

# RET – Design and Accounting, Canada Exam

Spring 2023/Fall 2023

## 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](#)

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 to the current syllabus.

<b>1. Topic: Benefit Plan Structure and Features</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze different types of retirement plans and retiree health plans.
<b>Learning Outcomes</b>
<p>The Candidate will be able to:</p> <p>Describe the structure of the following plans:</p> <ol style="list-style-type: none"><li>Traditional defined benefit plans</li><li>Defined contribution and savings plans</li><li>Hybrid plans</li><li>Retiree health plans</li><li>Other alternative retirement plans such as executive retirement plans, shared risk plans, target benefit plans, etc.</li></ol> <p>Given a plan type, explain the relevance, risks and range of plan features including the following:</p> <ol style="list-style-type: none"><li>Plan eligibility requirements</li><li>Benefit eligibility requirements, accrual, vesting</li><li>Benefit / contribution formula, including the methods of integration with government-provided benefits</li><li>Payment options and associated adjustments to the amount of benefit</li><li>Ancillary benefits</li><li>Benefit subsidies and their value, vested or non-vested</li><li>Participant investment options</li><li>Required and optional employee contributions</li><li>Phased retirement</li></ol>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches</i>, Allen et al., 12<sup>th</sup> Edition, 2018<ul style="list-style-type: none"><li>o Ch. 2, 11 (excluding pp. 198-200), 14 (pp. 250-263), 17 (pp. 314-323) &amp; 29 (pp. 555-561)</li></ul></li><li>• <i>Fundamentals of Private Pensions</i>, McGill et al., 9<sup>th</sup> Edition, 2010<ul style="list-style-type: none"><li>o Ch. 5 &amp; 9 pp 270-293</li></ul></li></ul>

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- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans, 17<sup>th</sup> Edition, 2020*
  - Ch. 1
  - Ch. 3
  - Ch. 11
  - Ch. 13
  - Ch. 14
  - Ch. 16 (background only)
  - Ch. 20
  - Ch. 24
- *Canadian Pensions and Retirement Income Planning, Willis Towers Watson, 6<sup>th</sup> Edition, 2017*
  - Ch. 1 (sections 120-145)
  - Ch. 16 (sections 1615-1619 & 1680)
  - Ch. 17 (section 1790)
  - Ch. 18 (sections 1825-1835)
  - Ch. 23
- DA-110-13: Integration with Social Security
- DA-164-17: Defined Contribution Plan Success Factors
- DA-165-17: Phased Retirement – An Important Part of the Evolving Retirement Scene
- DA-189-22: The Hybrid Handbook: Not All Hybrids are Created Equal
- DA-603-13: CAPSA Guidelines Number 3: Guideline for Capital Accumulation Plans
- DA-617-16: The TFSA: A Practical Addition to Your Client’s Savings Portfolio
- DA-619-20: CAPSA Guideline No. 8: Defined Contribution Plans
- [CIA Report of the Task Force on Target Benefit Plans](#)
- [The Next Evolution in Defined Contribution Retirement Plan Design: A Guide for DC Plan Sponsors To Implementing Retirement Income Programs](#) (pp. 61-88 background only)
- [Analysis of Target Benefit Plan Design Options](#), pp.12-16

<b>2. Topic: Benefit Plan Regulations Applicable to Plan Design</b>
<b>Learning Objectives</b>
The candidate will understand the impact of the regulatory environment on plan design.
<b>Learning Outcomes</b>
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Explain and apply restrictions on plan design features to a proposed plan design</li><li>b) Explain and test for limits on plan designs and features that protect participant rights</li><li>c) Test for plan design restrictions intended to control the use of tax incentives</li><li>d) Understand conflicts between regulation and design objectives and recommend alternatives</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 (sections 120-145)</li><li>○ Ch. 16 (sections 1615-1619 &amp; 1680)</li><li>○ Ch. 17 (section 1790)</li><li>○ Ch. 18 (sections 1825-1835)</li><li>○ Ch. 23</li></ul></li><li>• DA-132-13: Chapter 5 of Pension Policy: The Search for Better Solutions</li><li>• DA-160-22: OECD Pensions Outlook 2020 – Highlights</li><li>• DA-607-13: Creative Compensation Arrangements for Corporations</li><li>• DA-626-20: Tax, Retirement &amp; Estate Planning Services: Tax Topics – Retirement Compensation Arrangements</li><li>• DA-627-20: Personal Tax Planning – A Fresh Look at Retirement Compensation Arrangements: A Flexible Vehicle for Retirement Planning</li><li>• <a href="#">CIA Report of the Task Force on Target Benefit Plans</a></li></ul>

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### 3. Topic: Participant Risks

#### Learning Objectives

The candidate will understand how to analyze the risks faced by retirees and the participants of retirement plans and retiree health plans.

