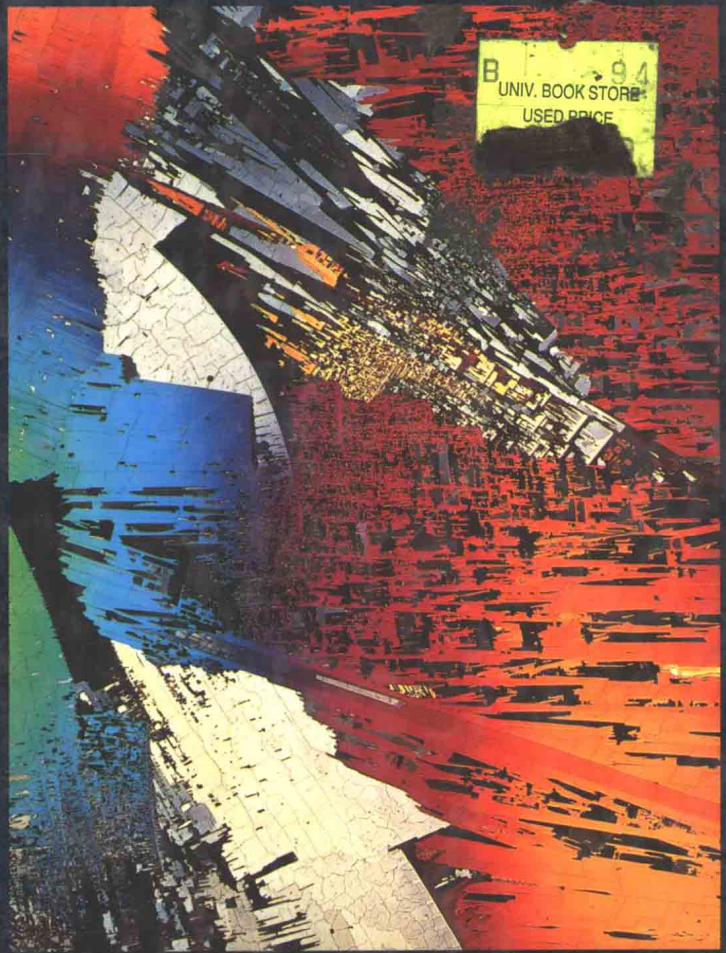


EIGHTH EDITION



# RISK & INSURANCE

---

GREENE  
TRIESCHMANN  
GUSTAVSON

# **RISK & INSURANCE**

---

**Mark R. Greene**  
The University of Georgia

**James S. Trieschmann**  
The University of Georgia

**Sandra G. Gustavson**  
The University of Georgia



COLLEGE DIVISION South-Western Publishing Co.  
Cincinnati Ohio

Sponsoring Editor: Jeanne R. Busemeyer  
Production Editor: Diane Longworth Myers  
Production House: Sheridan Publications Services  
Cover and Interior Designer: Joseph M. Devine  
Marketing Manager: Scott D. Person  
  
Cover Photo: Peter Arnold, Inc./ Manfred Kage  
Part 3 Opener Photo: Photo courtesy of Abbott Laboratories  
Part 6 Opener Photo: © Michael Wilson

FF65HA  
Copyright © 1992  
by South-Western Publishing Co.  
Cincinnati, Ohio

*All Rights Reserved*

The text of this publication, or any part thereof, may not be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, storage in an information retrieval system, or otherwise, without the prior written permission of the publisher.

**Library of Congress Cataloging-in-Publication Data**

Trieschmann, James S.

Risk & Insurance / James S. Trieschmann, Mark R. Greene, Sandra G. Gustavson. -- 8th ed.

p. cm.

Previous ed. by Mark R. Greene and James S. Trieschmann, c1988.

Includes bibliographical references and index.

ISBN 0-538-81117-X

1. Insurance--United States. 2. Risk management--United States.

I. Greene, Mark Richard. II. Gustavson, Sandra G.

III. Title. IV. Title: Risk and insurance.

HG8051.T73 1992

368--dc20

91-21942

CIP

1 2 3 4 5 6 7 8 9 D 9 8 7 6 5 4 3 2 1

Printed in the United States of America



# **PREFACE**

The first edition of *Risk & Insurance* was published in 1962. The field of risk management and insurance has undergone many changes since then. The eighth edition of *Risk & Insurance* represents a major change in both content and authors. Dr. Sandra Gustavson joins the team as a new co-author. She has considerable expertise in the life and health insurance fields as well as in employee benefits and has completely rewritten these parts of the text.

With Sandra becoming part of the author team, we have taken the opportunity to reorganize the text, placing more emphasis on risk management.

Part 1 explores the nature of risk and the risk management process. In Part 2, insurance as a risk management tool is reviewed. Also, the legal principles of insurance and the common characteristics of insurance contracts are discussed.

The next three sections of the text are divided into three risk management compartments. In Part 3, the first of two parts on personal risk management, exposures related to the loss of life, health, and income are explored, with emphasis on the ways in which insurance contracts can be used to deal with these exposures. Part 4, the second section on personal risk management issues, studies property-liability exposures and their treatment. Because of the way the material is organized, either Part 3 or Part 4 can be covered after the introductory material is studied. Continuity of thought will be maintained because the two parts stand on an independent basis. Both Part 3 and Part 4 have a considerable amount of new material and address personal risk management issues of the 1990s.

Business risk management exposures and treatment are contained in Part 5. These materials have been reorganized and consolidated. Workers' compensation and liability insurance have been combined into one chapter and property exposures separated into two chapters so that there is more selectivity of businesses' property exposures to teach.

In the last section, Part 6, institutional aspects of the insurance industry are covered. Topics include an overview of the industry, functions of insurers, regulation of insurance, and government insurance. The analysis of these topics reflects new developments in insurance regulation, in Social Security, and in government property insurance programs.

The last chapter in Part 6 reflects the growing importance of international business and world commerce. This chapter treats international issues in insurance and has been updated to include an analysis of the effect on insurance of the 1992 harmonization in the European Community.

Previous editions of *Risk & Insurance* have contained mathematical applications to risk management, and the present edition continues that tradition. However, rather than having a chapter on this material, it is now contained in Appendix B.

The eighth edition retains many of the features of the seventh edition text. Statement of key terms and learning objectives are included for each chapter. There is a separation of “Questions for Review” and “Questions for Discussion” at the end of each chapter. Each chapter contains boxed materials taken from current literature that illustrate basic principles and practices in the insurance industry and in risk management.

The Glossary, Appendix A, has been expanded and includes all the key terms presented throughout the text. Finally, the latest editions of policy forms being used in auto, life, and homeowners’ insurance are included in the appendices.

A fundamental concept has been retained in this edition: to recognize that one book in risk and insurance is the maximum that most college students will ever study. Hence, nearly all fields of insurance have been covered, and problems caused by risk in our world have been emphasized before posing solutions. In this way it is hoped that analysis of insurance will be more meaningful than would be possible by factual discussion of insurance contracts without any analysis of the problems that established the need for such contracts. Emphasis has also been placed on teaching how contracts may be analyzed so that students may apply this knowledge to new policies as they are developed.

The original goals in writing the text have been preserved: (1) to cover basic ideas, problems, and principles found in all types of modern insurance and other methods of handling risk; (2) to emphasize the fundamental unifying elements of risk and insurance; and (3) to stimulate thought about the problems of risk management and insurance through questions that often cannot be answered by short, factual statements taken directly from text material.

## Supplements

The instructor’s manual for *Risk & Insurance* contains additional discussion questions and objective questions. Their addition will give instructors more choices in composing tests. Test questions are also available in an easy-to-use test bank. Also, several cases that can be used for class discussion are included.

**Acknowledgments**

There are many who should be thanked for their kind assistance to the authors in preparing the eighth edition. We are especially grateful to the following persons for their thorough review and suggested changes:

William R. Feldhaus  
Georgia State University

Jerry L. Jorgensen  
University of Utah

Jack M. Nelson  
College of Insurance

George B. Flanigan  
University of North Carolina, Greensboro

Dwight K. Bartlett  
University of Pennsylvania

Mary Ann Boose  
University of Mississippi

W. J. Curran Jr.  
Husson College

Frank Hodges  
Georgia Southern University

Carol Kiefer  
Eastern Illinois University

Donald R. Newhart  
Southwest Missouri State University

Adel M. Rabh  
Pennsylvania State University

Patricia Strong  
California State University, Sacramento

Finally, we would like to extend our special thanks to Ann Clark and Kelly Chitwood who contributed generously of their time and effort with proofreading and other assistance. We also thank Joe Tombs and Martha Trieschmann, who helped with the instructor's manual and with other manuscript preparation tasks.

*Mark R. Greene  
James S. Trieschmann  
Sandra G. Gustavson*

# **BRIEF CONTENTS**

<b>PART 1</b>	<b>NATURE OF RISK AND RISK MANAGEMENT</b>	
1	Introduction to Risk	2
2	Managing Risk	19
<b>PART 2</b>	<b>INSURANCE AS A RISK MANAGEMENT TOOL</b>	
3	How Insurance Handles Risk	38
4	Legal Principles of Insurance Contracts	59
5	Common Characteristics of Insurance Contracts	82
<b>PART 3</b>	<b>PERSONAL RISK MANAGEMENT: LIFE, HEALTH, AND INCOME</b>	
6	Life, Health, and Loss of Income Exposures	108
7	Life Insurance	134
8	Health Insurance	164
9	Annuities	186
10	Employee Benefits: Life and Health Benefits	200
11	Employee Benefits: Retirement Plans	225
12	Financial and Estate Planning	245
<b>PART 4</b>	<b>PERSONAL RISK MANAGEMENT: PROPERTY-LIABILITY</b>	
13	Exposures to Property and Liability Losses	274
14	Homeowners' Insurance	299
15	Personal Automobile Insurance—Part I	333
16	Personal Automobile Insurance—Part II	362
17	Miscellaneous Personal Lines	380
18	Buying Personal Insurance	396
<b>PART 5</b>	<b>BUSINESS RISK MANAGEMENT</b>	
19	Business Liability and Workers' Compensation Insurance	412
20	Business Property Insurance—Part I	442
21	Business Property Insurance—Part II	463
22	Crime Insurance and Bonding	485
<b>PART 6</b>	<b>THE INSURANCE INDUSTRY</b>	
23	The Insurance Industry	504
24	Functions and Organization of Insurers and Risk Managers	529
25	Government Regulation of Insurance	563
26	Government Insurance Programs	584
27	International Issues in Risk Management	618
<b>APPENDIXES</b>		
A	Glossary	645
B	Mathematical Applications to Risk Management	673
C	Interest Tables	685
D	Personal Auto Policy	693
E	Whole Life Policy	705
F	Homeowners' Policy	719

# **CONTENTS**

## **PART 1 NATURE OF RISK AND RISK MANAGEMENT**

- 1 Introduction to Risk 2**  
The Burden of Risk 3 Definitions of Risk 4 Sources of Pure Risk 6 Measurement of Risk 10 Management of Risk 14  
*Risk Management Application: It's an Ill Wind 8*  
*Risk Management Application: Before You Leap 15*
- 2 Managing Risk 19**  
Risk Identification and Evaluation 20 Risk Management Techniques 22 Selection of Risk Management Techniques 29 Subjective Risk Management 33 Regular Review of Decisions 33  
*Risk Management Application: Overextended at the Holidays 23*  
*Risk Management Application: East Is East 32*

## **PART 2 INSURANCE AS A RISK MANAGEMENT TOOL**

- 3 How Insurance Handles Risk 38**  
The Growth of Insurance 39 Conditions Favoring Growth 40 Insurance Defined 44 Requisites of Insurable Risks 45 Insurance Versus Gambling 50 Insurance Versus Speculation 51 Social and Economic Values of Insurance 53 Social Costs of Insurance 55  
*Risk Management Application: Killing the Goose 43*  
*Risk Management Application: Cheap Shots or Long Shots? 48*  
*Risk Management Application: The Buck Stops Somewhere 50*



#### **4 Legal Principles of Insurance Contracts 59**

Principle of Indemnity 60 Principle of Insurable Interest 60 Principle of Subrogation 63 Principle of Utmost Good Faith 65 Insurance and the Requirements of a Contract 68 Distinguishing Legal Characteristics of Insurance Contracts 71 Legal Powers of Insurance Agents 75 Legal Uncertainties 78

**Risk Management Application:** Waiving Bye-Bye 65

#### **5 Common Characteristics of Insurance Contracts 82**

Declarations 83 The Insuring Agreement 83 Exclusions 85 Common Policy Conditions 87 Definitions 93 Basis of Recovery 93 Clauses Limiting Amounts Payable 94 Third-Party Coverage 103

**Risk Management Application:** Who Gets the Check? 89

**Risk Management Application:** A Risky Assignment 93

### **PART 3 PERSONAL RISK MANAGEMENT: LIFE, HEALTH, AND INCOME**

#### **6 Life, Health, and Loss of Income Exposures 108**

Exposures Due to Premature Death 109 Exposures Due to Loss of Health 120 Other Income Loss Exposures 129

**Risk Management Application:** Going Up 122

**Risk Management Application:** Hank Gathers 129

#### **7 Life Insurance 134**

Types of Life Insurance 136 Life Insurance Contract Provisions 146 Life Insurance Policy Options 151 Income Tax Treatment of Life Insurance 158

**Risk Management Application:** A Snitch in Time 148

**Risk Management Application:** You Can't Take It With You 158

#### **8 Health Insurance 164**

Health Insurance Providers 165 Mechanics of Cost Sharing 168 Health Expense Insurance 171 Disability Income Insurance 176 Health Insurance Policy Provisions 179

**Risk Management Application:** Not Wealthy, Not Healthy? 174

**Risk Management Application:** But Will He Be Able to Play the Piano? 178

#### **9 Annuities 186**

Structure of Annuities 187 Annuity Characteristics 188 Annuity Taxation 194

**Risk Management Application:** The Right Choice 193

**Risk Management Application:** Banking on the Future 196

**10 Employee Benefits: Life and Health Benefits 200**

Reasons for Employee Benefits 201 Premature Death Benefits 203 Health Expense Benefits 209 Disability Income Benefits 219

**Risk Management Application:** What You Don't Know Can Hurt You 209

**Risk Management Application:** Gotcha! 210

**11 Employee Benefits: Retirement Plans 225**

Pension Plans 227 Deferred Profit Sharing Plans 236 Employee Savings Plans 238 Individual Retirement Accounts 239 Keogh Plans 241 Section 403(b) Plans 242

**Risk Management Application:** Early Wake-Up Call 229

**Risk Management Application:** Take the Money and Run? 231

**12 Financial and Estate Planning 245**

Financial Planning 246 Estate Planning 247 A Case Study: The Johnson Family 254 Considerations in Buying Life and Health Insurance 265

**Risk Management Application:** Two Can Die as Cheaply as One 252

**Risk Management Application:** Who Pays the Tab? 267

**PART 4 PERSONAL RISK MANAGEMENT: PROPERTY-LIABILITY****13 Exposures to Property and Liability Losses 274**

Property Loss Exposures 275 Liability Exposures 276 Types of Liability Damages 277 Criminal and Civil Law 278 Torts 278 Basic Law of Negligence 279 The Negligent Act 279 Defenses to Negligence Claims 281 Factors Leading to Higher Standards of Care 281 Types of Liability Exposures 285 Miscellaneous Liability 295

**Risk Management Application:** Real Estate Boom 276

**Risk Management Application:** To Be or Not To Be 289

**14 Homeowners' Insurance 299**

Homeowners' Program: Development 300 Outline of Homeowners' Coverages 301 Analysis of Homeowners' Policy 303 Perils Covered in Homeowners' Insurance 310 Mandatory Supplemental Provisions (HO-350) 316 Optional Property Endorsements to Homeowners' Policies 317 Flood Insurance 320 Comprehensive Personal Liability and Medical Payments Insurance 320 Risk Management—Personal Lines 326

**Risk Management Application:** Playing for High Shakes 317

<b>15</b>	<b>Personal Automobile Insurance—Part I</b>	<b>333</b>
	The High Cost of Automobile Losses 334 Insurance Claims 334 The Need for Insurance 336 Personal Automobile Policy 337 Personal Automobile Policy Components 338 Automobile Insurance and the Law 350 Risk Management and Personal Automobile Rating 354	
	<b>Risk Management Application:</b> The Bigger the Better? 335	
	<b>Risk Management Application:</b> It's a Gray Area 357	
<b>16</b>	<b>Personal Automobile Insurance—Part II</b>	<b>362</b>
	Recent Trends Affecting Automobile Insurance 363 Cost Containment 368 No-Fault 372 Alcohol and Driving 374 Advances in Driver and Auto Safety 376	
	<b>Risk Management Application:</b> Sunken Treasure 370	
<b>17</b>	<b>Miscellaneous Personal Lines</b>	<b>380</b>
	The Fire Policy 381 Dwelling Program (Not Homeowners') 388 Mobile Home Endorsement to Homeowners' Policy 389 Farmowners' Ranchowners' Policy 390 Watercraft Program 390 Personal Articles Floater (PAF) 391 Personal Umbrella Policy 391	
	<b>Risk Management Application:</b> Way Up in Smoke 384	
<b>18</b>	<b>Buying Personal Insurance</b>	<b>396</b>
	Buying Wisely 397	
	<b>Risk Management Application:</b> Underachievers 403	
<b>PART 5 BUSINESS RISK MANAGEMENT</b>		
<b>19</b>	<b>Business Liability and Workers' Compensation Insurance</b>	<b>412</b>
	Common Liability Contract Provisions 413 Commercial Liability Insurance 420 Commercial General Liability (CGL) 420 Business Auto Coverage 423 Professional Liability Insurance 425 Workers' Compensation Insurance 429 Risk Management and Workers' Compensation 436	
	<b>Risk Management Application:</b> An Error in Judgment 426	
	<b>Risk Management Application:</b> Police Protection 429	
	<b>Risk Management Application:</b> Today's Hazardous Duty 433	
<b>20</b>	<b>Business Property Insurance—Part I</b>	<b>442</b>
	The Simplified Commercial Lines Portfolio (SCLP) Policy 443 Boiler and Machinery Insurance 446 Business Owners' Program 450 Other Commercial Property	

Forms 450 Reporting Forms 451 Consequential Loss Coverage 452 Time-Element Contracts 452 Contracts Without Time Element 459

**Risk Management Application:** Cold Snaps 444

**Risk Management Application:** Taking a Byte Out of Exposure 457

## **21 Business Property Insurance—Part II 463**

Transportation Insurance 464 Ocean Transportation Insurance 466 Land Transportation Insurance 472 Floater Contracts 473 Credit Insurance 478 Title Insurance 480 Plate Glass Insurance 482

**Risk Management Application:** Covering the War 467

**Risk Management Application:** Art Appreciation 475

## **22 Crime Insurance and Bonding 485**

Loss Due to Stealing 486 Crime Insurance and Bonds 487 Burglary, Robbery, and Theft Insurance 492 Risk Management of the Crime Peril 497

**Risk Management Application:** Who Watches the Watcher? 487

**Risk Management Application:** Expert Advice 498

# **PART 6 THE INSURANCE INDUSTRY**

## **23 The Insurance Industry 504**

The Field of Insurance 505 Size of Insurance Markets 507 Types of Private Insurers 510 Channels of Distribution in Insurance 518

**Risk Management Application:** The Lloyd's Cocoon Opens 514

**Risk Management Application:** The Big Boys 515

**Risk Management Application:** The Harder They Fall 517

## **24 Functions and Organization of Insurers and Risk Managers 529**

Functions of Insurers 530 Reinsurance 548 Administration for Risk Management 553

**Risk Management Application:** Trouble With a Claim? 545

**Risk Management Application:** All Things Considered, Would You Rather Be in Philadelphia? 547

## **25 Government Regulation of Insurance 563**

Why Insurance Is Regulated 564 The Legal Background of Regulation 566 The McCarran-Ferguson Act 567 Federal Versus State Regulation 568 Responsibilities of the State Insurance Department 571 Miscellaneous Insurance Laws 577 Tort Reform 579 Taxation of Insurance 580

**Risk Management Application:** The Umpire's New Clothes 580

## **26 Government Insurance Programs 584**

Background of Social Insurance 585 Social Security Act 591 The Unemployment Problem and Insurance 600 Temporary Disability Laws 605 Government Property-Liability Insurance Programs 607

**Risk Management Application:** Inflation Adjustment 597

**Risk Management Application:** They're Making a List 600

**Risk Management Application:** With Friends Like These ... 608

**Risk Management Application:** Belt Tightening 613

## **27 International Issues in Risk Management 618**

Growth of World Trade 619 Insurance and Economic Development 621 Marketing Challenges Abroad 623 International Brokers and Insurers 627 Private International Insurance Organizations 629 International Legal Environment 631 Contrasts in Insurance Conditions Abroad 633 Global Insurance Programs 635 Employee Benefit Planning Abroad 637 Political Risk 638

**Risk Management Application:** A Different Orientation 636

**Risk Management Application:** Insurance for Iconoclasts 639

## **APPENDIXES**

**A Glossary 645**

**B Mathematical Applications to Risk Management 673**

**C Interest Tables 685**

**D Personal Auto Policy 693**

**E Whole Life Policy 705**

**F Homeowners' Policy 719**

**INDEX 735**





# **PART 1**

## Nature of Risk and Risk Management

---

Chapter 1 Introduction to Risk  
Chapter 2 Managing Risk



# **CHAPTER 1**

## Introduction to Risk

### **CHAPTER OBJECTIVES**

After studying this chapter, the student should be able to:

1. Explain three ways to categorize risk.
2. Give several examples of pure risks involving property, liability, and personal risks.
3. Distinguish between chance of loss and degree of risk.
4. Give examples of three types of hazards.
5. Identify the difference between hazards and perils.
6. Explain how the law of large numbers works in reducing risk.
7. Explain the four steps in the risk management process.

### **KEY TERMS AND CONCEPTS**

Chance of loss  
Degree of risk  
Dynamic risks  
Frequency  
Hazards  
Law of large numbers  
Morale hazard

Moral hazard  
Objective risk  
Peril  
Physical hazard  
Pure risk  
Risk  
Risk management

Risk management process  
Risk manager  
Severity  
Speculative risk  
Static risks  
Subjective risk  
Uncertainty

**Risk**, defined as **uncertainty** as to loss, poses a problem to individuals in nearly every walk of life. Students, householders, business people, employees, travelers, investors, and farmers all must face risk and develop ways to handle it. If a cost or a loss is certain to occur, it may be planned for in advance and treated as a definite, known expense. It is when there is uncertainty about the occurrence of a loss that risk becomes an important problem. For example, if a merchant knows for sure that a certain amount of shoplifting will occur, this loss may be recovered by marking up all goods by some percentage. There is little or no risk involved unless actual shoplifting is greater than normal. The merchant is usually more concerned about the risk of abnormal losses than about normal or expected losses.

## THE BURDEN OF RISK

To some people the idea of risk bearing is tantalizing, an element that makes life more interesting. They probably have in mind the uncertainty of making a profit or a gain, and not the uncertainty of incurring a disastrous loss. This book deals primarily with the latter type of uncertainty. Recognizing that risk carries with it the possibility of losses as well as gains, most individuals constantly seek ways to avoid the losses in as efficient a manner as possible without destroying the possibility of gains.

How does risk create an economic burden? It does so in several ways. First, risk may necessitate the setting aside of a reserve fund to meet losses if and when they do occur. Such a reserve fund, if it were not used for this purpose, could be employed in other ways, presumably at greater advantage than is offered by deposits at the low interest rates that often apply to investments readily convertible into cash.

Second, the existence of risk not only raises the cost to society of certain services, but may also deprive society altogether of services "too risky" to warrant the investment of savings. There is a shortage of "risk capital" in all nations because most investors prefer a significant degree of safety. Mark Twain epitomized this attitude when he commented that he was more interested in the return of his money than he was in the return on his money. In other words, the riskier the venture, the greater the return that must be promised to investors; hence the more costly that particular service is to society. And if risk is too great, the service may be withdrawn altogether.

A member of the American Medical Society once commented that without malpractice insurance many physicians would refuse to practice medicine. The comment arose from publicity given to reports that many insurers planned to withdraw malpractice coverage from the market because of heavy losses and inadequate rates. Thus, the inability to transfer risk to others threatened the reduction of vital medical services because physicians perceived risk of loss by legal suits from patients on the medical treatment they had received.

Most people try to avoid risk as much as possible or to reduce its negative consequences. Unfortunately, not all risk can be minimized or avoided. To minimize the adverse effects of risk, one must study the subject scientifically,



learn more about the specific nature of the different types of risk, and find ways to deal with risk more effectively.

## DEFINITIONS OF RISK

Thus far, the terms *risk* and *uncertainty* have been used interchangeably. However, many forms of uncertainty exist, and in a comprehensive study of risk, it is helpful to define the concept more precisely. Three common ways to classify risk are described in this section. As illustrated in Figure 1-1, these groupings are not mutually exclusive. Rather, risks can be categorized simultaneously according to all three types of classifications.

## Pure Versus Speculative Risk

An important classification of risk involves the concepts of pure risk and speculative risk. **Pure risk** exists when there is uncertainty as to whether loss will occur. No possibility of gain is presented by pure risk—only the potential for loss. Examples of pure risk include the uncertainty of damage to property by fire or flood, or the prospect of premature death caused by accident or illness. In contrast to pure risk, **speculative risk** exists when there is uncertainty about an event that could produce either a profit or a loss. Business ventures and gambling transactions are examples of situations involving speculative risk. Gains as well as losses may occur, changing the nature of the uncertainty that is present.

The distinction between pure and speculative risks is especially significant for the study of insurance because not all risks are insurable. **Speculative risks usually cannot be insured, but insurance protection for many different pure**

FIGURE 1-1

Types of Risk

