

This International Student Edition is for use outside of the U.S.

SIXTH EDITION

**M**

start here.

# FINANCE

CORNETT | ADAIR | NOFSINGER

WHY IS A DOLLAR  
**TODAY** WORTH  
MORE THAN A DOLLAR  
**TOMORROW?**

GET **CAREER-READY:**  
MAKE **EXCEL** WORK  
FOR YOU

ReadAnywhere  
APP: **GET AHEAD** OF  
THE CURVE

**SUCCEED IN  
THIS COURSE!**

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- + Viewpoints
- + Math Coach
- + Time Out! Quizzes

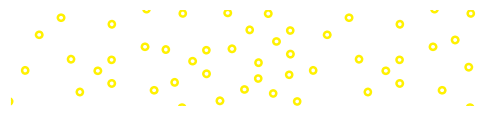
**Mc  
Graw  
Hill**

**M** is Motivation.

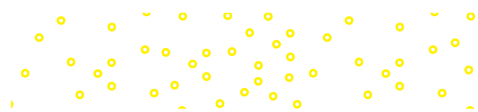
**M** is Momentum.

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# M: Finance 6e



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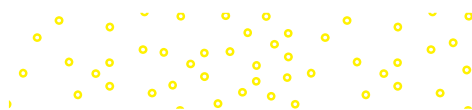
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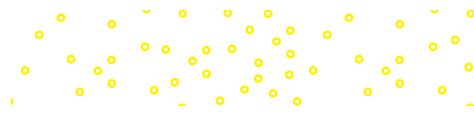
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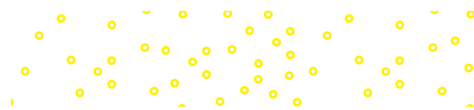


# M: Finance 6e

Marcia Millon Cornett  
*Bentley University*

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M: FINANCE

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# about the authors



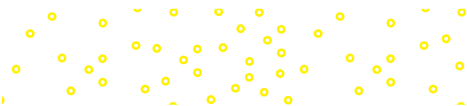
Courtesy of Marcia  
Million Cornett

**Marcia Millon Cornett** *Robert A. and Julia E. Dorn Professor of Finance at Bentley University.* She received her BS degree in economics from Knox College in Galesburg, Illinois, and her MBA and PhD degrees in finance from Indiana University in Bloomington, Indiana. Dr. Cornett has written and published several articles in the areas of bank performance, bank regulation, corporate finance, and investments. Articles authored by Dr. Cornett have appeared in such academic journals as the *Journal of Finance*; *Journal of Money, Credit, and Banking*; *Journal of Financial Economics*; *Financial Management*; and *Journal of Banking and Finance*. She was recently ranked the 124th most published out of more than 17,600 authors and the number five female author in finance literature over the last 50 years. Along with Anthony Saunders and Otgontsetseg Erhemjamts, Dr. Cornett has recently completed work on the tenth edition of *Financial Institutions Management* (McGraw Hill Education) and the seventh edition of *Financial Markets and Institutions* (McGraw Hill Education). Professor Cornett serves as an associate editor for the *Journal of Banking and Finance*, *Journal of Financial Services Research*, *Review of Financial Economics*, *Financial Review*, and *Multinational Finance Journal*. Dr. Cornett has served as a member of the board of directors, the executive committee, and the finance committee of the SIU Credit Union. Dr. Cornett has also taught at Southern Illinois University at Carbondale, the University of Colorado, Boston College, and Southern Methodist University. She is a member of the Financial Management Association, the American Finance Association, and the Western Finance Association.



Troy Alton Adair, Jr.

**Troy Alton Adair Jr.** *Professor of Practice at Lehigh University and Founder and CEO of dataDicts, Inc.* He received his BS degree in computers/information science from the University of Alabama at Birmingham, his MBA from the University of North Dakota, and his PhD in finance from Indiana University. Dr. Adair serves Lehigh as the Co-Director of the Computer Science and Business (CSB) Program, the FinTech Minor, and the Business Analytics Certificate Program. He also manages a data science consulting business specializing in providing customized data analytics assessments and training. He previously managed research computing infrastructure and support services for Harvard Business School and has written articles on bank regulator self-interest, analyst earnings per share forecasting, and capital budgeting in continuous time. He is the author of *Corporate Finance Demystified*, *Excel Applications in Corporate Finance*, and *Excel Applications in Investments* (all McGraw Hill Education). He has also served as a consultant on financial data information systems and business intelligence to a number of international banks and insurance companies and as the faculty representative to the board of trustees investments committee at Alma College. Dr. Adair has also taught at the University of Michigan, Alma College, Hofstra University, Indiana University, and the University of North Carolina at Chapel Hill. He is a member of the Financial Management Association, the American Finance Association, and the Southern Finance Association.





John R. Nofsinger

**John Nofsinger** *Dean, Professor, and William H. Seward Endowed Chair of International Finance at the University of Alaska Anchorage.*

He earned his BS degree in electrical engineering from Washington State University, his MBA degree from Chapman University, and his PhD degree in finance from Washington State University. Dr. Nofsinger has written over 70 articles in the areas of investments, corporate finance, and behavioral finance. These papers have appeared in the scholarly journals, including *Journal of Finance*, *Journal of Business*, *Journal of Financial and Quantitative Analysis*, *Financial Management*, *Journal of Corporate Finance*, *Journal of Banking and Finance*, and *Journal of Behavioral Decision Making*. Dr. Nofsinger has also authored (or coauthored) 14 trade books, scholarly books, and textbooks that have been translated into 11 different languages. The most prominent of these books is the industry book *The Psychology of Investing*. Dr. Nofsinger is a leading expert in behavioral finance and is a frequent speaker on this topic at industry conferences, universities, and academic conferences. He is frequently quoted or appears in the financial media, including *The Wall Street Journal*, *Financial Times*, *Fortune*, *Bloomberg Business Week*, *Smart Money*, *The Washington Post*, and *CNBC*, and other media from *The Dolans* to *The Street.com*.

