

# Retirement Benefits: Funding & Regulation Exam

Fall 2016/Spring 2017

## 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.
<a href="#">Case Study</a>	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.
<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.

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

1.
Learning Objectives
The candidate will understand how to analyze data for quality and appropriateness.
Learning Outcomes
The candidate will be able to: a) Identify data needed b) Assess data quality c) Make and/or recommend appropriate assumptions where data cannot be provided d) Comply with regulatory and professional standards pertaining to data quality
Resources
<ul style="list-style-type: none"><li>• FR-100-13: ASOP 23 Data Quality</li><li>• <a href="#">CIA Consolidated Standards of Practice - Sections 1530 and 1600</a> , June 9, 2015</li></ul>

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

2.
Learning Objectives
The candidate will understand how to analyze/synthesize the factors that go into selection of actuarial assumptions for funding purposes.
Learning Outcomes
The candidate will be able to: a) Describe and apply the techniques used in the development of assumptions for funding purposes b) Evaluate and recommend appropriate assumptions for funding purposes c) Evaluate actual experience, including comparisons to assumptions
Resources
<ul style="list-style-type: none"><li>• <i>Pension Mathematics for Actuaries</i>, Anderson, 3<sup>rd</sup> Edition<ul style="list-style-type: none"><li>○ Ch. 6</li></ul></li><li>• FR-121-16: Assumptions for Hypothetical Wind-Up and Solvency Valuations with Effective Dates between December 31, 2014, and December 30, 2015</li><li>• FR-124-15: Selecting Mortality Tables: A Credibility Approach</li><li>• FR-125-15: Financial Services Commission of Ontario: Actuarial Guidance Note: Determination of the Solvency Liability Adjustment</li><li>• FR-128-16: Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective September 30, 2015, and Applicable to Valuations with Effective Dates Between September 30, 2015, and December 30, 2015</li><li>• <a href="#">ASOP 25 - Credibility Procedures</a></li><li>• <a href="#">ASOP 27, Selection of Economic Assumptions for Measuring Pension Obligations</a></li><li>• <a href="#">ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations</a></li><li>• <a href="#">Financial Economics and Canadian Pension Valuation</a>, September 2006 paper by CIA Task Force on Financial Economics</li><li>• <a href="#">Determination of best Estimate Discount Rates for Going Concern Funding Valuations</a>, CIA 2015 Educational Note</li><li>• <a href="#">A Practical Approach to Gains Analysis Revisited</a> by Andrew Smith, Pension Section News, Sep 93</li><li>• <a href="#">A Practical Approach to Gains Analysis</a> by Josiah Lynch, TSA, Vol 27, pp.423-439</li><li>• <a href="#">Selecting and Documenting Mortality Assumptions</a>,_AAA (Appendix for background only)</li><li>• <a href="#">Selection of Mortality Assumptions for Pension Plan Actuarial Valuations</a>, CIA Educational Note, March 2014</li></ul>

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

- [Provisions for Adverse Deviations in Going Concern Actuarial Valuations of Defined Benefit Pension Plans](#), CIA Research Paper
- [CIA Revised Educational Note: Expenses in Funding Valuations for Pension Plans](#), September 2014

3.

Learning Objectives

The candidate will understand how to apply/synthesize the methods used to value pension benefits for various purposes.

Learning Outcomes

The candidate will be able to:

- a) Differentiate between the various purposes for valuing pension plans:
  - i. Funding
  - ii. Solvency
  - iii. Termination/wind-up/conversion
- b) Perform periodic valuations of ongoing plans, calculating normal cost and actuarial liability, using a variety of cost methods.
- c) Analyze and communicate the pattern of cost recognition that arises under a variety of funding and asset valuation methods.
- d) Perform valuations for special purposes, including:
  - i. Plan termination/windup/conversion valuations
  - ii. Hypothetical wind-up and solvency valuations
  - iii. Open group valuations
  - iv. Shared risk pension plan valuations
- e) Calculate actuarially equivalent benefits

