INVESTMENT ANALYSIS and Portfolio MANAGEMENT

第六版

投资分析与组合管理

弗兰克·K·赖利(Frank K. Reilly)

基思·C·布朗(Keith C. Brown)

CFA系列

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图书在版编目（CIP）数据

投资分析与组合管理（第6版）/（美）弗兰克·K.赖利　基思·C.·布朗著－影印本.—北京：中信出版社，2002.5

书名原文：*Investment Analysis and Portfolio Management*

特许金融分析师资格考试的核心用书

ISBN 7-80073-504-4

Ⅰ.投…　Ⅱ.①赖…　②布…　Ⅲ.证券投资－分析－资格考核－自学参考资料－英文　Ⅳ.F830.53

中国版本图书馆CIP数据核字（2002）第042589号

Frank K. Reilly, Keith C. Brown

Investment Analysis and Portfolio Management 6e (0-03-025809-x)

Reprint ISBN:981-243-200-0

投资分析与组合管理（第6版）

作　　者：（美）弗兰克·K·赖利　基思·C·布朗

出版发行：中信出版社（北京市朝阳区新源南路6号京城大厦　100004）

责任编辑：杨桂凤　李宝琳　　责任监制：朱　磊　王祖力

经 销 者：中信联合发行有限公司

承 印 者：北京忠信诚印刷厂

开　　本：889mm×1194mm　1/16　　印　　张：79.75　　字　　数：1595千字

版　　次：2002年5月第1版　　印　　次：2002年5月第1次印刷

京权图字：01-2001-5194

书　　号：ISBN 7-80073-504-4/F·357

定　　价：161.00元

序

世界金融市场的蓬勃发展需要大量合格的金融从业人员，需要有全球通行的金融语言和行为标准。无论投资者、企业还是金融管理层都需要用统一、规范的标准来衡量金融分析人员的知识水平、道德规范和专业化程度，从而建立起对他们所提供的金融服务和所管理的金融资产的信赖。由此，特许金融分析师（Chartered Financial Analyst，简称CFA）应运而生。

作为全球通行的、最权威的金融市场专业人员的资格认证，CFA创办于20世纪60年代初。主办CFA考试和授予CFA特许状的权威机构是美国投资管理研究协会。目前，CFA资格授予各个投资领域内的专业人士，包括基金经理、证券分析师、财务总监、投资顾问、投资银行家、交易员等等。CFA要求它的持有人建立严格而广泛的金融知识体系，掌握金融投资行业各核心领域的理论与实践知识，包括从投资组合管理到金融资产估价，从衍生证券到固定收益证券以及定量分析。与此相适应，CFA的课程设置和考试内容深深根植于投资管理的实践，涉及广泛的金融投资方面的基础知识，并且考试标准和阅读书目每年都在变化，以反映投资领域的最新变化。

为适应经济日益全球化、信息化、金融化的发展趋势，促进我国资本市场的发展，并配合CFA资格考试在国内的展开，以方便广大考生应考，以及满足相关财经领域从业人员和广大师生的学习需求，中信出版社推出了CFA系列丛书。该系列包含两个子系列：影印系列和翻译系列，我们衷心地希望这套丛书的推出能够对广大的读者有所帮助。

中信出版社

To my best friend and wife,
Therese,
and the greatest gifts and
sources of our happiness,
Frank K. III, Charlotte, and Lauren
Clarence R. II
Therese B., and Anita
Edgar B., Michele, Kayleigh, and Madison J. T.

F. K. R.

To Sheryl, Alexander, and Andrew,
who make it all worthwhile

K. C. B.

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PREFACE

The pleasure of authoring a textbook comes from writing about a subject that you enjoy and find exciting. As an author, you hope that you can pass on to the reader not only knowledge but also the excitement that you feel for the subject. In addition, writing about investments brings an added stimulant because the subject can affect the reader during his or her entire business career and beyond. We hope what readers derive from this course will help them enjoy better lives through managing their resources properly.

