

Security Analysis and Investment Strategy

Geoffrey Poitras

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BLACKWELL PUBLISHING

350 Main Street, Malden, MA 02148-5020, USA

108 Cowley Road, Oxford OX4 1JF, UK

550 Swanston Street, Carlton, Victoria 3053, Australia

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First published 2005 by Blackwell Publishing Ltd

Library of Congress Cataloging-in-Publication Data

Poitras, Geoffrey, 1954-

Security analysis and investment strategy / Geoffrey Poitras.

p. cm.

Includes bibliographical references and index.

ISBN 1-4051-1248-4 (hardcover : alk. paper)

1. Investment analysis. 2. Portfolio management. I. Title

HG4529.P65 2005

332.6-dc22

2004007688

A catalogue record for this title is available from the British Library.

Set in 10/12¹/₂ Rotis Serif

by Graphicraft Limited Hong Kong

Printed and bound in the United Kingdom

by TJ International, Padstow, Cornwall

The publisher's policy is to use permanent paper from mills that operate a sustainable forestry policy, and which has been manufactured from pulp processed using acid-free and elementary chlorine-free practices. Furthermore, the publisher ensures that the text paper and cover board used have met acceptable environmental accreditation standards.

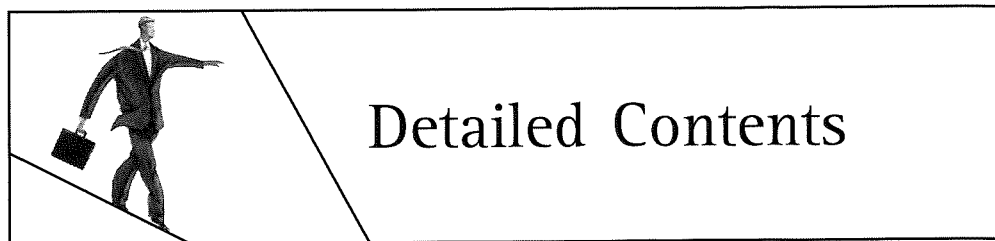
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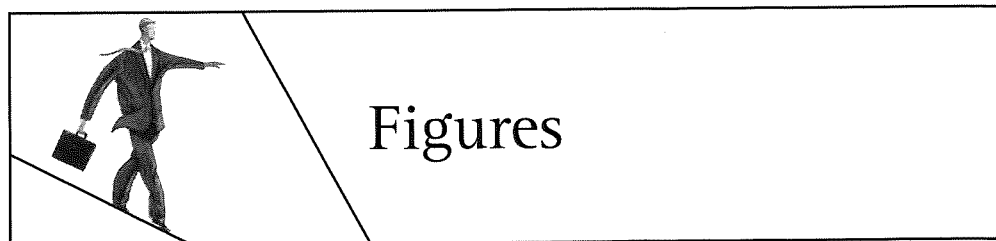


Indicates some sub-sections contain advanced material.

* Indicates complete section is advanced material

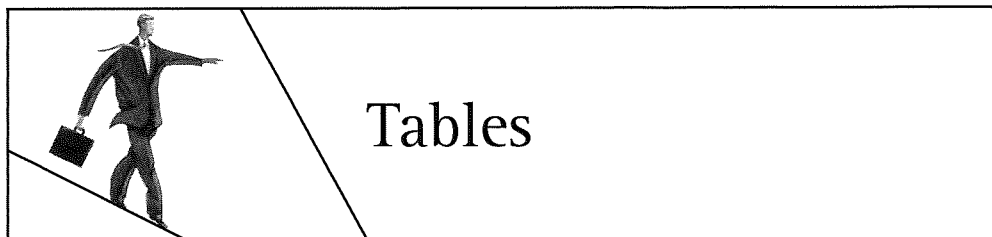
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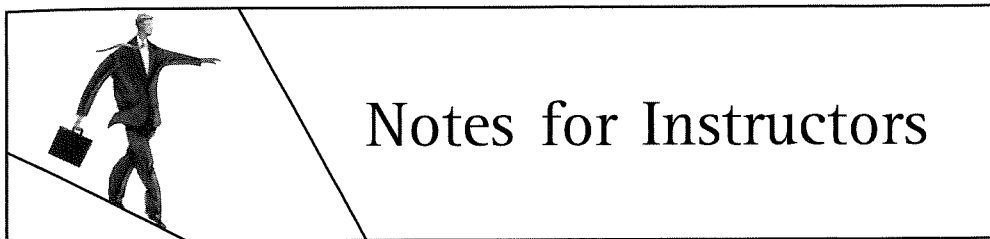
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Notes for Instructors