Resources

- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans*, 15th edition
  - Ch. 2, 4, 5 (exclude pp. 133-142), (Ch. 2 & Ch. 4 - background only)
- *Pension Mathematics for Actuaries*, Anderson, 3<sup>rd</sup> Edition, Ch. 1-4, 7
- *Canadian Pensions and Retirement Income Planning*, Towers Watson, 5<sup>th</sup> Edition.
  - Ch. 15 (exclude pp. 307-308)
- FR-104-13: Pension Projections (Appendix for Background Only)
- FR-105-13: Actuarially Equivalent benefits

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

- FR-108-13: Pension Funding Exercises (background only)
- FR-126-15: Asset Smoothing for Solvency Valuations, FSCO Q1 and A1
- [ASOP 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions](#)
- [Guidance on Asset Valuation Methods](#), CIA Educational Note, September 2014
- [Calculation of Incremental Cost on a Hypothetical Wind-Up or Solvency basis](#), CIA Educational Note
- [Asset Valuation Methods under ERISA](#), Pension Forum 9/2002, Ch. 1, 3, 4 & 5
- [CIA Consolidated Standards of Practice - Pension Plans 3100-3500](#)
- [Report of the Task Force on Target Benefit Plans, CIA, June 2015](#)

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

4.
Learning Objectives
The candidate will understand the principles and rationale behind regulation.
Learning Outcomes
The candidate will be able to: a) Describe the principles and motivations behind pension legislation and regulation b) Describe sources and framework of government regulation
Resources
<ul style="list-style-type: none"><li>• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5<sup>th</sup> edition.<ul style="list-style-type: none"><li>○ Section 110 of Ch. 1 (background only) and Ch. 5</li></ul></li><li>• <i>Morneau Shepell, Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none"><li>○ Ch. 8 and Ch. 29 (pp 621-629)</li></ul></li><li>• FR-109-13: The Impact of the Financial Crisis on Defined benefit Plans and the Need for Counter-Cyclical Funding Regulations, OECD (excluding appendix)</li><li>• FR-120-14: IOPS Principles of Private Pension Supervision</li><li>• FR-127-15: Rebuilding New Brunswick: The Case for Pension Reform</li><li>• FR-130-16: Chapter 9 of <i>Recreating Sustainable Retirement: Resilience, Solvency, and Tail Risk</i>, pp. 163-167</li><li>• <a href="#">Report of the Task Force on Target Benefit Plans, CIA, June 2015</a></li></ul>

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

5.
Learning Objectives
The candidate will understand how to evaluate and apply regulatory policies and restrictions for registered retirement plans.
Learning Outcomes
The candidate will be able to describe and apply regulation pertaining to: <ul style="list-style-type: none"><li>a) Plan design</li><li>b) Plan establishment</li><li>c) Plan amendment</li><li>d) Plan termination/windup</li><li>e) Plan conversion</li><li>f) Plan merger or spin-off</li><li>g) Reporting requirements</li><li>h) Members' rights</li><li>i) Contributions and benefits</li><li>j) Individual savings plans</li><li>k) Coordination of individual and employer sponsored retirement plans</li></ul>
Resources
<ul style="list-style-type: none"><li>• <i>Morneau Shepell, Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none"><li>○ Ch. 7, Ch. 8, Ch. 9</li></ul></li><li>• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5<sup>th</sup> Edition.<ul style="list-style-type: none"><li>○ Ch. 2, Ch. 6-8, Ch. 9-12, Ch. 14 &amp; Ch. 16-22</li></ul></li><li>• FR-111-13: OSFI Guidelines for Converting DB to DC</li><li>• FR-112-16: Filing Requirements and Procedure on Full or Partial Wind up of a Pension Plan</li><li>• FR-114-16: Ontario Pension Benefits Act R.R.O. 1990, Reg 909 (exclude sections 5.5.1 and 5.5.2 (Funding and Funding Relief for Specified Pension Plans) and 5.5.3 (Solvency Funding Relief))</li><li>• FR-115-16: Ontario Pension Benefits Act, R.S.O. 1990, Ch. P.8</li><li>• FR-116-15: FSCO Q&amp;A on Agreement Respecting Multi-jurisdictional Pension Plans</li><li>• FR-117-15: FSCO overview and Q&amp;A on Letters of Credit</li><li>• FR-118-15: FSCO overview and Q&amp;A on Letters of Credit – FAQs</li><li>• FR-123-15: Pension Benefits Act–Ontario Regulation 310/13</li></ul>

