

# Retirement Plan IRM Exam

Fall 2018/Spring 2019

## Important Exam Information:

<a href="#">Exam Registration</a>	Candidates may register online or with an application.
<a href="#">Order Study Notes</a>	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
<a href="#">Introductory Study Note</a>	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 exam.
<a href="#">Past Exams</a>	Past Exams from 2000-present are available on SOA website.
<a href="#">Updates</a>	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

*Recognized by the Canadian Institute of Actuaries*

Retirement Benefits – Retirement Plan Investment and Risk Management Exam  
Fall 2018/Spring 2019

<b>1. Topic: Investments and Asset Allocation</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze the issues facing retirement plan sponsors regarding investment of fund assets and make recommendations.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Assess the different types and combinations of investment vehicles for providing retirement benefits given the particulars of the stakeholders' financial circumstances, philosophy, industry, work force and benefit package</li><li>b) Distinguish the various strategies, approaches and techniques used to manage retirement fund assets</li><li>c) Given a context, analyze a Statement of Investment Policy</li><li>d) Assess the potential effects of various investments and investment policies on all of the stakeholders, including tax implications</li><li>e) Describe the regulatory restrictions on and guidelines for retirement plan assets</li><li>f) Identify and assess the sources of investment risk applicable to retirement fund assets</li><li>g) Solve for a measure of investment performance relevant to a given benchmark</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Modern Investment Management</i>, Litterman, Robert, 2003<ul style="list-style-type: none"><li>○ Ch. 2, 17, 22, 23, 24, 27 (pp. 501-505) and Ch. 28 (pp. 516-520)</li></ul></li><li>• <i>Fundamentals of Private Pensions</i>, McGill, Dan, 9<sup>th</sup> Edition, 2010<ul style="list-style-type: none"><li>○ Ch. 26, 27 and 28</li></ul></li><li>• <i>Morneau Shepell Handbook of Canadian Pension and Benefit Plans</i>, 16<sup>th</sup> Edition, 2016<ul style="list-style-type: none"><li>○ Ch. 7</li></ul></li><li>• RPIRM-102-13: Equities in DB Plans – Is the Traditional 60/40 Mix a Dinosaur?</li><li>• RPIRM-103-15: Fiduciary Liability Issues for Selection of Investments</li><li>• RPIRM-104-15: Maginn and Tuttle, <i>Managing Investment Portfolios</i>, 3<sup>rd</sup> Edition, Ch. 12 (sections 1-6)</li><li>• RPIRM-107-13: Reflections on the Efficient Market Hypotheses: 30 Years Later</li><li>• RPIRM-108-13: Introduction and Overview of Retirement Plan Investments</li><li>• RPIRM-132-14: CAPSA, Guideline No. 6, Pension Plan Prudent Investment Practices Guideline</li><li>• RPIRM-133-14: CAPSA, Guideline No. 7, Pension Plan Funding Policy Guideline</li><li>• RPIRM-134-14: Liability-Responsive Asset Allocation, Russell Research</li></ul>

Retirement Benefits – Retirement Plan Investment and Risk Management Exam  
Fall 2018/Spring 2019

- RPIRM-143-17: Attracting Pension Plan Assets: What Alternative Investment Managers Need to Know
- RPIRM-144-17: Patient Capital, Private Opportunity: The Benefits and Challenges of Illiquid Alternatives
- RPIRM-145-17: An Introduction to Infrastructure as an Asset Class
- RPIRM-151-18: Designing the Future of Target-Date Funds

