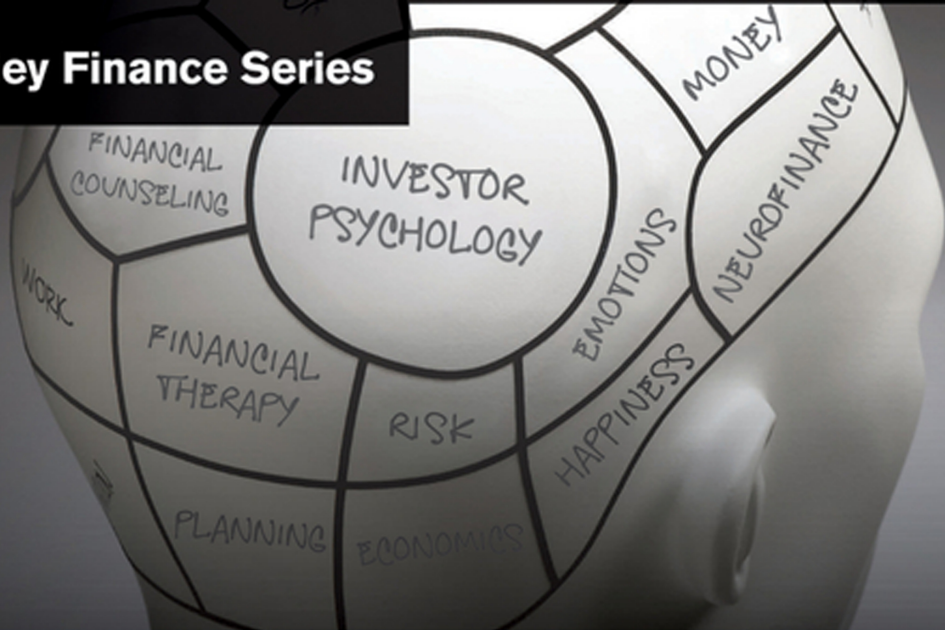


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Investor Behavior

*The Psychology of Financial
Planning and Investing*

H. KENT BAKER
and VICTOR RICCIARDI
Editors

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Investor Behavior

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Leonard Feather, the British-born jazz pianist, composer, and producer who was best known for his music journalism and other writing, once wrote “Finishing a good book is like leaving a good friend.” Whether he was speaking about finishing a book in the sense of reading or writing it is unclear. In either case, his sentiments are correct. As coeditors, we hope that you think *Investor Behavior: The Psychology of Financial Planning and Investing* is a “good book.” If so, many people merit credit. Foremost among them are the chapter writers who shared their knowledge and devoted countless hours to writing and revising their work. To them, we owe our special thanks. Also, the professional team at John Wiley & Sons deserves our appreciation for exhibiting a high degree of professionalism from inception through publication. We also want to recognize the support provided by the Kogod School of Business at American University and the Business Management Department at Goucher College. The editors dedicate this book to Linda Baker and Vito and Loretta Ricciardi. In particular, Professor Ricciardi would like to thank his parents for the support, encouragement, and love throughout his lifetime that made this book possible. He also acknowledges and thanks those who mentored him in pursuing a career as a finance professor: Igor Tomic, Anoop Rai, Hank Pruden, Bob Olsen, Hugh Schwartz, David Hua, Hamid Shomali, and Mike Jensen.

PART

One

Foundations of Investor Behavior

Investor Behavior: An Overview

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INTRODUCTION

In the 1990s, the terms *behavioral finance* and *behavioral economics* started to appear in academic journals for finance professors, practitioner publications for investment professionals, investing magazines for novice investors, and everyday newspapers read by the general public (Ricciardi and Simon 2000). The foundation of behavioral finance and the subtopic of investor behavior, however, can be traced back throughout financial history in events such as the speculative behavior during tulip mania in the 1600s. Books published in the 1800s and early 1900s about psychology and investing marked the beginning of the theoretical basis for today's theories and concepts about investor behavior (Ricciardi 2006). Finance and the role of money are fundamental underpinnings of many important events throughout history (Ferguson 2008) and the development of financial innovations (Goetzmann and Rouwenhorst 2005). For example, Bernstein (1996) provides an extensive time line of risk throughout history and its application in the world of finance. Another important work in this arena is Rubinstein (2006), who depicts a historical anthology of investment theory. In recent times, the Internet stock market bubble of the late 1990s and the financial crisis of 2007 and 2008 demonstrate the importance of understanding investment behavior (Reinhart and Rogoff 2011).

