BASIC FINANCIAL MANAGEMENT

Petty Keown
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SIXTH EDITION

6th Edition

BASIC FINANCIAL MANAGEMENT

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PREFACE

Historical circumstances are a driving force underlying the development and practice of financial management. For example, in the 1970s volatile energy prices, interest rates, and exchange rates dominated both the financial press and the economic environment within which financial decisions were made. These factors led to the development of new commodity and financial futures markets in which firms could hedge their risk exposure and speculate on the directions of anticipated price movements. Similarly, in the 1980s corporate control contests have resulted in the restructuring of corporate America. This unprecedented wave of transactions has included corporate divestitures, leveraged buyouts, joint ventures, spinoffs, split-ups, employee stock option plans (ESOPs), partial public offerings, project financings, and a host of other types of truncations that have filled the financial press during the 1980s.

Some have characterized this latest wave of corporate control contests simply as evidence of the continual tug-of-war between the capital markets and corporate management for control over financial resources. If this be true, then it would appear that the 1980s have been a time of unparalleled victory for the capital markets. Many of the largest corporations have fallen victim to the "bust-up merger" as they have been bought up and their assets sold to the highest bidder. This, in turn, means that the investment and financing decisions of even the very largest firms are subjected to an unusual amount of scrutiny by the capital markets.

Some practicing financial managers have cried foul, saying that investors in the capital markets are too short-term oriented or myopic. This, they argue, has placed undue pressure on the corporate manager to produce short-term profits to the exclusion of making long-term commitments. The evidence from the academic community, however, has not supported this contention. Furthermore, as the pressures of international competition continue unabated, serious consideration must be given to the effect the capital markets have on the firm's competitiveness in world markets through their influence on the firm's investment and financing choices. Consequently, it is our belief that the events of the 1980s and early 1990s have *heightened* the importance of corporate finance in the overall formula for corporate competitiveness and success.

In the text, we provide an introduction to financial decision making that is rooted both in current financial theory and in the current state of world economic conditions. This focus is evident in a number of ways, perhaps the most obvious being the increased attention to the capital markets and their influence on corporate financial decisions. We have expanded our discussion of the concepts of risk and return and the related notion of opportunity costs. We believe the added emphasis on capital markets is consistent with their influence on corporate financial decisions.

A Note to the Teacher

Basic Financial Management, 6th edition, provides the reader with an overview of financial management as intended for an introductory course in the subject. Such a course might be taught in one semester or two quarters. The orientation continues to be managerial, with an emphasis on the identification and solution of the financial problems confronting the business enterprise. Decision making within an *enterprise valuation framework* is stressed throughout the text and, thereby, provides a unifying theme across all discussions. In the preparation of the manuscript, three primary standards were used. First, we have made a strong effort to offer *completeness* in the treatment of each topic. Second, we have given *readability* a high priority; we have taken extra care to use a clear and concise writing style, especially in the treatment of concepts requiring the use of mathematics. Third, complete, *step-by-step* examples are used frequently to increase clarity and to crystallize the critical issues in the student's mind. In summary, the pedagogical approach taken, particularly for the more difficult topics, progresses from an intuitive presentation of the problem to the introduction and illustration of the appropriate decision-making framework.

A number of other changes have been made in the 6th edition. Besides the expanded emphasis on the role of the capital markets in corporate financial decision making, we have also made a number of significant changes throughout the text that might not be so obvious.

