ILA – Life Product Management Exam

Fall 2023 and Spring 2024

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.
Syllabus Readings	Readings listed in this syllabus may include study notes, online readings and textbooks. Candidates are responsible for all readings in their entirety, including sections such as Appendices, unless it is stated otherwise in the syllabus.
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 provided 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 to the current syllabus.

1. **Topic: Product Design, Pricing and Assumptions**
Learning Objectives
The candidate will understand the designs and risks of the common life and annuity products and features, as well as the methods and metrics used to design and price these products.
Learning Outcomes

The Candidate will be able to:

a) Describe the designs of the common life and annuity products and evaluate their associated features and inherent risks

b) Describe and evaluate methods and metrics used to design and price these products, and assess their profitability

c) Describe and evaluate the impact of VM-20 on pricing

d) Describe considerations and practices related to "Lapse-Supported" insurance

e) Describe methodologies and considerations used in the regulation of nonforfeiture practices

f) Describe and evaluate the product development environment and cycle

g) Describe the operation of Life Acceleration Riders and their role in meeting market needs

h) Describe what is meant by Life Settlements and assess their impact on insurance product pricing/management

i) Describe how predictive analytics can be used in life and annuity pricing applications

j) Describe and apply the requirements of applicable ASOPs on Life and Annuity Product Pricing and Assumptions

k) Describe how taxes may be treated in a pricing model and the impact of tax reform on life products profitability

l) Describe and apply methods for pricing term conversions

m) Describe and evaluate the types of assumptions commonly used in actuarial pricing and product development

n) Describe and evaluate the role of Behavioral Economics in understanding and modeling policyholder behavior in the life and annuity context

o) Describe the framework, process, and significant considerations for creating mortality tables. Describe and apply the methods for determining exposures, and considerations for developing select period mortality rates

p) Describe how product designs are impacted in a rising interest rate environment

Resources

- LPM-107-07: Experience Assumptions for Individual Life Insurance and Annuities

- LPM-121-13: Life Insurance and Annuity Non-forfeiture Practices

- LPM-142-16: Malcolm Life Enhances Its Variable Annuities, 2010

- LPM-148-19: Ch. 9 of *Life Insurance Products and Finance*, Atkinson and Dallas

- LPM-149-22: Ch. 11, pp. 499-512 of *Life Insurance Products and Finance*, Atkinson and Dallas

- LPM-150-19: Tax Reform Impacts on Life Insurance Pricing and Profitability, 2018

- LPM-152-19: Lapse Supported Insurance Analysis

- LPM-165-20: Life Products and Features

- LPM-166-20: Annuity Product and Features

- LPM-171-21: Excerpts from Ch. 12 and Ch. 18 *Statutory Valuation of Individual Life and Annuity Contracts*, Claire, Lombardi and Summers, 5th Edition (sections 12.2 & 12.4, and 18.2, 18.3.2 & 18.3.3 only)

- Structured Settlement Annuities, SOA Research Institute, Mar 2022

- Pension Risk Transfer in Canada and the U.S., SOA Research Institute, Feb 2022

- Standards of Practice, Canadian Institute of Actuaries Actuarial Standards Board, Jan 2023, section 1600

- ASOP 54: Pricing of Life Insurance and Annuity Products, Jun 2018

- Impact of VM-20 on Life Insurance Product Development, SOA Research, Nov 2016, pp. 1-31 (excluding discussion of 20-year term)

- The Use of Predictive Analytics in the Development of Experience Studies, The Actuary, Oct/Nov 2015, pp. 26-34

- Variable Annuity Guaranteed Living Benefits Utilization, SOA/LIMRA, 2017, Executive Summary only (pp. 19-32)

- Predictive Modeling for Life Insurance: Ways Life Insurers Can Participate in the Business Analytics Revolution, Product Matters, Jun 2018

- Life Insurance Acceleration Riders, SOA Reinsurance News, Jul 2013, pp. 35-38

- The Response of Life Insurance Pricing to Life Settlements, Product Matters, Sep 2006

- Term Conversions: Pricing and Reserves, Product Matters, Mar 2017

- Ending the Mortality Table, Living to 100 Symposium

- Level Term Lapse Rates – Lessons Learned Here and in Canada, Product Matters, Oct 2011, pp. 11-14

- Modeling of Policyholder Behavior for Life Insurance and Annuity Products, SOA, 2014, pp. 6, 9-16 & 19-73

- Report on Premium Persistency Assumptions Study of Flexible Premium Universal Life Products, SOA, May 2012, pp. 9-15

- Understanding the Volatility Experience and Pricing Assumptions in Long-Term Care Insurance, 2014, pp. 4-46

- Long-Term Care Insurance: The SOA Pricing Project, SOA, 2016

- Table Development, SOA, Feb 2018 (excluding Appendices C, D, F, G & H)

- [CIA Educational Note: Selective Lapsation for Renewable Term Insurance Products](), Feb 2017

- [Overview of Nonguaranteed Elements (NGEs)](), SOA Research Institute, Nov 2022

- [Predictive Models on Conversion Studies for the Level Premium Term Plans](), SOA, Mar 2017

- [The Rise of Registered Index-Linked Annuity (RILA) Products](), Product Matters, Aug 2022

- [Market Trends and Product Designs in a Rising Interest Rate Environment](), Product Matters, Nov 2021

2. Topic: Value Creation

Learning Objectives

The candidate will understand the theory of "Value Creation" for life and annuity products and how to evaluate the patterns of earnings emergence under various regulatory regimes.