# a note from the authors

*“There is a lot to cover in this course so I focus on the core concepts, theories, and problems.”*

*“I like to teach the course by using examples from their own individual lives.”*

*“My students come into this course with varying levels of math skills.”*

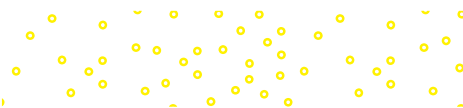
How many of these quotes might you have said while teaching the undergraduate corporate finance course? Our many years of teaching certainly reflect such sentiments, and, as we prepared to write this book, we conducted many market research studies that confirm just how much these statements—or ones similar—are common across the country. This critical course covers so many crucial topics that instructors need to focus on core ideas to ensure that students are getting the preparation they need for future classes—and for their lives beyond college.

We did not set out to write this book to change the way finance is taught, but rather to parallel and support the way that instructors from across the country currently teach finance. Well over 600 instructors teaching this course have shared their class experiences and ideas via a variety of research methods that we used to develop the framework for this text. We are excited to have authored a book that we think you will find fits your classroom style perfectly.

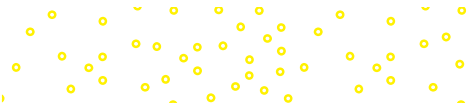
## KEY THEMES

This book’s framework emphasizes three themes. See the next section in this preface for a description of features in our book that support these themes.

- **Finance is about connecting core concepts.** We all struggle with fitting so many topics into this course, so this text strives to make it easier for you by getting back to the core concepts, key research, and current topics. We realize that today’s students expect to learn more in class from lectures than in closely studying their textbooks, so we’ve created brief chapters that clearly lead students to crucial material that they need to review if they are to understand how to approach core financial concepts. The text is also organized around learning goals, making it easier for you to prep your course and for students to study the right topics.
- **Finance can be taught using a personal perspective.** Most long-term finance instructors have often heard students ask “How is this course relevant to me?” on the first day of class. We no longer teach classes dedicated solely to finance majors; many of us now must teach the first finance course to a mix of business majors. We need to give finance majors the rigor they need while not overwhelming class members from other majors. For years, instructors have used individual examples to help teach these concepts, but this is the first text to integrate this personal way of teaching into the chapters.





- 
- **Finance focuses on solving problems and decision making.** This isn't to say that concepts and theories aren't important, but students will typically need to solve some kind of mathematical problem—or at least understand the impact of different numerical scenarios—to make the right decision on common finance issues. If you, as an instructor, either assign problems for homework or create exams made up almost entirely of mathematical material, you understand the need for good problems (and plenty of them). You also understand from experience the number of office hours you spend tutoring students and grading homework. Students have different learning styles, and this text aims to address that challenge to allow you more time in class to get through the critical topics.

# changes in the sixth edition

The global pandemic greatly impacted business and global trade. As a financial response, central banks around the world eased monetary policy and made money more easily available. The resulting impact on a firm's cost of capital affected the estimation of project cash flows, valuations, and more. As capital budgeting is an important part of this book, we have quickly incorporated the new environment into our theory and applications. In addition, we have updated every chapter. Below are the changes we made for this sixth edition, broken out by chapter.

## OVERALL

- Increased the number of spreadsheet-oriented end-of-chapter problems
- Updated data, company names, and scenarios to reflect the latest available data and real-world changes
- Removed the “twin” problems in the end-of-chapter problem sets as they duplicate online assessment assignments

## chapter one

### INTRODUCTION TO FINANCIAL MANAGEMENT

- Updated the Personal Application with information on firms that have filed for bankruptcy more recently
- Updated the data in Example 1-2 on executive compensation
- Edited Section 1.7: Big Picture Environment to discuss the ramifications of COVID-19 and the Tax Cuts and Jobs Act of 2017

## chapter two

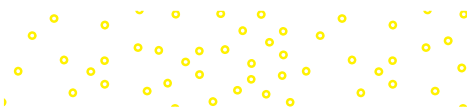
### REVIEWING FINANCIAL STATEMENTS

- Added Excel to some examples
- Added Excel problems
- Deleted the second twin in the Problems

## chapter three

### ANALYZING FINANCIAL STATEMENTS

- Added Excel problems
- Deleted the second twin in the Problems





## chapter four

### TIME VALUE OF MONEY 1: ANALYZING SINGLE CASH FLOWS

- Updated the data in Figure 4.5 on gold prices
- Increased the number of Excel problems and added Excel to Examples
- Included a short paragraph to mention the TVM tables
- Deleted the second twin in the Problems

## chapter five

### TIME VALUE OF MONEY 2: ANALYZING ANNUITY CASH FLOWS

- Added Excel to examples and in text
- Updated Finance at Work box
- Added Excel problems
- Deleted the second twin in the Problems

