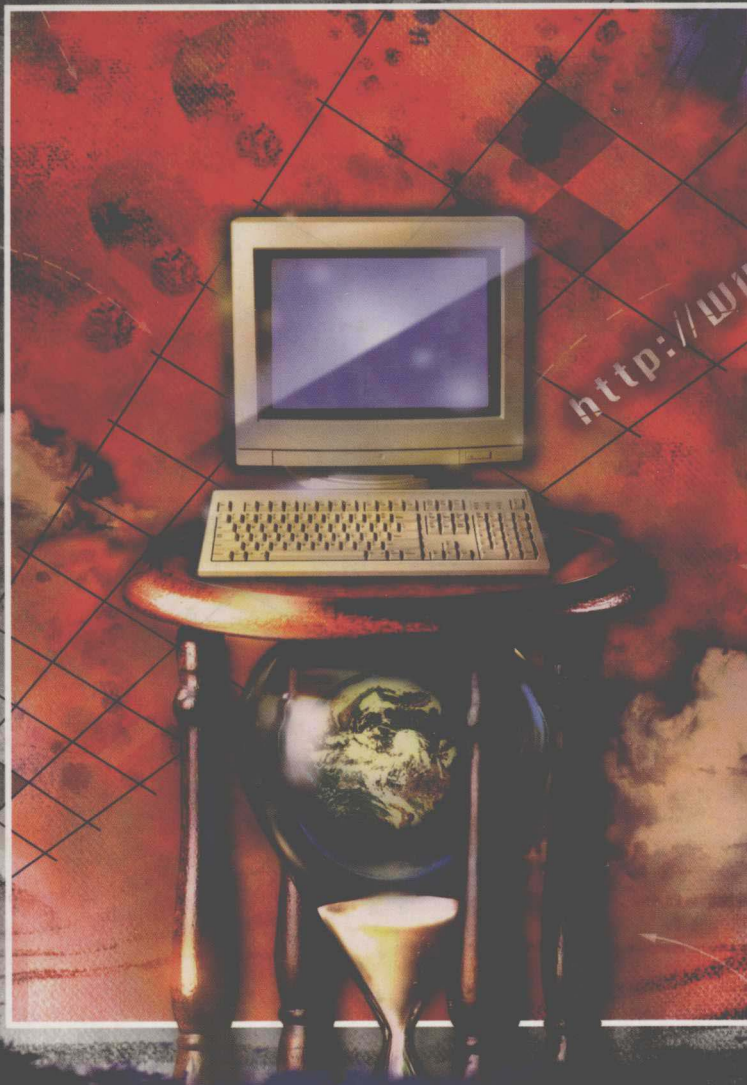


---

# THE FINANCIAL SYSTEM & THE ECONOMY

---

*PRINCIPLES OF MONEY & BANKING*



BURTON & LOMBRA

2ND EDITION

# THE FINANCIAL SYSTEM AND THE ECONOMY

**Principles of Money and Banking**

*Second Edition*

**MAUREEN BURTON**

*California State Polytechnic University—Pomona*

**RAY LOMBRA**

*Pennsylvania State University—University Park*



**South-Western College Publishing**  
Thomson Learning

Australia • Canada • Denmark • Japan • Mexico • New Zealand • Philippines  
Puerto Rico • Singapore • South Africa • Spain • United Kingdom • United States

Vice President/Publisher: Jack W. Calhoun  
Acquisitions Editor: Keri L. Witman  
Senior Development Editor: Susanna C. Smart  
Marketing Manager: Lisa L. Lysne  
Production Editor: Kara ZumBahlen  
Manufacturing Coordinator: Charlene Taylor  
Internal Design: Maureen McCutcheon  
Cover Design: Matulionis Photography + Design  
Cover Illustration: Cary Henrie  
Photo Researcher: Cary Benbow  
Production House: WordCrafters Editorial Services, Inc.  
Compositor: GGS Information Services  
Printer: World Color

COPYRIGHT ©2000 by South-Western College Publishing,  
a division of Thomson Learning. The Thomson Learning logo is a registered trademark used here  
under license.

Printed in the United States of America  
1 2 3 4 5 6 7 8 9 10

All Rights Reserved. No part of this work covered by the copyright hereon may be reproduced or used  
in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording,  
taping, or information storage and retrieval systems—without the written permission of the publisher.

For more information contact South-Western College Publishing, 5101 Madison Road, Cincinnati,  
Ohio, 45227 or find us on the Internet at <http://www.swcollege.com>

**For permission to use material from this text or product, contact us by**

- **telephone: 1-800-730-2214**
- **fax: 1-800-730-2215**
- **web: <http://www.thomsonrights.com>**

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

Burton, Maureen.