Relevant Books in the History of Finance and Investment Thought

Understanding the history of finance and the development of investment theory is important for all types of investors. Goetzmann and Rouwenhorst (2005), Rubinstein (2006), and Ferguson (2008) offer extensive discussions of books and other publications in financial history and investment theory. The next section provides a discussion of important books in the history of finance and the natural progression of understanding investor theory and behavior. Exhibit 1.1 provides a chronological timeline of a sample of noteworthy books in financial history and investment theory from 1841 to 1978. This list of books is merely illustrative of classic or seminal works.

EXHIBIT 1.1 A Sample of Relevant Books in Financial History and Investment Theory

| Original Publication Date | Author(s)/ Editor(s) | Title | Subject Matter |
|---------------------------|--------------------------------|---|---|
| 1841 | Charles Mackay | <i>Extraordinary Popular Delusions and the Madness of Crowds</i> | Crowd psychology, panics, and financial schemes |
| 1895 | Gustave Le Bon | <i>The Crowd: A Study of the Popular Mind</i> | Group psychology |
| 1903 | Edward Meade | <i>Trust Finance: A Study of the Genesis, Organization, and Management of Industrial Combinations</i> | The role of trust in finance |
| 1911 | Garet Garrett | <i>Where the Money Grows and Anatomy of the Bubble</i> | Bubbles |
| 1912 | George Selden | <i>Psychology of the Stock Market</i> | Investor psychology |
| 1922 | William Hamilton | <i>The Stock Market Barometer</i> | Dow Jones investment approach |
| 1923 | Edwin Lefèvre | <i>Reminiscences of a Stock Operator</i> | Trader psychology |
| 1924 | Merryle Rukeyser | <i>The Common Sense of Money and Investments</i> | Investment and financial issues |
| 1930 | Philip Carret | <i>The Art of Speculation</i> | Speculative behavior |
| 1931 | Frederick Allen | <i>Only Yesterday: An Informal History of the 1920s</i> | Historical perspective of the 1920s |
| 1934 | Benjamin Graham and David Dodd | <i>Security Analysis</i> | Value investing |
| 1935 | Gerald M. Loeb | <i>The Battle for Investment Survival</i> | Investing in different securities and markets |
| 1938 | John B. Williams | <i>The Theory of Investment Value</i> | Financial securities valuation |
| 1940 | Fred Schwed | <i>Where Are the Customers' Yachts? or a Good Hard Look at Wall Street</i> | Financial service issues and practices |
| 1949 | Benjamin Graham | <i>The Intelligent Investor</i> | Value investing |
| 1951 | Donald Cressey | <i>Other People's Money: A Study in the Social Psychology of Embezzlement</i> | Violation of financial trust |
| 1954 | John Kenneth Galbraith | <i>The Great Crash of 1929</i> | Stock market crash of 1929 |
| 1954 | Humphrey B. Neill | <i>The Art of Contrary Thinking</i> | Popular opinion and group behavior |