USING THE BOOK FOR SENIOR UNDERGRADUATE AND MBA COURSES

This book is intended to be an advanced treatment of security analysis and investment strategy for students that have already completed, at least, a university level introductory investments class using a course text at the level of, say, Bodie, Kane and Marcus (1999). Though there is some basic background material in this book, the treatment is too brief to support the use of the book at the introductory level. The basic background that is included is intended only to be a brief review of the requisite introductory foundation. As such, this book is designed to be used in courses aimed at the next and subsequent higher levels of instruction, including senior undergraduate and generalist MBA courses as well as specialist or second year MBA courses, M.Sc. courses and those at the Ph.D. level.

As a consequence of being suitable for use at more than one subsequent level of instruction, there is a considerable amount of material in the book that is also not suitable for the next level of instruction beyond introductory investments – effectively senior undergraduate and generalist MBA courses. This advanced material has been identified in the text using an asterisk (*) to mark the appropriate subsections. It is strongly recommended that subsections marked with an asterisk be skipped by senior undergraduate and generalist MBA level courses. This book is *not* intended to be used by sequentially following the chapters, starting with chapter one and proceeding through week-by-week to chapter 10. The asterisk is intended to be used as a guide to make a distinction between the difficulty level of the material and provide users of the book with some direction as to whether specific material is to be covered. This use of the asterisk extends to the end of chapter questions.

Instructors are advised to examine the various sections and subsections to determine which particular parts are suitable for inclusion in a particular course. A number of factors such as the variation in teaching styles and the number of lecture hours in the teaching term make it difficult to provide a precise model course outline with appropriate readings. Example outlines of general coverage for Security Analysis course which

includes both equity and fixed income securities and is being taught at the senior undergraduate level would be:

With student cases

Unstarred sections in part I

Part II, chapter 4, sections 5.1 and 6.1

Part III, all chapters, excluding
section 10.4

Without student cases

Unstarred sections in part I

Part II, chapter 4, sections 5.1 and 6.1

Part III, all chapters, excluding
section 10.4

While there are certain pedagogical disadvantages to having a non-sequential coverage of the text in a particular course, the advantage is that the book can be used in more than one course, including courses at increasingly higher levels of technical sophistication.

Another possible use of the text is for courses specializing in Fixed Income Analysis. An advanced undergraduate class or generalist MBA class could cover chapter 4 and sections 5.1 and 6.1 in detail, supplemented by portions of sections 5.2, 5.3, 6.2 and 6.3. In situations where students have already had exposure to the foundational material found in the excellent texts by Fabozzi (2002) or Sundaresan (2002) and have sufficient mathematical preparation, part II could be covered completely doing approximately one section per week. There is considerable advanced material in chapters 5 and 6 and instructors are advised to exercise individual judgment about which material is appropriate.

Another use of this book is in advanced undergraduate and generalist MBA classes on Equity Analysis. Such courses could cover part III in detail. This part contains few sections marked with an asterisk and could also form a core part for a more general Security Analysis course aimed at students with only the preparation of an introductory investments class. Dropping coverage of the bulk of the material on bonds in part II as well as the historical and philosophical material in part I would permit the instructor to spend more time on the material in chapter 8 dealing with discounted cash flow models. Instructors that have students with exposure to modern portfolio theory will benefit from detailed examination of sections 10.1 and 10.2.

