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**Corporate Value of
ENTERPRISE
RISK
MANAGEMENT**

**The Next Step in
Business Management**

SIM SEGAL

Corporate Value of Enterprise Risk Management

*The Next Step in
Business Management*

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WILEY

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Foreword

IN MY FORMER ROLE leading Standard & Poor's ERM evaluations, I visited with hundreds of executives from companies all over the world and in all types of businesses, and discussed their ERM programs. I watched these ERM programs evolve, and witnessed their successes, and sometimes their colossal failures. Much more often than not, firms struggled both with having a clear objective for their ERM efforts and with the day-to-day problems of implementation. This perspective tells me that there is a tremendous need for clear thinking and clear exposition of the actions needed to practice ERM. The value-based approach that Segal developed, and introduces for the first time in this important book, definitely provides that clarity. Many other ERM books merely outline the problem and leave the readers to figure out how to implement a solution on their own. Here you will find each and every step of ERM implementation clearly laid out for the practitioner to follow along. In addition, Segal's approach to ERM:

- Is robust, yet highly practical
- Is able to quantify strategic and operational risks (this alone makes this book a worthwhile read)
- Takes the mystery out of risk appetite, one of the most elusive ERM topics (two-thirds of those believing that defining risk appetite is critical to their ERM programs have not yet done so)
- Supports better decision making

This book is also highly accessible to every business leader. Segal's writing style is smooth and in plain language. He offers crisp insights that can benefit everyone interested in ERM, from the ERM-savvy to the ERM novice.

Finally, this book offers a very credible business case for adopting ERM. I have read nearly every book related to this topic, and I heartily recommend this one. This could well be the only ERM book you will ever need.

—Dave Ingram, CERA
Senior Vice President, Willis Re
Former leader of Standard & Poor's insurance ERM evaluations

Preface

PURPOSE OF THE BOOK

Adoption of enterprise risk management (ERM) programs is a strong and growing global trend. However, while ERM programs have a lot of potential, traditional approaches to ERM often struggle to generate sufficient buy-in from internal stakeholders, such as business decision-makers. The primary reason for this is that traditional ERM approaches lack a business case for their adoption. In response to this difficulty, I developed the value-based ERM approach, and this book is its first in-depth presentation.

The value-based ERM approach is designed to have a built-in business case for its adoption. At its core, it is a synthesis of ERM and value-based management. This synthesis provides the missing link between risk and return. It is this connection that transforms ERM into a strategic management approach that enhances strategic planning and other business decision making. As a result, the value-based ERM approach is seen by internal stakeholders—business segment leaders, senior management, and the board—as a way to help them achieve their goals of profitably growing the business and increasing company value.

The value-based ERM approach has several other advantages as well. It works equally well in all industry sectors. I have used this approach to help implement ERM programs for corporate entities in a wide range of sectors, such as manufacturing, energy, entertainment, technology, services, telecommunications, banking, and insurance, as well as for non-corporate entities, such as professional associations. The value-based ERM approach also works equally well regardless of geography or accounting system. In addition, the value-based ERM approach is an advanced yet practical approach to ERM. I have used this approach exclusively in my work as an ERM consultant, helping organizations to quickly, fully, and successfully implement their ERM programs.

Finally, the value-based ERM approach also overcomes the three core challenges that prevent traditional ERM programs from achieving their full potential:

1. An inability to quantify strategic and operational risks
2. An unclear definition of risk appetite
3. A lack of integration into business decision making

The value-based approach quantifies all types of risk: strategic, operational, and financial. This is often referred to as the “holy grail” of ERM. I am unaware of any other ERM approach that can fully quantify strategic and operational risks. In addition, the value-based ERM approach provides a clear, quantitative definition of risk appetite that can be used in the risk governance process. Finally, the value-based ERM approach, due to its linkage between risk and return as well as its sheer practicality, fully integrates ERM information into decision making at all levels, from strategic planning to tactical decision making to transactions.

I often am encouraged when I read introductions to allegedly new ERM information in articles, books, and seminars that tout an ERM approach that “adds value” to the business, only to end up disappointed when I find the same old traditional ERM approaches, which have no direct connection to value. In sharp contrast, this book presents an ERM approach that is centrally focused on measuring, protecting, and increasing company value.

