FIFTH EDITION

Foundations of Finance

THE LOGIC AND PRACTICE OF FINANCIAL MANAGEMENT
To my parents, from whom I learned the most.
Arthur J. Keown

To my grandson Luke and his little brother who arrives in June 2005.
John D. Martin

To Bobbye and LaVerne, loving and supportive wives to my brothers and the most wonderful “sisters” I could ever have.
J. William Petty

To my sister, Dianne, and her husband, Ron, who have been both supportive family and engaging friends over so many years.
David F. Scott, Jr.
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In finance, our goal is to create wealth. This is done by providing customers with the best product and service possible, and it is the market response that determines whether we reach our goal. We are very proud of the market reaction to Foundations of Finance; the market’s response has been overwhelming. With its success comes an even greater responsibility to deliver the finest possible textbook and supplementary package possible. We have done this with a two-pronged approach of refinement, based on users’ comments, and of remaining the innovative leaders in the field, focusing on value-added innovations.

Foundations of Finance has gained the reputation for being “intuitive”—allowing the reader “to see the forest through the trees”—and “lively and easy to read.” In the fifth edition of Foundations of Finance, we have tried to build on these strengths, introducing the latest concepts and developments in finance in a practical and intuitive manner.

**PEDAGOGY THAT WORKS**

This book provides students with a conceptual understanding of the financial decision-making process, rather than just an introduction to the tools and techniques of finance. For the student, it is all too easy to lose sight of the logic that drives finance and focus instead on memorizing formulas and procedures. As a result, students have a difficult time understanding the interrelationships among the topics covered. Moreover, later in life when the problems encountered do not match the textbook presentation, students may find themselves unprepared to abstract from what they learned. To overcome this problem, the opening chapter presents 10 underlying principles of finance, which serve as a springboard for the chapters and topics that follow. In essence, the student is presented with a cohesive, interrelated perspective from which future problems can be approached.

With a focus on the big picture, we provide an introduction to financial decision making rooted in current financial theory and in the current state of world economic conditions. This focus is perhaps most apparent in the attention given to the capital markets and their influence on corporate financial decisions. What results is an introductory treatment of a discipline rather than the treatment of a series of isolated problems that face the financial manager. The goal of this text is not merely to teach the tools of a discipline or trade but also to enable students to abstract what is learned to new and yet unforeseen problems—in short, to educate the student in finance.

**INNOVATIONS AND DISTINCTIVE FEATURES**

**PART-OPENING INTERVIEWS WITH BUSINESS PROFESSIONALS**

These give students in-the-trenches insights into the application of theory to practice in the real world and provide perspective for anyone who is planning a career in business.
REAL-WORLD OPENING VIGNETTES

Each chapter begins with a story about a current, real-world company faced with a financial decision related to the chapter material that follows. These vignettes have been carefully prepared to stimulate student interest in the topic to come and can be used as a lecture tool to provoke class discussion.

NEW AND IMPROVED PROBLEM SETS

The end-of-chapter study problem sets have been improved and expanded to allow for a wider range of student problems.

NEW “WEB WORKS” INTERNET PROBLEMS

Internet problems have been introduced at the end of each chapter. These problems direct the student to Internet sites that allow them to explore financial issues and solve financial problems using the Web.

NEW “ACROSS THE HALL” BOXES

A new box feature titled “Across the Hall” has been introduced in this edition of Foundations of Finance. This box draws on professionals and their experiences from marketing, management, and accounting to illustrate how the material being presented pertains to what they do.

NEW “AN ENTREPRENEUR’S PERSPECTIVE” BOXES

A new box feature titled “An Entrepreneur’s Perspective” that highlights issues faced by small and medium-sized firms has been introduced. These boxes look at finance from the point of view of someone who would like to start his or her own successful business.

EXCEL SPREADSHEETS

Excel spreadsheets are used to move money through time, deal with valuation of financial assets, and evaluate capital budgeting projects. These spreadsheet solutions are integrated throughout the text with spreadsheet problems now appearing at the end of various chapters, where appropriate.
The text is organized around the learning objectives that appear at the beginning of each chapter to provide the instructor and student with an easy-to-use integrated learning system. Numbered icons identifying each objective appear next to the related material throughout the text and in the summary, allowing easy location of material related to each objective.