## chapter six

### UNDERSTANDING FINANCIAL MARKETS AND INSTITUTIONS

- Increased the number of Excel problems and added Excel to examples
- Updated Figures 6.4, 6.5, 6.8, 6.9, 6.13, 6.14
- Deleted the second twin in the Problems

## chapter seven

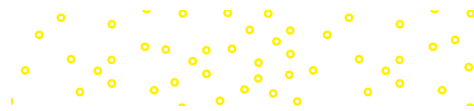
### VALUING BONDS

- Updated Figures 7.1–7.5 on bond issuance, interest rate path, yield to maturities, new bond quotes, and a summary of the bond market
- Updated Table 7.2, Time Out 7.2, and associated discussions
- Changed the subject of a Finance at Work box to negative interest rates
- Changed the subject of a Finance at Work box to COVID-19 and the credit market
- Increased the number of Excel problems and added Excel to examples
- Deleted the second twin in the Problems

## chapter eight

### VALUING STOCKS

- Updated all table and figure values in the body of the chapter
- Rewrote the introduction of the Variable-Growth Technique section
- Updated market and stock index discussions
- Changed Finance at Work box on psychology to focus on the GameStop event
- Revised examples to include new McDonald's and Coca-Cola's firm data and figures
- Increased the number of Excel problems and added Excel to examples
- Deleted the second twin in the Problems



## chapter nine

### CHARACTERIZING RISK AND RETURN

- Updated all table and figure values in the body of the chapter
- Updated Time Out 9.1 and 9.2
- Added ETF popularity discussion to motivate diversification
- Updated the International Finance at Work box
- Updated the Google and GE text running examples
- Increased the number of Excel problems and added Excel to examples
- Deleted the second twin in the Problems

## chapter ten

### ESTIMATING RISK AND RETURN

- Updated values and data in Tables 10.1 to 10.3
- Changed discussion and Figure 10.2
- Added discussion in Behavioral Finance section about market reaction and COVID-19
- Increased the number of Excel problems and added Excel to examples
- Deleted the second twin in the Problems

## chapter eleven

### CALCULATING THE COST OF CAPITAL

- Updated Viewpoints example to use a streaming device rather than MP3
- Increased the number of Excel problems and added Excel to most examples
- Deleted the second twin in the Problems

## chapter twelve

### ESTIMATING CASH FLOWS ON CAPITAL BUDGETING PROJECTS

- A majority of the Problems were turned into Excel problems

## chapter thirteen

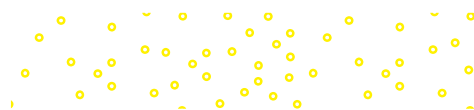
### WEIGHING NET PRESENT VALUE AND OTHER CAPITAL BUDGETING CRITERIA

- Added Excel to most of the examples
- Deleted the second twin in the Problems and added more Excel problems

## chapter fourteen

### WORKING CAPITAL MANAGEMENT AND POLICIES

- Added Excel to the examples
- Deleted the second twin in the Problems and added more Excel problems



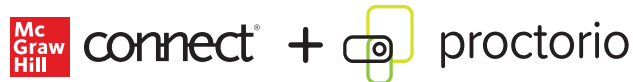
# supplements

## INSTRUCTOR LIBRARY

A wealth of information is available online through McGraw Hill Connect. In the Connect Instructor Library, you will have access to supplementary materials specifically created for this text, such as:

- **Test Bank** Revised by Leslie Rush, University of Hawaii West O’ahu, the test bank contains hundreds of questions that complement the material presented in the book. The Test Bank is tagged by level of difficulty, learning goal, AACSB knowledge categories, and Bloom’s taxonomy—making it easy for instructors to customize exams to reflect the material stressed in class. The test bank is available in Word files, and tests can also be created in Test Builder.
- **Solutions Manual** Developed by authors Marcia Cornett, Troy Adair, and John Nofsinger, this resource contains the worked-out solutions to all the end-of-chapter problems, in the consistent voice and method of the book. The solutions have been class-tested and checked by multiple instructors to ensure accuracy.
- **PowerPoint Presentations** The PowerPoint presentations have been carefully updated for the sixth edition by Courtney Baggett. These slides contain lecture notes, which closely follow the book content, enhanced with the tables and figures from the chapters. Several chapters are also supplemented with additional presentations that contain notes and examples using financial calculators. Instructors can easily customize these slides to suit their classroom needs and various presentation styles.

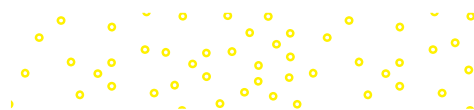
## REMOTE PROCTORING & BROWSER-LOCKING CAPABILITIES



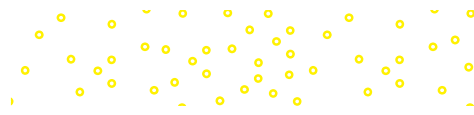
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Instant and detailed reporting gives instructors an at-a-glance view of potential academic integrity concerns, thereby avoiding personal bias and supporting evidence-based claims.







## ASSURANCE OF LEARNING

Many educational institutions today are focused on the notion of assurance of learning, an important element of some accreditation standards. *M: Finance* is designed specifically to support your assurance of learning initiatives with a simple, yet powerful, solution.

Each test bank and end-of-chapter question for *M: Finance* maps to a specific chapter learning goal listed in the text. You can use the test bank software to easily query for learning goals that directly relate to the learning objectives for your course. You can then use the reporting features of the software to aggregate student results in a similar fashion, making the collection and presentation of assurance of learning data simple and easy.