1. We continue to work at adding life to the presentations by increasing the number of *Basic Financial Management in Practice* boxes. Because these practical application inserts proved to be a very popular feature of previous editions, we have expanded them in this edition.
2. Given the constant need to address ethical issues in the workplace, we have made a concerted effort to identify some of the important ethical issues as they relate to financial decision making. We have added material throughout the text in the form of *Ethics in Financial Management* boxes and provided four ethics cases that afford a means for constructive dialogue.
3. In view of the continued globalization of world markets, we have integrated international finance throughout the text in the form of *International Financial Management* boxes.
4. One of the difficulties students frequently encounter comes in transferring knowledge into live situations. It is one thing to understand how to work an end-of-chapter problem, but quite another to apply that understanding to an actual company. We are therefore pleased that Prentice Hall has developed an agreement with Disclosure, Incorporated, for the users of *Basic Financial Management*, 6th edition, to have access to the academic edition of Compact D™/SEC. This database, designed for the personal computer, contains financial and management information on 100 publicly traded firms. Company data is taken from annual and periodic reports filed with the Securities and Exchange Commission. The firms have been selected for their diversity and appropriateness for the classroom. Approximately one half of the chapters have suggested uses for the database relative to the material in the respective chapter. The use of the database truly takes the student to a higher level of learning.
5. The use of the financial calculator has been integrated throughout the text, especially with respect to the time value of money. A separate appendix has been added that demonstrates the use of the Hewlett-Packard HP 17BII, the latest addition to the HP product line. We have also designed an insert card to the text that shows how to find the compound value interest factors and present value interest factors without the use of the table values. Finally, in the student study guide, we provide a complete article on the use of all the popular financial calculators.
6. The end-of-chapter problems have been expanded, as has the test item file.

7. In prior editions, the transparency acetates have been limited to figures from the text. In the 6th edition, not only do we provide these acetates, but we have also designed acetates that present the main issues of the primary chapters, along with examples that may be used in class presentations.
8. We have added section openers to each of the major parts of the text. These section openers allow the student to see the "big picture" before delving into the details of the individual chapters.
9. To enhance the use of the selected ABC News video tapes, a written introduction to each video follows each section opener; and at the end of each section is a concluding discussion, questions, and suggested readings. These introductions and conclusions will greatly improve the effectiveness of the videos in the classroom.

We believe the foregoing will greatly enhance the student's learning experience.

Besides the broader changes just mentioned, modifications have also been made in each chapter. The following list includes the major additions that are new to *Basic Financial Management* in the 6th edition:

1. In our introduction to the capital markets (Chapter 2), we have significantly expanded our presentation on the term structure of interest rates.
2. Chapter 3, entitled Mathematics of Finance, has been simplified. In addition, we have adopted the more conventional notations of PVIF and FVIF in the equations.
3. We have divided the former chapter on valuation and rates of return into two chapters, one entitled Risk and Rates of Return (Chapter 4) and the other entitled Bond and Stock Valuation (Chapter 5). The division is part of our effort to give more attention to the influence of capital markets on financial decisions.
4. We have developed a clearer presentation of the capital asset pricing model and beta (Chapter 4).
5. We have moved the discussion on the arbitrage pricing model to an appendix in Chapter 4 to give the teacher added flexibility.
6. In Chapter 6, Capital Budgeting, we have simplified the presentation on how to measure a project's benefits and costs. Consequently, the student will find the concept of "relevant cash flows" easier to understand.
7. The former chapter entitled Capital Budgeting Under Uncertainty, Chapter 7 in this edition, is retitled Advanced Topics in Capial Budgeting. It now includes other important practical matters in capital budgeting analysis, such as "equivalent annual annuities," a measurement often used in practice.
8. In Chapter 8, we have expanded the material on determining the weighted marginal cost of capital and increased significantly the number of problems dealing with measurement of the weighted cost of capital.
9. Chapter 10, Planning the Firm's Financing Mix, contains new material on (a) how managers feel about capital stucture theory; (b) business cycles and financing behavior; and (c) agency theory, free cash flows, and the control hypothesis for debt issuance.
10. Chapter 15, Cash and Marketable Securities Management, includes new material from the Federal Reserve Banks of Atlanta and Richmond that focuses on the Fed's role in determining interest rates and the topic of monetary policy.
11. In Chapter 16, we have simplified the presentation on marginal or

incremental analysis of credit policy and moved the material from the appendix to the main body of the chapter.

12. Chapter 18 now contains material that demonstrates how financial managers were net buyers of common equity (rather than issuers) during the 1980s and how this trend reversed with the rise in stock prices that occurred into 1992. A case considering the ethics of insider trading is also included.
13. The former chapter on convertibles, warrants, options and futures has been separated into two chapters: Convertibles and Warrants, and The Use of Futures and Options to Reduce Risks. The material on futures and options is discussed in a financial management setting and has been expanded.
14. For teachers who make a copy of the problem solutions available to their class, you will be pleased to know that a selected group of problem solutions (from Problem Set B only) have been added to the *Study Guide.* These solutions in the *Study Guide,* along with check figures for many of the Set A problems provided at the back of the text itself, should meet your needs in this regard; so that copies may no longer be necessary.