It is strongly suggested that, whenever class size permits, a course in equity analysis involve student group presentations. Model examples of such presentations are available on the Blackwell website, www.blackwellpublishing.com/poitras/ for the following industries: US biotechnology; global airlines; global breweries; US semiconductor; US computers; Canadian oil and gas. These presentations are available for download through the website for this book. The group presentation module involves valuing the common stock of a number of companies in a selected industry. In classes of 20–25 students doing a three lecture hour course, this may involve the loss of two or more lectures to allow time for students to make class presentations, but the instructional gains are considerable. For example, a group of four or five students would be required to do a valuation of three companies in the global airline industry. One or two students would each be responsible for discussing the macroeconomic and industry analysis, while the other three students would examine one of the three companies. The objective of the

exercise is to make an assessment of the company's common stock value using the methods presented in part III.

Recognizing that a substantial portion of business school instruction uses, in some form or other, the case method, this book has made a specific commitment to the case approach. Those who use *the case approach* will appreciate the difficulty of containing the amount of material needed in a case analysis within the confines of the conventional textbook format. This book identifies the value of the internet to case instruction, by distributing the case material in a web-based format. The specific cases available for download from the book website involve: (1) the US brewery industry, with a company analysis of Anheuser-Busch; (2) resource companies; with a company analysis of the Canadian Oil Sands unit trust; and, (3) the US airline industry, with a company analysis of Delta Airlines. These cases can be used to motivate the types of material to examine in the student presentations. The website also contains additional material such as writeups on the recent changes in the industry classification scheme used by the Economic Census.

One feature of this book that some instructors may find undesirable is the lack of a sizeable number of end of chapter questions. The questions that are included are typically targeted at going beyond specific points in the text. The set of questions provided in a given chapter does not provide full coverage of topics examined in the chapter. This absence of a sizeable number of end of chapter questions is primarily aimed at restraining the length of the book. Instructors who desire such questions will be pleased to find that there are additional question sets available for download at www.blackwellpublishing.com/poitras. These question sets are designed to provide questions compatible with full coverage of the main topics examined in the book. Those desiring model solutions to the end of chapter questions that are contained within the text will also find those at the Blackwell site. A number of other instructional aids are also available.

USING THE BOOK FOR ADVANCED MBA, MSC. (FIN.) AND PH.D. LEVEL COURSES

Instruction of advanced students poses a more complicated problem than for senior undergraduates and MBA students. The diversity of possible topics makes it difficult to provide a sufficiently indepth discussion that will satisfy students that have already taken a number of courses in the subject and have acquired sufficient mathematical training. For this reason, courses at the Ph.D. or M.Sc. level in Finance often appear as thinly disguised topics courses that focus on the instructor's specialization within Finance. Those with quantitative background teach a course on financial econometrics, perhaps using Campbell et al. (1997). Those with an asset pricing background teach a theoretical course, perhaps using Duffie (2001). The primary difficulty with such courses is that students capable of handling the advanced mathematical and statistical material often have a less than sound grounding in the more institutional aspects of the subject. It is not unusual to find Ph.D. graduates from the most prestigious Finance faculties

that are capable of accurately conceptualizing the equivalent martingale measure but are unable to provide even a rough estimate for the value of, say, Microsoft common stock.

At one level, this book is designed to rectify some of the foundational shortcomings that are often observed in Ph.D. (Finance) graduates. A model for such a Ph.D. level course would cover:

Model for general Ph.D. level course

Starred sections in part I

Part II, chapters 5 and 6

Part III, chapters 8, 9 and 10.

Students without sufficient foundational background could expand this core material by doing supplementary reading covering the basic material contained in the sections not covered in the model syllabus. For example, a student that has had little exposure to the bond market could include chapter 4 as well as chapters 5 and 6. Within this general instructional model, the philosophical and historical material plays a key role in rectifying an element of graduate Finance education that has been decidedly lacking in recent years. Understanding the philosophical perspective of modern Finance is a key to making a reasoned assessment of the modern portfolio theory that forms such an essential component of the instructional approach currently used in many Finance programs.