The financial system and the economy / Maureen Burton, Ray Lombra.  
—2nd ed.

p. cm.

Includes index.

ISBN 0-324-00439-7 (hard : alk. paper)

1. Finance. 2. Money. 3. Banks and banking. 4. Financial  
institutions. 5. Financial services industry. I. Lombra, Ray.

II. Title.

HG173.B87 2000

332.1—dc21

99-20821

This book is printed on acid-free paper.

## About the Authors

### Maureen Burton

---

Maureen Burton received a BA from the University of Missouri at Columbia in 1971, an MA from California State University, Fullerton in 1979, and a Ph.D. from the University of California at Riverside in 1986. All were in economics. She taught at Chaffey College from 1984 to 1987 and at Cal Poly Pomona since 1987, where she is a full professor, has been Coordinator of the Graduate Program, and is currently Chair of the Economics Department. In addition to other publications, she co-authored an introductory text, *Economics* (Harper Collins, 1987), with S. Craig Justice. Her main areas of research include monetary theory and financial markets.

### Ray Lombra

---

Born in Hamden, Connecticut, Ray Lombra received a BA in economics from Providence College in 1967 and an MA and Ph.D. from Penn State University in 1971. He served as a senior staff economist at the Board of Governors of the Federal Reserve System from 1971–1977 and specialized in financial markets analysis and the formulation and implementation of monetary policy. He joined the faculty of Penn State University in 1977, and has taught money and banking at the undergraduate level and monetary theory and policy at the graduate level for 23 years. He is a winner of the College distinguished teaching award for innovations and instruction and is the author and editor of 5 books and over 80 scholarly publications. Articles on monetary policy, the determination of interest rates, stock prices, and exchange rates, financial innovation, globalization, and expectations formation have appeared in leading journals including the *Quarterly Journal of Economics*, the *Journal of Money, Credit and Banking*, the *Journal of Monetary Economics*, and the *Review of Economics and Statistics*.

*To my husband, Al Gagnon  
and my mother, Isabella Burton*

—Maureen Burton

*To my mom and dad,  
Elsie and Gene Lombra*

—Ray Lombra

# Preface

## ***Introduction to the Text***

Financial markets and institutions have undergone significant changes in recent years. Technology, innovation, deregulation, competition, globalization, and financial crises have driven these transformations. The growth of international trade and flexible exchange rates have escalated the development of international currency markets. Financial institutions have entered nontraditional venues on both the liabilities and the assets side of their balance sheets. Laws forbidding interstate banking have been overturned, mega-mergers have occurred in the financial services industry, and market participants have developed creative ways to hedge risks. Controversy continues over monetary policy and the increasing need for international coordination. In the late 1990s, policymakers struggled to deal with international financial instability that was causing increased volatility in domestic financial markets. What started out as a currency crisis in Thailand spread to Asia, Latin America, Russia, and beyond. All of these anomalies are taking place in a world with competing views regarding the linkages between the real and financial sectors and the formulation and execution of monetary policy.

## ***Intended Audience***

*The Financial System and the Economy* covers the traditional material found in a money and banking text and incorporates many of the recent changes and controversies within the financial services industry. The text is intended for an introductory undergraduate course in money and banking or financial markets analysis taught in either an economics or a finance department. It may also be suitable for use in a financial markets course in an MBA program.

## ***Contents of the Text***

A strength of the text is its clear and engaging writing style and strong intuitive approach. It avoids the encyclopedic approach and seeks a balance among policy, theory, and institutions. Students find it easy to understand and enjoyable to read. The text uses many examples and analogies to illustrate how financial innovation, technological and structural change, and globalization affect the financial environment. Much attention is paid to how and why institutions evolve. Graphs are used sparingly and equations are used even more sparingly.

The chapters contain many features, including case studies and examples, historical and international perspectives, and projections about the future, that bring the material to life for students. Topics covered in these features include the collapse of Barings Bank and Orange County, California, paying bills over the phone, the current Federal Reserve Board, the use of intermediate targets since 1970, the bailout of Long Term Capital Management, a field guide to open market opera-

tions, the new U.S. currency, the causes of the Asian crisis, Europe's new single currency, the Phillips curve, how price expectations are formed, and many others.

The text contains annotated Suggested Readings sections that give the students some idea about how the readings relate to the material in the chapters. In addition, the Suggested Readings contain Internet addresses that pertain to the financial system.

Internet addresses also appear throughout the body of the text as margin notes to direct students to sites relevant to the topics being discussed. An appendix with descriptions of material found on the Internet and World Wide Web addresses relating to financial markets is available on the text Web site at <http://burton.swcollege.com>. Some chapters include review and analytical questions and problems that direct the student to go to an Internet address to locate and analyze financial market data.

