PRINCIPLES OF Finance

SCOTT BESLEY 6E EUGENE F. BRIGHAM

PRINCIPLES OF Finance

6E

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6E

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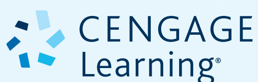

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Preface

Principles of Finance is intended for use in an introductory finance course. The book presents a survey of key concepts by covering the three general areas of study in finance: (1) financial markets and institutions, (2) managerial finance, and (3) investments. The book begins with a discussion of the principles of financial systems—markets, institutions, and financial assets. This section is followed by a presentation of general business concepts, including discussions of business organizations and goals and an examination of financial health. The next set of chapters covers valuation concepts, which include the time value of money, valuing financial and real assets, and the fundamentals of risk and return. Then, corporate decision making, or managerial finance, is presented. The discussions here center on how financial managers can help maximize their firms' values by making sound decisions in such areas as capital budgeting, choice of capital structure, and working capital management. Finally, in the last two chapters, investment fundamentals are explained. This organization has three important advantages:

1. Explaining early in the book how financial markets operate and how security prices are determined helps students understand how managerial finance can affect the value of the firm as well as how the same concepts can be used to make personal financial decisions. This background helps when coverage of such key concepts as risk analysis, time value of money, and valuation techniques are discussed in the remainder of the book.
2. Structuring the book around markets and valuation enhances continuity, because this organization helps students see how the various topics relate to one another.
3. Most students—even those who do not plan to major in finance—are generally interested in investment concepts, such as stock and bond valuation and selection, how financial markets work, how risk and rates of return affect financial decision making, and the like. Because people's ability to learn a subject is a function of their interest and motivation, and because *Principles* begins by showing the relationships among security markets, valuing financial assets, and managerial finance, this organization works well from a pedagogic standpoint.

Although this book is intended to be a survey of general finance, we could not include discussions of every area associated with the field of finance. Thus, we included those topics considered most relevant to presenting a basic understanding of the diversity of finance as an area of study. Because most students who read this book probably will not become finance majors, this book will be their only exposure to finance, including investment concepts that intrigue all of us. For this reason, we have structured the book so that (1) its content is sufficient to provide students with a good basic understanding of finance and (2) it can be used as a reference, or guide, for answering fundamental questions about finance.

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RELATIONSHIP OF THIS BOOK WITH OTHER CENGAGE BOOKS

Clearly, it is impossible to provide everything one needs to know about finance in one text, especially an introductory text. This recognition has led us to limit the scope of this book and also to write other texts to deal with the materials that cannot be included in *Principles*. Besley and Brigham have authored two texts that emphasize more detailed material about managerial finance (*CFIN* 4, and *Essentials of Managerial Finance*, 14th edition). Also, Eugene F. Brigham and Philip R. Daves have coauthored an intermediate undergraduate text (*Intermediate Financial Management*, 11th edition), and Eugene F. Brigham and Michael C. Ehrhardt have coauthored a comprehensive book aimed primarily at MBAs (*Financial Management: Theory and Practice*, 14th edition).

The relationship between *Principles* and the more advanced books deserves special comment. First, we recognize that the advanced books are often used by students who have also used *Principles* in an introductory finance course. Thus, we wanted to avoid excessive overlap but wanted to be sure to expose students to alternative points of view on controversial subjects. We should note, though, that our students in advanced courses invariably tell us that they find it helpful to have the more difficult materials repeated—they need the review. Students also say they like the fact that the style and notation used in our upper-level books are consistent with those in the introductory text, as this makes learning easier. Regarding alternative points of view, we have made every effort to take a moderate, middle-of-the-road approach, and where serious controversy exists, we have tried to present the alternative points of view. Reviewers were asked to consider this point, and their comments have helped us eliminate potential biases.

INTENDED MARKET AND USE

As noted earlier, *Principles* is intended for use as an introductory text. The key chapters can be covered in a one-term course, and if supplemented with cases and some outside readings, the book can also be used in a two-term course. If it is used in a one-term course, the instructor might cover only selected chapters, leaving the others for students either to examine on their own or to use as reference in conjunction with work in later courses. Also, we have made every effort to write the chapters in a flexible, modular format, which helps instructors cover the material in a different sequence, should they choose to do so.

