CHAPTER 2
INTRODUCTION TO RISK MANAGEMENT

General Comments on the Chapter

Prior to the ninth edition of the book, we deferred the discussion of risk management until the third chapter, after a discussion of insurance and how it works was introduced in the second chapter. We thought that an understanding of insurance and how it operates provided useful background for understanding why risk management represented an important break with the past. After 30 years, we came to share the opinion of those who prefer to introduce risk management before turning to the subject of insurance.

Although this text is intended to focus primarily on pure risk, the increasing popularity of enterprise risk management cannot be ignored. The text distinguishes between enterprise risk management, financial risk management, and traditional risk management. Concepts such as market risk, credit risk, liquidity risk, and operational risk are discussed briefly. Finally, the text's definition of risk management is no longer limited to the management of pure risks, but encompasses management of all risks. Note, however, that we maintain a focus on the management of pure risk in the remainder of the book. For example, the discussion of the role of the risk manager toward the end of the chapter focuses on traditional risk management – the management of pure risk.

In discussing the evolution of risk management, the text follows the conventional explanation that risk management evolved from the field of corporate insurance buying, but goes further and attempts to explain ***why*** risk management emerged when it did. We believe that the appearance of risk management as an academic discipline owes much to the introduction of operations research and management science into the business college curriculum. The evolution of risk management was not inevitable, but required some external stimulus. Prior to the introduction of decision theory and the spread of its effect to other disciplines, little attention was devoted to the quality of risk management decisions. The insurance manager's job was to buy insurance, and he or she would rarely be criticized for doing so. The real threat to an insurance buyer's career was the uninsured loss and insurance buyers protected themselves as well as the corporation by buying more, rather than less insurance. Although some may disagree with the emphasis on the changes in decision making generally as the basis for risk management, we find no other explanation for the emergence of our discipline.

In discussing the tools (techniques) of risk management, we have used the traditional terminology in classifying risk management techniques as risk control, which focuses on minimizing the risk of loss to which the organization is exposed, and risk financing, which concentrates on arranging the availability of funds to meet the losses that do occur. Although some instructors may prefer one of the more detailed approaches to classifying risk control and risk financing techniques, we have adopted the following classification system

Risk Control	**Risk Financing**
Avoidance	Retention
Reduction	Transfer

In this scheme, risk sharing is viewed as a special case of risk transfer, in which the risk is transferred from the individual from the group. (It may also be a form of risk retention, depending on the success of the risk sharing arrangement).

The final section of the chapter is a brief discussion of the risk management process. Although most of the material in this section is similar to standard treatments of this subject, there are some differences. One is the addition of "Determination of Objectives" as the first step in the risk management process. We believe that this focus on planning and objectives adds a managerial emphasis that is otherwise lacking.

Another area that we prefer to address early in the course is what we have termed in the text the two misconceptions about risk management. The first is that the risk management concept is applicable principally to large organizations. The second is that the risk management approach to dealing with pure risks seeks to minimize the role of insurance. The first misconception—that risk management is concerned exclusively with the problems of giant organizations—arose because much of the early literature in the field came from insurance buyers in giant organizations and addressed the problems with which they were concerned. With respect to the notion that insurance seeks to minimize the role of insurance, the argument is semantic. In the sense that insurance is a last resort, it can be argued that risk management does relegate insurance to a different role than previously. On the other hand, there are cases in which insurance is the most effective and suitable tool for addressing risk.

Important Concepts to be Stressed

The most important concepts in the chapter, and the principles that we believe should be stressed in the lecture are:

- The development of risk management
- The distinctions between enterprise risk management, financial risk management, and traditional risk management
- The revision of business college curricula and decision theory
- Decision theory, risk financing and risk control as elements of risk management
- The distinction between risk management and insurance management
- The steps in the risk management process
- The nonprofessional risk manager
- Risk management and the Individual

Answers to Questions for Review

1. The three specialties that are merged in risk management are decision theory, risk financing, and risk control. Decision theory has its roots in operations research and management science. The risk-financing specialty came from the disciplines of finance and insurance, and the risk control specialty represents the merger of traditional safety management and loss prevention, as developed by the insurance industry, and systems safety from the military and aerospace industry. See page 15.

2. The two broad approaches to dealing with risk recognized by modern risk management theory are risk control and risk financing. Risk control focuses on minimizing the risk of loss to which the firm is exposed, and includes the techniques of Avoidance and Reduction. Risk

financing concentrates on arranging the availability of funds to meet losses arising from the risks that remain after the application of risk control techniques, and includes the tools of Retention and Transfer. See pages 17-20.

3. The four basic techniques available to the risk manager for dealing with the risks are avoidance, reduction, retention, and transfer. Avoidance and reduction are risk control techniques, while retention and transfer are risk financing techniques. Risks are reduced to the extent possible through avoidance and reduction; what remains after risk control efforts are implemented must be financed. The choices are retention or transfer, collectively exhaustive and mutually exclusive. What is not transferred is, by definition, retained. See pages 17-20.