### *New Chapters*

Two new chapters have been added to the second edition. The first is Chapter 10, *The Stock, Bond, and Mortgage Markets: Volatile Asset Prices*. Although a chapter on capital market assets has not traditionally been included in a money and banking text, this chapter was added due to recent price volatility in these markets. In an era of volatile asset prices—such as the 1990s—the Fed must be concerned about asset prices as well as the prices of goods and services in the real sector. Not only can inflation in asset markets spill over to the goods and services markets, but speculative bubbles in asset markets can also have detrimental effects on the real sector when they burst.

The second new chapter in this edition—Chapter 12, *The International Financial System*—was written to satisfy the need for additional international coverage. The ongoing globalization of finance suggests that we should not only incorporate international material throughout the text, but also add a separate chapter that provides the structure of international financial markets and institutions. International aspects of financial markets and institutions continue to be interspersed throughout the body of the text and in “Looking Out” sections. But now three chapters are devoted to international coverage: Chapter 9 analyzes exchange rate determination; the new Chapter 12 looks at the international financial system; and Chapter 26 looks at monetary policy in an increasingly globalized environment.

### *Other Special Coverage*

Several other features of *The Financial System and the Economy* deserve mention. First, Chapters 20 and 21 present unique coverage about the financial aspects of the behavior of households, firms, government, and the foreign sector. Sources and uses of funds statements from the flow of funds accounts for each sector are presented.

Chapter 22 uses the aggregate demand and aggregate supply model, developed without the use of the IS-LM framework, to explain macroeconomic equilibrium. Chapter 22 also presents a model of macroeconomic equilibrium from a flow of funds framework, stressing that the macroeconomy is in equilibrium when the desired net financial investment of surplus sectors is equal to the desired new financial deficits of deficit sectors. The sources and uses of funds for each sector developed in the previous two chapters are integrated into the complete model. Chapter 23 makes the analysis more dynamic by looking at various macroeconomic disturbances and the adjustments over time.

In addition to the traditional material covered in the policy section, the text looks in detail at how the Federal Open Market Committee makes decisions and how those decisions are implemented by the New York Fed.

### ***Organization of the Text***

*The Financial System and the Economy* is organized in six parts. Part I consists of a six-chapter introduction. The student is introduced to the economy, money and credit, financial intermediaries, the circular flow, the Federal Reserve System, and financial markets and products. Next, Part II consists of three chapters that focus on how interest rates and exchanges rates (financial prices) are determined.

Part III consists of three chapters on financial markets. In this section, two new chapters—one on the stock, bond, and mortgage markets and the other on the international financial system—are introduced. In addition, this section contains the chapter on futures, options, and swaps.

Part IV (five chapters) focuses on financial institutions and the forces that shape them. The roles of technology, competition, globalization, and regulations are emphasized in discussing how institutions evolve.

Part V (five chapters) covers monetary theory including the money supply process, the demand and supply of money and credit, and financial aspects of the behavior of households, firms, government, and the foreign sector. The aggregate demand and aggregate supply model is presented and integrated with a complementary model of macro-equilibrium based on the flow of funds between sectors.

Part VI (four chapters) analyzes monetary policy in an increasingly globalized environment and focuses on the formulation of monetary policy by the Federal Open Market Committee and the subsequent execution of the policy directive by the Trading Desk of the New York Fed. The role of the Fed watcher and the growing need for international coordination are also analyzed.

This text is designed to be flexible. After completing Part I, the instructor can emphasize financial prices (Part II), financial markets (Part III), financial institutions (Part IV), monetary theory (Part V), or monetary policy (Part VI) depending on the focus of the class. In parts that are not being emphasized, chapters may be skipped.

### ***Pedagogical Features of the Text***

In addition to presenting the material in a clear and concise manner, we have incorporated the following pedagogical tools to enhance the student's understanding:

- **Learning Objectives** at the beginning of each chapter tell the student where the chapter is heading and what questions will be answered by studying the chapter.
- **Recap** sections are dispersed throughout each chapter to summarize analytical material the student should know before moving forward and also to check if the student has mastered the preceding material.
- Highlighted features include:
  - **A Closer Look** boxes that delve more deeply into the topic being discussed and provide enhancement material.
  - **Looking Out** boxes that add relevant international material to show the interrelationships of global financial systems.
  - **Looking Back** boxes that provide the historical background of current economic circumstances.

