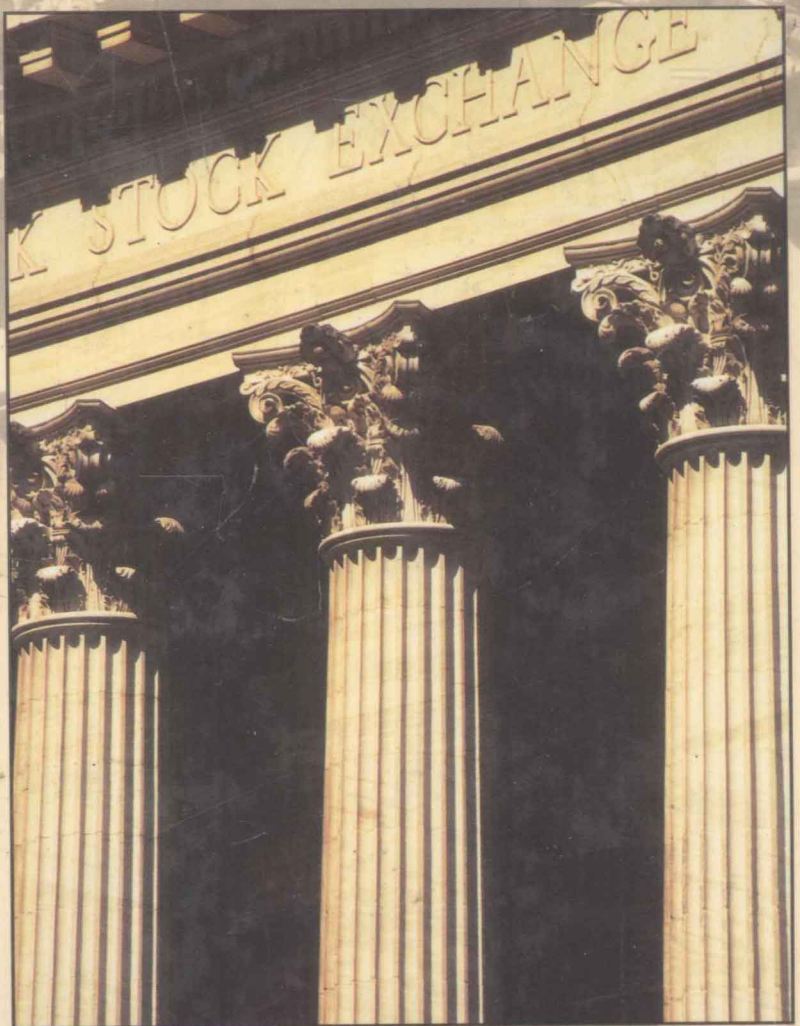


INVESTMENTS

ANALYSIS AND MANAGEMENT

FOURTH EDITION



CHARLES P. JONES

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CHARLES P. JONES

NORTH CAROLINA STATE UNIVERSITY



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To Kay and Kathryn
and to Helen

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INVESTMENTS

ANALYSIS AND MANAGEMENT

A title in the Wiley Series in Finance

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P R E F A C E

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This book is designed to provide a good understanding of investments while stimulating interest in the subject. This understanding can be quite valuable because each of us must make various investment decisions during our lifetimes—definitely as individuals, and possibly as money managers. My goal is to help readers gain an appreciation of what is involved in (1) understanding what the investment opportunities are, (2) making investment decisions, and (3) recognizing where investment problems arise and knowing how to deal with them.

Since this book is designed as an introduction to investments, descriptive material must be—and is—thoroughly covered. Equally important, the analytics of investments are presented throughout the book to help students reason out investment issues for themselves and thus be better prepared when making real-world investment decisions.

The book is written for the first course in investments, generally taught at the junior–senior level. Standard prerequisites include accounting, economics, and financial management. A course in statistics is useful but not essential. I have sought to minimize formulas and to simplify difficult material, consistent with a presentation of investments that takes into account current ideas and practices. Relevant, state-of-the-art material has been simplified and structured specifically for the benefit of the beginning student.

