Introduction to
FINANCE

15th
Edition

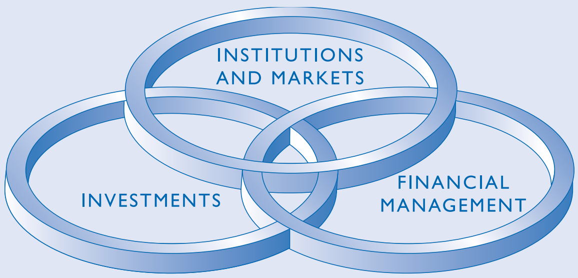
Ronald W. Melicher
Edgar A. Norton

WILEY

INTRODUCTION TO FINANCE

Markets, Investments, and Financial Management

FIFTEENTH EDITION



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To my parents, William and Lorraine, and
to my wife, Sharon, and our children,
Michelle, Sean, and Thor

Ronald W. Melicher

To my best friend and wife, Becky,
and our gifts from God, Matthew and Amy

Edgar A. Norton

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• PREFACE •

The fifteenth edition of *Introduction to Finance: Markets, Investments, and Financial Management* builds upon the successes of its earlier editions while maintaining a fresh and up-to-date coverage of the field of finance.

Our text is designed to present a more balanced first course in finance, one that offers students perspectives on financial markets, investing, and financial management. We use a successful pedagogy that reviews markets and institutions, then the world of investments, and finally the concepts and applications of business financial management.

A movement has been growing to offer a more balanced first course in finance. Previous editions were developed for such an "overview" first course, and this new edition continues in that vein. Eighteen chapters cover the three major financial areas involving the financial system, investments, and business finance. For the student who does not plan to take additional courses in finance, this book provides a valuable overview of the discipline's major concepts. For the student who wants to take additional courses in finance, the overview presented provides a solid foundation upon which future courses can build.

Introduction to Finance is meant to be used in a course whose purpose is to survey the foundations of the finance discipline. As such, it is designed to meet the needs of students in various programs. Specifically, *Introduction to Finance* can be used in any of the following four ways:

1. As the first course in finance at a college or university where the department wants to expose students to a broad foundational survey of the discipline.
2. As the first and only course in finance for nonfinance business students.
3. As an appropriate text to use at a school that seeks to provide liberal arts majors with a business minor or business concentration. The writing level is appropriate to provide students with a good foundation in the basics of our discipline.
4. As a "lower division" service course whose goal is to attract freshmen and sophomores to business and to attract them to become finance majors.

The philosophy behind the book is threefold. First, we believe that a basic understanding of the complex world of finance should begin with a survey course that covers an introduction to financial markets, investments, and financial management or business finance. Students can gain an integrated perspective of the interrelationships among these three areas. They will appreciate how businesses and individuals are affected by markets and institutions, as well as how markets and institutions can be used to meet the goals of individuals or firms. Given the events in the financial markets and the economy in recent years, this integrated perspective adds value to student learning and understanding of the field.

Second, we wrote the book as an introductory survey of finance with a readable and user-friendly focus in mind. We seek to convey basic knowledge, concepts, and terms that will serve the nonfinance major into the future and that will form a foundation upon which the finance major can build. Some finer points, discussions of theory, and complicated topics are reserved for "Learning Extensions" in selected chapters. We aim to make students using our text financially literate and cognizant of the richness of finance. The book provides a good foundation for students to build upon in later courses in financial management, investments, or financial markets.

Third, we focus on the practice of finance in the settings of markets, investments, and financial management. We focus on the descriptive in each of these fields. We don't want students to be unable to see the forest of finance because the trees of quantitative methods obscure their view or scare them away. When we do introduce equations and mathematical concepts that are applicable to finance, we will show step-by-step solutions.

By learning about markets (including gaining knowledge about institutions), investments, and management as the three major strands of finance, students will finish their course with a greater understanding of how these three fields interrelate. Financial markets will be seen as the arena to which businesses and financial institutions go to raise funds and as the mechanism through which individuals can invest their savings to meet their future goals. The topic of investments is important in facilitating the savings-investment process. Understanding the trade-off of risk and return, as well as the valuation of bonds and stocks, is essential to investors and businesses raising financial capital. Understanding how securities markets work is equally important. Financial management uses information it obtains from securities and other financial markets to efficiently and profitably manage assets and to raise needed funds in a cost-efficient manner.

A broad exposure to the discipline of finance will meet the needs of nonmajors who should know the basics of finance so they can read the *The Wall Street Journal*, visit business-related Internet sites, and analyze other business information sources intelligently. It will help the nonfinance major work as a member of a cross-functional work team, a team that will include finance professionals. In addition, this overview of finance will start the finance major off on the right foot. Rather than receiving a compartmentalized idea of finance—often viewed through the corporate finance lens that many texts use—the finance major will receive a practical introduction to the different disciplines of finance and will better appreciate their relationships to one another.

Part 1 of the book contains six chapters on the financial system, with primary emphasis on financial markets and the tools and skills necessary to better understand how such markets work. We begin with an overview of the three main subfields of finance, identify the "six principles of finance," and discuss career opportunities. The principles of finance are the following:

1. Money has a time value.
2. Higher returns are expected for taking on more risk.
3. Diversifying one's investments can reduce risk.
4. Financial markets are efficient in pricing securities.
5. The objectives of managers and stockholders may differ.
6. Reputation matters.

We discuss finance and the role and functions of the financial system to a nation's economy. The role of banks, other financial intermediaries, and the Federal Reserve are reviewed, as are their functions in the financial system. Part 1 introduces the international role of finance and how modern economies are affected by exchange rates, trade, and the flow of global funds.