- **Looking Forward** boxes that make projections about possible future developments in the financial system and global economies.
- **Cracking the Code** features show students how to interpret the financial pages of daily newspapers, including futures and options prices and stock, bond, and Treasury bill quotes.
- **Key Terms** appear in boldface type in the text where they are defined, are listed at the end of each chapter, and also appear in the margins with definitions.
- **Summary of Major Points** features are chapter summaries intended to reinforce the chapter content and aid in study for exams and quizzes. The summaries also provide another check for students to make sure they have not missed an important concept of the chapter.
- End-of-chapter materials include:
  - Annotated **Suggested Readings** that direct the student to related materials and include relevant information available on the Internet.
  - **Review Questions, Analytical Questions, and Internet Questions** appear at the end of each chapter.
- A **Glossary** can be found at the end of the text.

### ***Supplements to the Text***

A number of supplements are available to accompany *The Financial System and the Economy*:

- **Study Guide.** Written by Reynold F. Nesiba of Augustana College, the Study Guide provides chapter outlines and review questions to reinforce learning. Its features include Highlights in Detail, Terms and Concepts with definitions, Fill-in questions by topic, True/False, Multiple Choice, and Essay Questions, and Problems, all with answers at the end of each chapter. Answers to True/False and Essay Questions and Problems include detailed explanations.
- **Instructor's Manual.** Prepared by Meenakshi Rishi of Ohio Northern University, this manual includes chapter summaries, teaching tips, and solutions to all chapter questions.
- **Test Bank.** Substantially revised by Reynold F. Nesiba of Augustana College, the Test Bank contains multiple choice questions for each chapter.
- **Thomson World Class Testing Tools™.** The *Thomson World Class Testing Tools™* computerized testing program contains all of the questions in the printed Test Bank. *Thomson World Class Testing Tools™* is an easy-to-use text creation software compatible with Microsoft Windows. Instructors can add or edit questions, instructions, and answers and select questions by previewing them on the screen, selecting them randomly, or selecting them by number. Instructors can also create and administer quizzes online, whether over the Internet, a local area network (LAN), or a wide area network (WAN).
- **PowerPoint™ Slides.** PowerPoint presentation slides have been completely revised for this edition by Kenneth Long of New River Community College. These user-friendly slides can serve as lecture enhancement for instructors, as well as study aids for students. They are available on the text Web site.
- **Transparency Acetates.** Acetates of important figures from the text add to the presentation package.
- **Text Web Site.** The text Web site at <http://burton.swcollege.com> provides a wealth of resources for students and instructors alike. The site contains Learning and Teaching Resources consisting of features such as Internet updates and direct links to sites from the text, EonNews Online, EconDebate

Online, CaseNet, Teaching Economist, Careers in Economics, Talk to the Author, and others.

## Acknowledgments

Many people have made important contributions to this text. Special thanks go to Jack Calhoun, Keri Whitman, and Susan Smart, editors at South-Western College Publishing who were always supportive, creative, and helpful. The text's production editor, Kara ZumBahlen, did a first-rate job. All of our editors provided immediate answers, support, and assistance. We are glad to have the opportunity to work with such professionals.

Other people also deserve special recognition. Professor Emeritus George Galbreath, who spent 40 years teaching money and banking in the California State University System, read every word of the original manuscript and gave invaluable suggestions to both editions. Professors James Sutton and Mohammad Safarzadeh of California State Polytechnic University, Pomona, also were of great help. Dr. Bryan Taylor of Global Financial Data read much of the manuscript, answered numerous questions, provided much data, and gave invaluable criticisms and suggestions.

In addition to the students who gave assistance on the first edition, I am indebted to Benton Wolverton, Pooya Safarzadeh, and Vera Fleischer for their research assistance on this edition. We would also like to thank the following reviewers of this and the first edition, whose comments were greatly appreciated.

William L. Beaty <i>Tarleton State University</i>	Nell S. Gullett <i>University of Tennessee at Martin</i>	Athanasios G. Noulas <i>Seton Hall University</i>
Gene Boni <i>County College of Morris</i>	Bassam E. Harik <i>Western Michigan University</i>	Clifford Nowell <i>Weber State University</i>
David W. Brasfield <i>Murray State University</i>	John J. Hatem <i>Georgia Southern University</i>	James E. Payne <i>Eastern Kentucky University</i>
James R. Bruehler <i>University of Illinois at Urbana-Champaign</i>	Paul A. Heise <i>Lebanon Valley College of Pennsylvania</i>	Ronnie J. Phillips <i>Colorado State University</i>
Catherine Carey <i>Western Kentucky University</i>	Colleen F. Johnson <i>Eastern Oregon State College</i>	Susanne M. Polley <i>SUNY—Cortland</i>
John E. Charalambakis <i>Asbury College</i>	Richard H. Keehn <i>University of Wisconsin—Parkside</i>	Meenakshi Rishi <i>Ohio Northern University</i>
Maureen E. Dunne <i>Framingham State College</i>	Robert J. Korbach <i>University of North Dakota</i>	Carol Rowey <i>Community College of Rhode Island</i>
Frank Falero <i>California State University, Bakersfield</i>	James W. Lynch <i>Robert Morris College</i>	William C. Schaniel <i>West Georgia College</i>
James R. Frederick <i>Pembroke State University</i>	Jessica J. McCraw <i>University of Texas at Arlington</i>	Thomas Schellberg <i>Casper College</i>
Shirley J. Gedeon <i>University of Vermont</i>	Michael S. Miller <i>DePaul University</i>	M. Scott Shepherd <i>Southern Illinois University at Edwardsville</i>
Harry Greenbaum <i>South Dakota State University</i>	Joe L. Moore <i>Arkansas Tech University</i>	Richard M. Simon <i>Ohio Northern University</i>

