YOUR CONNECTION TO SUCCESSFUL FINANCIAL MANAGEMENT

Analysis for Financial Management continues to bring standard techniques and recent advances in finance to nonfinancial executives and business students in a practical, intuitive way. Special emphasis is placed on the managerial applications of financial analysis and content is delivered with winning style.

The tenth edition includes discussion of relevant aspects of the recent financial crisis, especially the possible roles played by the efficient market hypothesis, fair value accounting, and the financial rating agencies in precipitating the crisis. This edition also examines Kraft Foods Corporation’s $23 billion hostile takeover of British confectioner Cadbury Plc, including the role played by activist investor Nelson Peltz, and a number of other updates and fresh examples throughout the text. Sensient Technologies (SXT), the world’s largest food and beverage color company, is used as an extended example in applicable chapters.

Visit the Online Learning Center at www.mhhe.com/higgins10e for more information on the tenth edition of Analysis for Financial Management.

CourseSmart enables access to a printable e-book and mirrors the traditional textbook experience with the ability to highlight and take notes in the text. Curious? Go to www.coursesmart.com to try one chapter of the e-book, free of charge, before purchase.
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www.Stanford.edu/class/msande271/onlinetools/HowToReadFinancial.pdf
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www.cf.com
www.reuters.com
www.businessweek.com
finance.yahoo.com
online.wsj.com
SSRN.com/abstract=982481
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Here is what some of our readers have said . . .

From students to professionals, Analysis for Financial Management provides a solid reference and set of tools for anyone broadening their understanding of finance. Following are quotes from readers: instructors, students, and professionals.

Your book is the most eloquent, concise and consistently enjoyable text I've encountered in my entire college career.

This book describes the complex topics by using simple and understandable terms. The materials are up-to-date and are applicable to real world business environments. Excellent topic selection will make the students effective and efficient financial analysts.

I was introduced to your Analysis for Financial Management text more than 10 years ago when I studied for the CFA. Now as a finance professor, I've recently been reintroduced to your book (the 9th edition). I honestly can't think of a finance book that is more clearly written and relevant.

May I say, congratulations on compiling a truly great text for introductory Finance. I have thoroughly enjoyed reading it (and laughed out loud in some sections). I've also learned a great deal. Kudos to you and your contributors!

I am currently reading Analysis of Financial Management and am finding it very enjoyable, stimulating and practical. I am a financial analyst at a hedge fund in New York and while I have worked in finance for a number of years, I find your book provides a great perspective.

Unlike many text-book writers, you display an understanding of the reader's thought process. As a result, I am able to learn more effectively and more efficiently.
Analysis for
Financial Management
The McGraw-Hill/Irwin Series in
Finance, Insurance, and Real Estate

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Analysis for
Financial Management

Tenth Edition

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McGraw-Hill
Irwin
In memory of my son

STEVEN HIGGINS

1970–2007
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Like its predecessors, the tenth edition of *Analysis for Financial Management* is for nonfinancial executives and business students interested in the practice of financial management. It introduces standard techniques and recent advances in a practical, intuitive way. The book assumes no prior background beyond a rudimentary, and perhaps rusty, familiarity with financial statements—although a healthy curiosity about what makes business tick is also useful. Emphasis throughout is on the managerial implications of financial analysis.

*Analysis for Financial Management* should prove valuable to individuals interested in sharpening their managerial skills and to executive program participants. The book has also found a home in university classrooms as the sole text in Executive MBA and applied finance courses, as a companion text in case-oriented courses, and as a supplementary reading in more theoretical finance courses.

*Analysis for Financial Management* is my attempt to translate into another medium the enjoyment and stimulation I have received over the past three decades working with executives and college students. This experience has convinced me that financial techniques and concepts need not be abstract or obtuse; that recent advances in the field such as agency theory, market signaling, market efficiency, capital asset pricing, and real options analysis are important to practitioners; and that finance has much to say about the broader aspects of company management. I also believe that any activity in which so much money changes hands so quickly cannot fail to be interesting.

Part One looks at the management of existing resources, including the use of financial statements and ratio analysis to assess a company’s financial health, its strengths, weaknesses, recent performance, and future prospects. Emphasis throughout is on the ties between a company’s operating activities and its financial performance. A recurring theme is that a business must be viewed as an integrated whole and that effective financial management is possible only within the context of a company’s broader operating characteristics and strategies.

