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.

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 will be no Case Study for this exam

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

Updates Candidates should be sure to check the Updates page on the exam home

page periodically for additional corrections or notices.

Exam: ILA - CSP TOPIC: <u>Financial Reporting</u>

Learning Objectives

1. The candidate will understand 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. Construct the basic financial statements for a life insurance company under U.S. GAAP and Statutory accounting methods and principles
- B. Describe the structure of the U.S. Annual Statement and explain the purpose of its major exhibits and schedules
- C. Compute the basic taxable income of a life insurance company
- D. Explain the appropriate accounting treatments for such items as but not limited to:
 - i) Separate Accounts
 - ii) Embedded options
 - iii) Derivatives
 - iv) Secondary guarantees
- E. Describe and critique the framework and principles used in the calculation of reserves under a Fair Value approach
- F. Describe emerging developments impacting U.S. GAAP and International Reporting frameworks, and assess their impact on financial statements
- G. Describe and critique the fundamental approaches of financial economics to valuation of liabilities
- H. Develop, use and recommend methods for performing actuarial reviews of reserves

- Valuation of Life Insurance Liabilities:
 - Chapter 1, Overview of Valuation Requirements
 - Chapter 2, NAIC Annual Statement
- US GAAP For Life Insurers, Second Edition:
 - Chapter 13 Investment Accounting (exclude 13.7)
 - Chapter 14 Shadow Adjustments (SFAS 115)
- ILA-C100-07: Financial Reporting Developments Accounting for Derivative Instruments and Hedging Activities: A Comprehensive Analysis of FAS 133. Overview and Appendix C only
- ILA-C102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities, Ed Robbins, exclude appendices
- ILA-C127-13: IASB Staff Paper, July 2012; Effect of Board Redeliberations on Exposure Draft *Insurance Contracts*
- ILA-C800-07: IASA: Chapter 12 Federal Income Taxation, up to page 15 and pages 32-33 only
- ILA-C809-09: Emerging Financial Reporting Issues, E&Y exclude pp. 10-20

- ASOP 10: Methods and Assumptions for Use in Life Insurance Company Financial Statements Prepared in Accordance With GAAP (excluding Transmittal Memo and Appendices)

 http://www.actuarialstandardsboard.org/pdf/asops/asop010 130.pdf
- SOP 05-1: Financial Reporter Article 03/06: AICPA Releases SOP 05-1- Accounting by Insurance Enterprises for Deferred Acquisition Costs in Connection with Modifications or Exchanges of Insurance Contracts 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, p. 18-23
 - http://www.soa.org/library/journals/north-american-actuarial-journal/2002/april/naaj0204 3.pdf
- 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
- SOA Research Project on Financial Reporting for Insurance Contracts under Possible Future International Accounting Standards November 2, 2010, pp. 4-42 and 78-83 www.soa.org/files/pdf/research-2010-12-fr-insurance-contracts.pdf

Exam: ILA – CSP TOPIC: Principles of Valuation

Learning Objectives

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 and differentiate between valuation methods under the following standards:
 - i) U.S. statutory
 - ii) U.S. GAAP
 - iii) U.S. tax
 - iv) Fair value accounting
- B. Recommend and justify appropriate valuation assumptions under the following standards:
 - i) U.S. statutory
 - ii) U.S. GAAP
 - iii) U.S. tax
 - iv) Fair value accounting
- C. Calculate 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. Describe and calculate Investment Maintenance and Asset Valuation Reserves
- E. Describe and assess the impact of emerging U.S. principle-based reserve regulation on the valuation of reserves

- US GAAP For Life Insurers, Second Edition:
 - Chapter 3 Expenses and Capitalization (exclude 3.11)
 - Chapter 4 Traditional Life Insurance (SFAS 60 & 97)
 - Chapter 6 Universal Life Insurance
 - Chapter 7 Deferred Annuities
 - Chapter 8 Variable and Equity-Based Products
 - Chapter 9 Annuities in Payment Status
- Valuation of Life Insurance Liabilities:
 - Chapter 1 Overview of Valuation Requirements
 - Chapter 4 Valuation Assumptions
 - Chapter 5 Valuation Methodologies and Approximations