As noted in footnote 12 on page 20, some writers include a fifth technique, sharing. We believe that risk sharing is actually a special variation of risk transfer (and sometimes retention). In risk sharing, risk is transferred from the individual to a group, where it is shared, but it is transfer from the perspective of the transferor. For the members of the group collectively, sharing is actually a form of retention.

4. The change in philosophy that marked the transition from insurance management to risk management occurred when the attitude toward insurance changed. For the insurance manager, insurance had always been the standard accepted approach to dealing with risks. The insurance manager viewed insurance as the accepted norm or standard approach to dealing with risk, and retention was viewed as an exception to this standard. The insurance manager contemplates his or her insurance program and asks "are there any risks that I should retain?" "How much will I save in insurance costs if I retain them?" In viewing loss prevention measures, the insurance manager asks, "How much will this measure reduce my insurance costs?" "How long will it take for a new sprinkler system to pay for itself in reduced fire insurance premiums?" Rather than asking, "which risks should I retain?" the risk manager asks, "which risks must I insure?" The difference is obviously one of emphasis. The insurance-management philosophy views insurance as the accepted norm, and retention or non-insurance must be justified by a premium reduction that is, in some sense or another, "big enough." The risk manager, in contrast, views insurance as simply one of several approaches to dealing with pure risks. Under the risk management philosophy, it is insurance that must be justified. Since the cost of insurance must generally exceed the average losses of those who are insured, the risk manager believes that insurance is a last resort, and should be used only when necessary.

5. The six steps in the risk management process are: (1) Determination of objectives, (2) Identification of risks, (3) Evaluation of risks, (4) Consideration of alternatives and selection of the risk treatment device, (5) Implementation of the decision, and (6) Evaluation and review. See page 24.

6. Risk management evolved from insurance management. The primary motivation for the creation of insurance departments and insurance managers was the increasing cost of insurance. The evolution of decision theory and operations research led to a more widespread acceptance of the scientific approach to decision making and especially decision making under conditions of uncertainty. Prior to the development of the decision-theory models, there was a tendency to judge decisions under conditions of uncertainty based on whether the decision turned out to be *right* or *wrong* in some after-the-fact sense. Decision theory provides a basis for judging the goodness or badness of decisions before the outcome is known.

The transition from *insurance management* to *risk management* occurred over a period of time, and paralleled the development of the academic discipline of risk management. It is not clear whether the academic discipline led or followed, because developments in the corporate sector and the academic world appear to have occurred simultaneously. It is an exaggeration to suggest that risk management originated in the academic world. It grew from a merger of engineering applications in the military and aerospace programs, financial theory, and insurance. Many of the concepts of modern risk management that originated in academic halls, however, were taken over and applied in the corporate world. See pages 13-15.

7. The actual responsibility of the risk manager varies depending on the organization. Some risk managers have overall responsibility for all risk control and risk financing activities, including the firm's employee benefit plan. In other cases, various parts of the risk control function, for example, may be assigned to a director of safety or a security director. Most risk managers are located in the finance department, but some may be found in a personnel or production division. There is a trend toward risk managers reporting to an executive vice president or even president. Page 22 - 23.

8. As noted in the text, the terms "insurance manager" and "risk manager" are often used interchangeably, without a great deal of attention to the actual role of the individual. One feature that distinguishes risk management from insurance management is the type of risks that each addresses. Because risk management evolved from insurance management, it is concerned *primarily* with *insurable* risk. Although the major focus of most risk managers is on insurable risks, the more appropriate realm of risk management is *pure* risk. In other words, the risk manager cannot ignore those pure risks that are not insurable. The text cites shoplifting losses as a type of loss that is rarely insurable, but with which the risk manager should be concerned. Risk management is, therefore, broader than insurance management, in that it deals with both insurable and uninsurable risks.

Risk management also differs from insurance management in philosophy. Insurance management involves techniques other than insurance, but in general these other techniques are considered primarily as alternatives to insurance. Under the risk management philosophy, insurance is viewed as simply one of several approaches for dealing with the pure risks the firm faces. Whereas the insurance manager views insurance as the accepted norm or standard approach to dealing with risk, and retention is viewed as an exception to this standard. The risk manager, in contrast, views insurance as simply one of several approaches to dealing with pure risks. Rather than asking, "which risks should I retain?" the risk manager asks, "which risks must I insure?" The difference is one of emphasis. The insurance-management philosophy views insurance as the accepted norm, and retention or non-insurance must be justified by a premium reduction that is, in some sense or another, "big enough." Under the risk management philosophy, it is insurance that must be justified. See pages 20-21.

9. The two common misconceptions about risk management are the notion that risk management is concerned primarily with the risks of giant industrial organizations and that there is an anti-insurance bias in the risk management philosophy. See page 23.

The first misconception—that risk management is concerned primarily with the risks of giant organizations probably developed because much of the literature in the field came from practicing risk managers. These authors naturally wrote about the problems with which they were concerned, such as self-insurance plans, captive insurers, and other techniques that do apply primarily to giant

organizations. In fact, the risk management philosophy and approach applies to organizations of all sizes and to individuals as well for that matter.