The rest of the book deals with the acquisition and management of new resources. Part Two examines financial forecasting and planning with particular emphasis on managing growth and decline. Part Three considers the financing of company operations, including a review of the principal security types, the markets in which they trade, and the proper choice of
security type by the issuing company. The latter requires a close look at financial leverage and its effects on the firm and its shareholders.

Part Four addresses the use of discounted cash flow techniques, such as the net present value and the internal rate of return, to evaluate investment opportunities. It also deals with the difficult task of incorporating risk into investment appraisal. The book concludes with an examination of business valuation and company restructuring within the context of the ongoing debate over the proper roles of shareholders, boards of directors, and incumbent managers in governing America’s public corporations.

An extensive glossary of financial terms and suggested answers to odd-numbered, end-of-chapter problems follow the last chapter.

Changes in the Tenth Edition

Readers familiar with earlier editions of *Analysis for Financial Management* will note several changes and refinements in this edition, including:

- Use of Sensient Technologies Corporation (SXT), world’s largest food and beverage color company, as the extended example throughout the book.
- Examination of Kraft Foods Corporation’s hostile $23 billion takeover of British confectioner Cadbury Plc, including the role played by activist investor Nelson Peltz.
- Discussion of relevant aspects of the recent financial crisis, with emphasis on the possible roles played by the efficient market hypothesis, fair value accounting, and the financial rating agencies in precipitating the crisis.
- Expanded coverage of real options analysis, including decision trees.
- An update of the empirical evidence on corporate restructuring and shareholder value creation.

A welcome addition to the supplementary materials and teaching aids accompanying this edition is the test bank prepared by Professor Eric Wehrly, a veteran of past editions. Additionally, Hersh Shefrin has updated the PowerPoint images to reflect changes in the tenth edition.

As in earlier editions, you will continue to find annotated website references and recommended further readings at the end of each chapter. Also available is an *Analysis for Financial Management* website containing the following:

- A password-protected instructor’s page containing suggested answers to all even-numbered problems appearing in the text.
• A test bank consisting of 20-30 questions per chapter, including multiple-choice, short-answer, and essay questions. Each question provides students with feedback and is tagged for level of difficulty.

• A student’s page with spreadsheet-based problems and additional supplementary end-of-chapter problems and suggested answers.

• A list of the URLs of all websites mentioned in the book.

• An annotated list of suggested cases to accompany the book.

• PowerPoint versions of selected tables and figures.

• Complimentary software.

The complimentary software consists of three easy-to-use Excel programs, which I have found helpful when analyzing financial statements, projecting financing needs, and evaluating investment opportunities. The URL for this cornucopia of treats is www.mhhe.com/higgins10e.

A word of caution: *Analysis for Financial Management* emphasizes the application and interpretation of analytic techniques in decision making. These techniques have proved useful for putting financial problems into perspective and for helping managers anticipate the consequences of their actions. But techniques can never substitute for thought. Even with the best technique, it is still necessary to define and prioritize issues, to modify analysis to fit specific circumstances, to strike the proper balance between quantitative analysis and more qualitative considerations, and to evaluate alternatives insightfully and creatively. Mastery of technique is only the necessary first step toward effective management.

I want to thank Jared Stanfield for help on this edition’s end-of-chapter problems. I am certain he will be a fine finance teacher as he begins his career at the University of New South Wales. I am indebted to Andy Halula and Scott Hossfeld of Standard & Poor’s for providing timely updates to Research Insight. The ability to access current Compustat data continues to be a great help in providing timely examples of current practice. I also owe a large thank you to the following people for their insightful reviews of the ninth edition and their constructive advice. They did an excellent job; any remaining short-comings are mine not theirs.

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*Preston University*
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software. Finally, I want to express my appreciation to students and colleagues at the University of Washington, Stanford University, IMD, The Pacific Coast Banking School, The Koblenz Graduate School of Management, The Gordon Institute of Business Science, The Swiss International Business School ZfU AG, Boeing, and Microsoft, among others, for stimulating my continuing interest in the practice and teaching of financial management.

I envy you learning this material for the first time. It’s a stimulating intellectual adventure.

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