审计学
变化环境中的概念
（含CD-ROM）

第 3 版

Larry E. Rittenberg
University of Wisconsin—Madison
Bradley J. Schwieger
St. Cloud State University /著

Auditing:
Concepts for a
Changing Environment

会计类

Auditing:
Concepts for a
Changing Environment

第 **3** 版

审计学
变化环境小的概念
(含CD-ROM)

Larry E. Rittenberg
University of Wisconsin—Madison
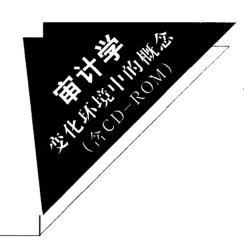
Bradley J. Schwieger
St. Cloud State University / 著

·院长寄语·

　　北京大学光华管理学院秉承北大悠久的人文传统、深邃的学术思想和深厚的文化底蕴，经过多年努力，目前已经站在中国经济发展与企业管理研究的前列，以向社会提供具有国际水准的管理教育为己任，并致力于帮助国有企业、混合所有制企业和民营企业实现经营管理的现代化，以适应经济全球化趋势。

　　光华 MBA 项目旨在为那些有才华的学员提供国际水准的管理教育，为工商界培养熟悉现代管理理念、原理和技巧的高级经营管理人才，使我们的 MBA 项目成为企业发展致富之源，为学员创造迅速成长和充分发挥优势的条件和机会。

　　为了适应现代人才需求模式和建立中国的一流商学院，北京大学光华管理学院正在推出国际 MBA"双语双学位"培养方案；同时，为了配合北大 MBA 教育工作的展开，光华管理学院与北大出版社联合推出本套《当代全美 MBA 经典教材书系（英文影印版）》，并向国内各兄弟院校及工商界人士推荐本套丛书。相信我们这些尝试将会得到社会的支持。而社会对我们的支持，一定会使光华 MBA 项目越办越好，越办越有特色。

北京大学光华管理学院院长

出 版 者 序 言

2001 年 12 月 10 日中国加入了世界贸易组织,从此,中国将进一步加大与世界各国的政治、经济、文化各方面的交流和合作,这一切都注定中国将在未来世界经济发展中书写重要的一笔。

然而,中国经济的发展正面临着前所未有的人才考验,在许多领域都面临着人才匮乏的现象,特别是了解国际贸易规则、能够适应国际竞争需要的国际管理人才,更是中国在未来国际竞争中所必需的人才。因此,制定和实施人才战略,培养并造就大批优秀人才,是我们在新一轮国际竞争中赢得主动的关键。

工商管理硕士(MBA),1910 年首创于美国哈佛大学,随后 MBA 历经百年风雨不断完善,取得了令世人瞩目的成绩。如今,美国 MBA 教育已经为世界企业界所熟知,受到社会的广泛承认和高度评价。中国的 MBA 教育虽起步较晚,但在过去 10 年里,中国的 MBA 教育事业发展非常迅速,也取得了相当显著的成绩。现在国内已经有 50 多所高等院校可以授予 MBA 学位,为社会培养了 3000 多名 MBA 毕业生,并有在读学员 2 万多人。

目前,国内的 MBA 教育市场呈现一片繁荣景象,但繁荣的背后却隐藏着种种亟待解决的问题。其中很大一部分问题的成因是因为目前我国高校使用的教材内容陈旧,与国外名校的名牌教材差距较大,在教学内容、体系上也缺乏与一流大学的沟通。为适应经济全球化,国家教育管理部门曾要求各高校大力推广使用外语讲授公共课和专业课,特别是在我国加入 WTO 后急需的上百万人才中,对 MBA 人员的需求更是占 1/3 之多,所以,大力开展双语教学,适当引进和借鉴国外名牌大学的原版教材,是加快中国 MBA 教育步伐,使之走向国际化的一条捷径。