Robert Sorenson  
*University of Missouri—St. Louis*

K. P. Sridharan  
*Delta State University*

Stacey L. Suydam  
*Montana State University—  
Billings*

John A. Swiger  
*Our Lady of the Lake University*

Paul M. Taube  
*The University of Texas—Pan  
American*

Daniel Teferra  
*Ferris State University*

Roy Van Til  
*University of Maine at  
Farmington*

Duncan R. Tye  
*Western Carolina University*

Fred Wallace  
*Appalachian State University*

Samuel C. Webb  
*Wichita State University*

Pamela Whalley  
*Western Washington University*

Laura Wolff  
*Southern Illinois University at  
Edwardsville*

# Brief Contents

## PART ONE

---

### Introduction

1	Introduction and Overview	2
2	Principles of Money	20
3	The Role of Money and Credit	37
4	Analysis of the Financial System and the Economy	56
5	The Overseer: The Federal Reserve System	76
6	Financial Markets, Instruments, and Participants	97

## PART TWO

---

### Financial Prices

7	Interest Rates and Bond Prices	120
8	The Structure of Interest Rates	142
9	How Exchange Rates Are Determined	164

## PART THREE

---

### Financial Markets

10	The Stock, Bond, and Mortgage Markets: Volatile Asset Prices	190
11	Futures, Options, and Swaps: Managing Risk	217
12	The International Financial System	241

## PART FOUR

---

### Financial Institutions

13	Financial Intermediaries	266
----	--------------------------	-----

14	Commercial Banking Structure, Regulation, and Performance	291
15	Financial Innovation	318
16	Strains on the Financial System	340
17	Regulation in the Financial Services Industry	362

## PART FIVE

---

### Monetary Theory

18	The Fed, Depository Institutions, and the Money Supply Process	382
19	The Demand for Real Money Balances and Market Equilibrium	412
20	Financial Aspects of Household and Firm Behavior	440
21	Financial Effects of the Government and Foreign Sectors	465
22	Aggregate Demand and Aggregate Supply	490

## PART SIX

---

### Monetary Policy

23	The Challenges of Monetary Policy	516
24	The Process of Monetary Policy Formulation	542
25	Fed Watching and Policy Implementation	563
26	Monetary Policy: Exchange Rates and Global Coordination	582

# Contents

## PART ONE

### Introduction

#### Chapter 1

#### Introduction and Overview

What This Book Is About	
Economic and Financial Analysis of an Ever Changing System	
Finance in Our Daily Lives	
Introducing the Financial System	
More on Financial Intermediaries	
<i>Depository Institutions and Other Types of Intermediaries</i>	
The Federal Reserve System	
The Role of Policy: Changing Views	
Summary of Major Points	

#### Chapter 2

#### Principles of Money

Conceptualization: A Key Building Block	21
Defining Money	21
<b>A Closer Look:</b> Money, Exchange, and Economic Development	23
The Monetary Aggregates and Domestic Nonfinancial Debt	23
<i>The Monetary Aggregates</i>	25
<b>A Closer Look:</b> Money and Other Financial Claims	27
<i>Domestic Nonfinancial Debt</i>	28
<i>The Economy and the Aggregates</i>	28
<b>Looking Forward:</b> United States to Get New Currency	30
The Evolution of the Payments System	30
<b>A Closer Look:</b> Forget Your Checkbook	33
Summary of Major Points	34

#### Chapter 3

#### The Role of Money and Credit

37

Money and Credit Matter	38
The Demand for and Supply of Money	38
<i>The Demand for Money</i>	39
<b>Cracking the Code:</b> Graphical Analysis	40
<i>The Supply of Money</i>	41
<i>Money and Interest Rates</i>	42
How Credit Matters: A First Approximation	44
Money, Credit, and the Economy: A Peek at the Data	45
<b>A Closer Look:</b> Recent Innovations in Credit Extension	46
<b>Looking Back:</b> A Brief History of U.S. Currency	48
<b>Cracking the Code:</b> Measuring the Inflation Rate	50
Are Money and Credit All That Matter?	50
<i>Money and Credit Flows: First Fiddle or Second Fiddle</i>	51
Summary of Major Points	52