Learning Outcomes

The Candidate will be able to:

a) Describe, evaluate and apply the economic value creation framework

b) Describe and apply the common profit metrics (IRR, Value of New Business, Embedded Value, ROE) used in pricing insurance products

c) Describe and evaluate fundamental strategies for enhancing value through active in-force and operational management

Resources

- LPM-113-09: Economics of Insurance: How Insurers Create Value for Shareholders, pp. 4-31

- LPM-153-19: Life in-force Management: Improving Consumer Value and Long-Term Profitability

- LPM-155-19: Understanding Profitability in Life Insurance

- Evolving Strategies to Improve Inforce Post-Level Term Profitability, Product Matters, Feb 2015, pp. 23-28

3. **Topic: Product Management, Operations and Studies**

Learning Objectives

The candidate will understand common issues and practices related to In Force and New Business Product Management, and how experience studies are designed and used for evaluating past experience and for setting assumptions.

Learning Outcomes

The Candidate will be able to:

a)   Recommend and justify changes to policyholder dividends

b)   Describe and evaluate the challenges insurers face in a low and potentially rising interest rate environment

c)   Describe and evaluate how diversification of insurance risks can reduce volatility

d)   Describe and evaluate approaches for quantifying the price of VA guarantees and evaluating hedge effectiveness

e)   Describe how experience studies are designed and used for evaluating past experience, and for setting assumptions

f)   Describe how alternative data might be used to supplement mortality rate estimates

g)   Describe and apply the use of statistical credibility methods used for validating actuarial judgment when evaluating experience

h)   Explain and apply the Limited Fluctuation and Buhlmann credibility methods to mortality and lapse experience study data

i)   Describe standards for illustrations in both the United States and Canada

j)   Describe methodologies, approaches, considerations and tools related to the Underwriting function

k)   Describe and assess insurance and annuity distribution approaches and the impact of emerging technologies

Resources

- LPM-147-17: Life Insurance: Focusing on the Consumer (excluding Appendices)

- LPM-156-19: The Impact of Stochastic Volatility on Pricing, Hedging and Hedge Efficiency of Withdrawal Benefit Guarantees in Variable Annuities (*Note: Candidates not responsible for mathematical derivations or detailed results, but should understand concepts and methodology*)

- LPM-157-19: Diversification of Longevity and Mortality Risk

- LPM-168-20: LexisNexis® Risk Classifier – Stratifying Mortality Risk Using Alternative Data Sources

- LPM-171-21: Excerpts from Ch. 12 of *Statutory Valuation of Individual Life and Annuity Contracts*, Claire, Lombardi and Summers, 5th Edition (sections 12.3 & 12.4 only)

- LPM-172-23: Canadian Life and Health Insurance Guidelines (CLHIA) - Guideline G-6 – Illustrations

- LPM-173-23: NAIC Accelerated Underwriting In Life Insurance Educational Report (excluding Appendix A)

- [Credibility Methods Applied to Life, Health, and Pensions](#), SOA, Feb 2019 (pp. 1-25 only)

- [The Application of Credibility Theory in the Canadian Life Insurance Industry](#), CIA/SOA, Nov 2019 (excluding Appendices)

- [Mechanics of Dividends](#), SOA Research Institute, Mar 2022

- [Experience Study Calculations](#), Oct 2016, sections 2-4, 11, 12 15, 17 & 18 (excluding 18.2, 18.8 & 18.9)

- [What's in the "A" of AG 49-A](#), Product Matters, Feb 2021

- [ASOP 24: Compliance with the NAIC Life Insurance Illustrations Model Regulation](#), Dec 2016

- [Life Insurance for the Digital Age: An End-to-End View](#), Product Matters, Nov 2017

4. **Topic: Reinsurance**
Learning Objectives
The candidate will understand the various forms of traditional reinsurance, will be able to assess how and when they are effectively used, and will be able to perform the associated accounting (from both ceding and assuming perspectives) for basic reinsurance transactions.
Learning Outcomes
The Candidate will be able to: a) Evaluate and analyze traditional and advanced reinsurance transactions, and prepare related financial statement entries   b) Describe and evaluate indemnity reinsurance and evaluate its use, forms, and requirements   c) Describe risk transfer considerations, and evaluate their impact on reinsurance agreement provisions   d) Describe and evaluate nonproportional reinsurance arrangements and their use   e) Describe and evaluate how strategic/customized reinsurance solutions may enhance insurer prospects
Resources
Life, Health & Annuity Reinsurance, Tiller, John E. and Tiller, Denise, 4th Edition, 2015   - Ch. 4: Basic Methods of Reinsurance   - Ch. 5: Advanced Methods and Structures of Reinsurance   - Ch. 6: Assumption   - Ch. 7: Reinsurance of Inforce Risks   - Ch. 9: Risk Transfer Considerations (pp. 269-280)   - Ch. 17: Nonproportional Reinsurance   - LPM-160-19: Strategic Reinsurance and Insurance: The Increasing Trend of Customized Solutions, pp. 1-4, 14-15 & 18-31