

The Economics
of Money, Banking,
and Financial Markets

Seventh Edition



FREDERIC S. MISHKIN

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

Seventh Edition

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PREFACE

I have continually strived to improve this textbook with each new edition, and the Seventh 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 six 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), which 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 Seventh Edition

In addition to the expected updating of all data through the end of 2002 whenever possible, there is major new material in every part of the text. Indeed, this revision is one of the most substantial that I have ever done.

Expanded Coverage of the Stock Market

With the wide swings in the stock prices in recent years, students of money and banking have become increasingly interested in what drives the stock market. As a result, I have expanded the discussion of this market by describing simple valuation methods for stocks and examining recent developments in the stock market and the link between monetary policy and stock prices. I have combined this material with the discussion of the theory of rational expectations and efficient capital markets to create a new Chapter 7, "The Stock Market, the Theory of Rational Expectations, and the Efficient Market Hypothesis."

New Material on Financial Institutions

In light of continuing changes in financial markets and institutions, I have added the following new material to keep the text current:

- Extensive discussion of recent corporate scandals and the collapse of Enron, including their impact on the economy (Chapters 6, 7, 11, and 26)
- Discussion of the role of venture capitalists in the high-tech sector (Chapter 8)
- Examination of how information technology is influencing bank consolidation, and analysis of whether clicks will dominate bricks in the banking industry (Chapter 10)
- New material on the Basel Committee on Bank Supervision and where the Basel Accord is heading (Chapter 11)
- Discussion of the spread of deposit insurance throughout the world (Chapter 11)
- Perspective on the growing concerns about Fannie Mae and Freddie Mac (Chapter 12)
- A new type of special-interest box, the E-Finance box, which relates how changes in technology have affected the conduct of business in banking and financial markets. The placement of these boxes throughout the text helps to demonstrate the impact of technology across a broad range of areas in finance.

Increased International Perspective

The growing importance of the global economy has encouraged me to add more new material with an international perspective:

- Extensive discussion of recent developments in Argentina (Chapters 1, 8, 11, 20, and 21)
- Analysis of how central banks set overnight interest rates in other countries (Chapter 17)
- Discussion of how the euro has fared in its first four years (Chapter 19)
- Additional treatment of recent events in the Japanese economy (Chapters 11 and 26)

New Material on Monetary Theory and Policy

Drawing on my continuing involvement with central banks around the world, I have added new material to keep the discussion of monetary theory and policy current:

- New boxes on Fed watching and Federal Reserve transparency (Chapters 14 and 18)
- Discussion of the changes (implemented in 2003) in the way the Fed administers the discount window (Chapter 17)
- An updated discussion of the market for reserves and how the channel/corridor system for setting interest rates works (Chapter 17)
- Discussion of how the recent corporate scandals have hindered the recovery of the economy from the 2001–2002 recession (Chapter 25)

E-Focus

The incredible advances in electronic (computer and telecommunications) technology in recent years have had a major impact on the financial system. This Seventh Edition reflects these developments by adding many new features with an electronic focus.

Web Enhancement. The Seventh Edition embraces the exploding world of information now available over the World Wide Web. There are few areas where the Internet

has been as valuable as in the realm of money, banking, and financial markets. Data that were once difficult and tedious to collect are now readily available. To help students appreciate what they can access online, I have added a number of new features:

1. **Web Exercises.** This edition adds all-new end-of-chapter Web Exercises. These require that students collect information from online sources or use online resources to enhance their learning experience. The Web Exercises are relatively quick and easy to complete, while still accomplishing the goal of familiarizing students with online sources of data.
2. **Web Sources.** Much of the data used to create the many tables and charts were collected from online sources. Wherever a Web URL is available, it is exactly reported as the source. The interested student or instructor can use this URL to see what has happened since the chart or table was created.
3. **Marginal Web References.** In addition to listing the sources of data used to create the charts and graphs, I have also included in the margin URLs to Web sites that provide information or data that supplement the text. These references include a brief description of what students will find at the site. Interested students can use these sites to extend their study, and instructors can draw from them to supplement their lecture notes. Because the URLs for Web sources and references do sometimes change, the Mishkin Companion Web Site at www.aw.com/mishkin will provide the new URLs when they are needed.

E-Finance Boxes. To illustrate how electronic technology has increasingly permeated financial markets and institutions, I have included the all-new E-Finance boxes, described earlier, to show the ongoing real-world impact of this remarkable development.

Streamlined Coverage and Organization

As textbooks go into later editions, they often grow in length. Over the years, I have resisted this tendency, and in this edition have made even greater efforts to streamline the book. Despite the addition of a lot of new material, the book is substantially shorter. Moreover, at the suggestion of reviewers, I have moved the discussion of rational expectations and efficient markets earlier in the book, to Chapter 7. I have also shifted the material on the foreign exchange market and the determination of exchange rates to Chapter 19 so that it comes immediately before the chapter on the international financial system, allowing this material to be taught together.

Appendices on the Web

The Web site for this book, www.aw.com/mishkin, has allowed me to produce a large amount of new material for the book without lengthening the text, because we have placed this material in appendices on the Web site. The appendices include:

- Chapter 2: Financial Market Instruments
- Chapter 4: Measuring Interest-Rate Risk: Duration
- Chapter 5: Models of Asset Pricing
- Chapter 5: Applying the Asset Market Approach to a Commodity Market: The Case of Gold
- Chapter 9: Duration Gap Analysis
- Chapter 9: Measuring Bank Performance
- Chapter 11: Evaluating FDICIA and Other Proposed Reforms of the Bank Regulatory System

Chapter 15: The Fed's Balance Sheet and the Monetary Base
 Chapter 16: The M2 Money Multiplier
 Chapter 16: Explaining the Behavior of the Currency Ratio
 Chapter 22: A Mathematical Treatment of the Baumol-Tobin and Tobin Mean Variance Model
 Chapter 22: Empirical Evidence on the Demand for Money
 Chapter 24: Algebra of the *ISLM* Model
 Chapter 25: Aggregate Supply and the Phillips Curve

Instructors can either use these appendices in class to supplement the material in the textbook, or recommend them to students who want to expand their knowledge of the money and banking field.

