



Financial Markets and Institutions

EIGHTH EDITION

Frederic S. Mishkin

Stanley G. Eakins



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EIGHTH EDITION

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To My Dad

—F. S. M.

To My Wife, Laurie

—S. G. E.

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Preface

A Note from Frederic Mishkin

When I took leave from Columbia University in September 2006 to take a position as a member (governor) of the Board of Governors of the Federal Reserve System, I never imagined how exciting—and stressful—the job was likely to be. How was I to know that, as Alan Greenspan put it, the world economy would be hit by a “once-in-a-century credit tsunami,” the global financial crisis of 2007–2009? When I returned to Columbia in September 2008, the financial crisis had reached a particularly virulent stage, with credit markets completely frozen and some of our largest financial institutions in very deep trouble. The global financial crisis, which has been the worst financial crisis the world has experienced since the Great Depression, has completely changed the nature of financial markets and institutions.

Given what has happened, the study of financial markets and institutions has become particularly exciting. I hope that students reading this book will have as much fun learning from it as we have had in writing it.



August 2013

What's New in the Eighth Edition

In addition to the expected updating of all data through 2013 whenever possible, there is major new material in every part of the text.

New Material on Financial Markets and Institutions

In light of ongoing research and changes in financial markets and institutions, we have added the following material to keep the text current:

- A new Mini-Case box on Raj Rajaratnam and the Galleon insider trading scandal (Chapter 6)
- A new section on why the efficient markets hypothesis does not imply that financial markets are efficient (Chapter 6)

- A new Mini-Case box on collateralized debt obligations (CDOs) (Chapter 8)
- A new Global box on the European Sovereign Debt Crisis (Chapter 8)
- A new section on macroprudential versus microprudential supervision (Chapter 18)
- A new section on too-big-to-fail and future regulation (Chapter 18)
- A new Web chapter on financial crises in emerging market economies that provides a much more extensive treatment of financial crises in these countries

New Material on Monetary Policy

In the aftermath of the global financial crisis, there have been major changes in the way central banks conduct monetary policy. This has involved a substantial rewriting of Chapter 10, along with the following new material.

- A discussion of the new monetary policy tool, changing the interest paid on reserves (Chapter 10)
- A new “Inside the Fed” box on why the Fed pays interest on reserves (Chapter 10)
- A new section on nonconventional monetary policy tools and quantitative easing (Chapter 10)
- A new Inside the Fed box on Fed lending facilities during the global financial crisis (Chapter 10)
- A new Inside the Fed box on Ben Bernanke and the Federal Reserve Adoption of Inflation Targeting (Chapter 10)
- A more extensive discussion of the debate over whether central banks should try to pop bubbles (Chapter 10)
- A new section on the policy trilemma (Chapter 16)
- A new section on monetary unions (Chapter 16)
- A Mini-Case on whether the Euro will survive

Appendices on the Web

The Web site for this book, www.pearsonhighered.com/mishkin_eakins, has allowed us to retain and add new material for the book by posting content online. The appendices include:

Chapter 4: Models of Asset Pricing

Chapter 4: Applying the Asset Market Approach to a Commodity Market: The Case of Gold

Chapter 4: Loanable Funds Framework

Chapter 4: Supply and Demand in the Market for Money: The Liquidity Preference Framework

Chapter 10: The Fed’s Balance Sheet and the Monetary Base

Chapter 16: The Balance of Payments Account

Chapter 18: Evaluating FDICIA and Other Proposed Reforms of the Bank Regulatory System

Chapter 18: Banking Crises Throughout the World

Chapter 24: More on Hedging with Financial Derivatives

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 financial markets and institutions field.

Hallmarks

Although this text has undergone a major revision, it retains the basic hallmarks that make it the best-selling textbook on financial markets and institutions. The eighth edition of *Financial Markets and Institutions* is a practical introduction to the workings of today's financial markets and institutions. Moving beyond the descriptions and definitions provided by other textbooks in the field, *Financial Markets and Institutions* encourages students to understand the connection between the theoretical concepts and their real-world applications. By enhancing students' analytical abilities and concrete problem-solving skills, this textbook prepares students for successful careers in the financial services industry or successful interactions with financial institutions, whatever their jobs.

To prepare students for their future careers, *Financial Markets and Institutions* provides the following features:

- A unifying analytic framework that uses a few basic principles to organize students' thinking. These principles include:
 - Asymmetric information (agency) problems
 - Conflicts of interest
 - Transaction costs
 - Supply and demand
 - Asset market equilibrium
 - Efficient markets
 - Measurement and management of risk
- “The Practicing Manager” sections include nearly 20 hands-on applications that emphasize the financial practitioner's approach to financial markets and institutions.
- A careful step-by-step development of models enables students to master the material more easily.
- A high degree of flexibility allows professors to teach the course in the manner they prefer.
- International perspectives are completely integrated throughout the text.
- “Following the Financial News” is a feature that encourages the reading of a financial newspaper.
- Numerous cases increase students' interest by applying theory to real-world data and examples.
- The text focuses on the impact of electronic (computer and telecommunications) technology on the financial system. The text makes extensive use of the Internet with Web exercises, Web sources for charts and tables, and Web references in the margins. It also features special “E-Finance” boxes that explain how changes in technology have affected financial markets and institutions.

