



CORPORATE FINANCIAL MANAGEMENT

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To our families with love and appreciation

Cindy, Ryan, Lacey, and Logan

Louise and William

A b o u t t h e A u t h o r s

The authors are long-time friends and collaborators. Currently, they are the editors of *Financial Management*. The journal is one of the oldest finance journals, and has the second largest circulation after the *Financial Analysts Journal*. A major goal of the journal is to bridge the gap between theory and practice. Their first book together, *Principles of Finance with Corporate Applications*, was published in 1991. More recently, some of their joint research was published in the *Journal of Applied Corporate Finance*.

Douglas R. Emery is The Koffman Fellow and Professor of Finance in the School of Management at Binghamton University (SUNY). Doug has also taught at Purdue University, Washington University in St. Louis, the University of Missouri—Columbia, Nanjing University in China, the University of Calgary in Canada, and Kansas University. He currently serves as an Associate Editor of *Decision Sciences* and has been a Director of the Financial Management Association. His research has been published in a wide variety of journals including the *Journal of Finance*, *Journal of Financial and Quantitative Analysis*, *Financial Management*, *Journal of Accounting Research*, *Journal of Banking and Finance*, *Decision Sciences*, *Psychometrika*, and the *Journal of Marketing Research*.

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P r e f a c e

The teaching of finance has evolved over the past 40 years from simple descriptions of observed practice into a sound body of theory that represents our collective understanding of finance. In this book, we have summarized that collective understanding by detailing, for the first time, the principles of finance. Our principles of finance are a set of fundamental tenets designed to help you develop intuition about financial decision making.

Today, finance continues to evolve at a dizzying pace. Changes in the economic environment and innovations in the practice of finance seem to occur almost daily. How can you prepare for such a fast-paced changing field as finance? The answer lies in the very evolution of finance. You must look past simple descriptions and seek a conceptual understanding of a situation. Then, when the inevitable changes occur, you can use that understanding to make good decisions in the new situation by simply taking into account the changes that have occurred.

To the Student: Our Teaching Philosophy

We believe that if you understand the “first principles,” every problem and issue can be addressed and solved with these principles; essentially, if you understand the general concept, you can use them to solve specific problems. This is why we have created the principles of finance, and designed this book around them. Our principles of finance provide an integrated view of the theory of finance so that financial decision making can be treated as an application of our collective understanding. By understanding the principles of finance, rather than simply memorizing a collection of seemingly disparate decision rules, you will be better able to cope with the unforeseen and inevitable changes and problems you will encounter in the future. Our principles of finance provide “ready intuition” for solving problems you have never seen before.

We will show you how to apply this intuition to the world of corporate financial management. Many of our applications come from the “real world,” where John Finnerty has spent his entire career of more than 20 years. Most of the applications involve well-known corporations. In other applications, we have changed the name “to protect the innocent.” All of the applications are designed to illustrate how financial principles

are useful and immediately applicable to the real world.

Of course, like every field, there is always more to learn. We are honest about the limits of our understanding. We indicate what is known, what is believed, and what is still being debated. The evolution of our understanding represents the very important process of research. Some professors spend part of their time doing research, and have contributed to the development and testing of financial theory. It’s not possible to cite all of them, but many are included in the end-of-chapter bibliographies.

A Few Words from a Practitioner about the Importance of Theory

This book focuses on the practice of corporate financial management. It’s an applied book. So why should I be wasting your time with talk about theory? Quite simply, because it’s important. After all, what is it that *applied* refers to? Theory. Yet some people view theory as an irritation. Almost as though theory gets in the way of good practice.

To be able to apply theory successfully, you must understand it. A “mindless cookbook” approach is fine for routine problems. But what do you do when a problem doesn’t fit one of the rules? Understanding the underlying principles—the theoretical concepts—allows you to go beyond simple rules. If you understand the financial theory, you can identify the point of departure for evaluating a newly encountered problem. Then you can ask the questions necessary to get the information you need, process this information, and solve the problem.

Our principles of finance provide the framework for financial theory. The first principle, the Principle of Self-Interested Behavior, is the most basic. Without this principle, we cannot explain financial behavior. However, it also deserves special comment. Regrettably, some people misapply this principle.

I have had the unfortunate experience of encountering individuals who “crossed the line” by pursuing self-interested behavior without regard to the law. They paid a heavy price: in three cases, the price included time in jail and lifelong restriction from the securities industry. In a fourth, the price was still high, even without jail time.

In your career, you are likely to face illegal “opportunities” to make literally millions of dollars by, for example, insider trading. Our Principle of Self-Interested Behavior explicitly excludes such behavior; individuals should obey the rules and regulations to ensure legal—and ethically sound—behavior. There is nothing wrong with pursuing self-interested behavior—provided you play by the rules.

