

# RET – Funding & Regulation Exam

Fall 2019/Spring 2020

## **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](#)

The case study will be provided with the examination.  
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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<b>1. Topic: Valuation Data</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze data for quality and appropriateness.
<b>Learning Outcomes</b>
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
<b>Resources</b>
<ul style="list-style-type: none"><li>• <a href="#">ASOP 23: Data Quality</a></li><li>• <a href="#">Experience Data Quality: How to Clean and Validate Your Data</a>, SOA (excluding introduction)</li><li>• <a href="#">CIA Consolidated Standards of Practice – Sections 1440, 1510, 1530</a></li></ul>

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<b>2. Topic: Assumptions</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze/synthesize the factors that go into selection of actuarial assumptions for funding purposes.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Describe and apply the techniques used in the development of assumptions for funding purposes</li><li>b) Evaluate and recommend appropriate assumptions for funding purposes</li><li>c) Evaluate actual experience, including comparisons to assumptions</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• FR-121-19: Assumptions for Hypothetical Wind-Up and Solvency Valuations with Effective Dates between December 31, 2018, and December 30, 2019</li><li>• FR-125-17: Financial Services Commission of Ontario: Actuarial Guidance Note: Determination of the Solvency Liability Adjustment</li><li>• FR-143-19: Educational Note Supplement: Guidance for Assumptions for Hypothetical Wind-Up and Solvency Valuations Update – Effective September 30, 2018, and Applicable to Valuations with Effective Dates Between September 30, 2018 and December 30, 2018</li><li>• FR-132-17: A Problem-Solving Approach to Pension Funding and Valuation, 2<sup>nd</sup> Ed., Ch. 5</li><li>• FR-138-18: Alternative Settlement Methods for Solvency Valuations</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="#">Credibility Educational Resource for Pension Actuaries: Application of Credibility Theory to Mortality Assumptions</a></li><li>• <a href="#">Determination of Best Estimate Discount Rates for Going Concern Funding Valuations</a>, CIA Educational Note, Dec 2015</li><li>• <a href="#">Selecting and Documenting Mortality Assumptions</a>, AAA (Appendix background only)</li><li>• <a href="#">Selection of Mortality Assumptions for Pension Plan Actuarial Valuations</a>, CIA Educational Note, Dec 2017</li><li>• <a href="#">Provisions for Adverse Deviations in Going Concern Actuarial Valuations</a>, CIA Research Paper</li><li>• <a href="#">CIA Revised Educational Note: Expenses in Funding Valuations for Pension Plans</a>, Sep 2014</li><li>• <a href="#">CIA Revised Educational Note: Reflecting Increasing Maximum Pensions Under the Income Tax Act in Solvency, Hypothetical Wind-up and Wind-up Valuations</a></li><li>• <a href="#">Alternative Settlement Methods for Hypothetical Wind-Up and Solvency Valuations</a>, CIA Educational Note</li></ul>

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- [Task Force Report on Mortality Improvement](#), CIA Final Report
- [A Practical Approach to Establishing Margins for Adverse Deviations in Going Concern Funding Valuations](#), CIA Member Paper

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**3. Topic: Methods**

**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 methods
- d) Analyze and communicate the impact on cost stability of a variety of asset valuation methods
- e) 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
- f) Calculate actuarially equivalent benefits

**Resources**

- *Canadian Pensions and Retirement Income Planning*, Willis Towers Watson, 6<sup>th</sup> Edition, 2017
  - Ch. 15 (excluding section 1525)
- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans*, 16<sup>th</sup> Edition, 2016
  - Ch. 2
  - Ch. 5 (background only)
  - Ch. 6 (excluding pp. 188-196)
- *Pension Mathematics for Actuaries*, Anderson, Arthur W., 3<sup>rd</sup> Edition, 2006
  - Ch. 1-4 and 7
- FR-104-13: Pension Projections (Appendix background only)
- FR-108-13: Pension Funding Exercises (background only)
- FR-126-15: Asset Smoothing for Solvency Valuations, FSCO Q1 and A1

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- FR-133-17: Actuarial Equivalence Calculations
- FR-138-18: Alternative Settlement Methods for Solvency Valuations
- [ASOP 4: Measuring Pension Obligations and Determining Pension Plan Costs or Contributions](#)
- [Guidance on Asset Valuation Methods](#), CIA Educational Note, Sep 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 and 5
- [Survey of Asset Valuation Methods for Defined Benefit Plans](#) (section 2 only)
- [CIA Consolidated Standards of Practice - Pension Plans 3100-3500](#)
- [CIA Consolidated Standards of Practice – Section 1400](#)
- [Use of Models](#)
- [Alternative Settlement Methods for Hypothetical Wind-Up and Solvency Valuations](#)
- [Funding of Public Sector Pension Plans](#)
- [A Practical Approach to Establishing Margins for Adverse Deviations in Going Concern Funding Valuations](#), CIA Member Paper