Following this introduction to the financial system, Part 2 focuses on investments. We review the role of savings in an economy and the ways in which funds flow to and from different sectors. Interest rates are introduced, and the discussion centers on making the student aware of the different influences on interest rate levels and why the rates change over time. Because interest rates measure the cost of moving money across time, this section reviews basic time-value-of-money concepts with many worked-out examples, including the keystrokes that students can use with financial calculators.

Next, after reviewing the characteristics of bonds and stocks, students will learn to apply time-value-of-money concepts to find the prices of these securities. Continuing our overview of investments, we discuss investment banking basics and the operations of securities markets, as well as the fundamentals of investment risks and returns to conclude Part 2. Advanced classes may want to review the financial derivatives basics, which are explained in a learning extension to Chapter 11's discussion of securities and markets.

The raising of funds by businesses in the institutional and market environments is covered in Parts 1 and 2. Next, in Part 3, the final six chapters of the text introduce students to financial management. The discussion begins with the different ways in which to organize a business and the financial implications of each organizational form. We introduce accounting concepts, such as the balance sheet, income statement, and statement of cash flows with simple examples. We discuss financial ratios, which assist in the process of analyzing a firm's strengths and weaknesses. We review their use as a means to help managers plan ahead for future asset and financing needs. Strategies for managing a firm's current assets and current liabilities are examined, as are the funding sources firms use to tap the financial markets for short-term financing. Finally, we introduce students to capital budgeting basics and capital structure concepts.

New and Improved

The content of *Introduction to Finance* has been updated to incorporate many of the economic and financial events of the past few years. The financial crisis of 2007–2009, the subsequent recession and recovery—along with the behavior of the Federal Reserve and securities markets—provide a means to highlight causes, effects, and the integration of finance into our everyday lives, as well as the implications for markets, investments, and business finance. A *financial crisis* margin icon is placed next to relevant text material.

We continue our innovation from previous editions by featuring a real firm (Walgreens, the retail drugstore chain) in many of the chapters on investments and financial management as a means of presenting and analyzing data.

In addition to these broad improvements, all chapters have been updated and revised to reflect recent events and data. Specific notable changes in this fifteenth edition include the following:

Chapter 1, The Financial Environment, provides an overview of the financial system and environment. Economic and financial developments during the first part of the twenty-first century are identified, including the financial crisis and the 2007–2009 Great Recession.

Chapter 2, Money and the Monetary System, has been updated and the relationship between money supply and economic activity is discussed in light of the recent financial crisis and the associated credit crunch.

Chapter 3, Banks and Other Financial Institutions, features new material relating to how the financial crisis impacted on financial institutions. Falling housing prices, mortgage loan defaults, and declining values on mortgage-backed securities resulted in many financial institutions not having adequate equity capital to continue to operate and, thus, had to merge or be "bailed out."

Chapter 4, Federal Reserve System, describes the current structure and operations of the Fed including the Fed's response to the recent financial crisis and the Great Recession that followed. We also discuss the Fed's use of a new non-traditional monetary policy that became known as quantitative easing.

Chapter 5, Policy Makers and the Money Supply, describes how the U.S. government responded to the perfect financial storm involving the financial crisis and the subsequent Great Recession.

Chapter 6, International Finance and Trade, updates information on the European Union (EU) membership and the eurozone countries that have adopted the euro as their single currency.

Chapter 7, Savings and Investment Process, discusses how the increased use of debt by consumers to finance their spending contributed to the recent financial crisis and the Great Recession. Because home ownership has been an important component in the savings-investment process of individuals, we have incorporated materials on real estate mortgages and the mortgage markets into this chapter.

Chapter 8, Interest Rates, discusses the factors that explain differences in interest rates at a point in time as well as over time. In this chapter, we also cover the Fed's easy money policy, including the impact of quantitative easing on interest rates resulting in historical lows.

Chapter 9, Time Value of Money, conveys the importance of compounding (earning interest on interest) in building wealth over time. Examples are used to illustrate how to perform calculations with formulas, with interest factor tables, step-by-step financial calculator keystrokes, and Excel spreadsheets. We discuss the implications of the current low interest rate environment.

Chapter 10, Bond and Stocks: Characteristics and Valuations, has its bond valuation section rewritten to use the annual percentage rate (APR) approach as opposed to the effective interest rate (EAR) approach. The chapter contains updated data and improved discussions of bonds and stocks. We have revised the discussion of the risks facing investors in a low interest rate environment sustained by the Fed since the Great Recession. Spreadsheet examples show how to apply time value concepts to calculate bond prices and stock prices.

Chapter 11, Securities and Markets, incorporates changes in securities trading, including the New York Stock Exchange and IntercontinentalExchange (NYSE–ICE) merger as well as an overview of the Facebook initial public offering (IPO) and some of its problems.

Chapter 12, Financial Returns and Risk Concepts, is one of the more mathematical chapters; it shows how to do calculations with step-by-step calculator keystrokes and spreadsheet functions.

Chapter 13, Business Organization and Financial Data, features data from Walgreens' financial statements. We maintain that a firm's goal is to maximize shareholder wealth, and we discuss "sustainability" in light of this goal. In response to the financial crisis, we review problems with using stock options as an incentive mechanism for managers and the balance sheet implications of the government bailout for some U.S. auto companies.

Chapter 14, Financial Analysis and Long-Term Financial Planning, uses updated data from Walgreens and the retail drugstore industry in a practical example of financial ratio analysis using industry averages.