Flexibility

There are as many ways to teach financial markets and institutions as there are instructors. Thus, there is a great need to make a textbook flexible in order to satisfy the diverse needs of instructors, and that has been a primary objective in writing this book. This textbook achieves this flexibility in the following ways:

- Core chapters provide the basic analysis used throughout the book, and other chapters or sections of chapters can be assigned 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, an instructor can decide to teach a more detailed treatment of financial structure and financial crises using chapters in Part 3 of the text, or cover specific chapters on financial markets or financial institutions in Parts 4 or 5 of the text, or the instructor can skip these chapters and take any of a number of different paths.
- The approach to internationalizing the text using separate, marked international sections within chapters and 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 choose not to. Instructors who want less emphasis on international topics can easily skip Chapter 15 (on the foreign exchange market) and Chapter 16 (on the international financial system).
- “The Practicing Manager” applications, as well as Part 7 on the management of financial institutions, are self-contained and so can be skipped without loss of continuity. Thus, an instructor wishing to teach a less managerially oriented course, who might want to focus on public policy issues, will have no trouble doing so. Alternatively, Part 7 can be taught earlier in the course, immediately after Chapter 17 on bank management.

The course outlines listed next for a semester teaching schedule illustrate how this book can be used for courses with a different emphasis. More detailed information about how the text can offer flexibility in your course is available in the *Instructor’s Manual*.

Financial markets and institutions emphasis: Chapters 1–5, 7–8, 11–13, 17–19, and a choice of five other text chapters

Financial markets and institutions with international emphasis: Chapters 1–5, 7–8, 11–13, 15–19, and a choice of three other text chapters

Managerial emphasis: Chapters 1–5, 17–19, 23–24, and a choice of eight other text chapters

Public policy emphasis: Chapters 1–5, 7–10, 17–18, and a choice of seven other text chapters

Pedagogical Aids

A textbook must be a solid motivational tool. To this end, we have incorporated a wide variety of pedagogical features.

1. **Chapter 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. **Cases** demonstrate how the analysis in the book can be used to explain many important real-world situations.
3. **“The Practicing Manager”** is a set of special cases that introduce students to real-world problems that managers of financial institutions have to solve.
4. **Numerical Examples** guide students through solutions to financial problems using formulas, time lines, and calculator key strokes.
5. **“Following the Financial News” boxes** introduce students to relevant news articles and data that are reported daily in financial news sources and explain how to read them.
6. **“Inside the Fed” boxes** give students a feel for what is important in the operation and structure of the Federal Reserve System.
7. **“Global” boxes** include interesting material with an international focus.
8. **“E-Finance” boxes** relate how changes in technology have affected financial markets and institutions.
9. **“Conflicts of Interest” boxes** outline conflicts of interest in different financial service industries.
10. **“Mini-Case” boxes** highlight dramatic historical episodes or apply the theory to the data.
11. **Summary Tables** are useful study aids for reviewing material.
12. **Key Statements** are important points that are set in boldface type so that students can easily find them for later reference.
13. **Graphs** with captions, numbering over 60, help students understand the interrelationship of the variables plotted and the principles of analysis.
14. **Summaries** at the end of each chapter list the chapter’s main points.
15. **Key Terms** are important words or phrases that appear in boldface type when they are defined for the first time and are listed at the end of each chapter.
16. **End-of-Chapter Questions** help students learn the subject matter by applying economic concepts and feature a special class of questions that students find particularly relevant, titled “Predicting the Future.”
17. **End-of-Chapter Quantitative Problems**, numbering over 250, help students to develop their quantitative skills.
18. **Web Exercises** encourage students to collect information from online sources or use online resources to enhance their learning experience.
19. **Web Sources** report the URL source of the data used to create the many tables and charts.
20. **Marginal Web References** point the student to Web sites that provide information or data that supplement the text material.
21. **Glossary** at the back of the book defines all the key terms.
22. **Full Solutions to the Questions and Quantitative Problems** appear in the *Instructor’s Manual* and on the Instructor’s Resource Center at www.pearsonhighered.com/irc. Professors have the flexibility to share the solutions with their students as they see fit.