We all marvel at certain people who have had self-interested success in finance without formal training. Some very successful traders and sales people I’ve known didn’t even have college degrees. What they had developed was an understanding of the principles of finance—and a well-honed ability to apply them. They probably couldn’t articulate them, but they surely understood how to apply them in their own self-interest. Whether it’s a corporate treasurer deciding what type of security to issue, an investment banker determining the structure of a new security, a bond trader deciding which bonds to buy, or a stock portfolio manager deciding which stocks to sell, in my experience, it is their grasp of financial theory and their ability to apply it in *any* situation that distinguishes the successful people.

So my advice is to take time to understand the basics—the theory—because it’s in your own self-interest.



To the Instructor: Our Goals for this Book

Following the Markowitz-Modigliani-Miller-Fama finance revolution, Akerlof (1970), Black and Scholes (1973), and Jensen and Meckling (1976) engendered a follow-on revolution involving asymmetric information, contingent claims, and agency theory. These articles in turn spawned hundreds, perhaps even thousands, of subsequent papers exploring their implications. Our goal in writing this book is to enrich the teaching of finance by *weaving* these important research advances into the very fabric of the traditional corporate finance course.

When these research advances are presented, students are fascinated. They are impressed by their immediate application and obvious relevance to the real world. The underlying intuitions are as appealing as a downward-sloping demand curve.

However, over the years, the textbook treatment of this new material has been almost ornamental. The material’s importance may be discussed in the first chapter, and after that, perhaps mentioned in one or two chapter introductions. Yet the chapters really only contain the traditional material.

This book brings the excitement of this profoundly important material directly to the student. These are concepts that students *can*—and should—understand, within the context of finance. This new material is integrated throughout, so you can include it without having to “reinvent the wheel.”

Many of us have participated in research involving agency theory, contingent claims, or asymmetric information, but have kept it essentially separate from our teaching. Like existing textbooks, we might mention the concepts briefly but, essentially, we only cover the standard material. It’s no wonder. The alternative of developing your own unique course material is unreasonably costly, not to mention inefficient.

This book provides the necessary background directly to the students to enrich your topical coverage. Students can read and actually understand much, if not all, of the background material on their own. For example, it takes only a few hours to read our chapter on financial contracting. And our early explanation of contingent claims is given in very intuitive terms, without the usual overwhelming technicalities associated with options. In this way, we have minimized the disruption to the normal in-class topical treatment. In short, the marginal cost can be very low. You don’t have to spend a lot of valuable class time on this material. In fact, some of our colleagues assign Chapters 8 and 9 only as outside reading.

We have one other comment on course coverage. Some of our colleagues prefer to cover capital market efficiency earlier in the course. Chapter 14 does not require background beyond the material in Chapter 3. Therefore, it can be covered wherever you believe it best fits. Also, like Chapters 8 and 9, Chapter 14 is very student friendly and can, should you so choose, be assigned as outside reading.

The Curriculum Revolution This book’s design lends itself very comfortably to the new environment in which many of us find ourselves. Schools of business/management programs all over North America are going through, or have already made, dramatic curricular changes. These changes frequently involve integration of material across areas and perhaps team teaching. This

new environment is forcing us to rethink, and change, how we teach finance. With change comes opportunity. We believe this new environment provides an excellent opportunity for the finance discipline to provide a leadership role.

The other business/management disciplines have enthusiastically embraced the idea of a corporation as a set of stakeholders. Beyond accounting, areas such as organizational behavior, strategic management, business law, marketing, and production are currently working to incorporate the implications of agency theory, contingent claims, and asymmetric information into their views of the organizational world. This makes the principal-agent framework of financial contracting a natural framework for integrating the areas. Therefore, this book offers the chance for the core finance class to play a central role in the new curricular environment.

Innovations of Special Note

Principles of Finance In Chapter 3, we describe our dozen principles of finance, which provide the foundation for learning finance. These principles provide a framework for integrating and learning corporate financial management.

Financial Contracting In addition to providing the first formal enumeration of the principles of finance, we further modernize the teaching of finance by including a separate chapter on principal-agent problems in financial contracting. Throughout the book, we recognize the existence of information asymmetries and point out the agency problems it creates. After introducing the problems of financial contracting, we explicitly show how the important insights from this material can be used to solve many practical problems throughout the rest of the book.

Options We use the term *option* in its broadest sense: any right without an obligation attached to it. This definition allows us to apply the important insights of option theory to a wide variety of topics. For example, we use option concepts in financial contracting, capital budgeting, and capital structure, among many others.

A Practitioner's Perspective John Finnerty's more than 20 years of experience in the everyday world of finance brings a unique perspective to this book. Based on his first-hand experience, John brings the real world into the classroom.

Internationalization A great deal is heard today about the importance of internationalizing the curriculum. We

believe that our country's continued economic well-being demands that we be international in our thinking. It is imperative that today's firms incorporate into their decision-making the specific constraints and additional market imperfections introduced by operating in an international economy. Of course, the principles of finance don't stop at the border. Therefore, the concepts and principles developed in this book are readily applicable to international transactions. With this in mind, we treat the international aspects of finance throughout the book as both a point of view and a particular market environment in which to operate.

Learning Aids

Chapter Objectives The introduction to each chapter includes a set of learning objectives, which highlight the things students should be able to do after mastering the material in the chapter.