#### Chapter 4

#### Analysis of the Financial System and the Economy

56

The Trees versus the Forest	57
Spending, Saving, Borrowing, and Lending	57
<i>A Typical Household</i>	58
<i>A Typical Firm</i>	59
<i>From J. P. and APEI to the Economy as a Whole: Aggregation</i>	59
The Circular Flow of Income, Expenditures, and Funds	61
<i>The Product Market</i>	63
<i>The Factor Market</i>	65
<i>The Financial System</i>	66
Maximization: Plans, Revisions, and Actions	68

Summary of Major Points	71	<i>Market Making and Liquidity</i>	112
<b>Appendix 4-A:</b> Interest Rates: Which Theory Is Correct? Reconciling Stocks and Flows	74	<i>Substitutability, Market Making, and Market Integration</i>	113
		Summary of Major Points	115
 Chapter 5		 PART TWO	
<b>The Overseer: The Federal Reserve System</b>	<b>76</b>	<b>Financial Prices</b>	
Unraveling the Fed's Mystique	77	 Chapter 7	
Organizational Structure of the System	77	<b>Interest Rates and Bond Prices</b>	<b>120</b>
<b>Looking Back:</b> Early Attempts at Establishing a Central Bank	78	The Present versus the Future	121
<i>Board of Governors</i>	78	The Time Value of Money	121
<b>A Closer Look:</b> The Board of Governors	79	Compounding and Discounting	122
<i>Federal Reserve Banks</i>	80	<i>Compounding: Future Values</i>	122
<i>Federal Open Market Committee (FOMC)</i>	80	<i>Discounting: Present Values</i>	124
The Fed's Functions	82	Interest Rates, Bond Prices, and Present Values	126
<i>Formulation and Implementation of Monetary Policy</i>	82	<i>Fluctuations in Interest Rates and Managing a Bond Portfolio</i>	128
<i>Supervision and Regulation of the Financial System</i>	83	The Determinants of Interest Rates	129
<i>Facilitation of the Payments Mechanism</i>	85	<i>Changes in the Demand for Loanable Funds</i>	130
<i>Operation as Fiscal Agent for the Government</i>	85	<i>Changes in the Supply of Funds</i>	131
The Fed's Major Policy Tools	86	Inflation and Interest Rates	133
<i>Open Market Operations</i>	86	<i>The Cyclical Movement of Interest Rates</i>	137
<i>The Discount Rate and Discount Rate Policy</i>	87	Summary of Major Points	137
<i>Reserve Requirements</i>	88	<b>Appendix 7-A:</b> The Inverse Relationship between Bond Prices and Interest Rates: The Case of Consols	140
Who Does What within the Fed	89	 Chapter 8	
The Federal Reserve System: An Independent Watchdog, Convenient Scapegoat, or Cunning Political Animal?	90	<b>The Structure of Interest Rates</b>	<b>142</b>
<b>Looking Out:</b> Central Bank Independence and Macroeconomic Performance	92	From One Interest Rate to Many	143
Summary of Major Points	94	The Role of Term to Maturity in Interest Rate Differentials	143
 Chapter 6		<i>The Yield Curve</i>	144
<b>Financial Markets, Instruments, and Participants</b>	<b>97</b>	The Expectations Theory	145
Game Talk	98	<i>Determining Interest Rate Expectations</i>	150
Introducing Financial Markets	98	<i>Tying the Determinants of Expectations to the Changing Shape and Level of Yield Curves</i>	151
Major Financial Market Instruments	101	Some Necessary Modifications to the Expectations Theory	153
<i>Money Market Instruments</i>	101	The Role of Credit Risk and Taxes in Interest Rate Differentials	156
<b>Cracking the Code:</b> Treasury Bills	103	<i>Credit Risk</i>	156
<i>Capital Market Instruments</i>	106	<i>Taxability</i>	157
<b>Looking Forward:</b> The World's Newest Currency	107	Summary of Major Points	160
<b>A Closer Look:</b> Following the Financial News	110		
The Role of Market Makers	110		
<i>Why Market Makers Make Markets</i>	112		

## Chapter 9

**How Exchange Rates Are Determined** 164

The More Things Change, the More Things Stay the Same 165

Defining Exchange Rates 165

**Cracking the Code:** How Movements in the Exchange Rate Affect the Dollar Price of Foreign Goods 167

Determining Exchange Rates 167

*The Demand for Dollars in the Foreign Exchange Market* 168**Cracking the Code:** Finding the Yen/Mark Exchange Rate 169**Cracking the Code:** The Cost of an IBM Computer in Japan 170*The Supply of Dollars in the Foreign Exchange Market* 171