Supplementary Materials

The eighth edition of *Financial Markets and Institutions* includes the most comprehensive program of supplementary materials of any textbook in its field. These items are available to qualified domestic adopters but in some cases may not be available to international adopters. These include the following items:

For the Professor

The demands for good teaching at business schools have increased dramatically in recent years. To meet these demands, the eighth edition of *Financial Markets and Institutions* includes the most comprehensive program of supplementary materials of any textbook in its field that should make teaching the course substantially easier. These resources are available at www.pearsonhighered.com/irc.

- 1. Online Instructor's Manual:** This manual, prepared by the authors, includes chapter outlines, overviews, teaching tips, and complete solutions to questions and problems in the text.
- 2. Online PowerPoint:** Prepared by John Banko (University of Florida). The presentation, which contains lecture notes and the complete set of figures and tables from the textbook, contains more than 1,000 slides that comprehensively outline the major points covered in the text.
- 3. Online Test Item File:** Updated and revised for the eighth edition, the **Test Item File** comprises over 2,500 multiple-choice, true-false, and essay questions. All of the questions from the Test Item File are available in computerized format for use in the TestGen software. The TestGen software is available for both Windows and Macintosh systems.
- 4. Mishkin/Eakins Companion Website (http://www.pearsonhighered.com/mishkin_eakins)** features Web chapters on financial crises in emerging economies, savings associations and credit unions, and another on finance companies, Web appendices, animated figures, and links to relevant data sources and Federal Reserve Web sites.

For the Student

- 1. Study Guide:** Updated and revised for the eighth edition, the Study Guide offers chapter summaries, exercises, self-tests, and answers to the exercises and self-tests.
- 2. Mishkin/Eakins Companion Website (www.pearsonhighered.com/mishkin_eakins)** includes Web chapters on financial crises in emerging economies, savings associations and credit unions, and another on finance companies, Web appendices, animated figures, glossary flash cards, Web exercises, readings in *Financial Markets and Institutions*, edited by Jim Eaton of Bridgewater College and Rick Mishkin, and links from the textbook.

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Stanley G. Eakins

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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 20 books, including *Macroeconomics: Policy and Practice, Second Edition* (Pearson, 2015); *The Economics of Money, Banking and Financial Markets*, Tenth Edition (Pearson, 2013); *Monetary Policy Strategy* (MIT Press, 2007); *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich* (Princeton University Press, 2006); *Inflation Targeting: Lessons*



Stanley G. Eakins has notable experience as a financial practitioner, serving as vice president and comptroller at the First National Bank of Fairbanks and as a commercial and real estate loan officer. A founder of the Denali Title and Escrow Agency, a title insurance company in Fairbanks, Alaska, he also ran the operations side of a bank and was the chief finance officer for a multimillion-dollar construction and development company.

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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*, *Journal of Applied Econometrics*, *Journal of Economic Perspectives*, *Journal of Money, Credit and Banking*, and *Journal of International Money and Finance*; 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 five academic journals, including *International Finance*; *Finance India*; *Emerging Markets, Finance and Trade*; *Review of Development Finance*, and *Borsa Economic Review*. 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 was also a member of the International Advisory Board to the Financial Supervisory Service of South Korea and an adviser to the Institute for Monetary and Economic Research at the Bank of Korea. Professor Mishkin has also served as a senior fellow at the Federal Deposit Insurance Corporation's Center for Banking Research and as an academic consultant to and member of the Economic Advisory Panel of the Federal Reserve Bank of New York.

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A contributor to journals such as the *Quarterly Journal of Business and Economics*, the *Journal of Financial Research*, and the *International Review of Financial Analysis*, Professor Eakins is also the author of *Corporate Finance Online (CFO)* (Pearson, 2014), a multimedia online text designed from the ground up for electronic delivery.

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Why Study Financial Markets and Institutions?

> PREVIEW

On the evening news you have just heard that the bond market has been booming. Does this mean that interest rates will fall so that it is easier for you to finance the purchase of a new computer system for your small retail business? Will the economy improve in the future so that it is a good time to build a new building or add to the one you are in? Should you try to raise funds by issuing stocks or bonds, or instead go to the bank for a loan? If you import goods from abroad, should you be concerned that they will become more expensive?

This book provides answers to these questions by examining how financial markets (such as those for bonds, stocks, and foreign exchange) and financial institutions (banks, insurance companies,

mutual funds, and other institutions) work. Financial markets and institutions not only affect your everyday life but also involve huge flows of funds—trillions of dollars—throughout our economy, which in turn affect business profits, the production of goods and services, and even the economic well-being of countries other than the United States. What happens to financial markets and institutions is of great concern to politicians and can even have a major impact on elections. The study of financial markets and institutions will reward you with an understanding of many exciting issues. In this chapter we provide a road map of the book by outlining these exciting issues and exploring why they are worth studying.

Why Study Financial Markets?