目前,国内市场上国外引进版教材也是新旧好坏参差不齐,这就需要读者进行仔细的甄别。对于国外原版教材的使用,在这里我们要提几点看法。国外每年出版的教材多达几万种,如果不了解国外的教材市场,不了解国外原版教材的品质就可能找不到真正适合教学和学习的好的教材。对于不太了解外版教材的国内读者来说,选择教材要把握以下几点,即:选择国外最新出版的书;选择名校、名作者的书;选择再版多次并且非常流行的书。综合以上几点来看,目前国内市场上真正出新、出好、出精的 MBA 教材还是不多的。基于以上认识,北京大学出版社推出了《当代全美 MBA 经典教材书系(英文影印版)》,本套丛书的筛选正是本着以上提到的几点原则,即:出新、出好、出精。经过北京大学及国内其他著名高校的知名学者的精心挑选,本套丛书汇集了美国管理学界各个学科领域专家的权威巨著,称得上是一套优中选精的丛书。本套丛书现在已经推出了 MBA 主干课程、会计专业、金融专业课程教程三个系列,共 45 个品种。以后,我们还将陆续推出更多专业的英文影印版书籍。

致谢

本套教材是我社与国外一流专业出版公司合作出版的,是从大量外版教材中选出的最优秀的一部分。在选书的过程中我们得到了很多专家学者的支持和帮助,可以说每一本书都经过处于教学一线的专家、学者们的精心审定,本套英文影印版教材的顺利出版离不开他们的无私帮助,在此,我们对审读并对本套图书提出过宝贵意见的老师们表示衷心的感谢,他们是(按拼音排序):

北京大学光华管理学院：符国群、李东、刘力、梁钧平、陆正飞、王建国、王立彦、王其文、杨岳全、姚长辉、于鸿君、张国有、张圣平、张志学、朱善利

北京大学中国经济研究中心：胡大源、卢锋、平新乔

清华大学经济管理学院：李明志

中国人民大学商学院：赵苹

中央财经大学会计系：孟焰

本套丛书的顺利出版还得到了培生教育集团(Pearson Education)北京代表处、汤姆森学习出版集团(Thomson Learning)北京代表处的大力支持,在此对他们也表示真诚的感谢。

出版声明

本套丛书是对国外原版教材的直接影印,由于各个国家政治、经济、文化背景的不同,原作者所持观点还请广大读者在阅读过程中加以分析和鉴别。我们希望本套丛书的出版能够促进中外文化交流,加快国内经济管理专业教学的发展,为中国经济走向世界做出一份贡献。

我们欢迎所有关心中国 MBA 教育的专家学者对我们的工作进行指导,欢迎每一位读者给我们提出宝贵的意见和建议。

北京大学出版社政经法编辑部
2002 年 11 月

关 于 本 书

适用对象

适用于审计学初级课程。

内容简介

本版更为强调的是理解商业风险和新的商业环境。本书把在商业环境中发生的主要变化全部组织在一起,以现实中各种趋势的发展作为第三版的编著基础。本版继续强调现实世界练习,其中包括利用网络的有意义的商业风险练习和现实世界的计算机化的练习。本书包含全世界使用最为广泛的审计软件包 IDEA,由 CaseWare 国际公司授权。IDEA 提供给学生快速的学习经验和竞争性优势。

作者简介

Larry E. Rittenberg 博士是美国 University of Wisconsin—Madison 会计和信息系统的 Ernst & Young 教授,讲授审计、计算机和业务审计。他曾经是内部审计师协会业务部的副主席和内部审计师研究基金的主席;美国会计学协会审计标准委员会的委员;美国会计师协会下属计算机审计委员会、信息技术委员会的委员,审计委员会的蓝带委员。他现在担任美国会计学协会的副主席和财务员。Rittenberg 教授是注册会计师、计算机工业协会会员和注册内部审计师。他是 5 本课本和专著的联合作者并发表过大量文章。

Bradley J. Schwieger,工商管理博士和注册会计师,St. Cloud State University 的商务和会计系教授,美国会计学协会、美国会计师协会和明尼苏达注册会计师协会的审计成员。他以前是 Arthur Andersen 公司的资深审计师,也是国际道德委员会委员。Schwieger 教授发表过大量关于审计的论文。

第三版主要变化

本版主要反映商业环境最新的变化:

1. 采用商业风险分析方法作为审计的基础,第 3 章

2. 更加强调公司治理机构和大量保险机构的需求,第 2 章

3. 本书第 17 章到 24 章被缩减,为了更好地适合一学期课程

4. 把 IDEA,大众化商业审计软件,融合在第 8,9,11 章,代替第二版的更为专业化的 Ad-Venture 软件

5. 第 6 章详细地讨论 EDI 和电子商务,包括交易对手保证,关键控制和审计方法

6. 第 1 章讨论对保险机构的需求,以及保险和保险中介的基本特性

7. 第 10 章加强论述统计样本概念,对特性样本的机械方面减少论述,重点放在单位样本概率分析

8. 增加了计算机控制和计算机化审计技术的篇幅,并把这种原理和本书其他部分结合起来,第 6,8 章

9．新增了内部和附加值审计一章(17章)，包括内部审计定义的变化和审计在公司治理、风险管理和控制中日益增加的重要作用

第三版主题

学生应该：

1．知道在计算机化环境中如何应用审计程序和如何使用计算机使得审计有效和高效
2．发展审计价值判断和伦理框架指导审计活动
3．理解顾客商业环境以及如何对每个独特的客户应用风险模型
4．使用先进的审计技术以模拟现实世界
5．从事长期学习，研究挑战性问题和随着环境变化发展新技术

第三版组织

本书第三版围绕着一个主题发展：在一个快速变化的技术环境中理解和实施审计这种风险管理方法。

网址

http://rittenberg.swcollege.com

简要目录

教辅产品

1．考试试卷 / 0324185154
2．教师手册/测试 / 0324185146

3．答案手册/ 032418512X

The Harcourt Series in Accounting

**Principles of Accounting
Integrated Financial/Managerial**

Cunningham, Nikolai, and Bazley
Accounting: Information for Business Decisions

Technology Components

Guided Exploration, LLC
Interactive Decision Cases for Financial Accounting

Sandberg, Kirby, and Gantt
Guide to Understanding and Using Annual Reports
Second Edition

Davis
OMAR (Online Multimedia Accounting Review): The Accounting Cycle

Communication

McKay and Rosa
The Accountant's Guide to Professional Communication: Writing and Speaking the Language of Business

Financial

Hanson and Hamre
Financial Accounting
Eighth Edition

Porter and Norton
Financial Accounting: The Impact on Decision Makers
Third Edition

Porter and Norton
Financial Accounting: The Impact on Decision Makers
Alternate Second Edition

Stickney and Weil
Financial Accounting: An Introduction to Concepts, Methods, and Uses
Ninth Edition

Knechel
The Monopoly Game Practice Set

Managerial

Jackson and Sawyers
Managerial Accounting: A Focus on Decision Making

Maher, Stickney, and Weil
Managerial Accounting: An Introduction to Concepts, Methods, and Uses
Seventh Edition

Intermediate

Williams, Stanga, and Holder
Intermediate Accounting
Fifth Edition
1998 Update

Advanced

Pahler and Mori
Advanced Accounting: Concepts and Practice
Seventh Edition

Financial Statement Analysis

Stickney and Brown
Financial Reporting and Statement Analysis: A Strategic Perspective
Fourth Edition

Auditing

Guy, Alderman, and Winters
Auditing
Fifth Edition

Rittenberg and Schwieger
Auditing: Concepts for a Changing Environment
Third Edition

Theory

Bloom and Elgers
Foundations of Accounting Theory and Policy: A Reader

Bloom and Elgers
Issues in Accounting Policy: A Reader

Governmental and Not-For-Profit

Douglas
Governmental and Nonprofit Accounting: Theory and Practice
Second Edition

Reference

Bailey
Miller GAAS Guide
College Edition

Williams
Miller GAAP Guide
College Edition

Preface

In the first edition of this text, we adopted the theme "Concepts for a Changing Environment." Our objective was to be ahead of the curve in dealing with technology, risk, and changing audit approaches. We were proud to be the first textbook to adopt the business risk approach and to integrate computerized audit techniques into all major audit illustrations. With the second edition, we revised those aspects of the book that took advantage of this new business environment. Now, in the third edition, we continue the theme of change with an increased emphasis on understanding business risk and the new business environment. For example, terms like *e-commerce* and *B2B* were unheard of when we wrote the first edition, and we now fully incorporate these topics into the discussion. Truly, the third edition reflects these large shifts in the business environment more than ever before.

It is difficult to imagine anything that is changing the shape of business more than the rapid advances in computer technology. Business plans for strategic growth must be based on new and emerging technology, but at some risk. Paper documents are eliminated and replaced with electronic signatures and images. Companies become more interdependent through electronic commerce and need assurance on the operational and integrity features of their trading partners. The third edition fully incorporates these major changes in the business environment.

The changing environment allows companies to both succeed and fail at an alarming rate. Thus, the techniques for business risk analysis must be built into every audit. Emphasis has increased on business risk, corporate governance, the quality of financial reporting, and emerging forms of assurance services. More is being demanded of the audit. Auditors are expected to detect material fraud. Companies are expected to present financial reports on the Internet and to have the auditor attest to them on a real-time basis. These trends all present challenges to the auditing profession. More importantly, we assume the continued development of these trends as the foundation for the third edition.

We understand that students do not learn best when simply reading and rehashing the textbook. Thus, we continue to emphasize real-world exercises, including significant business risk exercises using the Internet, and real-world computerized exercises. We have included one of the most widely used audit software packages in the world, IDEA™, licensed through CaseWare International, Inc. (formerly licensed through The Canadian Institute of Chartered Accountants), to provide students with "hands-on" learning experiences and a competitive advantage when they leave the auditing course. We continue to hold the belief that an effective auditing curriculum must encourage students to develop a questioning attitude. Students must work with integrity, understand the importance of the assurance function, and learn how the assurance function will expand with changing business environments.

MAJOR CHANGES IN THE THIRD EDITION

The major changes in this edition reflect the latest changes in the business environment:

1. We have adopted the business risk approach to auditing as a foundation for audits, and we introduce it fully in Chapter 3.
2. We place more emphasis on corporate governance and the demand for a wide array of assurance services in Chapter 2.
3. The text has been streamlined from 24 chapters to 17 chapters. Most chapters have been shortened to better fit a one-semester course in auditing or assurance services.
4. We have integrated IDEA, a commercially available generalized audit software package, into Chapters 8, 9, and 11 to replace the more specialized AdVenture software that accompanied the second edition.
5. We include a thorough discussion of both EDI and e-commerce in Chapter 6, including coverage of trading partner assurances, key control concepts, and audit approaches.
6. We discuss demand for assurance services in Chapter 1, along with the fundamental attributes of assurance and assurance providers.
7. We have consolidated coverage of statistical sampling concepts into a single chapter (Chapter 10), with less emphasis on the more mechanical aspects of attribute sampling and a greater emphasis on probability proportionate to size (dollar-unit) sampling.
8. We have expanded coverage of computer-based controls (including Web-based controls) and computerized audit techniques and also integrated these principles into the remainder of the text. These topics appear primarily in Chapters 6 and 8.
9. We have added a new chapter on internal and value-added auditing (Chapter 17) to incorporate the recent change in the definition of internal auditing and the profession's increased role in corporate governance, risk management, and control.

The Business Risk Approach to Auditing

It is well accepted that a business analysis approach will improve the effectiveness of most audits, because most audit failures could have been identified had the auditors thoroughly analyzed the nature of the business, how it generates cash, and how competition and regulation affect the business. However, the major problem with most audit approaches discussed in other texts is that they do not link the business risk analysis to the specific audit procedures that need to be performed. Unlike other texts, we explicitly discuss such a linkage and illustrate it through the audit risk model. The problems at the end of the chapter encourage a further understanding of the risk and audit test linkage. There is also more emphasis on risk and monitoring controls throughout the text. In Chapters 3 and 4 we have added an expanded discussion of analytical review, intelligent agents to search the Internet, and publicly available information to assist the auditor in identifying the risks associated with a specific audit client or industry.

Corporate Governance and Assurance Services

The SEC and two Blue Ribbon Committees on Audit Committee Effectiveness have shown an increased concern about **corporate governance.** We thoroughly discuss the recommendations of those committees in Chapter 2. The text identifies a number of parties—including audit committees, management, vendors, trading partners, investors, and lenders—that need a wider array of assurance services. We illustrate the

nature of these services, the attributes needed to provide these services, and the nature of tests to be performed.

IDEA Software

Virtually every graduate will work with audit software. IDEA is a very powerful software package that can handle all but the very largest and most complex data systems. By using IDEA to manipulate and analyze data, students will gain familiarity with software that will be utilized on audits. IDEA applications have been integrated throughout the latter part of the text and include situations where the auditor should find fraud.

E-Commerce and EDI

E-commerce represents dramatic new control and audit challenges for the auditor. Chapter 6 provides a discussion of the nature of e-commerce, including B2B (business-to-business), B2C (business-to-consumer), and EDI (electronic data interchange). We utilize SysTrust, a new form of assurance service developed by the American Institute of Certified Public Accountants (AICPA), to illustrate the need for expanded assurance services in an e-commerce environment. SysTrust principles are covered in depth and serve as a basis for discussion of information system controls and alternative forms of assurance services.

Concepts that are unique to e-commerce, such as firewalls, are covered in depth, along with audit programs that are used to gain assurance on controls' operating effectiveness. However, we do not stop with control analysis—we illustrate audit approaches to e-business and contrast audit issues with a discussion of alternative approaches to audit companies such as Priceline.com and Ford Motor Company, two distinctly different e-business companies.

Consolidation of Statistical Sampling

Statistical sampling continues to be important, but with the advent of systems dependence, attribute sampling is becoming less prominent. Therefore, we have moved most of the purely mechanical aspects of attribute sampling to Appendix 10A. The broad concepts of sampling are integrated across nonstatistical, attribute, and probability proportionate to size (PPS) sampling. Thorough coverage of PPS sampling remains, and the major concepts are fully illustrated both in the text and in student problems at the end of the chapter. Chapter 10 expands the coverage of nonstatistical sampling to reflect its significant use in practice. Classical variables sampling continues to be covered in Appendix 10B.

Consolidation of Computer Audit Techniques

Computer audit techniques are thoroughly illustrated within a framework that is composed of static testing of systems, concurrent audit testing, and data gathering and analysis. Generalized audit software will remain very powerful, even in the e-business environment. Students are provided the opportunity to use generalized audit software in a number of exercises that utilize the IDEA program. We integrate the use of these techniques throughout the discussion of the audits of specific accounts or groups of accounts in Chapters 9 and 11.

Internal Auditing

We have redefined internal auditing as an objective assurance and consulting activity designed to add value to the organization by examining the effectiveness of the

organization's risk management, control, and governance functions. Internal auditing has become a valuable part of many organizations and may function under titles other than internal auditing. Internal auditing is important to the student, much more so than the traditional textbooks convey, with their discussions centered on how the external auditor may rely on the work of the internal auditor. The internal audit function is being called upon to provide assurances to trading partners or service-users. Beyond that, many of the large public accounting firms have targeted internal auditing as a growth area with predictions that internal audit outsourcing will become as large as 25% of the existing internal audit work by the year 2002. Chapter 17 discusses the dynamics of an evolving profession and illustrates value-added services through operational, compliance, and information systems audits.

MAJOR THEMES FOR THE THIRD EDITION

Despite changes in the business environment that are the focus of this edition, we continue to reflect themes developed in previous editions. The focus of these themes is to encourage students to learn amid changing audit environments. Students should

1. *Know how to apply audit procedures in computerized environments and how to use computers to gain audit effectiveness and efficiency.* This theme is adapted to e-commerce and is integrated throughout the text.

2. *Develop audit judgment and ethical frameworks to guide actions.* These two themes continue to be interwoven throughout the text. Complex audit judgment encompasses risk analysis, identification of potential problems, specification of causes of problems, and identification and testing of alternatives. The philosophies of "substance over form," the development of professionalism, and the auditor's role in society are examined in light of the auditor's judgment of "fairness" of financial statement presentations.

3. *Understand the client's business environment and how to apply the risk model to each unique client.* The business risk approach is emphasized throughout the text. End-of-chapter problems encourage the instructor to have students use the Web and other resources as a semester project to fully understand a company's risk and how that risk assessment affects the planning of an audit.

4. *Use advanced audit techniques that emulate the real world.* This edition has taken this theme one step further with the integration of the IDEA software into the text and problems. IDEA provides students with a real-world package to be used with rich data sets that include scenarios of fraud as well as scenarios of good internal control. Using this software, students can analyze the effect of internal controls on the amount of audit work, evidenced by statistical sample sizes.

5. *Embark on lifelong learning, research challenging issues, and develop new skills as the environment changes.* It is interesting to see how much the audit and assurance environment has changed since we wrote the first edition. However, the research problems incorporated into the previous editions would have systematically led students to anticipate and embrace the changes. The research questions in this edition are designed to encourage that same thought process. Students are asked to *anticipate* the needed controls in Web-based e-commerce with vendor-managed inventory and an entirely new foundation of control procedures. "Maintaining the Competitive Edge" and other special features continue to appear in most chapters.

ORGANIZATION OF THE THIRD EDITION

The third edition is developed around one important theme: *the need to understand and implement a business risk approach to auditing in a rapidly changing technological environment.* Integration of these topics throughout the text has been one of the major purposes of this edition. However, for convenience, the text does incorporate the following sections:

1. *Audit and Assurance Environment.* Chapters 1 and 2 discuss the evolving assurance environment and the demand for more assurance services, especially in e-commerce. The broader role of assurance services is discussed thoroughly, and the traditional financial statement audit is developed as one aspect of those services. *SysTrust,* a new form of assurance service developed by the AICPA, is shown as an example of the kinds of assurances needed in an increasingly electronic environment.

2. *Fundamental Assurance Concepts.* Chapters 3 through 8 develop the fundamental concepts of audit evidence, assurance services, required communication, and internal controls. The broad concepts are illustrated through application to many different financial statement audit areas as well as different kinds of assurance services. We have emphasized computerized audit procedures and ask students to develop an understanding of controls and audit approaches that would be utilized in auditing dot-com companies such as Amazon.com or Priceline.com.

3. *Implementing the Business Risk Approach.* Chapters 9 through 14 focus on the implementation of the business risk approach for audits of financial statements. Statistical sampling and analytical review techniques are introduced and discussed in relationship to the auditor's risk analysis of a client. Traditional audit areas such as accounts receivable and inventory are covered. However, we expand the coverage to include the EDI and e-commerce environments as well as *vendor-managed inventory* (VMI) that is emerging in some companies. Students are asked to develop audit programs to anticipate the needed controls in these environments.

4. *Communicating the Results.* Chapter 15 discusses audit and assurance reports and provides a broad overview of fundamental precepts that underscore all reporting. Examples are given of various types of audit reports.

5. *The Liability Environment.* Legal liability remains important. However, it is not just the liability environment that is important—taking on added importance are the regulatory environment and the need to operate in an environment in which the principles may not uniformly apply for each jurisdiction in which the auditor performs services. These latter points are discussed in Chapter 16, which also presents an analysis of the evolution of legal liability for the auditing profession.

6. *Internal and Value-Added Auditing.* Internal auditing is a dynamic and growing profession. The Institute of Internal Auditors has over 70,000 members in countries across the globe. Internal auditing is a growing field for the public accounting profession. We discuss the new nature of internal auditing and focus on providing value-added services to clients.

SUITABILITY FOR ALTERNATIVE PRESENTATION FORMATS

The third edition has been streamlined to fit virtually all one-semester courses in auditing or assurance services. While there is still an emphasis on traditional financial statement audits, the audit service is developed within the context of a wider array of assurance services. We have retained material in end-of-chapter appendices should the reader want to expand coverage of certain areas. For example, we discuss analytical procedures throughout the text but have added additional coverage by discussing linear and multiple regression techniques in an appendix to Chapter 4.

SUPPLEMENTARY MATERIALS

The textbook comes with supplementary materials to help the instructor and students accomplish the learning objectives described:

1. A CD containing IDEA generalized audit software is shrinkwrapped with every copy of the text. The IDEA "Getting Started" manual contained on the CD has been reprinted in the text as an end-of-book appendix.
2. The *Instructor's Manual* provides a course overview and sample syllabi, teaching suggestions, homework assignments, a chapter outline, and transparency masters for each chapter.
3. The *Solutions Manual*, prepared by the textbook authors, provides ready access to the solutions for end-of-chapter problems.
4. The *Test Bank* and *Computerized Test Bank* provide a full range of test items correlated to the text. Available in Windows format, the computerized version of the printed test bank enables instructors to preview and edit test questions as well as add their own. The tests and answer keys can also be printed in "scrambled" format.
5. For professors interested in supplementing classroom presentations with on-line content or who are interested in setting up a *distance learning* course, Harcourt College Publishers can provide instructors with the industry's leading online courses. WebCT and Blackboard facilitate the creation of sophisticated Web-based educational environments. Also available is an online course management tool that allows instructors to distribute study materials provided by the publisher (supplemented by their own materials) to their students, communicate with them, and track their involvement in the course. For more information, contact your Harcourt sales representative. To view a demo of any of Harcourt's online courses, go to <webct.harcourtcollege.com>.
6. On our book website, instructors will find additional resources. The data sets required for the text's computer analysis problems, as well as the data files for both the authors' IDEA cases and for IDEA's own "Getting Started" student manual, are downloadable from this site.

Acknowledgments

Marvin Lewis	Lamar University, Beaumont, Texas
Mark Linville	Washington State University
Nicholas Mastracchio Jr.	State University of New York, Albany
Katherine S. Moffeit	Southwest Texas State University
Theria Perkins	University of Maine, Augusta
Srinivasan Ragothaman	University of South Dakota
Ronald Reed	University of Northern Colorado
Raymond Rigoli	Ramapo College, New Jersey
John T. Rigsby	Mississippi State University
Sharon Robinson	Frostburg State University
Cindy Seipel	New Mexico State University
Michael Shapeero	Bloomsburg University
James Swearingen	Weber State University
Mark Taylor	University of Nebraska
Karen Turner	Valdosta State University
Herbert Vessel	Southern University A&M College, Baton Rouge
Ralph Webb	Eastern Connecticut State University
Tom Weirich	Central Michigan University
T. Sterling Wetzel	Oklahoma State University
Kirkland A. Wilcox	University of Colorado, Colorado Springs
Jeanne H. Yamamura	University of Nevada, Reno

We are especially grateful to the following for their reviews of our proposal for the third edition:

Stephen Asare	University of Florida
Lori Fuller	University of Delaware
Jo Koehn	Central Missouri State University
Mark Linville	Washington State University
Jim Martin	University of Montevallo
John Rigsby	Mississippi State University
Sharon Robinson	Frostburg State University

·   The book is dedicated to our parents, who encouraged us and provided support for our professional development, and to our wives, Kathleen and Ellen Deane, for their love, patience, and help in encouraging us to continue with this endeavor to assist in the development of the next generation of professionals who pursue this wonderful career.

LARRY E. RITTENBERG
BRADLEY J. SCHWIEGER
August 2000