IMPORTANT FEATURES OF THE BOOK

We must present the material contained in the book in a structured manner to ensure continuity and cogency in the coverage of the topics. To enhance the pedagogy, we have included some important features, which are discussed here.

A Managerial Perspective

Each chapter leads off with "A Managerial Perspective," which can be used for student reading, for class lecture, or for both. Although these business anecdotes are not new to this edition of *Principles*, we want to draw attention to them because the content of each is either new to this edition or has been updated since the previous edition.

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Self-Test Problems

Self-test problems are strategically positioned throughout the chapters. These problems provide students the opportunity to test their understanding of the material contained in the section of the chapter they just completed. Solutions to the Self-test problems are given at the end of the chapter in which they are included.

Learning Objectives and End-of-Chapter Summary

Each chapter begins with a section called Chapter Principles—*Learning Objectives*, which presents the concepts students should understand when they finish reading the chapter. Each chapter ends with a summary of the key concepts that are presented in the chapter as they relate to the learning objectives given at the beginning of the chapter. This feature helps students connect the material covered in the chapter with questions that instructors often ask during class or on exams.

Microsoft Excel Spreadsheets

Where appropriate, spreadsheets are used to solve problems presented in the book. The use of spreadsheets to solve financial problems is prominent in the chapter that covers time value of money concepts (Chapter 9) and the chapter that describes capital budgeting techniques (Chapter 13). In addition, computer-related problems that should be solved using a spreadsheet are included in the problem section at the end of appropriate chapters. We also included an Appendix A, that provides a tutorial on how to solve financial problems using spreadsheets. Because students must use spreadsheets in the business world, they should be exposed to the benefits of this important tool early in their business curriculum.

Personal Finance

In the years we have taught the basic course in finance that all business majors are required to complete, we have noticed that many students seem uninterested in the topic. In fact, most admit that they would not take the course if it was not required as part of their business curriculum. As a result, we have tried various methods to get the uninterested students more interested in finance. It seems that one way to get the attention of students is to relate managerial finance topics to personal financial decisions that everyone is exposed to at some point during their lives. Therefore, each chapter has a section titled Chapter Principles—*Personal Finance*. This section contains discussion that relates the topics covered in the chapter to personal financial decisions. Our hope is that students make the connection between financial concepts presented in the course and the application to decisions that they will face with their personal finances. Perhaps this pedagogy will help get students more interested in learning some of the important financial concepts.

Ethical Dilemmas

We feel that it is crucial for students who will someday be decision makers in the business world to be exposed to ethical situations to improve their critical-thinking skills. For this reason, we include ethical dilemma vignettes in each chapter. Each ethical dilemma vignette is related to the material covered in the chapter and is based on real-world circumstances. These ethical dilemmas (1) expose students to the relationship between ethics and business, (2) promote the development of critical-thinking and decision-making skills, and (3) provide a vehicle for lively class discussion.

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Cash Flow Timelines and Approaches to TVM Analysis

In our discussions of time value of money topics (Chapter 9), we begin each major section with a verbal discussion of a time value issue, and then we present a timeline to show graphically the cash flows that are involved, after which we give the equation that must be solved to obtain the required answer. Finally, we present two methods that can be used to solve the equation: (1) a numerical solution and (2) a financial calculator solution. (We also present spreadsheet solutions for some problems.) The cash flow timeline helps students visualize the problem at hand and see how to set it up for solution, the equation helps them understand the mathematics, and the two-pronged solution approach helps them see that time value problems can be solved in alternative ways. Each student will focus on the particular solution technique he or she feels comfortable using, which generally calls for using a financial calculator. One advantage of our approach is that it helps students understand that a financial calculator is not a "black box"; rather, it is an efficient tool that can be used to solve time value problems.

Multinational Finance Coverage

Coverage of multinational finance is included in the chapters where the specific topics are covered rather than in a separate chapter devoted to multinational managerial finance. This placement allows students to better understand how the application of the material presented in the chapter differs in domestic and international settings.

