INSURANCE AND BEHAVIORAL ECONOMICS

This book looks at the behavior of individuals at risk, insurance industry decision makers, and policy makers at the local, state, and federal levels involved in the selling, buying, and regulating of insurance. It compares their actions to those predicted by benchmark models of choice derived from classical economic theory. When actual choices stray from predictions, the behavior is considered anomalous. Howard C. Kunreuther, Mark V. Pauly, and Stacey McMorrow attempt to understand why these anomalies sometimes occur and sometimes do not, in many cases using insights from behavioral economics. The authors then consider if and how such behavioral anomalies could be modified.

This book is in no way a defense of the insurance industry nor an attack on it. Neither is it a consumer guide to purchasing insurance, although the authors believe that consumers will benefit from the insights it contains. Rather, this book describes situations in which both public policy and the insurance industry's collective posture need to change. This may require incentives, rules, and institutions to help reduce inefficient and anomalous behavior, thereby encouraging behavior that will improve individual and social welfare.

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Insurance and Behavioral Economics

Improving Decisions in the Most Misunderstood Industry

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Contents

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978-0-521-84572-4 - Insurance and Behavioral Economics: Improving Decisions in the Most Misunderstood Industry
Howard C. Kunreuther, Mark V. Pauly and Stacey McMorrow
Frontmatter
More information

Preface

This book looks at the behavior of individuals at risk, insurance industry decision makers, and policy makers at the local, state, and federal levels involved in the selling, buying, and regulating of insurance. It compares their actions to those predicted by benchmark models of choice derived from classical economic theory. Where actual choices stray from predictions, the behavior is considered to be *anomalous*. We attempt to understand why these anomalies sometimes occur and sometimes do not, in many cases using insights from behavioral economics. We then consider if and how such behavioral anomalies could be modified.

This book is in no way a defense of the insurance industry nor an attack on it. Neither is it a consumer guide to purchasing insurance, although we believe that consumers will benefit from the insights it contains. Rather, we describe in this book situations in which public policy and the insurance industry's collective posture need to change. This may require incentives, rules, and institutions that will help reduce inefficient and anomalous behaviors and encourage behavior that will improve individual and social welfare.

A key element for achieving comfort is transparency, so that insurance plays its proper roles: providing a signal for safety; rewarding individuals for taking responsibility for their safety, financial well-being, and health; and providing proper compensation in a timely manner when misfortune strikes. While the principles and strategies we propose are sometimes intended to help decision makers conform more closely to the benchmark models of choice, we recognize that economic and political circumstances may make other choices preferable. We will be pleased if this book simply helps eliminate much of the confusion and mistrust that characterizes this most misunderstood industry.

A ROADMAP OF THE BOOK

Part I, *Contrasting Ideal and Real Worlds of Insurance*, provides a set of examples of insurance in practice. First, Chapter 1 discusses the purposes of the book and the roots of misunderstanding of insurance. Chapter 2 lays out the precepts of classical economics by formulating benchmark models of demand and supply of insurance. Using these models as reference points, Chapter 3 provides examples of insurance decision making in real-world settings and defines what we mean by "anomalous behavior." In Chapter 4, we identify situations in which the benchmark models work reasonably well on both the demand side (consumer behavior) and the supply side (firm and investor behavior).

Part II, *Understanding Consumer and Insurer Behavior*, focuses on the many real-world complications that conflict with some of the assumptions that guide the benchmark models of choice. These include imperfect information or misinformation on the risk, information asymmetry between buyers and sellers, and correlated losses. Chapter 5 characterizes what insurance markets should look like when these real-world conditions are present.

When the benchmark models fail to correctly predict consumer and industry responses, we develop alternative models using concepts from behavioral economics. In Chapter 6, we develop a model of choice that characterizes demand for insurance by focusing on the importance of goals and plans in making decisions under uncertainty. Chapter 7 then provides examples of demand-side anomalies indicating why they are likely to occur.

In Chapter 8, we turn to the supply side by developing descriptive models of insurers' behavior with respect to pricing their product and determining what coverage to offer, and the role that capital markets and rating agencies play in the process, indicating anomalies we observe along the way. By understanding why insurers deviate from benchmark models of choice, it is easier to understand the types of supply-side anomalies that currently exist. In Chapter 9, terrorism and natural hazards are used to illustrate why insurers have behaved in ways that appear to be anomalous.

Part III, *The Future of Insurance*, relies on our understanding of consumer and firm behavior to provide answers to questions both narrow and broad. What information could be provided to help consumers decide what types of coverage they should consider buying? What steps can insurance firms take to continue to offer coverage at reasonable premiums even after large losses occur? How should capital markets be structured so that insurance firms can offer coverage for the widest range of situations at premiums that both investors and consumers find attractive? What role should the public sector play in encouraging or possibly requiring consumers and/or firms to undertake steps so their behavior conforms more closely to the relevant benchmark model?

In Chapter 10, we address the question as to who should bear the losses from untoward events and then look at ways to reduce the likelihood and costs of these risks. This can be accomplished by allocating resources efficiently and distributing them equitably and fairly. We then develop a set of information and design principles for evaluating the role that insurance can play with other policy tools for reducing risks and providing funds should a loss occur. Chapter 11 proposes a set of policies for correcting anomalies on the demand and supply sides by focusing on why consumers and insurers behave as they do and then suggesting ways in which they can be persuaded to improve their own welfare as well as that of society.

The next three chapters focus on insurance strategies for reducing risk. Chapter 12 proposes multiyear homeowners' insurance policies tied to property as a way of encouraging adoption of cost-effective, risk-reducing measures. Chapter 13 examines possible anomalous behavior in health insurance markets and how such behavior might be modified to keep medical costs and premiums at appropriate levels. Finally, Chapter 14 suggests how political and market frameworks might be structured so that insurance markets can improve individual and social welfare.

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Acknowledgments

During the five years that we have formulated concepts and ideas for this book, we have learned a great deal from interactions with our colleagues and friends at the University of Pennsylvania and researchers interested in the role that insurance can play as part of the policy process. At the same time, we gained considerable insight from discussions with those who deal with insurance issues on a daily basis in real-world settings. They provided us with the nature of the institutional arrangements and decision-making processes that inform actual choices.

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