## AACSB STATEMENT

McGraw Hill is a proud corporate member of AACSB International. Understanding the importance and value of AACSB accreditation, *M: Finance* has sought to recognize the curricula guidelines detailed in the AACSB standards for business accreditation by connecting selected questions in the test bank to the general knowledge and skill guidelines found in the AACSB standards.

The statements contained in *M: Finance* are provided only as a guide for the users of this text. The AACSB leaves content coverage and assessment within the purview of individual schools, the mission of the school, and the faculty. While *M: Finance* and the teaching package make no claim of any specific AACSB qualification or evaluation, we have, within *M: Finance*, labeled selected questions according to the six general knowledge and skills areas.

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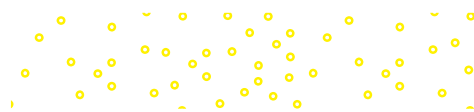
Instructors have access to all the material that students can view but will also have password-protected access to the teaching support materials.

## MCGRAW HILL CUSTOMER CARE CONTACT INFORMATION

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For Customer Support, call **800-331-5094** or visit [www.mhhe.com/support](http://www.mhhe.com/support). One of our Technical Support Analysts will be able to assist you in a timely fashion.

**FOR MORE INFORMATION ABOUT CONNECT AND ITS AVAILABLE RESOURCES, REFER TO THE PAGES THAT FOLLOW.**



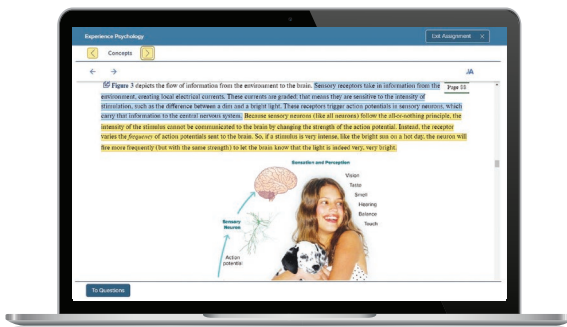
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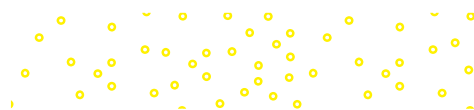
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## Students

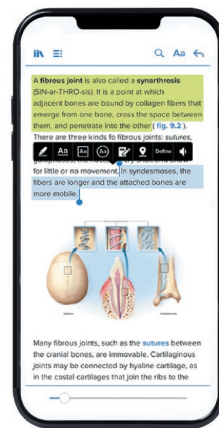
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*"I really liked this app—it made it easy to study when you don't have your textbook in front of you."*

- Jordan Cunningham,  
Eastern Washington University

iPhone: Getty Images



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# acknowledgments

Development of the first edition of this book series started with a course survey that was completed by 400 instructors across the country. The following is a list of the reviewers that became part of the many review stages, focus groups, and class-testing for the revisions that followed—all of which were invaluable to us during the development of this book.

**Rebecca Abraham**

Nova Southeastern University

**Benjamin Abugri**

Southern Connecticut State University

**Paul Adams**

University of Cincinnati

**Pankaj Agrawal**

University of Maine

**Aigbe Akhigbe**

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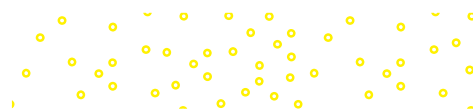
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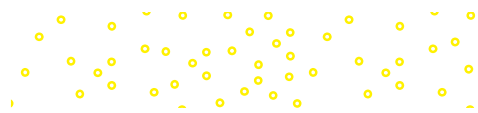
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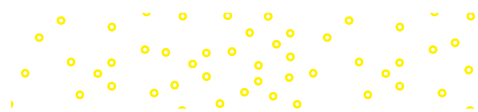
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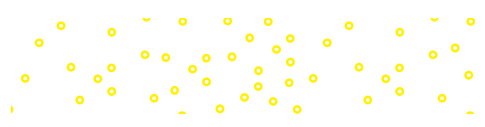
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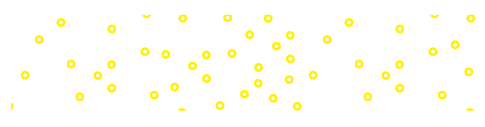
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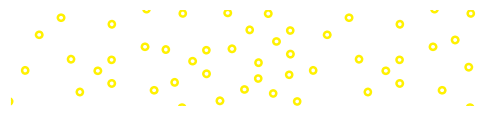
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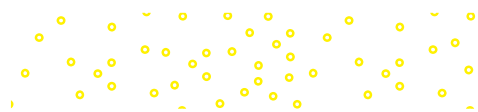
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We hope you like the outcome of this text. Research and development is always ongoing, and we are interested in your feedback on how this text has worked for you!