ANCILLARY MATERIALS

All instructor materials can be found on the password-protected website at login.cengage.com. Here you will find the following resources:

1. *Instructor's Manual.* The comprehensive manual contains answers to all text questions, problems, and detailed solutions to integrative problems.
2. *PowerPoint Lecture Presentations.* To facilitate classroom presentations, Microsoft PowerPoint slides which highlight key chapter features are provided.
3. *Test Bank and Cengage Learning Testing powered by Cognero.* The test bank contains more than 1,000 class-tested questions and problems. True/false questions, multiple-choice conceptual questions, multiple-choice problems (which can be easily modified to short-answer problems by removing the answer choices), and financial calculator problems are included for every chapter. We have developed outcomes assessment criteria to satisfy Blooms Taxonomy standards along with Business Program, and specialized financial standard requirements. All questions are tagged for easy selection.

   The Test Bank is available in Microsoft Word as well as online with Cognero. Cengage Learning Powered by Cognero is a flexible, online system that allows you to author, edit, and manage Test Bank content. You can create multiple test versions and deliver tests from your LMS, your classroom, or wherever you have an Internet connection.
4. *Problem Spreadsheets.* Spreadsheets that contain models for the computer-related end-of-chapter problems are available.

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A number of additional items are available for purchase by students:

1. *Cases*. *Finance Online Case Library*, 3rd edition, by Eugene F. Brigham and Linda S. Klein, is well suited for use with *Principles*. The cases provide real-world applications of the methodologies and concepts developed in this book. In addition, all of the cases are available in a customized format, so your students pay only for the cases you decide to use.

2. *Spreadsheet Analysis Book*. *Financial Analysis with Microsoft Excel*, 7th edition, by Timothy R. Mayes fully integrates the teaching of spreadsheet analysis with the basic finance concepts. This book makes a good companion to *Principles* in courses in which computer work is highly emphasized.

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This book reflects the efforts of a number of people over the years.

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ERRORS IN THE TEXT

At this point, most authors make a statement like this: "We appreciate all the help we received from the people listed above, but any remaining errors are, of course, our own responsibility." And in many books, there are plenty of remaining errors. Having experienced difficulty with errors ourselves, both as students and as instructors, we resolved to avoid this problem in *Principles*. As a result of our error-detection procedures, we are convinced that this text is relatively free of mistakes.

Partly due to our confidence that there are few errors in this book, but primarily because we want to correct any errors that might have slipped by so that we can correct them in future printings of the book, we have decided to offer a reward of $10 per error to the *first* person who reports it to us. For purposes of this reward, errors are defined as spelling errors, computational errors not due to rounding, factual errors, and other errors that inhibit comprehension. Typesetting errors, such as spacing, and differences in opinion concerning grammatical or punctuation conventions do not qualify for the reward. Also, given the ever-changing nature of the Internet, changes in web addresses do not qualify as errors—the web addresses included in the book are those that existed at the time we wrote it. Finally, any qualifying error that has follow-through effect is counted as two errors only. Please report any errors to Scott Besley either via e-mail at sbesley@usf.edu or by regular mail at the address on the next page.

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CONCLUSION

Finance is, in a real sense, the cornerstone of the enterprise system—good financial management is vitally important to the economic health of business firms, and hence to the nation and the world. Because of its importance, finance should be widely and thoroughly understood, but this is easier said than done. The field is relatively complex, and it is undergoing constant change in response to shifts in economic conditions. All of this makes finance stimulating and exciting but also challenging and sometimes perplexing. We sincerely hope that *Principles of Finance* will meet its own challenge by contributing to a better understanding of our financial system.