Parts 2 and 5 of this book focus on **financial markets**, markets in which funds are transferred from people who have an excess of available funds to people who have a shortage. Financial markets, such as bond and stock markets, are crucial to promoting greater economic efficiency by channeling funds from people who do not have a productive use for them to those who do. Indeed, well-functioning financial markets are a key factor in producing high economic growth, and poorly performing financial markets are one reason that many countries in the world remain desperately poor. Activities in financial markets also have direct effects on personal wealth, the behavior of businesses and consumers, and the cyclical performance of the economy.

Debt Markets and Interest Rates

A **security** (also called a *financial instrument*) is a claim on the issuer's future income or **assets** (any financial claim or piece of property that is subject to ownership). A **bond** is a debt security that promises to make payments periodically for a specified period of time.¹ Debt markets, also often referred to generically as the *bond* market, are especially important to economic activity because they enable corporations and governments to borrow in order to finance their activities; the bond market is also where interest rates are determined. An **interest rate** is the cost of borrowing or the price paid for the rental of funds (usually expressed as a percentage of the rental of \$100 per year). Many types of interest rates are found in the economy—mortgage interest rates, car loan rates, and interest rates on many types of bonds.

Interest rates are important on a number of levels. On a personal level, high interest rates could deter you from buying a house or a car because the cost of financing it would be high. Conversely, high interest rates could encourage you to save because you can earn more interest income by putting aside some of your earnings as savings. On a more general level, interest rates have an impact on the overall health of the economy because they affect not only consumers' willingness to spend or save but also businesses' investment decisions. High interest rates, for example, might cause a corporation to postpone building a new plant that would provide more jobs.

Because changes in interest rates have important effects on individuals, financial institutions, businesses, and the overall economy, it is important to explain fluctuations in interest rates that have been substantial over the past 20 years. For example, the interest rate on three-month Treasury bills peaked at over 16% in 1981. This interest rate fell to 3% in late 1992 and 1993, and then rose to above 5% in the mid to late 1990s. It then fell below 1% in 2004, rose to 5% by 2007, only to fall close to zero from 2008 to 2013.

Because different interest rates have a tendency to move in unison, economists frequently lump interest rates together and refer to “the” interest rate. As Figure 1.1 shows, however, interest rates on several types of bonds can differ substantially.



<http://research.stlouisfed.org/fred2/>

The Federal Reserve Bank of St. Louis' FRED database provides access to daily, weekly, monthly, quarterly, and annual releases and historical data for selected interest rates, foreign exchange rates, and so on.

¹The definition of *bond* used throughout this book is the broad one in common use by academics, which covers both short- and long-term debt instruments. However, some practitioners in financial markets use the word *bond* to describe only specific long-term debt instruments such as corporate bonds or U.S. Treasury bonds.

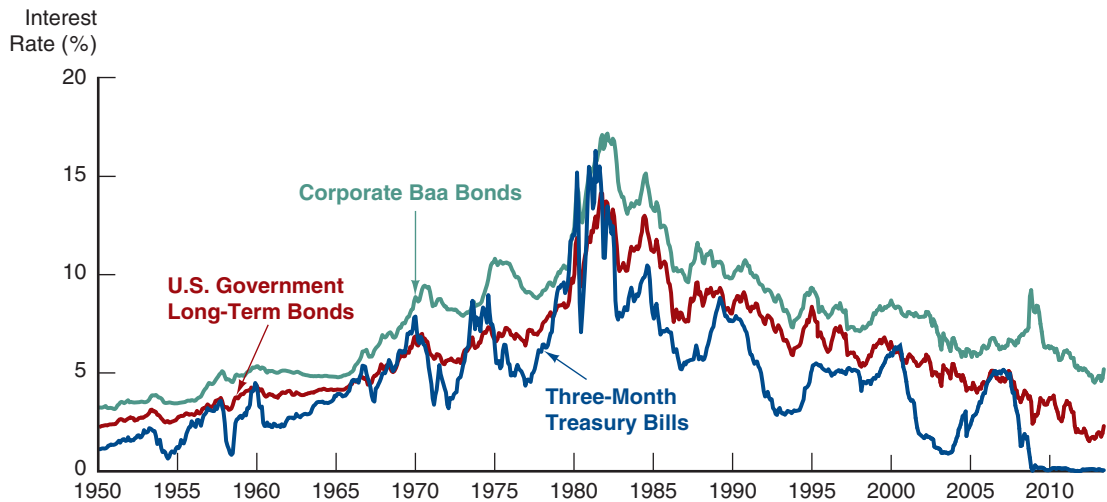


FIGURE 1.1 Interest Rates on Selected Bonds, 1950–2013

Although different interest rates have a tendency to move in unison, they do often differ substantially and the spreads between them fluctuate.

Source: Federal Reserve Bank of St. Louis, FRED database: <http://research.stlouisfed.org/fred2/>.

