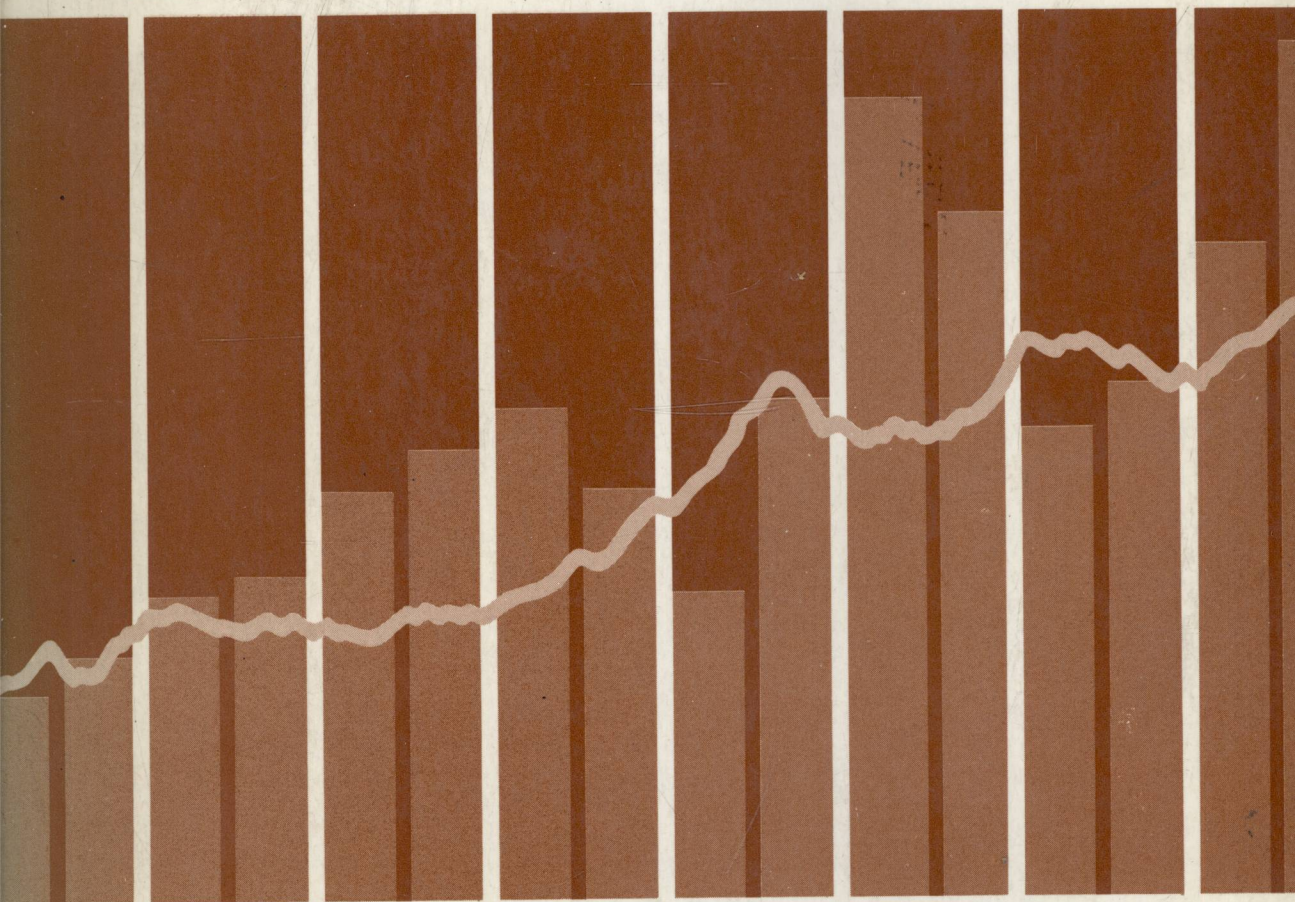


Eugene F. Brigham

# Fundamentals of Financial Management

Third Edition



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# Fundamentals of Financial Management Third Edition

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*University of Florida*



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# Preface



Financial management has changed greatly in recent years. Strong inflationary pressures have pushed interest rates to unprecedented heights, and the resulting high and volatile cost of capital has led to profound changes in corporate financial policies and practices. Academic researchers have made a number of significant theoretical advances. At the same time, business practitioners are making increasing use of financial theory, and feedback from "the real world" has led to modifications of financial theory. To a large extent, these trends have dictated the revisions made in the third edition of *Fundamentals of Financial Management*.