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<b>4. Topic: Regulations - Principles and Rationale</b>
<b>Learning Objectives</b>
The candidate will understand the principles and rationale behind regulation.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Describe the principles and motivations behind pension legislation and regulation</li><li>b) Describe sources and framework of government regulation</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Canadian Pensions and Retirement Income Planning</i>, Willis Towers Watson, 6<sup>th</sup> Edition, 2017<ul style="list-style-type: none"><li>○ Ch. 1: Section 105</li><li>○ Ch. 1: Section 110 (background only)</li><li>○ Ch. 3</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. 9</li></ul></li><li>• FR-127-15: Rebuilding New Brunswick: The Case for Pension Reform (including Appendices C, D &amp; E)</li><li>• FR-139-18: OECD Core Principles of Private Pension Regulation (Parts I and II, pp. 11-75)</li></ul>

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**5. Topic: Regulations - Evaluation and Application**

**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:

- a) Plan design
- b) Plan establishment
- c) Plan amendment
- d) Plan termination/windup
- e) Plan conversion
- f) Plan merger or spin-off
- g) Reporting requirements
- h) Members' rights
- i) Contributions and benefits
- j) Individual savings plans
- k) Coordination of individual and employer sponsored retirement plans

**Resources**

- *Canadian Pensions and Retirement Income Planning*, Willis Towers Watson, 6<sup>th</sup> Edition, 2017
  - Ch. 2
  - Ch. 5-12
  - Ch. 14
  - Ch. 16-22
- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans*, 16<sup>th</sup> Edition, 2016
  - Ch. 8
  - Ch. 9
  - Ch. 10
  - Ch. 11 (pp. 364-374)
  - Ch. 13 (pp. 409-410)
  - Ch. 30 (pp. 709-719)
- FR-111-13: OSFI Guidelines for Converting DB to DC
- FR-112-16: Filing Requirements and Procedure on Full or Partial Wind up of a Pension Plan
- FR-114-19: Ontario Pension Benefits Act R.R.O. 1990, Reg 909 (excluding sections 5.5.1 and 5.5.2 -



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Funding and Funding Relief for Specified Pension Plans and 5.5.3, 5.6, 5.6.1, 5.6.2, 5.7, 5.8, 5.9, 5.10 - Solvency Funding Relief))

- FR-115-19: Ontario Pension Benefits Act, R.S.O. 1990, Ch. P.8
- FR-116-17: 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-123-19: Pension Benefits Act–Ontario Regulation 310/13
- FR-129-16: Pension Asset Transfers made easier, Pension Benefits and Executive Compensation, February 2014
- FR-131-19: FSCO Q&A on Asset Transfers for Plan Administrators and Actuaries
- FR-134-17: CIA Revised Educational Note: Transfer Values – Ontario Reporting Requirements
- FR-142-19: 2018 Funding Reform - Ability to take contribution holidays and pay PBGF assessments
- [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](#)
- [Canada Revenue Agency PA Guide](#)
- [Canada Revenue Agency PSPA Guide](#)
- [Canada Revenue Agency PAR Guide](#)

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<b>6. Topic: Funding</b>
<b>Learning Objectives</b>
The candidate will understand how to apply the regulatory framework in the context of plan funding.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Evaluate retirement funding alternatives for the plan sponsor, shareholders, participants, and, for public pension plans, taxpayers</li><li>b) Evaluate funding restrictions imposed by regulations</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Canadian Pensions and Retirement Income Planning</i>, Willis Towers Watson, 6<sup>th</sup> Edition, 2017<ul style="list-style-type: none"><li>○ Ch. 15 (excluding section 1525)</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. 6 (excluding pp. 188-196)</li><li>○ Ch. 9</li><li>○ Ch. 11 (pp. 364-374)</li><li>○ Ch. 12 (pp. 379-396)</li><li>○ Ch. 13 (pp. 409-410)</li></ul></li><li>• FR-114-19: Ontario Pension Benefits Act R.R.O. 1990, Reg 909 (excluding Sections 5.5.1 and 5.5.2 - Funding and Funding Relief for Specified Pension Plans and 5.5.3, 5.6, 5.6.1, 5.6.2, 5.7, 5.8, 5.9, 5.10 - Solvency Funding Relief)</li><li>• FR-115-19: 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-131-19: FSCO Q&amp;A on Asset Transfers for Plan Administrators and Actuaries</li><li>• FR-135-17: Quebec: Adoption of Bill 57 to amend pension plan funding</li><li>• FR-136-17: Quebec: Regulation respecting the stabilization provision for private sector pension plans</li><li>• FR-137-17: Québec: Retraite Québec provides details about the new rules</li><li>• FR-140-18: Quebec: Final Regulation on the Stabilization Provision for Private Sector Pension Plans</li><li>• FR-141-18: Alberta Interpretive Guideline #07: Solvency Reserve Account</li><li>• <a href="#">Funding of Public Sector Pension Plans</a></li></ul>

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<b>7. Topic: Professionalism</b>
<b>Learning Objectives</b>
The candidate will understand how to apply the standards of practice and professional conduct guidelines.
<b>Learning Outcomes</b>
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>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <a href="#">CIA Consolidated Standards of Practice - 1000-1800</a></li><li>• <a href="#">CIA Consolidated Standards of Practice - Pension Plans 3100-3500</a></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="#">AAA Qualification Standards</a></li><li>• <a href="#">CIA Guidance Document: General Advice on the Application of Rule 13</a></li><li>• <a href="#">CIA Revised Educational Note: Events Occurring After the Calculation Date of an Actuarial Opinion for a Pension Plan</a></li></ul>