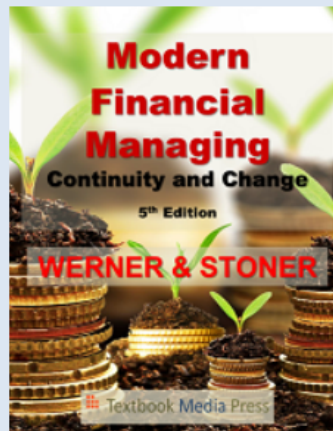


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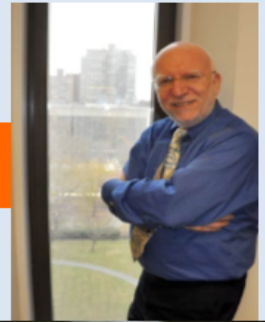
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Fordham University

James Stoner
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Modern Financial Managing 5e

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3. Bridges gap between traditional and new business practices

"Frank Werner is one of the most impressive human beings I have ever met in my life. I had him for my first Fordham Undergrad finance class (brilliant/genius)..."

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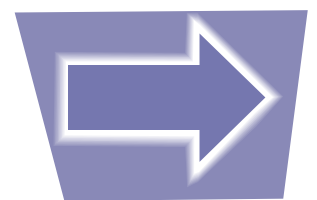
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TO THE INSTRUCTOR

Thank you and congratulations for adopting this book. We and the many leading finance professionals throughout North America who encouraged us to write it and who reviewed our work think you have made an important decision for your students and for global competitiveness. Change is never easy, as we ourselves found out when we began asking the questions that led to this textbook.

Modern Financial Managing—Continuity and Change is a different kind of finance text. Although all financial management texts cover finance, we know of no other “financial management” textbook that has anything to do with management. We’re excited about the book since we believe this is the way we will all be seeing finance in the coming years. We hope we’ve communicated our excitement to you and your students.

We hope we’ve communicated our excitement to you and your students. We have chosen the book’s title with care, and each word has meaning for us:

- *Modern*—The book describes finance as it is practiced today in world-class companies.
- *Financial*—The book’s core focus is on the finance function within a business organization.
- *Managing*—The book recognizes that financial analysis and decision making must be closely integrated with a company’s management systems and aligned with the goals of society to be effective. We use the “ing” form of the verb *to manage* to communicate our belief that the activities of financial professionals within a business are not static and reactive but are proactive and constantly evolving.
- *Continuity*—The book is firmly connected to the rich history of finance theory and practice which continues to provide important guidance to business activities.
- *Change*—The book identifies that we are in a period of rapid change in the business environment. These are particularly exciting times for finance and finance professionals as new finance theories and techniques emerge—such as sophisticated applications of option theory, derivative securities, agency theory, value management, and behavioral finance—and as the business environment rapidly evolves in response to the forces of globalization, technology, sustainability, quality, and diversity. Along with the rest of every business organization, finance is changing in order to survive.

1. Our Goals for the Book

In writing *Modern Financial Managing*, we set seven goals for ourselves:

To present finance in a clear and consistent manner The book is designed—through its choice of language, illustrations, and design—to be easy to read and use. The approach for analysis and problem-solving is straightforward



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and is applied consistently. The book is approachable and user-friendly, thanks to features such as its realistic cases and problem scenarios, cartoons, hypertext cross-references, and dual glossary.

To organize the book based on the way financial managers conceive their work The flow of the book is consistent with the financial managing job: raising money, using money to add value to the firm, and returning value to shareholders. This makes it easier for students to understand the “big picture.”

To make the book consistent with the direction of business education The book includes extensive material in response to four concerns of contemporary business education: (1) globalization, (2) ethics, (3) cross-disciplinary activities, and (4) small business. International content is integrated throughout the book. Ethics appears naturally in the context of the worldwide quality-management and sustainability revolutions. Cross-disciplinary activity, a requirement in modern business practice, is explicitly addressed wherever financial decision making is discussed. The special needs and limitations of small business appear throughout the book, making it applicable to organizations of all sizes.

To capture the implications of the quality and sustainability revolutions for financial practice The book uses the experiences of quality-leading companies to report the progress finance organizations are making in identifying and serving finance’s customers, in improving finance’s processes, and in contributing to global sustainability. A consistent theme throughout the book is bridging the gap between traditional and new management practices, a current fact of life for finance professionals we refer to as “living in both worlds.”

To equal or surpass the best features of other textbooks We benchmarked over 50 features of both finance and nonfinance texts, looking for the best example(s) of each, and set out to do as well or better on every one.

To provide instructors flexibility in using the book The book contains full coverage for an introductory course of either one or two semesters. It can be used in a traditional financial management course, or in a survey of finance course since its broad coverage introduces many areas of finance, not just large corporation financial management. We have put more-advanced subjects, more-detailed explanations, and derivations in appendixes to provide greater flexibility in selecting and assigning materials. Cross-reference footnotes connect material that appears in multiple chapters, helping instructors and students alike to tie pieces of the finance subject together.

To keep the size of the book reasonable Even with all its new coverage, the book has only 22 chapters.

2. Advantages for Students, Instructors, and Society

We think there are important advantages to a finance book that is consistent with the best management practice.

For students The approach of *Modern Financial Managing* makes students more attractive to employers, not only by teaching them the core competencies of finance but also by showing them how to use those skills effectively within a modern, world-class organization.

For instructors *Modern Financial Managing* permits instructors to teach best practice—financial managing as it is done in companies recognized as business leaders. It supports teaching, as students find the book intuitively clear and easy to read and understand. By integrating international and ethical issues throughout the book, it builds those subjects naturally into students' analyses and removes the need to treat them as separate topics.

For society *Modern Financial Managing* joins the increasing supply of educational materials attempting to change the way business schools prepare their students. Business is changing so fast today that schools often have understandable difficulty keeping up. The observation of Walt Kelly's lovable cartoon possum, Pogo, that "We have met the enemy, and it is us!" has been applied with some wisdom to business education. *Modern Financial Managing* is our contribution to moving business schools from being "part of the problem" to a "part of the solution" of educating students to compete successfully in today's global markets and to contribute to global sustainability.

3. Who Should Use the Book

Because of its tone and approach, *Modern Financial Managing—Continuity and Change* has been appreciated by instructors, students, and employers alike. It has been successfully used at the M.B.A. and executive M.B.A. levels and was reviewed during its development both by professors and senior financial executives from some of North America's leading companies. We think the book is especially appropriate for nontechnical students, since it minimizes the use of derivations and formulas, and for students who are employed full- or part-time and who will

immediately see the validity of the book's approach and its relevance to their work.

4. Pedagogical Aids

We have included many pedagogical aids to make your job of teaching easier and your students' job of learning more rewarding and more fun. Among the features to look for and take advantage of are:

Tightly integrated chapter structure Each chapter begins with a set of learning objectives entitled "Key Points You Should Learn from This Chapter." These points correspond precisely to the A-heads, or major sections of the chapter. At the end of each chapter is a "Summary of Key Points" that repeats and reviews the learning objectives.

Chapter opening and closing vignettes Each opening vignette describes a scenario faced by a finance professional and is designed to involve your students in the material by putting them "on the job." Each closing vignette shows how the concepts of the chapter can be used to address the opening issue. Since the closing vignettes do not give a single definitive answer (there rarely is one), the opening story can be used as a case for class discussion, homework, or examinations.

Presentation of current finance practices of world-class companies (and some not quite so accomplished) Four types of boxes are scattered throughout the book. "Finance in Practice" boxes describe recent activities of companies and business leaders as well as modern applications of finance theory. "Serving Finance's Customers" boxes illustrate how a finance organization can add value by meeting the needs of its internal and external customers. "Improving Finance's Processes" boxes describe examples of adding value to a corporation by doing finance's job more efficiently and effectively. "Contributing to Global Sustainability" boxes illustrate how financial activities can enhance the environment and society.

Frequent, clearly labeled, fully worked-out examples Students learn from examples, and we have tried to err on the side of too many rather than too few. Where the examples are closely linked to finance theory, we often have presented the example first followed by the theory, rather than the other way around, so that the theoretical concepts may be related immediately to a shared and understood example. Examples are in a standard format: a problem scenario paragraph followed by a "Question," "Solution steps," and "Answer." Often the "Answer" contains further commentary to enhance students' understanding of the example.

Appeal to intuition rather than to formula While some students are very comfortable with mathematical presentations, all too many are not and never learn finance because of their "math anxiety." This is a shame because the majority of finance can be a very intuitive subject. We have avoided formulas wherever possible or placed them in Appendixes where they are available for those who find them helpful. We have standardized the notation in the algebra that is included: in all cases, capital letters stand for a money amount (e.g., PV for present value) while lower case letters stand for a rate (e.g., t for the marginal tax rate).

Use of the financial calculator and spreadsheet for time-value analyses

We have purposely minimized the use of time-value tables with this text. Although some instructors find the tables useful for illustrating the basic time-value relationships, financial calculators and spreadsheet programs are universal tools in business today. It is the rare finance professional who does not use them; it is the rarer finance professional who still uses time-value tables. All problems involving time value are fully worked out, showing the correct calculator keystrokes and spreadsheet functions. At the end of the book you will find a calculator appendix “Using Your Financial Calculator” illustrating the location of each time-value key on the most widely used financial calculators and a spreadsheet appendix “Spreadsheet Functions” listing the functions in Microsoft Excel and Corel Quattro Pro. By illustrating how each time-value example may be solved with calculators and spreadsheets, the book provides students with extensive hands-on experience. Another advantage of this approach is that our examples can be much more realistic and not confined to a narrow set of interest rates or time periods.

Use of visual aids Charts and tables are used throughout the book to support learning. Each discussion of financial market instruments features a copy of the relevant quote(s) from a recent edition of *The Wall Street Journal*, the FINRA website, or the Bloomberg.com website as seen “Through the Looking Glass” in which we magnify a section of the table to study the numbers in more detail.

Complete glossary, both in the margin, and at the end of the book

The marginal glossary defines terms as they are encountered in the text, so students have the definitions when they need them. The end-of-text glossary is a reference students can go back to when they review and study. Also, the end-of-text glossary serves as a second index since each definition contains the number of the page on which the parallel marginal definition appears.

Questions that follow each chapter We have tried to make the chapter-ending questions both thought-provoking and useful for reviewing the chapter concepts. They may be used for homework, class discussion, or examinations.

Extensive set of homework problems The problems that follow each chapter are presented in the same order as the chapter material and are clearly labeled to identify the topic(s) they refer to. Problems come in pairs: problems 1 and 2 cover the same material; so do problems 3 and 4, problems 5 and 6, etc. You can assign one problem of each pair for homework and keep the other in reserve for classroom work, examinations, or for the student who asks for additional examples. The problems range from the simple to the complex—the first problems are narrowly targeted at specific concepts and relationships, while the later problems tend to be broader and integrate the chapter materials. Most problems have multiple parts in which the value of one variable is systematically changed. Students may do all the parts at one sitting or may save one or two parts for later review. When all parts of a problem have been completed, they illustrate the sensitivity of the result to the variable that was changed, providing another learning opportunity. Following the problems is a “Case Problem,” a longer problem that covers all the material in the chapter. This problem can be assigned as part of stu-

dent's homework, used in class as a problem to teach from, or used as an examination question.

End-of-Chapter cases These cases provide additional opportunities to explore the chapter concepts and may also be used for assignments and examinations.

End-of-book summary of mathematical relationships and summary of financial ratios These handy summaries can be used as study aids by students. They are also useful as reference materials for examinations if you permit students to bring in a list of formulas.

"NET Present Value"—references to interesting and useful web sites These references, which appear throughout the book in the margin, direct students to interesting sites on the "net" where they can learn more about a topic and see practical, real-time applications of finance.

5. Supplements

We are creating a full set of supplements to accompany the book. For this fourth edition there are:

- **A solutions manual** with answers to all questions and detailed, step-by-step solutions to all problems.
- **An instructors manual** containing several suggested syllabi for both a one semester and full-year course, and teaching notes for each chapter and case.
- **A test bank** with short-answer questions and problems available both in hard copy and on diskette for Macintosh and PC-compatible computers.
- **PowerPoint™ slides** for each chapter to support and supplement classroom presentations containing the chapter content plus formulas, figures and tables from the text.

Additional supplements planned for the future include:

- **A study guide** containing an outline of each chapter, worked out sample problems, and self tests.
- **A CD-ROM** containing computerized versions of various end-of-chapter problems which may be used with many popular spreadsheet programs.
- **A CD-ROM** containing "listen to the Authors" audio files in which we discuss and elaborate concepts presented in the book.

For both instructors and students there are five books summarizing our research findings:

- *Joining Forces—Integrating Shareholder Value and Quality Management*, published by Fordham University Graduate School of Business. This monograph reports on a 1996 seminar at Fordham in which senior finance and other executives presented their progress in adopting shareholder value management and measurement systems, such as Stern Stewart's Economic/Market Value Added and the Boston Consulting Group's Total Shareholder Return/Cash Flow Return on Investment.

- *Internal Audit and Innovation*, published by the Financial Executives Research Foundation (FERF) in 1995. Written for executives and practitioners, this book reports on how the internal audit groups of five companies—American Standard, Baxter International, Gulf Canada Resources, Motorola, and Raychem—have changed their auditing philosophies and practices to be more consistent with their evolving management systems. FERG, the research arm of the Financial Executives Institute, was the generous sponsor of this research.
- *Managing Finance for Quality—Bottom-Line Results from Top-Level Commitment*, published by ASQ Quality Press and the Financial Executives Research Foundation in 1994. Also written for executives and practitioners, this book reports how the quality management revolution is changing financial management practice. The book includes case studies of five quality-leading companies—Corning Incorporated, Federal Express, Motorola, Sollectron, and Southern Pacific. FERG was also the generous sponsor of this research.
- *Finance in the Quality Revolution—Adding Value by Integrating Financial and Total Quality Management*, published by the Financial Executives Research Foundation in 1993. This shorter version of *Managing Finance for Quality* contains an executive summary, the five case studies, and a chapter on “Lessons Learned.” It was published for and distributed to the 11,000 senior financial executives and academics who are members of the Financial Executives Institute.
- *Remaking Corporate Finance—The New Corporate Finance Emerging in Quality-Leading Companies*, published by McGraw-Hill Primis in 1992. A monograph describing transformations in finance work as seen through the observations of senior executives from leading corporations, venture capitalists, consulting organizations, and universities.

