FUNDAMENTALS OF

CORPORATE FINANCE

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PREFACE

In the 1990s, the challenge of financial management promises to be greater than ever. The previous decade brought fundamental changes in financial markets and instruments, and the practice of corporate finance continues to evolve rapidly. Often, what was yesterday's state of the art is commonplace today, and it is essential that our finance courses and finance texts do not get left behind. *Fundamentals of Corporate Finance* is our response to what we believe is a real need for a modern, unified treatment of financial management that is suitable for beginning students.

THE UNDERLYING PHILOSOPHY

Rapid and extensive changes place new burdens on the teaching of corporate finance. On the one hand, it is much more difficult to keep materials up to date. On the other, the permanent must be distinguished from the temporary to avoid following what is merely the latest fad. Our solution is to emphasize the modern fundamentals of finance and to make the subject come alive with contemporary examples. As we emphasize throughout this book, we view the subject of corporate finance as the working of a small number of integrated and very powerful intuitions.

From our survey of existing introductory textbooks, including the ones we have used, this commonsense approach seems to be the exception rather than the rule. All too often, the beginning student views corporate finance as a collection of unrelated topics which are unified by virtue of being bound together between the covers of one book. In many cases, this perception is only natural because the subject is treated in a way that is both topic oriented and procedural. Commonly, emphasis is placed on detailed and specific "solutions" to certain narrowly posed problems. How often have we heard students exclaim that they could solve a particular problem if only they knew which formula to use?

We think this approach misses the forest for the trees. As time passes, the details fade, and what remains, if we are successful, is a sound grasp of the underlying principles. This is why our overriding concern, from the first page to the last, is with the basic logic of financial decision making.

DISTINCTIVE FEATURES

Our general philosophy is apparent in the following ways:

An Emphasis on Intuition We are always careful to separate and explain the principles at work on an intuitive level before launching into any specifics.

The underlying ideas are discussed first in very general terms and then by way of examples that illustrate in more concrete terms how a financial manager might proceed in a given situation.

A Unified Valuation Approach Many texts pay only lip service to net present value (NPV) as the basic concept of corporate finance and stop short of consistently integrating this important concept. The most basic notion, that NPV represents the excess of market value over cost, tends to get lost in an overly mechanical approach to NPV that emphasizes computation at the expense of understanding. Every subject covered in *Fundamentals of Corporate Finance* is firmly rooted in valuation, and care is taken throughout to explain how particular decisions have valuation effects.

A Managerial Focus Students won't lose sight of the fact that financial management concerns *management*. Throughout the text, the role of the financial manager as decision maker is emphasized, and the need for managerial input and judgment is stressed. "Black box" approaches to finance are consciously avoided.

In *Fundamentals of Corporate Finance,* these three themes work together to provide consistent treatment, a sound foundation, and a practical, workable understanding of how to evaluate financial decisions.

INTENDED AUDIENCE

This text is designed and developed explicitly for a first course in business or corporate finance. The typical student will not have previously taken a course in finance, and no previous knowledge of finance is assumed. Since this course is frequently part of a common business core, the text is intended for majors and nonmajors alike. In terms of background or prerequisites, the book is nearly self-contained. Some familiarity with basic accounting principles is assumed, but even these are reviewed very early on. The only other tool the student needs is basic algebra. As a result, students with very different backgrounds will find the text very accessible.

COVERAGE

From the start, *Fundamentals of Corporate Finance* contains innovative coverage on a wide variety of subjects. For example, Chapter 4, on long-term financial planning, contains a thorough discussion of the sustainable growth rate as a planning tool. Chapter 9, on project analysis and evaluation, contains an extensive discussion of how to evaluate NPV estimates. Chapter 10, on capital market history, discusses in detail the famous Ibbotson-Sinquefield study and the nature of capital market risks and returns. Chapter 13, on selling securities to the public, contains a modern up-to-date discussion of IPOs and the costs of going public.

This is just a sampling. Because *Fundamentals of Corporate Finance* is not a "me-too" book, we have taken a very close look at what is likely to be relevant in the 1990s, and we have taken a fresh, modern approach to many traditional subjects. In doing so, we eliminated topics of dubious relevance, downplayed purely theoretical issues, and minimized the use of extensive and elaborate computations to illustrate points that are either intuitively obvious or of limited practical use.

Unlike virtually any other introductory text, *Fundamentals of Corporate Finance* provides extensive real world practical advice and guidance. We try to go beyond just presenting dry, standard textbook material to show how to actually *use* the tools discussed in the text. When necessary, the approximate, pragmatic nature of some types of financial analysis is made explicit, possible pitfalls are described, and limitations are outlined.

ATTENTION TO PEDAGOGY

In addition to illustrating pertinent concepts and presenting up-to-date coverage, *Fundamentals of Corporate Finance* strives to present the material in a way that makes it coherent and easy to understand. Thus, to meet the varied needs of its intended audience, *Fundamentals of Corporate Finance* is rich in valuable learning tools, including:

Extensive Examples, Questions, and Problems

1. *Examples.* Every chapter contains a variety of detailed, worked-out examples. These examples are found both in the main body of the text and separately as numbered examples that correspond to the main text. Based on our classroom testing, these examples are among the most useful learnings aids because they provide both detail and explanation.
2. *Concept Questions.* Chapter sections are kept relatively short and are followed by a series of concept questions that provide a quick check concerning the material just covered. Because they highlight key concepts, we have found that students rely heavily on them when reviewing chapter material.
3. *Self-Test Questions.* At the end of each chapter, comprehensive self-test questions appear, along with detailed solutions and comments on the solutions. These frequently combine topics covered in the chapter to illustrate how they fit together.
4. *End of Chapter Problems.* Finally, we have found that students learn better when they have plenty of opportunity for practice. We therefore provide extensive end of chapter questions and problems. For the most part, there are at least 20, and as many as 63, problems for each chapter. This greatly exceeds what is typical in an introductory textbook.

