

The Economics  
*of*  
Money, Banking,  
*and*  
Financial Markets

*Sixth  
Edition*



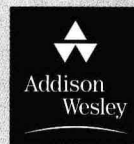
FREDERIC S. MISHKIN

# The Economics *of* Money, Banking, *and* Financial Markets

*Sixth Edition*

Frederic S. Mishkin

*Columbia University*



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Financial Markets

*Sixth Edition*



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*To Sally*

# ***PREFACE***

I have continually strived to improve this textbook with each new edition, and the Sixth Edition of *The Economics of Money, Banking, and Financial Markets* is no exception. The text has undergone a major revision, but it retains the basic hallmarks that have made it the best-selling textbook on money and banking in the past five editions:

- A unifying, analytic framework that uses a few basic economic principles to organize students' thinking about the structure of financial markets, the foreign exchange markets, financial institution management, and the role of monetary policy in the economy
- A careful, step-by-step development of models, an approach found in the best principles of economics textbooks, that makes it easier for students to learn
- The complete integration of an international perspective throughout the text
- A thoroughly up-to-date treatment of the latest developments in monetary theory
- Special features called "Following the Financial News" and "Reading the *Wall Street Journal*" to encourage reading of a financial newspaper
- An applications-oriented perspective with numerous applications and special-topic boxes that increase students' interest by showing them how to apply theory to real-world examples

## **WHAT'S NEW IN THE SIXTH EDITION**

In addition to the expected updating of all data through the end of 1999 whenever possible, there is major new material in every part of the text.

### **Monetary Policy Strategy: The International Experience**

My time spent in the Federal Reserve System stimulated my research and thinking on monetary policy strategy and in turn led me to write an entirely new chapter (Chapter 20) that looks in detail at different monetary policy strategies used by central banks throughout the world. This chapter substantially expands on the material in the previous edition on monetary targeting and inflation targeting, two prominent monetary policy strategies. In addition, it discusses exchange-rate strategies, including currency boards and dollarization, both of which have received a lot of attention lately. The chapter has an unabashedly international perspective because we in the United States have a lot to learn from the monetary experience in other countries.



## **Increased International Perspective**

The growing importance of the global economy continues to encourage me to add new material with an international perspective. This edition includes:

- Extensive treatment of the crisis in East Asia, with applications on the sequence of events in the financial crisis (Chapter 8), the specifics of the banking crisis in the affected countries (Chapter 11), and the currency crisis (Chapter 19)
- New sections on capital controls and the role of the International Monetary Fund in preventing financial crises (Chapter 19)
- Detailed analysis of the introduction of the euro, including discussion of whether it will benefit Europe (Chapter 3), how it has fared in the currency markets in its first year (Chapter 7), and whether it will challenge the dollar as a reserve currency (Chapter 19)
- Examination of the structure and independence of the newly created European Central Bank, with updates on the changes in the structure and independence of the Bank of England and the Bank of Japan (Chapter 14)
- A full discussion of recent events in the Japanese economy and why they have occurred, including the appearance of negative interest rates (Chapters 4 and 5), the banking crisis (Chapter 11), the recent reforms affecting the Bank of Japan and the Ministry of Finance (Chapter 14), and recent monetary policy (Chapter 20)

## **New Material on Financial Markets and Institutions**

Continuing changes in financial markets and institutions have prompted me to include the following new material:

- Discussion of the Gramm-Leach-Bliley Financial Services Modernization Act of 1999, which overturned the Glass-Steagall separation of the banking and securities industries (Chapters 10, 11, and 12)
- Analysis of recent developments in financial consolidation, especially the Citicorp-Travelers merger, and the possible return of the financial supermarket (Chapters 10 and 12)
- Updated coverage of credit unions, including the new laws affecting the common bond requirement (Chapter 10)
- Discussion of the most recent proposals for fixing the Social Security system (Chapter 12)
- A new section on hedge funds, outlining the factors that caused the near failure of Long-Term Capital Management (Chapter 12)

## **New Material on Monetary Theory and Policy**

Besides the new Chapter 20 on monetary policy strategies, I have added the following material on monetary theory and policy:

- A new section on the market for reserves and the determination of the federal funds rate (Chapter 18)
- A new section on the role of NAIRU, the Phillips curve, and the Taylor Rule in the conduct of monetary policy (Chapter 18)
- Examination of the effects of the favorable supply shocks on the economy during 1995–1999 (Chapter 24)



## Streamlined Organization

Helpful comments from reviewers have also encouraged me to improve the flow of the text and streamline the organization. The previous edition's chapter on portfolio choice has been eliminated, and essential material from this chapter has been incorporated in Chapter 5, on the behavior of interest rates. The material in Chapter 13 on financial derivatives has been shortened considerably to focus on issues most relevant to the student.