6. Moving Forward Together

We have worked very hard to make this fifth edition of *Modern Financial Managing* an exciting and superior textbook. However, we believe that everything is subject to continuous improvement, and we know that you all have wonderful ideas that could enhance the book and its supplements. We would love to hear from you. Tell us how we can (further) assist your teaching in any way; help us make the book better. Feel free to contact us any time at:

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You are our customers, and delighting you and exceeding your expectations is and will always be our primary goal.

Acknowledgments

Writing a textbook takes the efforts of many people over many years. We extend our hearty thanks to all of them. Although we will never be able to thank each person adequately, we wish to identify those who played a particularly important role in the book's development.

1. Genesis

The beginnings of this textbook were the teaching materials Frank Werner developed for use in his finance classes at Fordham University and in the *Management Training Program—Finance* at Manufacturers Hanover Trust Company, now part of JPMorganChase. Thanks go to Corporate Professional Development staff at Manufacturers Hanover—especially Mort Glantz, Carol Johnson, Tom Kennedy, Tom McCaskill, Charlie Stipp, and Barbara Taylor—who helped Frank to identify the best content and sequencing of the materials, and to Dale Broderick, who, more than any other teacher, taught Frank how to write for the classroom.

In 1989, Frank and Jim began their work on the interrelationships between financial managing, globalization, and quality management by conducting the first of a series of graduate seminars with that theme. The seminars led to our stimulating and fruitful relationship with the Financial Executives Institute's research arm, the Financial Executives Research Foundation (FERF). FERG's research grants, and the strong support of Roland Laing and Bill Sinnett, gave us exceptional opportunities to learn from many CFOs and other financial executives of companies that are leaders in changing financial management practice. These financial executives are showing how finance can add increasing value to their companies by recognizing and taking advantage of the opportunities arising from the integration of globalization, technology, quality management, and financial practice. Many of the examples in this book are drawn from their successes.

We owe a great intellectual debt to the finance and quality professionals throughout the United States who taught us quality management and how it must be an integral part of the job of financial managing. In particular, we wish to single out:

Fred Allerdycce, CFO, American Standard
David Baldwin, former CFO, Florida Power and Light
Len Bardsley, former Manager, Continuous Improvement, Du Pont
Richard Buetow, VP and Director of Quality, Motorola
Chauncey Burton, Senior Quality Administrator, Finance, Federal Express
Jim Chambers, Assistant Treasurer, Corning Incorporated
Winston Chen, former Chairman, Solec-tron
W. Edwards Deming, consultant
Joe Doherty, Assistant VP—Finance, Southern Pacific
Keith Elliott, CFO, Hercules Corporation

Bill Fitton, Senior Manager, Corporate Financial Audit, Motorola
Justin Fox, Director—Quality, Southern Pacific
Blan Godfrey, Chairman and CEO, The Juran Institute
Larry Grow, VP and Director of Corporate Financial Planning, Motorola
Sandy Helton, VP and Treasurer, Corning Incorporated
David Hickie, former Executive VP and Vice-CFO, Motorola
Alan Hunter, CFO, Stanley Works
Ken Johnson, VP, Corporate Controller, and Director of Internal Audit, Motorola
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Ralph Kartheim, Controller, IBM Canada
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 Kent Stemper, Director, Corporate Audit, Baxter International
 Bob Talbot, VP, Management Services, IBM Credit Corporation
 Susan Wang, CFO, Solec-tron
 Len Wood, Corporate Operations Review Group, Raychem
 Larry Yarberry, CFO Southern Pacific

At Fordham, Frank and Jim have had the good fortune to work with excellent colleagues in an environment where good teaching is encouraged and supported. Our faculty colleagues, particularly Victor Marek Borun, Sris Chatterjee, John Finnerty, Gautam Goswami, Steven Raymar, Allen Schiff, Robert Wharton, and Milan Zeleny continue to provide much of that environment. Our deans past and present of the Fordham Schools of Business—Susan Atherton, Arlene Eager, David Gautschi, Robert Himmelberg, Janet Marks, Lauren Mounty, Donna Rapaccioli, Ernest Scalberg, William Small, Sharon Smith, Arthur Taylor, Maureen Tierney, and Howard Tuckman—have consistently supported us emotionally and financially. Bobby Wen repeatedly played key roles in the early seminars and courses we conducted.

2. The Preliminary Edition

In December 1991 we were introduced to Kirsten Sandberg, finance acquisition editor at HarperCollins College Publishers. Kirsten was quick to see the potential of our approach and immediately understood our desire to produce a family of textbooks using quality management techniques. In a large sense, the preliminary edition of this book would not have existed if it were not for her unfailing energy, good humor, good advice, and consistent faith in us and the project. With the support of her management, she put together a superb team of professionals at Harper and York Production Services who coached us and guided the book's initial development—Ed Yarnell and Joan Cannon, developmental editors; Lee Anne Fisher, district sales manager; Mike Roche, Editor-in-Chief; Christine Pearson, electronic production manager; Kate Steinbacher, senior marketing manager; Michael Weinstein, Vice President and Director of EDP; Kathi Kuntz, editorial assistant; Laura Skinger and Susan Bogle, and Kevin Bradley of York Production Services, production editors. Ed Yarnell worked closely, patiently, and creatively with us in the final crunch, and arranged for our work to be read by the following academic and professional reviewers who responded to the manuscript in its various stages of completion and who gave us many good ideas for improvement:



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- | | |
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| Kuang C. Chen, California State University-Fresno | Chec K. Ng, Jackson State University |
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| Rose Knotts, University of North Texas | Thomas V. Wright, St. Louis University |
| John H. Lea, Arizona State University | Robert M. Zahrowski, Portland State University |
| Bryan Malcolm, University of Wisconsin-Stout | |

As we began to create *Modern Financial Managing*, we class-tested each chapter extensively in the introductory courses at Fordham University. Hundreds of students provided written feedback as they read each chapter. While it is impossible to single out each by name, they are responsible for many of the book's examples and innovations. Particular thanks go to Fordham professors Christopher Blake, Sris Chatterjee, Iftekhar Hasan, and Rohinton Karanjia who used draft sections of the book in their classes and provided valuable feedback.

An early draft of the book was used by David Brunn, retired partner of Arthur Andersen, and Larry Grow, vice president and director of corporate financial planning at Motorola, in their pioneering course in quality corporate finance at the Lake Forest Graduate School of Management (LFGSM). Thanks are also due to Raymond Britt, president and Nancy Kin, associate dean of LFGSM for their foresight in creating interdisciplinary courses in their curriculum and who, in the best quality management sense, served as an excellent support system.

We received superb assistance from the staff and our student assistants at Fordham. Rosanne Conte, Frank's assistant in his role as associate dean of the Graduate School of Business, coordinated production of early versions of the manuscript. Our student assistants—Jean-Louis Boulmer, Eleonora Oropeza, Maribeth Holland, John Diego, Matthew Cannold, Terence Hales, Jennifer Carrobis, and Jeffrey Adams—also took responsibility for research and production work freeing us up to learn and write. Jennifer Carrobis took on the task of obtaining permissions to reprint all previously published materials.

When HarperCollins sold its textbook division to Addison Wesley, we found ourselves searching for a new publisher. We were fortunate to have found Trond Randøy, and to have had the opportunity to share in the launching of Authors' Academic Publishing. We thank Trond, Jon and Nada Down, Don Hermann, Cynthia Leonard, Alex von Rosenberg, and the excellent staff at Authors Academic Publishing for their guidance and support as we prepared the revised preliminary edition.

3. The Third, Fourth, and Fifth Editions

When Authors Academic Publishing closed its doors, we discovered the new, exciting, and innovative textbook distribution concept developed by Textbook Media Press. Like the people at Textbook Media, we believe that the price of traditional textbooks has become far too high. Our thanks go to Ed Laube, Tom Doran, and Peggy Morgan of Textbook Media who made the third, fourth, and this fifth edition possible and who pioneered the process to bring it to students at a price they could afford.

Student assistants played an important role in preparing the third edition. Philip Schrömbgens worked closely with Frank and Jim to prepare the manuscript for our undergraduate textbook, *Fundamentals of Financial Managing*, and his work became the basis for the third edition. His skill and creativity improved immeasurably the quality of both *Fundamentals* and this book. Philip's work was continued by Henry Ngan, Bootri Tantisira, Dennis VanBruinisse, Michael Kim, Kyle Houghton, Phungporn (Bee) Jaroonjetjamnong, Julia Stroup, John Fernandez, Amanda Trokan, Kim Cariello, Landis Carey, and Shui Hwang. Puja Thomas produced this fifth edition. We are most grateful for all their efforts.

A special thank you goes to Eric Werner whose brilliant sense of humor and artistic skill are responsible for the majority of the cartoons in this edition.

4. And, of Course . . .

Finally, we both feel a debt of love and gratitude to our families—Marie, Allison, and Eric; and Barbara, Alexandra, and Carolyn—who accepted our many late nights at the office and frequent trips to visit finance and quality professionals with very few complaints and many warm welcomes upon our return. For both of us they formed our ultimate support system.

FMW
JAFS

T O T H E S T U D E N T

Welcome to *Modern Financial Managing—Continuity and Change*. We have tried to make the book easy to read and learn from and a lot of fun as well. Unlike many introductory finance books, this one talks about two facets of finance: analytical finance, the theory that guides financial analysis and decision making (which is in all finance texts), and operational finance, the way finance is practiced in world-class companies (which is in no other upper-level finance text we know of). You are fortunate to have a professor who is forward-looking and in touch with the enormous changes taking place in business practice.

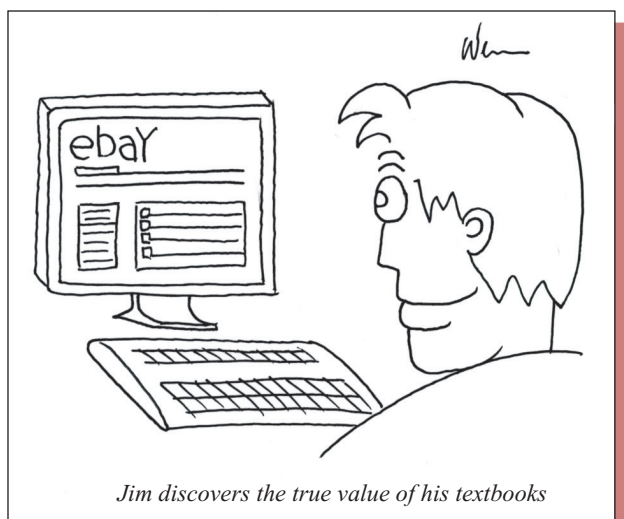
As you begin to study finance you are embarking on an exciting adventure, and we hope this book will be a good companion and guide. To help your learning further, we offer these suggestions:

Skim the entire book in advance Take an hour or so to look over the table of contents and to skim the glossary and index. Then read the “part openers,” the short sections that begin each of the eight parts of the book, and read the section “Key Points You Should Learn from This Chapter” at the beginning of each chapter. By taking the time to do this at the beginning of the term, you will get a good overview of the subject and will be able to set each topic in the appropriate context when you get to it.

Read the section entitled “To the Instructor” It is always useful to know as much as possible of what is on your professor’s mind. In our comments to your instructor, we have written about what is new and special about this book. We have described some of the major features of the book—most of which were designed to make your work as a student easier.

Put yourself in the chapter opening vignettes Each chapter opens with a scenario you might find yourself in (or may already have been in) at some point in your business career. Before you read the chapter, think of how you might try to deal with the situation our characters are facing. As you read the chapter, relate the concepts to the vignette, and see how much more you could add. When you reach the end of the chapter, and read the closing vignette, match up your observations with those of the protagonist. While there is rarely a single “right answer,” finance provides helpful ways of approaching each problem. You will be delighted as you observe your thinking and analytical processes sharpen throughout the course.

Work each example problem you encounter while you are reading a chapter Take out your financial calculator or boot-up your computer and go through the problem step by step. Doing each problem will reinforce your reading and help you to become proficient at using your financial calculator and/or computer spreadsheet which have become universal tools of financial professionals. You will learn more, and the new knowledge will stay with you longer.



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Relate the examples about company practices to your experiences

If you have worked for a while, you have probably been involved in or seen similar examples of financial practice. However, even if you have little or no work experience, you have been a customer of business for years. In many ways, all the examples talk about universal phenomena: serving customers, increasing quality, improving work, discovering when benefits exceed costs, finding the best way to do something. In what ways are these examples different or the same as those you have experienced? What could you have done differently if you had this knowledge back then? What about these examples makes them illustrations of “world-class” performance?

Use the footnotes labeled “Cross-reference” as a hypertext device

Whenever a reference is made to something that appears in another chapter, there is a footnote identifying that other location. Jump back and forth as needed to pick up and review supporting concepts.

Look carefully at the total results of each homework problem

Where a problem has multiple parts, you may find yourself doing the same analysis several times. Feel free to do only one or two parts at first and come back to the rest later to reinforce your learning. However, when you have completed all parts of a repeating problem, look at the range of results. Observe how the results changed in response to the one variable that changed, an important insight beyond what is asked in the problem.

Take advantage of the end-of-book “Summary of Mathematical Relationships” and “Summary of Financial Ratios” These handy pages include every formula in the book and serve as useful references when doing homework problems or preparing for examinations.

