

**O**ver the past decades, investors, regulators, and industry self-regulatory bodies have forced banks, other financial institutions, and insurance companies to develop organizational structures and processes for the management of credit, market, and operational risk. Risk management became a hot topic for many institutions, as a means of increasing shareholder value and demonstrating the willingness and capability of top management to handle this issue. In most financial organizations, risk management is mainly understood as the job area of the chief risk officer and is limited, for the most part, to market risks. The credit risk officer usually takes care of credit risk issues. Both areas are supervised at the board level by separate competence and reporting lines and separate directives. More and more instruments, strategies, and structured services have combined the profile characteristics of credit and market risk, but most management concepts treat the different parts of risk management separately. Only a few institutions have started to develop an overall risk management approach, with the aim of quantifying the overall risk exposures of the company (Figure I-1).

This book presents an inventory of the different approaches to market, credit and, operational risk. The following chapters provide an in-depth analysis of how the different risk areas diverge regarding methodologies, assumptions, and conditions. The book also discusses how the different approaches can be identified and measured, and how their various parts contribute to the discipline of risk management as a whole. The closing chapter provides case studies showing the relevance of the different risk categories and discusses the “crash-testing” of regulatory rules through their application to various crises and accidents.

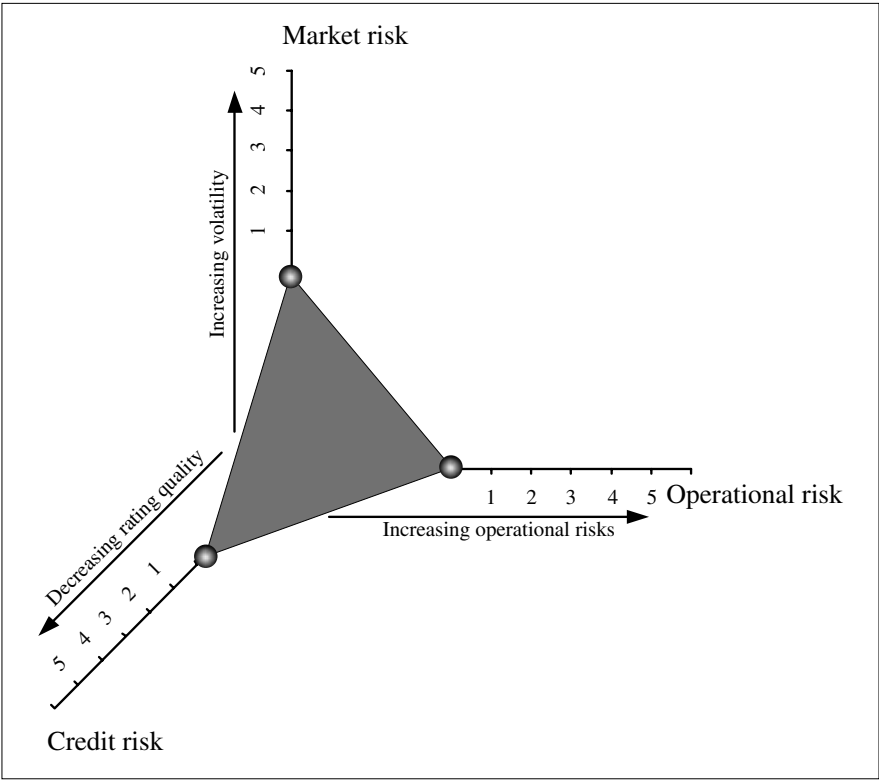
The objective of this book is to demonstrate the extent to which these risk areas can be combined from a management standpoint, and to which some of the methodologies and approaches are or are not reasonable for economic, regulatory, or other purposes.

## PROBLEMS AND OBJECTIVES

Most institutions treat market, credit, operational, and systemic risk as separate management issues, which are therefore managed through separate competence directives and reporting lines. With the increased complexity and speed of events, regulators have implemented more and more regulations regarding how to measure, report, and disclose risk manage-

**FIGURE I-1**

Interaction and Integration of Risk Categories.



ment issues. As a result, one problem is to understand how the different risk categories are defined, and what characteristics, assumptions, and conditions are connected to the terms used to describe them. This allows us to understand the different natures of different types of risk. And because risk has to be measured, measurement tools, methodologies, and so forth must also be examined.

To this end, a scheme has been developed which allows a systematic screening of the different issues characterizing the natures of the different risk areas. It also helps determine the extent to which different risks can be combined. Many methodologies that claim to provide “total enterprise risk management,” “enterprisewide risk management,” and the like do not prove whether the underlying risks share enough similarities, or the risk areas share close enough assumptions, to justify considering them as a homogeneous whole.

This scheme is applied to case studies, to examine the extent to which some organizational structures, processes, models, assumptions,

methodologies, and so forth have proved applicable, and the extent of the serious financial, reputational, and sometimes existential damages that have resulted when they have not.

## APPROACH

This work focuses on the level above the financial instruments and is intended to add value at the organization, transaction, and process levels so as to increase the store of knowledge already accumulated. The pricing of instruments and the valuation of portfolios are not the primary objects of this book. Substantial knowledge has already been developed in this area and is in continuous development. Risk management at the instrument level is an essential basis for understanding how to make an institution's risk management structures, processes, and organizations efficient and effective.

This book aims to develop a scheme or structure to screen and compare the different risk areas. This scheme must be structured in such a way that it considers the appropriateness and usefulness of the different methodologies, assumptions, and conditions for economic and regulatory purposes.

The objectives of this book are as follows:

- Define the main terms used for the setup of the scheme, such as *systemic*, *market*, *credit*, and *operational risk*.
- Review the methodologies, assumptions, and conditions connected to these terms.
- Structure the characteristics of the different risk areas in such a way that the screening of these risk areas allows comparison of the different risk areas for economic and regulatory purposes.

In a subsequent step, this scheme is applied to a selection of case studies. These are mainly publicized banking failures from the past decade or so. The structured analysis of these relevant case studies should demonstrate the major causes and effects of each loss and the extent to which risk control measures were or were not appropriate and effective.

The objectives of the case study analyses are as follows:

- Highlight past loss experiences.
- Detail previous losses in terms of systemic, market, credit, and operational risks.
- Highlight the impact of the losses.
- Provide practical assistance in the development of improved risk management through knowledge transfer and management information.
- Generate future risk management indicators to mitigate the potential likelihood of such disasters.