*Marcia Millon Cornett*

*Troy A. Adair Jr.*

*John Nofsinger*



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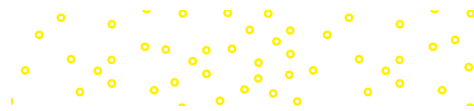
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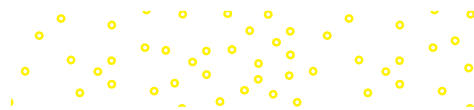
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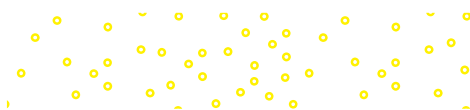
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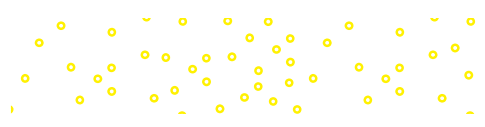
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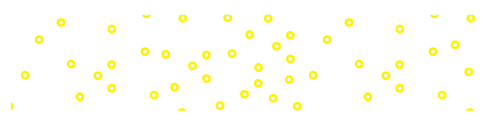
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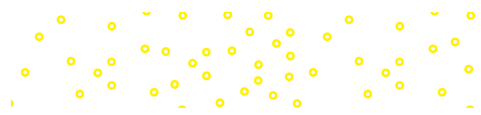
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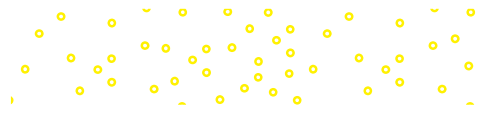
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# introduction to financial management



## COSTS-BENEFITS

 Benefits  Costs



Sebastian Blockmans/Alamy Stock Photo



**finance** The study of applying specific value to things we own, services we use, and decisions we make.

**financial management** The process for and the analysis of making financial decisions in the business context.

**D**o you know: What finance entails? How does financial management function within the business world? Why you might benefit from studying financial principles? This chapter is the ideal place to get answers to those questions. **Finance** is the study of *applying specific value* to things we own, services we use, and decisions we make. Examples are as varied as shares of stock in a company, payments on a home mortgage, the purchase of an entire firm, and the personal decision to retire early. In this text, we focus primarily on one area of finance, **financial management**, which concentrates on valuing things from the perspective of a company or firm.

Financial management is critically important to the success of any business organization, and, throughout the text, we concentrate on describing the key financial concepts in corporate finance. As a bonus, you will find that many tools and techniques for handling the financial management of a firm also apply to broader types of financial problems, such as personal financial decisions.

In finance, *cash flow* is the term that describes the process of paying and receiving money. It makes sense to start our discussion of finance with an illustration of various financial cash flows. We use simple graphics to help explain the nature of finance and to demonstrate the different *subareas* of the field of finance.

*continued on p. 4*

#### LEARNING GOALS

- LG1-1** Define the major areas of finance as they apply to corporate financial management.
- LG1-2** Show how finance is at the heart of sound business decisions.
- LG1-3** Learn the financial principles that govern your personal decisions.
- LG1-4** Examine the three most common forms of business organization in the United States today.
- LG1-5** Distinguish among appropriate and inappropriate goals for financial managers.
- LG1-6** Identify a firm's primary agency relationship and discuss the possible conflicts that may arise.
- LG1-7** Discuss how ethical decision making is part of the study of financial management.
- LG1-8** Describe the complex, necessary relationships among firms, financial institutions, and financial markets.
- LG1-9** Understand how the new tax law impacts financial decision making.



Caleb has worked very hard to create and expand his juice stand at the mall. He has finally perfected his products and feels that he is offering the right combination of juice and food. As a result, the stand is making a nice profit. Caleb would like to open more stands at malls all over his state and eventually all over the country.

Caleb knows he needs more money to expand. He needs money to buy more equipment, buy more inventory, and hire and train more people. How can Caleb get the capital he needs to expand? **(See the solution at the end of the book.)**

*continued from p. 3*

After we have an overall picture of finance, we will discuss three important variables in the business environment that can and do have a significant impact on the firm's financial decisions. These are (1) the organizational form of the business, (2) the agency relationship between the managers and owners of a firm, and (3) the ethical considerations as finance is applied in the real world. ■

## 1.1 • FINANCE IN BUSINESS AND IN LIFE LG1-1

If your career leads you to make financial decisions, then this book will be indispensable. But even if your career takes a different path, it is still likely that your activities in a business will involve interacting with the finance functions. After all, the important investments of a firm involve capital and, therefore, finance. Expanding marketing channels, developing new products, and upgrading a factory all cost money. A firm spends its capital on these projects to foster growth. Understanding how finance professionals evaluate those projects will help you to be successful in your business focus. In addition, everyone will benefit in their personal life from learning finance and understanding financial decisions.

And what exactly makes up this engine of financial decision making? Successful application of *financial theories* helps money flow from individuals who want to improve their financial future to businesses that want to expand the scale or scope of their operations. These exchanges lead to a growing economy and more employment opportunities for people at all income levels. So, two important things result from this simple exchange: The economy will be more productive, and individuals' wealth will grow into the future.

In this first section, we develop a comprehensive description of finance and its subareas, and we look at the specific decisions that professionals in each subarea must make. As you will see, all areas of finance share a common set of ideas and application tools.


### What Is Finance?

To get the clearest possible picture of how finance works, let's begin by grouping all of an economy's participants along two dimensions. The first dimension is made up of those who may have "extra" money (i.e., money above and beyond their current spending needs) for investment. The second dimension is made up of those who have the ability to develop

## personal APPLICATION

Dagmar is becoming interested in investing some of her money. However, she has heard about several corporations in which the investors lost all of their money. Dagmar has heard that California Pizza Kitchen (CPK), JCPenney (JCP), and Chesapeake Energy Corporation (CHKAQ) all recently filed for bankruptcy in 2020, and that these firms' stockholders could lose their entire investments in these firms.