Chapter 15, Managing Working Capital, expands the discussion of managing cash in a difficult business environment with low interest rates. We discuss a new reason why firms hold large amounts of cash, with the tax cost of repatriating the funds back to the home country.

Chapter 16, Short-Term Business Financing, was revised to improve pedagogy and to update the material. It contains information on real firms' working capital financing strategies and on the implications of the financial crisis on a firm's ability to obtain short-term financing. We include a section on the American Energy and Infrastructure Jobs Act of 2012 (JOBS Act of 2012), a tool to help small firms obtain financing, including the use of "crowdfunding."

Chapter 17, Capital Budgeting Analysis, relates the cash flow estimation process for a project to the firm's statement of cash flows from Chapter 13 and reviews standard capital budgeting analysis tools such as net present value (NPV), internal rate of return (IRR), profitability index (PI), and modified internal rate of return (MIRR).

Chapter 18, Capital Structure and the Cost of Capital, contains updated discussions of trends in the use of debt by corporations and the use of debt financing in the low interest rate environment that has existed since the Great Recession.

LEARNING AND TEACHING AIDS

The fifteenth edition of *Introduction to Finance* offers the following aids for students and instructors:

CHAPTER OPENERS: Each chapter begins with the following:

- Chapter Learning Objectives, which students can use to review the chapter's main points and which instructors can use as a basis for in-class lecture or discussion;
- Where We Have Been statements that remind students of what was covered in the previous chapters;
- Where We Are Going, which are previews of chapters to come;
- How This Chapter Applies To Me that explain how the content of the chapter, no matter how technical or business specific, has applications to the individual student.

APPLYING FINANCE TO: These boxes show how the topic of each chapter relates to the finance fields of institutions and markets, investments, and financial management.

INTERNET MARGIN NOTES: We direct the student to relevant Web sites at different points in each chapter.

MARGIN DEFINITIONS: Margin definitions of key terms are provided to assist students in learning the language of finance.

CONCEPT CHECKS: These features appear in the margins near the end of every section to quiz students on what they have learned and how well they have learned it. Concept Checks reinforce the topical material and help students determine what they need to review.

MARGIN ICONS: These are placed in the margin to indicate discussions of finance principles, implications of the recent financial crisis, financial or business ethical issues, and global or international discussions.

SPREADSHEET ILLUSTRATIONS: We show how to use spreadsheets to solve problems and to teach students about the power of spreadsheet functions and analysis.

BOXED FEATURES: Throughout the book, boxes are used to focus on current topics or applications of interest. They are designed to illustrate concepts and practices in the dynamic field of finance.

- Small Business Practice boxes highlight aspects of the chapter topics relating directly to small businesses and entrepreneurship.
- Career Opportunities in Finance boxes provide information about various careers in finance and appear in many chapters.
- Personal Financial Planning boxes provide insight into how the chapter's content can be applied to an individual's finances.

LEARNING EXTENSIONS: Chapter appendixes, called Learning Extensions, are included in many chapters. Learning Extensions provide additional in-depth coverage of topics related to their respective chapters, and many challenge students to use their mathematical skills.

END-OF-CHAPTER MATERIALS: Each chapter provides the following:

- Discussion Questions that review chapter material
- Exercises for students to solve and exercise their mathematical skills
- Problems that are more difficult and that should be solved by using spreadsheets

COMPANION WEB SITE: The text's Web site at www.wiley.com/college/melicher contains a myriad of resources and links to aid learning and teaching.

INSTRUCTOR'S MANUAL AND TEST BANK: The Instructor's Manual is available to adopters of this text. It features detailed chapter outlines, lecture tips, and answers to end-of-chapter questions and problems. The manual includes an extensive test bank of true/false and multiple choice questions with answers, revised and expanded for this edition by Kevin Cochrane of College of the Desert.

COMPUTERIZED TEST BANK: This program is for use on a PC running Windows. The Computerized Test Bank contains content from the test bank provided within a Test Generating Program that allows instructors to customize their exams.

POWERPOINT PRESENTATIONS: Created by the authors, a PowerPoint presentation is provided for each chapter of the text. Slides include outline notes on the chapter, additional presentation topics, and figures and tables from the text.

STUDENT PRACTICE QUIZZES: A set of quizzes, revised by Leslie Mathis of University of Memphis, allows students to practice their knowledge and understanding of each chapter. These multiple-choice quizzes are auto-graded to provide students with instant feedback on their work.

SPREADSHEET SOFTWARE: A set of Excel-compatible templates, developed by Robert Ritchey of Texas Tech University, are available on the text's Web site. Students can use the templates to help solve some of the end-of-chapter problems and challenge problems.

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Ronald W. Melicher, *Boulder, Colorado*
Edgar A. Norton, *Normal, Illinois*

FEATURES OF THIS BOOK

Chapter Openers

- **Chapter Learning Objectives** that students can use to review the chapter's main points and instructors can use as a basis for in-class lecture or discussion.
- **Where We Have Been** briefly summarizes material from previous chapters.
- **Where We Are Going** briefly previews coverage in future chapters.
- **How This Chapter Applies to Me** briefly outlines personally relevant issues.

Concept Checks appear in the margins near the end of every section to quiz students on what they have just learned and how well they have learned it. Concept checks reinforce the topical material and help students determine what they need to review.

Boxed Features throughout the book are used to focus on current topics or applications of interest. They are designed to illustrate concepts and practices in the dynamic field of finance.