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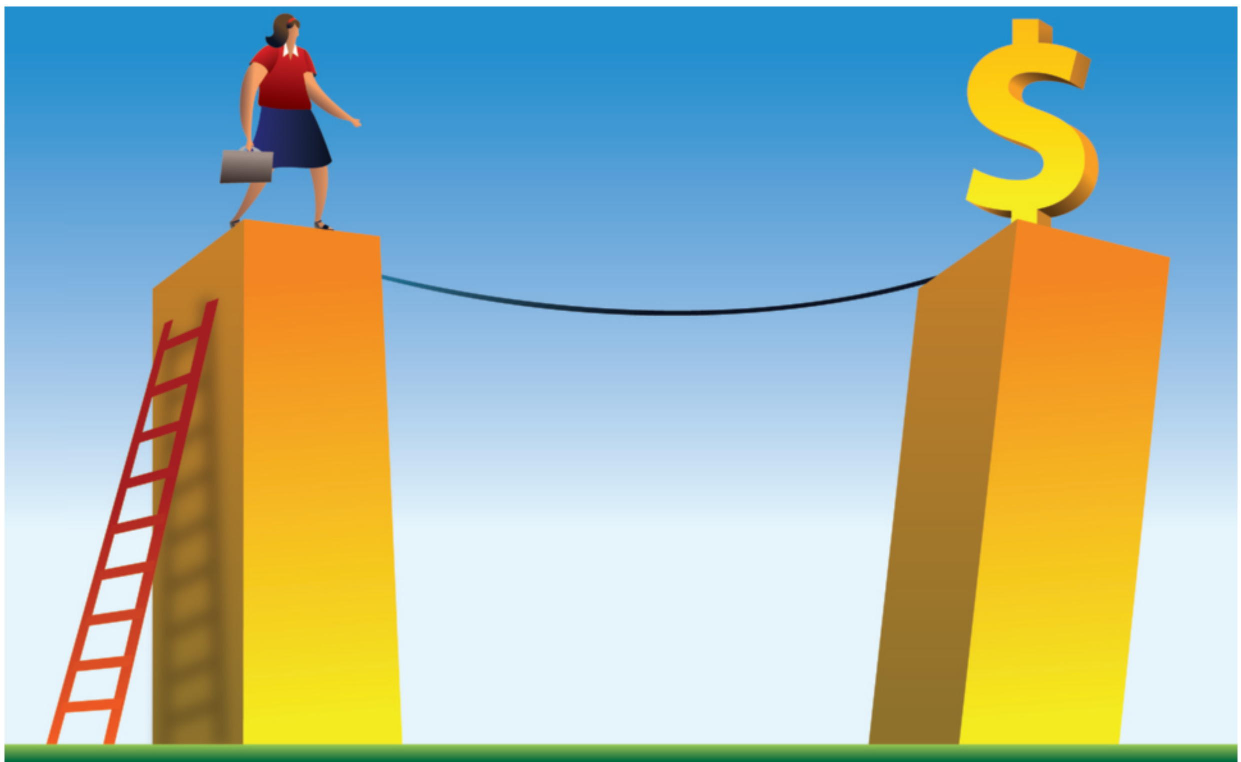
PART 1

General Finance Concepts



Chapter 1 An Overview of Finance

Chapter 2 Financial Assets (Instruments)

Chapter 3 Financial Markets and the Investment Banking Process

Chapter 4 Financial Intermediaries and the Banking System

Chapter 5 The Cost of Money (Interest Rates)

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CHAPTER

1

AN OVERVIEW OF FINANCE

A Managerial Perspective

Do you like money? If you do, then you should like finance because finance deals with money. More important, you will discover as you read this text that *finance people* like putting the money they have to work so they can make more money. Sound like a good idea? It is, if you know what you are doing.

How well do you think you understand finance? If you are like most people, the answer is "not very well." A number of surveys and quizzes that have been administered to determine the financial literacy of Americans show that far too many people are financially illiterate. For example, based on its survey in 2003, Bankrate.com gave Americans an average grade of D for financial literacy. Only 10 percent of the participants earned a score of A on the Bankrate.com financial literacy test; 35 percent of the participants earned a failing grade.[1] The results are worse for high school students. In its 2008 survey of high school seniors, Jump$tart found that the average score on its financial literacy test was 48, which is failing. The scores showed improvement—the average score increased to 58—when the test was administered to students between the ages of 13 and 18 by the National Financial Educators Council (NFEC) in 2012 and 2013. However, only about 25 percent of the students scored above 70, which is considered a passing grade. Although they performed better, college students still received a grade of D with an average score of 62.[2] The Consumer Financial Literacy Survey conducted by Harris Interactive Inc. for the National Foundation for Credit Counseling from 2011 to 2013 found that at least 40 percent of those surveyed felt that their knowledge about personal finance deserved grades of C or lower. Clearly, these results suggest that citizens of the most financially developed country in the world—the United States—are lacking in their understanding of personal finance.