Many of the stockholders who lost money were employees of these companies who had invested some of their retirement money in the company stock. Dagmar wonders what guarantee she has as an investor against losing her money. **(See the solution at the end of the book.)**

What is the best way for Dagmar to ensure a happy retirement? 

viable business ideas and a sense of business creativity. Both money and ideas are fuel for the financial engine. In our simple model, these two dimensions result in four groups representing economic roles in society, as shown in Figure 1.1. Of course, people can move from one group to another over time.

Type 1 people in our model do not lend significant sums of money (*capital*) or spend much money in a business context, so they play no direct role in **financial markets**, the mechanisms by which capital is exchanged. Although these people probably play indirect roles by providing labor to economic enterprises or by consuming their products, for simplicity, we are going to focus on those who play direct roles. Therefore, type 1 participants will be asked to step aside.

Type 4 people use financial tools to evaluate their own business concepts and then choose the ideas with the most potential. From there, they create their own enterprises to implement their best ideas efficiently and effectively. Type 4 individuals, however, are self-funded and do not need financial markets. The financial tools they use and the types of decisions they make are narrowly focused or specific to their own purposes. For our discussion, then, type 4 individuals also are asked to move to the sidelines.

Now for our financial role players, the type 2 and type 3 people. Financial markets and financial institutions allow these people to participate in a mutually advantageous exchange. Type 2 people temporarily lend their money to type 3 people, who put that money to use with their good business ideas, and who then turn around and (hopefully) repay the type 2 people, plus interest.

**financial markets** The arenas through which funds flow.

**FIGURE 1.1** Participants in Our Hypothetical Economy

	No Extra Money	Extra Money
No Economically Viable Business Ideas	Type 1: No money and no ideas	Type 2: Money but no ideas
Economically Viable Business Ideas	Type 3: No money but ideas	Type 4: Both money and ideas

Four groups form according to the availability of money and ideas.

**investors** Those who buy securities or other assets in hopes of earning a return and getting more money back in the future.

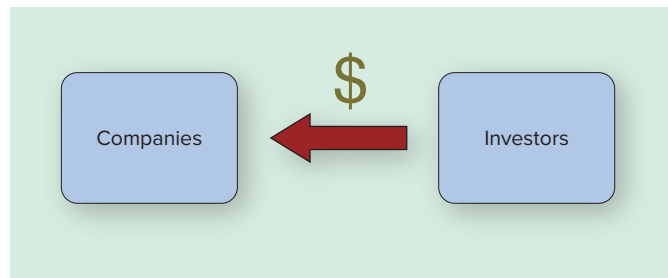
**retained earnings** The portion of company profits that are kept by the company rather than distributed to the stockholders as cash dividends.

In most developed economies, type 2 participants are usually individual **investors**. *You* will likely be an individual investor for most of your life. Each of us separately may not have a lot of extra money at any one time, but by aggregating our available funds, we can provide sizable amounts for investment.

Type 3 participants, the idea generators, may be individuals, but they are more commonly corporations or other types of companies with research and development (R&D) departments dedicated to developing innovative ideas. It's easy to see that investors and companies can help one another. If investors lend their "extra" capital to companies, as shown in Figure 1.2, then companies can use this capital to fund expansion projects. Economically successful projects will eventually be able to repay the money (plus profit) to investors, as Figure 1.3 shows.

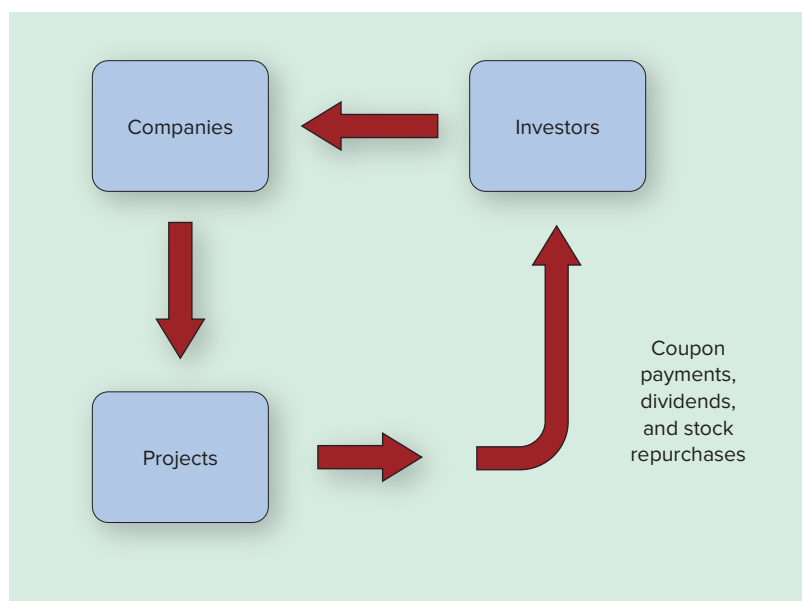
Of course, not all of the cash will return to the investors. In reality, sources of friction arise in this system, and the amount of capital returned to investors is reduced. Two primary sources of friction are **retained earnings**, which are basically funds the firm keeps for its ongoing operations, and *taxes*, which the government imposes on the company and individuals to help fund public services.

▼ **FIGURE 1.2** Capital Flow from Investors to Companies



Investors are people or groups who need ideas to make more money, and companies are groups who need money to develop the ideas they do have.

▼ **FIGURE 1.3** Return of Capital to Investors



In this basic process, the company can expand its business, hire more employees, and create a promising future for its own growth. Meanwhile, the investor can increase wealth for the future.