INTENDED AUDIENCE

The primary audience for this book is corporate stakeholders, including:

- Heads of ERM programs, such as chief risk officers (CROs) and their staff
- Heads of internal audit
- Heads of compliance
- Senior executives, such as CEOs and CFOs
- Management, such as business segment leaders
- Heads of strategic planning
- Heads of human resources
- Boards of directors, including chairs of audit committees and chairs of risk committees
- Shareholders

- Rating agencies
- Regulators

Other audiences for this book include the following:

- Stakeholders of non-profit organizations, such as charitable organizations and professional associations
- Heads of government bodies
- Financial planners and their customers
- Professors of MBA/EMBA programs in Finance, and their students

Corporate Audiences

Heads of ERM programs, such as chief risk officers (CROs) and their staff, will learn an advanced yet practical approach for either implementing an ERM program for the first time, or for enhancing an existing ERM program. They will learn an ERM approach that offers several advantages, such as:

- Builds buy-in among the business segments, senior management, and the board
- Satisfies all 10 key ERM criteria (which also serve as benchmarking criteria for any ERM program)
- Avoids the five common mistakes of risk identification
- Overcomes the three core challenges of traditional ERM programs by:
 - Quantifying strategic and operational risks in a consistent manner with financial risks
 - Clearly defining risk appetite in a way that it can be used in the risk governance process
 - Integrating ERM into key decision-making processes, including strategic planning, strategic and tactical decisions, and transactions
- Satisfies rating agency ERM requirements
- Satisfies regulatory risk disclosure requirements

Heads of internal audit and heads of compliance will learn how to quantify the value that they bring to the company, in terms of its direct impact on company value. They will also learn their ERM roles and responsibilities.

Senior executives, such as CEOs and CFOs, will learn an ERM approach that can offer them the following advantages:

- Improves the company's shock resistance, making it more likely to achieve the strategic plan goals
- Potentially leads to a higher stock price, resulting from a more effective set of tools for communicating with stock analysts
- Potentially leads to a better rating by satisfying rating agency ERM requirements

Management, such as business segment leaders, as well as heads of strategic planning and heads of human resources, will learn an ERM approach that can offer them the following advantages:

- Well-defined methodology to manage risk exposures to within risk appetite, and quantitative information that supports decisions on risk mitigation alternatives
- Better prioritization of limited resources, by focusing efforts on the most important risks and the most impactful component drivers of the key risk scenarios
- Enhanced strategic planning process, with a more sophisticated and dynamic ability to project results for the baseline scenario as well as key risk scenarios, including upside and downside ranges of outcomes
- Decision-making tool for selecting projects with the best risk–return profile for all types of routine decisions, including strategic planning, strategic and tactical decisions, and transactions
- Enhanced business performance analysis, with metrics that reflect the entire contribution to company value during the past period, and that correct a serious flaw in balanced scorecards
- Improved incentive compensation plan, by (a) providing a firm basis for asserting that it is not a risky compensation plan subject to new SEC disclosure requirements; and (b) better aligning management and shareholder interests through correction of two suboptimal aspects of common compensation schemes

Boards of directors, including chairs of audit committees and chairs of risk committees, will learn the following:

- What questions they should be asking management about risk management practices
- How to gain comfort that the key risks of the organization are well understood and effectively managed

- What their roles and responsibilities are regarding risk governance
- How to satisfy SEC disclosure requirements on risk governance

Shareholders will learn what they should expect from companies in which they invest, in terms of a robust ERM program to protect and grow company value. In addition, they will learn how to identify companies with superior abilities to manage risks, through an enhanced ability to interpret their risk disclosures.

Rating agencies will learn what they should be including in their ERM evaluation criteria. In addition, they will learn an ERM approach that offers them enhanced *prospective* information about a company, including the likelihood that the company will properly execute its strategic plan.

Regulators will learn what they should be requiring from companies to better protect against bankruptcies, as well as shareholder losses generally.

Other Audiences

Stakeholders of non-profit organizations, such as charitable organizations and professional associations, in analogous roles to their corporate counterparts listed earlier, will learn analogous lessons. Using a generalized version of the value-based ERM approach, these stakeholders will learn how to improve the chances of achieving their (usually multiple) goals.

Heads of government bodies will learn how to apply the value-based ERM approach to their entities, and how this can better leverage their limited resources and help them achieve their strategic objectives.

Financial planners and their customers will learn how the value-based ERM concepts can be applied to help individuals identify their key risks, robustly define their risk appetite, and better allocate their assets among a range of financial products (such as investments and insurance), on an integrated basis, to increase the chances of achieving their personal goals.

Professors of MBA/EMBA programs in Finance and their students will learn a full range of ERM concepts and how they are practically applied. This book is currently serving as the basis for an MBA/EMBA course I am teaching at Columbia Business School. Any professor wishing to use this book as a required text for a similar course will be provided with supplementary teaching materials, including the syllabus, lecture materials, exercises and solutions, and exams and solutions.

SUMMARY OF THE CONTENTS

The book is divided into three sections:

Part I: Basic ERM Infrastructure (Chapters 1–3)

Part II: ERM Process Cycle (Chapters 4–7)

Part III: Risk Governance and Other Topics (Chapters 8–10)

Part I: Basic ERM Infrastructure (Chapters 1–3)

Chapter 1, Introduction, highlights the major events over the past 10 years that contributed to the growing popularity of ERM. This provides the context for a better understanding of traditional ERM approaches and their shortcomings, which are discussed in the following two chapters. The chapter concludes by discussing two major challenges to the ERM movement.