Use the end-of-book “Glossary” as a second index When you wish to review a concept, you can look up the definition of a related term in the

glossary. At the end of the definition you will find the number of the chapter and page on which the term was first defined. Turn to that page, and you are at the beginning of the section to review.

Help us make the book better As we teach financial managing to our students at Fordham, we ask each student to write a weekly memo to us telling us how well we did each week as teachers and authors. Was the class clear and useful? Did this week's chapter read well or make no sense? What didn't you understand, and which parts of the chapter worked well for you? What could we do to make the book better? More than one thousand of our students, at both the undergraduate and M.B.A. levels, have written those memos. They have taught us a huge amount, and helped us to improve the book significantly. We invite all of you to join our Fordham students as we continue to improve the book. Please address any comments, criticisms, and suggestions to either of us at:

Gabelli School of Business
Fordham University
New York, NY 10023

We promise to read your letters and consider them seriously for the next edition. You are the ultimate customers of our work, and as we have learned from our studies of world-class companies, delighting you and exceeding your expectations must always be our primary goal.

Enjoy! Most important, as you study finance, HAVE FUN!! We know that there will be times during the course where many of you will be convinced that finance is anything else *but* fun, but this doesn't have to be so. We believe that one of the most important goals for every worker—whether a student, professor, finance professional, or anyone else—is to find what the renowned management thinker W. Edwards Deming called “joy in work.” If you put in the effort to read carefully, to do the assigned problems, to go over the sticky points, to review your work, and to discuss the material with your friends who are also taking the course, you will be rewarded handsomely with useful and important learning that will last a lifetime. And as it has for your professor and us, finance will become a true labor of love.

ABOUT THE AUTHORS

Frank M. Werner is Associate Professor of Finance at the Gabelli School of Business of Fordham University. He received his Ph.D. in Finance from Columbia University in 1978. He also received an M.Phil. in Finance from Columbia in 1975 and an M.B.A. from Harvard in 1968. His undergraduate degree, also from Harvard, was in Engineering and Applied Physics in 1966. Dr. Werner is the author of a variety of journal articles, a computer-based simulation of corporate finance decision making, and numerous monographs and cases for instructional use. He is a member of the American Finance Association, the American Society for Quality, Financial Executives International, the Financial Management Association, and the Academy of Business Education of which he is a former board member. In addition to his responsibilities at Fordham, Dr. Werner advises companies in the areas of corporate finance and quality management. He has given seminars on various quality and finance topics, in both English and Spanish, throughout North, Central, and South America; Europe; Asia; Africa; and the Middle East. His novel, *The Amazing Journey of Adam Smith* (CreateSpace, 2010), explores the connection between financial self-interest and the evolving needs of society, often referred to as 'global sustainability.'

James A.F. Stoner is Professor of Management Systems at the Gabelli School of Business of Fordham University. He received his Ph.D. from the MIT School of Industrial Management (now the Sloan School) in 1967. He also earned an S.M. in Management from MIT in 1961 and a B.S. in Engineering Science from Antioch College in 1959. Dr. Stoner is author and co-author of a number of books and journal articles. These include *Management*, sixth edition, Prentice Hall; *Introduction to Business*, Scott Foresman; and *World-class Managing—Two Pages at a Time*, Fordham University. He is a member of the Academy of Management where he is the founder and chair of the Management Spirituality and Religion Interest group and past chair of the Management Education and Development Division; the American Society for Quality; the Academy of Business Education, and the Organizational Behavior Teaching Society, of which he is a former board member. In addition to his responsibilities at Fordham, Dr. Stoner advises several major companies on quality management and teaches in executive seminars on quality and management. He has taught in executive programs in North and South America, Europe, Africa, and Asia. In 1992, Fordham University established the James A.F. Stoner Chair in Global Sustainability.

Drs. Werner and Stoner are the authors of five books studying changes in finance in companies that are leaders in quality management: *Remaking Corporate Finance—The New Corporate Finance Emerging in High-Quality Companies* (McGraw-Hill Primis, 1992), *Finance in the Quality Revolution—Adding Value by Integrating Financial and Total Quality Management*, (Financial Executives Research Foundation, 1993), *Managing Finance for Quality—Bottom-Line Results from Top-Level Commitment* (ASQ Quality Press and the Financial Executives Research Foundation, 1994), *Internal Audit and Innovation* (Financial Executives Research Foundation, 1995), and *Joining Forces* (Fordham Graduate School of Business monograph, 1998). They are also the authors of the textbook *Fundamentals of Financial Managing*.

C R E D I T S

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Chapter 1
What is
Financial Managing?

Chapter 2
Continuity and Change
in Financial Managing

Chapter 3
Data for Financial
Decision Making

PART I

INTRODUCTION

In Part I we explore the role of financial managing in helping an organization achieve its goals.

Chapter 1 introduces finance and the task we call *financial managing*. We define finance, relate it to economics, and look at two ways to organize the subject. We trace its historical development and discuss its continuing evolution in response to the dramatic changes in today's business environment. We then examine the modern finance goal: maximization of shareholder wealth—including the logic of this goal, agency theory as a way to understand a significant barrier to its realization, how companies that have moved toward new management systems are following a “sequenced goal approach,” and we speculate about the future.

Chapter 2 describes how all firms are in transition, somewhere en route from ways of managing that have worked for many decades to something new. We describe and contrast the two systems and report on research into how financial managers are adapting to the new management systems and how the practice of finance is changing. The chapter concludes with some observations about working in a changing world and implications for finance practitioners.

Chapter 3 identifies the data used in financial analysis and decision making. The chapter identifies how all data derives from theory and reviews key concepts in financial and managerial accounting. It also discusses tax data, economic data, people data, process data, and ESG data.

CHAPTER 1

WHAT IS FINANCIAL MANAGING?

*L*iz Horne and Mike Cantrell shut the door to the conference room and sat down around the circular table. Liz spoke first, “This should be an interesting assignment. I really think the boss is right. The company could do a much better job of providing education for members of the finance organization.”

Liz and Mike are on the staff of the chief financial officer (CFO) of their company. Earlier today, the CFO asked them to study the knowledge and skills within the finance department and to recommend what kind of education the company should provide to its finance employees.

Mike walked over to a flip-chart in the corner of the room and started making notes. He spoke as he wrote. “We could start by interviewing our colleagues. After all, they’re the ones who know the most about what education they don’t have.”

“I’m not so sure,” Liz replied. “How can they know what they don’t know? Maybe we should talk to some experts in finance, like the professors at the university. They can tell us what our people should know. Then we can go around the department and see how everybody measures up.”

“Do we want to ask only finance professors?” Mike countered. “When I was in school, I remember my teachers emphasizing how the various parts of any organization are interconnected. It seems to me that we have to look at the big picture and see how the finance department fits into the entire company. Why don’t we try to list the various functions that the finance organization plays in the company and see where that takes us?”



Two hours later, the walls of the conference room were covered with Liz and Mike's notes. Liz sat back and looked around the room. "One thing is clear," she commented. "Finance certainly is a large and fascinating field. Our company's education program will have to cover a lot of ground."

Liz and Mike have a challenging task in front of them. As their brainstorming revealed, well-educated finance professionals are comfortable with two bodies of knowledge. First, they must understand finance theory, a particularly useful way to view how the worlds of money and business work. Over the years, students of finance have developed many useful techniques for the analysis and solution of business problems. Second, finance professionals must understand how finance relates to the rest of the organization and the external environment. The finance function serves as a support system—obtaining money resources and providing technical expertise. A seemingly brilliant solution to a financial problem that is not compatible with the way the rest of the organization or the external world functions is not really useful at all!

financial managing—the art of integrating financial theory and practice with the rest of an organization's management systems to support the delivery of low-cost, high-quality goods and services to customers and to maximize the value of the organization to its stockholders and other stakeholders

A successful business operates efficiently and effectively and maintains cooperative and productive relationships with people and other organizations. It delivers value to its customers—competitively priced, high-quality products and services that not only satisfy those customers but make them want to return to purchase more. An effective finance organization supports the company's relationships and operations. It helps the business deliver value to its customers and, as a result, deliver increased value to employees, suppliers, neighbors, and ultimately to investors. We call this task **financial managing**. In this book we discuss what financial managing is and how skillful financial managing can add value to any business organization.

Key Points You Should Learn from This Chapter

After reading this chapter you should be able to:

- Identify what the subject of finance deals with and how it differs from traditional economics, and organize finance along two useful dimensions.
- Recount how the finance discipline evolved and is continuing to evolve in response to changes in the business environment.
- Explain why it is important for a business to have goals, why profit maximization was the original goal recommended by the early microeconomists, and why shareholder wealth maximization replaced profit maximization as the firm's financial goal.
- Identify the problems in maximizing shareholder wealth addressed by agency theory.
- Identify longstanding concerns about the undesirable side effects of shareholder wealth maximization being the goal of business firms.
- Explain how emerging approaches may reduce some of the concerns about shareholder wealth maximization as a goal.

Introductory Concepts—What Is Finance?

finance—the study and practice of how money is raised and used by organizations

macroeconomics—the study of the functioning of economies taken as a whole

microeconomics—the study of individual units within an economy, specifically consumers and producing firms

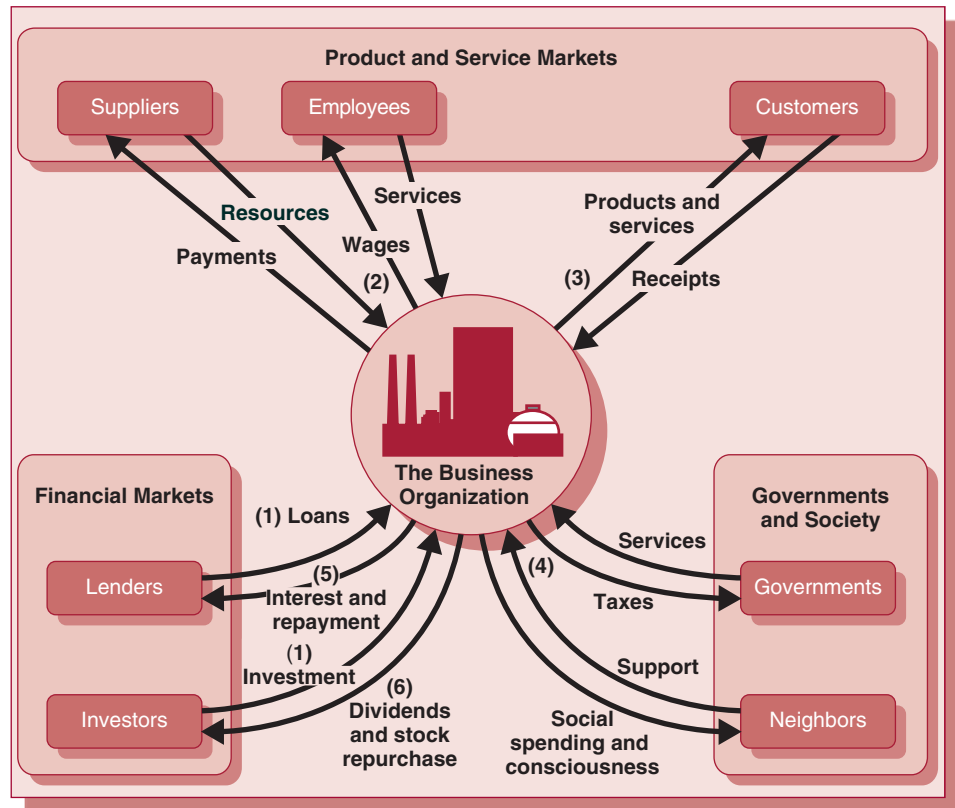
Finance is a broad subject. In simplest terms, it covers anything to do with the use and management of money. Since money is a required ingredient in the recipe for all businesses, finance plays an important role in any business organization. Since businesses that run out of money cease to exist, skillful financial managing can easily be the difference between a successful and an unsuccessful company.

Of course, money is also a topic within the subject of economics, the discipline that has made the greatest contribution to financial theory and practice. The supply of and demand for money are very important issues in understanding how economies function. One group of economic theorists, the “monetarists,” represented most notably by Nobel Prize winner Milton Friedman, argues that the money supply-demand relationship is practically the sole determinant of how well an economy performs. This book will touch on the **macroeconomic** implications of money where appropriate, but this is not our focus.

Neither will we dwell on the micro side of economics, even though finance is an outgrowth of **microeconomics**. The branch of microeconomics commonly known as “the theory of the firm” has long dealt with the economics of a business organization but from a very narrow point of view. The organization is typically assumed to produce a product, as opposed to a service. It is studied in terms of the physical transformation of inputs into outputs: what is the optimal mix of land, labor, and capital to produce the firm’s products at the lowest cost? What is the

FIGURE 1.1

Money flows of a business. The firm (1) raises money, (2) purchases inputs and (3) sells outputs, (4) shares its profits with governments and society, (5) pays its debts, and (6) provides returns to its investors.



optimal mix of products to generate the highest revenue? It is also studied in terms of market structure: how should the firm price its product, and how much should the firm produce if it is a perfect competitor? an oligopolist? a monopolistic competitor? a monopolist?

