

Introduction and Objectives

INTRODUCTION

Advanced Topics in CFE can include a broad range of concepts, which vary in their degree of complexity. This module covers three concepts which can be directly applied within a company's ERM framework.

You will learn about the factors that affect strategic thinking (external forces, environmental analysis), the organizational characteristics that influence strategic decision-making (strategy, structure, controls, leadership) and how senior management uses these to evaluate and benchmark progress toward strategic goals. Three applications of Extreme Value Theory (EVT) are covered to put the theory to work in a business context. The module leads a candidate through a strategic planning exercise while applying opportunity engineering (OE) concepts to help senior management make strategic decisions regarding a new product they would like to introduce to the market. You will also learn a technique to structure your ideas for effective communication.

We hope you find this module interesting and applicable as you continue toward your actuarial fellowship.

OVERALL OBJECTIVES

After you complete this module, you will be able to:

- Understand what is meant by strategic thinking
- Determine strategic questions related to Business Sustainability and Corporate Governance
- Understand heavy tailed, medium tailed and light tailed risks by evaluating risk loss studies
- Construct a high-level risk model and discuss limitations and parameters of EVT
- Apply EVT tools in a real-life business environment
- Evaluate the use of EVT on extreme-case operational risks such as business disruption risks
- Explain limitations regarding pooling of extreme-case operational risks such as business disruption risks
- Evaluate scenarios including scenarios for EVT events
- Develop a strategic plan
- Evaluate the impact of a strategic plan on the financial statement and capital resources of an entity
- Evaluate the strategic plan under different scenarios including EVT scenarios
- Apply best practice techniques to structure and communicate ideas logically and persuasively

MODULE SECTIONS

The Advanced Topics in CFE Module consists of five sections:

- Section 1: Module Overview
- Section 2: Understanding Strategic Thinking will introduce the concept of strategic thinking. As you work your way through this section you will learn about the factors that affect strategic thinking (external forces, environmental analysis), the organizational characteristics that influence strategic decision-making (strategy, structure, controls, leadership) and how senior management uses these to evaluate and benchmark progress toward strategic goals. You will also learn how to structure your ideas in order to make your writing easy to understand and thus more impactful.
- Section 3: Elements of Extreme Value Theory will introduce extreme value theory (EVT). EVT is a process to quantify risk in the tail of a loss distribution. At the core of the theory is the fact that in most cases, regardless of the underlying probability distribution, values above a large threshold approximately follow a Pareto distribution. Over the course of this module you will cover three applications of EVT to put the theory to work in a business context.
- Section 4: Strategic Planning takes the concepts learned in Section 2 and applies them in the everyday course of business. Strategic planning activities take place each year as companies evaluate how well they are executing the current strategic plan, react to changes in the competitive and regulatory environments and determine whether the current strategy needs to be modified. You will also learn how to develop clear fact-based messages on the strategic plan that can be communicated persuasively.
- Section 5: Conclusion

General Insurance Applications: Introduction and Objectives

Section 2 Objectives

After completing this section, you will be able to:

- Understand what is meant by strategic thinking and management process
- Determine strategic questions related to business sustainability and corporate governance
- Understand how to structure your ideas into a pyramid to make your writing easy to understand and thus more impactful

Section 3 Objectives

After completing this section, you will be able to:

- Understand heavy tailed, medium tailed and light tailed risks
- Evaluate a risk loss study
- Explain limitations of EVT
- Estimate Parameters for an EVT model
- Construct a high level risk model
- Apply the use of EVT tools
- Evaluate EVT in the use with operational risk
- Explain limitations regarding pooling of operational risk

Section 4 Objectives

After completing this section, you will be able to:

- Develop a strategic plan
- Evaluate the impact of a strategic plan on the financial statement and capital resources of an entity
- Evaluate the strategic plan under different scenarios including EVT scenarios
- Develop clear fact-based messages on the strategic plan that can be communicated persuasively