

Individual Life and Annuity Company/Sponsor Perspective – U.S. Spring 2010

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.
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.
Case Study	A copy of the case study will be provided with the examinations. Candidates will not be allowed to bring their copy of the case study into the examination room.
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.

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Exam: ILA - CSP	TOPIC: <u>Financial Reporting</u>
Learning Objectives	
<p>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.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>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.</p> <p>B. Describe the structure of the U.S. 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. Explain the appropriate accounting treatments for such items as but not limited to:</p> <ul style="list-style-type: none"> i) Separate Accounts ii) Embedded options iii) Derivatives iv) Secondary guarantees v) Internal Replacements <p>E. Explain fair value accounting principles</p> <p>F. Describe international accounting standards</p> <p>G. Devise and use methods for reviewing reserves</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Fourth Edition, 2006 <ul style="list-style-type: none"> Chapter 1: Overview of Valuation Requirements Chapter 2: NAIC Annual Statement • <i>US GAAP For Life Insurers</i>, Herget, Second Edition, 2006 <ul style="list-style-type: none"> 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 • 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 • 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-C807-09: Market Value Margins for Insurance Liabilities in Financial Reporting and Solvency Applications, E&Y October 2007- through page 65 • ILA-C809-09: Emerging Financial Reporting Issues, E&Y 	

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- ASOP 10 Methods and Assumptions for Use in Life Insurance Company Financial Statements Prepared in Accordance With GAAP (excluding Transmittal Memo and Appendixes)
http://www.actuarialstandardsboard.org/pdf/asops/asop010_068.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
- SFAS 157 Fair Value Measurements, paragraphs 1-30
<http://72.3.243.42/pdf/fas157.pdf>
- SOA Research Project on Financial Reporting for Insurance Contracts under Possible Future International Standards, pp. 6-43, 67-70, 74-81
<http://www.soa.org/files/pdf/research-2008-ifs-report.pdf>

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Exam: ILA – CSP	TOPIC: <u>Principles of Valuation</u>
Learning Objectives	
<p>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.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Describe, compare, and contrast valuation methods under the following standards:</p> <ul style="list-style-type: none"> i) U.S. statutory ii) U.S. GAAP iii) U.S. tax iv) Fair value accounting <p>B. Select appropriate valuation assumptions under the following standards:</p> <ul style="list-style-type: none"> i) U.S. statutory ii) U.S. GAAP iii) U.S. tax iv) Fair value accounting <p>C. Compute liabilities under U.S. statutory, U.S. tax, U.S. GAAP, and DAC assets under U.S. GAAP for the following products:</p> <ul style="list-style-type: none"> 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 <p>D. Describe and calculate Investment Maintenance and Asset Valuation Reserves</p> <p>E. Describe concepts underlying SVL II (principle-based reserves)</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>US GAAP For Life Insurers</i>, Second Edition: <ul style="list-style-type: none"> Chapter 3 Expenses and Capitalization 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 Chapter 14 Shadow Adjustments • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Fourth Edition, 2006 <ul style="list-style-type: none"> 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 	

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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 only
- 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-C808-10: Fundamentals of the Principle Based Approach to Statutory Reserves and Risk Based Capital
- ILA-C810-10: AAA Practice Note: FAS 157 and 159, **Feb 2009**
- ILA-811-10: Actuarial Guideline XXXV on Annuities (NAIC)
- 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

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Exam: ILA - CSP	TOPIC: <u>Reinsurance</u>
Learning Objectives	
<p>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.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. For traditional and financial reinsurance, explain the consequences and calculate the effect on both ceding and assuming companies with respect to:</p> <ul style="list-style-type: none"> i) risk transfer ii) cash flow, iii) financial statements iv) tax, and v) reserve credit requirements <p>B. Describe what considerations would be examined to determine the appropriate reinsurance form from the ceding and assuming company perspectives</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life, Health and Annuity Reinsurance</i>, Tiller and Tiller, Third Edition, 2005: <ul style="list-style-type: none"> 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 Chapter 14 Tax Effects on 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_098.pdf 	

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Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objectives	
4. The candidate will be able to explain and apply the basic methods, approaches and tools of financial management and embedded 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 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 G. Explain and apply the methods and principles of embedded value H. Describe and apply the principles of how insurance companies create value from a financial economics perspective 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, 2000 Chapter 16: Financial Management • ILA-C106-07:Chapt 4 (Sections 4.1-4.6) in <i>Mergers and Acquisitions</i> – • ILA-C107-07: Securitization of Life Insurance Assets and Liabilities • ILA-C110-07: The Economics of Insurance: How Insurers Create Value for Shareholders”, by Swiss Re Technical Publishing • 1996 Val Act Symposium pages 143-168 http://www.soa.org/library/proceedings/valuation-actuary-symposium-proceedings/1985-99/1996/january/vasp965.pdf • 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 • 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 	