The preceding list of changes is not comprehensive. However, it does highlight the kinds of changes we have committed ourselves to making in order that *Basic Financial Management* continue to reflect the very best thinking that financial scholars have to offer.

As a final, but important, comment to the teacher, we know how frustrating errors in a textbook or instructor's manual can be. Thus, we have worked diligently to make certain that any errors are virtually eliminated. Not only did we check and recheck the answers ourselves, but Prentice Hall hired faculty members at other universities to check the accuracy of the problem solutions. We therefore make the following offer to users of *Basic Financial Management,* 6th edition:

> Any professor or student identifying an error of substance (e.g., an incorrect number in an example or problem) in *Basic Financial Management,* 6th edition, in either the text or the instructor's manual, that has not been previously reported to the authors will receive a $10 reward. If a series of related errors occur resulting from an original error, the reward will be limited to a maximum of $20 for the group of errors.

A Note to the Student

As the authors of *Basic Financial Management,* we realize that our success ought to be measured by the level of effectiveness in our presentation to you, the end-user. Although you may not be involved in the process of selecting which text will be used in your finance class, we still consider you to be our customer. For this reason, we have made every effort to make the material understandable and to be sensitive to your needs in learning finance. Also, we have taken seriously our efforts to develop the *Study Guide* that assists and complements your learning. Two examples deserve note:

1. In addition to providing some sample problems with solutions in the *Study Guide,* we have added worked-out solutions to some of the end-of-chapter problems from Problem Set B.
2. We have made a first effort to provide outside material that may be helpful: In this edition of the *Study Guide,* we have included a complete article from *Financial Practice and Education* on the use of financial calculators. We believe you will find it quite helpful.

As our end-user, we would like very much to hear from you: Did you encounter anything in our presentation that was not clear or was confusing? We sincerely want to know what you think. While we cannot pay for your services, we would be willing to include your name and institution in the list of acknowledgments for your assistance in making the next edition of *Basic Financial Management* a better text for the student. Let us hear from you.

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As a final word, we express our sincere thanks to the many teachers who use *Basic Financial Management* in the classroom, in both academic as well as professional settings. We thank you for letting us serve you. Always feel free to give any of us a call when you have questions or needs. We view ourselves as partners in this venture, and we will be sensitive to your wishes and desires whenever possible.

J.W.P
A.J.K.
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BASIC FINANCIAL MANAGEMENT

PART 1

SCOPE AND ENVIRONMENT OF FINANCIAL MANAGEMENT

Financial management is largely about making decisions. Decisions about what assets or products to invest in, how to manage cash, and how to raise funds for growth. Part 1 sets the stage for the remainder of the text by describing the basic concepts on which financial decisions are based, the *language* and *arithmetic* used to make these decisions, and the world in which financial managers operate and how it influences financial decision making. We begin by discussing the objective of the financial manager, as well as some important concepts that will appear many times later in the text: market efficiency, the relationship between risk and return, the importance of prices as indicators of value, and the potential conflicts of interest that arise in business firms (Chapter 1). The decisions facing financial managers often are affected by forces outside the firm, such as taxes and the current sentiment in financial markets, so it is important to have some understanding of the business environment (Chapter 2). Finance has its own language and arithmetic. Many financial decisions are based on data from a firm's accounting statements: the balance sheet and income statement. One task of the financial manager is to bring accounting numbers to life; sometimes this means figuring out the rationale behind the entries on the financial statements or predicting how next month's or next year's number will look under various scenarios. Distinctions between the information needs of financial managers and accrual accounting also are basic to our study (Appendix 1A). The arithmetic of finance is built on the concept of the time value of money or *present value*: The value of money varies depending on when it is received (Chapter 3). This crucial concept underlies many of the ideas presented in this text. An investment in understanding the mechanics of present value early in the course will pay dividends later.