The areas in which people seem to have the greatest deficiencies or misconceptions about their finances are retirement needs and personal debt. During the period from 1950 through 1979, the average annual savings rate (as a percent of disposable income) in the United States was approximately 9 percent. In the 1990s, the savings rate declined to 5.5 percent; the rate has dropped further to about 3 percent in the 2000s. As a result, the portion of their incomes that Americans are putting aside to prepare for either retirement or emergencies has declined substantially since 1980.[3] To make matters worse, as savings dropped, personal debt increased sharply. For example, in 1990 the average credit card balance per household was

[1]Information about financial literacy can be found at Bankrate.com. The source for this survey is www.bankrate.com/brm/news/financial-literacy2004/grade-home.asp.

[2]The results of the Jump$tart survey are available at www.jumpstart.org/survey.html and the results of the NFEC financial literacy test can be found at www.financialeducatorscouncil.org/financial-literacy-research/.

[3]Source: The Bureau of Economic Analysis (www.bea.gov/).

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approximately $3,000, in 2000 the average balance was nearly $8,000, and, although it appears that outstanding credit card debt has declined somewhat, in 2013 the average balance was still nearly $8,000. As a student, you should be concerned about your credit because, on average, undergraduate students carry outstanding credit card balances equal to about $3,500, and graduate students carry balances equal to almost $5,600. Unfortunately, approximately 10 percent of graduating students have credit card balances in excess of $7,000. In addition, when they graduate, college students on average have education loans that amount to about $24,000.[4]

Finance is a fundamental part of life, so it is important to have some understanding of how it affects you as a person. When you buy a car or a house or plan for retirement, you must deal with general financial concepts. As you read this text, try to relate the concepts that are discussed to future decisions that you will face, including investing in stocks, planning for retirement, and financing such big-ticket items as cars and houses. Even if you pursue a career in a nonfinance profession, you will find yourself using finance concepts in both your job and your personal life. And, keep in mind that it has been shown that persons who have more knowledge about personal finances generally are able to retire more comfortably and are wealthier than persons who lack such knowledge.

Although finance is centuries old, it remains an evolving discipline, with no limits in sight. As you read this chapter, as well as the rest of the book, keep in mind that this field is dynamic and ever-changing. If you are looking for a career in which you are not likely to become bored, finance just might be the answer.

Chapter Principles

Learning Objectives

After reading this chapter, you should be able to:

- Explain what finance entails and why everyone should have an understanding of basic financial concepts.
- Describe how the finance discipline has changed during the past century.
- Explain in general how value is measured and what it means to maximize value.
- Explain what it means to be sustainable and how making appropriate financial decisions promotes sustainability.
- Explain what the terms *lean manufacturing* and *lean finance* mean.

WHAT IS FINANCE?

finance
The discipline that deals with decisions concerning how money is raised and used by businesses, governments, and individuals.

In simple terms, finance is concerned with decisions about money, or more appropriately, cash flows. Finance decisions deal with how money is raised and used by businesses, governments, and individuals. To make sound financial decisions, you must understand three general, yet reasonable, concepts: *Everything else being*

[4]Sources include Draut, T., "Economic State of Young America," Dēmos: A Network for Ideas & Action (New York), Spring 2008. A PDF version of the report is available at www.demos.org/; Dickler, J., "Getting Squeezed by Credit Card Companies: Card Issuers Use All Sorts of Tactics to Wrestle Every Penny Out of Customers. Here's What You Need to Know," CNNMoney.com, May 27, 2008; "Taking Charge: America's Relationship with Credit Cards," CreditCards.com, June 6, 2007; and "Student Debt and the Class of 2009," The Project on Student Debt, October 2010, available at www.projectonstudentdebt.org/. In addition, information was compiled from websites such as Index Credit Cards, www.indexcreditcards.com/creditcarddebt/, Collections & Credit Risk, www.collectionscreditrisk.com/news/card-debt-falling-along-with-average-credit-scores-3003248-1.html, CreditCards.com, www.creditcards.com/credit-card-news/credit-card-industry-facts-personal-debt-statistics-1276.php, and Federal Reserve Bank of New York, www.newyorkfed.org/microeconmics/data.html.

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equal, (1) more value is preferred to less; (2) the sooner cash is received, the more valuable it is; and (3) less risky assets are more valuable than (preferred to) riskier assets. Firms that make decisions with these concepts in mind are able to provide better products to customers at lower prices, pay higher salaries to employees, and still provide greater returns to investors who put up the funds needed to form and operate the businesses. In general, then, sound financial management contributes to the well-being of both individuals and the general population.