- **Small Business Practice** boxes highlight aspects of the chapter topics relating directly to small businesses and entrepreneurship.
- **Personal Financial Planning** boxes incorporate relevant information on how the chapter's content can be applied to an individual's finances.
- **Career Opportunities in Finance** boxes appear in several chapters and provide information about various careers in finance.
- **Applying Finance To** boxes show how the chapter relates to the finance fields of institutions and markets, investments, and financial management.

Spreadsheet Illustrations explain how to use spreadsheets to solve problems while showing students the powers of spreadsheet function and analysis.

Learning Extensions are chapter appendices, which provide additional in-depth coverage of topics related to their respective chapters. Many challenge students to use their mathematical skills.

End-of-Chapter Materials provide discussion questions, exercises, and special challenge problems that present students with more difficult questions that should be solved using Excel spreadsheets.

Icons:

Concept Check | Internet Activity | Ethics | Global | Finance | Financial Crisis

· AUTHOR BIOS ·

Ron Melicher is a professor of finance and previously served three different terms as chair of the Finance Division, Leeds School of Business, University of Colorado Boulder. He is a past president of the Financial Management Association. Ron earned undergraduate, M.B.A., and doctoral degrees from Washington University in St. Louis, Missouri. While at the University of Colorado, he has received several distinguished teaching awards and was designated a university-wide President's Teaching Scholar. Ron teaches corporate finance and financial strategy and valuation in the M.B.A. and Executive M.B.A. programs, in addition to entrepreneurial finance and investment banking to undergraduate students. His research has been published in major finance journals, including the *Journal of Finance, Journal of Financial and Quantitative Analysis*, and *Financial Management.* He is also the coauthor of *Entrepreneurial Finance,* fourth edition (South-Western/Cengage Learning).

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• BRIEF CONTENTS •

• CONTENTS •

INTRODUCTION TO FINANCE

Markets, Investments, and Financial Management

PART I

INSTITUTIONS AND MARKETS

INTRODUCTION

Ask someone what he or she thinks "finance" is about. You'll probably get a variety of responses: "It deals with money." "It is what my bank does." "The New York Stock Exchange has something to do with it." "It's how businesses and people get the money they need—you know, borrowing and stuff like that." And they'd all be correct!

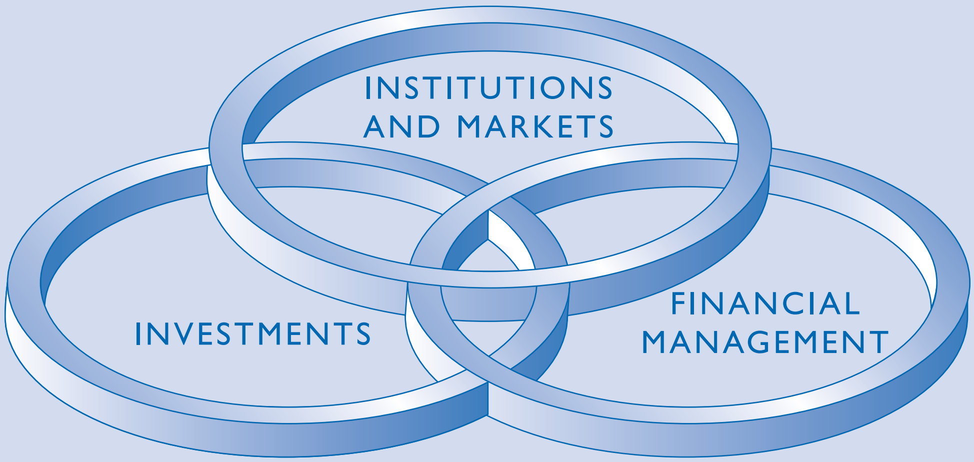
Finance is a broad field. It involves national and international systems of banking and financing business. It also deals with the process you go through to get a car loan and what a business does when planning for its future needs.

It is important to understand that while the U.S. financial system is complex, it generally operates efficiently. However, on occasion, imbalances can result in economic, real estate, and stock market "bubbles," which when bursts cause havoc on the workings of the financial system. The decade of the 2000s began with the bursting of the "tech" or technology bubble and the "dot.com" bubble. Then in mid-2006, the real estate bubble in the form of excessive housing prices burst. This was followed by the peaking of stock prices in 2007 followed by a steep decline that continued into early 2009. Economic activity began slowing in 2007 and progressed into an economic recession beginning in mid-2008, which was accompanied by double-digit unemployment rates. The result was the 2007–2008 financial crisis and the 2008–2009 Great Recession that produced the most financial distress on the U.S. financial system since the Great Depression years of the 1930s.

Within the general field of finance, there are three areas of study: financial institutions and markets, investments, and financial management. These areas are illustrated in the accompanying diagram. Financial institutions collect funds from savers and lend them to or invest them in businesses or people that need cash. Examples of financial institutions are commercial banks, investment banks, insurance companies, and mutual funds. Financial institutions operate as part of the financial system. The financial system is the environment of finance. It includes the laws and regulations that affect financial transactions. The financial system encompasses the Federal Reserve System, which controls the supply of money in the U.S. economy. It also consists of the mechanisms that have been constructed to facilitate the flow of money and financial securities among countries. Financial markets represent ways for bringing together those that have money to invest with those that need funds. Financial markets, which include markets for mortgages, securities, and currencies, are necessary for a financial system to operate efficiently. Part 1 of this book examines the financial system and the role of financial institutions and financial markets in it.