Changes in Supply and Demand and How They Affect the Exchange Rate 172

Defining the Balance of Payments and Its Influence on the Exchange Rate, the Financial System, and the U.S. Economy 176

*The Current Account* 177**Looking Out:** The Path to a Single European Currency 178*The Capital Account* 179*The Balance of Payments and the Exchange Rate* 179**Looking Back:** The Gold Standard 180**A Closer Look:** Appreciation, Depreciation, and Appreciation: Causes and Consequences of Dollar Exchange Rate Movements Since 1980 181

Summary of Major Points 183

**Appendix 9-A:** Expansionary Monetary Policy and Restrictive Fiscal Policy: A Scenario 187

## PART THREE

**Financial Markets**

## Chapter 10

**The Stock, Bond, and Mortgage Markets: Volatile Asset Prices** 190

The Implications of Volatile Stock, Bond, and Mortgage Prices 191

**Looking Back:** Famous Financial Quotations from Just Before the Stock Market Crash of 1929 192**Looking Out:** The Japanese Bubble Economy of the 1980s 193

The Stock Market 194

*The Organized Exchanges* 195**A Closer Look:** Stock Market Indexes: Is the Most Famous the Best? 196**Cracking the Code:** The Stock Market 197*The Over-the-Counter Market* 198**Looking Back:** Would You Buy a "Seat" on the New York Stock Exchange for \$400? 199*The Mutual Fund Market* 199**Looking Forward:** Will the Trading Specialist Go the Way of the Dinosaur? 200**A Closer Look:** New Circuit Breaker Rules Implemented on the New York Stock Exchange 201

The Bond Market 203

*The Corporate Bond Market* 203**A Closer Look:** A Sample of the Types of Mutual Funds 204*The Treasury Bond Market* 205**Cracking the Code:** Corporate Bonds 206*Municipal and Government Agency Securities* 207**Cracking the Code:** Treasury Bonds 208

The Mortgage Market 209

*Secondary Markets in Mortgages* 210

Summary of Major Points 211

**Appendix 10-A:** How Expected Rates of Return Affect the Prices of Stocks, Bonds, and Mortgages 215

## Chapter 11

**Futures, Options, and Swaps: Managing Risk** 217

A Single Solution 218

Forward Transactions and Financial Futures 218

**A Closer Look:** Futures, Exchanges That Trade Financial Futures, Minimum Amounts, and Open Interest 221**A Closer Look:** A Credit Union Enters the Futures Market 223**Cracking the Code:** Futures Prices 224**A Closer Look:** LHT Inc. Enters the Futures Market 225

Determining the Futures Price 226

Options 227

**A Closer Look:** Stock Index Futures and the '87 Crash 228*Put Options* 229**A Closer Look:** Major Options, Exchanges, and Open Interest 230

<i>Call Options</i>	231	<b>A Closer Look:</b> FIs as Firms	269
<i>The Option Premium</i>	231	Types of Risks Faced by All FIs	271
Swaps	232	<i>Credit or Default Risk</i>	271
<b>Cracking the Code:</b> Cracking the Code on Options	233	<i>Interest Rate Risk</i>	272
Summary of Major Points	235	<i>Liquidity Risk</i>	272
<b>Appendix 11-A:</b> The Foreign Exchange Futures Market	238	<i>Exchange Rate Risk</i>	273
<b>Appendix 11-B:</b> Determining the Option Premium	240	A Guide to FIs and Their Balance Sheets	273
		<i>Deposit-Type FIs</i>	274
		<i>Contractual-Type FIs</i>	279
		<i>Investment-Type FIs</i>	282
		<i>Finance Company-Type FIs</i>	283
		Pulling Things Together	284
		Summary of Major Points	287
<b>Chapter 12</b>			
<b>The International Financial System</b>	<b>241</b>	<b>Chapter 14</b>	
The Changing International Financial System	242	<b>Commercial Banking Structure, Regulation, and Performance</b>	<b>291</b>
<b>A Closer Look:</b> International Money and Capital Market Assets	243	The Biggest Intermediary in Town	292
The International Financial System from 1944 to 1973	244	The Banking Regulatory Structure	293
The Managed Float Exchange Rate System since 1973	246	<b>Looking Back:</b> The Origins of the Dual Banking System	294
<b>A Closer Look:</b> The Foreign Exchange Market	248	The Structure of the Commercial Banking System	296
<i>Futures, Options, Forward Contracts, and Swaps under the Managed Float</i>	249	The Definition of a Bank Holding Company	300
<b>Cracking the Code:</b> The Foreign Exchange Market	252	Ongoing Changes in the Structure of the Banking Industry	303
<i>The Role of the Dollar under the Managed Float</i>	252	<b>A Closer Look:</b> Megamergers of the Late 1990s	305
Major International Financial Institutions	254	The Evolution of International Banking	306
<i>The International Monetary Fund (IMF)</i>	254	Bank Management: Managing Risk and Profits	307
<i>The World Bank</i>	256	<i>Managing Risk</i>	309
<b>A Closer Look:</b> The Role of the IMF in the Asian Crisis	257	Bank Performance	309
<i>The Bank for International Settlements (BIS)</i>	258	Summary of Major Points	312
<b>Looking Forward:</b> A Framework for International Financial Stability	259	<b>Appendix 14-A:</b> A More In-Depth Look at the Major Assets of Commercial Banks	315
Summary of Major Points	260		
		<b>Chapter 15</b>	
		<b>Financial Innovation</b>	<b>318</b>
<b>PART FOUR</b>		The Road from There to Here	319
<b>Financial Institutions</b>		Major Causes of Financial Innovation	319
		The Beginning Regulatory Structure	320
<b>Chapter 13</b>		The Analytic Foundations of Financial Innovation	321
<b>Financial Intermediaries</b>	<b>266</b>	Early Financial Innovations for Banks	325
Are All Financial Intermediaries More or Less Alike?	267	<b>A Closer Look:</b> The Anatomy of Eurodollar Borrowing	327
Common Characteristics	267		