The characteristics that distinguish finance from traditional economics are a focus on the business firm and the individual (hence finance is not quite macroeconomics) and a focus on financial flows rather than production transformations (hence it is not quite microeconomics either). Finance looks at how money enters the firm, is used within the firm, and exits the firm. It studies who gives the firm money and why, how to raise and use money, and how the firm distributes money. Figure 1.1 diagrams the flow of money into and out from a typical firm and identifies the firm's **stakeholders**, all those affected by the actions of the business.

stakeholders—persons and organizations affected by the actions of a business firm

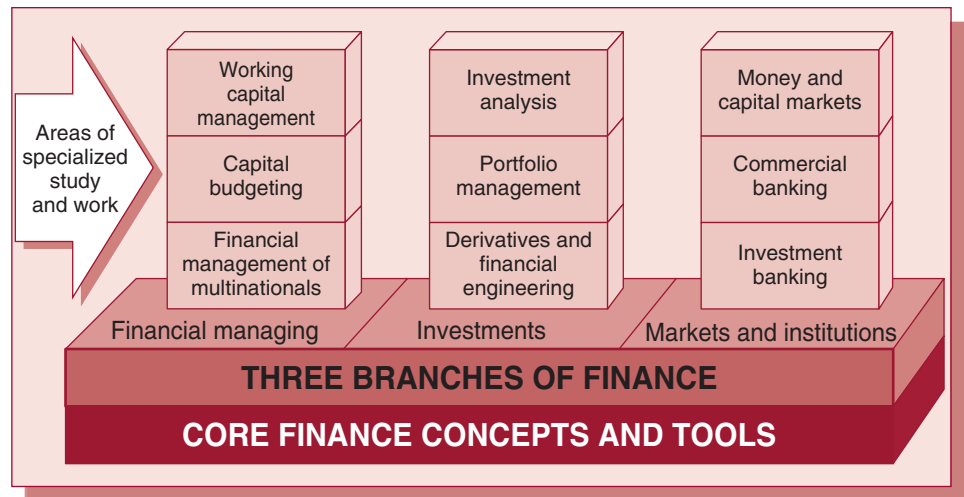
Like many broad subjects, it is helpful to divide finance into component parts for ease of understanding. Two useful divisions are: (1) by academic studies and career paths and (2) by areas of concern to financial managers.

1. Organizing Finance by Academic Studies and Career Paths

One useful way to categorize the subject of finance is by the academic studies and career paths you might follow should you choose to take additional finance courses or work in a finance job. Most universities organize their finance curriculum into three broad tracks which correspond to the way many finance professionals organize job opportunities: (1) financial managing within an organization that produces and sells products and/or services, (2) analysis and management of investments, and (3) work within financial markets and institutions. Figure 1.2 shows these three paths and identifies some of the common course titles and job activities on each. Figure 1.2 also identifies an important insight: although this book concentrates primarily on the financial managing path, the key finance concepts you will encounter in the book underlie and are fully applicable to all three paths.

FIGURE 1.2

Three branches of finance. The core concepts of this book support further study and employment in (1) financial managing, (2) investment analysis and management, and (3) financial markets and institutions.



2. Organizing Finance Around the Concerns of Financial Managers

Another useful way to categorize the subject of finance is to divide it into three broad areas as seen by someone managing finance within an organization: (1) the financial environment, (2) financial instruments, and (3) management of the finances of the business firm.

financial environment—the business and social forces which impact the financial operations of an organization

financial instrument—a document giving the holder a claim to present or future cash flows

security—a financial instrument such as a bond or share of stock

stock—a type of financial instrument that gives the holder ownership of a portion of a corporation

bond—a type of financial instrument that is a long-term loan, giving the holder the right to receive interest payments and repayment of the loan principal

investment banker—an individual or organization that specializes in helping firms issue new securities and in trading existing securities

commercial banker—an individual or organization that specializes in taking deposits from investors and in making loans to individuals and organizations

financial manager—a person responsible for analyzing and improving the money flows of an organization

chief financial officer (CFO)—the senior finance professional responsible for all of a company's financial activities

The financial environment The **financial environment** includes all the economic, political, legal, ethical, social, and other issues that define the surroundings within which finance people operate. It includes the financial markets where lenders and investors provide money to business firms, and the product and service markets where firms purchase resources and sell their products and services. It also includes the tax environment within which income is shared with various governmental agencies.

Financial instruments **Financial instruments** are legal agreements giving investors ownership of the results of a business's operations. They include notes, such as bank loan agreements, and **securities**, such as **stocks** and **bonds**. Finance professionals active in the creation of financial instruments include **investment bankers**, who help the business firm to structure and issue securities; **commercial bankers**, who make loans to the firm; and professional investors and fund managers, who trade in the firm's securities to earn money for their clients. Financial managers study financial instruments to understand how and why (or why not) they can add value for these stakeholders and the firm.

Financial managing The **financial manager** is responsible for an organization's money. Accordingly, financial managers must understand in detail the company's money flows and must ensure that money is consistently used in the best ways possible to further the company's objectives.

This book deals primarily with managing the finances of the business firm. It also includes information about the financial environment and financial instruments, because good financial managers base financial management decisions upon a solid understanding of all parts of the finance discipline. This book is also about managing financial processes and operations. Good financial managers understand and use not only the tools and techniques of finance but also the tools and techniques of management. One without the other is incomplete.

If you choose to enter the finance area of a business, your first job typically will call for the use of technical finance skills; little management knowledge will be required. As you grow in responsibility within the firm, however, the nature of your job will change. While you will still need to be well versed in financial theory and practice, you will be managing tasks and people and dealing more frequently with senior managers. At this level, an understanding of management will be of significant help in your work. Eventually, you might reach the post of **chief financial officer (CFO)** or perhaps president of your company. Success at this level requires a thorough understanding of management.

The Development of the Finance Discipline

Finance as a discipline did not exist prior to the beginning of the twentieth century. Small businesses were the norm. Because they were small, they needed few financial resources and were believed to be efficient and self-regulating. The few large businesses were, for the most part, financed by a wealthy owner and a few equally wealthy banker friends. Although the concept of financial accounting had been around for centuries, there was no set of standards to make financial statements available or meaningful. The financial markets were the province of a few insiders. Little information about the firm was publicly available, and few outside the business and its associates were interested in the firm's finances.

NET Present Value

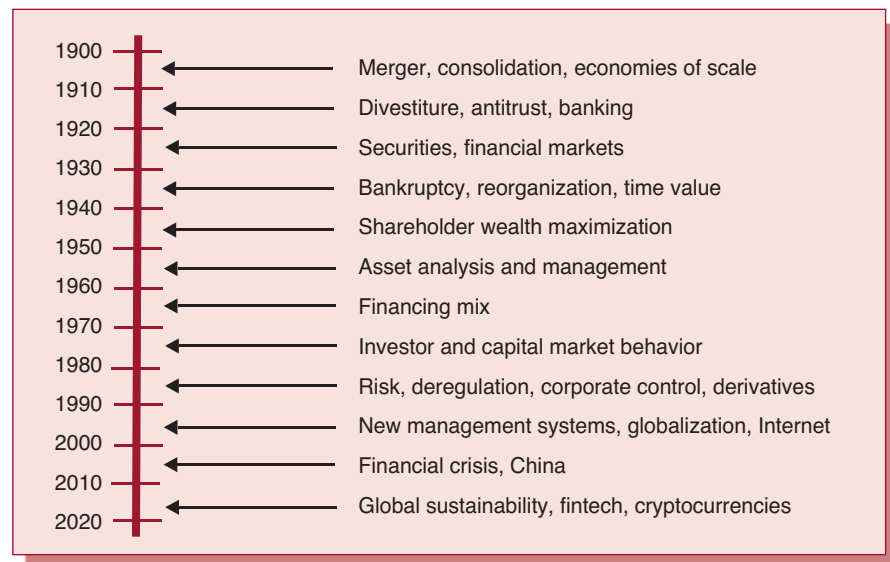
The American Finance Association is recording interviews and lectures by many of the giants in the field which may be found at:
<http://afajof.org/?page=mastersoffinance>

Finance as we know it today evolved over the course of the twentieth century, as summarized in Figure 1.3. The first tentative analyses of the firm from a financial point of view were largely descriptive and followed the trends of the day. Between 1900 and 1910 the focus was on the building of the great trusts: merger, consolidation, and economies of scale. From 1910–1920, the focus shifted to include divestiture in response to early antitrust legislation. Also during this period, the Federal Reserve system was created and the banking system was studied intently. The boom of the 1920s encouraged firms to raise funds for expansion and redirected the descriptive focus of finance toward securities and the stock market. By 1930, the boom was over and finance followed soberly, turning its attention to describing reduction in scale and bankruptcy.

It was not until the mid-1930s that finance began to grow into its own as a discipline. John Burr Williams's development of the theory of time value marked a turning point in the history of finance.¹ Finance was no longer solely descriptive. For the first time, there was a theory that could instruct financial managers in what they *should* do to add value to the firm. After that, with a bit of a pause

FIGURE 1.3

A timetable of financial thought. The finance discipline continues to evolve in response to changes in the business environment.



¹ **Reference:** John Burr Williams published his insights in *The Theory of Investment Value* (Cambridge, Mass.: Harvard University Press, 1938).

during World War II, finance spurted ahead in leaps and bounds. A goal of maximizing shareholder wealth was formulated (more about this later in this chapter), and techniques and theories were developed to achieve this goal. Mathematics and statistics were married to finance, and the power of computers was harnessed to permit complex modeling.

During the 1950s the focus of these efforts centered on the analysis and management of assets as time value theory was applied to the flows of money from asset purchases. By 1960, theories of liability/equity mix had begun to emerge, and the methods by which the firm raises money—for many years a subject only of description—got a thorough analytical treatment. The 1970s saw the development of theories of the behavior of investors and of capital markets. Theories of risk were developed, permitting financial managers to quantify risk for the first time and relate it to return. As a result, the actions of firms were linked with the behavior of investors and capital markets, and financial managers could begin to quantify how shareholders might react to corporate financial decisions.

The “oil shock” of the early 1980s as the OPEC cartel sharply raised petroleum prices, the “currency shock” as world currencies floated free of gold and the dollar, and the “inflation shock” as prices rose at double-digit rates, all created a financial environment much more volatile than experienced at any time in recent history. New financial instruments were developed to assist financial managers in coping with the increased risk. The decade of the 1980s was also a period of wrenching change for many companies. In the early 1980s, a number of U.S. industries—the financial industry included—were partially or totally deregulated in response to competition from countries with less regulation and to the political success of “free-market” advocates. (Airlines, railroads, banks, and telecommunication companies are examples of industries that experienced significant deregulation.) Although finance theory provided much advice on managing in an increasingly deregulated world, not all newly deregulated industries made the transition easily. By the mid 1980s the “market for corporate control” was flourishing: U.S. business was engulfed in a wave of mergers and takeovers as “financial raiders” sought to acquire poorly performing companies and sell off the worst-performing units. *Junk bonds*, *greenmail*, and *leveraged buyout* became household words.

Events in the 1980s and early 1990s forced many observers to rethink the basic premises of how organizations are managed and how the finance function contributes to that process. Existing management systems, consistent with traditional financial theory, were considered the best means for achieving a vibrant, innovative, and competitive business sector; yet we experienced competitive difficulties in industry after industry. U.S. companies responded by paying much more attention to management thinkers who had long been proposing new methods for running organizations. And finance thinkers began to reformulate theories of finance to be consistent with these new approaches to management. Beyond the newly emerging management systems, other forces emerged to change business and finance in the 1990s. As political, institutional and geographic barriers fell, nations realigned. Former enemies became allies, free-trade zones were established and expanded, and the European Community adopted a common currency. Improvements in information and communication systems permitted companies to operate as truly transnational enterprises. The Internet, previously a backwater communication channel for government and academic research, expanded into an information resource available to every computer user and became an important new distribution channel for many retail and financial businesses.

securitization—issuing securities backed by the cash flows of a group of financial assets

global sustainability—the long term maintenance and improvement of human well-being through the combination of economic success, a cleaner and healthier environment, and increased social justice

fintech—new technologies applied to financial products and services

cryptocurrencies—virtual currencies that use encryptions to secure transactions

As the new millennium dawned, the dot.com boom of the late 1990s came to a screeching halt, and many businesses had to cope with the financial impacts of downsizing and restructuring. The emergence of global terrorism curtailed and refocused much business activity. Serious flaws in executive compensation, financial reporting, and corporate governance became very visible at Enron, WorldCom, Tyco International, and the New York Stock Exchange.

By the mid-2000s, the confluence of deregulation, technology, and creativity led to a dramatic expansion of **securitization**. Almost any cash flow stream—mortgage payments, legal settlements, recording contract receipts—could be packaged together and resold in the financial markets. However, these new securities were created faster than investors' ability to understand them; investors found themselves holding securities that were far riskier than they had anticipated, and the investments plunged in value and financial markets shut down. The ensuing "financial crisis" pushed the world into a recession that was characterized by many as the worst since the Great Depression of the 1930s.² The decade of the 2000s was also marked by the emergence of China as a global financial power. As the subsequent decade dawned, there was an increased understanding of climate change and the need for concerted global action to reverse decades of environmental and social damage. Financial theorists began to rethink finance goals to be more consistent with the growing demands of society for a cleaner and more just world, a broader goal often referred to as **global sustainability**.³ Known collectively as **fintech**, further technological developments were applied to financial products and services leading to innovations in banking, investments, and **cryptocurrencies** such as bitcoin. This is an exciting time to be studying business and finance.

The Purpose of the Firm

goal—the objective of (a business's) actions

Before we can consider *what* the financial manager should do, we must first ask *why*. All decisions, financial or otherwise, can be judged only if they are measured against some **goal** or goals. A good decision is one that helps the company achieve its goals; a bad decision is one that moves the firm further away from its goals.

1. The Need for Goals

The need for goals applies to all forms of endeavor, not just the actions of a business firm. Consider personal decisions, for example. Why are you studying finance? There are many possible reasons. Is it to get a job? to get a better job? to make more money? to satisfy a demanding boss or parent? to meet an academic requirement? to broaden yourself as a person? to contribute to the well-being of society? to have fun? If you are studying finance for the right reasons, your efforts will prove rewarding. If you are studying finance for the wrong reasons, this could well be a frustrating and empty experience.

² **Cross reference:** See Appendix 1B for a detailed discussion of the Global Financial Crisis.

³ **Elaboration:** The most widely quoted definition of sustainability is that of the United Nations World Commission on Environment and Development, often called the Brundtland Commission after its Chair, Dr. Gro Harlem Brundtland: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The social justice aspect is "a world that works for everyone with no one left out."