Although the emphasis in this book is business finance, you will discover that the same concepts that firms apply when making sound business decisions can be used to make informed decisions relating to personal finances. For example, consider the decision you might have to make if you win a state lottery worth $105 million. Which *would* you choose: a lump-sum payment of $54 million today or a payment of $3.5 million each year for the next 30 years? Which *should* you choose? In Chapter 9, we will show that the time value of money techniques firms use to make business decisions can also be used to answer this and other questions that relate to personal finances.

GENERAL AREAS OF FINANCE

The study of finance consists of four interrelated areas:

1. **Financial Markets and Institutions—**Financial institutions, which include banks, insurance companies, savings and loans, and credit unions, are an integral part of the general financial services marketplace. The success of these organizations requires an understanding of factors that cause interest rates and other returns in the financial markets to rise and fall, regulations that apply to such institutions, and various types of financial instruments, such as mortgages, auto loans, and certificates of deposit, that financial institutions offer.
2. **Investments—**This area of finance focuses on the decisions made by businesses and individuals as they choose securities for their investment portfolios. The major functions in the investments area are (a) determining the values, risks, and returns associated with such financial assets as stocks and bonds and (b) determining the optimal mix of securities that should be held in a portfolio of investments.
3. **Financial Services—**Financial services refers to functions provided by organizations that deal with the management of money. Persons who work in these organizations, which include banks, insurance companies, brokerage firms, and similar companies, provide services that help individuals (and companies) determine how to invest money to achieve such goals as home purchases, retirement, financial stability and sustainability, budgeting, and related activities.
4. **Managerial (Business) Finance—**Managerial finance deals with decisions that all firms make concerning their cash flows, both inflows and outflows. As a consequence, managerial finance is important in all types of businesses, whether they are public or private, deal with financial services, or manufacture products. The types of duties encountered in managerial finance range from making decisions about plant expansions to choosing what types of securities to issue to finance such expansions. Financial managers also have the responsibility for deciding the credit terms under which customers can buy, how much inventory the firm should carry, how much cash to keep on hand, whether to acquire other firms (merger analysis), and how much of each year's earnings should be paid out as dividends and how much should be reinvested in the firm.

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Although our concern in this book is primarily with managerial finance, the other areas are also discussed because all areas of finance are interrelated; an individual who works in any one area should have a good understanding of the other areas as well. For example, a banker lending to a business must have a good understanding of managerial finance to judge how well the borrowing company is operated. The same holds true for a securities analyst. Even stockbrokers must understand general financial principles if they are to give intelligent advice to their customers. At the same time, corporate financial managers need to know what their bankers are thinking and how investors are likely to judge their corporations' performances and thus determine their stock prices.

THE IMPORTANCE OF FINANCE IN NONFINANCE AREAS

Everyone is exposed to finance concepts almost every day. For example, when you borrow to buy a car or house, finance concepts are used to determine the monthly payments you are required to make. When you retire, finance concepts are used to determine the amount of the monthly payments you receive from your retirement plan. If you want to start your own business, an understanding of finance concepts is essential for survival. Thus, even if you do not intend to pursue a career in a finance-related profession, it is important that you have some basic understanding of finance concepts. Similarly, if you pursue a career in finance, it is important that you have an understanding of other areas in the business, including marketing, accounting, production, and so forth, to make more informed financial decisions.

Let's consider how finance relates to some of the nonfinance areas in a business.

1. **Management**—When we think of management, we often think of personnel decisions and employee relations, strategic planning, and the general operations of the firm. Strategic planning, which is one of the most important activities of management, cannot be accomplished without considering how such plans impact the overall financial well-being of the firm. Such personnel decisions as setting salaries, hiring new staff, and paying bonuses must be coordinated with financial decisions to ensure that needed funds are available. For these reasons, managers must have at least a general understanding of financial management concepts to make informed decisions in their areas.
2. **Marketing**—If you have taken a basic marketing course, you learned that the *four Ps of marketing*—product, price, place, and promotion—determine the success of products that are manufactured and sold by companies. Clearly, the price that should be charged for a product and the amount of advertising a firm can afford for the product must be determined in conjunction with financial managers because the firm will lose money if the price of the product is too low or too much is spent on advertising. Coordination of the finance function and the marketing function is critical to the success of a company, especially for a small, newly formed firm, because it is necessary to ensure that sufficient cash is generated to survive. For these reasons, people in marketing must understand how marketing decisions affect and are affected by such issues as funds availability, inventory levels, and excess plant capacity.
3. **Accounting**—In many firms (especially small ones), it is difficult to distinguish between the finance function and the accounting function. Often, accountants make finance decisions, and vice versa, because the two disciplines are closely related. As you will discover, financial managers rely heavily on accounting