Securities markets play important roles in helping businesses and governments raise new funds. Securities markets also facilitate the transfer of securities between investors. A securities market can be a central location for the trading of financial claims, such as the New York Stock Exchange. It may also take the form of a communications network, as with the over-the-counter market, which is another means by which stocks and bonds can be traded. When people invest funds, lend or borrow money, or buy or sell shares of a company's stock, they are participating in the financial markets. Part 2 of this book examines the role of securities markets and the process of investing in bonds and stocks.

The third area of the field of finance is financial management. Financial management studies how a business should manage its assets, liabilities, and equity to produce a good or service. Whether or

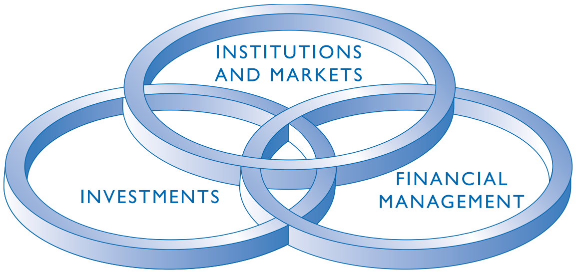


not a firm offers a new product or expands production, or how it invests excess cash, are examples of decisions that financial managers are involved with. Financial managers are constantly working with financial institutions and watching financial market trends as they make investment and financing decisions. Part 3 discusses how financial concepts can help managers better manage their firms.

There are few clear distinctions or separations between the three areas of finance. The diagram intentionally shows institutions and markets, investments, and financial management overlapping one another. Financial institutions operate in the environment of the financial markets and work to meet the financial needs of individuals and businesses. Financial managers do analyses and make decisions based on information they obtain from the financial markets. They also work with financial institutions when they need to raise funds and when they have excess funds to invest. Participants investing in the financial markets use information from financial institutions and firms to evaluate different investments in securities such as stocks, bonds, and certificates of deposit. A person working in one field must be knowledgeable about all three. Thus, this book is designed to provide you with a survey of all three areas of finance.

Part 1, Institutions and Markets, presents an overview of the financial system and its important components of policy makers, a monetary system, financial institutions, and financial markets. Financial institutions operate within the financial system to facilitate the work of the financial markets. For example, you can put your savings in a bank and earn interest. But your money doesn't just sit in the bank: The bank takes your deposit and the money from other depositors and lends it to Kathy, who needs a short-term loan for her business; to Ron for a college loan; and to Roger and Maria, who borrow the money to help buy a house. Banks bring together savers and those who need money, such as Kathy, Ron, Roger, and Maria. The interest rate the depositors earn and the interest rate that borrowers pay are determined by national and even international economic forces. Just what the bank does with depositors' money and how it reviews loan applications is determined to some extent by bank regulators and financial market participants, such as the Federal Reserve Board. Decisions by the president and Congress relating to fiscal policies and regulatory laws may also directly influence financial institutions and markets and alter the financial system.

Chapter 2 presents an overview of the role of money in the operation of the U.S. monetary and financial systems, including discussion of how funds are transferred among individuals, firms, and countries. Depository institutions, such as banks and savings and loans, as well as other financial institutions, involved in the financial intermediation process are the topic of Chapter 3. The Federal Reserve System, the U.S. central bank that controls the money supply, is discussed in Chapter 4. Chapter 5 places the previous chapters in perspective, discussing the role of the Federal Reserve and the banking system in helping meet national economic goals for the United States, such as economic growth, low inflation, and stable exchange rates. Part 1 concludes with an explanation of international trade and the topic of international finance in Chapter 6.



• CHAPTER 1 •

The Financial Environment

Chapter Learning Objectives . . .

AFTER STUDYING THIS CHAPTER, YOU SHOULD BE ABLE TO DO THE FOLLOWING:

- Define *finance* and explain why finance should be studied.
- Identify several major career opportunities in finance.
- Identify and describe the six principles of finance.
- Identify characteristics and components of an effective financial system.
- Describe the financial functions performed in an effective financial system.
- Briefly describe the four types of financial markets.

Where We Have Been . . .

As we progress through this book, we start each chapter with a brief review of previously covered materials. This will provide you with a reference base for understanding the transition from topic to topic. After completing the text, you will be at the beginning of what we hope is a successful business career.

Where We Are Going . . .

The financial environment within which we live and work is composed of a financial system, institutions, and markets. Part 1 of this text focuses on developing an understanding of the financial institutions and markets that operate to make the financial system work efficiently. Chapter 2 describes the U.S. monetary system, including how it is intertwined with the capital formation process and how it has evolved. Current types of money are described, and we discuss why it is important to control the growth of the money supply. In following chapters, we turn our attention to understanding how financial institutions, policy makers, and international developments influence how the financial system functions.

How This Chapter Applies to Me . . .

While it is impossible to predict what life has in store for each of us in terms of health, family, and career, everyone can be a productive member of society. Nearly all of us will take part in making social, political, and economic decisions. A basic understanding of the financial environment that encompasses economic and financial systems will help you in making informed economic choices.

Let us begin with the following quote by George Santayana, a U.S. philosopher and poet:

> *Those who cannot remember the past are condemned to repeat it.*[1]

While this quotation refers to the need to know something about history so individuals can avoid repeating bad social, political, and economic decisions, it is equally important to the field of finance. All individuals have the responsibility to be able to make informed public choices involving the financial environment. By understanding the financial environment and studying the financial system, institutions and markets, investments, and financial management, individuals will be able to make informed economic and financial choices that will lead to better financial health and success. After studying the materials in this book, you will be better informed in making choices that affect the economy and the financial system, as well as be better prepared for a business career, possibly one in the field of finance.