The purpose of this book is to help you learn how to manage your money so that you will derive the maximum benefit from what you earn. To accomplish this purpose, you need to learn about the investment alternatives that are available today and, what is more important, to develop a way of analyzing and thinking about investments that will remain with you in the years ahead when new and different investment opportunities become available.

Because of its dual purpose, the book mixes description and theory. The descriptive material discusses available investment instruments and considers the purpose and operation of capital markets in the United States and around the world. The theoretical portion details how you should evaluate current investments and future opportunities to develop a portfolio of investments that will satisfy your risk–return objectives.

Preparing this sixth edition has been challenging for two reasons. First, many changes have occurred in the securities markets during the last few years in terms of theory, new financial instruments, and trading practices. Second, as mentioned in prior editions, capital markets have become global. Consequently, very early in the book we present the compelling case for global investing. Subsequently, to ensure that you are prepared to function in this new global environment, almost every chapter discusses how investment practice or theory is influenced by the globalization of investments and capital markets. This completely integrated treatment is to ensure that you leave this course with a completely global mindset on investments that will serve you well in the 21st century.

INTENDED MARKET

This text is addressed to both graduate and advanced undergraduate students who are looking for an in-depth discussion of investments and portfolio management. The presentation of the material is intended to be rigorous and empirical, without being overly quantitative. A proper discussion of the modern developments in investments and portfolio theory must be rigorous. The detailed discussion of numerical empirical studies reflects the belief that it is essential for our theories to be exposed to the real world and be judged on the basis of how well they help us understand and explain reality.

KEY FEATURES OF THE SIXTH EDITION

When planning the sixth edition of *Investment Analysis and Portfolio Management,* we wanted to retain its traditional strengths and capitalize on new developments in the investments area to make it the most comprehensive investments textbook available.

First, the sixth edition maintains its unparalleled international coverage. Investing knows no borders, and although the total integration of domestic and global investment opportunities may seem to contradict the need for separate discussions of international issues, it in fact makes the need for specific information on non-U.S. markets, instruments, conventions, and techniques even more compelling. Sections of chapters that deal with international topics are designated by this icon for easy identification.

Second, today's investing environment includes derivative securities not as exotic anomalies but as standard investment instruments. We felt that *Investment Analysis and Portfolio Management* must reflect that situation. Consequently, our four chapters on derivatives have been rewritten to provide an even more intuitive, clear discussion of the different instruments, their markets, valuation, trading strategies, and general use as risk management/return enhancement tools.

The introductory derivatives chapter appears early in the book as Chapter 11 in the section on "Developments in Investment Theory." We kept this placement from the previous edition because we are still committed to the philosophy that every investments student needs to be exposed to the basics of derivative instruments, markets, and usage. Our Chapter 11 provides this overview.

For instructors who want to get into more detail on derivative pricing, valuation, and strategies, we have three separate chapters near the end of the book. Chapter 23 discusses forwards and futures contracts first, before options, because typically investors consider forward/futures positions before they turn to options to hedge risk. Chapter 24 then covers option contracts, which are variations of forwards and futures. Part 4 concludes with a chapter on swaps, warrants, convertibles, and structured notes. Chapter 25 is an in-depth discussion of these more "advanced" derivative types.

Third, Chapter 10, "Extensions and Testing of Asset Pricing Theories," follows immediately after the introductory chapter on asset pricing models. We felt that instructors who wanted to teach this chapter would do so in this order.

Fourth, we have added many new questions and problems to the end-of-chapter material, including a significant number of CFA exercises through the 1999 exam, to provide more student practice on executing computations to more sophisticated investment problems. These are designated by the CFA ● icon.

WEB SITE LISTINGS To reflect the growing use of the World Wide Web as a learning tool and a source of information, each chapter contains an annotated list of the Web sites that relate to the chapter's topic. Students will want to "surf the net" using these applications to gain further insight into the practice of investments and the textbook discussions.