The interest rate on three-month Treasury bills, for example, fluctuates more than the other interest rates and is lower, on average. The interest rate on Baa (medium-quality) corporate bonds is higher, on average, than the other interest rates, and the spread between it and the other rates became larger in the 1970s, narrowed in the 1990s and particularly in the middle 2000s, only to surge to extremely high levels during the global financial crisis of 2007–2009 before narrowing again.

In Chapters 2, 11, 12, and 14 we study the role of debt markets in the economy, and in Chapters 3 through 5 we examine what an interest rate is, how the common movements in interest rates come about, and why the interest rates on different bonds vary.

The Stock Market

A **common stock** (typically just called a **stock**) represents a share of ownership in a corporation. It is a security that is a claim on the earnings and assets of the corporation. Issuing stock and selling it to the public is a way for corporations to raise funds to finance their activities. The stock market, in which claims on the earnings of corporations (shares of stock) are traded, is the most widely followed financial market in almost every country that has one; that's why it is often called simply "the market." A big swing in the prices of shares in the stock market is always a major story on the evening news. People often speculate on where the market is heading and get very excited when they can brag about their latest "big killing," but they become depressed when they suffer a big loss. The attention the market receives can probably be best explained by one simple fact: It is a place where people can get rich—or poor—quickly.

As Figure 1.2 indicates, stock prices are extremely volatile. After the market rose in the 1980s, on "Black Monday," October 19, 1987, it experienced the worst one-day drop in its entire history, with the Dow Jones Industrial Average (DJIA)

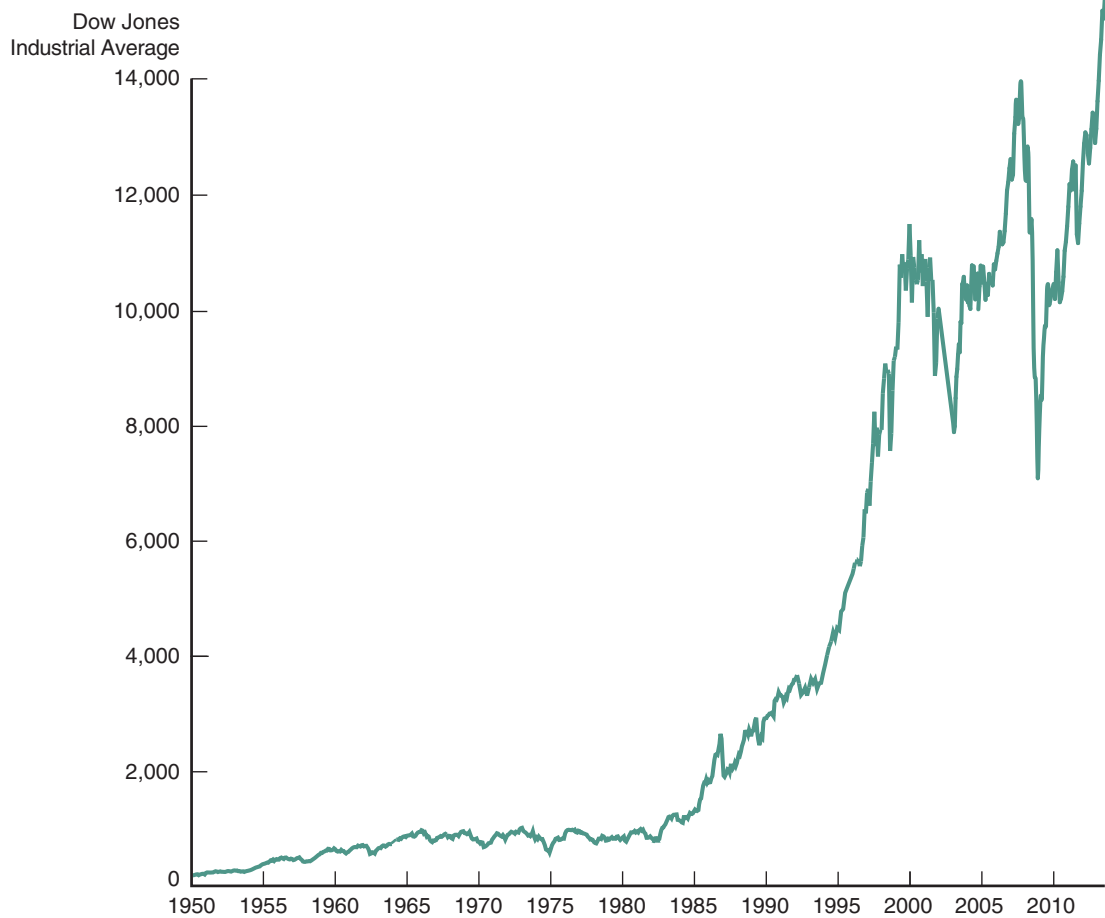


FIGURE 1.2 Stock Prices as Measured by the Dow Jones Industrial Average, 1950–2013

Stock prices are extremely volatile.