#### Learning Outcomes

The Candidate will be able to:

- a) Identify risks faced by retirees and the elderly
- b) Describe and contrast the risks faced by participants of
  - i. Government sponsored retirement plans
  - ii. Single employer sponsored retirement plans
  - iii. Multiemployer retirement plans, and
  - iv. Social insurance plans
- c) Evaluate benefit adequacy and measure replacement income for members of a particular plan given other sources of retirement income
- d) Propose ways in which retirement plan and retiree health plan designs can manage the range of risks faced by plan participants and retirees

#### Resources

- *Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches*, Allen et al., 12<sup>th</sup> Edition, 2018
  - o Ch. 11 (excluding pp. 198-200), 14 (pp. 250-263) & 17 (pp. 317-323)
- *Fundamentals of Private Pensions*, McGill et al., 9<sup>th</sup> Edition, 2010
  - o Ch. 5 & 9
- DA-102-13: OECD paper, Evaluating the Design of Private Pension Plans: Costs and Benefits of Risk Sharing
- DA-114-13: Risk Management and Public Plan Retirement Systems - Appendices B and C only (remainder is background)
- DA-115-13: Private Pensions: Alternative Approaches Could Address Retirement Risks Faced by Workers but Pose Tradeoffs, pp.1-35
- DA-166-17: Shifting Public Sector DB Plans to DC, pp. 1-22
- DA-172-18: The Promise of Defined Ambition Plans: Lessons for the United States
- DA-173-18: How Accurately does 70% Final Employment Earnings Replacement Measure Retirement Income (In)Adequacy? Introducing the Living Standards Replacement Rate (LSRR), (sections 3.1, 3.2, 3.4, 4 & 5 and Appendices background only)
- DA-174-18: An Improved Application of the Variable Annuity
- DA-190-22: Collective DC - Stability and Fairness

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- [CIA Report of the Task Force on Target Benefit Plans](#)
- [CIA Ed Note: Financial Risks Inherent in Multi-Employer Pension Plans and Target Benefit Pension Plans, CIA TF on MEPP/TBPP Funding, May 2011](#)
- [The Next Evolution in Defined Contribution Retirement Plan Design: A Guide for DC Plan Sponsors to Implementing Retirement Income Programs](#) (pp. 61-88 background only)
- [Hybrid Pensions: Risk Sharing Arrangements for Pension Plan Sponsors and Participants](#) (Section VI Case Studies and Appendix Background only)
- [Managing Post Retirement Risks: Strategies for Secure Retirement, 2020](#)

#### 4. Topic: Sponsor Risks

##### Learning Objectives

The candidate will understand how to evaluate plan design risks faced by sponsors of retirement plans and retiree health plans.

##### Learning Outcomes

The Candidate will be able to:

- a) Identify how plan features, temporary or permanent, can adversely affect the plan sponsor
- b) Assess the risk from options offered, including:
  - i. Phased retirement
  - ii. Postponed retirement
  - iii. Early retirement
  - iv. Option factors
  - v. Embedded Options
  - vi. Portability Options
- c) Recommend ways to mitigate the risks identified with a particular plan feature
- d) Assess the impact of possible changes in plan design

##### Resources

- DA-102-13: Evaluating the Design of Private Pension Plans: Costs and Benefits of Risk Sharing
- DA-104-13: Deferred Retirement Option Plans (“DROP” Plans)
- DA-114-13: Risk Management and Public Plan Retirement Systems - Appendices A to C only (remainder is background only)
- DA-154-15: Implementing Early Retirement Incentive Programs: A Step-by-Step Guide
- DA-161-16: Pension Issues in Mergers and Acquisitions
- DA-166-17: Shifting Public Sector DB Plans to DC, pp. 1-22
- DA-187-21: ASOP 51 - Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Contributions
- DA-189-22: The Hybrid Handbook: Not All Hybrids are Created Equal
- DA-619-20: CAPSA Guideline No. 8: Defined Contribution Plans
- [CIA Report of the Task Force on Target Benefit Plans](#)
- [Embedded Options in Pension Plans: Catalogue of Embedded Options Survey of Prevalence of Embedded Options](#), pp. 1-17
- [The Next Evolution in Defined Contribution Retirement Plan Design: A Guide for DC Plan Sponsors To Implementing Retirement Income Programs](#)

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- [Hybrid Pensions: Risk Sharing Arrangements for Pension Plan Sponsors and Participants](#) (Section VI Case Studies and Appendix Background only)
- [Pension Risk Transfer: Evaluating Impact and Barriers for De-Risking Strategies](#), 2014, pp. 16, 17 & 20-27



## 5. Topic: Sponsor’s Goals and Benefit Plan Design

### Learning Objectives

The candidate will understand how to evaluate sponsor’s goals for the retirement plan, evaluate alternative plan types and features, and recommend a plan design appropriate for the sponsor’s goals.