1. George Santayana, *Reason in Common Sense, The Life of Reason*, Vol. 1 (Charles Scribner's Sons, 1905), p. 284.

HOW HAS THE FINANCIAL ENVIRONMENT CHANGED?

The first twelve years of the twenty-first century have been a difficult time in the United States and worldwide. Whereas the 1990s decade was a period of economic growth and prosperity, the early part of the twenty-first century has been characterized by economic and financial markets volatility along with many individuals "treading water" in trying to maintain the standards of living they had achieved.

A price bubble for technology stocks, including so-called dot.com start-ups, burst in the United States in 2000. An economic downturn followed and was exacerbated by the September 11, 2001 terrorist attack. Economic recovery occurred over several years until the housing price bubble burst in 2006 and housing values declined. Securities tied to housing prices declined causing concerns that "over-borrowed" financial institutions might fail because they held insufficient equity capital resources to cover the decline in values of the home mortgages and housing-related debt securities they held. This led to the 2007–2008 financial crisis. A major economic recession (sometimes called the Great Recession) began in early 2008 and continued through mid-2009 and turned out to be the deepest and longest recession since the Great Depression of the 1930s. Unemployment rates exceeded 10 percent in 2009 and remained above the 7 percent level as of the end of 2012.

The health of economies, financial institutions, and markets are linked throughout the world. European and other major foreign financial institutions were caught in the 2007–2008 financial crisis and most foreign economies suffered economic downturns near the end of the 2000s decade. Even China, which had been growing its economy at a double-digit rate during the decade of the 2000s, had a slowing economic activity during the past couple of years. This has worldwide implications since many developed and developing economies are tied to demand for natural resources and other products by Chinese firms.

We believe the analysis and understanding of past developments in economic activity and financial markets is useful to governments, businesses, and individuals in planning their futures. By learning from the past, we may be able to avoid, or mediate, similar pitfalls in the future.

WHAT IS FINANCE?

Finance is the study of how individuals, institutions, governments, and businesses acquire, spend, and manage money and other financial assets. Understanding finance is important to all students regardless of the discipline or area of study because nearly all business and economic decisions have financial implications. The decision to spend or consume (for new clothes or dinner at a fancy restaurant) rather than save or invest (for spending or consuming more in the future) is an everyday decision that we face.

The ***financial environment*** encompasses the financial system, institutions or intermediaries (we will use these terms interchangeably throughout this text), financial markets, business firms, individuals, and global interactions that contribute to an efficiently operating economy. Figure 1.1 depicts the three areas of finance within the financial environment: institutions and markets, investments, and financial management. Though we identify three distinct finance areas, these areas do not operate in isolation but rather interact or intersect with each other. Our focus in this book is to provide the reader with exposure to all three areas, as well as to show how they are integrated. Of course, students pursuing a major or area of emphasis in finance will take multiple courses in one or more of these areas.

Financial institutions are organizations or intermediaries that help the financial system operate efficiently and transfer funds from savers and investors to individuals, businesses, and governments that seek to spend or invest the funds in physical assets (inventories, buildings, and equipment). ***Financial markets*** are physical locations or electronic forums that facilitate the flow of funds among investors, businesses, and governments. ***Investments*** involve the sale or marketing of securities, the analysis of securities, and the management of investment risk through portfolio diversification. ***Financial management*** involves financial planning, asset management, and fund-raising decisions to enhance the value of businesses.

Finance has its origins in economics and accounting. Economists use a supply and demand framework to explain how the prices and quantities of goods and services are determined in a free-market economic system. Accountants provide the record-keeping mechanism for showing

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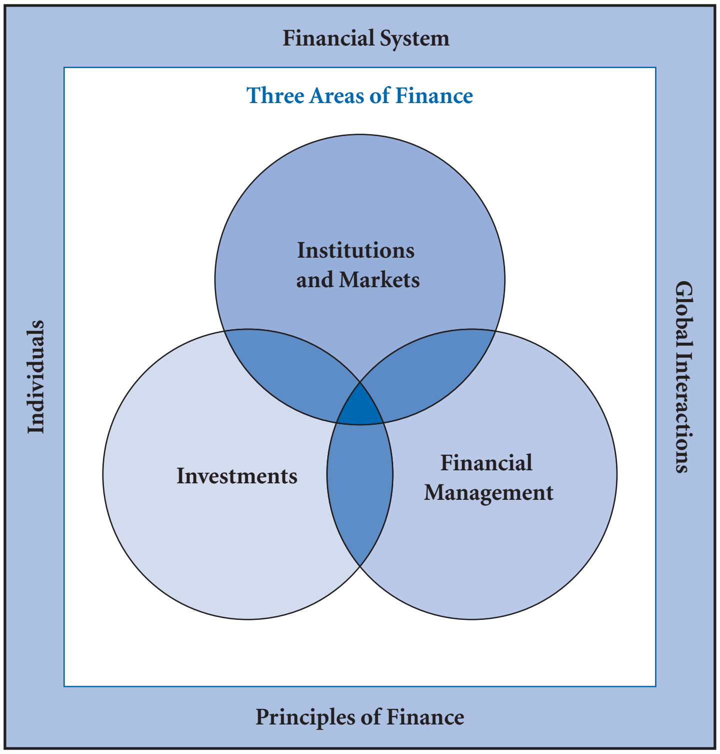
FIGURE 1.1
Graphic Illustration of the Financial Environment



ownership of the financial instruments used in the flow of financial funds between savers and borrowers. Accountants record revenues, expenses, and profitability of organizations that produce and exchange goods and services.