Source: Federal Reserve Bank of St. Louis, FRED database: <http://research.stlouisfed.org/fred2/>.

falling by 22%. From then until 2000, the stock market experienced one of the great bull markets in its history, with the Dow climbing to a peak of over 11,000. With the collapse of the high-tech bubble in 2000, the stock market fell sharply, dropping by over 30% by late 2002. It then rose to an all-time high above the 14,000 level in 2007, only to fall by over 50% of its value to a low below 7,000 in 2009. Then another bull market began, with the Dow reaching new highs above the 15,000 level in 2013. These considerable fluctuations in stock prices affect the size of people's wealth and as a result may affect their willingness to spend.

The stock market is also an important factor in business investment decisions because the price of shares affects the amount of funds that can be raised by selling newly issued stock to finance investment spending. A higher price for a firm's shares means that it can raise a larger amount of funds, which can be used to buy production facilities and equipment.

In Chapter 2 we examine the role that the stock market plays in the financial system, and we return to the issue of how stock prices behave and respond to information in the marketplace in Chapters 6 and 13.

The Foreign Exchange Market

For funds to be transferred from one country to another, they have to be converted from the currency in the country of origin (say, dollars) into the currency of the country they are going to (say, euros). The **foreign exchange market** is where this conversion takes place, so it is instrumental in moving funds between countries. It is also important because it is where the **foreign exchange rate**, the price of one country's currency in terms of another's, is determined.

Figure 1.3 shows the exchange rate for the U.S. dollar from 1970 to 2013 (measured as the value of the U.S. dollar in terms of a basket of major foreign currencies). The fluctuations in prices in this market have also been substantial: The dollar's value reached a low point in the 1978–1980 period and then appreciated dramatically until early 1985. It then declined again, reaching another low in 1995, but appreciated from 1995 to 2000. From 2000 to 2013, the dollar depreciated substantially, with only a temporary upturn in 2008 and 2009.

What have these fluctuations in the exchange rate meant to the American public and businesses? A change in the exchange rate has a direct effect on American consumers because it affects the cost of imports. In 2001, when the euro was worth around 85 cents, 100 euros of European goods (say, French wine) cost \$85. When the dollar subsequently weakened, raising the cost of a euro to \$1.50, the same 100 euros of wine now cost \$150. Thus, a weaker dollar leads to more expensive foreign goods, makes vacationing abroad more expensive, and raises the cost of indulging your desire for imported delicacies. When the value of the dollar drops, Americans decrease their purchases of foreign goods and increase their consumption of domestic goods (such as travel in the United States or American-made wine).

Conversely, a strong dollar means that U.S. goods exported abroad will cost more in foreign countries, and hence foreigners will buy fewer of them. Exports of steel, for example, declined sharply when the dollar strengthened in the 1980–1985 and 1995–2001 periods. A strong dollar benefited American consumers by making foreign goods cheaper but hurt American businesses and eliminated some jobs by cutting both domestic and foreign sales of their products. The decline in the value

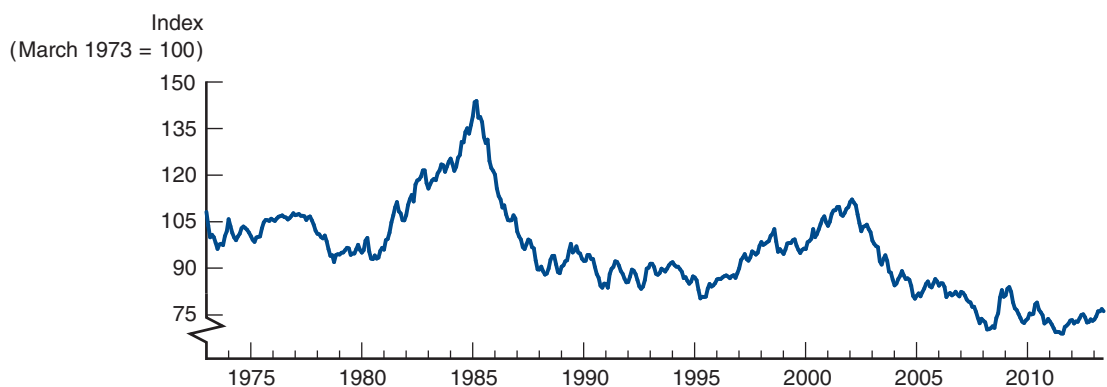


FIGURE 1.3 Exchange Rate of the U.S. Dollar, 1970–2013

The value of the U.S. dollar relative to other currencies has fluctuated substantially over the years.