EXHIBIT 1.1 (Continued)

| Original Publication Date | Author(s)/ Editor(s) | Title | Subject Matter |
|---------------------------|----------------------|--|--|
| 1957 | William Sargeant | <i>Stock Market Behavior: A Descriptive Guidebook for the New Investor</i> | Stock market psychology |
| 1958 | Philip Fisher | <i>Common Stocks and Uncommon Profits</i> | Investing in common stocks |
| 1969 | John Brooks | <i>Once in Golconda: A True Drama of Wall Street 1920–1938</i> | The investment history of the 1920s |
| 1970 | Mark Appleman | <i>The Winning Habit: How Your Personality Makes You a Winner or a Loser in the Stock Market</i> | Investor personality and individual behavior |
| 1970 | William Scheinman | <i>Why Most Investors Are Mostly Wrong Most of the Time</i> | Bad investment decisions by financial advisors |
| 1973 | John Brooks | <i>The Go-Go Years: The Drama and Crashing Finale of Wall Street's Bullish 60s</i> | The investment history of the 1960s |
| 1973 | Burton Malkiel | <i>A Random Walk Down Wall Street</i> | Random walk theory of stock prices |
| 1977 | David Dreman | <i>Psychology and the Stock Market: Investment Strategy beyond Random Walk</i> | Investor psychology and group behavior |
| 1978 | Charles Kindleberger | <i>Manias, Panics and Crashes: A History of Financial Crisis</i> | Historical financial crises |

Note: This exhibit provides a chronological timeline of a sample of relevant books in financial history and investment theory from 1841 to 1978. These books cover a wide range of subject matter including: crowd psychology, group behavior, individual behavior panics, bubbles, crashes, speculative behavior, investor psychology, trader psychology, investment strategies and theories, financial mistrust, and investor personality.

Period: 1841 to 1912 Initially published in 1841, *Extraordinary Popular Delusions and the Madness of Crowds* (MacKay 1980) depicts the role of bubbles and panics that is still applicable for investor psychology. Published in the late 1800s, *The Crowd: A Study of the Popular Mind* (Le Bon 1982) describes the role of group behavior in different environments and markets. Published in 1903, *Trust Finance: A Study of the Genesis, Organization, and Management of Industrial Combinations* (Meade 2003) describes the importance of trust in a wide range of areas including corporate finance, financial services, and investments. *Where the Money Grows and Anatomy of the Bubble* (Garrett 1998), published in 1911, presents the role of different stakeholders involved in the investment management process on Wall Street. *The Psychology of the Stock Market* (Selden 1996), published in 1912, represents one of the first books that applied

psychology to the decision-making process of investors. Selden's book describes the behavioral and emotional issues that influence traders and investors in the stock market.

Period: 1922 to 1938 Published in 1922, *The Stock Market Barometer* (Hamilton 1998) discloses the approach known as the *Dow Theory*, which is based on stock price movements as a predictive investment tool. Published in 1923, *Reminiscences of a Stock Operator* (Lefèvre 1994) depicts the life of a Wall Street trader and different approaches to trading in the markets. The author interviews traders to build the portrait of the fictional stock trader in the novel. *The Common Sense of Money and Investments* (Rukeyser 1999), published in 1924, provides a discussion of various personal finance and investment topics that are still relevant. Published in 1930, *The Art of Speculation* (Carret 1997) offers a thorough discussion of the speculation process involving financial markets and investment products. *Only Yesterday: An Informal History of the 1920s* (Allen 2010), first published in 1931, provides a general narrative description of life during the 1920s and also examines that decade's bull market, stock market crash, and the early years of the Great Depression.

In 1934, Graham and Dodd (1996) published *Security Analysis* in which they developed the foundation for value investing by identifying undervalued companies based on accounting information and financial statements. *The Battle for Investment Survival* (Loeb 2010), published in 1935, provides an extensive approach for investing in all types of financial securities and markets. Published in 1938, *The Theory of Investment Value* (Williams 1997) describes how to value financial assets based on accounting data such as cash flow and profits. In particular, this approach uses the distribution of dividends as forecasting the stock price of a company known as *stock valuation*.

