



Table of Contents

Table of Contents

Preface

PART I: Philosophy, History and Modern Theory

Chapter 1 *The Philosophy of Investment*

Chapter 2 *The History of Security Analysis*

Chapter 3 *Theoretical Developments in Modern Finance*

PART II: Fixed Income Valuation

Chapter 4 *Basics of Fixed Income Valuation*

Chapter 5 *Convexity, Time Value and Immunization*

Chapter 6 *Bonds with Embedded Options*

PART III: Equity Valuation and Investment Strategy

Chapter 7 *Fundamental Analysis and Value Investing*

Chapter 8 *Valuation Techniques for Equity Securities*

Chapter 9 *Technical Analysis Demystified*

Chapter 10 *Investment Strategy*

Bibliography

Index

Detailed Table of Contents

Indicates some sub-sections contain advanced material

* Indicates complete section is advanced material

PART I: Philosophy, History and Modern Theory

Chapter 1 *The Philosophy of Investment*

- 1.1 The Investor's Landscape
- 1.2 The Efficient Markets Hypothesis
- 1.3 The Philosophy of Investment*

Chapter 2 *The History of Security Analysis*

- 2.1 Life Annuity Valuation #
- 2.2 Writers on Stock Markets up to the Early 20th Century
- 2.3 Graham and Dodd (1934) and After
- 2.4 The Emergence of Modern Finance

Chapter 3 *Theoretical Developments in Modern Finance*

- 3.1 Basics of Mean-Variance Portfolio Analysis
- 3.2 Two Fund Separation, the CAPM and the Market Model #
- 3.3 Decision Making Under Uncertainty #
- 3.4 Financial Engineering with Derivative Securities

PART II: Fixed Income Valuation

Chapter 4 *Basics of Fixed Income Valuation*

- 4.1 Basics of Fixed Income Securities
- 4.2 The Concept of Duration
- 4.3 The Term Structure of Interest Rates
- 4.4 Basics of Credit Risk and Default Risk

Chapter 5 *Convexity, Time Value and Immunization*

- 5.3 Fixed Income Portfolio Management
- 5.2 Mathematics for Advanced Fixed Income Analysis*
- 5.3 The Time Value-Convexity Tradeoff #
- 5.4 Immunization with Non-Parallel Yield Curve Shifts *

Chapter 6 *Bonds with Embedded Options*

- 6.1 Types of Bonds with Embedded Options
- 6.2 Greeks for Bonds with Embedded Options *
- 6.3 Option Adjusted Spread Analysis *
- 6.4 Modeling and Analyzing Default Risk #

PART III: Equity Valuation and Investment Strategy

Chapter 7 *Fundamental Analysis and Value Investing*

- 7.1 Characteristics of Equity Securities
- 7.2 The Basics of Fundamental Analysis
- 7.3 What is Value Investing?
- 7.4 Observations from the Classics

Chapter 8 *Valuation Techniques for Equity Securities*

- 8.1 Discounted Cash Flow Modeling
- 8.2 Interpreting Financial Statements
- 8.3 Forecasting the Inputs

Chapter 9 *Technical Analysis Demystified*

- 9.1 What is Technical Analysis?
- 9.2 The Technicians Toolkit
- 9.3 Behavioral Foundations?
- 9.4 Relative Strength, Momentum and the Oscillator

Chapter 10 *Investment Strategy*

- 10.1 Investment Strategy: Basic Concepts
- 10.2 Tactical and Strategic Asset Allocation
- 10.3 Investment Strategy for Value Investors
- 10.4 Advanced Topics in Investment Strategy

Bibliography

Index

Notes for Instructors

A. 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 not 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 outline 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 sec.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 sec.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 book website, www.blackwell.com/~book, 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 web to case instruction, by distributing the case material in a web-based format. The specific cases are available for download from the book website involve: i) the US brewery industry, with a company analysis of Anheuser-Busch; ii) resource companies; with a company analysis of the Canadian Oil Sands unit trust. and, iii) 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 sizable 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 sizable number of end of chapter questions is primarily aimed at restraining the length of the book. Instructors that desire such questions will be pleased to find that there are on-line question sets, drawn primarily from the AIMR CFA examinations, that are available for download at the website that Blackwell Publishing maintains for this book. 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.

B. 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, 2.2, and 3.3

Part II, , chapters 5 and 6

Part III, chapter 8 sec. 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 further 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.