Source: Federal Reserve Bank of St. Louis, FRED database: <http://research.stlouisfed.org/fred2/>.

of the dollar from 1985 to 1995 and from 2001 to 2013 had the opposite effect: It made foreign goods more expensive but made American businesses more competitive. Fluctuations in the foreign exchange markets thus have major consequences for the American economy.

In Chapter 15 we study how exchange rates are determined in the foreign exchange market, in which dollars are bought and sold for foreign currencies.

Why Study Financial Institutions?

The second major focus of this book is financial institutions. Financial institutions are what make financial markets work. Without them, financial markets would not be able to move funds from people who save to people who have productive investment opportunities. They thus play a crucial role in improving the efficiency of the economy.

Structure of the Financial System

The financial system is complex, comprising many types of private-sector financial institutions, including banks, insurance companies, mutual funds, finance companies, and investment banks—all of which are heavily regulated by the government. If you wanted to make a loan to IBM or General Motors, for example, you would not go directly to the president of the company and offer a loan. Instead, you would lend to such companies indirectly through **financial intermediaries**, institutions such as commercial banks, savings and loan associations, mutual savings banks, credit unions, insurance companies, mutual funds, pension funds, and finance companies that borrow funds from people who have saved and in turn make loans to others.

Why are financial intermediaries so crucial to well-functioning financial markets? Why do they give credit to one party but not to another? Why do they usually write complicated legal documents when they extend loans? Why are they the most heavily regulated businesses in the economy?

We answer these questions by developing a coherent framework for analyzing financial structure both in the United States and in the rest of the world in Chapter 7.

Financial Crises

At times, the financial system seizes up and produces **financial crises**, major disruptions in financial markets that are characterized by sharp declines in asset prices and the failures of many financial and nonfinancial firms. Financial crises have been a feature of capitalist economies for hundreds of years and are typically followed by the worst business cycle downturns. From 2007 to 2009, the U.S. economy was hit by the worst financial crisis since the Great Depression. Defaults in subprime residential mortgages led to major losses in financial institutions, not only producing numerous bank failures but also leading to the demise of Bear Stearns and Lehman Brothers, two of the largest investment banks in the United States. The result of the crisis was the worst recession since World War II, which is now referred to as the “Great Recession.”

Why these crises occur and why they do so much damage to the economy is discussed in Chapter 8.

**GO
ONLINE**www.federalreserve.gov

Access general information as well as monetary policy, banking system, research, and economic data of the Federal Reserve.

Central Banks and the Conduct of Monetary Policy

The most important financial institution in the financial system is the **central bank**, the government agency responsible for the conduct of monetary policy, which in the United States is the **Federal Reserve System** (also called simply **the Fed**). **Monetary policy** involves the management of interest rates and the quantity of **money**, also referred to as the **money supply** (defined as anything that is generally accepted in payment for goods and services or in the repayment of debt). Because monetary policy affects interest rates, inflation, and business cycles, all of which have a major impact on financial markets and institutions, we study how monetary policy is conducted by central banks in both the United States and abroad in Chapters 9 and 10.

The International Financial System

The tremendous increase in capital flows between countries means that the international financial system has a growing impact on domestic economies. Whether a country fixes its exchange rate to that of another is an important determinant of how monetary policy is conducted. Whether there are capital controls that restrict mobility of capital across national borders has a large effect on domestic financial systems and the performance of the economy. What role international financial institutions such as the International Monetary Fund should play in the international financial system is very controversial. All of these issues are explored in Chapter 16.

Banks and Other Financial Institutions

Banks are financial institutions that accept deposits and make loans. Included under the term *banks* are firms such as commercial banks, savings and loan associations, mutual savings banks, and credit unions. Banks are the financial intermediaries that the average person interacts with most frequently. A person who needs a loan to buy a house or a car usually obtains it from a local bank. Most Americans keep a large proportion of their financial wealth in banks in the form of checking accounts, savings accounts, or other types of bank deposits. Because banks are the largest financial intermediaries in our economy, they deserve careful study. However, banks are not the only important financial institutions. Indeed, in recent years, other financial institutions such as insurance companies, finance companies, pension funds, mutual funds, and investment banks have been growing at the expense of banks, and so we need to study them as well. We study banks and all these other institutions in Parts 6 and 7.

Financial Innovation

In the good old days, when you took cash out of the bank or wanted to check your account balance, you got to say hello to a friendly human. Nowadays, you are more likely to interact with an automatic teller machine (ATM) when withdrawing cash and to use your home computer to check your account balance. **Financial innovation**, the development of new financial products and services, can be an important force for good by making the financial system more efficient. Unfortunately, as we will see in Chapter 9, financial innovation can have a dark side: It can lead to devastating financial crises, such as the one we have recently experienced. In

Chapter 19 we study why and how financial innovation takes place, with particular emphasis on how the dramatic improvements in information technology have led to new financial products and the ability to deliver financial services electronically, in what has become known as **e-finance**. We also study financial innovation because it shows us how creative thinking on the part of financial institutions can lead to higher profits but can sometimes result in financial disasters. By seeing how and why financial institutions have been creative in the past, we obtain a better grasp of how they may be creative in the future. This knowledge provides us with useful clues about how the financial system may change over time and will help keep our understanding about banks and other financial institutions from becoming obsolete.