### Learning Outcomes

Given a context, the Candidate will be able to:

- a) Describe ways to identify and prioritize the sponsor’s goals related to the design of the retirement plan
- b) Assess the trade-offs between different goals
- c) Assess the feasibility of achieving the sponsor’s goals for their retirement plan
- d) State relationships or recognize contradictions between a sponsor’s plan design goals and the retirement risks faced by retirees
- e) Identify the ways that regulation impacts the sponsor’s plan design goals
- f) Design retirement programs that manage retirement risk and are consistent with sponsor objectives
- g) Design retirement programs that promote employee behavior consistent with sponsor objectives
- h) Evaluate the pros and cons from both a sponsor and employee perspective of introducing options that impact the labor force demographics
- i) Recommend a method to integrate government-provided benefits with retirement plan designs in order to meet the plan sponsor’s particular goals and defend the recommendation
- j) Advise a plan sponsor regarding the choice of design elements for their retiree health program
- k) Evaluate and incorporate, as appropriate, different social insurance and employer sponsored plan types and features that occur internationally in providing recommendations
- l) Recommend an appropriate plan type and plan design features for providing retirement benefits and defend the recommendations

### Resources

- *Retirement Plans - 401(k)s, IRAs and Other Deferred Compensation Approaches*, Allen et al., 12<sup>th</sup> Edition, 2018
  - o Ch. 2 & 29 (pp. 555-561)
- *Fundamentals of Private Pensions*, McGill et al., 9<sup>th</sup> Edition, 2010
  - o Ch. 5
- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans*, 17<sup>th</sup> Edition, 2020
  - o Ch. 14 (pp. 436-441)
- DA-102-13: Evaluating the Design of Private Pension Plans: Costs and Benefits of Risk Sharing
- DA-104-13: Deferred Retirement Option Plans (“DROP” Plans)

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- DA-132-13: Turner, Pension Policy: The Search for Better Solutions, 2009, Ch. 1 (pp. 4-11) & 5
- DA-164-17: Defined Contribution Plan Success Factors
- DA-165-17: Phased Retirement – An Important Part of the Evolving Retirement Scene
- DA-166-17: Shifting Public Sector DB Plans to DC, pp.1-22
- DA-172-18: The Promise of Defined Ambition Plans: Lessons for the United States
- DA-174-18: An Improved Application of the Variable Annuity
- DA-189-22: The Hybrid Handbook: Not All Hybrids are Created Equal
- DA-191-22: Design Matters: Plan Distribution Options
- DA-618-16: The Big Chill
- DA-629-21: A Fine Balance, Ch. 9: Innovation in Plan Design
- DA-630-21: Pension Design Innovation for the 21st Century
- DA-631-21: What You Need to Know About the New DB plus and OP Trust Pension Plans

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<b>6. Topic: Actuarial Assumptions</b>
<b>Learning Objectives</b>
The candidate will understand how to analyze/synthesize the factors that go into selection of actuarial assumptions.
<b>Learning Outcomes</b>
Given a context, the Candidate will be able to: <ul style="list-style-type: none"><li>a) Evaluate appropriateness of current assumptions</li><li>b) Describe and explain the different perspectives on the selection of assumptions</li><li>c) Describe and apply the techniques used in the development of economic assumptions</li><li>d) Recommend appropriate assumptions for a particular type of valuation and defend the selection</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• <i>Fundamentals of Retiree Group Benefits</i>, Yamamoto, Dale H., 2<sup>nd</sup> Edition, 2015<ul style="list-style-type: none"><li>o Ch. 9 (pp. 308-339 and pp. 350-357)</li></ul></li><li>• DA-136-17: Selection of Actuarial Assumptions, Consultant Resource Manual, SOA Version, Mercer (excluding pp. 1-4, 14-25, 29-32 and 68-109)</li><li>• DA-139-21: ASOP 35 - Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations</li><li>• DA-140-21: ASOP 27 - Selection of Economic Assumptions for Measuring Pension Obligations</li><li>• DA-171-21: Selecting Investment Return Assumptions: Considerations When Using Arithmetic and Geometric Averages</li><li>• DA-188-21: AAA practice note on Variable Annuity Plans, pp. 6-20 &amp; Appendix (pp. 55 -58)</li><li>• DA-614-23: Practice Specific Standards for Pension Plans 3100-3570</li><li>• DA-615-23: CIA Standards of Practice for Post-Employment Benefit Plans 6000-6420</li><li>• DA-624-23: CIA Standards of Practice – General Standards 1520</li><li>• <a href="#">Getzen Model of Long-Run Medical Cost Trends</a></li><li>• <a href="#">Duration and Convexity for Pension Liabilities</a>, Pension Section News, Sep 2013</li><li>• <a href="#">Accounting Discount Rate Assumption for Pension and Post-employment Benefit Plans</a>, CIA Educational Note, Jun 2018 (Appendices 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="#">Credibility Educational Resource for Pension Actuaries</a>, Society of Actuaries</li><li>• <a href="#">Model of Long-Term Health Care Cost Trends in Canada</a></li></ul>

## 7. Topic: Funding Policy and Accounting Standards

### Learning Objectives

The candidate will understand how to recommend and advise on the financial effects of funding policy and accounting standards in line with the sponsor's goals, given constraints.