For a number of reasons, some instructors may find that the philosophical and historical material in part I and the discussion of technical analysis in part III is irrelevant. Such instructors could follow a model that omits such material. An example of such a model is:

Model for a technical Ph.D. level course

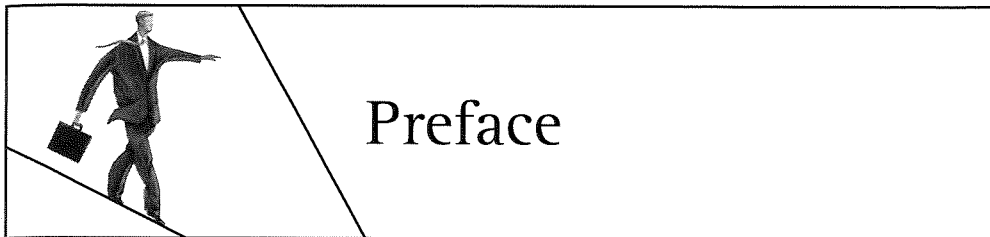
Part I, sections 2.1, 2.4, and 3.3

Part II, chapters 5 and 6

Part III, chapter 8, section 9.3 and chapter 10.

Though historical, the material on life annuity valuation in section 2.1 provides an excellent base for motivating the contingent claims analysis of bonds in chapter 6. The solutions to variations of this valuation problem provided by de Moivre, Halley and others all warrant close inspection. It is possible to further reduce the coverage by omitting additional sections. For example, section 10.3 could easily be omitted in a Ph.D. level course. Some instructors may opt to omit chapter 9 altogether, feeling that there is little value added in this material. An alternative possibility is to cover only section 9.4 on momentum and oscillators. Some attention could also be given to the Dow theory in section 9.2.

Ultimately, it is not possible to do sufficient justice to the complexity of the numerous topics that have received intensive and not so intensive study in Finance. Students have to take the initiative and pursue topics through additional study. To facilitate this process, ample references are provided throughout the text to help students pursue further discussion of a specific notion. In many cases, the intellectual history is traced back decades, if not centuries. The objective in providing the more dated references is that past interpretations may take a different perspective than more recent and often quantitatively oriented studies. This is a feature of this text that is different from conventional Ph.D. level texts. There is a constant effort to expand the field of view beyond the narrow confines of the intellectual approach used in modern Finance, that emphasizes results of the Markowitz-Sharpe-Fama line of thought, often to the exclusion of alternative approaches. In addition, students will find that the end of chapter questions marked with an asterisk to be challenging, with solutions that provide insight into the in-text discussion.



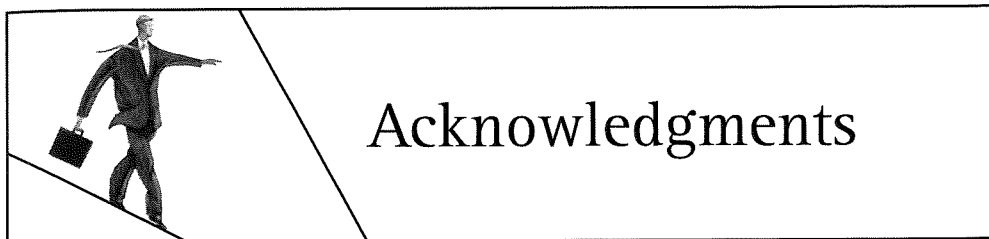
To some, this book may appear to be a well timed attempt to cash in on the financial market debacles that started with the collapse of Enron and have spread like a contagion to engulf Arthur Anderson, Worldcom, Adelphia, Global Crossing, and Tyco, to name only a few. Even major investment banking institutions, such as Citigroup and JP Morgan Chase have been exposed for participating in the accounting shenanigans that hid the activities of Enron and others from the glare of public disclosure. Yet, even though the timing of this book seems like an exercise in current affairs, this is more of a fortuitous coincidence than a primary motivation. Recent events do provide a useful backdrop for the arguments advanced in this book but the substance would be largely unchanged even if the roaring bull market of the second half of the 1990s had continued unabated. Though current events are closely examined at various points, the substance of this book has been a long time in preparation. Lecture notes from classes taught as long ago as the early 1980s form the backbone of this book, though the bulk of the material has been developed since the mid-1990s. The book is designed to be an advanced textbook treatment of security analysis and investment strategy that integrates the best of academic and practitioner insights on the subject.