Major Content Changes in the Sixth Edition

The text has been thoroughly updated for currency. In addition to these time-related revisions, we have also made the following specific changes to individual chapters:

Chapter 3 Includes results of a new study of risk–return results and correlations among domestic and foreign capital market assets through 1997.

Chapter 4 Contains a new discussion and presentation showing the numerous mergers and affiliations taking place among equity markets in the United States and around the world.

Chapter 7 Includes a discussion of studies that examined the price-earnings/growth rate (PEG) ratios and how useful they are for selecting stocks. Also includes a discussion of new evidence that indicates that the prevailing monetary policy environment has had a significant impact on stock prices directly, but also influences how other variables affect stocks. Contains an expanded discussion of the implications of the EMH results for analysts and portfolio managers.

Chapter 11 Includes greatly expanded coverage of the basic payoffs and trading mechanics of forwards, futures, and options, with new examples based on actual market data. Also contains a substantially revised section on using derivatives to manage portfolio risk.

Chapter 12 Contains a discussion of a new example company—the Walgreen Company—that continues into the industry and company analysis. Also considers the effect of leases on financial risk ratios.

Chapter 13 Includes a major addition to the equity valuation section, where we consider two major approaches to equity valuation (discounted cash-flow techniques and relative valuation techniques). Subsequently, there is a specific discussion of why and when to use each of the approaches followed by a description and discussion of each of the cash-flow and relative valuation techniques.

Chapter 14 Includes a discussion of several recent studies that have found that monetary policy and the monetary environment have an impact on stock returns. Also discusses new studies that indicate that the relationship between stock returns and other variables such as size and price-to-book value are also affected by the ease or tightness of monetary policy.

Chapter 15 Contains a discussion and detailed presentation regarding the recently created Treasury Inflation Protected Securities (TIPS). Also contains an updated presentation on the issuance of high-yield bonds using 144A issues that have come to dominate the high-yield bond market.

Chapter 16 Includes bond valuation using a single discount rate and valuation using prevailing spot rates. There is an expanded discussion of option-adjusted duration that considers the duration of the noncallable bond and bonds with embedded options. The section on effective duration is dramatically modified and expanded to include effective convexity and provides detailed computations of effective duration and convexity based on a bond pricing model. We show effective duration–yield curves and effective convexity–yield curves for option-free, callable, and putable bonds. Also we introduce empirical duration that can be used for other assets including common stock. Because of some shortcomings of the "traditional" yield spread, we discuss and demonstrate how to calculate static yield spreads. Finally, there is a new discussion on option-adjusted spreads (OAS), and we present the steps involved in estimating the OAS for a specific bond.

Chapter 17 Contains the results from a recent study that demonstrates the very competitive risk-adjusted performance for various bonds compared to other capital assets during the period 1980–1997.

Chapter 18 Includes an expanded analysis of the aggregate market that follows from the presentation in Chapter 13, which introduced the two general approaches to equity valuation and the several techniques that flow from these approaches. The cash-flow techniques are employed to compute specific estimates of value for the S&P 400 Index. In addition, we compute and analyze relative valuation ratios for the market including price-to-earnings, price-to-book value, price-to-cash-flow, and price-to-sales.

Chapter 19 Contains a new discussion of the business cycle and its effect on alternative industry sectors, as well as a consideration of structural economic changes and the impact that these changes have on various industries. Again, we apply the several valuation techniques included in the two valuation approaches to the retail drugstore industry. This includes using a two-stage, free cash-flow growth model and the relative valuation ratios with comparisons to similar ratios for the aggregate market. A new appendix to the chapter discusses an article that considers how the analysis of the components of the return on assets for an industry provides insights into the competitive strategy for the industry.

Chapter 20 Includes a valuation of Walgreen Company using several present-value-of-cash-flow models including two-stage growth models. Also, examines the several relative valuation ratios for Walgreen and compares the company ratios to comparable market and industry ratios. The growth company valuation model section is reorganized to integrate value-added models, such as economic value added (EVA) and the sales franchise model with the traditional growth company models, to show how they are similar and provide insights to each other.