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ORGANIZATION OF THE TEXT

The text is divided into six parts centered around background, different types of securities and investment management.

Part One provides a *background* for students before encountering the specifics of security analysis and portfolio management. The goal of this part is to acquaint beginners with an overview of what investing is all about—and not about. After a general overview of the subject in Chapter 1, the next four chapters describe the *variety of securities available, the markets in which they are traded, the mechanics of securities trading, and some insight into the important concepts of risk and return that dominate any discussion of investments*.

Parts Two and Three focus on the basic approach to *security analysis and valuation* by presenting “how-to” tools and techniques. Part Two examines the *analysis, valuation, and management of bonds*, a logical starting point in learning how to value securities. Part Three builds on these concepts in discussing the *analysis, valuation, and management of common stocks*.

Part Four covers *fundamental analysis*, the heart of security analysis. Because of its scope and complexity, three chapters are required to adequately cover the fundamental approach. The order of these chapters—market, industry, and company—are deliberate, reflecting the recommended order of procedure in doing fundamental analysis.

Part Four also discusses the other approach to common stock selection, *technical analysis*. Technical analysis is a well-known technique for analyzing stocks which goes back many years.

Parts Three and Four are devoted to common stocks, a reasonable allocation given investor interest in common stocks. Part Five discusses the *other major securities available to investors*. Chapter 16 analyzes *options (puts and calls)*, a popular investment alternative in recent years. *Stock index options* also are covered. Chapter 17 continues the analysis of equity-derivative securities by focusing on *warrants and convertibles*. Chapter 18 is devoted to *financial futures*, an important new topic in investments. Finally, Chapter 19 analyzes the investor's alternative of indirect investing—*buying shares in an investment company* which, in turn, buys a portfolio of securities.

Part Six is concerned with *portfolio management and portfolio performance measurement*. Chapter 20 contains a complete discussion of *modern portfolio concepts*, with primary emphasis on the essentials of *Markowitz portfolio theory and the single-index model*. Chapter 21 discusses *capital market theory*, a natural extension of portfolio theory.

Chapter 22 explains the Efficient Market Hypothesis and provides some insights into the controversy surrounding this topic. As explained in Chapter 1, investors should be aware of and carefully consider this hypothesis, although it need not dominate their thinking and does not dominate the text. For example, Chapter 22 also discusses market "anomalies" or exceptions to the Efficient Market Hypothesis, and these deserve careful consideration by investors.

Chapter 23 concludes the text with a discussion of *how to measure portfolio performance*. This is a logical conclusion to both Part Six and the entire book because all investors are keenly interested in how well their investments have performed. Mutual funds are used as examples of how to apply these portfolio performance measures and how to interpret the results.

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SPECIAL FEATURES

This text offers several important features, some of which are unique.

1. The *sequence of chapters* has been carefully restructured and coordinated as a package, reflecting considerable experimentation over the years. I believe that this arrangement will prove most satisfactory for a beginning investments course. Starting with background material and progressing through an analysis of various securities to a discussion of portfolio management, the book proceeds from easier to more difficult concepts, and from fewer to more numerous equations. However, should one wish, the chapter order can be rearranged with little or no loss in continuity. For example, Chapter 17 on Warrants and Convertibles can easily be omitted, as could the three chapters on fundamental analysis because the valuation and management of common stocks is covered in the preceding two chapters.
2. I have diligently sought to hold the text to a *length that is manageable* in the standard undergraduate investments course. Although it requires a tight schedule, the entire text can be covered in a one-semester course, including the use of supplementary material. However, instructors may very well choose to omit chapters, depending on preferences and constraints; doing so will cause no problems in terms of teaching a satisfactory investments course. Another alternative is assigning some chapters to be read by students with little or no class discussion. Chapter 17 is a good possibility for this, as are Chapters 15 and 19.