Period: 1940 to 1958 First published in 1940, *Where Are the Customers' Yachts? or a Good Hard Look at Wall Street* (Schwed 2006) depicts the questionable investment practices of Wall Street firms toward their clients. In 1949, Graham (2005) published *The Intelligent Investor*, which reveals the approach known as *value investing* (i.e., a method for evaluating and identifying stocks that an investor considers underpriced based on different types of accounting or financial information). Today, value investing is one of the most important investing strategies. Published in 1951, *Other People's Money: A Study in the Social Psychology of Embezzlement* (Cressey 1951) uses psychological theories to explain why individuals commit financial crimes and violate the trust of the public. Galbraith's (2009) *The Great Crash 1929*, published in 1954, serves as a reminder even today of how financial history repeats itself in understanding the financial crisis of 2007 and 2008.

Other notable books during this period include *The Art of Contrary Thinking* (Neill 1992), published in 1954, which describes why consensus investor group decision-making is sometimes wrong and how investors can use contrary strategies or trends to profit in the stock market. Published in 1957, *Stock Market Behavior: A Descriptive Guidebook for the New Investor* (Sargeant 1957) provides a perspective of the psychology underlying the stock market for novice investors. In 1958, Fisher (1997) published *Common Stocks and Uncommon Profits*, in which he reveals how to evaluate a firm's business prospects and financial health based on accounting data and financial statement information.

Period: 1969 to 1970 In the book first published in 1969, *Once in Golconda: A True Drama of Wall Street 1920–1938* (Brooks 1999a) describes the time of economic

expansion of the 1920s, the crash of 1929, and the aftermath of the 1930s Great Depression. *The Winning Habit: How Your Personality Makes You a Winner or a Loser in the Stock Market* (Appleman 1970) discloses an array of different personality types and connects them to how investors make decisions about stock investing. Published in 1970, *Why Most Investors are Mostly Wrong Most of the Time* (Scheinman 1991) describes the author's perspective of crowd psychology and the role of contrary opinions within the stock market during the 1960s.

Period: 1973 to 1978 In 1973, Brooks (1999b) authored *The Go-Go Years: The Drama and Crashing Finale of Wall Street's Bullish 60s*, in which he describes the speculative behavior during the bull market of the 1960s and the stock market crash in 1970. Malkiel (1973) published his highly popular *A Random Walk Down Wall Street* in which he discloses the importance of the *random walk theory*. Malkiel contends that investors cannot outperform stock market indexes on a regular basis because prices are random. Dreman's (1977) *Psychology and the Stock Market: Investment Strategy beyond Random Walk* depicts the importance of crowd psychology and group behavior within the stock market by highlighting topics such as bubbles, the social psychology of groups, groupthink, and herd behavior. This book also offers a counter argument to the random walk theory and efficient market hypothesis. First published in 1978, *Manias, Panics and Crashes: A History of Financial Crisis* (Kindleberger 1996) provides an extensive financial history of bubbles, frauds, crashes, contagions, and crises.

Investor Behavior

What is investor behavior? The field of investor behavior attempts to understand and explain investor decisions by combining the topics of psychology and investing on a micro level (i.e., the decision process of individuals and groups) and a macro perspective (i.e., the role of financial markets). The decision-making process of investors incorporates both a quantitative (objective) and qualitative (subjective) aspect that is based on the specific features of the investment product or financial service. Investor behavior examines the cognitive factors (mental processes) and affective (emotional) issues that individuals, financial experts, and traders reveal during the financial planning and investment management process. In practice, individuals make judgments and decisions that are based on past events, personal beliefs, and preferences.

Since 1995, an increasing number of books on investor behavior have been published in tandem with the emerging research literature within the overall discipline of behavioral finance. Exhibit 1.2 provides a chronological time line of investor behavior books published between 1995 and 2012. This compilation of books covers different subject matter including: stock market inefficiencies (Haugen 1995; Shleifer 2000), stock market psychology (Warneryd 2001; Schindler 2007), speculative behavior (Shiller 2000), anomalies (Zacks 2011), neuroeconomics and neurofinance (Peterson 2007; Zweig 2007), money behaviors (Furnham and Argyle 1998), money disorders (Klontz and Klontz 2009), investor personality (Pompian 2012), behavioral investment management (De Brouwer 2012; Davies and de Servigny 2012), psychological trading strategies (Lifson and Geist 1999), trader psychology (Oberlechner 2004; Fenton-O'Creevy et al. 2005; Shull 2012), investor emotions (Tuckett and Taffler 2012), and investor behavior or psychology (Belsky and Gilovich 1999; Shefrin 2000; Nofsinger 2002; Geist 2003;