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 23 and 24, 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 19 on the foreign exchange market and Chapter 20 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.

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, 25, 27, with a choice of 6 of the remaining 15 chapters.
- *General Money and Banking Course with an International Emphasis*: Chapters 1–5, 9–11, 14, 17–20, 25, 27 with a choice of 4 of the remaining 13 chapters.

- *Financial Markets and Institutions Course*: Chapters 1–13, with a choice of 6 of the remaining 15 chapters.
- *Monetary Theory and Policy Course*: Chapters 1–5, 14, 15, 17, 18, 21, 25–28, with a choice of 5 of the remaining 14 chapters.

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 more than 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. **Global boxes** include interesting material with an international focus.
6. **E-Finance boxes** relate how changes in technology have affected financial markets or institutions.
7. **Special-interest boxes** highlight dramatic historical episodes, interesting ideas, and intriguing facts related to the subject matter.
8. **Study Guides** are highlighted statements scattered throughout the text that provide hints to the student on how to think about or approach a topic.
9. **Summary tables** provide a useful study aid in reviewing material.
10. **Key statements** are important points set in boldface italic type so that students can easily find them for later reference.
11. **Graphs** with captions, numbering more than 150, help students clearly understand the interrelationship of the variables plotted and the principles of analysis.
12. **Summary** at the end of each chapter lists the main points covered.
13. **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.
14. **End-of-chapter questions and problems**, numbering more than 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.”
15. **Web Exercises** encourage students to collect information from online sources or use online resources to enhance their learning experience.
16. **Web sources** report the Web URL source of the data used to create the many tables and charts.

17. **Marginal Web references** point the student to Web sites that provide information or data that supplement the text material.
18. **Glossary** at the back of the book provides definitions of all the key terms.
19. **Answers section** at the back of the book provides solutions to half of the questions and problems (marked by *).

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, I have provided the instructor with supplementary materials, unlike those available with any competing text, that should make teaching this course substantially easier.

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

The Economics of Money, Banking, and Financial Markets, Seventh 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 MS Word files to the Instructor's Manual, the Computerized Test Bank, and the MS PowerPoint Lecture Presentation.
 3. **Full-Color Transparencies**, numbering more than 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** by James Butkiewicz of the University of Delaware, comprising more than 4,500 multiple-choice and essay test items, many with graphs.
 6. **Computerized Test Bank**, allowing the instructor to produce exams efficiently. This product consists of the multiple-choice and essay questions 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.aw.com/mishkin, which features chapter synopses, student practice quizzes, appendices on a wide variety of topics (see "Appendices on the Web," above), links to the URLs that appear in the margins throughout the textbook, and various resources for the instructor.

For the Student

1. **Study Guide and Workbook**, prepared by Erick Eschker of Humboldt State University, 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 within MyEconLab (see next section).

Course Management with MyEconLab

Every student who buys a new textbook receives a prepaid subscription to MyEconLab. New to the Seventh Edition of *The Economics of Money, Banking, and Financial Markets*, MyEconLab delivers rich online content and innovative learning tools to your classroom. Instructors who use MyEconLab gain access to powerful communication and assessment tools, and their students receive access to the additional learning resources described next.

Students and MyEconLab

MyEconLab delivers the content and tools your students need to succeed within Addison-Wesley's innovative CourseCompass system. Students whose instructors use MyEconLab gain access to a variety of resources:

- The complete textbook online, in PDF format, with animated graphs that help students master the key concepts
- MathXL for Economics—a powerful tutorial to refresh students on the basics of creating and interpreting graphs; solving applied problems using graphs; calculating ratios and percentages; performing calculations; calculating average, median, and mode; and finding areas

- Research Navigator™—a one-stop research tool, with extensive help on the entire research process, including evaluating sources, drafting, and documentation, as well as access to a variety of scholarly journals and publications, a complete year of search for full-text articles from the *New York Times*, and a “Best of the Web” Link Library of peer-reviewed Web sites
- eThemes of the Times—thematically related articles from the *New York Times*, accompanied by critical-thinking questions
- *Readings on Money, Banking, and Financial Markets*—edited by James W. Eaton of Bridgewater College and me and updated annually, with a focus on articles from Federal Reserve publications and economics and finance journals
- Additional study resources such as self-testing quizzes for each chapter, a weekly current events feature, online glossary term flashcards, and additional articles and supplemental materials

The Student Access Kit that arrives bundled with all new books walks students step-by-step through the registration process.

Instructors and MyEconLab

With MyEconLab, instructors can customize existing content and add their own. They can manage, create, and assign tests to students, choosing from our Test Bank, or upload tests they’ve written themselves. MyEconLab also includes advanced tracking features that record students’ usage and performance and a Gradebook feature to see students’ test results. Please refer to the *Instructor Quick Start Guide* or contact your Addison-Wesley sales representative to set up MyEconLab for your course.

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Frederic S. Mishkin

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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*, 4th edition (Addison Wesley, 2003); *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 *American Economic Review*, *Journal of Political Economy*, *Econometrica*, *Quarterly Journal of Economics*, *Journal of Finance*, and *Journal of Monetary Economics*.

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

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