It is important to clearly define ERM before delving into the heart of our discussions. ERM is a complex and wide-ranging topic. In addition, there is a lot of confusion in the market regarding what ERM is, and, as a result, there are many disparate definitions. Finally, even the concept of risk itself is often understood in differing ways, because it is so common a term as to be taken for granted. We therefore devote the entirety of Chapter 2, Defining ERM, to first defining risk and then defining ERM in four ways: by a basic definition; in terms of the 10 key ERM criteria; by the four steps in the ERM process cycle; and by its fundamental benefits. The 10 key ERM criteria introduced in this chapter are a foundational element for this book, and are revisited frequently throughout. In addition, the 10 key ERM criteria can be used to benchmark any ERM program to determine its level of robustness.

Chapter 3, ERM Framework, begins by discussing the failure of traditional ERM approaches to satisfy the 10 key ERM criteria and the three core challenges to these programs. The chapter then introduces the value-based ERM framework and discusses how it satisfies all 10 key ERM criteria, and how it resolves the three core challenges of traditional ERM programs. The value-based ERM framework is central to all discussions that follow.

Part II: ERM Process Cycle (Chapters 4–7)

Chapter 4, Risk Identification, discusses the first step in the ERM process cycle. The three components of risk identification include risk categorization and definition; qualitative risk assessment; and emerging risk identification. Although risk identification is the first step in the ERM process cycle, traditional

approaches are still suboptimal. This chapter discusses the five keys to successful risk identification. One of the five keys to success is defining risks by their source, a crucial building block that most organizations fail to construct properly, leading to several difficulties with their ERM programs. In addition, several applications of the risk categorization and definition (RCD) tool are discussed. This chapter concludes with a discussion of two “killer risks.”

Chapter 5, Risk Quantification, discusses the second step in the ERM process cycle. This chapter begins by stressing the importance of practical modeling, a critical characteristic of the value-based ERM approach. Next, this chapter discusses how to calculate the baseline company value—an internal calculation of company value consistent with the strategic plan. This is a key element of the value-based approach, which quantifies risks in terms of their potential impact on baseline company value. The chapter then discusses how to quantify individual risk exposures, revealing the secrets of how to quantify all types of risks, including strategic, operational, and financial. This is illustrated with several case studies. The chapter closes with a discussion on how to quantify enterprise risk exposure, the aggregate measure of risk exposure at the enterprise level. This represents the distribution of possible outcomes, capturing combinations of multiple key risk scenarios occurring simultaneously, including their interactivity.

Chapter 6, Risk Decision Making, discusses the third step in the ERM process cycle. The first decisions involve defining risk appetite (enterprise level tolerance limits) and risk limits (tolerance limits below enterprise level). The discussion reveals how to develop a clear, quantitative definition of risk appetite that can be used in the risk governance process. The chapter then discusses how to integrate ERM information into decision-making processes. This includes enhancing the strategic planning process and providing a universal protocol for all decision making, whether related to risk mitigation or to routine business, such as strategic planning, strategic and tactical decisions, or transactions. In the discussions of mitigation decisions, this chapter reveals how to quantify the value of mitigation in place, which can be used to illustrate the value of internal audit or the compliance department.

Chapter 7, Risk Messaging, discusses the fourth and final step in the ERM process cycle. The first part of this chapter addresses internal risk messaging, which includes integration of ERM into business performance analysis and incentive compensation. One notable element of the business performance analysis discussion is how the value-based ERM approach can correct a fundamental flaw in balanced scorecards. The second part of this chapter discusses external risk messaging, which is about using ERM information for

communications with external stakeholders, including shareholders, stock analysts, rating agencies, and regulators.

Part III: Risk Governance and Other Topics (Chapters 8–10)

Chapter 8, Risk Governance, addresses three aspects of risk governance: roles and responsibilities; organizational structure; and policies and procedures. The roles and responsibilities are discussed for internal ERM stakeholders including corporate ERM; the ERM committee; risk experts; business segments; the board of directors; and internal audit. In the discussion of the roles and responsibilities of corporate ERM, an entire section is devoted to listing all the ways in which the value-based ERM approach helps achieve one of their most challenging responsibilities: building buy-in for the ERM program.

Chapter 9, Financial Crisis Case Study, answers the question, “Because banks massively failed, causing the global financial crisis that began in the United States in 2007, and they claim to have been using ERM, can ERM be any good?” The chapter begins with a summary of the financial crisis, and then proceeds to evaluate bank risk management practices against the 10 key ERM criteria to determine whether banks were actually practicing ERM.

Chapter 10, ERM for Non-Corporate Entities, reveals how to generalize the value-based ERM approach for application to non-corporate entities, including non-profit organizations, such as charitable organizations and professional associations; government bodies; and individuals.

The book concludes with a glossary of ERM terms.

Web Site

The following Web page provides additional resources for this book:
www.simergy.com/ermbookresources.

The following Web site provides additional resources on ERM:
www.simergy.com.



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