Principles of Finance Boxes In Chapters 5 through 29, there are "principles boxes" in the introductions. These boxes highlight how particular finance principles apply to the chapter material. This sets the stage for the material to follow. It also helps students develop and apply financial intuition. In addition, the boxes tie the chapters together and reduce the chance of becoming bogged down in mechanical computations.

Practice Problems The end-of-chapter problems are numerous, with an average of more than 35 per chapter. They were written by the authors specifically for this book. The problems are differentiated according to the type of instructional purpose: Problems in problem set A are very straightforward. They review the chapter material and can be answered by direct reference to the text material. Problems in problem set B also relate fairly closely to the material in the chapter but are somewhat more complex. Problems in problem set C are extensions of material presented in the chapter. The C-type problems are designed to challenge the students with complex situations, puzzles, or the examination of more subtle implications of the material in the chapter. Occasionally, problems are drawn from material in earlier chapters to reinforce the retention of important concepts.

Real-World Applications Following the practice problems, there is a real-world application, which asks students to apply some of the concepts covered in the chapter. Every one of these applications comes from a real-world situation.

Decision Summary Boxes At the end of each chapter, in the Summary section, we provide a *Decision Summary Box*, which summarizes the important dimensions of each type of decision situation covered in the chapter—a sort of “what really matters” for each type of decision. They provide a set of policy guidelines that are consistent with financial theory, yet take into account those areas where “gaps” in the theory make it difficult, if not impossible, to make unambiguous financial policy choices (for example, choosing a dividend policy).

New Terms and Jargon Terms are defined and redefined in early usage to minimize effort wasted on looking up definitions. Examples given early in the book are deliberately drawn from everyday experience to minimize feelings of being overwhelmed by new jargon. Key terms appear in boldfaced type in their first usage, and are listed in the back of the chapter in the key terms list. The definitions are collected in the glossary, which appears at the end of the book.

Glossary The glossary is extensive and is designed to serve as a convenient reference source, both for usage in later chapters and after graduation.

Humor We interrupt the dry dullness from time to time to bring you occasional messages with humor and levity. Our tone is purposefully somewhat informal, so as not to let the words get in the way of the message.

Targeted Audience

This book was written for use in masters-level core finance classes, and for advanced courses in undergraduate programs. There is an abundance of applications material, so the book can also be used subsequently in other advanced-level courses such as case classes at both the graduate and undergraduate levels.

We assume throughout the book a familiarity with the standard prerequisites in business/management programs: college-level algebra, financial accounting, microeconomics, and probability and statistics. Although we explicitly assume that students have this background, we provide reminders of basic definitions and concepts that will have been covered in prerequisite courses. Also, while an understanding of mathematics is necessary, we facilitate the learning process by providing simple examples and analogies. By providing both verbal/logical and rigorous mathematical descriptions, we hope to enlist each student’s “learning strength,” as well as have the descriptions reinforce one another.

Finally, this book has been written with the intent

that it will become a useful future reference tool for students as they move through their business careers. For example, the abundance of applications material will provide a reference source for material not covered in class; the extensive glossary facilitates later reference use; and the decision summary boxes provide an easily accessed summary of the important dimensions and concepts connected with particular topics.

Supplementary Materials

Instructor’s Manual The instructor’s manual provides suggestions on how to use the book as a teaching tool. The first part focuses on using the book in a masters-level core finance class. The second part focuses on using the book in an advanced undergraduate class. Each part provides chapter-by-chapter teaching notes that contain a real-world situation to introduce and motivate the material, an outline and summary, including key concepts and definitions, demonstration problems with transparency masters for class usage, and class syllabi with suggested problem assignments for alternative course lengths and coverage. A guide for cross-referencing to other texts is also given.

PowerPoint Notes The PowerPoint notes provide a complete set of color slide presentations for lecturing on the material.

Test Bank The test bank provides a wide variety of problems like those at the back of the chapters as well as multiple choice and true–false questions, designed to test student comprehension. It is provided on computer disk with solutions.

Solutions Manual The solutions manual contains solutions to all of the end-of-chapter problems and is available separately for students.

Software The computer software in the form of spreadsheets covers specific decision/valuation models such as capital budgeting project analysis, lease-versus-buy analysis, and the Black–Scholes option pricing model, among others. Each topic includes a master model that can be used for calculation, problems that ask the student to complete the logic of partially created models, and problems that ask the student to use the model for computational purposes.

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In this book we say a great deal about the 12 principles

of finance that are explained in Chapter 3. In writing this book we regularly encountered a 13th principle—the unlucky one that is the bane of all authors. We call it the Underestimation Principle. Its circularity highlights its inevitability: Writing a book always takes longer than you think—even when you take into account the Underestimation Principle! So we sincerely thank our spouses and families for their tremendous forbearance during the long and arduous process that culminated in this book. Yes, it did take considerably longer than we originally estimated, and it even took longer than every subsequent estimation. But we never lied; it's just that the basic principles always assert themselves.

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