Pompian 2006; Montier 2007; Baker and Nofsinger 2010; Wood 2010; Statman 2011). This collection of books and other academic literature, such as published academic papers, working papers, conference presentations, and dissertations, serves as a reference point for developing the current content in this book in order to identify the most important emerging topics in investor behavior and psychology.

The importance of documenting the past and current research is to assist individual investors and their financial advisors about these biases and improve the decision-making process in selecting investment services, products, and strategies. As a result of the financial crisis of 2007 and 2008, the discipline of psychology began to focus even more on the financial decision-making process of individuals. This renewed interest by the social sciences and business disciplines has spurred new research on investor behavior including financial therapy, money counseling, financial psychology, consumer finance, investor personality, and household finance.

EXHIBIT 1.2 A Sample of Investor Behavior Books Since 1995

| Original Publication Date | Author(s)/Editor(s) | Title | Subject Matter |
|---------------------------|-----------------------------------|---|--|
| 1995 | Robert Haugen | <i>The New Finance: The Case Against Efficient Markets</i> | Stock market inefficiencies |
| 1998 | Adrian Furnham and Michael Argyle | <i>The Psychology of Money</i> | Money behaviors |
| 1999 | Gary Belsky and Thomas Gilovich | <i>Why Smart People Make Big Money Mistakes and How to Correct Them: Lessons from the New Science of Behavioral Economics</i> | Various topics of behavioral finance and investor behavior |
| 1999 | Lawrence Lifson and Richard Geist | <i>The Psychology of Investing</i> | Psychological trading strategies |
| 2000 | Hersh Shefrin | <i>Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing</i> | Investor psychology |
| 2000 | Robert Shiller | <i>Irrational Exuberance</i> | Investor speculative bubble of the 1990s |
| 2000 | Andrei Shleifer | <i>Inefficient Markets: An Introduction to Behavioral Finance</i> | Stock market inefficiencies |
| 2001 | Karl-Erik Warneryd | <i>Stock Market Psychology: How People Value and Trade Stocks</i> | Psychology of stock investors |
| 2002 | John Nofsinger | <i>The Psychology of Investing</i> | Investment behavior |
| 2003 | Richard Geist | <i>Investor Therapy: A Psychologist and Investing Guru Tells You How to Out-Psych Wall Street</i> | Investor psychology |

EXHIBIT 1.2 (Continued)

| Original Publication Date | Author(s)/Editor(s) | Title | Subject Matter |
|---------------------------|---|--|---|
| 2004 | Thomas Oberlechner | <i>The Psychology of the Foreign Exchange Market</i> | Trader psychology |
| 2005 | Mark Fenton-O'Creevy, Nigel Nicholson, Emma Soane, and Paul Willman | <i>Traders: Risks, Decisions, and Management in Financial Markets</i> | Trader psychology |
| 2006 | Michael Pompian | <i>Behavioral Finance and Wealth Management: How to Build Optimal Portfolios that Account for Investor Biases</i> | Individual investor behavior |
| 2007 | James Montier | <i>Behavioral Investing: A Practitioner's Guide to Applying Behavioral Finance</i> | Investor psychology |
| 2007 | Richard Peterson | <i>Inside the Investor's Brain: The Power of Mind over Money</i> | Neurofinance and investor decisions |
| 2007 | Mark Schindler | <i>Rumors in Financial Markets: Insights into Behavioral Finance</i> | Stock market psychology |
| 2007 | Jason Zweig | <i>Your Money and Your Brain: How the New Science of Neuroeconomics Can Help Make You Rich</i> | Neuroeconomics and investor psychology |
| 2009 | Brad Klontz and Ted Klontz | <i>Mind over Money: Overcoming the Money Disorders That Threaten Our Financial Health</i> | Financial trauma, money disorders |
| 2010 | H. Kent Baker and John Nofsinger | <i>Behavioral Finance: Investors, Corporations, and Markets</i> | Psychological concepts, investor biases, investor behavior, and social influences |
| 2010 | Arnold Wood | <i>Behavioral Finance and Investment Management</i> | Investor psychology |
| 2011 | Meir Statman | <i>What Investors Really Want: Know What Drives Investor Behavior and Make Smarter Financial Decisions</i> | Individual investor psychology |
| 2011 | Leonard Zacks | <i>The Handbook of Equity Market Anomalies: Translating Market Inefficiencies into Effective Investment Strategies</i> | Investor anomalies |

