

# CFE SDM – Strategic Decision Making Exam Spring/Fall 2018

# 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.
<u>Case Study</u>	This case study will also 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 the SOA website.
<u>Updates</u>	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

Recognized by the Canadian Institute of Actuaries

# 1. Topic: Accounting and Value Measures / Managerial Accounting

# Learning Objectives

The candidate will understand measures of corporate value and their uses in risk management.

#### Learning Outcomes

The Candidate will be able to:

- a) Assess accounting concepts used in the production of financial statements and recommend the appropriate measures to evaluate corporate value.
- b) Explain how economic capital and related concepts can be used as the building block of value measure in any industry.
- c) Evaluate various financial and performance reporting metrics for use in corporate decision-making.

- SDM-100-13: Managerial Accounting for CERAs and FSAs, 2013
- SDM-129-14: The Impact of Capital Structure on Economic capital and Risk Adjusted Performance
- SDM-132-14: There's More to Life than Solvency II
- SDM-133-14: Solvency II: Rainmakers and the Elements of Risk
- SDM-145-16: A comparison and economic analysis of international solvency regimes for life annuity markets
- SDM-147-16 Berkshire Hathaway 2014 Annual Report, pp. 7-11 and 121
- SDM-166-17: Global Insurance Capital Standards: Origin, Perspectives and Impact on US Markets
- SDM-172-18: CFO Forum: Market Consistent Embedded Value Basis for Conclusions, April 2016
- SDM-173-18: Milliman Research Report: 2016 Embedded Value Results Europe
- SDM-174-18: An Introduction to Risk Assessment, Risk Capital and Risk Margins

# 2. Topic: Second-Order Risks

# Learning Objectives

The candidate will be able to identify and assess second-order risk factors, e.g. credit risk, liquidity risk, contagion risks and parameter risks that can have a major impact if not properly measured, monitored or managed.

# Learning Outcomes

The Candidate, for a given situation, will be able to:

- a) Explain the various types of risks that can arise from specific business activities but are not directly specific to the business itself.
- b) Evaluate the sustainability of a given business enterprise using the cost of capital approach to risk margins.
- c) Critique the applicability and relevance of measurement and management techniques for these second-order risks.

- The xVA Challenge: Counterparty Credit Risk, Funding, Collateral and Capital, Gregory, Jon, 3<sup>rd</sup> edition, 2015
  - o Ch. 1-3 (background)
  - Ch. 5.1.1-5.2.7, 6.2.1-6.2.9, 6.6.1-6.6.6, 7.1.1-7.4.4, 8.2.1-8.7.6, 9.1.1-9.2.1, 9.2.4-9.4, 13.1.1-13.3.1, 14.1.1-14.5.2, 17.1.1-17.4.7
- SDM-106-13: Chapters 5-6 of *Credit Risk Measurement In and Out of the Financial Crisis,* 3<sup>rd</sup> Edition by Saunders and Allen
- SDM-107-13: Chapter 17 of *Financial Institutions Management: a Risk Management Approach,* 2010 7<sup>th</sup> edition, by Saunders and Cornett
- SDM-108-13: Ch. 2 and 3 of Liquidity Risk Measurement and Management, Matz and Neu
- SDM-149-16: Basel Committee on Bank Supervision: Liquidity Risk Management Framework, pp.1-31
- SDM-150-16: Management Solutions: Liquidity Framework and Impact on Management
- SDM-165-16: CVA the Wrong Way
- SDM-167-17: Bagehot was a Shadow Banker: Shadow Banking, Central Banking, and Future of Global Finance
- SDM-174-18: An Introduction to Risk Assessment, Risk Capital and Risk Margins
- SDM-175-18: Home and Heartache
- Down But Not Out: A Cost of Capital Approach to Fair Value Risk Margin, John Manistre (background)

# 3. Topic: Capital Management and ERM Process

#### Learning Objectives

The candidate will understand ERM processes and Capital Management and their use in setting a risk-return strategy in any industry.

