# QFI – Investment Risk Management Exam

Spring 2019/Fall 2019

## Important Exam Information:

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<th>Section</th>
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<tr>
<td>Exam Registration</td>
<td>Candidates may register online or with an application.</td>
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<tr>
<td>Order Study Notes</td>
<td>Study notes are part of the required syllabus and are not available</td>
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<td></td>
<td>electronically but may be purchased through the online store.</td>
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<tr>
<td>Introductory Study Note</td>
<td>The Introductory Study Note has a complete listing of all study notes</td>
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<td>as well as errata and other important information.</td>
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<tr>
<td>Case Study</td>
<td>A case study will not be provided for this examination.</td>
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<tr>
<td>Past Exams</td>
<td>Past Exams from 2000-present are available on SOA website.</td>
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<tr>
<td>Updates</td>
<td>Candidates should be sure to check the Updates page on the exam home page</td>
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<td>periodically for additional corrections or notices.</td>
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*Recognized by the Canadian Institute of Actuaries*
QFI-IRM readings and exam questions assume familiarity with investment policy and asset allocation. Candidates who missed this material because of the exam transition are advised to read *Managing Investment Portfolios: A Dynamic Process*, by Maginn et. al., 3rd edition, chapters 1, 3, and 5.

### 1. Topic: Governance

#### Learning Objectives

The candidate will understand the requirements and methods of governing investments.

#### Learning Outcomes

The Candidate will be able to:

- a) Compare the interest of key stakeholders
- b) Identify sources of unethical conduct and explain the role of a fiduciary
- c) Describe governance mechanisms that attempt to address these conflicts
- d) Understand the importance of an organization’s culture in effectuating governance
- e) Explain how governance may be structured to gain competitive advantages and efficiencies
- f) Demonstrate understanding of how ethics relates to business decision-making, and relate ethics in business to personal ethics

#### Resources

  - Ch. 1: An Introduction to ERM
  - Ch. 1-3, 7 and 9
- QFII-103-14: Advances in Risk Management and Risk Governance
- QFII-111-17: Tracing the True Origins of Bad Behavior: New Ways to Predict Conduct Risk Exposure, Dr. Roger Miles
2. **Topic: Investment Risk Management**

**Learning Objectives**

The candidate will understand and be able to apply the components of an effective risk management system.

**Learning Outcomes**

The Candidate will be able to:

a) Explain the importance of risk culture in an investment firm

b) Identify and describe the various kinds of risks, including market, credit, operational, etc.

c) Identify and describe various approaches for managing risks including risk budgeting, position limits, etc.

d) Explain the features of a best practices enterprise risk management system

e) Evaluate a company’s risk management process

f) Examine examples of risk management failure

**Resources**

  - Ch. 9: Risk Management (sections 1-4 & 6)

  - Ch. 8: Risk Identification
  - Ch. 20: Case Studies


- QFII-110-15: The Devil is in the Tails: Actuarial Mathematics and the Subprime Mortgage Crisis

- QFII-117-19: Chapter 7 of *Strategic Risk Management Practice: How to Deal Effectively with Major Corporate Exposures*, Andersen & Schroder

### 3. Topic: Risk Measurement

#### Learning Objectives

The candidate will understand how to apply different approaches to measuring risk exposures.

#### Learning Outcomes

The Candidate will be able to:

- a) Explain the advantages and limitations of different risk metrics
- b) Explain how different approaches and tests form a set of complementary investment risk metrics
- c) Analyze and evaluate risk aggregation techniques, including the use and misuse of correlation, integrated risk distributions and copulas
- d) Evaluate different measures of rare event risks
- e) Evaluate a company’s or a portfolio’s exposures to various risks

#### Resources

  - Ch. 9: Risk Management (section 5)
- QFII-104-14: Correlation: Pitfalls and Alternatives
- QFII-108-14: Developments in Modelling Risk Aggregation, pp. 76-87
- QFII-110-15: The Devil is in the Tails: Actuarial Mathematics and the Subprime Mortgage Crisis
- QFII-115-17: Chapters 2 and 3 of *Liquidity Measurement and Management: A Practitioners Guide to Global Best Practices*
- QFII-119-19: Chapter 3 of *The Known, the Unknown, and the Unknowable in Financial Risk Management: Measurement and Theory Advancing Practice*