As described at the end of this chapter, tax laws in the United States underwent massive changes as a result of the Tax Cuts and Jobs Act (TCJA) signed into law by President Trump in 2017. As we'll discuss, many of these changes have significant impacts on the financial decisions of the firm.

Figure 1.4 shows an analysis of cash flows with the associated retained earnings and tax payments. In a very simple way, this figure provides an intuitive overall explanation of finance and of its major subareas. For example, individuals must assess which investment opportunities are right for their needs and risk tolerance; financial institutions and markets must efficiently distribute the capital; and companies must evaluate their potential projects and wisely decide which projects to fund, what kind of capital to use, and how much capital to return to investors. All of these types of decisions deal with the basic cash flows of finance shown in Figure 1.4, but from different perspectives.

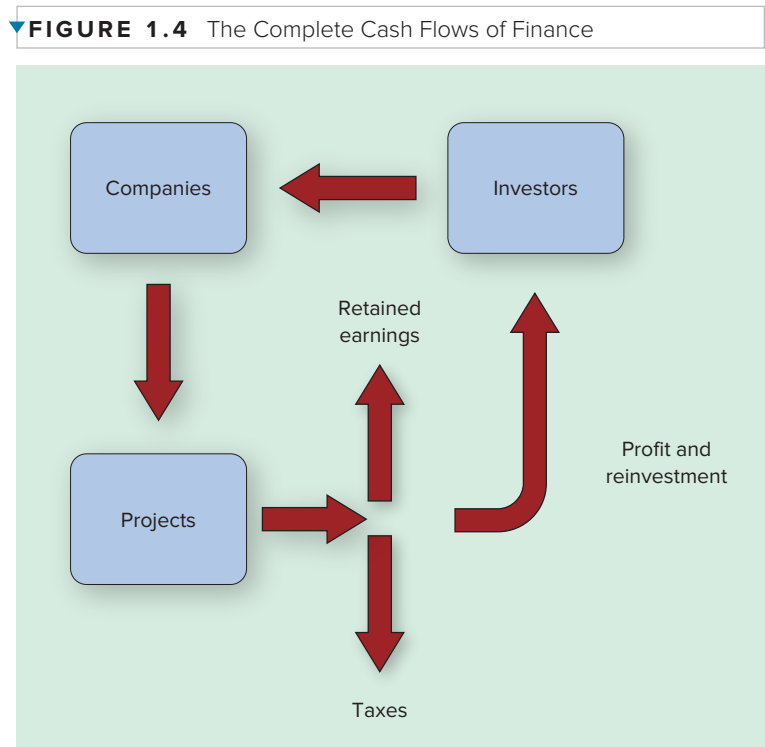
## Subareas of Finance

**Investments** is the subarea of finance that involves methods and techniques for making decisions about what kinds of *securities* to own (e.g., bonds or stocks), which firms' securities to buy, and how to pay the investor back in the form that the investor wishes (e.g., the timing and certainty of the promised cash flows). Figure 1.5 models cash flows from the investor's perspective. The concerns of the investments subarea of finance are shown (with the movement of red arrows) from the investor's viewpoint (seen as the blue box).

**investment** The analysis and process of choosing securities and other assets to purchase.

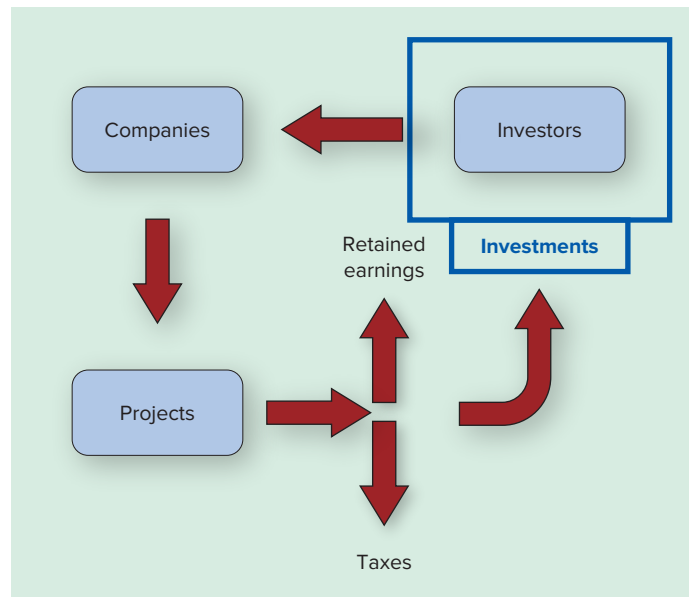
Financial management is the subarea that deals with a firm's decisions in acquiring and using the cash that is received from investors or from retained earnings. Figure 1.6 depicts the financial management process very simply. As we know, this text focuses primarily on financial management. We'll see that this critical area of finance involves decisions about

- How to organize the firm in a manner that will attract capital.
- How to raise capital (e.g., bonds versus stocks).
- Which projects to fund.