## FLEXIBILITY

In using previous editions, adopters, reviewers, and survey respondents have continually praised this text's flexibility. There are as many ways to teach money, banking, and financial markets as there are instructors. To satisfy the diverse needs of instructors, the text achieves flexibility as follows:

- Core chapters provide the basic analysis used throughout the book, and other chapters or sections of chapters can be used or omitted according to instructor preferences. For example, Chapter 2 introduces the financial system and basic concepts such as transaction costs, adverse selection, and moral hazard. After covering Chapter 2, the instructor may decide to give more detailed coverage of financial structure by assigning Chapter 8, or may choose to skip Chapter 8 and take any of a number of different paths through the book.
- The text also allows instructors to cover the most important issues in monetary theory and policy without having to use the *ISLM* model in Chapters 22 and 23, while more complete treatments of monetary theory make use of the *ISLM* chapters.
- The internationalization of the text through marked international sections within chapters as well as through complete separate chapters on the foreign exchange market and the international monetary system is comprehensive yet flexible. Although many instructors will teach all the international material, others will not. Instructors who want less emphasis on international topics can easily skip Chapter 7, on the foreign exchange market, and Chapter 19, on the international financial system and monetary policy. The international sections within chapters are self-contained and can be omitted with little loss of continuity. Instructors who would like to teach material on the foreign exchange market later in the course can teach Chapter 7 just before Chapter 19.

To illustrate how this book can be used for courses with varying emphases, several course outlines are suggested for a semester teaching schedule. More detailed information about how the text can be used flexibly in your course is available in the Instructor's Manual.

*General Money and Banking Course:* Chapters 1–5, 9–11, 14, 17, 18, 24, 26, with a choice of 6 of the remaining 14 chapters.

*General Money and Banking Course with an International Emphasis:* Chapters 1–5, 7, 9–11, 14, 17–19, 24, with a choice of 4 of the remaining 12 chapters.

*Financial Markets and Institutions Course:* Chapters 1–6, 8–13, 27, with a choice of 6 of the remaining 14 chapters.

*Monetary Theory and Policy Course:* Chapters 1–5, 14–18, 20, 21, 24–26, with a choice of 4 of the remaining 13 chapters.

## AN EASIER WAY TO TEACH MONEY, BANKING, AND FINANCIAL MARKETS

The demands for good teaching have increased dramatically in recent years. To meet these demands, for the previous edition and this edition alike, I have provided the instructor with new supplementary materials, unavailable with any competing text, that should make teaching this course substantially easier.

This edition of the book comes not only with full-color PowerPoint electronic transparencies of all the figures and tables in the book but also with full-color overhead transparencies. Furthermore, the Instructor's Manual contains transparency masters of the lecture notes, perforated so that they can easily be detached for use in class.

The lecture notes are comprehensive and outline all the major points covered in the text. They have been class-tested successfully—they are in fact the notes that I use in class—and they should help other instructors prepare their lectures as they have helped me. Some instructors might use these lecture notes as their own class notes and prefer to teach with a blackboard. But for those who prefer to teach with visual aids, the PowerPoint presentation and the full-color transparencies of the figures and tables afford the flexibility to take this approach.

I am also aware that many instructors want to make variations in their lectures that depart somewhat from material covered in the text. For their convenience, the entire set of lecture notes has been put on the Instructor's Resource CD-ROM using Word. Instructors can modify the lecture notes as they see fit for their own use, for class handouts, or for transparencies to be used with an overhead projector.

The Instructor's Resource CD-ROM also offers the entire contents of the Instructor's Manual, which includes chapter outlines, overviews, and teaching tips; answers to the end-of-chapter problems that are not included in the text; and discussion questions. Using this handy feature, instructors can prepare student handouts such as solutions to problem sets made up of end-of-chapter problems, the outline of the lecture that day, or essay discussion questions for homework. I have used handouts of this type in my teaching and have found them to be very effective. Instructors have my permission and are encouraged to photocopy all of the materials on the CD-ROM and use them as they see fit in class.

## SUPPLEMENTS PROGRAM TO ACCOMPANY THE SIXTH EDITION

*The Economics of Money, Banking, and Financial Markets*, Sixth Edition, includes the most comprehensive program of supplements of any money, banking, and financial markets textbook. These items are available to qualified domestic adopters but in some cases may not be available to international adopters.

### For the Professor

1. **Instructor's Resource Manual**, a print supplement prepared by me and offering conventional elements such as sample course outlines, chapter outlines, and answers to questions and problems in the text. In addition, the

manual contains my **Lecture Notes**, numbering more than 300, in transparency master format; these notes comprehensively outline the major points covered in the textbook.