3. Each chapter features several *items specifically designed for the student's benefit*. These include the following:
 - *Key words* appear in boldface, and are carefully defined as *marginal definitions* as well as in the *glossary*. Other important words are italicized.
 - Each chapter contains a *summary of "bulleted" points* for quick and precise reading.
 - Each chapter contains an *extensive set of questions* keyed specifically to the chapter material and which are designed to thoroughly review the concepts in each chapter.
 - Most chapters have a *separate set of problems* designed to illustrate the quantitative material in the chapters. Some of these problems can be solved in the normal manner, and some, which are designed to be solved with *The Investment Calculator*, are marked with a disk icon. Included as part of the problem set are *demonstration problems* that show the reader how to solve the most important types of problems.
 - Each text includes *The Investment Calculator software disk*, a self-contained, easy-to-use software package that eliminates the drudgery of the more tedious calculations required to work some investment problems. The documentation for this software is included as a text appendix. Readers who choose not to use this software package will still benefit fully from the text.
 - A distinctive feature of this text is the use of *boxed inserts*, which were pioneered in the first edition of this book. These inserts provide timely and interesting material from the popular press, enabling the student to see the real-world side of issues and concepts discussed in the text. These boxed inserts have been very carefully selected from the potentially large number available on the basis of their likely interest to the reader, their relevance in illustrating important concepts, their timeliness, and their overall appeal to students interested in learning about the world of investments.
 - Throughout the text, as appropriate, *Investments Intuition* sections are set off from the regular text for easy identification. These discussions are designed to help the reader quickly grasp the intuitive logic of, and therefore better understand, particular investing issues.

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CHANGES IN THE FOURTH EDITION

The fourth edition has been thoroughly updated using the latest information and numbers available. At the time of publication, no other investments textbook has more up-to-date information. Other changes include:

- Key words are now shown as *marginal definitions* as well as at the end of the chapter and in the glossary.
- A *new chapter*, How Securities Are Traded, replaces the chapter on sources of information. This chapter will be of real interest to most students who typically have many questions concerning the trading of securities. This arrangement also makes Chapter 3 on Securities Markets more manageable by allowing it to concentrate on the broader issues involved with markets.
- A *new chapter* on bonds has been added in this edition. This reflects the growing importance and emphasis on fixed income securities, allows additional material to be covered, and provides a better organization of material into chapters.

- A *new chapter* has been added to Part Three on the analysis and valuation of common stocks, concentrating on strategy and management. This chapter introduces students to such concepts as active and passive techniques, asset allocation, growth stocks vs. value stocks, and other important concepts.
- *Several chapters have been reorganized* to make them more streamlined and concise. Examples include Chapter 5 and Chapter 7.
- *Much more material has been moved to appendices* in the fourth edition. Much of the most descriptive information, such as reading the financial press and sources of investing information, has been placed in appendices. For those desiring certain discussions, the information is readily available; others may choose to skip some or all of this material. Some material previously in an appendix has been incorporated into the chapters, in particular the super-normal growth model used in common stock valuation and the term structure of interest rates.
- *Part IV now concentrates on the techniques of security analysis*, and brings together three chapters on fundamental analysis and one on technical analysis. This makes the entire discussion on equities more streamlined, and gives flexibility by allowing users to concentrate on Part III only, which covers the analysis, valuation and management of stocks, or both Parts III and IV, thereby providing an in-depth discussion of equities by going through the details of security analysis.
- Actual questions from previous Chartered Financial Analyst (CFA) Examinations are now included as part of the end-of-chapter questions and problems.

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SUPPLEMENTS

The fourth edition includes a more complete set of supplements than has been included previously. In addition to *The Investment Calculator* software, the following elements are available to assist users in learning the nature of investments.

- **Study Guide.** This has been prepared by James D'Mello of Western Michigan University. It includes, for each chapter, a chapter overview, vocabulary exercises, problem sets—to be solved with and without the text software—and multiple-choice practice test questions. All answers to problems and questions are given.
- **Instructor's Manual.** For each chapter, chapter objectives, lecture notes, notes on the use of transparency masters, and additional material relevant to the particular chapter are included. Answers to all questions and problems in the text are provided. The Instructor's Manual was carefully prepared by the author.
- **Transparency Masters.** These are of selected text art, selected items from other sources, and solutions to selected end-of-chapter problems in the text.
- **Testbank.** The testbank includes numerous multiple choice and true–false questions for each chapter. Most of these have been extensively tested in class and are carefully checked. Some questions from the study guide are included for those who would like to include them on tests.