   The questions and problems range in difficulty from relatively easy practice problems to thought-provoking "challenge" problems designed to intrigue enthusiastic students. All problems are fully annotated in the margins so that students and instructors can readily identify particular types. Throughout the text, we have worked to supply interesting problems that illustrate real-world applications of chapter material.

Boxed Essays A unique series of brief essays entitled "In Their Own Words" are written by distinguished scholars and practitioners on key topics in the text. To name just a few, these include essays by Merton Miller on capital structure, Richard Roll on security prices, and Fischer Black on dividends. In all cases, the essays are enlightening, informative, and entertaining.

Other Chapter Features Several other features, designed to promote learning, include:

1. *Key Terms.* Within each chapter, key terms are highlighted in **boldface** type the first time they appear. Key terms are defined in the text, and there is a running glossary in the margins of the text for quick reminders. For reference there is a comprehensive list of key terms at the end of each chapter.
2. *Chapter Reviews and Summaries.* Each chapter ends with a summary that enumerates the key points and provides an overall perspective on the chapter material.
3. *Suggested Readings.* A short, annotated list of books and articles to which the interested reader may refer for additional information follows each chapter.
4. *Writing Style.* To better engage the reader, the writing style in *Fundamentals of Corporate Finance* is informal. Throughout, we try to convey our considerable enthusiasm for the subject. Students consistently find the relaxed style approachable and likable.

ORGANIZATION OF THE TEXT

We have found that the phrase "so much to do, so little time" accurately describes an introductory finance course. For this reason, we designed *Fundamentals of Corporate Finance* to be as flexible and modular as possible. There are a total of nine parts, and, in broad terms, the instructor is free to decide the particular sequence. Further, within each part, the first chapter generally contains a broad overview and survey. Thus, when time is limited, subsequent chapters can be omitted. Finally, the sections placed early in each chapter are generally the most important, and later sections frequently can be omitted without loss of continuity. For these reasons, the instructor has great control over the topics covered, the sequence in which they are covered, and the depth of coverage.

Part One of the text contains two chapters. Chapter 1 considers the goal of the corporation, the corporate form of organization, the agency problem, and, briefly, money and capital markets. Chapter 2 succinctly discusses cash flow versus accounting income, market value versus book value, and taxes. It also provides a useful review of financial statements.

After Part One, either Part Two, on financial statements analysis, long-range planning, and corporate growth, or Part Three, on time value and stock and bond valuation, follow naturally. Part Two can be omitted entirely if desired. After Part Three, most instructors will probably want to move directly into Part Four, which covers net present value, discounted cash flow valuation, and capital budgeting.

Part Five contains two chapters on risk and return. The first one, on market history, is designed to give students a feel for typical rates of return on risky assets. The second one discusses the expected return/risk tradeoff, and it develops the security market line in a highly intuitive way that bypasses much of the usual portfolio theory and statistics.

The first chapter of Part Six introduces long-term financing by discussing the essential features of debt and equity instruments. Important elements of bankruptcy and reorganization are covered briefly as well. The second chapter in Part Six covers selling securities to the public with an emphasis on the role of the investment banker and the costs of going public. Because both chapters contain a fair amount of descriptive material, they can easily be assigned as out-of-class reading as time constraints dictate.

Cost of capital, capital structure, and dividend policy are covered in the three consecutive chapters of Part Seven. The chapter on dividends can be covered independently, if desired, and the chapter on capital structure can be omitted without creating loss of continuity.

Part Eight covers issues in short-term financial management. The first of the three chapters is a general survey of short-term management, which is very useful when time does not permit a more in-depth treatment. The next two chapters provide greater detail on cash and credit management.

Last, Part Nine covers three important topics: options and optionlike securities, mergers, and international finance. These chapters contain somewhat greater depth of coverage than the basic text chapters and may be covered partially in courses where time is constrained or completely in courses that give special emphasis to these topics.

ACKNOWLEDGMENTS

To borrow a phrase, writing an introductory finance textbook is easy; all you do is sit down at a word processor and open a vein. We never would have completed this book without the incredible amount of help and support we received from literally dozens of our colleagues, editors, family members, and friends. We would like to thank, without implicating, all of you.

For starters, a great many of our colleagues read our first drafts. The fact that this book has so little in common with those drafts is a reflection of the value we placed on the many comments and suggestions that we received. Our second draft reviewers continued to keep us working on improving the content, organization, and exposition of our text. To the following reviewers, then, we are grateful for their many contributions:

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Throughout the development of this edition, we have taken great care to discover and eliminate errors. Our goal is to provide the best textbook available on the subject. We want to ensure that future editions are error free, and, to that end, we will gladly offer $10 per arithmetic error to the first individual reporting it as a modest token of our appreciation. More than this, we would like to hear from instructors and students alike. Please write and tell us how to make this a better text. Forward your comments to: Professor Randolph W. Westerfield, School of Business Administration, University of Southern California, University Park, Los Angeles, CA 90089-1421.

Stephen A. Ross

Randolph W. Westerfield

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