NINTH EDITION

Fundamentals of RISK AND INSURANCE

EMMETT J. VAUGHAN

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PREFACE

This ninth edition of *Fundamentals of Risk and Insurance* marks the thirtieth anniversary of the first edition, published in 1972. At the time the first edition was published, the field of insurance was quite different from what it is today. Many of the current forms of insurance coverage did not exist; the world seemed a simpler place. Medicare was not yet ten years old, and Richard Nixon was president of the United States. Automobile no-fault was an experiment that had been adopted by a single state (Massachusetts) and only three states had compulsory automobile insurance (New York, North Carolina, and Massachusetts). The 1943 Standard Fire Policy was the standard form of coverage for most commercial entities and the Family Auto Policy was the standard for personal automobile insurance. Universal life insurance was not yet on the drawing board and endowment policies were a staple for the life insurance agent. There was no such thing as long-term care insurance, no individual retirement accounts, and ERISA was not yet a gleam in a Congressperson's eye. The Social Security tax base was $9000 and the Medicare Part B premium was $5.60 a month.

The world has changed dramatically since 1972, and the field of insurance has changed with it. As insurance has changed, so too has *Fundamentals of Risk and Insurance.* A new co-author has been added and, regretfully, the book has lengthened. (The two are not related, although there is a temptation to plead that two authors have twice as much to say.) Although our editors have urged, with every edition, that we attempt to avoid expanding the book, there is, quite honestly, more to say in 2002 than there was in 1972. The book has grown in length from the modest 24 chapters in the first edition to 34 in this edition.

Although the book has changed over the years, its purpose, organization, and approach remain essentially the same. The original goal was to create a consumer-oriented text, and we have maintained this orientation in the present edition. The first edition of this book was written in response to a perceived need for an insurance textbook that addressed the principles of risk management without abandoning the discussion of insurance. The reception to the book over the past three decades has been gratifying. At least a part of the book's success is due to the fascinating subject matter it deals with. Experience indicated that insurance can be an exciting subject. University surveys repeatedly show that insurance courses usually score near the top in enrollment popularity, and students often rank the insurance courses they have taken as the most useful ones in college. This comes as no surprise to those of us who find this field so fascinating. It is satisfying, however, to find that our excitement can be shared by our students.

SCOPE OF THE SUBJECT

As a point of departure, it may be helpful to describe briefly exactly what the book is all about. As the title indicates, the ninth edition of *Fundamentals of Risk and Insurance* is about *risk* and about *insurance.* Its objective is to summarize the pervasive nature of pure risk on the individual and on society, and to illustrate the way in which insurance can be used to deal with the problems posed by such risk. It is a book on insurance theory as well as on how students can use insurance personally.

The intent from the beginning has been to create a text that is consumer oriented. The main emphasis is on the insurance product and the use of insurance within the risk management framework. The traditional fields of life insurance, health insurance, property and liability insurance, and social insurance are treated in terms of their relationship to the wide range of insurable risks to which the individual and the business firm are exposed.

The text is designed for use in a college-level survey of the area of risk and insurance. As an introduction to the subject, it is intended for students who have had little or no prior education in insurance. It may serve as the basis for more advanced texts for those students who intend to specialize in the field of insurance, and at the same time it constitutes a compendium of what an informed citizen and consumer should know about the subject.

WHY STUDY INSURANCE?

The reasons for studying insurance are varied. For some, the study is undertaken in preparation for a career in the field. Others study to improve their knowledge of the subject to become more knowledgeable consumers. The average individual will spend a significant percentage of his or her disposable income on insurance over a lifetime, and one of the logical reasons for studying insurance is to learn how it can be used in personal financial planning. Still others study insurance as a part of the discipline of risk management, the managerial function that aims at preserving the operating effectiveness of the organization.

Although each of these reasons is adequate justification for the study of insurance, whether that study should be considered *essential* for business students depends on the approach and the specifics of what is studied. Some have argued that the study of insurance per se is a narrow specialty, yet the broader discipline of risk management—of which insurance buying is only a part—is clearly a function that all future managers should understand. A proper understanding of the methods of dealing with exposures to loss is essential to organizational leaders. Although insurance is only one of the techniques that can be used to deal with pure risks, risk management decisions presuppose a thorough understanding of the nature and functions of insurance.

We believe that insurance and risk management is a subject that needs to be taught in colleges and universities. Far from being the narrow specialty it is sometimes characterized as, the study of insurance has a breadth that few disciplines equal. As you progress through the book, you will encounter applications from economics, statistics, finance, accounting, law, decision theory, and ethics.

Because the study of risk management and insurance draws on these different disciplines, it is sometimes considered a subset of one of them. Thus, in many colleges and universities, insurance and risk management are a part of the finance curriculum, reflecting the financial nature of the risk management function. In other schools, it is considered a part of economics, while in still others it is located in another department. This organizational ambiguity reflects the confusion concerning what the study of risk management and insurance entails.