Chapter 6 Whole Life

Chapter 7 Term Life Insurance

Chapter 8 Universal Life Insurance

Chapter 9 Variable Life Insurance

Chapter 10 Deferred Annuities

Chapter 11 Immediate Annuities

Chapter 12 Miscellaneous Reserves

• ILA-C800-07:IASA

Chapter 8, pages 12-16

• ILA-C802-07: U. S. Tax Reserves for Life Insurers:

Chapter 2 Tax-Basis Reserves Generally

Chapter 7 Section 807(f) and Changes in the Computation of Reserves

- ILA-C803-07: NAIC Standard Valuation Law
- ILA-C808-13: Fundamentals of the Principle Based Approach to Statutory Reserves and Risk Based Capital
- ILA-C810-10: AAA Practice Note on FAS 157 and 159
- ILA-C811-10: Actuarial Guideline XXXV
- ILA-812-10: A Discussion of Actuarial Guideline 43 for Variable Annuities, Milliman Research Report, April 2009
- An Approach for Measurement of the Fair Value of Insurance Contracts, Gutterman, et al., Actuarial practice Forum, May 2007
 - http://www.soa.org/library/journals/actuarial-practice-forum/2007/may/APF0705 04.pdf
- Fair Value Accounting: Trouble-maker or Life-saver? Financial Reporter, April 2009 http://www.soa.org/library/newsletters/financial-reporter/2009/april/frn-2009-iss76.pdf
- FAS 157 Staff Position Paper, pp. 1-8
 http://www.fasb.org/cs/ContentServer?c=Document_C&pagename=FASB%2FDocument_C%2FDocumentPage&cid=1176154545450

Exam: ILA - CSP TOPIC: Reinsurance

Learning Objectives

3. 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 form of reinsurance from the ceding and assuming company perspectives
- B. Explain the consequences and evaluate the effect on both ceding and assuming companies with respect to:
 - i) risk transfer
 - ii) cash flow
 - iii) financial statement presentation
 - iv) reserve credit requirements

- Life and Health Reinsurance, Third Edition, 2005 by Tiller:
 - Chapter 4 Basic Methods of Reinsurance
 - Chapter 5 Advanced Methods of Reinsurance
 - Chapter 6 The Reinsurance Treaty
 - Chapter 10 Reinsurance Regulations
 - Chapter 12 Statutory Accounting for Reins.
 - Chapter 13 GAAP Accounting for Reinsurance
- ASOP 11: The Treatment of Reinsurance Transactions in Life and Health Insurance Company Financial Statements (excluding Transmittal Memo and Appendices)
 http://www.actuarialstandardsboard.org/pdf/asops/asop011 131.pdf

Exam: ILA - CSP TOPIC: Financial and Capital Management

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

The candidate will be able to:

- A. Describe and calculate performance measures
- B. Perform basic financial analysis on a product line or 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 basic methods and approaches of surplus management and earnings management

- Life Insurance Products and Finance, Atkinson and Dallas Chapter 16 Financial Management
- ILA-C106-07: *Mergers and Acquisitions*: Chapter 4 (Sections 4.1-4.6)
- ILA-C813-13: U.S. Insurance Regulation Solvency Framework and Current Topics
- 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
- Sources of Profit, 1996 Val Act Symposium (pages147-162)
 http://www.soa.org/library/proceedings/valuation-actuary-symposium-proceedings/1985-99/1996/january/vasp965.pdf
- Embedded Value: Practice and Theory, SOA, Actuarial Practice Forum, March 2009 http://www.soa.org/library/journals/actuarial-practice-forum/2009/march/apf-2009-03-frasca-lasorella.pdf

Exam: ILA - CSP TOPIC: Financial and Capital Management

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:

- A. Explain and distinguish the roles of capital from the perspectives of regulators, investors, policyholders and insurance company management
- B. Describe the US Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC, and be able to compute RBC for a US life insurance company including:
 - i.)Identification of significant risk components
 - ii) Identification of specialized product RBC requirements
 - iii) Interpreting results from a regulatory perspective
 - iv) Implementation under emerging US principlebased approach
- C. Explain and describe the concept and roles of Economic Capital including:
 - 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

- Valuation of Liabilities, Lombardi
 - Chapter 16 Risk-Based Capital, exclude 16.6
- ILA-C121-08: Economic Capital Modeling: Practical Considerations, pp. 4-34 only
- ILA-C808-13: Fundamentals of the Principle Based Approach to Statutory Reserves and Risk Based Capital for Life Insurance and Annuities
- ILA-813-13: U.S. Insurance Regulation Solvency Framework and Current Topics
- ILA-814-13: Economic Capital Overview
- Economic Capital for life Insurance Companies, SOA Research paper, Feb 2008, Chapters 1 and 3-6 http://www.soa.org/files/pdf/research-ec-report.pdf
- A Multi-Stakeholder Approach to Capital Adequacy, Conning Research http://www.soa.org/library/journals/actuarial-practice-forum/2007/may/APF0705 01.pdf

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

Learning Objectives

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 including actual vs. projected differences
 - v) Recommend appropriate strategies
- B. Apply a model office process and make appropriate recommendations.
- C. Explain limitations of models and possible sources of error
 - i) Quality of data
 - ii) Granularity of the model

Syllabus Resources

- Life Insurance Products and Finance, by Atkinson and Dallas, Chapter 14 Financial Modeling
- Valuation of Life Insurance Liabilities, Lombardi, 4th Edition, Chapter 13 Cash Flow Testing
- 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)
- ASOP 7 Analysis of Life, Health or Property and Casualty Insurer Cash Flows (excluding Transmittal Memo and Appendices)

http://www.actuarialstandardsboard.org/pdf/asops/asop007 128.pdf

- ASOP 22 Statement of Opinion based on Asset Adequacy Analysis (excluding Transmittal Memo and Appendices http://www.actuarialstandardsboard.org/pdf/asops/asop022_140.pdf
- ASOP 23 Data Quality (excluding Transmittal Memo and Appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop023 141.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 Objectives

7. The candidate will be able to evaluate risks faced by a Company by virtue of the Company's products, assets, and management strategies and practices, and be able to evaluate the appropriateness of various methods of risk mitigation.

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-C116-07: Mapping of Life Insurance Risks, AAA Report to NAIC ILA-C124-10: S&P's Insurance Criteria: Refining the Focus of Insurer ERM Criteria, June 2006 (exclude pp. 20-26 (Property/Casualty (Nonlife) Insurance Risk)
- ILA-C125-10: Insurance Risk Management Response to the Financial Crisis, CRO Forum, April 2009
- ILA-C807-09: Market Value margins for Insurance Liabilities in Financial Reporting and Solvency Applications, E&Y, October 2007, pages 1-65
- ERM Specialty Guide, May 2006, Chapters 1-6 http://www.soa.org/library/professional-actuarial-specialty-guides/enterprise-risk-management/2005/august/spg0605erm.pdf
- 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

Learning Objectives

8. 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
 Chapter 15 The Valuation Actuary in the US
- ILA-C804-07: Actuarial Opinion and Memorandum Model Regulation (NAIC)
- Actuarial Aspects of SOX 404, Financial Reporter, Dec 2004 http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf
- Responsibilities of the Actuary for Communicating Sarbanes-Oxley Control: Effectiveness in Accordance with Actuarial Standards of Practice, Financial Reporter, Dec 2004 http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf
- ASOP 41 Actuarial Communication (excluding Transmittal Memo and Appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop041 120.pdf
- ASOP 21 Responding to the Auditor (excluding Transmittal Memo and Appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop021 139.pdf