Managing Risk in Financial Institutions

In recent years, the economic environment has become an increasingly risky place. Interest rates have fluctuated wildly, stock markets have crashed both here and abroad, speculative crises have occurred in the foreign exchange markets, and failures of financial institutions have reached levels unprecedented since the Great Depression. To avoid wild swings in profitability (and even possibly failure) resulting from this environment, financial institutions must be concerned with how to cope with increased risk. We look at techniques that these institutions use when they engage in risk management in Chapter 23. Then in Chapter 24, we look at how these institutions make use of new financial instruments, such as financial futures, options, and swaps, to manage risk.

Applied Managerial Perspective

Another reason for studying financial institutions is that they are among the largest employers in the country and frequently pay very high salaries. Hence, some of you have a very practical reason for studying financial institutions: It may help you get a good job in the financial sector. Even if your interests lie elsewhere, you should still care about how financial institutions are run because there will be many times in your life, as an individual, an employee, or the owner of a business, when you will interact with these institutions. Knowing how financial institutions are managed may help you get a better deal when you need to borrow from them or if you decide to supply them with funds.

This book emphasizes an applied managerial perspective in teaching you about financial markets and institutions by including special case applications headed “The Practicing Manager.” These cases introduce you to the real-world problems that managers of financial institutions commonly face and need to solve in their day-to-day jobs. For example, how does the manager of a financial institution come up with a new financial product that will be profitable? How does a manager of a financial institution manage the risk that the institution faces from fluctuations in interest rates, stock prices, or foreign exchange rates? Should a manager hire an expert on Federal Reserve policy making, referred to as a “Fed watcher,” to help the institution discern where monetary policy might be going in the future?

Not only do “The Practicing Manager” cases, which answer these questions and others like them, provide you with some special analytic tools that you will need if you make your career at a financial institution, but they also give you a feel for what a job as the manager of a financial institution is all about.

How We Will Study Financial Markets and Institutions

Instead of focusing on a mass of dull facts that will soon become obsolete, this textbook emphasizes a unifying, analytic framework for studying financial markets and institutions. This framework uses a few basic concepts to help organize your thinking about the determination of asset prices, the structure of financial markets, bank management, and the role of monetary policy in the economy. The basic concepts are equilibrium, basic supply and demand analysis to explain behavior in financial markets, the search for profits, and an approach to financial structure based on transaction costs and asymmetric information.

The unifying framework used in this book will keep your knowledge from becoming obsolete and make the material more interesting. It will enable you to learn what *really* matters without having to memorize material that you will forget soon after the final exam. This framework will also provide you with the tools needed to understand trends in the financial marketplace and in variables such as interest rates and exchange rates.

To help you understand and apply the unifying analytic framework, simple models are constructed throughout the text in which the variables held constant are carefully delineated, each step in the derivation of the model is clearly and carefully laid out, and the models are then used to explain various phenomena by focusing on changes in one variable at a time, holding all other variables constant.

To reinforce the models' usefulness, this text also emphasizes the interaction of theoretical analysis and empirical data in order to expose you to real-life events and data. To make the study of financial markets and institutions even more relevant and to help you learn the material, the book contains, besides "The Practicing Manager" cases, numerous additional cases and mini-cases that demonstrate how you can use the analysis in the book to explain many real-world situations.

To function better in the real world outside the classroom, you must have the tools to follow the financial news that appears in leading financial publications and on the Web. To help and encourage you to read the financial section of the newspaper, this book contains two special features. The first is a set of special boxed inserts titled "Following the Financial News" that provide detailed information and definitions you need to evaluate the data that are discussed frequently in the media. This book also contains nearly 400 end-of-chapter questions and problems that ask you to apply the analytic concepts you have learned to other real-world issues. Particularly relevant is a special class of problems headed "Predicting the Future." These questions give you an opportunity to review and apply many of the important financial concepts and tools presented throughout the book.

Exploring the Web

The World Wide Web has become an extremely valuable and convenient resource for financial research. We emphasize the importance of this tool in several ways. First, wherever we use the Web to find information to build the charts and tables that appear throughout the text, we include the source site's URL. These sites often contain additional information and are updated frequently. Second, we have added Web exercises to the end of each chapter. These exercises prompt you to visit sites related to the chapter and to work with real-time data and information. We have also supplied Web references to the end of each chapter that list the URLs of sites related