(continued)

EXHIBIT 1.2 (Continued)

| Original Publication Date | Author(s)/Editor(s) | Title | Subject Matter |
|---------------------------|------------------------------------|---|--|
| 2012 | Philippe De Brouwer | <i>Maslowian Portfolio Theory: A Coherent Approach to Strategic Asset Allocation</i> | Individual psychology and behavioral portfolio decisions |
| 2012 | Greg Davies and Arnaud de Servigny | <i>Behavioral Investment Management: An Efficient Alternative to Modern Portfolio Theory</i> | Individual investor behavior and decisions |
| 2012 | Michael Pompian | <i>Behavioral Finance and Investor Types: Managing Behavior to Make Better Investment Decisions</i> | Investor personality |
| 2012 | Denise Shull | <i>Market Mind Games: A Radical Psychology of Investing, Trading and Risk</i> | Trader psychology |
| 2012 | David Tuckett and Richard Taffler | <i>Fund Management: An Emotional Finance Perspective</i> | Emotional aspects of investing |

Note: This exhibit provides a chronological time line of a sample of investor psychology books for the time period between 1995 and 2012. This collection of books covers different topics including: stock market inefficiencies, investor behavior, speculative behavior, stock market psychology, individual and group psychology, investor personality, money disorders, neurofinance, anomalies, and behavioral investment management.

Purpose of the Book

This book's main purpose is to provide readers with the emerging theoretical trends about investment behavior within the ever-changing and growing financial services and investment management industry. Readers of *Investor Behavior—The Psychology of Financial Planning and Investing* will gain an in-depth understanding of the major types and the latest trends within the field of investor behavior. The book features empirical evidence and current literature about each investment issue. Cited research studies are presented in a straightforward manner focusing on the comprehension of study findings, rather than on the details of mathematical frameworks. Authors contributing chapters consist of a mix of academics and practitioners.

Distinctive Features of the Book

Investor Behavior—The Psychology of Financial Planning and Investing has the following distinctive features.

- The book provides a detailed discussion of investor behavior including empirical evidence and practice within the various topics covered. It attempts not only to

blend the conceptual world of scholars with the pragmatic view of practitioners, but also to synthesize relevant research studies including recent developments in a succinct and clear manner.

- The book contains contributions from numerous authors, which assures a variety of perspectives and a rich interplay of ideas.
- When discussing the results of empirical studies that link theory and practice, the objective is to distill them to their essential content so that they are understandable to readers. Theoretical and mathematical derivations are included to the extent that they may be necessary and useful to readers.
- The end of each chapter contains four to six discussion questions that help to reinforce key concepts with guideline answers presented at the end of the book. This feature should be especially important to faculty and students using the book in classes.