**Use of an Integrated Learning System**

These features allow students to preview what's coming up in the chapter. They include real-world examples to help students understand the relevance of the concepts to the financial world.

**Integrate Examples**

These provide students with real-world examples to help them apply the concepts presented in each chapter.

**Pause and Reflect**

In-text inserts appear throughout and focus the student's attention on “the big picture.” These inserts help students identify the interrelationships and motivating factors behind core concepts.

**Example**

If we place $1,000 in a savings account paying 5 percent interest compounded annually, how much will our account accrue to in 10 years? Substituting $PV = 1,000, i = 5$ percent, and $n = 10$ years into equation (5-6), we get

$$FV = PV(1 + i)^n$$

$$= 1,000(1 + 0.05)^{10}$$

$$= 1,000(1.62889)$$

$$= 1,628.89$$

Thus, at the end of 10 years we will have $1,628.89 in our savings account.

**Ethics in Financial Management**

Ethics is covered as a core principle and Ethics in Financial Management boxes appear throughout. These show students that ethical behavior is doing the right thing and that ethical dilemmas are everywhere in finance.
At the end of most major sections, concept checks highlight the key ideas just presented and allow students to test their understanding of the material.

**Back to the Foundations**

These in-text inserts appear throughout to allow the student to take time out and reflect on the meaning of the material just presented. The use of these inserts, coupled with the use of the 10 principles, keeps the student focused on the interrelationships and motivating factors behind the concepts.

**Concept Checks**

A comprehensive problem appears at the end of almost every chapter, covering all the major topics included in that chapter. This comprehensive problem can be used as a lecture or review tool by the professor. For the students, it provides an opportunity to apply all the concepts presented within the chapter in a realistic setting, thereby strengthening their understanding of the material.

**Key Terms Identified in the Margins**

Key terms are called out in the margin and highlighted in the text. They can also be found in the glossary in the back of the book with definitions, making it easier for the students to check their understanding of key terms. At the end of each chapter, key terms are listed along with page numbers as a study checklist for students.

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**Back to the Foundations**

Valuing common stock is no different from valuing preferred stock; only the pattern of the cash flows changes. Thus, the valuation of common stock relies on the same three principles developed in Chapter 1 that were used in valuing preferred stock:

**Principle 1: The Risk–Return Trade-Off—We Won’t Take on Additional Risk Unless We Expect to Be Compensated with Additional Return.**

**Principle 2: The Time Value of Money—A Dollar Received Today Is Worth More Than a Dollar Received in the Future.**

**Principle 3: Cash—Not Profits—Is King.**

Determining the economic worth or value of an asset always relies on these three principles. Without them, we would have no basis for explaining value. With them, we can know that the amount and timing of cash, not earnings, drives value. Also, we must be rewarded for taking risk; otherwise, we will not invest.

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**COMPREHENSIVE PROBLEM**

For your job as the business reporter for a local newspaper, you are given the task of putting together a series of articles that explain the power of the time value of money to your readers. Your editor would like you to address several specific questions in addition to demonstrating for the readership the use of time value of money techniques by applying them to several problems. What would be your response to the following memorandum from your editor?

**To: Business Reporter**

**From: Perry White, Editor, Daily Planet**

**Re: Upcoming Series on the Importance and Power of the Time Value of Money**

In your upcoming series on the time value of money, I would like to make sure you cover several specific points. In addition, before you begin this assignment, I want to make sure we are all reading from the same script, as accuracy has always been the cornerstone of the Daily Planet. In this regard, I'd like a response to the following questions before we proceed:

1. What is the relationship between discounting and compounding?
2. What is the relationship between the $PVIF_i^n$ and $PVIFA_i^n$?
3. What will $5,000 invested for 10 years at 8 percent compounded annually grow to?
4. How many years will it take $400 to grow to $1,671 if it is invested at 10 percent compounded annually?
5. At what rate would $1,000 have to be invested to grow to $4,046 in 10 years?
6. Calculate the future sum of $1,000, given that it will be held in the bank for 5 years and earn 10 percent compounded semiannually.
7. What is an annuity due? How does this differ from an ordinary annuity?
8. What is the present value of an ordinary annuity of $1,000 per year for 7 years discounted back to the present at 10 percent? What would be the present value if it were an annuity due?
9. What is the future value of an ordinary annuity of $1,000 per year for 7 years compounded back to the present at 10 percent? What would be the present value if it were an annuity due?
10. What is the future value of an ordinary annuity of $1,000 per year for 7 years compounded at 10 percent? What would be the future value if it were an annuity due?
11. You have just borrowed $100,000, and you agree to pay it back over the next 25 years in 25 equal end-of-year annual payments that include the principal payments plus 10 percent compound interest on the unpaid balance. What will be the size of these payments?
12. What is the present value of a $1,000 perpetuity discounted back to the present at 8 percent?
13. What is the present value of a $1,000 annuity for 10 years, with the first payment occurring at the end of year 10 (that is, ten $1,000 payments occurring at the end of year 10 through year 19), given an appropriate discount rate of 10 percent?
14. Given a 10 percent discount rate, what is the present value of a perpetuity of $1,000 per year if the first payment does not begin until the end of year 10?
FINANCIAL CALCULATORS

The use of financial calculators has been integrated throughout this text, especially with respect to the presentation of the time value of money. Where appropriate, calculator solutions appear in the margin.

CONTENT UPDATING

In response to both the continued development of financial thought and reviewer comments, changes have been made in the text. Some of these changes include:

CHAPTER 1 AN INTRODUCTION TO THE FOUNDATIONS OF FINANCIAL MANAGEMENT—THE TIES THAT BIND

The material in this chapter was updated and revised to reflect changes in the personal tax code that lowered the personal tax rate on dividend income and thereby lessened the impact of the double taxation of corporate dividends. This chapter also includes an expanded discussion of S-type corporations and limited liability companies (LLC). In addition, an Entrepreneur’s Perspective box dealing with difficulties that entrepreneurs face in raising capital was added.

CHAPTER 2 THE FINANCIAL MARKETS AND INTEREST RATES

Several changes, updates, and additions are spread throughout this chapter in order to make it more lively and relevant to readers. Many of the alterations are in response to reviewer suggestions. The chapter opens with a review of the past six interest rate cycles with emphasis on (1) the immediate past recession that began in March 2001, (2) the ultimate business expansion that led to the tightening of monetary policy commencing in June 2004, and (3) developments related to the corporate cost of capital through the opportunity cost of funds concept. Along this line, changes in the federal funds target rate and the commercial bank prime lending rate are chronicled from 1994 to 2004.

A new section is provided on the Public Company Accounting Reform and Investor Protection Act (Sarbanes–Oxley Act of 2002). The material on Sarbanes–Oxley is related to financial controls, ethics in finance, and corporate governance. The creation of the Public Company Accounting Oversight Board is detailed.

New boxes entitled Across the Hall are provided on both investment banking and commercial banking. These are related to the need for the student to acquire a basic understanding of business finance, regardless of that student’s undergraduate major. Both of these new boxes were written by practicing corporate executives.

CHAPTER 3 UNDERSTANDING FINANCIAL STATEMENTS AND CASH FLOWS

The presentation of the financial statements has been revised to be very intuitive and easy to follow with illustrations that will keep the student interested in the material. Also, at the request of adopters, the presentation of free cash flows was simplified to help the student grasp this important concept without having to spend unproductive time in computations. The result was a more intuitive presentation of the meaning and calculation of free cash flows.

CHAPTER 4 EVALUATING A FIRM’S FINANCIAL STATEMENTS

The financial analysis in this chapter uses the traditional ratios based on accounting data but then adds market-value ratios to connect the accounting data with the firm’s market value. We then explain how to interpret the market-value ratios in terms of management’s performance at creating shareholder value. Finally, we use Economic Value Added™ to help the student better understand how management creates shareholder value.

