

Retirement Benefits: Funding and Regulation
Fall 2015 / Spring 2016

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.
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 website.
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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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">• FR-100-13: ASOP 23 Data Quality• CIA Consolidated Standards of Practice - Sections 1530 and 1600

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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: <ul style="list-style-type: none">a) Describe and apply the techniques used in the development of assumptions for funding purposesb) Evaluate and recommend appropriate assumptions for funding purposesc) Evaluate actual experience, including comparisons to assumptions
Resources
<ul style="list-style-type: none">• <i>Pension Mathematics for Actuaries</i>, Anderson, 3rd Edition<ul style="list-style-type: none">○ Ch. 6• FR-102-15: Selection of Actuarial Assumptions, Consultant Resource Manual, Mercer, excluding pages 15-25, 29-32 and 68-69• FR-121-15: Assumptions for Hypothetical Wind-Up and Solvency Valuations with Effective Dates between December 31, 2013, and December 30, 2014• FR-124-15: Selecting Mortality Tables: A Credibility Approach• FR-125-15: Financial Services Commission of Ontario: Actuarial Guidance Note: Determination of the Solvency Liability Adjustment• FR-128-15: Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective December 31, 2014, and Applicable to Valuations with Effective Dates Between December 31, 2014, and December 30, 2015• <u>ASOP 25 - Credibility Procedures</u>• <u>ASOP 27, Selection of Economic Assumptions for Measuring Pension Obligations</u>• <u>Financial Economics and Canadian Pension Valuation</u>, September 2006 paper by CIA Task Force on Financial Economics• <u>Determination of best Estimate Discount Rates for Going Concern Funding Valuations</u>, CIA Educational Note <i>Not updated</i>• <u>A Practical Approach to Gains Analysis Revisited</u> by Andrew Smith, Pension Section News, Sep 93• <u>A Practical Approach to Gains Analysis</u> by Josiah Lynch, TSA, Vol 27, pp.423-439• <u>Selecting and Documenting Mortality Assumptions</u>, American Academy of Actuaries (Appendix for background only)• <u>Selection of Mortality Assumptions for Pension Plan Actuarial Valuations</u>, CIA Educational Note, March 2014

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- Provisions for Adverse Deviations in Going Concern Actuarial Valuations of Defined Benefit Pension Plans, CIA Research Paper
- Measuring Pension Obligations, AAA Issue Brief, November 2013
- CIA Revised Educational Note: Expenses in Funding Valuations for Pension Plans, September 2014

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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. Multi-employer pension plan valuations e) Calculate actuarially equivalent benefits
Resources
<ul style="list-style-type: none">• <i>Morneau Shepell, Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none">○ Ch. 2, 4, 5 (exclude pp. 133-142), (Ch. 2 & Ch. 4 - background only)• <i>Pension Mathematics for Actuaries</i>, Anderson, 3rd Edition, Ch. 1-4, 7• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5th Edition.<ul style="list-style-type: none">○ Ch. 15 (exclude pp. 307-308) • FR-104-13: Pension Projections (Appendix Background Only)• FR-105-13: Actuarially Equivalent benefits• FR-107-13: Pension Surplus and Deficit Funding: Funding of Multi-Employer Plans• 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

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- [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](#)

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

- *Canadian Pensions and Retirement Income Planning*, Towers Watson, 5th edition.
 - Ch. 1 (section 110, background only) & Ch. 5
- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans*, 15th edition
 - Ch. 8 and Ch. 29 (pp 621-629)
- FR-109-13: The Impact of the Financial Crisis on Defined benefit Plans and the Need for Counter-Cyclical Funding Regulations, OECD (excluding appendix)
- FR-120-14: IOPS Principles of Private Pension Supervision
- FR-127-15: Rebuilding New Brunswick: The Case for Pension Reform

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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">a) Plan designb) Plan establishmentc) Plan amendmentd) Plan termination/windupe) Plan conversionf) Plan merger or spin-offg) Reporting requirementsh) Members' rightsi) Contributions and benefitsj) Individual savings plansk) Coordination of individual and employer sponsored retirement plans
Resources
<ul style="list-style-type: none">• <i>Morneau Shepell, Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none">○ Ch. 7, Ch. 8, Ch. 9 & Ch. 12• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5th Edition.<ul style="list-style-type: none">○ Ch. 2, Ch. 6-8, Ch. 9-14 & Ch. 16-22• FR-111-13: OSFI Guidelines for Converting DB to DC• FR-112-13: Filing Requirements and Procedure on Full or Partial Wind up of a Pension Plan• FR-113-13: Converting Pension Plans from DB to DC• FR-114-15: Ontario Pension Benefits Act R.R.O. 1990, Reg 909• FR-115-15: Ontario Pension Benefits Act, R.S.O. 1990, Ch. P.8• FR-116-15: FSCO Q&A on Agreement Respecting Multi-jurisdictional Pension Plans• FR-117-15: FSCO overview and Q&A on Letters of Credit• FR-118-15: FSCO overview and Q&A on Letters of Credit – FAQs• FR-123-15: Pension Benefits Act–Ontario Regulation 310/13

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- [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](#)

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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: <ul style="list-style-type: none">a) Evaluate retirement funding alternatives for the plan sponsor, shareholders and the participantsb) Evaluate funding restrictions imposed by regulations
Resources
<ul style="list-style-type: none">• <i>Canadian Pensions and Retirement Income Planning</i>, Towers Watson, 5th edition<ul style="list-style-type: none">○ Ch. 15 (exclude pp. 307-308)• <i>Morneau Shepell Handbook of Canadian Pension and Benefit Plans</i>, 15th edition<ul style="list-style-type: none">○ Ch. 5 (exclude pp. 133-142)• FR-114-15: Ontario Pension Benefits Act R.R.O. 1990, Reg 909• FR-115-15: Ontario Pension Benefits Act, R.S.O. 1990, Ch. P.8• FR-119-14: CAPSA Guideline No. 7: Pension Plan Funding Policy Guideline

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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">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.)b) Explain and apply the Professional Conduct Guidelinesc) Explain and apply relevant qualification standardsd) Demonstrate compliance with requirements regarding the actuary's responsibilities to the participants, plan sponsors, etce) Explain and apply all of the applicable standards of practice related to valuing pension benefitsf) Recognize situations and actions that violate or compromise Standards or Professional Conduct Guidelinesg) Recommend a course of action to repair a violation of the Standards or Professional Conduct Guidelines
Resources
<ul style="list-style-type: none">• CIA Consolidated Standards of Practice - 1000-1800, Effective October, 2014• CIA Consolidated Standards of Practice - Pension Plans 3100-3500, Effective March 31, 2015• CIA Qualification Standards• CIA Rules of Professional Conduct• SOA Code of Professional Conduct• SOA Qualification Standards• CIA Guidance Document: General Advice on the Application of Rule 13