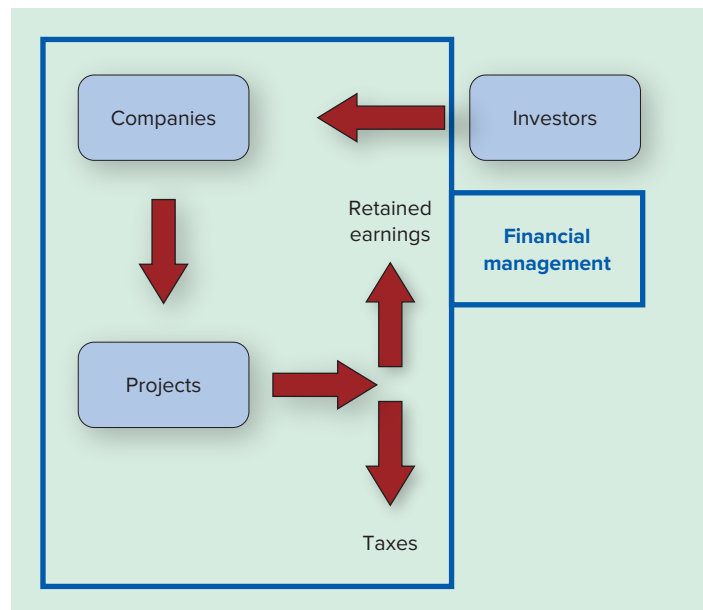
All the subareas of the financial system interact, with retained earnings and taxes playing a role in the flows.

▼ **FIGURE 1.5** Investments



Investors mark the start and end of the financial process; they put money in and reap the rewards (or take the risk).

▼ **FIGURE 1.6** Financial Management



Financial managers make decisions that should benefit both the company and the investor.

**financial institutions and markets** The organizations that facilitate the flow of capital between investors and companies.

- How much capital to retain for ongoing operations and new projects.
- How to minimize taxation.
- How to pay back capital providers.

All of these decisions are quite involved, and we will discuss them throughout later chapters.

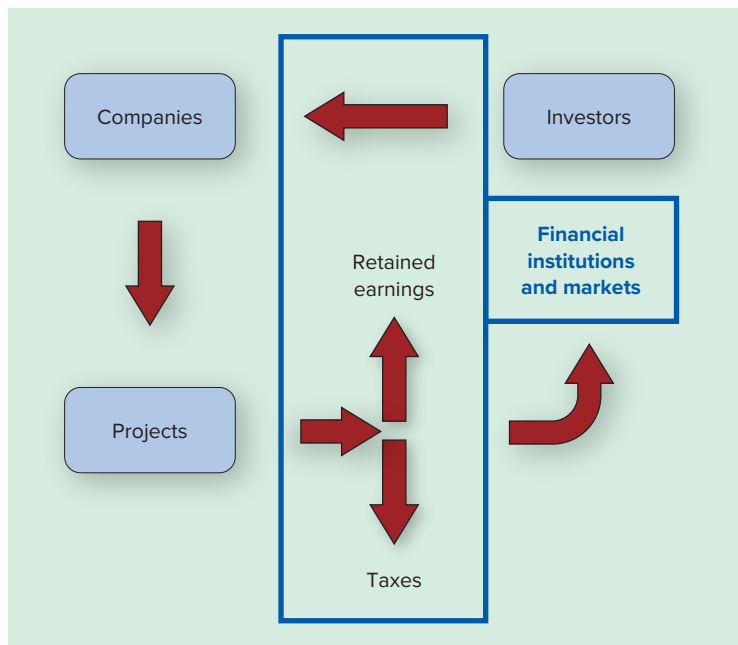
**Financial institutions and markets** make up another major subarea of finance. These two dynamic entities work in different ways to facilitate capital flows between investors

and companies. Figure 1.7 illustrates the process in which the firm acquires capital and investors take part in ongoing securities trading to increase that capital. Financial institutions, such as banks and pension administrators, are vital players that contribute to the dynamics of interest rates.

**International finance** is the final major subarea of finance we will study. As the world has transformed into a global economy, finance has had to become much more innovative and sensitive to changes in other countries. Investors, companies, business operations, and capital markets may all be located in different countries. Adapting to this environment requires understanding of international dynamics, as Figure 1.8 shows. In the past, international

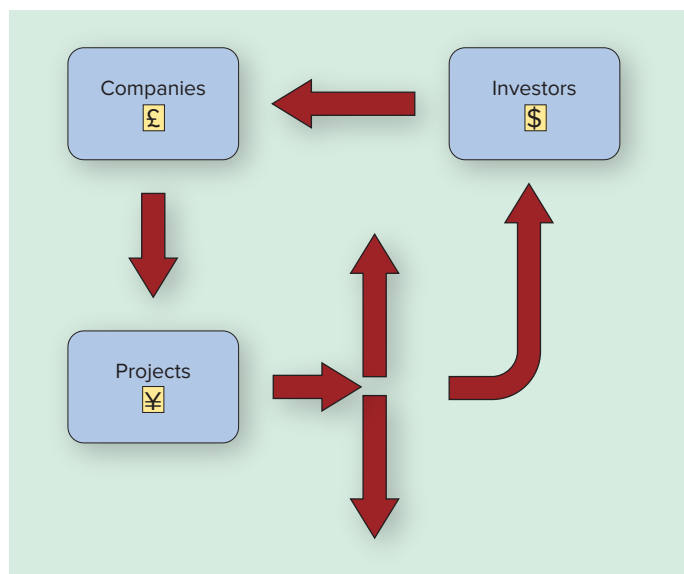
**international finance** The use of finance theory in a global business environment.

▼ **FIGURE 1.7** Financial Institutions and Markets



Financial institutions and markets facilitate the flow of money between investors and companies.

▼ **FIGURE 1.8** International Finance



Laws, risks, and business relationships are variable across different countries but can interact profitably.