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A text does not reach its fourth edition unless it has met the needs of a large number of instructors who find it to be a useful tool in assisting their teaching. The earlier editions of this text benefited substantially from the reviews of many instructors whose suggestions for improvements are found on many pages of this text. I owe a debt of gratitude to these teachers and colleagues, who helped on the first and second editions: Randall Billingsley, Virginia Polytechnic Institute and State University; Pat Hess, Ohio State University; Richard DeMong, University of Virginia; Keith Broman, University of Nebraska; Ron Braswell, Florida State University; Donald Puglisi, University of Delaware; Howard Van Auken, Iowa State University; James Buck, East Carolina University; Malcolm Torgerson, Western Illinois University; Eugene Furtado, Kansas State University; William B. Gillespie, St. Louis University; Edward Sanders, Northeastern University; P. R. Chandy, North Texas State University; D. Monath, University of Louisville; Larry J. Johnson, University of Tulsa; Stan Atkinson, University of Central Florida; Howard W. Bohnen, St. Cloud State University; James M. Tipton, Baylor University; William P. Dukes, Texas Tech University; A. Bhattacharya, University of Cincinnati; and Christopher Ma, University of Toledo.

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In developing the third edition, I benefited greatly from still more instructors teaching this course, including Paul Bolstar, Northeastern University; John Lindvall, California Polytechnic State University; Robert McElreath, Clemson University; Roger Palmer, College of St. Thomas; John Williams, California State University, Northridge; Philip Swensen, Utah State University; Clark Holloway, University of South Carolina; James F. Feller, Middle Tennessee State University; Michael McBain, Marquette University; George S. Swales, Jr., Southwest Missouri State University; Lalatendu Misra, University of Texas, San Antonio; Richard E. White, University of North Florida; Donald Monath, University of Louisville; Thomas R. Anderson, Babson College; Randall Billingsley, Virginia Polytechnic Institute and State University; John W. Ellis, Colorado State University; Thomas E. Eyssell, University of Missouri, St. Louis; James P. D'Mello, Western Michigan University; and Herbert Weinraub, University of Toledo. Their criticisms and suggestions have substantially affected the evolution of this text and made it a better book. In the development of the fourth edition, I had the benefit of additional input from instructors teaching this course, including Joel Barber, Florida International University; Gary Dokes, University of San Diego; Richard D. Gritta and R. Karanjia, Fordham University; Clotilde Perez, Universidad de Puerto Rico; Hadi Salavitabar, SUNY–New Paltz; David Smith, SUNY–Albany; Mo Vaziri, California State University–San Bernardino; Tony Wingler, UNC–Greensboro; and Dennis Zocco, University of San Diego. A number of chapters, including Chapter 8, benefited from these additional comments and resulted in a yet better text.

I would also like to thank my former editors at Wiley, Rich Esposito, Joe Dougherty,

and John Woods. John Woods worked hard to enhance the supplementary material to the third edition of the text and to provide the overall support necessary to substantially revise the material and improve the book in numerous ways. My current editor, Whitney Blake, has been most cooperative in helping to produce a top-of-the-line fourth edition. The other Wiley professionals with whom I have worked on this project have been excellent, including Kevin O'Brien, Marjorie Shustak, Laura Nicholls, Lisa Passmore, and Sigmund Malinowski.

Finally, I would like to thank my family, who shared in this burden fully and magnificently. Without their support, a project such as this is difficult at best. I thank in particular my wife, Kay, who has helped me tremendously in the preparation of various editions of this text and without whose support I would have been unable to finish on schedule. Kay and Kathryn make a difficult job bearable, and worth doing.

Charles P. Jones

North Carolina State University

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