

高等学校金融学类英文版教材

Risk Management and Insurance 12e

James S. Trieschmann Robert E. Hoyt David W. Sommer

风险管理 与保险

齐瑞宗(首都经济贸易大学) 改编
张洪涛(中国人民大学) 审校


高等学校金融学类英文版教材

Risk Management and Insurance 12e

James S. Trieschmann Robert E. Hoyt David W. Sommer

风险管理与保险

齐瑞宗(首都经济贸易大学) 改编
张洪涛(中国人民大学) 审校

 高等教育出版社

THOMSON



TM

图字:01-2004-6501号

James S. Trieschmann, Robert Hoyt, David Sommer

Risk Management and Insurance, Twelfth Edition

ISBN:0-324-18320-8

Copyright © 2005 by South-Western, a division of Thomson Learning

Original language published by Thomson Learning (a division of Thomson Learning Asia Pte Ltd). All Rights reserved. 本书原版由汤姆森学习出版集团出版。版权所有,盗印必究。

Higher Education Press is authorized by Thomson Learning to publish and distribute exclusively this Adaptation edition. This edition is authorized for sale in the People's Republic of China only (excluding Hong Kong, Macao SAR and Taiwan). Unauthorized export of this edition is a violation of the Copyright Act. No part of this publication may be reproduced or distributed by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

本书改编版由汤姆森学习出版集团授权高等教育出版社独家出版发行。此版本仅限在中华人民共和国境内(不包括中国香港、澳门特别行政区及中国台湾)销售。未经授权的本书出口将被视为违反版权法的行为。未经出版者预先书面许可,不得以任何方式复制或发行本书的任何部分。

981-265-075-X

图书在版编目(CIP)数据

风险管理与保险 = Risk Management and Insurance 12e:

英文改编/(美)特里斯曼(Trieschmann, J. S.), (美)古斯塔逊(Gustavson, R. E.), 霍伊特(Hoyt, D. W.). 北京:高等教育出版社, 2005.2

ISBN 7-04-016168-0

I. 风... II. ①特...②古...③霍... III. 保险-风险管理-英文 IV. F840.32

中国版本图书馆 CIP 数据核字(2004)第 129547 号

出版发行 高等教育出版社

社 址 北京市西城区德外大街 4 号

邮政编码 100011

总 机 010-58581000

经 销 北京蓝色畅想图书发行有限公司

印 刷 中国农业出版社印刷厂

开 本 850×1168 1/16

印 张 30.25

字 数 900 000

购书热线 010-58581118

免费咨询 800-810-0598

网 址 <http://www.hep.edu.cn>

<http://www.hep.com.cn>

网上订购 <http://www.landaco.com>

<http://www.landaco.com.cn>

版 次 2005 年 2 月第 1 版

印 次 2005 年 2 月第 1 次印刷

定 价 37.00 元

本书如有缺页、倒页、脱页等质量问题,请到所购图书销售部门联系调换。

版权所有 侵权必究

物料号 16168-00

出版前言

自教育部在《关于加强高等学校本科教学工作 提高教学质量的若干意见》【教高(2001)4号】中提出双语教学的要求后,各地高校相继开设了一系列双语教学课程。这对提高学生的学科和外文水平,开阔国际视野,培养创新型人才起到了重要的作用;一大批教师也逐渐熟悉了外文授课,自身的教学水平和能力得到较大提高,具备国际学术思维的中青年教师脱颖而出。同时,经过近几年的双语教学实践,国外原版教材量大、逻辑不够清晰、疏离中国现实等问题也影响了双语教学的效果。因此,对外版教材进行本土化的精简改编,使之更加适合我国的双语教学已提上教材建设日程。

为了满足高等学校经济管理类双语课程本土化教学的需要,在教育部高等教育司的指导和帮助下,高等教育出版社同Thomson Learning等国外著名出版公司通力合作,在国内首次推出了金融、会计、经济学等专业的英文原版改编教材。本套教材的遴选、改编和出版严格遵循了以下几个原则:

1. 择优选取权威的新版本。在各专业选书论证会上,我们要求入选改编的教材不仅是在国际上多次再版的经典之作的最新版本,而且是近年来已在国内被试用的优秀教材。

2. 改编后的教材力求内容规范简明,逻辑更加清晰,语言原汁原味,适合中国的双语教学。选择的改编人既熟悉原版教材内容又具有本书或本门课程双语教学的经验;在改编过程中,高等教育出版社组织了知名专家学者召开了数次改编和审稿会议,改编稿征求了众多教师的意见。

3. 改编后的教材配有较丰富的辅助教学支持资源,教师可在网上免费获取。同时,改编后的教材厚度适中,定价标准较低。

由于原作者所处国家的政治、经济和文化背景等与我国不同,对书中所持观点,敬请广大读者在阅读过程中注意加以分析和鉴别。

此次英文改编教材的出版,得到了很多专家学者的支持和帮助,在此深表谢意!我们期待这批英文改编教材的出版能对我国经济管理类专业的教学能有所帮助,欢迎广大读者给我们提出宝贵的意见和建议。

高等教育出版社

2005年1月

关于本书

内容简介

本书以风险为主线，逐步引入风险管理的各个层面——风险、风险管理程序、企业风险管理、个人风险管理和风险管理环境等，然后导出对可保风险的保险，对各种保险所承担的主要风险及其管理问题，同时对保险业所涉及到的组织、法律以及政府监管等更深层次的问题作系统的讨论。

本书的论述由浅入深、逐步深入，便于读者系统地理解风险管理与保险的理论与实践问题，非常适合作为金融（含保险）专业或商业管理专业的双语教学教材，也可用作相关专业培训和进修学习的教材。

作者简介

James S. Trieschmann , Robert E. Hoyt, David W. Sommer 均为美国乔治亚大学Terry商学院教授。

改编及审校者简介

齐瑞宗，首都经济贸易大学金融学院保险学教授。1978年起从事涉外保险法律实务。20世纪80年代初赴伦敦研修。研究方向为国际保险学、企业风险管理学、海上保险学。主讲“风险管理与保险”、“国际保险市场”等课程。

张洪涛，中国人民大学财政金融学院教授、保险学系主任，国发资本市场研究中心主任，金融学博士、博士后。曾在美国加州大学及加州保险监管局任高级访问研究员。主要研究方向为非银行金融及金融保险。

教学支持资源（见本书教学支持说明页）

1. Instructor's Manual
2. PowerPoint
3. Test Bank
4. Exposure Questionnaire
5. Others

导 读

保险是风险管理的重要工具,但不是惟一有效的工具。风险管理是包含保险在内的一个广泛概念。随着科学和经济的发展,风险管理逐渐成为金融学中一个重要的学术研究领域。当前,企事业单位越来越意识到他们面临着较以前更加多样化的风险,企业风险管理的观念正得到越来越多组织机构的认可。该书改编出版的目的,一是着重帮助读者识别分析各类风险,并通过保险和非保险的工具管理这些风险;二是在中国进一步弘扬普及风险管理和保险理论,促进中国金融业的国际化经营水平,让消费者得到更多的保险实惠;三是切实提高学生从事国际化事务的综合素质,为高校双语教学提供主干教材。

改编意图

本书的改编是征得作者同意,在作者原教材的基础上进行的。改编旨在拉近作者与读者的距离,使教材更贴近中国读者,普及风险管理与保险教育。因此,改编尽量保持了教材的原汁原味,删掉了与中国国情相差太远的内容,并翻译了词汇表。

内容及逻辑框架

本书的改编以风险为主线,逐步引入风险管理的各个层面,然后导出对可保风险的保险,对各种保险所承担的主要风险及其管理问题,同时对保险业所涉及到的组织、法律以及政府监管等更深层次的问题作系统的讨论。通过由浅入深、层层阐述、逐步深入的论述,便于读者对风险管理和保险的理论与实践问题作较系统的理解和研究。具体地说,本书分五个部分:

第一部分:第一章至第八章,风险和风险管理程序。其中第一章阐述风险的本质,引出其余有关风险管理理论的七个章节。第二章到第四章论述各种潜在风险,并特别增加了金融风险。第五章至第八章运用各种统计分析资料和资金预算方法,制定风险管理决策,包括非保险途径和保险途径,阐述保险的原则,保险单中的各种条款,以及风险管理技术的选择和履行。

第二部分:第九章至第十二章,企业风险管理。仍以风险管理为方向,强调风险管理对企业团体的重要性,介绍用来处理风险的各种保险。对企业自营保险、灾害风险管理以及非保险方式的风险融资作了颇多的介绍。2001年9月11日的恐怖袭击,对风险管理和保险界有着极深刻的影响,很多与该恐怖袭击有联系的材料在本书中作了引用。

第三部分:第十三章至第十五章,个人风险管理(财产责任保险)。财产责任保险是针对个人机动车和家庭财产风险而设立的。在本部分中,较透彻地讨论了处理该风险的一般保险单格式及其适当的更新。第十四章介绍了有关机动车安全、损失控制以及机动车安全趋向的话题,并举例阐述了与机动车损失有关的风险管理的级别。

第四部分：第十六章至第十八章，个人风险管理。将讨论焦点从财产责任保险转移至与人类生命、健康和收入有关的风险。包括人身保险、健康保险和年金保险。

第五部分：第十八章至第二十章，风险管理环境。主要焦点是风险管理和保险业的性质以及对其产生影响的政府监管，对范围日益扩大的国际保险问题的讨论，还包括全球化对风险管理和保险业的挑战的讨论。

结构特点

1. 网络链接。每章包括至少一个网络链接建议，提供具体网址及信息，供学生调查研究。这使得各章的材料变得及时、生动、实用。

2. 每章包含两个与其材料有联系的与互联网有关的问题，要求学生互动作答，而非仅仅阅读。如在网上做购买保险询价等。

3. 每章开头有学习目的和简述，结尾设小结，有供复习讨论的习题汇编。

4. 每章设材料盒，从当前文献中选取材料，以进一步辅助说明主干课文中讨论的问题。该材料盒分三类：国际展望、伦理观察和专家意见，每类都有各自的图标。

本书在改编过程中，得到了首都经济贸易大学金融学院师生的大力支持，在此表示感谢。也感谢高等教育出版社的热情支持。对该书改编中的不当之处，希望读者批评指正。

审校及改编者

2004年12月

郑重声明

高等教育出版社依法对本书享有专有出版权。任何未经许可的复制、销售行为均违反《中华人民共和国著作权法》,其行为人将承担相应的民事责任和行政责任,构成犯罪的,将被依法追究刑事责任。为了维护市场秩序,保护读者的合法权益,避免读者误用盗版书造成不良后果,我社将配合行政执法部门和司法机关对违法犯罪的单位和个人给予严厉打击。社会各界人士如发现上述侵权行为,希望及时举报,本社将奖励举报有功人员。

反盗版举报电话: (010) 58581897/58581896/58581879

传 真: (010) 82086060

E - mail: dd@hep.com.cn

通信地址: 北京市西城区德外大街4号

高等教育出版社打击盗版办公室

邮 编: 100011

购书请拨打电话: (010)58581118

策划编辑 于 明

责任编辑 于 明

封面设计 刘晓翔

责任印制 杨 明

contents

PART 1

RISK AND THE RISK MANAGEMENT PROCESS	1
1 Introduction to Risk	2
The Burden of Risk	3
Definitions of Risk	4
Sources of Risk	6
Measurement of Risk	8
Management of Risk	11
2 Risk Identification and Evaluation	15
Risk Identification	16
Risk Evaluation	18
Accuracy of Predictions	26
3 Property and Liability Loss Exposures	32
Property Loss Exposures	33
Liability Exposures	34
Types of Liability Damages	35
Criminal and Civil Law	37
Torts	38
Basic Law of Negligence	38
Defenses Against Negligence Claims	39
Factors Leading to Higher Standards of Care	40
Types of Liability Exposures	43
Miscellaneous Liability	52
4 Life, Health, and Loss of Income Exposures	54
Exposures Due to Premature Death	55
Exposures Due to Loss of Health	63
Other Income Loss Exposures	69
5 Risk Management Techniques: Noninsurance Methods	75
Risk Avoidance	76
Loss Control	76
Risk Retention	80
Risk Transfer	83
The Value of Risk Management	85
6 Insurance as a Risk Management Technique: Principles	89
The Nature of Insurance	90
Principle of Indemnity	90
Principle of Insurable Interest	91

Principle of Subrogation	93
Principle of Utmost Good Faith	94
Requisites of Insurable Risks	97
Requirements of an Insurance Contract	101
Distinguishing Characteristics of Insurance Contracts	102
Role of Agents and Brokers	103
Principles of Social Insurance	105
Social and Economic Values and Costs of Insurance	107

7 Insurance as a Risk Management Technique: Policy Provisions 112

Declarations	113
The Insuring Agreement	113
Exclusions	114
Common Policy Conditions	116
Definitions	121
Basis of Recovery	121
Clauses Limiting Amounts Payable	122

8 Selecting and Implementing Risk Management Techniques 133

Avoid Risks If Possible	134
Implement Appropriate Loss Control Measures	134
Select the Optimal Mix of Risk Retention and Risk Transfer	138
Implementing Decisions	143
Subjective Risk Management	147
Enterprise Risk Management and Alternative Risk Transfer	147

PART 2

COMMERCIAL RISK MANAGEMENT APPLICATIONS: Property—Liability 153

9 Risk Management and Commercial Property—Part I 154

The Commercial Package Policy (CPP)	155
Business Owners Policy	161
Other Commercial Property Forms	161
Reporting Forms	163
Consequential Loss Coverage	163

10 Risk Management and Commercial Property—Part II 173

Transportation Insurance	174
Ocean Transportation Insurance	177
Land Transportation Insurance	183
Floater Contracts	184
Credit Insurance	185
Title Insurance	187
Glass Coverage Form	188
Crime	188
Disaster Risk Management: A Case Study	193

PART 3

11 Risk Management and Commercial Liability Risk	197
Common Liability Contract Provisions	198
Commercial Liability Insurance	204
12 Workers' Compensation and Alternative Risk Financing	216
Workers' Compensation Insurance	217
Major Reform	217
Risk Management and Workers' Compensation	225
Captive Insurance Companies	234
Conclusions	236
PERSONAL RISK MANAGEMENT APPLICATIONS: Property—Liability	239
13 Risk Management for Auto Owners—Part I	240
The High Cost of Automobile Losses	241
Insurance Claims	241
The Need for Insurance	242
Personal Automobile Policy	243
Personal Auto Policy Components	245
Automobile Insurance and the Law	256
Risk Management and Personal Automobile Rating	258
14 Risk Management for Auto Owners—Part II	264
Where Does the Auto Insurance Premium Go?	265
Auto Death Rates	266
Car Theft	267
Cost Containment	268
No-Fault	270
Alcohol and Driving	273
Advances in Driver and Auto Safety	274
Airbags, Auto Property Damage, and Teenage Drivers	275
15 Risk Management for Homeowners	278
Homeowners' Program: Development	280
Outline of Homeowners' Coverages	281
Analysis of Homeowners' Policy	282
Perils Covered in Homeowners' Insurance	289
Optional Property Endorsements to Homeowners' Policies	295
Flood Insurance	298
Personal Articles Floater (PAF)	298
Mobile Home Endorsement to Homeowners' Policy	299
Shopping Tips for Homeowners	299
Personal Liability and Medical Payments Insurance	300
Dwelling Program (Not Homeowners')	306
Farmowners'-Ranchowners' Policy	308

PART 4

Risk Management—Personal Lines	308
Personal Risk Management	310

RISK MANAGEMENT APPLICATIONS: Life, Health, and Income Exposures 319

16 Loss of Life 320

Types of Life Insurance	321
Income Tax Treatment of Life Insurance	330
Life Insurance Contract Provisions	331

17 Loss of Health 345

Health Insurance Providers	346
Mechanics of Cost Sharing	349
Health Expense Insurance	351
Disability Income Insurance	357
Health Insurance Policy Provisions	359
Health Care Reform	361

18 Retirement Planning and Annuities 369

Structure of Annuities	370
Annuity Characteristics	371
Annuity Taxation	376

PART 5

THE RISK MANAGEMENT ENVIRONMENT 383

19 Risk Management and the Insurance Industry 384

The Field of Insurance	385
Types of Insurers	388
Channels of Distribution in Insurance	393
Globalization of Risk Management and the Insurance Industry	398

20 Functions and Organization of Insurers 404

Functions of Insurers	405
Reinsurance	420

21 Government Regulation of Risk Management and Insurance 426

Why Insurance Is Regulated	427
The Legal Background of Regulation	428
The McCarran-Ferguson Act	429
Federal Versus State Regulation	431
Responsibilities of the Insurance Regulators	433
Miscellaneous Insurance Laws	438
Tort Reform	440
Taxation of Insurance	440

GLOSSARY

Risk and the Risk Management Process

- 1 Introduction to Risk
- 2 Risk Identification and Evaluation
- 3 Property and Liability Loss Exposures
- 4 Life, Health, and Loss of Income Exposures
- 5 Risk Management Techniques: Noninsurance Methods
- 6 Insurance as a Risk Management Technique: Principles
- 7 Insurance as a Risk Management Technique: Policy Provisions
- 8 Selecting and Implementing Risk Management Techniques

chapter I

Eastman Enterprises specializes in home renovation, landscape design, and the historic preservation of buildings. It began operations in Pennsylvania and expanded rapidly, and now has branches throughout the midwestern and southeastern regions of the United States.

Because of the firm's phenomenal rate of growth, Eastman's managers have had virtually no time to think about anything other than trying to meet customers' demands. No thought has been given to the potential consequences of events such as employee injuries or actions that might damage customers' property. Even the very basic potential problem of loss due to fire has received only cursory attention from management. The attitude is best characterized by owner Carol Eastman's statement: "Maybe we'll have time to think about those things tomorrow. Nothing really terrible has happened yet, and we've got a business to run!"

As Eastman may soon discover, the time for a business to think about terrible things is before they happen—afterward may be too late. For example, the likelihood that a tornado will hit Eastman's headquarters building may seem remote, but if it does happen, the potential consequences could be disastrous. Eastman could lose not only its main building but also the equipment and inventory stored inside. Vital computer records might be destroyed, key personnel could be injured, and operations could be curtailed for weeks or months. Such damage could also impact business at Eastman's other locations, resulting in a much greater total loss than management ever imagined.

The many uncertainties that may cause losses for businesses and individuals, as well as ways to manage those uncertainties, form the basis of this book. This first chapter explores the nature of uncertainty, also known as risk.

Introduction to Risk

CHAPTER OBJECTIVES

After studying this chapter, you should be able to

1. Explain three ways to categorize risk.
2. List the components of an entity's cost of risk.
3. Give several examples of risks involving property, liability, life, health, loss of income, and financial losses.
4. Distinguish between chance of loss and degree of risk.
5. Give examples of three types of hazards.
6. Identify the difference between hazards and perils.
7. Explain the evolving concept of integrated risk management.
8. Explain the four steps in the risk management process.

Risk, which is often used to mean uncertainty, creates both problems and opportunities for businesses and individuals in nearly every walk of life. Executives, employees, investors, students, householders, travelers, and farmers all confront risk and deal with it in various ways. Sometimes a particular risk is consciously analyzed and managed; other times risk is simply ignored, perhaps out of lack of knowledge of its consequences.

Risk regarding the possibility of loss can be especially problematic. If 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. Thus, if a store owner knows for sure that a certain amount of shoplifting will occur, this loss may be recovered by marking up all goods by the necessary percentage. There is little or no risk involved unless actual shoplifting is greater than normal. The store is more concerned about the risk of abnormal shoplifting losses than about those viewed as normal or expected.



netlink

For links related to news, commercial products, and issues associated with risk management and insurance, visit <http://www.riskinfo.com>.

THE BURDEN OF RISK

The idea of risk bearing can be tantalizing. After all, it is a well-known investment principle that the largest potential returns are associated with the riskiest ventures. There are some risks, however, that involve only the possibility of loss. For example, businesses located near the Mississippi River confront the possibility of periodic flooding. When a flood occurs, loss caused by property damage and lost revenues is likely. On the other hand, no gain is expected merely because in some years a flood does not occur.

The risk surrounding potential losses creates significant economic burdens for businesses, government, and individuals. Billions of dollars are spent each year on strategies for financing potential losses. But when losses are not planned for in advance, they may cost even more. For example, a multimillion dollar adverse liability judgment may reduce a business's profitability, lower its credit ratings, cause a loss of customers, and perhaps result in bankruptcy if the firm has not made adequate plans to pay for the loss.

Risk of loss may also deprive society of services judged to be too risky. A member of the American Medical Association 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. Further, physicians in several states in 2003 went on strike as a response to the absence of affordable malpractice insurance. Thus, the inability to transfer risk to others threatened the reduction of vital medical services because physicians feared the risk of loss from legal suits brought by patients. Similarly, businesses of all types may be reluctant to engage in projects that are otherwise strategically attractive if the potential losses appear to be unmanageable.

Businesses, as well as individuals, may try either to avoid risk of loss as much as possible or to reduce its negative consequences. Overall, an entity's **cost of risk** is the sum of: (1) expenses of strategies to finance potential losses, (2) the cost of unreimbursed losses, (3) outlays to reduce risks, and (4) the opportunity cost of activities forgone due to risk considerations. For a particular firm, the first two components of the cost of risk are often the easiest to measure. When insurance costs are rising, as they did dramatically from 2001 to 2003,

firms tend to place more emphasis on retaining losses and on efforts to keep losses from happening. In a 2003 survey of corporate insurance buyers 92 percent of buyers reported increasing their deductibles, while 60 percent said they were self-insuring to some extent. Two-thirds of buyers reported that they had increased their loss control and safety efforts to better control their cost of risk.¹ To minimize the cost of risk efficiently, one must study the subject of risk, learn more about the different types of risk, and find ways to deal with risk more effectively.

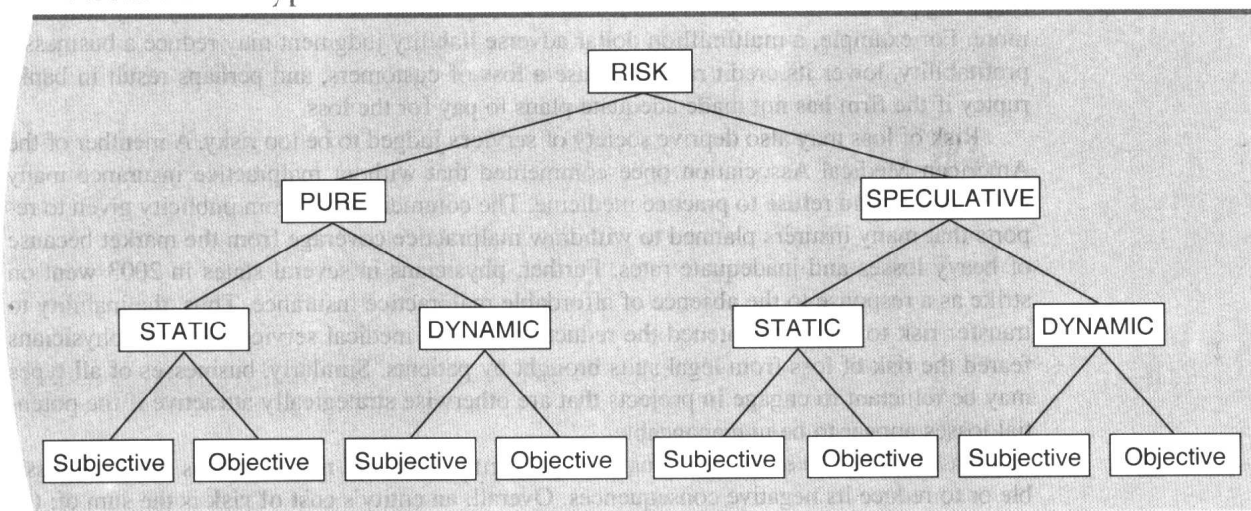
DEFINITIONS OF RISK

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. This book deals primarily with the type of uncertainty in which the possible outcomes are either “loss” or “no loss,” rather than with uncertainties that also present the opportunity for profit. It must be noted, however, that organizations increasingly are considering the broader set of risks that they face, regardless of type. This new view reflects the realization that risks from different sources interact to define the overall risk profile of the firm and recognizes the importance of all forms of risk that affect a firm’s ability to realize its strategic objectives. Therefore, although much of this book focuses on risk regarding the possibility of loss, the discussion throughout also addresses the most significant elements of the new emerging viewpoint. 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 un-

FIGURE 1-1 Types of Risk



¹ Sam Friedman, “Buyers Boost Loss Control, Risk Retention,” *National Underwriter, Property & Casualty/Risk & Benefits Management Edition*, 107, no. 45, November 10, 2003, 22.

certainty 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 investment decisions are examples of situations involving speculative risk. Gains as well as losses may occur, changing the nature of the uncertainty that is present.

Both pure and speculative risks may be present in some situations. It is important to recognize that many profit-motivated, speculative risk decisions made by individuals and firms can have an impact on pure risk exposures. For example, a firm purchasing land for development is making a decision that entails speculative risk. However, if after the purchase it discovers that the land contains a latent pollution problem, the firm would then face a new pure risk. Another example is the decision that a firm makes to introduce a new product. This decision may represent primarily a speculative risk. But as has been seen for products like asbestos and silicon breast implants, this decision also is accompanied by the pure risk associated with potential product liability. Failure to consider the overlapping effects of these two types of risk can lead to decisions that overstate the potential benefits to the firm.

Static versus Dynamic Risk

Another way of classifying risk involves the extent to which uncertainty changes over time. **Static risks**, which can be either pure or speculative, stem from an unchanging society that is in stable equilibrium. Examples of pure static risks include the uncertainties due to such random events as lightning, windstorms, and death. Business undertakings in a stable economy illustrate the concept of speculative static risk. In contrast, **dynamic risks** are produced because of changes in society. Dynamic risks also can be either pure or speculative. Examples of sources of dynamic risk include urban unrest, increasingly complex technology, and changing attitudes of legislatures and courts about a variety of issues.

Static and dynamic risks are not independent; greater dynamic risks may increase some types of static risks. An example involves uncertainty due to weather-related losses. This risk is usually considered to be static. However, recent evidence suggests that environmental pollution caused by increased industrialization may be affecting global weather patterns and thereby increasing this source of static risk.

Subjective versus Objective Risk

A third way to classify risk is by whether it is objective or subjective. **Subjective risk** refers to the mental state of an individual who experiences doubt or worry as to the outcome of a given event. In addition to being subjective, a particular risk may also be either pure or speculative and either static or dynamic. Subjective risk is essentially the psychological uncertainty that arises from an individual's mental attitude or state of mind. **Objective risk** differs from subjective risk primarily in the sense that it is more precisely observable and therefore measurable. In general, objective risk is the probable variation of actual from expected experience. This term is most often used in connection with pure static risks, although it also can be applied to the other types of uncertainties. Details regarding measurement of objective risk are included later in this chapter.

The concept of subjective risk is especially important because it provides a way to interpret the behavior of individuals faced with seemingly identical situations yet arriving at different decisions. For example, one person may be ultraconservative and tend always to take the "safe way" out, even in cases that may seem quite risk-free to other decision makers. Objective risk may actually be the same in two cases, but may be viewed very differently by those examining this risk from their own perspectives. Thus, it is not enough to know only the degree of objective risk; the attitude toward risk of the person who will act on the basis of this knowledge must also be known.