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Or consider the decision to accept a new job. Is the new job right for you? The best way to approach the decision is first to be honest with yourself: what are your goals here? money? status? autonomy? personal growth? ability to contribute? intellectual challenge? If you clearly define your goals and ask how the new job measures up against those goals, you are far more likely to make a good decision than if you choose blindly.

Prior to the 1930s, before the finance discipline had developed any significant theory, the goal of finance was the microeconomic rule of maximizing profits. Since then, however, profits have been replaced by shareholder wealth as the number to maximize. Today, shareholder wealth maximization is itself being challenged by a much broader definition of the firm's goals.

2. The Role of Business in Society

NET Present Value

The International Association for Business and Society, at www.iabs.net, brings together scholars who study these issues

capitalist economic system—an economy marked by private ownership of businesses and the resources necessary for producing goods and services

Business plays a vital role in our society. It is the primary means by which the necessities of life—food, clothing and shelter—are manufactured and made available to the public. It provides jobs, which define much of our lives and give us much of our sense of self-worth. But business does much more. It provides pharmaceuticals and medical care. It provides banking, insurance, and pensions. It provides education at all levels. It engages in research and development activities, which bring us new products and services enhancing our lives. By freeing us from economic want, business allows us to pursue leisure activities. All societies require a healthy business sector, and a healthy business sector is required for a healthy society.

Yet, in a **capitalist economic system** such as ours, society and business are quite distinct from each other. And while business firms can indeed benefit society, they are usually owned and operated by people for other reasons entirely. The entre-

preneur who devotes time, energy, and money to creating and nurturing a business rarely makes benefit to society the primary goal of the firm. Rather, individuals create business firms for personal reasons, usually to make money. Since the Industrial Revolution, when the earliest businesses were formed, economists and philosophers have been examining whether, given the personal motivations of those who form and manage businesses, the actions of privately owned firms really do lead to a high degree of social welfare.⁴

3. The Microeconomic Goal: Profit Maximization

It was Adam Smith who first put forward the idea that individual business firms, each acting for its own benefit could, in the aggregate, benefit society. More than 200 years ago he wrote:

(The businessman) by directing . . . industry in such a manner as its produce may be of greatest value . . . intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was not a part of his intention. . . . pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it.⁵

economic profits—the money returns to the investors in a firm

profit maximization—the act of managing a firm so as to increase its economic profits to the maximum possible level

competitive market—a market in which no participant has enough economic power to influence prices

efficient allocation of resources—directing the resources of an economy (money, labor, machinery, land, etc.) to those businesses where they can produce goods and services of the greatest value

accounting profits—the bottom number on an income statement using rules of measurement determined by accounting authorities

This most famous of passages offered the managers of the Industrial Revolution a simple primary goal. The object was for each firm to maximize **economic profits**; in practical terms this translated to efficiency of production. Since it was observed that efficient firms survived and prospered, **profit maximization** attracted many adherents. As elaborated by subsequent economists, in highly **competitive markets**, with well-informed participants and prices accurately reflecting values, profit maximization by all businesses leads to the **efficient allocation of resources** and produces the greatest amount of those goods and services demanded by society at the lowest cost given the resources available.

However, when the early economists described the role of profits, they had no way of anticipating the complexity of modern business practice and the multiplicity of ways present-day accountants record and interpret financial numbers. One firm can have many possible numbers for its **accounting profits**, depending on the choices made by its managers and accountants. It is increasingly difficult to measure profits and to know whether they are being maximized.

There are other difficulties as well with profit maximization as a goal—difficulties also not foreseen by Adam Smith and his followers. For one thing, profits do not come at once but over time, as firms invest their resources in long-term investment projects. As a result, investments with the same total profits might not have the same value.

⁴ **Observation:** This question, of the consistency between personal and societal goals, is particularly relevant in a capitalist economy, in which the means of production (businesses) are privately owned and separate from society as a whole. An alternate approach is that of Karl Marx, who, concerned about just this potential conflict of interest, proposed an economic system in which society owned all businesses. In this socialist economy, Marx argued, business and society would join together, and government would insure that business success equalled societal success. However, as events in socialist economies throughout the world (most notably in Eastern Europe and the former Soviet Union) have demonstrated, the side effects of socialism—centralization of political power, misallocation of resources due to the lack of market pricing signals, alienation of people—have repeatedly prevented the system from achieving either a well-functioning economy or a high degree of social welfare.

⁵ **Reference:** Adam Smith, *The Wealth of Nations*, 1776, book. 1, chapter 2.

Example**Different Timing for Two Profit Streams**

Investments A and B each have a three-year life and total profits of \$6,000. However, Investment B returns its profits earlier than Investment A.

Year	Profits from	
	Investment A	Investment B
1	\$ 1,000	\$ 3,000
2	2,000	2,000
3	3,000	1,000
Total	<u>\$ 6,000</u>	<u>\$ 6,000</u>

Question: Which investment will be preferred by the company's owners?

Answer: Although both investments have the same \$6,000 *total* profits, there is considerable difference as to *when* the profits come. The firm's owners would probably prefer Investment B, which earns the greater amount sooner. However, if the two investments have impacts beyond year 3, the answer could be different. For example, if Investment B's declining performance is the result of customer dissatisfaction and Investment A's performance resulted from a gain in market share that will continue in years 4, 5, and beyond, the firm's owners would probably prefer Investment A.

risk—the possibility that the result of some activity will not be exactly as (and particularly, will be worse than) forecast

Another difficulty is that of **risk**, the lack of certainty in the profits from an investment. Profits do not consider risk, but investors do.

Example**Different Risk Levels**

Investments C and D each have a one-year life. However, each investment's profitability depends on the state of the economy.

Event	Profits from	
	Investment C	Investment D
Good economy	\$ 50,000	\$ 90,000
Poor economy	50,000	10,000
Average profits	50,000	50,000
Variability of profits	0	80,000

Question: Which investment will be preferred by the company's owners?

Answer: Although both investments have average (expected) profits of \$50,000 (assuming good and bad economies are equally likely), there is considerable difference as to the *certainty* with which the profits will be received. The profits from Investment C will be \$50,000 regardless of the state of the economy; however, Investment D could earn \$90,000 or \$10,000. The firm's owners would probably prefer Investment C which exposes them to much less risk than Investment D.

There is still one more problem with profits. In Adam Smith's day, the manager of a business was normally its owner and thus directly received its profits. Profits equaled return to the investor. Over time, however, as firms required additional equity capital to finance growth, shares of stock were sold to outside investors. Today, in most large companies, outside shareholders make up the majority of

professional managers—individuals employed by a firm to direct its activities because of their expertise. They are distinguished from owner-managers, individuals who find themselves managing a firm because they own it

owners; the companies typically are run by **professional managers**, who own relatively little of the firm. In these firms the owners receive dividends and stock-price appreciation, which are rarely equal to the firm's profits. Profits no longer equal return to the investor.

Profits, then, do not convey enough information in a complex world. They are hard to measure, and they ignore the timing and riskiness of benefits. In addition, profits are something which happen within the firm, yet the firm's owners are often outside shareholders who do not receive the firm's profits as they are earned. For these reasons, finance turned away from maximizing *profits* as the goal of the firm and toward maximizing the *wealth* of the firm's owners.

4. The Traditional Finance Goal: Maximization of Shareholder Wealth

shareholder wealth—the total value of an investment in the common stock of a company, measured by the price at which the stock could be sold

For many years it has been accepted in finance that the proper goal of every business is to maximize the wealth of its owners. For a corporation, owned by shareholders, this is referred to as **shareholder wealth**. In this perspective, shareholders provide the investment needed to start and expand the firm, and most companies exist because of shareholders' desire to increase the value of their investment. Shareholders hire management, whose primary responsibility is to increase the wealth of their employers.

Shareholders obtain wealth from the firm in two ways: (1) dividends and other direct cash payments, and (2) appreciation in stock price. In general these two methods of adding to shareholder wealth do not conflict; that is, actions that lead to the ability to pay a high dividend stream are the same actions that increase the firm's stock price. It is therefore customary to equate the maximization of shareholder wealth with the maximization of stock price.

efficient capital market—a financial market in which security prices fully contain the meaning of all known information

By looking at stock price we avoid the problems of profit maximization. A well-functioning or **efficient capital market** should look beyond accounting choices and evaluate the timing and risk of promised benefits to determine their true worth.⁶ Even though the price of a share of stock may be affected on a day-to-day basis by many factors having no relation to the performance of the firm, in the long-run the stock market will recognize all the components of value and reward stockholders whose managers act to increase their wealth.

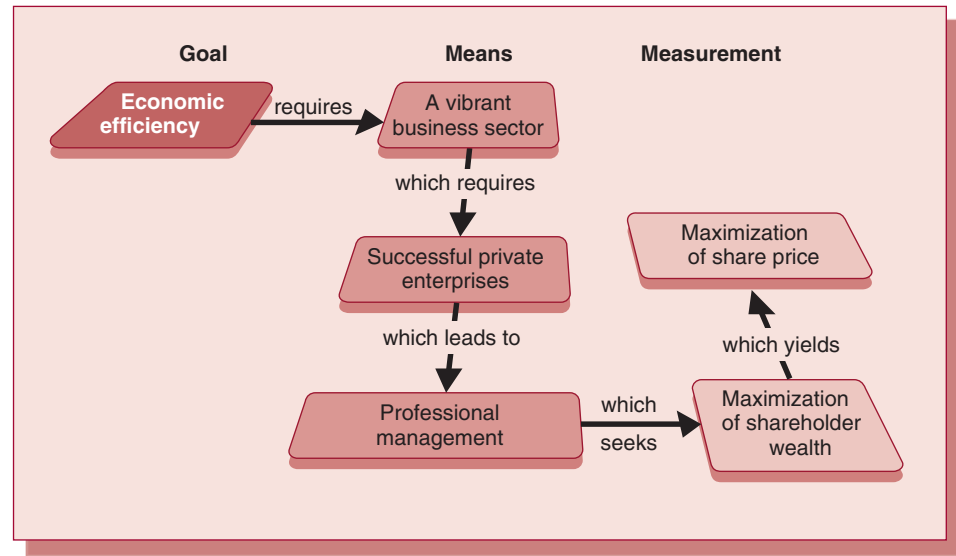
In addition to rewarding shareholders for the use of their funds and for the risks they bear, it has further been accepted that the goal of maximizing shareholder wealth leads to two additional contributions to the economic welfare of society:

- *The effective allocation of new investment funds.* Companies often need infusions of additional money from outside investors to finance their operations. The firms most deserving of these funds are those that use the money best in satisfying their customers. But firms that do an excellent job of satisfying their customers should be highly profitable and should have a high stock price. Therefore, firms that act to maximize their share price will be the ones that

⁶ **Elaboration:** In financial terms, an efficient capital market is one in which security prices are always "correct" in that they reflect investors' best judgment about the future. All available information has been properly evaluated, and new information is rapidly analyzed and incorporated into security prices. Studies of the efficiency of the stock market (in particular of the New York Stock Exchange) have suggested a very high level of efficiency.

FIGURE 1.4

The logic of share-price maximization. Private enterprise, professionally managed to maximize share price, should lead to the highest degree of economic efficiency.



deserve to attract new investment capital. This is particularly important to financial managers, since a key part of their job is to raise money. Companies must always be positioned to obtain funds as needed.

- *The evaluation of investment risks.* As they consider giving their money to a business firm, investors evaluate the risks they would face. What is the likelihood that the firm will do well? be average? do poorly? fail? Investors in general are averse to taking risks and will do so only if properly compensated. They will demand a higher return from a risky investment than from one with less risk and will reduce the price they are willing to pay for the firm's stock if they see the company taking excessive risks. Management will be able to maximize the value of the firm's stock only if it can provide returns commensurate with the risks it takes.

signaling—the process of conveying economic information

Notice how investors provide a powerful signal to a company's management through the price they are willing to pay for the firm's stock. This **signaling** aspect of the stock market, providing feedback about risk and return levels, is considered one of its most important properties.

Figure 1.4 presents the logic of share-price maximization as the traditional financial goal of the firm. The ultimate objective is to achieve the greatest level of economic efficiency. An important requirement for economic efficiency is a vibrant, well-functioning business sector. This can only be achieved by private enterprise—entrepreneurial businesses willing to compete and take risks. If successful, many of these businesses will become large enough to require professional management, and ownership and management will become separated. Managers will be asked to act in the best interest of the owners, who will measure them by how much they have increased the firm's share price, hence their wealth. In summary, then, we ask managers to work in the best interests of society, and we measure their success by how much they increase the firm's share price.

■ Agency Theory

Recently, finance academics and practitioners have devoted attention to describing and removing an important barrier to effective shareholder wealth maximization: the differences in motives between a corporations' stockholders and its professional managers. These insights are summarized under the title, *agency theory*.

1. Background to Agency Theory

In agrarian societies prior to the Industrial Revolution, business dealings were quite simple. Most transactions were exchanges between farmers, shopkeepers, craftsmen, etc. Transactions were carried out face to face between parties who often knew each other personally. There was little need to be concerned about whether other parties to a transaction would fulfill their obligations.

With the arrival of the Industrial Revolution, much of this changed. To produce new and often complex products, a variety of labor and material resources had to be brought together. Transactions grew more complicated, many involving relationships between persons who did not know each other. Today, the number, variety, and complexity of goods and services demanded by consumers are immense. It is commonplace for a business to be operating in dozens of locations around the world, producing hundreds of different products, requiring thousands of raw materials and tens of thousands of employees. It is no longer possible to rely on personal relationships to ensure that all these transactions occur as desired. It would be very costly to engage in and monitor so many independent transactions; rather, a more formal structure of relationships is required.

The world of business in advanced economies is dominated by corporations. Corporations exist because they provide the formal structure necessary to organize complex transactions and, in doing so, reduce the cost of doing business. As Ronald Coase, the winner of the 1991 Nobel Prize in economics, has written⁷, firms are formed whenever the cost of making individual transactions exceeds the additional costs of operating within a business. Consider what you would do if you had to arrange for the education of a child. You could enter into separate transactions with each teacher, with suppliers of instructional materials, with a landlord for classroom space, with a caterer for lunch, etc.; but you would probably find it easier to contract with a school to provide all the services. Even with all its internal overhead costs, it is cheaper—in terms of money and effort (and headaches!)—to employ the school. As a result, schools exist to deliver educational services. In the same manner, all corporations exist to deliver products and services cheaply and efficiently.⁸

2. The Agency Problem

As useful as corporations are, their existence does introduce a new problem into the maximization of owners' wealth. Recall that shareholders employ professional

⁷ **Reference and observation:** Ronald Coase, "The Theory of the Firm," *Economica* 4(1937), pages 386-405. Note how long it can take for excellent research to be honored—Coase published in 1937 but was not honored by the Nobel committee until 1991!

⁸ **Cross-Reference:** See Appendix 1A to learn more about the characteristics of corporations as well as proprietorships, and partnerships.

principal—a person who employs another to act in his/her behalf

agent—a person who acts on behalf of and by the authority of another

agency problem—the possibility that an agent will not act in the best interests of his/her principal

managers to run the business. Borrowing from legal terminology, we can identify shareholders as a corporation's **principals** and the firm's professional managers as the shareholders' **agents**. It is quite possible that the goals of the agents, who make the day-to-day decisions about the direction and activities of the firm, might differ from the goals of the principals. If so, the manager-agents might not act in the best interests of the shareholder-principals to maximize owners' wealth. This is the **agency problem**.

The agency problem arises from a variety of sources. The six problems discussed below are frequently cited.

The time horizon problem Because managers spend a relatively short time in any one position, they have a tendency to slight the long term, favoring decisions that pay off during their tenure on the job over those with longer-term payoff, for which they might receive no recognition. They are motivated to ignore good opportunities that do not produce measurable returns in the short term and to accept poor opportunities that do well in the short term but ultimately reduce owners' wealth. This is especially true if some portion of managers' compensation is based on the current year's profits. The manager-agents look good and receive their raises and promotions, but at the expense of the shareholder-principals.

The compensation problem Managers typically have considerable influence over their salaries independent of the "fair" value of their compensation. It is not uncommon to hear of executives who vote themselves large bonuses or other forms of compensation that have no connection to their firm's performance. The manager-agents are well paid, but at the expense of the shareholder-principals.⁹



FINANCE IN PRACTICE

Who Gets Paid First?

In the Summer of 2009, CIT Group, Inc., the large commercial lender, was on the verge of bankruptcy, and the appropriate compensation for its CEO, Jeffrey Peek, was being widely discussed as an illustration of the difficulty of aligning management compensation with corporate performance.

After Peek joined the company in 2003, CIT's business grew substantially along with its stock price which reached \$61.59/share in February 2007. However, during the ensuing financial crisis CIT reported \$70 billion of losses, and its stock lost 98% of its value. Critics of Peek blamed him for setting the company on a course that resulted in wiping out nearly all shareholders' equity.

Peek's compensation contract called for him to receive \$14.7 million in severance pay, stock options, pension contributions, and health benefits should there be a change of control at CIT, a virtual certainty if the company were to enter bankruptcy proceedings. And, according to U.S. bankruptcy law, as an employee of the company, Peek would be in line to be paid before the shareholders received anything at all, including the U.S. Treasury—which had lent money to CIT as part of its efforts to forestall bank failures.

Reference: Shen, Linda, "CIT's Peek May Be Paid Ahead of Treasury in Case of Bankruptcy," Bloomberg.com, July 18, 2009.

⁹ **Reference:** This issue was discussed in detail in Graef S. Crystal's book *In Search of Excess* (New York, W.W. Norton, 1991).

information asymmetry—the condition in which a firm's manager-agents know more about the firm than its shareholder-principals

The perquisite problem Managers often add to their earnings by increasing the nonmonetary forms of their compensation such as luxurious offices, company cars, and company-paid vacations and credit cards. The manager-agents increase their overall compensation, but at the expense of the shareholder-principals.

The information problem Managers are insiders, privy to detailed knowledge about all facets of the firm's operations. Shareholders, on the other hand, are dependent on managers for their knowledge of the firm. As a result, managers can limit the information received by shareholders. This **information asymmetry** allows managers to make decisions without having to be fully accountable to the firm's owners. The manager-agents can get away with making decisions that favor their own interests at the expense of the shareholder-principals.

The risk-preference problem Managers' attitudes toward risk may differ from shareholders' attitudes. Managers are often unwilling to take on risky opportunities that have a good chance of benefiting the firm's owners. If the opportunity succeeds, the managers will get little of the benefit; but if the opportunity fails, they may lose their jobs. Or the reverse might be true: a manager might take excessive risks not in the shareholders' best interests in the hope of obtaining a large bonus. The manager-agents make decisions that protect or enrich themselves at the expense of the shareholder-principals.

The retained earnings problem Managers may choose to maintain an excessively high level of cash in the business to provide a cushion against a poor economic environment. In this way they avoid being blamed for any cash shortages that might otherwise develop. They retain a higher degree of the firm's earnings than necessary and pay a lower dividend. The manager-agents protect themselves against poor times, but at the expense of the shareholder-principals.

agency cost—the reduction in a principal's wealth when an agent does not act in the principal's best interests

In each of these cases, the agency problem arises because the managers' best interests are not consistently the same as the owners' best interests. The company's owners suffer an **agency cost**, a reduction in their wealth. By contrast, the agency problem does not exist in a proprietorship, for in that case the manager is the owner—increased management compensation is simply a change in the form of the owner's wealth. Questionable management decisions may turn out to be mistakes, but they are not mistakes motivated by an agent's opportunity to take advantage of a principal.

3. Viewing Relationships as Contracts

contract—an agreement between parties specifying each party's role in the relationship

Recently a comprehensive theory of agency has been developed in finance.¹⁰ Each relationship within the firm and between the firm and outsiders is seen as a **contract**, an agreement covering each party's rights and responsibilities. Some contracts are explicit, such as those between the firm and its suppliers, which are in written form and specify each facet of the relationship. Other contracts are implicit, not in written form but understood through verbal agreement and common business behavior, such as the amount of work per day a non-hourly employee owes the firm. Contracts often include terms that specify penalties for nonperformance, for example, lending agreements that stipulate that the lender can claim some of

¹⁰ **Reference:** The seminal work in agency theory is: Michael C. Jensen, and W. H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics* 3(1976), pages 305–360.

nexus of contracts—an interconnection of many contracts

the firm's assets should the firm default on its promise to pay. Agency theory sees the firm as a **nexus of contracts**, a series of many such agreements between every party within and outside the business.

One advantage of viewing the firm as a nexus of contracts is that it encourages us to focus on the relationships between the various parties within a business. The concept of a contract provides a framework for delineating each relationship, for discovering whether the parties to that relationship are working together in the best interests of the firm, and for examining what the parties are doing to align their goals.

4. Minimizing Agency Costs

The shareholder-principals of a corporation will want to minimize agency costs, since each dollar of agency cost saved is one more dollar available to them. In response, two broad methods of controlling agency costs have become well established: incentives (the carrot) and threats (the stick). We identify below three classes of incentives and three threats as well as some limitations of these methods.

NET Present Value

Microsoft is a company that uses stock options as part of its executive compensation package. To learn more see the company's website:

www.microsoft.com/investor/reports/ar15/index.html

Incentives The most common incentives are those that attempt to connect managers' compensation directly to increases in shareholder wealth. There are three variations on the theme.

- **Salary and bonus plans**—These approaches base the agent-managers' compensation on objectives that are negotiated at the beginning of the year. Salary plans tie managers' salaries to their achievements. Bonus plans pay managers a base salary plus a bonus based on the company's financial performance.



FINANCE IN PRACTICE

The Agency Problem in Japan

The problem of aligning the motives of a corporation's professional managers and its stockholders exists throughout the world, although it takes distinct forms in different countries. In the United States, the concern is that managers fail to act in stockholders' best interest by pursuing their personal gains. In Japan, however, the concern is that managers adhere too closely to the traditional keiretsu system in which families of corporations act in their mutual best interest.

One businessperson attempting to change the way Japanese corporations operate is Yoshihiko Miyauchi, president and CEO of Orix Corporation, a leading Japanese financial services firm. A relatively new company, Orix is not a member of a keiretsu. Mr. Miyauchi has reduced the traditional ceremonial nature of the board of directors. Orix's board now has an "Anglo-Saxon style" executive appointments and compensation committee, and the company is recruiting outside, independent directors for its board. It is moving from pay based on seniority to a merit-based system and has introduced stock options for middle and upper managers, controversial in Japan because of the country's emphasis on egalitarianism.

However, Mr. Miyauchi points out that adopting a management culture modeled after those of successful western corporations does not mean that the Japanese corporate governance system must develop in exactly the same way. "When it comes to sushi versus hamburgers, you don't have to choose the US way."

Reference: "Champion of Share Value," *Financial Times*, March 30, 2000, page 10.

- Stock-related incentives—These approaches reward managers with company stock to sharpen their focus on shareholder wealth. In the typical plan, a manager cannot cash out until some time has passed to maintain the manager's involvement for the longer term.
- Dividend units—This approach gives managers a bonus based on future dividends, tying compensation to the cash benefits shareholders receive.

Threats A variety of oversight and control techniques exist at various levels in most corporations to prevent manager-agents from acting other than in the shareholders' best interests. These include the following mechanisms.

- The firm's internal planning and control systems—Planning makes public what is expected of everyone within the corporation, creating a benchmark against which to measure results. Knowing that their actions are subject to scrutiny by their senior management, managers are more careful about doing what is expected of them.
- Corporate governance—A corporation's board of directors exists to monitor and control the company's management. Knowing that their actions are subject to the scrutiny of the board of directors—which has direct responsibility for protecting shareholder interests—managers are more careful about developing and executing plans that will maximize shareholders' wealth.
- The market for corporate control—A corporation not acting in the best interests of its shareholders will experience a decline in stock price as investors perceive the firm to have less value. This makes it an inviting target for outsiders or frustrated managers who can buy enough shares to win control of the company, throw out board members and managers unresponsive to shareholder interests, and install new directors and managers more willing to act for the shareholders.

Problems with the Traditional Methods of Minimizing Agency Costs

The problems of using these well-established methods of reducing agency costs have long been recognized. Three broad problem areas stand out.

- Dependence on financial measures—Traditional incentive-oriented methods of dealing with agency costs often use profits or stock price as their measure of performance. Managers are encouraged to improve financial metrics over the time horizon most advantageous to them, which may not be in the best interests of shareholders.
- Conflictual premise—Traditional threat-oriented methods of dealing with agency costs emphasize the conflicts described by agency theory. In doing so they ignore areas of shared interests between principals and agents and discourage the development of win/win approaches to solving the agency problem.
- Reliance on the vertical organization—Traditional approaches to dealing with the agency problem focus on contracts made between senior managers and their subordinates, following the vertical structure of the firm. However, the work of the organization and the relationships crucial for a firm's success are more likely to be horizontal, crossing departmental and functional lines. Building rewards on vertical relationships may discourage collaboration in horizontal relationships.

Concerns About Shareholder Wealth Maximization

Earlier in this chapter we pointed out the separation between business and society characteristic of capitalist economies. Important concerns persist about whether an economy of corporations, each maximizing the wealth of its shareholders, produces undesirable side effects. We summarize these concerns under two questions: (1) Does accepting this goal yield a desirable mix of outcomes for society? (2) Does accepting it lead to desirable actions within corporations?

1. Outcomes for Society

Even when pursuit of shareholder wealth maximization yields the full advantages of economic efficiency its advocates claim for it, it may still not lead to the best mix of outcomes for society. A well-performing economy is only one facet—although a very important one—of a country's social welfare. Other aspects of social welfare must be successfully addressed for a nation to survive and prosper. In particular, is shareholder wealth maximization always consistent with a clean and healthy environment or with society's notions of economic and social justice? Major concerns about this issue have persisted for years. In many countries it is the defining issue that separates social groups and political parties.¹¹

Three topics regularly discussed as part of this debate are: (1) income inequality, (2) the failure of corporations to take socially responsible actions, and (3) poorly directed business activities.

Income inequality In most societies there is a widely held belief that there is a tradeoff between economic efficiency and equality of incomes. If the tradeoff does exist, companies acting to maximize shareholder wealth may be hurting society at the same time as they contribute to it. And even if these beliefs are not accurate, the debate could persist indefinitely because the relationship is so hard to test empirically.

Failure to take socially responsible actions Companies pursuing shareholder wealth maximization may perceive little or no incentive to use their resources to provide for the social welfare either of their employees or of non-employees. For example, until mandated by legislation, many companies spent very little on workplace safety, employee health care, or employee pensions. And even though, when viewed in hindsight, the benefits companies derived from being more socially responsive might well have been greater than the costs in many cases (thus actually increasing the companies' success in pursuing shareholder wealth), this does not mitigate the social losses arising from the companies' earlier lack of social responsibility.

Poorly directed business activities The pursuit of shareholder wealth maximization leads to a mixture of products and services that is not always consistent

¹¹ **Elaboration:** In the United States, for example, this division is the primary distinction between many of the positions of the Republican and Democratic parties. Although it is dangerous to summarize any one of a political party's positions in a few words, for the most part, the Republicans see the benefits from a well-functioning economy as a paramount goal and the precursor to most social possibilities, while the Democrats believe that more far-reaching social goals must be pursued in parallel to economic goals, even if that results in somewhat less economic efficiency.

with the needs or desires of the overall population. Rather it reflects the demands of those at the high end of the income distribution. To some, it seems inconsistent with social welfare that there are over 50 brands of sugared cereals on supermarket shelves at the same time that many people cannot find adequate shelter or health care. Similarly, profit maximization by itself does not discourage producing and marketing products and services harmful to society.¹² In fact, the more profitable an activity, the more it is encouraged by a goal that looks only at the benefits accruing to shareholders and ignores the costs borne by society.

2. Actions Within the Firm

At least four concerns exist about the internal operations of companies using shareholder wealth maximization as their goal. These concerns can be expressed in terms of four questions many managers have had trouble answering to their own satisfaction: (1) Is the shareholder wealth maximization goal a useful measuring stick? (2) Does it create the right image for the company? (3) Does it inspire employee commitment? (4) Does it encourage ethical behavior?

A useful measuring stick? To be useful in guiding day-to-day action, shareholder wealth maximization needs to provide clear and valid guidance to managers. Some financial managers are convinced it does exactly that. However, other finance professionals see limitations to share price maximization as a useful managerial guideline. Perhaps the greatest concern is about the temptation to take actions that increase short-run share price at the expense of long-run share price. Many financial managers believe it is possible to fool the market—at least in the very short run—to look good this week or month at the expense of things not going as well at some time in the future. They are very uncomfortable with measurement systems that encourage them to sacrifice the future strength of their company for current appearances of high performance.

Creating the right image? One major disadvantage of shareholder wealth maximization as the goal of a company is the message it sends to those outside the firm. The consistency between maximizing shareholder wealth and serving customers with excellence, treating suppliers with integrity as partners, and contributing to society has not been easy to communicate. The public is aware of so many examples of companies that in their single-minded search for profits have not achieved desirable social outcomes, that any company touting such a goal faces the task of explaining how its pursuit of only a high share price will lead to behavior different from that of other companies with apparently the same goal.

Inspiring commitment? Many managers are also concerned about the image this goal would project within their company. Think back to the most recent time you made a personal sacrifice in contributing to a company you were working for—when you inconvenienced yourself to go well beyond the minimum required of you and when you knew there was almost no likelihood you would be rewarded or even recognized for your extra effort. Did you put the company's in-

¹² **Observation:** Illicit drugs, tobacco, and handguns are examples of highly profitable products that cause significant damage to many people as are activities that pollute or otherwise degrade the environment.

terest ahead of your own in the hope that you would add 0.00000001 dollars to the value of each share in your company? We suspect not.¹³

Much more likely, you did what you did for a very different reason. Perhaps you did not want to let down an internal or external customer or a member of your work group. Maybe you cared about how the company would look if you did not put forth the extra effort, or perhaps the reason was simply that the personal pain of doing less than your best was greater than the sacrifice required to do what you knew was right. The trouble with telling people that the entire purpose of their work is to enrich someone else is that it sends the wrong message—that we are being used for a purpose that sounds less than noble to most of us and seems to demean our commitment and our sacrifices.

Encouraging ethics? Many managers believe that high corporate ethics are not just morally correct but also good business. However, the call for maximizing share price may not always carry with it an equally loud insistence on maintaining high ethical standards while doing so. Where the only goal is share price, ethics has sometimes taken a back seat to making more money.

Emerging New Approaches That Begin Reintegrating Societal and Shareholder Interests

We have seen that relying on shareholder wealth maximization to provide the best mix of benefits for the community raises problems that are real and may never be solved fully. However, the seriousness of these concerns and frustrations in dealing with them, both within and outside corporations, continue to encourage new solutions. Three emerging approaches may offer new alternatives for reducing such concerns: (1) a broader definition of the agency conflict, (2) efforts to align goals throughout the organization, and (3) a recognition of the value of a sequence of goals.

1. A Broader Definition of the Agency Conflict

The actions that managers take to enrich and benefit themselves at the expense of shareholders rarely harm simply their principals. Those actions very frequently damage the entire company and all its stakeholders. Whether the actions are self-promoted excessive compensation, self-protecting decisions that trade company opportunities for nonthreatening managerial tenure, or short time horizons that damage future company viability, all stakeholders are losers. Framing the agency problem exclusively in terms of losses borne by shareholders is a limited way to define the issue. Because many shareholders have only a transient involvement in the company and a very narrow interest at that, placing exclusive attention on possible losses borne by them runs the risk of obscuring and trivializing this much larger issue. Shareholders and all other stakeholders have a vital interest in the effective performance of manager-agents. Broadening the definition of the agency

¹³ **An invitation:** If that *was the reason*, please write or call us and tell us about it (our addresses and phone numbers are in the “To the Instructor” and “To the Student” sections at the beginning of the book). We are delighted to learn when our predictions are inaccurate. However, we don’t anticipate getting many calls.

issue may be one step in gaining full support for finding more effective means of solving it.

2. Aligning Goals Throughout the Organization

The requirements of global competitiveness and modern quality-focused management systems stress the pursuit of harmony and alignment of interests of all parties within a company and between the firm and its environment. Unless all parts of a business work together, it is impossible to produce low-cost products and services of competitive quality. And without competitive products and services, the firm cannot survive, much less maximize shareholder wealth. Fortunately, modern management approaches offer new solutions to integrating the interests of shareholders and society.

Using process-focused goals Modern quality-focused management approaches seek to concentrate every employee's and manager's attention on the connection between the needs of customers and the internal productive processes that meet those needs. Efforts are directed toward improving the way the firm designs, produces, markets, delivers, finances, etc. its products and services. By doing so the firm lowers its costs while creating more value for its customers, often permitting it to charge premium prices. The result is increased profitability and share price, but this comes from a focus on processes not on financial numbers.

Building on people's integrity Many organizations have extensive controls within their management systems that focus on the dark side of our nature, our selfishness and lack of integrity, and ignore our good side, our trustworthiness and selflessness. Implicitly they say that organizations must be designed to protect themselves from those of us who cannot be trusted. In doing so, they invite all of us to respond in kind—to earn that distrust.

A major aspect of modern management approaches is the pursuit of organizational designs based on the "98% of us who can be trusted to work collaboratively with others in pursuit of valued organizational goals" rather than on the "2% who cannot be trusted to do so." One approach involves asking all organizational members to identify their customers and suppliers, inside or outside the firm, and to create **customer-supplier alignments**. These alignments permit both parties to gain a fuller understanding of the other's needs, permitting suppliers to meet and exceed their customers' expectations.

Another approach is to support individuals and work units in designing, installing, and operating their own control methods, i.e., a system of self-control. Early experiences with such systems have been very encouraging, even at a stage when our knowledge and skills for developing them are quite modest.

Focusing on cross-functional relationships Modern quality-focused management approaches recognize that the formal organization chart is often an impediment to cooperation. As a result they place great emphasis on breaking down those barriers and work hard to forge the cross-functional relationships necessary to make their processes work smoothly and accurately.

customer-supplier alignment—a close working relationship between two parties, one of whom supplies the other, to ensure that the needs of each are being met

NET Present Value

You can learn more about FedEx Corporation at www.fedex.com and about Johnson & Johnson Corporation at www.jnj.com

3. A Sequence of Goals

To maximize stock price, management must integrate its goals into a sequence that builds from one goal to the next. FedEx Corporation captures this concept in its motto “People, Service, Profits,” which identifies the order in which value is created. Federal Express managers think first about their employees (the people in the motto): how to empower them and provide the resources they need to excel at their jobs, to act boldly on their own initiatives when unforeseen customer needs arise, and to improve every part of the company. Success with employees is the critical prerequisite for high-quality service. And sustained profitability is only possible after people and service have been taken care of. This is not to say that profits are a lower priority than people or service—rather, to achieve profits it is first necessary to have well-treated employees and well-served customers.

The Johnson & Johnson Company has described the sequenced goal approach as well as any company. The statement they call “Our Credo” is reprinted as Figure 1.5. The sequenced goal approach translates in practice to continually striving to exceed the expectations of *all* stakeholders. In doing so firms will:

On a Day-to-Day Basis

1. Treat customers like royalty, providing the best possible products and services at attractive prices at all times.
2. Treat employees fairly, paying a fair wage and providing benefits, excellent working conditions, and opportunities for personal and professional growth.
3. Treat suppliers and creditors with respect and courtesy, negotiating firmly yet also seeking win/win agreements and scrupulously honoring contracts.
4. Treat neighbors as they would wish to be treated.
5. Constantly strive to reduce costs, increase quality, and add to market share in all aspects of the business.

On a Long-term Basis

6. Treat shareholders to the high returns that will come from properly implementing the day-to-day actions.

The sequenced goal approach provides a practical method of achieving the finance goal of shareholder wealth maximization by putting customers and other stakeholders first. Yet there is an irony here: as recounted in this chapter, firms that directly pursue high stock price may, in that pursuit, do many things that eventually drive their stock prices to progressively lower levels. In the sequenced goal approach, share price maximization still plays a role. But it is restored to its rightful original place—as the result of doing other things well and not as the first place for management to direct its attention. Only by first satisfying the firm’s other stakeholders can management produce a successful and valuable firm.

Seemingly the reverse of the traditional approach, this far-from-new approach begins with customers and employees and ends with shareholders. By beginning with share price, management often can get derailed before reaching its other stakeholders. By beginning with customers and employees, the firm rarely gets derailed on the way to high stock price.

FIGURE 1.5

The Johnson & Johnson Company credo. Notice their use of the sequenced goal approach: first customers, then employees, then communities, and finally stockholders.

Our Credo

We believe our first responsibility is to the doctors, nurses and patients,
to mothers and fathers and all others who use our products and services.

In meeting their needs everything we do must be of high quality.

We must constantly strive to reduce our costs

in order to maintain reasonable prices.

Customers' orders must be serviced promptly and accurately.

Our suppliers and distributors must have an opportunity
to make a fair profit.

We are responsible to our employees,

the men and women who work with us throughout the world.

Everyone must be considered as an individual.

We must respect their dignity and recognize their merit.

They must have a sense of security in their jobs.

Compensation must be fair and adequate,

and working conditions clean, orderly and safe.

We must be mindful of ways to help our employees fulfill
their family responsibilities.

Employees must feel free to make suggestions and complaints.

There must be equal opportunity for employment, development
and advancement for those qualified.

We must provide competent management,
and their actions must be just and ethical.

We are responsible to the communities in which we live and work
and to the world community as well.

We must be good citizens — support good works and charities
and bear our fair share of taxes.

We must encourage civic improvements and better health and education.

We must maintain in good order

the property we are privileged to use,

protecting the environment and natural resources.

Our final responsibility is to our stockholders.

Business must make a sound profit.

We must experiment with new ideas.

Research must be carried on, innovative programs developed
and mistakes paid for.

New equipment must be purchased, new facilities provided
and new products launched.

Reserves must be created to provide for adverse times.

When we operate according to these principles,
the stockholders should realize a fair return.

Johnson & Johnson

4. Global Sustainability

The goal of shareholder wealth maximization is intended to achieve the highest level of economic efficiency in a society. However, the goals of many societies are not solely financial but include social and environmental objectives as well. Businesses are expected to pursue these additional goals as they seek to maximize their economic value.

NET Present Value
Information about the UN Global Compact, its membership, and its initiatives may be found at www.unglobalcompact.org

One widely accepted set of additional goals for business is the principles of the UN Global Compact, an initiative of the United Nations. Participating businesses voluntarily commit to uphold ten social and environmental principles with respect to the protection of fundamental human rights, the elimination of discriminatory and abusive labor practices, the protection of the environment, and the abolition of corruption as they pursue their financial goals. Figure 1.6 lists these ten principles.¹⁴

Another way to capture the increasing desire of societies to integrate financial goals with environmental and social objectives is captured in the term "global sustainability," the simultaneous pursuit of financial/economic success, environmental preservation, and social inclusion as suggested by Figure 1.7. Unlike the small businesses that Adam Smith studied at the time of the Industrial Revolution—firms that had little or no impact on the environment or society—today's large corporations can significantly damage or contribute to the world's ecological and social well-being by the way they operate and through the products and services they produce.¹⁵ Society is increasingly demanding that companies consider all three objectives as they set their business goals. And, as recent experience has demonstrated, firms that pursue shareholder wealth maximization at the expense of social and environmental goals run the risk of serving neither society nor their shareholders.¹⁶

Three days after Liz Horne and Mike Cantrell put their initial ideas for a financial training program on flip-chart pages, they returned to the same conference room with their laptops to hammer out a short report to the CFO.

"Wow," said Liz, "you can learn a lot—and get pretty confused—in three days when you ask a question that a lot of people are interested in, can't you?"

"Yep," Mike replied. "The treasurer points out how different the finance course he took three decades ago was from the current business school syllabus we showed him. And then, in the same breath, he points out a bunch of concepts in that same syllabus that he learned 30 years ago and still uses today. It looks as if there's lots of change and lots of stability at the same time."

¹⁴ **Reference:** United Nations, *Corporate Citizenship and the World Economy*, 2008.

¹⁵ **Reference:** The relationship between the increased power of business to impact the environment and society and the goal of the firm is the subject of Frank Werner's recent novel, *"The Amazing Journey of Adam Smith,"* CreateSpace, 2010.

¹⁶ **Example:** The Deepwater Horizon oil spill by British Petroleum in 2010 was due in part to decisions about how much to spend on ensuring the integrity of the well. Although the company avoided some spending in the short term, the ensuing spill severely damaged the ecology and economy of the Gulf of Mexico while costing the company, hence its shareholders, tens of millions of dollars in fines, cleanup costs, and lost revenues.

Human rights

- Principal 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
 Principal 2: make sure that they are not complicit in human rights abuses.

Labour

- Principal 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
 Principal 4: the elimination of all forms of forced and compulsory labour;
 Principal 5: the effective abolition of child labour; and
 Principal 6: the elimination of discrimination in respect of employment and occupation.

Environment

- Principal 7: Businesses are asked to support a precautionary approach to environmental challenges;
 Principal 8: undertake initiatives to promote greater environmental responsibility; and
 Principal 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

- Principal 10: Businesses should work against corruption in all its forms, including extortion and bribery.

FIGURE 1.6

The ten principles of the United Nations Global Compact. The principles deal with human rights, fair labor practices, environmental protection, and anti-corruption efforts.

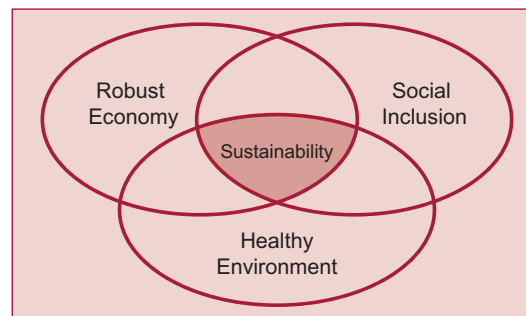
“Okay,” said Liz, “here’s my memory of what we agreed upon late yesterday: (1) There are some key concepts and tools to be learned. (2) Finance has specialized skills and a unique role in the company. In that sense finance people are different—and at the same time, finance people are members of the whole organization; in that sense they are the same as everyone else. And (3) some of what finance does today will change and some will not . . . and nobody knows for sure which part is which.

“Let’s summarize what the program might look like. We start with an introduction to finance where we cover data, time value of money, and money rates. Next we look at how the company raises its money. Then we cover risk and return. From there we study the financial decisions that add value to the firm. We finish up with a look at how the company provides returns to its investors. How does it sound?”

“It sounds like a new kind of textbook!,” Mike replied laughing. “Let’s see what the CFO says.”

FIGURE 1.7

Global Sustainability. The simultaneous achievement of economic, social, and environmental success is the emerging goal of many societies.



Summary of Key Points

- **Identify what the subject of finance deals with and how it differs from traditional economics, and organize finance along two useful dimensions.** Finance is about money: how a firm gets it, uses it, and distributes it. Finance draws heavily from economic thinking but is distinct from economics. Unlike macroeconomics, which looks at economies taken as a whole, finance studies individuals and business firms. Unlike microeconomics, which looks at physical transformations within a business, finance studies money flows. Finance may be divided into three areas of academic study and career paths: financial managing, investment analysis and management, and financial markets and institutions. The concerns of financial managers may also be divided into three areas: the financial environment, financial instruments, and financial managing. Financial managers must also know how to manage well to be successful.
- **Recount how the finance discipline evolved in response to changes in the business environment.** Finance evolved over the twentieth century from a descriptive subject to an analytic discipline. Theory, mathematics, statistics, and computing power have been joined to create a rich body of knowledge which can guide the financial manager in making good decisions. Of late, theorists have been recasting financial concepts in a broader framework in response to new developments in the business environment and in management systems
- **Explain why it is important for a business to have goals, why profit maximization was the original goal recommended by the early microeconomists, and why shareholder wealth maximization replaced profit maximization as the firm's financial goal.** Goals are necessary to judge the value of any action. Since business has such an enormous effect on most aspects of society, it is important that the goal(s) of business be chosen wisely to provide maximum benefit. Early economists demonstrated that profit maximization leads to an efficient use of resources and a high degree of economic efficiency under conditions of perfect competition. However as the world grew more complex, the difficulty of measuring profits as well as the new dimensions of the timing and risk of benefits convinced economists that a more comprehensive goal than profit maximization was needed. They concluded that an economy composed of firms acting to maximize the wealth of their owners would achieve the classical benefits of economic efficiency. In addition it would provide for the effective allocation of investable funds and the proper evaluation of business-related risks.
- **Identify the problems in maximizing shareholder wealth addressed by agency theory.** In a corporation with professional management, the interests of the manager-agents are often not the same as those of the shareholder-principals. This "agency problem" leads to agency costs, reducing the value of the company to its owners. Agency costs arise from a variety of sources including differences in time-horizon and risk-aversion, management's control of its own compensation, information asymmetry, and attitudes toward retaining earnings. Agency theory frames the firm as a nexus of contracts, a series of implicit and explicit agreements among all parties affected by the firm which define relationships and are designed to limit potential conflicts of interest. Well-established methods of minimizing agency costs include the "carrots" of various incentive compensation schemes and the "sticks" of management control systems, corporate governance, and the market for corporate control. Accumulating evidence suggests that there are problems with these techniques. In particular, the use of financial measures for day-to-day managerial guidance, the emphasis on preventing conflict rather than building cooperation, and the focus on relationships delineated by the formal organization chart often prevent companies from achieving high shareholder wealth.
- **Identify longstanding concerns about the undesirable side effects of shareholder wealth maximization being the goal of business firms.** Even strong advocates of shareholder wealth maximization have long recognized important social trade-offs inherent in this goal. Although an economy of firms acting to maximize shareholder wealth can achieve significant economic benefits, the accompanying social costs such as income inequalities, failure to take socially responsible actions, and poorly directed business activities are unattractive to most of us. Concerns about what may happen when shareholder wealth is used to guide a company include difficulties in applying the concept in practice, problems communicating to society the advantages of this goal, its weakness as a theme for inspiring commitment, and its potential for encouraging selfish and unethical behavior.
- **Explain how emerging approaches may reduce some of the concerns about shareholder wealth maximization as a goal.** Aligning goals throughout the organization, the sequenced goal approach, and global sustainability all emphasize the consistency of interests among parties. They provide more effective ways to manage, and they suggest that maximizing

shareholder wealth can only be accomplished on a sustained basis by serving the needs of customers, employees, and other stakeholders on both a day-to-day basis and long-term basis. These new approaches hold the promise of reducing or removing many of the concerns about undesirable societal consequences of shareholder wealth maximization.

Questions

- How is the discipline of finance (a) similar to and (b) different from the discipline of economics?
- Give an example of how each piece of the financial environment listed below affects the business firm:
 - the economy
 - the political scene
 - the law
 - ethical standards
 - social norms
- What does a financial manager do for a living?
- What is a stakeholder? For each stakeholder listed below, identify its relationship to the business firm:
 - customers
 - employees
 - suppliers
 - governments
 - neighbors
 - lenders
 - investors
- If you were to start a business, what would you set as its goal? Suppose your business grew to employ 50 people. Would this change your answer? What if you had 1,000 employees?
- What are the problems with the economic rule of maximizing profits? In what ways does the use of shareholder wealth as the firm's goal solve these problems?
- Why is an efficient capital market necessary for the shareholder wealth maximization goal to be effective?
- Give an example of an agency cost. If you were a shareholder of a company, how might you attempt to minimize it?
- Identify an instance from your experience or readings in which a firm, aiming to maximize shareholder wealth, has caused damage to society.
- What is the sequenced goal approach? Why is it important for managers to sequence their goals?
- What is the UN Global Compact? Identify the Global Compact's ten principles.
- What is meant by Global Sustainability? Why are some companies looking beyond shareholder wealth as they set their goals?
- Why do you think finance is the most popular area of concentration at many schools of business?

APPENDIX 1A

FORMS OF BUSINESS ORGANIZATION

In the United States, businesses are organized into three legal forms: proprietorships, partnerships, and corporations. Each form is appropriate for a certain size and complexity of business. Each provides its owners certain benefits in practice and under the law. And, as we will see in Appendixes C and D to Chapter 3, corporations are taxed differently from proprietorships and partnerships. Figure 1A.1 summarizes key information about U.S. businesses. Although corporations make up only 18% of business organizations in the United States, corporations tend to be large relative to proprietorships and partnerships and account for 81% of the receipts and 62% of the profits of all firms.

Proprietorships Proprietorships are businesses owned by one person or one family. New businesses and small “mom and pop” stores are typically proprietorships. They are easy to start—there are no legal formalities other than perhaps a license—and they permit prompt and responsive decision making since authority is centered in the owner/operator. But proprietorships typically suffer from a lack

of resources. Managerial talent is limited by the abilities of the owner. Financing is limited to the owner's finances plus what can be borrowed. Liability, on the other hand, is not limited to the firm's assets; the owner is personally responsible for the firm's debts and its products and services. Proprietors add the income from their business to any other personal income and pay taxes under the personal tax system.

general partnership—a partnership in which all partners share equally in decision-making authority and liability

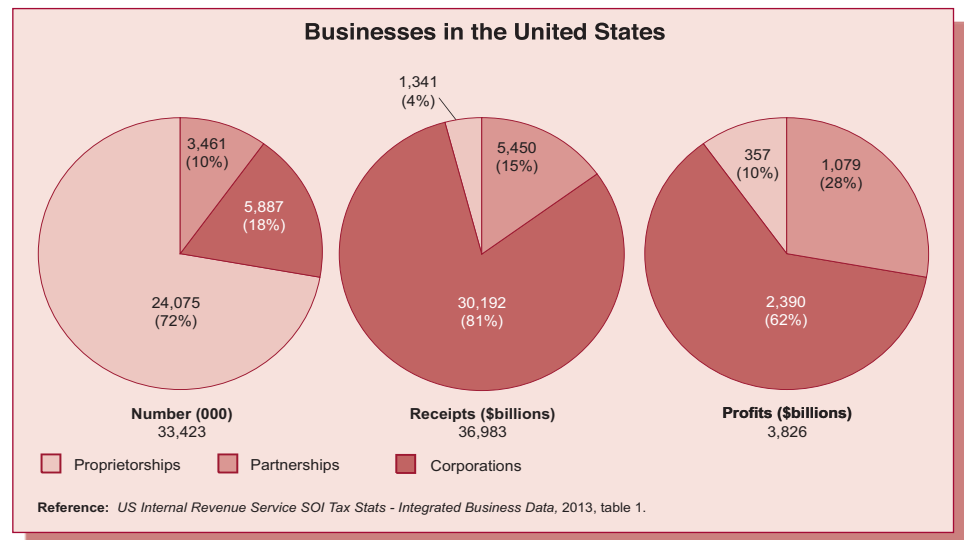
limited partnership—a partnership in which some partners receive limited liability in return for limited authority

Partnerships Partnerships are businesses owned by some number of unrelated individuals. The partners sign an agreement that specifies each partner's responsibilities and rewards from the business. In **general partnerships**, all partners are equal and share in authority and liability; most operating partnerships such as accounting and law firms are organized in this way. Alternatively, the partnership may be a **limited partnership**, typically used for investment purposes. In this form, one or more "general partners," typically the organizers of the partnership, have the decision-making authority and assume full personal liability while the remainder are "limited partners," with limited authority but also a liability limited to the amount of their own investment. The Uniform Partnership Act and Uniform Limited Partnership Act, adopted in all 50 states, regulate partnership contracts and provide solutions when the partners have omitted something from their agreement. If any partner leaves the business, the partnership formally dissolves and a new partnership agreement must be drawn up. The presence of several partners provides a greater depth of managerial skills and access to more sources of financing as compared to a proprietorship. Like a proprietorship, partners add their business income to their personal tax returns.

Corporations Corporations are legal entities with rights and privileges separate from those of their owners. They live on regardless of who owns them. There is no "Uniform Corporation Act;" rather, each state has its own corporation law, and corporations often choose to incorporate in states with the most lenient laws

FIGURE 1A.1

Recent statistics about U.S. businesses. Although only 18% of businesses are organized as corporations, they account for 81% of receipts (sales) and 62% of profits.



such as Delaware and Pennsylvania. In return for their investment, the corporation's owners receive shares of stock which may be sold to others, thus permitting ownership of the corporation to change freely and easily. Large corporations can free themselves from most of the limitations of proprietorships and partnerships. Since the managers need not be the owners, corporations can employ professional management. Financing opportunities are excellent: by selling small amounts of stock to many non-manager owners, the corporation can raise significant amounts of equity, which then permits large-scale borrowing. In addition, the corporation's liabilities are not the responsibility of its owners—there is a legal separation of corporate and owner debts. Corporate profits are subject to a different tax than proprietorships and partnerships.

CASE

JILL McDUFF

Jill McDuff stopped taking notes for a moment and looked around the room. One hour ago the eight other faces were those of strangers, but already it seemed to her as if she had known each of them much longer. Each face was different; yet in its own way, each was familiar. She glanced again at the name cards on the desk in front of each one. There was Shoji from Tokyo, Kim from Seoul, and Anisha from India. Marek from Poland, Hamisi from Tanzania, Fernando from Spain, and João from Brazil. Each spoke with a different accent, yet each had a degree in finance. They were totally different, yet they were all the same.

Jill was from Glasgow, Scotland, where she was employed by a company that manufactured and distributed a range of products in its local market. Like her counterparts around the table, she had been invited to the headquarters of the Trinetics Corporation, a rapidly growing electronics firm in California's Silicon Valley, south of San Francisco Bay. Trinetics's business with multinational companies was increasing, and it was interested in establishing international sales and production relationships to serve its customers' overseas facilities more effectively. Each company invited to the meeting was highly respected in its country and was one that Trinetics thought would be an attractive partner. Since Jill's company was eager to attract more business from U.S. manufacturers, she had jumped at the chance to attend.

The eighth face belonged to Arthur Martin, Marty as he liked to be called, the person chairing the meeting. Marty was the chief financial officer (CFO) of Trinetics and was leading the company's project to expand its overseas business. He was presently in the midst of a formal presentation about Trinetics's product line: how Trinetics's products were of the highest quality, in high demand, and sure to represent a profitable line of business for each of the companies represented in the room.

When Marty finished his presentation and the group broke for coffee, Jill found herself in animated discussion with several of the others. She found the conversation fascinating and enjoyed learning more about this very diverse group. It struck her that this meeting was a microcosm of the changes many companies were facing in response to the globalization of business. As she returned to her chair, she jotted down three questions that she wanted to come back to later in the day. The questions on Jill's pad were:

1. What opportunities and barriers will Trinetics Corporation and my company face as they learn to do business together?
2. What old and new skills will Marty and the rest of us need in our new relationships?
3. What can I do, as a finance professional, to make sure the relationship between the companies operates as smoothly and profitably as possible?