Chapter 22 Contains a new discussion on the merits of passive versus active asset management. Also includes extensive new sections that explain growth versus value investing, that introduce and illustrate the topic of Style Analysis, and that present Asset Allocation strategies. There is also a revised section on using derivatives with equity portfolios.

Chapter 23 Includes revised examples throughout the chapter emphasizing actual market data, and revised sections on the mechanics of futures trading and on index arbitrage.

Chapter 24 Contains an extensive new section on exotic options, plus extensive revisions to the section on the binomial option pricing model and the option strategies section. There are also revised discussions of the role volatility plays in option valuation and trading and of option trading fundamentals. Finally, an extended discussion of the Black-Scholes model in practice is included.

Chapter 25 Includes a revised discussion of the interest-rate-swap valuation, an expanded and revised discussion of convertible bonds and structured notes, and a revised section on using swaps to manage portfolio risk.

Chapter 26 Has been expanded (and retitled) to cover all forms of professional asset management, instead of just covering mutual funds. Included is an extensive new section comparing the various forms of private and public professional asset management, with examples of practices at specific firms, and a new section evaluating the benefits of mutual funds, along with new material on mutual fund objectives. There is also an extensive new section on ethics and regulation in the professional asset management industry, which includes discussions of soft dollars and compensation arrangements. Finally, the chapter contains revised examples of mutual fund structure and performance using actual market data.

Chapter 27 Includes extensive new sections on peer group comparisons, on the information ratio performance measure, and on reporting investment performance, including a discussion of time-weighted versus dollar-weighted returns and AIMR's Performance Presentation Standards. The chapter also contains updated examples of performance measurement using actual market data and a revised treatment of bond portfolio measurement.

SUPPLEMENT PACKAGE

The preparation of the sixth edition provided the opportunity to enhance the supplement products offered to instructors and students who use *Investment Analysis and Portfolio Management*. The result of this examination is a greatly improved package that provides more than just basic answers and solutions. We are indebted to the supplement writers who devoted their time, energy, and creativity to making this supplement package the best it has ever been.

THE INSTRUCTOR'S MANUAL AND TEST BANK The *Instructor's Manual and Test Bank,* written by Jeanette Diamond at the University of Nebraska at Omaha, contains a brief outline of each chapter's key concepts and equations that can be easily copied and distributed to students as a reference tool. The *Test Bank* includes an extensive set of new questions and problems and complete solutions to the testing material.

For instructors who would like to prepare their exams via computer, The Dryden Press will provide a Microsoft Word diskette with the complete *Test Bank* for easy test compilation.

THE SOLUTIONS MANUAL This separate volume, which can be purchased by students if instructors wish, contains all the answers to the end-of-chapter questions and solutions to end-of-chapter problems. Again, Jeanette Diamond was ever diligent in the preparation of these materials, ensuring the most error-free solutions possible.

LECTURE PRESENTATION SOFTWARE A comprehensive set of slides in PowerPoint are available. Each chapter has a self-contained presentation that covers all the key concepts, equations, and examples within the chapter. The files can be used as is for an innovative, interactive class presentation. Instructors who have access to Microsoft PowerPoint can modify the slides in any way they wish, adding or deleting materials to match their needs.

STUDY GUIDE A student *Study Guide,* prepared by David Leahigh of King's College, includes the following for each chapter: a reference outline of definitions and equations; a brief concept outline; extensive exercises, including true-false, fill-in-the-blank, multiple-choice, and short-answer questions; a set of problems that provide additional practice; and answers to all of these exercises. The *Study Guide* is an excellent resource for all students wanting additional information and practice.

WEB SITE A book-specific Web site contains useful downloadable ancillary and resource materials for instructors and students. You can access it at **www.harcourtcollege.com**.