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Fall 2018/Spring 2019

<b>2. Topic: Risk Management</b>
<b>Learning Objectives</b>
The candidate will recognize and appropriately reflect the role of plan investments in retirement plan design and valuation.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Evaluate the interaction of plan investments with plan design, valuation, accounting and funding</li><li>b) Evaluate the interaction and relationship between plan investments and valuation assumptions/methods</li><li>c) Model the effect on setting investment strategy of factors including, cash flow requirements, various plan designs and various economic environments</li><li>d) Apply and evaluate strategies and techniques for asset/liability management</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Fundamentals of Private Pensions</i>, McGill, Dan, 9<sup>th</sup> Edition, 2010<ul style="list-style-type: none"><li>○ Ch. 27</li></ul></li><li>• RPIRM-110-13: Plan Sponsor Guide to Liability –Driven Investing</li><li>• RPIRM-111-13: Mind the Gap: Using Derivatives Overlays to Hedge Pension Duration</li><li>• RPIRM-112-13: Asset/Liability Modeling and Asset Allocation for Pension Plans</li><li>• RPIRM-115-13: <i>Pensions in the Public Sector</i>, Ch. 9</li><li>• RPIRM-116-13: Financial Economics and Actuarial Practice</li><li>• RPIRM-134-14: Liability-Responsive Asset Allocation, Russell Research</li><li>• RPIRM-136-15: Longevity Risk Management: New Tools for Defined Benefit Pension Plans</li><li>• RPIRM-138-16: FSCO’s IGN 001 – Buy in Annuities for Defined Benefit Plans</li><li>• RPIRM-139-16: FSCO’s IGN 002 – Prudent Investment Practices for Derivatives</li><li>• RPIRM-140-16: OSFI’s Policy Advisory #2014-002- Longevity Insurance and Longevity Swaps</li><li>• RPIRM-146-17: The Pension Risk Transfer Market at \$260 Billion</li><li>• RPIRM-147-17: Charting the Course: a framework to evaluate pension de-risking strategies (excluding Appendices)</li><li>• RPIRM-148-17: Key Rate Durations: Measures of Interest Rate Risks</li><li>• RPIRM-149-17: Practical De-Risking Solutions: Asset Duration and Interest Rate Risk</li><li>• RPIRM-150-17: De-risking in a Low Interest Rate Environment</li><li>• RPIRM-152-18: Pension Plan Immunization Strategies: How Close Can You Get?</li></ul>

Retirement Benefits – Retirement Plan Investment and Risk Management Exam  
Fall 2018/Spring 2019

- RPIRM-156-18: Practical De-Risking Solutions: Low Volatility Equity Strategies
- [Can Pensions Be Valued as Marketed Securities](#), Bader, Pension Section News, Jun 2009

Retirement Benefits – Retirement Plan Investment and Risk Management Exam  
Fall 2018/Spring 2019

<b>3. Topic: Financial Economics</b>
<b>Learning Objectives</b>
The candidate will understand how to evaluate the stakeholders' financial goals and risk management with respect to their plan.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Compare the interests of plan sponsors, employees, shareholders, taxpayers and other stakeholders related to the financial management of a retirement plan</li><li>b) Describe how the retirement plan financial and design risks integrate with the sponsor's risk management strategy</li><li>c) Analyze how the retirement plan integrates with the sponsor's overall financial position</li><li>d) Understand and apply the principles of financial economics with respect to pension plan investing</li><li>e) Provide advice and analysis to stakeholders regarding the economic assumptions used in the valuation of their retirement plans</li><li>f) Provide advice and analysis to plan sponsors and other stakeholders regarding the mitigation of pension plan risks</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• RPIRM-115-13: Pensions in the Public Sector, Ch. 9</li><li>• RPIRM-120-13: The Case Against Stock in Public Pension Plans</li><li>• RPIRM-121-13: The Case for Stock in Pension Funds</li><li>• RPIRM-123-13: Risk Management and Public Plan Retirement Systems (Appendices background only)</li><li>• RPIRM-124-13: Bader and Gold's Rebuttal to The Case for Stock in Pension Funds</li><li>• RPIRM-128-13: The Impact of the Financial Crisis on Defined Benefit Plans and the Need for Counter-Cyclical Funding Regulations, excluding appendices</li><li>• RPIRM-134-14: Liability-Responsive Asset Allocation, Russell Research</li><li>• RPIRM-141-16: Evolving Roles for Pension Regulations: Toward better Risk Control, Recreating Sustainable Retirement</li><li>• RPIRM-153-18: Strengthening the Security of Public Sector Defined Benefit Plans (Executive Summary, pp. vii-xiv)</li><li>• RPIRM-154-18: Benefit Security Pension Fund Guarantee Schemes (pp. 4-13)</li><li>• RPIRM-155-18: CAPSA Guideline No. 4, Pension Plan Governance Guideline and Frequently Asked Questions</li><li>• <a href="#">Corporate Pension Risk Management and Corporate Finance</a>, SOA Aug 2015</li></ul>

Retirement Benefits – Retirement Plan Investment and Risk Management Exam  
Fall 2018/Spring 2019

- [Adequate Funding for a Pension Plan](#), Sze, Pension Forum (pp. 31-36)
- [Pension Funds: Company Manager's View](#), Exley & Mehta
- [Can Pensions Be Valued as Marketed Securities](#), Bader, Pension Section News, Jun 2009
- [Pension Actuary's Guide to Financial Economics](#) and [Pension Arbitrage Example](#)