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Exam: ILA - CSP	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	
<p>The candidate will be able to:</p> <p>A. Describe the US Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC</p> <p>B. Compute RBC for a life insurance company, including:</p> <ul style="list-style-type: none"> i) Identification of significant risk components ii) Identification of specialized product RBC requirements iii) Interpreting results from a regulatory perspective <p>C. Explain and apply the concepts, approaches and method for determining Economic Capital</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Fourth Edition, 2006 Chapter 1 Overview of Valuation Requirements Chapter 16 Risk-Based Capital • ILA-C108-07: The Theory of Risk Capital in Financial Firms • ILA-C121-08: Economic Capital Modeling: Practical Considerations, Milliman • 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 	

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Exam: ILA - CSP	TOPIC: <u>Model Office and Asset/Liability Modeling</u>
Learning Objectives	
6. The candidate will be able to integrate data from various sources into model office and asset/liability models	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. For an ALM model:</p> <ol style="list-style-type: none"> 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 <p>B. Apply a model office process and make appropriate recommendations.</p> <p>C. Analyze and explain actual vs. projected differences</p> <p>D. Explain limitations of models and possible sources of error</p> <ol style="list-style-type: none"> i) Quality of data ii) Granularity of the model 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, by Atkinson and Dallas, 2000 <ul style="list-style-type: none"> Chapter 14: Financial Modeling Chapter 15: Stochastic Modeling, pp.785-831 and 856-858 • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, 4th Edition, <ul style="list-style-type: none"> Chapter 13: Cash Flow Testing • ILA-C112-07: ALM for Insurers • ILA-C113-07: Chapter 22 of <i>Life Insurance Accounting</i>, 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 (excluding Transmittal Memo and Appendices) <ul style="list-style-type: none"> http://www.actuarialstandardsboard.org/pdf/asops/asop007_089.pdf • ASOP #22 Statement of Opinion based on Asset Adequacy Analysis (excluding Transmittal Memo and Appendices) <ul style="list-style-type: none"> http://www.actuarialstandardsboard.org/pdf/asops/asop022_083.pdf • ASOP #23 Data Quality (excluding Transmittal Memo and Appendices) <ul style="list-style-type: none"> http://www.actuarialstandardsboard.org/pdf/asops/asop023_097.pdf • Asset Adequacy Analysis Practice note, Dec. 2004 <ul style="list-style-type: none"> http://www.actuary.org/pdf/practnotes/life_asset.pdf Exclude Sections B, I and K 	

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Exam: ILA - CSP	TOPIC: <u>Risk Management And Mitigation</u>
Learning Objectives	
7. The candidate will understand the sources of risk faced by the enterprise and evaluate the mitigation thereof.	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Identify, categorize and evaluate potential sources of risk in products including but not limited to mortality, morbidity and lapse.</p> <p>B. Identify, categorize and evaluate potential sources of risk in investments including but not limited to credit risk, liquidity and asset-liability matching.</p> <p>C. Describe and evaluate the other risks an insurance company faces including operational, marketplace and expense risks.</p> <p>D. Describe how risks (e.g. product, investments and operational) and opportunities interact and how they influence firm strategy.</p> <p>E. Describe and apply methods of risk mitigation and hedging and to understand the limitations of such methods.</p> <p>F. Evaluate methods for measuring and controlling equity-based exposure associated with embedded options .</p> <p>G. Describe the roles of rating agencies, analysts and regulators together with their methods and impact on insurance companies.</p>	
<ul style="list-style-type: none"> • ILA-C116-07: Mapping of Life Insurance Risks, AAA Report to NAIC • ILA-C118-07: Regulators' Perspective on Actuarial Opinions and Valuations • ILA-C124-10: 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 • 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 	

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Exam: ILA - CSP	TOPIC: Professional Considerations
Learning Objectives	
8. The candidate will understand the professional standards addressing financial reporting and valuation.	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. Explain the role and responsibilities of the appointed / valuation actuary.</p> <p>B. Identify and apply relevant professional actuarial qualification standards.</p> <p>C. Identify and apply actuarial standards of practice relevant to financial reporting and valuation .</p> <p>D. Explain the actuary’s professional responsibilities to stakeholders including obligations under Sarbanes-Oxley</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities</i> Chapter 3, Valuation Process Chapter 15 The Valuation Actuary in the US • ILA-C119-07: Ch. 19 of life and Accident and Health Insurance Accounting, “Management Reports and Reports to Regulatory Bodies” • ILA-C126-10 SEC Guidance on Internal Control Over Financial Reporting • Actuarial Aspects of SOX 404", 12/04 <i>Financial Reporter</i> #59 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", 12/04 <i>Financial Reporter</i> #59 http://www.soa.org/library/newsletters/financial-reporter/2004/december/frn0412.pdf • ASOP 41 on Actuarial Communication (excluding Transmittal Memo and Appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop041_086.pdf • ASOP 21 Responding to the Auditor (excluding Transmittal Memo and Appendices) http://www.actuarialstandardsboard.org/pdf/asops/asop021_095.pdf 	