The book begins with basic concepts, focusing on security markets and the valuation process, and then goes on to show how the principles of financial management can be used to help maximize the value of a firm. This organization has three important advantages:

1. Explaining early in the book how financial markets operate, and how security prices are determined within these markets, gives students a basic appreciation of how financial management can affect the value of the firm. Also, this organization gives students an early familiarity with both the time value of money and risk analysis, which in turn permits us to use and reinforce these key concepts throughout the book.
2. Structuring the book around market and valuation concepts provides a continuity that is missing in many texts. Most finance texts develop a series of topics in modular form, then attempt to integrate them in the later chapters. The present organization gives students a better and more continuous understanding of how the topics interact, and it also minimizes the danger of running out of class time before all the key pieces have been fitted into place.
3. Students—even those who do not plan to major in finance—generally find the study of investments interesting. They enjoy working with stock and bond values, rates of return, and the like. Since people's ability to



learn a subject is a function of their interest and motivation and since, *Fundamentals* begins by showing the direct relationship between security markets, security values, and corporate finance, this organization is good from a pedagogic standpoint.

## Intended Market and Use

The book is designed for use as an introductory text. The main parts can be covered in a one term course, but, supplemented with cases and some outside readings, *Fundamentals* can also be used over two terms.

If the book is to be used in a one term course, the instructor will probably want to cover only selected chapters, leaving the others for students to examine on their own or to use as references in conjunction with work in other courses. In my own four semester hour course, I cover Chapters 1 through 9 and Chapters 11 through 19; that is, I omit Chapter 10 as well as Chapters 20 through 25. Students then cover these omitted chapters as part of a case course the following semester. In a three hour course, I would probably also save Chapters 15 and 16 for the second course. Other configurations are possible, and it is also easy to cover chapters in a different sequence than the one in the book. The Glossary and Appendix C (which summarizes the equations contained in the text) facilitate the use of alternative sequences.

I seriously considered limiting the book to an amount of material that could be covered in one term. However, surveys of both students and instructors indicated a strong preference for having a complete coverage of the fundamentals of financial management in one book. Even though the entire book may not be covered in the basic course, information on such topics as mergers, bankruptcy, international finance, leasing, small business finance, and the like, should be accessible to students in a convenient and familiar format. Also, it is worth noting that the bookstore cost differential between a 600- and an 800-page book is not significant.

## Changes in the Third Edition

All sections were updated to incorporate the latest interest rates, tax laws, and other obvious changes, and a major effort was made to clarify and smooth out rough spots throughout the book. Specific changes worthy of note include the following:

1. The primary symbols used in the book are set forth for easy reference on the inside front cover, and the equations are summarized in Appendix C.
2. A real-world example which highlights the key issues in each chapter is given at the beginning of the chapter. These illustrations both motivate students to read the chapters and help them see, as they go through each of the chapters, where we are headed.

3. The first question at the end of each chapter lists the key terms in the chapter; it serves both as a quick self-test for students and as a speedy summary/review of the chapter's basic coverage.

4. A set of fairly difficult self-test problems, with detailed solutions, is given at the end of the more quantitative chapters. These problems serve (a) to test students' ability to set up problems for solution and (b) to explain the solution setup for those who need help.

5. The end-of-chapter problems have been revised extensively. The number of problems has been increased; their range of difficulty has been expanded; and, in chapters where a discussion approach is especially useful (for example, Chapter 12, "Common Stock and the Investment Banking Process"), longer, caselike problems have been added. Incidentally, arrangements have been made through Dryden Press to allow instructors who want to use a few cases, but not enough to warrant having students purchase a casebook, to reproduce selected cases from our casebooks.

6. An annotated listing of references for further reading has been added to each chapter.

7. Perhaps the most significant change in the third edition is the increased attention given to the financial environment. The old Chapter 2 was split into two new chapters, and much new material was added. The new Chapter 2 deals with forms of organizations, types of business securities, and the taxes paid on different types of income. Then, in a new and very important Chapter 3, I describe the major types of security markets and institutions, explain how and why intermediation occurs, and discuss the nature of interest rates. Included are sections on stock market transactions and reporting, stock price and interest rate changes over time, inflation and its effects on both interest rates and security prices, yield curves, and the way recent developments have affected our financial institutions and markets.

This new material was written in recognition of (a) the tremendous effects that macrofinance has had on microfinance in recent years and (b) the critical need for students to understand more about the financial environment. An unanticipated benefit is that, having seen how and why capital costs and security prices change, and having learned about the nature of stock and bond markets, students have a much easier time understanding the logic of stock and bond valuation models and grasping the differences between expected, required, and realized rates of return as discussed in subsequent chapters.

8. Chapter 5, "Bond and Stock Values," now includes an appendix dealing with after-tax returns on securities.

9. Chapter 6, "Risk and Rates of Return," has been clarified significantly.

10. To narrow the gap between the development of time value and risk concepts and their subsequent application in capital budgeting/cost of capital, I shifted the capital budgeting/cost of capital chapters ahead of those on working capital.