<b>A Closer Look:</b> The Development of the Eurodollar Market	328
Deregulation	329
<b>A Closer Look:</b> The Changing Composition of Liabilities of Large Commercial Banks	330
Financial Innovation in Recent Years: Derivatives and Securitization	331
<b>A Closer Look:</b> Securitization of Small Business Loans	333
<b>Looking Forward:</b> The Electronic Purse: An Innovation in the Making	334
Other Characteristics of the Financial System	334
<b>Looking Forward:</b> The Financial System of the Future	335
Summary of Major Points	337

## Chapter 16

### Strains on the Financial System 340

Memory Is the Thing You Forget With Financial Intermediation, Risk, and Financial Crises	341
	342
<b>A Closer Look:</b> The Classic Debt Deflation	344
The Problem of Moral Hazard in Financial Intermediation	346
<b>A Closer Look:</b> The Bailout of Long-Term Capital Management	348
The Savings and Loan Debacle	350
<b>Looking Out:</b> The Japanese Banking Crisis	352
Other Areas of Concern	354
<i>Off-Balance-Sheet Activities</i>	354
<i>Derivatives</i>	354
<b>A Closer Look:</b> The Lincoln Savings Scandal	355
<b>A Closer Look:</b> The Collapse of a California County and a British Bank	356
<i>The Eurodollar and Eurobond Markets</i>	358
Summary of Major Points	359

## Chapter 17

### Regulation in the Financial Services Industry 362

The Role of Regulation	363
The How and Why of Financial Services Regulation	364
Recent Major Legislation	365
<i>Basel Accord</i>	365
<b>A Closer Look:</b> Regulators in the Financial Services Industry	366

<i>Financial Institutions Reform, Recovery, and Enforcement Act of 1989</i>	366
<b>Looking Out:</b> Basel Committee Announces 25 Core Principles for Effective Bank Supervision	368
<i>Federal Deposit Insurance Corporation Improvement Act of 1991</i>	369
<b>A Closer Look:</b> Bank Capital Standards under the Basel Accord	370
<i>Community Reinvestment Act</i>	372
<i>Interstate Banking and Branching Efficiency Act of 1994</i>	373
<b>Looking Back:</b> Remedies for a Credit Crunch	374
Other Possible Areas of Reforms	375
<b>Looking Back:</b> A Time Line of Banking Legislation	376
Summary of Major Points	377

## PART FIVE

### Monetary Theory

## Chapter 18

### The Fed, Depository Institutions, and the Money Supply Process 382

Where Money Comes From	383
The Fed and Bank Reserves	383
<i>Open Market Operations</i>	383
<i>Discount Loans</i>	385
<i>Other Factors That Change Reserves</i>	386
Loan and Deposit Expansion by the Banking System	387
The Simple Multiplier Model of the Money Supply Process	391
<i>Policy Implications</i>	395
Some Complicating Realities in the Multiplier Model	396
<i>Modifying the Multiplier Model</i>	396
<b>Looking Back:</b> The Money Multiplier During the Great Depression	398
<i>The Fed's Control over the Money Supply</i>	400
<b>Looking Back:</b> The Evolution of the Money Multiplier	401
Summary of Major Points	402
<b>Appendix 18-A:</b> Other Factors That Affect the Monetary Base	405
<b>Appendix 18-B:</b> The M2 Multiplier	410