In fact, risk management and insurance is a separate and distinct discipline, which draws on and integrates the knowledge from a variety of other business fields. In a micro sense, it is a discipline in which a variety of methodologies are brought to bear on a significant problem.

Viewed from a macro perspective, the study of insurance addresses a variety of important issues facing society today: the high cost of medical care, crime, the tort system, pollution and the environment, and the broad subject of ethics. Indeed, it is not an exaggeration to say that the debates in the insurance arena address questions of what kind of society we will have and who will pay for what. Debates over the cost of insurance and the way in which insurance prices should be determined have intensified over the past two decades. Increasingly, the debate over insurance availability and affordability have come to center stage as the debate over the cost of automobile insurance, access to health care, responsibility for pollution, product liability, and medical malpractice have become crises. As consumers, we are all dramatically affected by the way in which insurance operates.

Finally, the study of risk management and insurance is a fertile field for considering the subject of ethics in business and in society. Indeed, the ubiquitous presence of ethical problems in the field of insurance transactions raises an important question: is ethics something to be studied and learned, or is it something innate in the individual?

ORGANIZATION OF THE BOOK

This book is divided into three major sections. In the first section, we examine the concept of risk, the nature of the insurance device, and the principles of risk management. This section also provides an overview of the insurance industry and the manner in which it operates.

The second section examines the traditional fields of life and health insurance as solutions to the risks connected with the loss of income. The Social Security system, workers' compensation, and other social insurance coverages are discussed in this section to permit students to integrate the coverage under these programs in planning income protection.

The final section deals with the risks associated with the ownership of property and legal liability. The coverages applicable to the individual or family are treated in chapters that are separate from those designed for the business firm, permitting those instructors who prefer to concentrate on insurance for the individual to give only slight treatment to commercial coverages.

The book is designed to fit a one-semester or two-quarter course, but it may be adapted to longer and shorter sequences. We have composed what we consider to be a logical sequence of subject matter, but the book can be used flexibly. Sections Two and Three in particular may be taken in different order.

CHANGES IN THE NINTH EDITION

The thirty years that have passed since the publication of the first edition of *Fundamentals of Risk and Insurance* have been marked by significant change in the field of insurance. The second through the eighth editions are a chronology of that change. As the field of insurance and the environment in which it operates continue to change, our purpose has been to capture the flavor of that change in each revision. Changes in the legal environment, revisions in policy forms and the introduction of new types of insurance, and a myriad of new problems continue to make insurance an exciting field of study, but a challenge to the authors of textbooks.

One recent development that helps to mitigate the problems posed by the constantly changing nature of the insurance field is the increase in the resources available on the Internet. In the eighth edition we added Web site listings at the end of each chapter. In this edition, we have continued and expanded references to insurance-oriented Web sites. Most students will not need to be told about the significant impact that the Internet and World Wide Web have had on education. There are numerous insurance-related Web sites and the number continues to grow. These Web sites can be a valuable source of information on the changes that continue to occur in both government-sponsored programs and in the insurance industry. Although the authors have visited each of the sites listed, Web sites tend to come and go and the URLs may change over time. Despite these impediments, the Web sites listed at the end of each chapter are a useful point of departure for exploring this valuable resource.

In the first through the sixth editions, we included sample policy forms as appendixes, bound with the text. As policy forms have grown in length (with larger type and simplified language), the number of pages devoted to sample policy forms increased, compounding the length problem. In the seventh and eighth editions, the policy forms that were printed in the bound volume in the first six editions were printed in a separate booklet. A number of users had suggested the separate booklet for policy forms, but the response from most users persuaded us that this was an unsatisfactory arrangement. In this edition, we are providing the sample policy forms on a CD, in an Acrobat format. We hope that this will prove to be a convenient arrangement for the students and for those instructors who prefer that students have policy forms in hand during the discussion.

CHANGES IN ORGANIZATION

The major changes in organization and presentation of the material are in Section I. We have divided the chapter on risk management from the first eight editions into two chapters. This allowed for a modest increase in the material on risk management, and also resolved a thirty-year dilemma about the order of the chapters that introduce risk management and insurance. In the first through eighth editions, we chose to introduce the concept of insurance first, and then risk management, on the premise that understanding something about the way that insurance works made it somewhat easier to understand the significance of risk management. With the separation of the material on risk management into two chapters, we can introduce the basic concept of risk management, then explain the concept of insurance, and then return to the discussion of risk management to discuss specific applications of the principles. To accommodate the expanded discussion of risk management, we have condensed (slightly) our earlier discussion of the fields of insurance and combined this material with the chapter that introduces the concept of insurance.