11. To provide a more logical division of the capital budgeting material—and especially to clarify risk analysis—I reorganized the material previously covered in two chapters into three chapters. No significant amount of new material was added; the reorganization simply provides a smoother flow. Chapter 10, “Replacement and Other Topics in Capital Budgeting,” can be omitted in the basic course without loss of continuity.
12. The cost of capital chapter was switched to precede the one on capital structure; having already discussed the weighted average cost of capital makes it much easier to discuss the optimal capital structure.
13. The common stock chapter was placed ahead of the one on debt, and the discussion of investment banking is concentrated in the common stock chapter. Also, I added a section on zero coupon bonds to reflect the great surge in their use in recent years.
14. As noted earlier, the working capital section was shifted to follow the chapters on long-term capital. The primary motive for this change was to shorten the gap between the development of risk-return concepts and their use in capital budgeting/cost of capital. However, the shift is eminently logical, because an analysis of long-run, strategic decisions should precede analyses relating to the short-run, operating decisions inherent in working capital management.
15. Within the working capital section, the receivables/inventory chapter was shifted ahead of the cash/securities chapter. This change makes it easier to discuss optimal cash and securities balances within the framework of inventory models.

## Ancillary Materials

A number of additional items are available as aids to both students and instructors:

1. *Study Guide*. This supplement, coauthored with Louis Gapenski, outlines the key sections of the text, offers students self-testing questions for each chapter, and provides a set of solved problems similar to those in the text.
2. *Casebook*. A revised edition of the casebook *Cases in Managerial Finance*, 5th ed., by E. F. Brigham and R. L. Crum was designed specifically for use with this text. The cases show real-world applications of the methodologies and concepts developed in the text.
3. *Readings Books*. A number of readings books, including one designed specifically for use with this text (*Issues in Managerial Finance*, edited by E. F. Brigham and R. E. Johnson), can be used as supplements.
4. *Instructor's Manual*. A very complete, 346-page manual is available to instructors who adopt the book.

5. *Test Bank*. A completely new test bank with over 600 class-tested questions/problems in objective format is now available. The new test bank questions are, in general, more challenging than those in many test banks. The test bank is especially suitable for exams, whereas many of the older test banks are suitable for quizzes as opposed to midterm and final exams.

6. *Lecture Notes and Transparencies*. A set of lecture notes and acetate transparencies is available from Dryden Press to instructors who adopt the text. These notes were prepared on the basis of detailed student suggestions as to which parts of each chapter require the most explanation. Each instructor will want to modify the notes to suit his or her own situation, but the notes and transparencies can be used as the basis for lectures to both large and small classes.

A great many people participated, directly or indirectly, in the preparation of this book, and I would like to acknowledge the help of the following:

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## Errors in the Text

At this point in the preface, authors generally say something like this: "I appreciate all the help I received from the people listed above, but any

remaining errors are, of course, my own responsibility." And in many books there are plenty of remaining errors. Having experienced difficulties with errors myself, both as a student and as an instructor, I resolved to avoid this problem in *Fundamentals*. As a result of the error detection procedures used, I am convinced that it is freer of mistakes than any other book with which I have been associated.

Some of my colleagues suggested that if I am so confident about the book's accuracy, I should offer a reward to people who find errors. With this in mind, but primarily because I want to detect any remaining errors and correct them in subsequent printings, I hereby offer a reward of \$5 per error (misspelled word, arithmetic mistake, and the like) to the first person who reports it to me. (Any error that has follow-through effects is counted as two errors only.) Two accounting students have set up a foolproof audit system to make sure I pay off. Accounting students tend to be skeptics!

Finance is, in a real sense, the cornerstone of the enterprise system, so 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. I sincerely hope that *Fundamentals* will meet its own challenge by contributing to a better understanding of the financial system.

## Conclusion

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September 1982

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# Fundamental Concepts in Financial Management

# I

Each financial decision must be analyzed in terms of its effect on the value of the firm's stock. This requires a knowledge of how alternative decisions will influence stock prices. A stock price model is essential to such knowledge. Accordingly, we develop in Part I a basic stock valuation model for use throughout the remainder of the book.

We begin, in Chapter 1, with an overview of financial management. Then, in Chapter 2, we look at the different types of business firms, the securities they issue, and the way both firms and their owners are taxed. Chapter 3 describes how capital is allocated, the institutions which facilitate the flow of capital from savers to borrowers, and the way interest rates are established. Chapter 4 covers the time value of money, and the concepts developed in Chapter 4 are extended in Chapter 5 to show how stock and bond values are determined. Finally, Chapter 6 discusses the concept of risk, ways of measuring risk, and the impact risk has on stock prices and rates of return.