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information because making decisions about the future requires information about the past. As a consequence, accountants must understand how financial managers use accounting information in planning and decision making so that it can be provided in an accurate and timely fashion. Similarly, accountants must also understand how accounting data are viewed (used) by investors, creditors, and others who are interested in the firm's operations so that they provide appropriate financial information.

4. **Information Systems**—To make sound decisions, financial managers rely on accurate information that is available when needed. The process by which the delivery of such information is planned, developed, and implemented is costly, but so are the problems caused by a lack of good information. Without appropriate information, decisions relating to finance, management, marketing, and accounting could prove disastrous. Different types of information require different information systems, so information system specialists work with financial managers to determine what information is needed, how it should be stored, how it should be delivered, and how managing information will affect the profitability of the firm.
5. **Economics**—Finance and economics are so similar that some universities offer courses related to these two areas in the same department (functional area). Many tools used to make financial decisions evolved from theories or models developed by economists. Perhaps the most noticeable difference between finance and economics is that financial managers evaluate information and make decisions about cash flows associated with a particular firm or a group of firms, whereas economists analyze information and forecast changes in activities associated with entire industries and the economy as a whole. It is important that financial managers understand economics and that economists understand finance—economic activity and policy impact financial decisions, and vice versa.

Finance will be a part of your life no matter what career you choose. There will be a number of times during your life, both in business and in your personal finances, that you will make finance-related decisions. Therefore, it is vitally important that you have some understanding of general finance concepts. *There are financial implications in virtually all business decisions, and nonfinancial executives must know enough finance to incorporate these implications into their own specialized analyses*. For this reason, every student of business, regardless of his or her major, should be concerned with finance.

THE EVOLUTION OF MODERN FINANCE[5]

In this book, although we examine general concepts in all of the four interrelated areas of finance that we discussed earlier, we separate our discussion into three areas that many people believe cover the basic topics of finance study: (1) financial markets, (2) investments, and (3) business (managerial) finance. This section provides a brief overview of the evolution of modern finance in these general areas. Later in the book, you will discover that many of the discussions emphasize managerial finance. We have chosen this treatment for two reasons: (1) managerial finance encompasses financial markets and investments and (2) in general, the techniques used in managerial finance can also be applied to financing and investment decisions faced by individuals and thus to services and products offered by financial services organizations.

[5]For an excellent discussion of the evolution of finance in the twentieth century, see J. Fred Weston, "A (Relatively) Brief History of Finance Ideas," *Financial Practice and Education*, Spring/Summer 1994, 7–26.

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Financial Markets and Institutions

Financial markets provide the mechanisms that permit borrowers and lenders to transfer funds among each other whether the transfers are direct or indirect. Because the financial markets in the United States are well developed, we have been able to achieve a higher standard of living than otherwise would be possible. Without such financial institutions as banks, credit unions, and savings and loan associations, it would be difficult for us to finance such purchases as houses and automobiles. During the twentieth century, however, both financial markets and financial institutions went through substantial changes.

In the early 1900s, the "banking" community consisted of thousands of independent banking organizations—mostly small, hometown banks. The larger banks offered a variety of services, including those that we traditionally associate with banks, as well as other financial functions, such as investment services and insurance. By 1920, many of the large commercial banks included investment departments and affiliate organizations that helped companies issue stocks and bonds. A decade later, banks or their affiliates originated nearly 50 percent of all new issues of stocks and bonds. During this period, banks truly were full-service financial organizations.