Intended Audience

The book should be of interest to various groups including academics, practitioners, investors, and students. Academics can use this book not only in their undergraduate and graduate investment courses but also to understand the various strands of research emerging from this area. The book can help practitioners navigate through the key areas in investor behavior. Individual and institutional investors can use the book to expand their knowledge base. They can also apply the concepts contained within the book to the management of their portfolios. The book can serve as an introduction to students interested in investor behavior. Finally, *Investor Behavior—The Psychology of Financial Planning and Investing* can be of interest to members of such organizations as the Academy of Behavioral Finance & Economics, Financial Therapy Association, Association for Financial Counseling and Planning Education, Financial Planning Association, The CFA Institute, Academy of Financial Services, Society for the Advancement of Behavioral Economics (SABE), American Accounting Association: Accounting, Behavior, and Organizations Section (Behavioral Accounting Group), International Association for Research in Economic Psychology (IAREP), and Society of Judgment and Decision Making.

ORGANIZATION OF THE BOOK

The remaining 29 chapters are organized into six sections. A brief synopsis of each chapter by section follows.

Part I: Foundations of Investor Behavior

Besides this introduction, Part I consists of two other chapters. Chapter 2 focuses on the basic principles of traditional (standard) finance and behavioral finance. Chapter 3 examines behavioral economic approaches to decision-making.

Chapter 2: Traditional and Behavioral Finance (Lucy F. Ackert) The purpose of this chapter is to compare and contrast traditional and behavioral finance. In traditional finance, which has been the dominant paradigm for several decades, investors make rational

choices leading to maximizing expected utility. The fundamental issues of traditional finance are classical decision theory, rationality, risk aversion, model portfolio theory (MPT), the capital asset pricing model (CAPM), and the efficient market hypothesis (EMH). However, evidence shows that many of the assumptions and findings associated with traditional finance are invalid. Thus, behavioral finance researchers turned to observed behaviors to develop models that describe how investors actually reach their decisions. Behavioral finance uses insights from the social sciences to better understand the investor behavior of individuals, groups, and markets. Among the foundation topics in behavioral finance are behavioral decision theory, bounded rationality, prospect theory, framing, heuristics, overconfidence, regret theory, and mental accounting. The emerging areas of research are behavioral portfolio theory, the behavioral asset pricing model (BAPM), and the adaptive markets hypothesis.

Chapter 3: Behavioral Economics, Thinking Processes, Decision-Making, and Investment Behavior

(Morris Altman) This chapter provides a critical review of behavioral economic approaches to decision-making with a focus on the thinking processes of investors. It discusses the bounded rationality approach to decision-making as compared to the errors and biases approach for better understanding decision-making processes and outcomes. The latter focuses on the importance of cognitive illusions and biases whereas the former pays more attention to the optimality of institutional design and the limited information processing capacity of the human brain. Both approaches attempt to make sense of and explain why decision-making outcomes tend to be inconsistent with the predictions of the conventional economics wisdom, especially regarding the efficient market hypothesis. The chapter also extends the analyses of the behavioral understanding of decision-making, especially from the bounded rationality modeling perspective.

Part II: Personal Finance Issues

Part II consists of Chapters 4 through 10. The section explores such important areas as financial literacy and education (Chapter 4) and household investment decisions (Chapter 5). It also examines the role of personality traits (Chapter 6), demographic and socioeconomic factors (Chapter 7), and religion (Chapter 8) on investor behavior. The final two chapters investigate money and happiness (Chapter 9) and motivation and satisfaction (Chapter 10).

Chapter 4: Financial Literacy and Education (Michael S. Finke and Sandra J. Huston)

Financial literacy is a form of human capital that includes knowledge and skills related to personal finances including mathematical ability, knowledge of financial instruments and financial theory, and the ability to apply knowledge effectively. This chapter reviews how financial literacy has been conceptualized and measured in the literature. Financial literacy is related to many positive financial outcomes. Newer studies focus on identifying the pathways between financial literacy and asset accumulation, portfolio selection, and credit choice. Evidence shows that financial education can improve financial literacy and decision quality, but also questions whether financial literacy education is effective or socially efficient. Low levels of financial literacy among consumers suggest a need for increased high school financial literacy education and policies that provide simplified disclosure and high quality defaults.