CHAPTER 5 THE TIME VALUE OF MONEY

This chapter went through a major revision aimed at making it more accessible to today’s math-phobic students. Without a sacrifice of rigor or content, the chapter was revised to eliminate the use of summation signs. In addition, there was a large increase in the use of
calculator examples. The end-of-chapter problems were also expanded and improved, allowing for a significant increase in the number of end-of-chapter problems that are calculator based.

CHAPTER 6  THE MEANING AND MEASUREMENT OF RISK AND RETURN
To make it more relevant and interesting to students, we used a firm they would be familiar with—Barnes & Noble—to illustrate the concepts and computations regarding market risk.

CHAPTER 7  VALUATION AND CHARACTERISTICS OF BONDS
This chapter was updated and revised to reflect changes in the capital markets. Several new topics, such as convertibility, call provisions, and current yield, were also added.

CHAPTER 8  VALUATION AND CHARACTERISTICS OF STOCK
This chapter was updated and revised to reflect changes in the stock market. In addition, the presentation of shareholder valuation based on a firm's expected future free cash flows was simplified and clarified.

CHAPTER 9  CAPITAL-BUDGETING TECHNIQUES AND PRACTICE
The use of a financial calculator in calculating the different capital-budgeting decision tools was expanded along with a significant expansion of margin examples on how to use a financial calculator to calculate the different capital-budgeting criteria. In addition, the modified internal rate of return (MIRR) was introduced. This capital-budgeting criterion has become increasingly popular thanks in part to the efforts of the consulting firm McKinsey & Company. This section can be omitted for those who choose to do so. In addition, a new Across the Hall box was introduced highlighting the relationship between marketing and capital budgeting.

CHAPTER 10  CASH FLOWS AND OTHER TOPICS IN CAPITAL BUDGETING
The presentation of the calculation of free cash flows was simplified considerably. A new Across the Hall box was introduced examining the role of marketing in calculating a project's free cash flows. In addition, the end-of-chapter problem set was expanded.

CHAPTER 11  COST OF CAPITAL
In response to users' suggestions, we simplified the discussion of the issues encountered in using the dividend growth model to estimate the cost of equity capital. Also at the request of users, we changed notation for equations to reduce the use of mathematical symbols. For example, the discounted cash flow model used for estimating the cost of debt financing now uses a three-year bond with all the terms specified. This change is geared toward making the book more accessible to students with math phobia. In addition, two new weighted average cost of capital self-test problems were added to help students develop skill in evaluating the firm's cost of capital.

CHAPTER 12  DETERMINING THE FINANCING MIX
This chapter is now rich with actual company examples and discussions on financing decisions. For instance, financial leverage, operating leverage, and the combined leverage effect are demonstrated via examples dealing with Harley-Davidson, Inc., Procter & Gamble Company, and the Boeing Company. Furthermore, General Motors' pricing strategy is discussed within the framework of break-even analysis. And Walt Disney's use of the interest-coverage ratio is presented.

A new Web Works section deals with General Motors, Coca-Cola, and the Federal Reserve Bank of St. Louis. The latter source, the St. Louis Fed Web site, introduces the student to the popular and useful FRED II database; this database is a marvelous site for financial and economic time series data and is updated daily by the bank.

CHAPTER 13  DIVIDEND POLICY AND INTERNAL FINANCING
New material now centers on the divergent nature of dividend policy across corporations. Three highly different policies are illustrated via data from Starbucks, Coca-Cola, and Harley-Davidson. Later in the chapter an in-depth look at Harley-Davidson's cash payout
policy is examined over the 1997–2003 time frame and specifically related to “Objective 4” of the chapter that details three common and alternative dividend policies.

In similar fashion the unusually large Microsoft dividend payout of $3.00 per common share (some $32 billion across all shares), which was announced in the summer of 2004, is discussed within the framework of an “extra or special dividend.”

Moreover, the implications of the Jobs and Growth Tax Reconciliation Act of 2003 for corporate dividend policy are presented.