Casual inspection of the text will reveal an approach to the subject that is somewhat different than the usual fare. In particular, this book takes direct aim at the limitations of the prevailing positivist epistemology that dominates both the instructional and research agenda of modern Finance. It argues that Finance is a use oriented subject and, as such, needs to keep one eye squarely fixed on the needs of practitioners in the securities industry. The theoretical ideas of Finance are explored in considerable detail with the objective of demonstrating that the positivist approach is insufficient for dealing with the pervasive uncertainty in securities markets. Though there is much of value in the received theories of modern Finance, the analysis has to be expanded along historical and philosophical lines in order to deal with the practical valuation problems encountered in securities markets, especially the market for common stocks. Mantras such as "stock returns outperform bond returns in the long run" and investment strategies derived from two fund separation are examined in detail, with a view to extracting the insights for making security valuation and investment strategy decisions.

Those aiming to use this book as the backbone of an advanced course on security analysis may be concerned that the philosophical explorations and some other topics lie too far outside the knowledge base of the typical advanced Finance student. Most such students have never taken a course on, say, the history of science or epistemology. Similarly, some of the mathematical content, such as the discussion of stochastic differential equations in section 5.2, will be too technical for the typical Finance student. To alleviate such concerns, an asterisk is used to mark chapter subsections that likely fall into the “too advanced” or “too unfamiliar” category. As a casual inspection of the book will reveal, such subsections form only a fraction of the book’s content. Though this material is essential to developing key themes in the book, such as demonstrating the biases in modern Finance that arise from philosophical concerns, the informational and practical content contained in the book can be readily digested without giving much consideration to these issues.

The layering of material by level of sophistication and analytical complexity makes the book suitable for a range of course levels and course content. Though there is some foundational material similar to what is contained in an introductory investments text such as Bodie et al. (1999), it is not pedagogically sensible to use this book as the core text in an introductory investments course. Depending on instructor preferences, various chapters or subsections could be of value in an introductory investments course, making the book suitable as a supplementary text. The bulk of material in the book is targeted at courses in security analysis and investment strategy at the senior undergraduate and second year MBA level. If the more advanced material is included, the book is also suitable for a Ph.D. level course in, say, fixed income analysis or equity valuation. The cases and *case oriented material downloadable from the book website* also makes the book useful as a supplementary text in trade courses or as a self-study guide for real-time security market combatants.

Those familiar with my other books on finance, *The Early History of Financial Economics, 1478–1776* (2000) and *Risk Management, Speculation and Derivative Securities* (2002) may be concerned that this effort is, yet again, an example of the creeping incursion of typographical and editing errors into modern academic texts. Though there are no guarantees in life, rest assured that a herculean effort has been made to keep the bugs out of this effort. As with my previous books, my website at www.sfu.ca/~poitras will have posted an up to date listing of the typos and other errors that have been uncovered in this book. (The website also contains errata lists for my previous books.) This book has benefitted considerably from the comments of anonymous and not-so-anonymous reviewers on preliminary drafts of the text. Feedback and discussion from numerous students over the years has had a significant impact on the topic coverage. At Blackwell Publishing, I would like to give special thanks to the efforts of Seth Ditchik, Laura Stearns and Elizabeth Wald without whom this book would not have been produced.



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Berkshire Hathaway, Inc. and Warren Buffett (tables 7.4, 7.5, 7.6, 10.2, 10.3 and 10.4)
Prentice-Hall, Inc. (figure 8.1)
John Wiley & Sons, Inc. (table 8.8)
Stern Stewart, www.sternstewart.com (table 8.9)
www.bloomberg.com (figures 8.3 and 9.15)
www.globeinvestor.com (figures 9.2, 9.9, 9.10, 9.11 and 9.12)
www.bigchart.com (figures 9.3, 9.6, 9.7 and 9.8)
www.futuresource.com (figures 9.4, 9.5 and 9.16)
Barrons' (figure 9.13)
www.investorsintelligence.com (figure 9.14)
www.clearstation.com (clearstation.etrade.com) (figures 9.18 and 9.19)
Journal of Economics and Finance (table 10.1)
American Economic Review (table 10.5)

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