurance Accounting*
- ILA-C120-07: SEC Implements Internal Control Provisions at Sarbanes-Oxley act; Adopts Investment Company R&D Safe Harbor
- Actuarial Aspects of SOX 404", 12/04 Financial Reporter #59 <a href="http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf">http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf</a>
- ASOP #21 on Actuarial Communication http://www.actuarialstandardsboard.org/pdf/asops/asop021 095.pdf
- ASOP# 41 Responding to the Auditor http://www.actuarialstandardsboard.org/pdf/asops/asop041 086.pdf
- Responsibilities of the Actuary for Communicating Sarbanes-Oxley control: Effectiveness in Accordance with Actuarial Standards of Practice", 12/04 Financial Reporter #59
   http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf