WESTON & BRIGHAM'S

managerial
FINANCE

British Edition

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Managerial Finance

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Preface

In the United Kingdom in recent years, academics and business practitioners alike have shown a growing awareness of the importance of the study of managerial finance. The major accountancy bodies have reflected this awareness by including the study of finance in their examination schemes. Additionally, an increasing number of universities and polytechnics have introduced courses, at the undergraduate, postgraduate and post-experience levels, which involve the study of finance. The popularity of courses such as the Certified Diploma in Accounting and Finance is evidence of the demand for this by business practitioners.

We have been engaged for several years in the teaching of finance on various courses and have become increasingly concerned by the scarcity of comprehensive textbooks which include a study of the theoretical concepts of finance within the framework of the United Kingdom financial environment. While there have been some excellent textbooks produced for this subject, very few have related specifically to the United Kingdom or have taken students from a study of the basic concepts of finance through to the major recent developments.

In creating this British version of *Managerial Finance* we have attempted to fulfil the need for such a text by appropriately adapting a highly successful and well-proven United States book. Thus we have made maximum use of the vast academic and business experience embodied in the sixth edition of *Managerial Finance* but have reset it in the context of the United Kingdom environment. Wherever possible, original material has been retained although chapters relating to the institutional framework and sources of finance have been completely rewritten, as have several end-of-chapter problems. References have been supplemented by more recent British publications, and terminology has been revised in an attempt to overcome the traditional reluctance of British students to use textbooks with American terminology. The major areas of change can be summarized as follows:

1. We have up-dated all material that may change over time and wherever possible we have used British rather than American examples.
2. Chapters 2 to 5 have been recast to conform with British practices of financial reporting. An appendix which examines limitations of financial statements in an inflationary environment has been added to Chapter 2.

3. Chapter 6 has been revised to take account of the special features of the market for short-term funds in Britain. These special features have influenced the approach to current asset management dealt with in Chapter 7. The sources of short-term funds for British industry have been outlined in Chapter 8 with particular reference to bank finance, trade credit and bills of exchange.
4. Chapters 12, 13 and 14 have been completely rewritten to take account of the British financial environment. At the same time, the new material has been added with the intention of retaining the spirit and, wherever possible, the form of the original. Problems and questions relevant to British experience have been added to these chapters.
5. The Appendix to Chapter 16 on the Option Pricing Model has been up-dated to include developments in the recently opened traded options market in London.
6. Chapter 21 has been extensively revised to incorporate the relationship between long-term and short-term interest rates which operate in the London market. The implications of these relationships for investment timing have been discussed.
7. The chapters on mergers, reconstructions and small businesses have been revised and new material, appropriate to Britain, has been added.

Treatment of some topics has had to be kept to a minimum in order to maintain the philosophy of the original text. For example, Appendix A to Chapter 2 has been included to make students aware of the limitations of financial statements for analytical purposes, and not to provide a detailed study of the problems of accounting for inflation. In one case – Chapter 24 – no alteration has been made to the subject matter of the chapter, because by its very nature it has an international flavour.

We believe that this textbook offers sufficient flexibility to form the foundation for courses in finance at various levels. The book may be used as a first course in finance at the undergraduate and professional levels by omitting selected chapters and appendices. More advanced courses would include the more advanced chapters, together with various appendices and cases, supplemented by journal articles.

In our work of adaptation we benefited enormously from constructive criticism from a number of sources. In particular we should like to thank for their help the following: A. F. Fox (Stirling), A. J. Mason (London), H. Lipman (London), Dr D. Garbutt (Dundee), A. V. Pizzey (Nottingham), Dr R. Spencer (London), S. J. Curry (Birmingham) and R. H. Berry (Coventry).

We would also like to express our appreciation to all of the Holt, Rinehart and Winston editorial staff, and in particular David Inglis and Patricia Terry, for their discipline in keeping us to deadlines and ensuring a timely publication.

Polytechnic of the South Bank — John Boyle
University of Stirling — Robin J. Limmack
1979

Preface to Sixth American Edition

Financial management has undergone many changes in recent years. Strong inflationary pressures have pushed interest rates to unprecedented heights, and the resulting high cost of capital has led to profound changes in corporate financial policies and practices. Academic researchers have made significant advances, especially in the areas of capital budgeting and the cost of capital. At the same time, business practitioners are making increasing use of financial theory, and feedback from the 'real world' has led to revisions in financial theory. To a large extent, these trends dictated the revisions made in this Sixth Edition of *Managerial Finance*.

The changes in the Sixth Edition of *Managerial Finance* continue the basic philosophy of previous editions. This is to provide users with coverage of all important areas of managerial finance and financial management, while providing flexibility in the use of the materials. At present, the major theoretical chapters on the cost of capital and valuation are near the end of the book in order to work up to the most difficult material as an increasing challenge to the reader. However, some users tell us they start with these chapters so they can use the concepts in their treatment of the materials in the earlier chapters. Different sequencing patterns have been reported by other professors. Still others use different combinations of the materials in the first, second or subsequent courses in a finance sequence. Since faculty, students and curriculum needs and personalities vary among different schools, we believe this flexibility is an important strength of *Managerial Finance* – and it is no accident; we have planned for it.

This flexibility objective has guided the placement of some new materials in the Sixth Edition. Three important recent developments in finance are the Capital Asset Pricing Model (CAPM), the Options Pricing Model (OPM) and the State-Preference Model (SPM). The Capital Asset Pricing Model is discussed in Appendix D to Chapter 11 and in Appendix C to Chapter 19. The Option Pricing Model has been set forth in Appendix A to Chapter 16. We utilize the State-Preference Model to provide a wrap-up of the discussion of financial leverage in Appendix D to Chapter 19. These and other materials continue the up-to-date coverage of *Managerial Finance* while providing flexibility in the sequence and in the courses in which the topics are treated.

In addition to containing new materials, the revision reflects our experience, and that of others, in teaching business finance. Organizational changes have been made to provide for smoother flow and greater continuity; points that proved troublesome to students have been clarified; a few outright errors have been corrected; and, of course, descriptive materials have been updated. Moreover, the end-of-chapter questions, problems, and references have been clarified and strengthened.

Much of the specific content of the book is the result of our experience in executive development programs over a number of years. This experience, in addition to our consulting with business firms on financial problems and policies, has helped us to identify the most significant responsibilities of financial managers, the most fundamental problems facing firms, and the most feasible approaches to practical decision-making. Some topics are conceptually difficult, but so are the issues faced by financial managers. Business managers must be prepared to handle complex problems, and finding solutions to these problems necessarily involves the use of advanced tools and techniques.

We have not sought to avoid the many unresolved areas of business financial theory and practice. Although we could have simplified the text in many places by avoiding the difficult issues, we preferred to provide a basic framework based on the 'received doctrine', then to go on (often in appendixes) to present materials on a number of important but controversial issues. It is hoped that our presentation, along with the additional references provided at the end of each chapter, will stimulate the reader to further inquiry.

We acknowledge that the level and difficulty of the material is uneven. Certain sections are simply descriptions of the institutional features of the financial environment and, as such, are not difficult to understand. Other parts – notably the material on capital budgeting, uncertainty, and the cost of capital – are by nature rather abstract, and, as such, are difficult for those not used to thinking in abstract terms. In some of the more complex sections, we have simply outlined procedures in the main body of the text, then justified the procedures in the chapter appendixes.

The appendixes permit great flexibility in the use of *Managerial Finance*. The book can be used in a basic course by omitting selected appendix topics. If instructors wish to cover selected topics from the appendixes, they may do so, and the more interested or mature student may also choose to select appendix topics for independent study. Alternatively, the book may be used in a two-semester course, supplemented, as the instructor sees fit, with outside readings or cases, or both. At both UCLA and Florida we use the basic chapters plus a very few appendixes in the introductory course, then cover selected appendixes plus cases and some articles in the advanced course. In fact, some of the appendixes were written specifically to help bridge the gap between basic texts and journal literature.

Changes in the sixth edition

The Sixth Edition of *Managerial Finance* differs from the Fifth in several key respects.

1. We have updated all materials that have a time aspect.
2. A listing of 'Frequently Used Symbols' in *Managerial Finance* has been developed which relates and makes consistent all symbols used in the capital budgeting, cost of capital, uncertainty, valuation and other basic conceptual themes that run through the book. The symbols used seek to reflect the widest usage found in the journal literature. This has a number of advantages. The reader has the assurance that on the central conceptual materials one set of symbols is consistently used. Furthermore, this will help the reader increase his familiarity with the symbols used in the general literature. It will thereby facilitate the access of the reader to the journal literature. Another benefit of the list of 'Frequently Used Symbols' is that it provides a perspective which allows some simplification and reduction in the number of symbols employed in *Managerial Finance*.

3. Chapter 1 has been rewritten to focus more directly and fully on the nature of the finance function and to discuss the goals of the firm in a broader perspective.
4. We have added an appendix to Chapter 2 to discuss accounting under inflation and its implications for financial ratio analysis.
5. We have added a section to Chapter 10 for comparing mutually exclusive projects with unequal lives.
6. An appendix has been developed for Chapter 10, utilizing the Capital Asset Pricing Model for measuring the required risk adjusted return for new investment projects.
7. Another appendix to Chapter 10 describes the adjustments required for capital budgeting under inflation.
8. The section on leasing has been reworked to reflect the important development in the recent new articles on the subject.
9. Chapter 17 uses the market price of risk relationships to show how the risk premium in the returns to investments and to securities can be measured.
10. The new and complex formulas for option pricing are shown to use a combination of materials already covered in *Managerial Finance*; simple, clear applications of the Black and Scholes formulas are made to pricing options as well as to other corporate securities. This is placed as an appendix to Chapter 16.
11. Some recent work on state-preference theory is applied in discussing the determination of optimal financial leverage. Again the material is presented in clear, easy-to-follow examples, and its use in a managerial finance decision-framework is demonstrated in an appendix to Chapter 19.
12. Capital investment decisions are explicitly integrated with the valuation of the firm.
13. The materials on capital budgeting are further developed and clarified.
14. A correct conceptualization of multi-period stock valuation models is presented in Chapter 17.
15. New institutional materials are added to continue up-to-date coverage related to real world developments.
16. We have added new problems to round out the coverage of concepts as well as to provide appropriate emphasis to areas of central importance.

Several reviewers suggested that it might be desirable to reduce the total length of the book. The idea was appealing, but we did not follow their suggestion for several reasons. We want the book to cover the entire field of business finance and to deal with all the functions of the financial manager. Eliminating institutional material and concentrating on theory and technique would give the student an unrealistic, sterile view of finance. Some of the more advanced theory and techniques could have been eliminated on the ground that they probably would not be covered in basic courses, but it is useful to show where this material fits into the scheme of things and to provide the student with a bridge to the journal literature. Finally, our verbosity results, to a large extent, from a deliberate addition of statements, examples, and other materials to clarify points that our students have found difficult; eliminating these would have reduced the clarity of the book. These factors, *together with the fact that the book is structured so that instructors do not have to assign all the material*, caused us to forego a marked reduction in the book's length.

Ancillary materials

Several items are available to supplement *Managerial Finance*. First, there are two casebooks, *Cases in Managerial Finance*, 3rd Edition, and *Decisions in Financial Management: Cases*, by Eugene F. Brigham et al. Second, there are a number of readings books which can be used to supplement the text. One book in particular, *Issues in Managerial Finance*, edited by E. F. Brigham and R. E. Johnson, is a useful supplement to *Managerial Finance*. Finally, many students will find the *Study Guide* useful. The *Study*

Guide highlights the key points in the text and presents a comprehensive set of problems similar to those at the end of each chapter. Each problem is solved in detail, so a student who has difficulty working the end-of-chapter problems can be aided by reviewing the *Study Guide.*

Acknowledgments

In its several revisions, the book has been worked on and critically reviewed by numerous individuals, and we have received many detailed comments and suggestions from instructors (and students) using the book in our own schools and elsewhere. All this help has improved the quality of the book, and we are deeply indebted to the following individuals, and others, for their help: M. Adler, E. Altman, J. Andrews, R. Aubey, P. Bacon, W. Beranek, V. Brewer, W. Brueggeman, R. Carleson, S. Choudhury, P. Cooley, C. Cox, D. Fischer, R. Gray, J. Griggs, R. Haugen, S. Hawk, R. Hehre, J. Henry, A. Herrmann, G. Hettenhouse, R. Himes, C. Johnson, R. Jones, D. Kaplan, M. Kaufman, D. Knight, H. Krogh, R. LeClair, W. Lee, D. Longmore, J. Longstreet, H. Magee, P. Malone, R. Moore, T. Morton, T. Nantell, R. Nelson, R. Norgaard, J. Pappas, R. Pettit, R. Pettway, J. Pinkerton, G. Pogue, W. Regan, F. Reilly, R. Rentz, R. Richards, C. Rini, R. Roenfeldt, W. Sharpe, K. Smith, P. Smith, R. Smith, D. Sorenson, M. Tysseland, P. Vanderheiden, D. Woods, J. Yeakel, and D. Ziegenbein for their careful reviews of this and previous editions.

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The Universities of California and Florida, and our colleagues on these campuses, provided us with intellectual support in bringing the book to completion. Finally, we are indebted to the Dryden Press staff – principally Garret White, Paul R. Jones, Jo-Anne Naples, and Ray Ashton – for their special efforts in getting the manuscript into production and for following through to the bound book.

The field of finance will continue to experience significant changes. It is stimulating to participate in these exciting developments, and we sincerely hope that *Managerial Finance* will contribute to a better understanding of the theory and practice of finance.

Los Angeles, California — J. Fred Weston
Gainesville, Florida — Eugene F. Brigham
December 1977

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