### Learning Outcomes

The Candidate will be able to:

- a) Perform valuations for special purposes, including:
  - i. Plan termination/windup
  - ii. Accounting valuations
  - iii. Plan mergers, acquisitions and spinoffs
- b) Analyze, recommend, and defend an appropriate funding policy in line with the sponsor's goals
- c) Demonstrate how the retirement plan's cash inflows and outflows can affect the plan sponsor
- d) Advise plan sponsors on accounting methods, costs and disclosures for retirement plans under various standards and interpretations
- e) Demonstrate the sensitivity of financial measures to given changes in plan design
- f) Describe how a plan's funded status can impact union negotiations for multiemployer plans
- g) Perform and interpret the results of projections for short term planning including the effect of proposed plan changes

### Resources

- *Morneau Shepell, Handbook of Canadian Pension and Benefit Plans, 17<sup>th</sup> Edition, 2020*
  - Ch. 6
  - Ch. 13 (pp. 402-410)
- *Fundamentals of Retiree Group Benefits, Yamamoto, Dale H., 2<sup>nd</sup> Edition, 2015*
  - Ch. 7 & 9 (pp. 308-339 and pp. 350-357)
- DA-114-13: Risk Management and Public Plan Retirement Systems – Appendices only (pp. 1-33 background only)
- DA-142-15: ASOP 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions
- DA-145-13: Acquiring a U.S. Operation—A Primer
- DA-146-15: ASOP 6, Measuring Retiree Group Benefit Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions
- DA-168-19: IFRS and US GAAP: Similarities and Differences, Ch. 5 only
- DA-169-17: Mergers and Acquisitions: Key Considerations for Retirement Plan Conversion
- DA-170-17: Accounting for Buy-ins

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- DA-175-18: Alternatives for Pension Cost Recognition—Implementation Approaches Using Bond Models
- DA-179-19: Introduction (A58), IFRS1 (paragraphs 1-40 & Appendix A), IAS19, IFRIC14
- DA-180-18: Alternative Approaches to Calculating Service and Interest Cost under FASB ASC Topic 715
- DA-185-20: Plan Curtailments & Settlements Under FASB ASC Topic 715 Relating to Plan Terminations, Part 1
- DA-186-20: Plan Curtailments and Settlements Under FASB ASC Topic 715 Relating to Plan Terminations, Part 2
- DA-187-21: ASOP 51 - Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Contributions
- DA-614-23: Practice Specific Standards for Pension Plans 3100-3570, CIA Consolidated Standards of Practice
- [CIA Educational Note: Financial Risks Inherent in Multi-Employer Pension Plans and Target Benefit Pension Plans, CIA Task Force on MEPP/TBPP Funding, May 2011](#)
- [Embedded Options in Pension Plans, SOA Pension Section](#), pp.1-17
- [Duration and Convexity for Pension Liabilities](#), Pension Section News, Sep 2013
- [Pension Risk Transfer: Evaluating Impact and Barriers for De-Risking Strategies](#), pp. 16, 17 & 20-27

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<b>8. Topic: Professionalism</b>
<b>Learning Objectives</b>
The candidate will understand how to apply the relevant standards of practice.
<b>Learning Outcomes</b>
In general or given a context, 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) Demonstrate compliance with requirements regarding the actuary's responsibilities to the participants, plan sponsors, etc.</li><li>c) Explain and apply relevant standards of practice related to valuing retirement obligations</li><li>d) Recognize situations and actions that violate or compromise Standards</li></ul>
<b>Resources</b>
<ul style="list-style-type: none"><li>• DA-139-21: ASOP 35 - Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations</li><li>• DA-140-21: ASOP 27 - Selection of Economic Assumptions for Measuring Pension Obligations</li><li>• DA-142-15: ASOP 4 - Measuring Pension Obligations</li><li>• DA-146-15: ASOP 6 - Measuring Retiree Group Benefit Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions</li><li>• DA-192-22: ASOP 56 - Modeling</li><li>• DA-614-23: Practice Specific Standards for Pension Plans 3100-3570, CIA Consolidated Standards of Practice</li><li>• DA-615-23: CIA Standards of Practice for Post-Employment Benefit Plans 6000-6420</li></ul>