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ACKNOWLEDGMENTS

So many people have helped us in so many ways that we hesitate to list them, fearing that we may miss someone. Accepting this risk, we will begin with the University of Notre Dame and the University of Texas at Austin because of their direct support. Also, we must thank the Bernard J. Hank Family, who have endowed the Chair that helped bring Frank Reilly back to Notre Dame and that has provided support for our work.

Reviewers for this edition were:

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Widener University

Murli Rajan
University of Scranton

Narendar V. Rao
Northeastern Illinois University

We were fortunate to have the following excellent reviewers for earlier editions:

John Alexander
Clemson University

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East Carolina University

Robert Weigand
University of South Florida

Rolf Wubbels
New York University

Valuable comments and suggestions have come from former graduate students at the University of Illinois: Wenchi Kao, DePaul University, and David Wright, University of Wisconsin—Parkside. Once more, we were blessed with bright, dedicated research assistants when we needed them the most. This includes Pensiri Koomsap and Lu Sun, who have been extremely careful, dependable, and creative.

Current and former colleagues have been very helpful: Yu-Chi Chang, Rob Batallio, and Paul Schultz, University of Notre Dame; C. F. Lee, Rutgers University; and John M. Wachowicz, University of Tennessee. As always, some of the best insights and most stimulating comments continue to come during too-infrequent walks with a very good friend, Jim Gentry of the University of Illinois.

We are convinced that a professor who wants to write a book that is academically respectable, relevant, as well as realistic requires help from the "real world." We have been fortunate to develop relationships with a number of individuals (including a growing number of former students) whom we consider our contacts with reality.

We especially want to thank Robert Conway, who was the managing director of the London office of Goldman, Sachs and Company, for suggesting several years ago that it was essential to have the book reflect the rapidly evolving global market. This important advice has had a profound effect on this book over time.

The following individuals have graciously provided important insights and material:

Sharon Athey
Brown Brothers Harriman

Joseph C. Bencivenga
Bankers Trust

Lowell Benson
Robert A. Murray Partners

David G. Booth
Dimensional Fund Advisors, Inc.

Gary Brinson
UBS Brinson

Charles K. Brown
Goldman, Sachs and Company

David Chapman
University of Texas

Dwight D. Churchill
Fidelity Management and Research

Abby Joseph Cohen
Goldman, Sachs and Company

Thomas Coleman
Adler, Coleman and Company (NYSE)

Robert Conway
Goldman, Sachs and Company

Robert J. Davis
Crimson Capital Company

Robert J. Davis Jr.
Merrill Lynch Pierce Fenner and Smith

Philip Delaney Jr.
Northern Trust Bank

Sam Eisenstadt
Value Line

Frank J. Fabozzi
Journal of Portfolio Management

Paul Feldman
Goldman, Sachs and Company

Kenneth Fisher
Forbes

John J. Flanagan Jr.
Lawrence, O'Donnell, Marcus and Company

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We continue to benefit from the help and consideration of the dedicated people who are or have been associated with the Institute of Chartered Financial Analysts, which is a part of the Association for Investment Management and Research: Jeff Beutow, Tom Bowman, Whit Broome, Bob Johnson, Bob Luck, Pete Morley, Sue Martin, Katie Sherrerd, and Donald Tuttle.

Professor Reilly would like to thank his assistant, Cheri Gray, who had the unenviable task of keeping his office and his life in some sort of order during this project. Jon Davies was the understanding project editor who put up with both of our schedules and brought the book from messy manuscript and sloppy exhibits to bound volume with incredibly good humor.

As always, our greatest gratitude is to our families—past, present, and future. Our parents gave us life and helped us understand love and how to give it. Most important are our wives who provide love, understandihg, and support throughout the day and night. We thank God for our children and grandchildren who ensure that our lives are full of love, laughs, and excitement.

Frank K. Reilly
Notre Dame, Indiana

Keith C. Brown
Austin, Texas
October 1999