A series of financial catastrophes during the first third of the twentieth century—including a devastating financial crisis in 1907, the failure of nearly 6,000 banks during the 1920s, and the Great Depression of 1929 through 1933—resulted in legislation that both severely restricted where and how banks could operate and established the foundation of our current banking structure. During this period, branch banking as we know it today did not exist; such expansion was either prohibited by law or condemned by the banking industry. In addition, banking reforms enacted in the 1930s significantly limited the financial activities that banks could undertake. The general sentiment held that unscrupulous banking organizations contributed to earlier financial panics and the Great Depression; consequently, reform was needed to force banks to concentrate on the principal activities associated with the banking industry—taking deposits and making loans. It was felt that such focus could be achieved only through cogent regulation and supervision.

The restrictions imposed on banking operations placed banks at a competitive disadvantage in the financial markets, both domestically and abroad. In the 1970s and 1980s, the financial markets experienced rapid increases in interest rates as well as significant technological advances in communications and information systems. These events resulted in the emergence of nonbank organizations (organizations, such as insurance companies, that do not take deposits and are not under the supervision of bank regulators), which soon threatened the presence of banks and other financial institutions. To deal with these issues, a great deal of deregulation has occurred in the banking industry since the 1970s. For example, during the past few decades, legislation and legislative proposals have helped tear down barriers to national branch banking and permitted banking organizations to venture into finance-related areas, such as investments and insurance, that were prohibited from the 1930s until the beginning of the twenty-first century. The deregulation has been supported as a means to improve competition, with proponents arguing that severely restrictive regulation threatens the existence of financial institutions.

In the past, as banking regulations became more restrictive, so did regulation of the financial markets as a whole. Recent events in the financial markets and a depressed economy from 2007 through 2010 have raised concerns that participants in the financial markets should be more strictly regulated to avoid significant market downturns and to eliminate as many opportunities for investors to defraud

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each other as possible. The sentiment of Congress has been to reregulate the financial markets in the wake of the meltdown of the real estate markets, which many blame on the existence of subprime, or exotic, mortgages that often were misunderstood by borrowers, and the failure of some mega financial institutions, which resulted from poor risk management. It will be interesting to see the sentiment of future legislation because when the economy and the financial markets perform well, generally there is a tendency to deregulate; the opposite is true during, or immediately after, calamitous economic events such as those that occurred during the 2007 to 2010 period.

Investments

The United States has seen a variety of stock markets since the beginning of the twentieth century. In addition, both participation in investments and the types of instruments that are available in the financial markets have changed considerably. In the early 1900s, the investments arena was dominated by a small group of wealthy investors and opulent corporations. Few small, individual investors ventured into corporate stocks and bonds because managers rarely disclosed financial information to the public—disclosure of such information was not mandated at the time. Because information was controlled by insiders and those who could afford to pay for it, the small investor was at a considerable disadvantage and was often exploited by the wealthy, more sophisticated investor. Consequently, most individuals invested in instruments that were considered relatively safe, such as savings accounts at banks and government securities.

Industrialization and the government financing of World War I resulted in increased financial prosperity and provided substantial wealth for people who had invested in the financial markets. Not surprisingly, the performance of the markets soon attracted greater interest from small, unsophisticated investors. By the 1920s, the number of investment firms had grown substantially, and corporate stocks and bonds were no longer viewed as investments only for the elite. Unfortunately, as the popularity of the securities markets increased, so did the fraudulent and manipulative practices of investment organizations, including those affiliated with commercial banks. It is interesting to note that mutual funds were introduced to the U.S. financial markets during this period. Nearly all of these funds focused on common stocks, and the highly speculative nature of many of these funds helped fuel the "fire" associated with the 1929 stock market crash.

From 1929 to 1932, the stock market declined by more than 80 percent—the value of stocks declined from nearly $90 billion to less than $16 billion. Many felt that the market crash was precipitated by unethical trading practices and abuses of investment organizations and individuals. Consequently, during the 1930s, significant pressure was applied to regulate the behavior of the participants in the financial markets. Much of the legislation that formed the foundation of today's regulatory tenor was enacted at the time. The justification for the regulation was to ban fraudulent behavior and abusive practices of investors and investment organizations and to require greater disclosure of financial information by issuers of securities. The requirements to disclose more financial information created new opportunities in the investments arena: The accounting profession exploded, investment organizations introduced security analysis, and investments became a popular field of study at many universities.

Post–World War II prosperity and a growing interest in investments by the average individual helped popularize mutual funds in the 1950s and 1960s. The 1970s,

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