CHANGES IN MATERIAL

In addition to the organization changes, other changes update the material to reflect the changes in the field of insurance since 1999, when the eighth edition was published. Those changes have been both numerous and significant. In 1999, Congress enacted the Financial Services Modernization Act, removing the Depression-era restrictions on the combination of banking and insurance and prompting what will very likely be change in the structure of the insurance industry. The presidential election of 2000 witnessed a more than lively debate over the future of Social Security, with frequent references to a lockbox and what was referred to as the risky scheme of privatization. A new homeowners policy was introduced in the year 2000, along with new commercial property forms, a new commercial crime program, and significant changes in other forms of coverage. In 2001, Congress passed and the president signed the Economic Growth and Tax Relief Reconciliation Act of 2001, with significant changes in the federal estate tax and qualified retirement plans.

ACKNOWLEDGMENTS

We have been supported and encouraged in this revision by many people. First and foremost are the members of our families, all of whom sacrificed much to assist us. We thank them all for their help, but, more important, for their understanding.

As a book progresses through successive editions, the number of persons to whom an author is indebted increases geometrically, since the efforts of so many people become a part of the work. First, we owe much to our teachers, whose influence left an indelible mark on us and on this book. In addition, we owe a debt of gratitude to the many reviewers and users who have helped to shape the book. Although much has been altered as the book moved through successive editions, our debt continues to colleagues and students who provided criticism and suggestions on the earlier editions. As a result, there are many people to whom special thanks are due. They include our colleague, Professor Michael Murray, who has shared his insights with us over the years and whose influence has been significant. The reviewers of the first eight editions, whose contributions to those editions helped to shape this one as well, were Tom Auippa, Richard C. Allgood, Garth H. Allen, Albert L. Auxier, W. Oscar Cooper, Robert W. Cooper, Richard Corbett, Bill Feldhaus, Roger A. Formisano, John W. Haney, Kenneth J. Krepas, E. J. Leverett, Joseph R. Morrin, Robert J. Myers, John J. O'Connell, Mike Thorne, S. Travis Pritchett, Dede Pahl, Gary K. Stone, and Robert Witt.

In addition, we owe a debt of gratitude to the reviewers of this edition, who offered valuable suggestions that helped to shape the final work. They were Darlene Dicco of Hofstra University, Aaron Lieberman of the University of Central Florida, and Jim Milanese of the Bryan School of Business and Economics.

We owe special thanks to Mandell S. Winter, Jr. and Michael Snowden of the College for Financial Planning, for their assistance in reviewing the seventh, eighth, and ninth editions. Their suggestions and insights helped us to clarify many concepts and to avoid errors that would otherwise have marred the book. Mr. Winter's contributions to the seventh and eighth editions and Mr. Snowden's assistance in this edition went far beyond that of a reviewer and we are grateful for their assistance.

We also offer thanks to all of our former students. Their many comments and intelligent questions contributed to the design of the book and to the examples and illustrations used. Each of the past graduate teaching assistants at the University of Iowa who have shared with the senior author the pleasant task of teaching the basic insurance course at the University of Iowa contributed significantly to the earlier editions and to this one. They are Lois Anderson, Phillip Brooks, Robb Fick, Tim Hamann, Terry Leap, Lacy McNeill, Joseph Panici, Mark Power, Lori Rider, Roger Stech, Ellen Steele, Mike Steele, Patrick Steele, Art Cox, Robert Carney, and Changsu Ouh.

We also thank the users of the first eight editions who took time to write to us with their suggestions and comments.

From the teachers who will use this book as a text, we will be grateful to receive advice concerning any errors that should be corrected and any material that should be added or omitted when it is again revised. To the students who will be compelled to read it, we extend the hope that the material presented will seem as exciting and interesting as it has seemed to us.

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January 2002

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CHAPTER 1

THE PROBLEM OF RISK

"When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean—neither more nor less."
"The question is," said Alice, "whether you can make words mean so many different things."
"The question is," said Humpty Dumpty, "which is to be master, that's all."

— LEWIS CARROLL
Through the Looking Glass

CHAPTER OBJECTIVES

When you have finished this chapter, you should be able to

- Define and explain the meaning of the term *risk*
- Distinguish among the terms *risk, peril,* and *hazard*
- Identify and explain the classes of hazards
- Differentiate between pure risk and speculative risk
- Differentiate between fundamental and particular risk
- Describe the categories into which pure risk may be subdivided
- Identify and explain the principal methods of handling risk

You see the mangled metal of two cars that have collided on an interstate highway. A fire engine with its siren screaming roars down the street. A building in your neighborhood burns or you see an ambulance racing to the hospital. All these tragic events arouse your interest and emotions. After the noise and excitement have died down, you are grateful that the loss did not happen to you and you may even feel sorry for whoever suffered the loss. But you're glad that it wasn't you. Losses like these happen to some people, while others go along happily, free from misfortune. The fact that these losses or similar events could happen to you, and the fact that you can't tell for sure whether or not they will, is a condition we