2. **Instructor's Resource CD-ROM**, which conveniently holds the Word files to the Instructor's Manual, the Computerized Test Bank, and the PowerPoint Lecture Presentation.
3. **Full-Color Transparencies**, numbering over 150, for *all* of the figures, tables, and summary tables.
4. **PowerPoint Electronic Lecture Presentation**, numbering more than 300 images, which include all the book's figures and tables in full color, plus the lecture notes. Available on the Instructor's Resource CD-ROM.
5. **Printed Test Bank**, comprising more than 2500 multiple-choice test items, many with graphs.
6. **Computerized Test Bank**, allowing the instructor to produce exams efficiently. This product consists of the multiple-choice items in the printed Test Bank and offers editing capabilities. It is available in Macintosh and Windows versions on the Instructor's Resource CD-ROM.
7. **Mishkin Web Site**, located at [www.awlonline.com/mishkin](http://www.awlonline.com/mishkin), which features teaching tips, links to relevant data sources and Federal Reserve Web sites, and other resources for the instructor, and provides for the student the *Readings in Money, Banking, and Financial Markets* described below.

### For the Student

1. **Study Guide and Workbook**, prepared by John McArthur of Wofford College and me, which includes chapter synopses and completions, exercises, self-tests, and answers to the exercises and self-tests.
2. **Readings in Money, Banking, and Financial Markets**, edited by James W. Eaton of Bridgewater College and me, updated annually, with over half the articles new each year to enable instructors to keep the content of their course current throughout the life of an edition of the text. The readings are available on the Mishkin Web site.
3. Mishkin Web Site, located at [www.awlonline.com/mishkin](http://www.awlonline.com/mishkin), which, in addition to the Readings described above, provides a self-testing quiz for each chapter, a weekly current events feature based on the *Wall Street Journal*, additional articles and supplemental materials, and other study tools such as minicases.

### PEDAGOGICAL AIDS

In teaching theory or its applications, a textbook must be a solid motivational tool. To this end, I have incorporated a wide variety of pedagogical features to make the material easy to learn.

1. **Previews** at the beginning of each chapter tell students where the chapter is heading, why specific topics are important, and how they relate to other topics in the book.
2. **Applications**, numbering over 50, demonstrate how the analysis in the book can be used to explain many important real-world situations. A special set of

applications, called “Reading the *Wall Street Journal*,” shows students how to read daily columns in this leading financial newspaper.

3. **“Following the Financial News” boxes** introduce students to relevant news articles and data that are reported daily in the press, and explain how to read them.
4. **“Inside the Fed” boxes** give students a feel for what is important in the operation and structure of the Federal Reserve System.
5. **Special-interest boxes** highlight dramatic historical episodes, interesting ideas, and intriguing facts related to the subject matter.
6. **Study Guides** are highlighted statements scattered throughout the text that provide hints to the student on how to think about or approach a topic.
7. **Summary tables** provide a useful study aid in reviewing material.
8. **Key statements** are important points set in boldface italic type so that students can easily find them for later reference.
9. **Graphs** with captions, numbering over 150, help students clearly understand the interrelationship of the variables plotted and the principles of analysis.
10. **Summary** at the end of each chapter lists the main points covered.
11. **Key terms** are important words or phrases, boldfaced when they are defined for the first time and listed by page number at the end of the chapter.
12. **End-of-chapter questions and problems**, numbering over 400, help students learn the subject matter by applying economic concepts, including a special class of problems that students find particularly relevant, under the heading “Using Economic Analysis to Predict the Future.”
13. **Glossary** at the back of the book provides definitions of all the key terms.
14. **Answers section** at the back of the book provides solutions to half of the questions and problems (marked by \*).

## ACKNOWLEDGMENTS

As always in so large a project, there are many people to thank. My gratitude goes to Victoria Warneck, economics editor at Addison Wesley Longman; Sylvia Mallory, Executive Development Manager; and Jane Tufts, the best development editor in the business. I also have been assisted by comments from my colleagues at Columbia and from my students.

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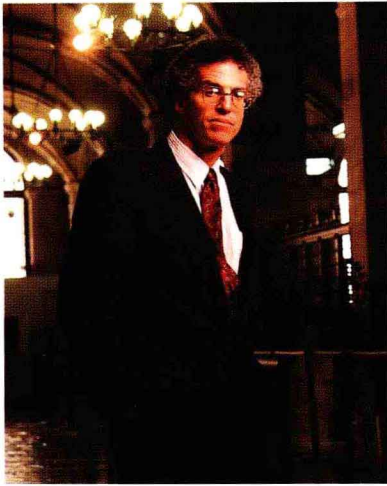
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Frederic S. Mishkin

## ABOUT THE AUTHOR



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Frederic S. Mishkin is the Alfred Lerner Professor of Banking and Financial Institutions at the Graduate School of Business, Columbia University. He is also a Research Associate at the National Bureau of Economic Research. Since receiving his Ph.D. from the Massachusetts Institute of Technology in 1976, he has taught at the University of Chicago, Northwestern University, Princeton University, and Columbia. He has also received an honorary professorship from the Peoples (Renmin) University of China. From 1994 to 1997 he was Executive Vice President and Director of Research at the Federal Reserve Bank of New York and an associate economist of the Federal Open Market Committee of the Federal Reserve System.