Efficient methods of production and specialization of labor can exist if there is an effective means of paying for raw materials and final products. Businesses can obtain the money needed to buy capital goods such as machinery and equipment only if a mechanism has been established for making savings available for investment. Similarly, federal and other governmental units, such as state and local governments and tax districts, can carry out their wide range of activities if efficient means exist for raising money, for making payments, and for borrowing.

Financial institutions, financial markets, and investment and financial management are crucial elements of the financial environment and well-developed financial systems. Financial institutions are intermediaries, such as banks, insurance companies, and investment companies that engage in financial activities to aid the flow of funds from savers to borrowers or investors.

Financial markets provide the mechanism for allocating financial resources or funds from savers to borrowers. Individuals make decisions as investors and financial managers. Investors include savers and lenders as well as equity investors.

While we are focusing on financial managers in this book, we recognize that individuals must be continuously involved in managing their personal finances. Investment management involves making decisions relating to issuing and investing in stocks and bonds. Financial management in business involves making decisions relating to the efficient use of financial resources in the production and sale of goods and services. The goal of the financial manager in a profit-seeking organization is to maximize the owners' wealth. This is accomplished through effective financial planning and analysis, asset management, and the acquisition of financial capital. Financial managers in not-for-profit organizations aim to provide a desired level of services at acceptable costs and perform the same financial management functions as their for-profit counterparts.

entrepreneurial finance
study of how growth-driven, performance-focused, early-stage firms raise financial capital and manage their operations and assets

personal finance
study of how individuals prepare for financial emergencies, protect against premature death and the loss of property, and accumulate wealth over time

TWO THEMES

As we progress through this book, we offer two themes within the financial institutions and markets, investments, and financial management topic areas. In each chapter, we provide boxed materials relating to small business practice and personal financial planning. Successful businesses typically progress through a series of life cycle stages from the idea stage to exiting the business. More specifically, the successful business typically moves through five stages: development stage, startup stage, survival stage, rapid growth stage, and maturity stage. Individuals who choose to become small business owners do so for a number of different reasons. Some small business owners focus on salary replacement opportunities where they seek income levels comparable to what they could have earned by working for much larger firms. Other individuals pursue lifestyle small business opportunities where they get paid for doing things they like to do. Entrepreneurs seek to own and run businesses that stress high growth rates in sales, profits, and cash flows.

Entrepreneurial finance is the study of how growth-driven, performance-focused, early-stage (from development through early rapid growth) firms raise financial capital and manage their operations and assets. Our small business practice boxes focus on operational and financial issues faced by early-stage firms. ***Personal finance*** is the study of how individuals prepare for financial emergencies, protect against premature death and the loss of property, and accumulate wealth over time. Our personal financial planning boxes focus on planning decisions made by individuals in regards to saving and investing their financial resources.

CONCEPT CHECK
What are the three areas of finance?

What two finance themes are carried throughout this book?

WHY STUDY FINANCE?

There are several reasons to study finance. Knowledge of the basics of finance covered in this text should help you make informed: economic decisions, personal and business investment decisions, and career decisions.

1. ***To make informed economic decisions.***
   As we will see, the operation of the financial system and the performance of the economy are influenced by policy makers. Individuals elect many of these policy makers in the United States, such as the president and members of Congress. Since these elected officials have the power to alter the financial system by creating laws and since their decisions can influence economic activity, individuals must be informed when making political and economic choices. Do you want a balanced budget, lower taxes, free international trade, low inflation, and full employment? Whatever your financial and economic goals may be, you need to be an informed participant if you wish to make a difference. Every individual should attain a basic understanding of finance as it applies to the financial system. Part 1 of this book focuses on understanding the roles of financial institutions and markets and how the financial system works.

INTERNET ACTIVITY
Go to the Small Business Administration Web site, http://www.sba.gov, and explore what is involved in deciding whether to start a new business.

SMALL BUSINESS PRACTICE
Importance of Small Firms in the U.S. Economy

As the U.S. economy moved from the industrial age to the information age, dramatic changes occurred in the importance of small businesses. As large firms with five hundred or more employees continued to downsize and restructure throughout the 1990s and into the twenty-first century, small firms provided the impetus for economic growth.

During the mid-1970s through the 1980s period, firms with fewer than five hundred employees provided over half of total employment and nearly two-thirds of the net new jobs in the United States. Small firms provided most of the net new jobs during the 1990s. And, while the decade of the 2000s involved a housing price collapse, a major financial crisis, and economic recession, small firms continued to be the primary supplier of new jobs.

Why have small firms been so successful in creating new jobs? A U.S. Small Business Administration (SBA) white paper suggests two reasons. First, small firms provide a crucial role in technological change and productivity growth. Market economies change rapidly, and small firms can adjust quickly. Second, small firms provide the mechanism and incentive for millions of individuals to pursue the opportunity for economic success.

Others may argue that entrepreneurial spirit and activity account for the importance of small firms in the U.S. economy. Whatever the reasons, the ongoing growth of small businesses continues to be an important stimulus to the economy in the early years of the twenty-first century.

For current statistics, visit the SBA Office of Advocacy Web site at http://www.sba.gov/advo.