CHAPTER 14 SHORT-TERM FINANCIAL PLANNING

In addition to updating the material in this chapter, a new financial forecasting exercise was created that focuses on the projection of a firm’s earning power. Also, new Internet-based problems and exercises connect the book to day-to-day activities in the financial markets.

CHAPTER 15 WORKING-CAPITAL MANAGEMENT

A new self-test problem was added aimed at helping students develop the skills necessary for analyzing the cost of bank credit under a variety of loan covenants. In addition, new Internet-based problems and exercises connect the book to day-to-day activities in the financial markets.

CHAPTER 16 CURRENT ASSET MANAGEMENT

This chapter contains several alterations aimed at making the material more relevant to decision making and more up-to-date, which, in turn, will make it of more value to students. For example, recent data from Starbucks Corporation and the Walt Disney Company are used to demonstrate the value and importance of float reduction within the context of corporate cash management.

The Check Clearing for the 21st Century Act, which went into effect on October 28, 2004, is reviewed and placed within the context of the Treasury Department’s mission within the firm to properly “manage the float.” The implications of this act, commonly referred to as “Check 21,” for the various types of float are discussed.

Additionally, a new ‘Takin’ It to the Net section introduces the student to the U.S. Department of the Treasury’s comprehensive Web site at www.treasurydirect.gov where individuals, corporations, and governments can explore detailed information on the array of investment products offered by the U.S. Treasury.

CHAPTER 17 INTERNATIONAL FINANCIAL MANAGEMENT

This chapter was updated to reflect the changes impacting the global financial markets. In addition, a new Across the Hall box was introduced highlighting the role of marketing in international finance.

THE SUPPORT PACKAGE

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The Instructor's Manual is also available electronically and instructors can download this file from the Instructor's Resource Center by visiting www.prenhall.com/keown.

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FOR THE STUDENT: STUDY GUIDE The Study Guide to accompany Foundations of Finance: The Logic and Practice of Financial Management, 5th Edition, was written by the authors with the objective of providing a student-oriented supplement to the text. Each chapter of the Study Guide contains an orientation of each chapter along with a chapter outline of key topics, problems (with detailed solutions) and self-tests, which can be used to aid in the preparation of outside assignments and in studying for exams, a tutorial on capital budgeting, a set of tables that not only gives compound sum and present value interest factors but also shows how to compute the interest using a financial calculator.


FOR THE STUDENT:

➤ Excel Spreadsheets. Created by the authors, these spreadsheets correspond with the end-of-chapter problems from the text.

➤ Internet Exercises. These activities, prepared by James M. Forjan of York College of Pennsylvania, give students the opportunity to utilize the tools and information available on the Internet by directing them to various online sites and then providing a summary and a set of questions about the experience.

➤ Online Study Guide. The Online Study Guide, prepared by Philip Samuel Russel of Philadelphia University, offers students another opportunity to sharpen their problem-solving skills and to assess their understanding of the text material. The Online Study Guide is a truly comprehensive set of questions with exceptional coverage of the material in the textbook and written by the authors. The Online Study Guide grades each question submitted by the students, provides immediate feedback for correct and incorrect answers, and allows students to e-mail results to up to four e-mail addresses.

FOR THE INSTRUCTOR:

➤ Syllabus Manager. Allows instructors to create a syllabus that they may publish for their students to access. Instructors may add exams or assignments of their own, edit any of the student resources available on the Companion Website, post discussion topics, and more.

➤ Instructors may find downloadable resources from the link for the Instructor's Resource Center described here.

INSTRUCTOR'S RESOURCE CENTER This password-protected site is accessible at www.prenhall.com/keown and hosts all of the resources that follow. Instructors should click on the “Help Downloading Instructor Resources” link for easy-to-follow instructions on getting access or may contact their sales representative for further information.
Instructor's Manual

Solutions to the Internet Exercise activities that are included on the student side of the Companion Website.

The PowerPoint Lecture Presentation: This lecture presentation tool, prepared by Samuel A. Veraldi of Duke University, provides the instructor with individual lecture outlines to accompany the text. The slides include many of the figures and tables from the text. These lecture notes can be used as is or professors can easily modify them to reflect specific presentation needs.

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