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

- FR-129-16: Pension Asset Transfers made easier, Pension Benefits and Executive Compensation, February 2014
- FR-131-16: FSCO Q&A on Asset Transfers for Plan Administrators and Actuaries
- [FSCO Policy T800-402, Commuted Value Transfers](#)
- [FSCO Policy on Actuarial Filing for Plan Amendments](#)
- [FSCO Policy on Conversion of a Plan from Defined Benefit to Defined Contribution](#)
- [FSCO Policy : Application by Employer for Payment of Surplus on Full Wind Up of a Pension Plan](#)
- [FSCO Actuarial Guidance Note on Determination of Interest Payments Where Solvency Special Payments are covered by Letters of Credit](#)



Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

6.
Learning Objectives
The candidate will understand how to apply the regulatory framework in the context of plan funding.
Learning Outcomes
The candidate will be able to: a) Evaluate retirement funding alternatives for the plan sponsor, shareholders and the participants b) Evaluate funding restrictions imposed by regulations
Resources
<ul style="list-style-type: none"><li>• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5<sup>th</sup> edition<ul style="list-style-type: none"><li>○ Ch. 15 (exclude pp. 307-308)</li></ul></li><li>• <i>Morneau Shepell Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none"><li>○ Ch. 5 (exclude pp. 133-142)</li></ul></li><li>• FR-114-16: Ontario Pension Benefits Act R.R.O. 1990, Reg 909 (exclude sections 5.5.1 and 5.5.2 (Funding and Funding Relief for Specified Pension Plans) and 5.5.3 (Solvency Funding Relief))</li><li>• FR-115-16: Ontario Pension Benefits Act, R.S.O. 1990, Ch. P.8</li><li>• FR-119-14: CAPSA Guideline No. 7: Pension Plan Funding Policy Guideline</li><li>• FR-131-16: FSCO Q&amp;A on Asset Transfers for Plan Administrators and Actuaries</li></ul>

Retirement Benefits: Funding and Regulation  
Fall 2016 and Spring 2017

7.
Learning Objectives
The candidate will understand how to apply the standards of practice and professional conduct guidelines.
Learning Outcomes
The candidate will be able to: <ul style="list-style-type: none"><li>a) Apply the standards related to communications to plan sponsors and others with an interest in an actuary's results (i.e., participants, auditors, etc.)</li><li>b) Explain and apply the Professional Conduct Guidelines</li><li>c) Explain and apply relevant qualification standards</li><li>d) Demonstrate compliance with requirements regarding the actuary's responsibilities to the participants, plan sponsors, etc</li><li>e) Explain and apply all of the applicable standards of practice related to valuing pension benefits</li><li>f) Recognize situations and actions that violate or compromise Standards or Professional Conduct Guidelines</li><li>g) Recommend a course of action to repair a violation of the Standards or Professional Conduct Guidelines</li></ul>
Resources
<ul style="list-style-type: none"><li>• <a href="#">CIA Consolidated Standards of Practice - 1000-1800</a>, Effective June 9, 2015</li><li>• <a href="#">CIA Consolidated Standards of Practice - Pension Plans 3100-3500</a>, Effective June 9, 2015</li><li>• <a href="#">CIA Qualification Standards</a></li><li>• <a href="#">CIA Rules of Professional Conduct</a></li><li>• <a href="#">SOA Code of Professional Conduct</a></li><li>• <a href="#">SOA Qualification Standards</a></li><li>• <a href="#">CIA Guidance Document: General Advice on the Application of Rule 13</a></li></ul>