2. ***To make informed personal and business investment decisions.***
   An understanding of finance should help you better understand how the institution, government unit, or business that you work for finances its operations. At a personal level, the understanding of investments will enable you to better manage your financial resources and provide the basis for making sound decisions for accumulating wealth over time. Thus, in addition to understanding finance basics relating to the financial system and the economy, you need to develop an understanding of the factors that influence interest rates and security prices. Part 2 of this book focuses on understanding the characteristics of stocks and bonds and how they are valued, securities markets, and how to make risk-versus-return investment decisions.
3. ***To make informed career decisions based on a basic understanding of business finance.***
   Even if your business interest is in a nonfinance career or professional activity, you will likely need to interact with finance professionals within and outside your firm or organization. Doing so will require a basic knowledge of the concepts, tools, and applications of financial management. Part 3 of this book focuses on providing you with an understanding of how finance is applied within a firm by focusing on decision making by financial managers.

CONCEPT CHECK

Give three reasons for studying finance.

Of course, you may be interested in pursuing a career in finance or at least want to know what people who work in finance do. Throughout this text, you will find discussions of career opportunities in finance as well as a boxed feature entitled Career Opportunities in Finance.

CAREERS IN FINANCE

INTERNET ACTIVITY

Go to The Wall Street Journal *Web site section at http://www.careerjournal.com, and find information relating to job hunting.*

Career opportunities in finance are available in financial management, depository financial institutions, contractual savings and real property organizations, and securities markets and investment firms. While you may aspire to own your own business or to be a chief executive officer (CEO) or chief financial officer (CFO) in a major corporation, most of us must begin our careers in an entry-level position. Following are four ways to get started in a finance career.

1. ***Financial management***
   Larger businesses or corporations divide their finance activities into treasury and control functions, whereas smaller firms often combine these functions. The treasurer is responsible for managing the firm's cash, acquiring and managing the firm's assets, and selling stocks and bonds to raise the financial capital necessary to conduct business. The controller is responsible for cost accounting, financial accounting, and tax record-keeping activities. Entry-level career opportunities include the following:
   - *Cash management analyst* involves monitoring and managing the firm's day-to-day cash inflows and outflows
   - *Capital expenditures analyst* involves estimating cash flows and evaluating asset investment opportunities
   - *Credit analyst* involves evaluating credit applications and collecting amounts owed by credit customers
   - *Financial analyst* involves evaluating financial performance and preparing financial plans
   - *Cost analyst* involves comparing actual operations against budgeted operations
   - *Tax analyst* involves preparing financial statements for tax purposes
2. ***Depository financial institutions***
   Banks and other depository institutions offer the opportunity to start a finance career in consumer or commercial lending. Banks hold and manage trust funds for individuals and other organizations. Entry-level career opportunities include the following:
   - *Loan analyst* involves evaluating consumer and/or commercial loan applications
   - *Bank teller* involves assisting customers with their day-to-day checking and banking transactions
   - *Investments research analyst* involves conducting research on investment opportunities for a bank trust department

3. ***Contractual savings and real property organizations***
Insurance companies, pension funds, and real estate firms provide opportunities for starting a career in finance. These institutions need various employees willing to blend marketing or selling efforts with financial expertise. Entry-level career opportunities include the following:

- *Insurance agent (broker)* involves selling insurance to individuals and businesses and participating in the processing of claims
- *Research analyst* involves analyzing the investment potential of real property and securities for pension fund holdings
- *Real estate agent (broker)* involves marketing and selling or leasing residential or commercial property
- *Mortgage analyst* involves analyzing real estate loan applications and assisting in the arranging of mortgage financing

4. ***Securities markets and investment firms***
Securities firms and various investment-related businesses provide opportunities to start a finance career in the investments area. Opportunities include buying and selling seasoned securities, analyzing securities for investment potential, marketing new securities issues, and helping individuals plan and manage their personal financial resources. Entry-level career opportunities include the following:

- *Stockbroker (account executive)* involves assisting clients in purchasing stocks and bonds and building investment wealth
- *Security analyst* involves analyzing and making recommendations on the investment potential of specific securities
- *Investment banking analyst* involves conducting financial analysis and valuation of new securities being issued
- *Financial planner assistant* involves analyzing individual client insurance needs and investment plans to meet retirement goals

While we have focused on entry-level careers in profit-motivated businesses and financial organizations, careers in finance are available in government or not-for-profit organizations. Finance opportunities at the federal or state government levels include managing cash funds, making asset expenditure decisions, and issuing debt securities to raise funds. Hospitals and other not-for-profit organizations also need expert financial managers to manage assets, control costs, and obtain funds. Government units and not-for-profit organizations hire financial and other analysts to perform these tasks.

All of these entry-level finance job opportunities can be found in the international setting. For example, many businesses engaged in producing and marketing products and services in foreign markets often offer employees opportunities for international job assignments. Large U.S. banks offer international job experiences through their foreign banking operations. Furthermore, since worldwide securities markets exist, securities analysts and financial planners often must analyze and visit foreign-based firms.

CAREER OPPORTUNITIES IN FINANCE
You Are Likely to Have More than One Business Career

Students are advised to prepare for several business careers during their working lifetimes. Corporate America continues to restructure and reinvent itself. At the same time, new industries associated with the information age are developing, and old industries are dropping by the wayside. These developments mean you will have more opportunities for multiple business careers.

Graduates of Harvard University are periodically surveyed concerning their work experiences and careers. Responses to one survey of individuals twenty-five years after graduation found that over half had worked for four or more employers, and one-fourth had been fired or, in kinder terms, “involuntarily terminated”. Over half of the men and women respondents had had at least two substantially different careers, and in many instances significant retraining was required.

Remember as you read this book that even if you do not plan on a career in finance, learning about finance might become important to you in your working lifetime. No matter where your business career takes you, you will always need to know and understand your personal finances.