Professor Mishkin's research focuses on monetary policy and its impact on financial markets and the aggregate economy. He is the author of more than ten books, including *Financial Markets and Institutions*, 3d edition (Addison Wesley Longman, 2000), *Inflation Targeting: Lessons from the International Experience* (Princeton University Press, 1999), *Money, Interest Rates, and Inflation* (Edward Elgar, 1993), and *A Rational Expectations Approach to Macroeconometrics: Testing Policy Ineffectiveness and Efficient Markets Models* (University of Chicago Press, 1983). In addition, he has published more than one hundred articles in such journals as the *American Economic Review*, the *Journal of Political Economy*, *Econometrica*, the *Quarterly Journal of Economics*, the *Journal of Finance*, and the *Journal of Monetary Economics*.

Professor Mishkin has served on the editorial board of the *American Economic Review* and has been an associate editor at the *Journal of Business and Economic Statistics*; he also served as the editor of the Federal Reserve Bank of New York's *Economic Policy Review*. He is currently an associate editor (member of the editorial board) at eight academic journals, including the *Journal of Money, Credit and Banking*, *Macroeconomics and Monetary Economics Abstracts*, *Journal of International Money and Finance*, *International Finance*, *Finance India*, the *Journal of Applied Econometrics*, *Economic Policy Review*, and the *Journal of Economic Perspectives*. He has been a consultant to the Board of Governors of the Federal Reserve System, the World Bank, and the International Monetary Fund, as well as to many central banks throughout the world. He is currently an academic consultant to and serves on the Economic Advisory Panel of the Federal Reserve Bank of New York.



# ***CONTENTS IN BRIEF***

## **PART I**

### ***Introduction 1***

- |          |  |    |
|----------|--|----|
| <b>1</b> | Why Study Money, Banking, and Financial Markets? | 3  |
| <b>2</b> | An Overview of the Financial System              | 20 |
| <b>3</b> | What Is Money?                                   | 48 |

## **PART II**

### ***Financial Markets 65***

- |          |   |     |
|----------|---|-----|
| <b>4</b> | Understanding Interest Rates                  | 67  |
| <b>5</b> | The Behavior of Interest Rates                | 92  |
| <b>6</b> | The Risk and Term Structure of Interest Rates | 128 |
| <b>7</b> | The Foreign Exchange Market                   | 151 |

## **PART III**

### ***Financial Institutions 179***

- |           |   |     |
|-----------|---|-----|
| <b>8</b>  | An Economic Analysis of Financial Structure                   | 181 |
| <b>9</b>  | The Banking Firm and the Management of Financial Institutions | 211 |
| <b>10</b> | Banking Industry: Structure and Competition                   | 248 |
| <b>11</b> | Economic Analysis of Banking Regulation                       | 279 |
| <b>12</b> | Nonbank Financial Institutions                                | 313 |
| <b>13</b> | Financial Derivatives   | 337 |

## **PART IV**

### ***Central Banking and the Conduct of Monetary Policy 365***

- |           |   |     |
|-----------|---|-----|
| <b>14</b> | Structure of Central Banks and the Federal Reserve System | 367 |
| <b>15</b> | Multiple Deposit Creation and the Money Supply Process    | 391 |
| <b>16</b> | Determinants of the Money Supply                          | 412 |
| <b>17</b> | Tools of Monetary Policy                                  | 435 |
| <b>18</b> | Conduct of Monetary Policy: Goals and Targets             | 454 |
| <b>19</b> | The International Financial System                        | 478 |
| <b>20</b> | Monetary Policy Strategy: The International Experience    | 506 |

**PART V**

***Monetary Theory 535***

|           |   |     |
|-----------|---|-----|
| <b>21</b> | The Demand for Money  | 537 |
| <b>22</b> | The Keynesian Framework and the <i>ISLM</i> Model             | 563 |
| <b>23</b> | Monetary and Fiscal Policy in the <i>ISLM</i> Model           | 589 |
| <b>24</b> | Aggregate Demand and Supply Analysis                          | 612 |
| <b>25</b> | Transmission Mechanisms of Monetary Policy: The Evidence      | 634 |
| <b>26</b> | Money and Inflation   | 664 |
| <b>27</b> | Theory of Rational Expectations and Efficient Capital Markets | 691 |
| <b>28</b> | Rational Expectations: Implications for Policy                | 715 |