#### Learning Outcomes

The Candidate will be able to:

- a) Explain ERM and capital management concepts to evaluate and recommend corporate finance and ERM decisions.
  - i. Apply capital allocation models to a multi-line organization.
  - ii. Compare and contrast various ERM and Capital Management frameworks as to their ability to assess value and articulate the risk-return strategy of an organization.
  - iii. Evaluate the value added for an organization by jointly evaluating risk measurement and capital allocation.
  - iv. Assess how an ERM process can improve capital efficiency and articulate the risk-return strategy.
- a) Explain ERM principles and frameworks.
  - i. Evaluate a company's ERM processes in its ability to adapt to emerging issues and identify risk opportunities.
  - ii. Critique the direction of new regulation and industry standards in risk governance.
  - iii. Describe the components of a risk appetite statement. Design and develop a risk appetite statement and risk-return strategy.

- The Failure of Risk Management, Why It's Broken and How to Fix it, 2009, Hubbard, Douglas W., 2009
  Ch. 6-12
- SDM-141-15: Managing the Invisible: Identifying Value-Maximizing Combinations of Risk and Capital
- SDM-147-16: Berkshire Hathaway 2014 Annual Report, pp. 7-11 and p.121
- SDM 151-16: Risk Appetite Framework: How to spot the genuine article, Deloitte
- SDM 152-16: The final Countdown Solvency II/ORSA, The Actuary Feb. 2015
- SDM-153-16: Exploring Risk Appetite and Risk Tolerance
- SDM-168-17: Risk Management and the Rating Process for Insurance Companies
- SDM-169-17: ORSA Quantifying Risk Exposure for Own Risk and Solvency Assessment Reports
- SDM-174-18: An Introduction to Risk Assessment, Risk Capital and Risk Margins

- SDM-178-18: Ch. 10 of *Strategic Management: Competitiveness and Globalization, Concepts,* Hitt, Ireland and Hoskisson, 12<sup>th</sup> Edition
- <u>Risk Appetite: Linkage with Strategic Planning</u>

# 4. Topic: Intangible Factors in Decision Making

# Learning Objectives

The candidate will understand the impacts of organization cultures, competition, trends, customer experience, communication and business strategies on corporate finance and ERM decision making.

#### Learning Outcomes

The Candidate will be able to:

- a) Apply human behavior factors to evaluate and recommend corporate finance and ERM decisions.
- b) Apply business school management concepts to evaluate and recommend corporate finance and ERM decisions.
- c) Evaluate how consideration of Intangible Factors improves on the Actuarial Approach used in Business Management (and vice versa).

- Organizational Behavior: A Strategic Approach, Hitt, Michael, Miller, C. Chet, and Colella, Adrienne, 4<sup>th</sup> Edition, 2015
  - Ch. 9: Communication
  - Ch. 10: Decision making by individuals and groups
  - o Ch. 11: Groups and Teams
  - o Ch. 12: Conflict, Negotiation, Power and Politics
- The Undoing Project, Lewis, Michael, 2017
  - o Ch. 12 (background)
  - o Ch. 1-11
- SDM-171-17: Five Leadership Lessons from BP Oil Spill
- SDM-176-18: Hoaxwagen: How the Massive Diesel Fraud Incinerated VW's Reputation and will Hobble the Company for Years to Come
- SDM-177-18: Porter's Five Forces: Strategy Skills

# 5. Topic: Innovation and Disruption

#### Learning Objectives

The candidate will explore how to evaluate new risk areas, innovations, new product designs and market disruptions in a sustainable and risk-aware manner.

#### Learning Outcomes

The Candidate will be able to:

- a) Critique financial models, assumptions and decisions including the impact of human behavior in decision-making, problem solving and innovation.
- b) Assess the risk of the status quo to a business enterprise.
- c) Evaluate innovation and market disruption opportunities.

- *Nudge: Improving Decisions about Health, Wealth and Happiness,* Thaler, Richard and Sunstein, Cass, 2009
  - o Ch. 1-5
- How to Measure Anything in Cybersecurity Risk, Hubbard, Douglas W. and Seiersen, Richard, 2016
  - Ch. 2, 3 and 7 (background)
  - o Ch. 1, 4-6, 9-12
- The Undoing Project, Lewis, Michael, 2017
  - o Ch.12 (background)
  - o Ch. 2-11