The second misconception about risk management--that it is anti-insurance in its orientation and that it seeks to minimize the role of insurance in dealing with risk--also stems from risk management literature. Again, many writers from the academic world have sought to avoid writing about insurance in their discussions of risk management. In an effort to avoid writing insurance books and teaching insurance courses, some academics in the insurance field relegated insurance to a subordinate role in the risk management process, and focused instead other approaches to dealing with risk, such as risk control, risk retention, risk avoidance, and captive insurance companies.

Contrary to the popular notion, the essence of risk management is not on the retention of exposures. Rather it is on dealing with risks by whatever mechanism is most appropriate, and in many instances, commercial insurance will be the only acceptable approach. While the risk management philosophy suggests that there are some risks that should be retained, it also dictates that there are some risks that must be transferred, and insurance plays a central role in the risk management process.

10. The term risk management is increasingly used to describe the management of speculative risk, particularly by persons in the field of finance. Financial risk management involves management of financial risks as market risk, credit risk, and interest rate risk. Enterprise risk management is broader, and would bring together the management of all risks—financial, operational, including traditionally insured hazards, and strategic—into a single portfolio. Traditional risk management is responsible primarily for managing pure risks (or operational risks). See pages 15-16.

Note that ideally, the traditional risk manager should be involved in decisions relating to the overall operation of the organization for the purpose of evaluating various courses of action from the pure risk perspective. For example, the decision to manufacture a new product line or move into a new area of operations will inevitably involve new pure risks. The decisions relating to these strategies should include appropriate consideration of these pure risks, ideally before the decision is made.

Answers to Questions for Discussion

1. The areas in which a risk manager should be knowledgeable are reflected in the techniques for dealing with risk; risk control and risk financing. It would seem that a well-rounded risk manager should have some knowledge regarding loss prevention and control techniques. Similarly, one would expect a risk manager to have a good understanding of risk financing options, with a solid understanding of insurance and how it works. Because risk management is basically a problem in decision-making, the risk manager also needs to understand decision theory.

Because risk management encompasses so many fields, it is obviously difficult for one to be an expert in everything related to risk management. Most risk managers tended to be specialists in one particular phase of risk management (e.g., insurance or loss prevention) or generalists without expertise in any of the specific sub-disciplines of risk management. Although the study of risk management does not attempt to create experts in all risk-management fields, it does address the interrelationships of the techniques of risk management. More importantly, it creates a conceptual

framework that assists in the choice among risk management alternatives. In short, the emphasis in the study of risk management is on *management* in the decision making sense. Persons trained in risk management are uniquely equipped for organizing, planning, leading, and controlling the risk management functions of the organization.

2. Although the question asks for the student's opinion, hopefully students will argue for a centralized approach to dealing with risks. Centralized risk management can produce economies of scale by consolidating insurance purchases when risks are transferred. In addition, there is likely to be a greater consistency in the approaches to dealing with risk in a centralized program. Finally, centralized risk management can facilitate pooling of risks for retention purposes. Students may suggest some advantages that could arise under a decentralized risk management program, but they will generally be slight compared with the advantages of a centralized approach.

3. Students who are taking their first course in the risk management and insurance sequence may not yet agree on the importance of the discipline in the overall education of business students. Most surveys of students who have completed the course indicate that students believe that the subject should be compulsory. Although the other functions in Henri Fayol's classification of business functions have all received the approbation of inclusion in the AACSB common body of knowledge, risk management remains an optional elective.

4. Risk management can contribute directly to profit by controlling the cost of dealing with risk. In the terminology of responsibility accounting, the risk management division is a cost center, not a profit center, but by reducing the cost of dealing with risk, risk management can contribute directly to profit. The optimum combination of risk management techniques minimizes the net cost of pure risks to the firm. Reducing the cost of losses contributes directly to profits by reducing expenses for a given amount of revenue. To the extent that the risk management function allows the firm to engage in certain speculative risks by minimizing the impact of pure risks associated with such speculative risks, it also contributes directly to profit.

5. As noted in the text, a growing number of writers have argued that the traditional focus on pure risks is too narrow, and that the firm should have someone focused on enterprise risks, including both pure and speculative risks. This trend is particularly evident in industries such as banking and insurance, where financial risk is significant.

On the other hand, many risk managers (perhaps even most risk managers) feel sufficiently challenged by their responsibilities relating to the traditional classes of pure risk. Ironically, there are many organizations in which the risk manager's responsibility does not include all aspects of the management of pure risk. Often, responsibility for risk control lies elsewhere in the organization, and the risk manager's responsibility is limited to the risk financing function, with only incidental responsibility for risk control. Rather than expanding the risk manager's responsibility to include speculative risks, it may be more reasonable that risk managers pursue an expansion of their duties to include risk control. An important question is whether anyone else in the organization is interested in having the risk manager branch out into the management of market and credit risk.