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Behavioral Finance

Psychology , Decision-Making , and Markets

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出 版 说 明

为了适应经济全球化的发展趋势，满足国内广大读者了解、学习和借鉴国外先进管理经验和掌握经济理论前沿动态的需要，清华大学出版社与国外著名出版公司合作影印出版一系列英文版经济管理方面的图书。我们所选择的图书，基本上已是再版多次、在国外深受欢迎、并被广泛采用的优秀教材，绝大部分是该领域中较具权威性的经典之作。在选书的过程中，我们得到了很多专家、学者的支持、帮助和鼓励，在此表示谢意！

根据我国的教学实际情况，我们在影印过程中删掉了第4章“挑战市场效率(Challenges of Market Efficiency)”以及书后的参考文献和索引。我们在采用原书页码的同时，还按顺序编制了新的页码，望读者予以注意。

由于原作者所处国家的政治、经济和文化背景等与我国不同，对书中所持观点，敬请广大读者在阅读过程中注意加以分析和鉴别。

我们期望这套影印书的出版对我国经济科学的发展能有所帮助，对我国经济管理专业的教学能有所促进。

欢迎广大读者给我们提出宝贵的意见和建议，同时也欢迎有关的专业人士向我们推荐您所接触到的国外优秀图书。

清华大学出版社

英/双语教学的成功路径与商科英文原版教材的效用

(代序)

在我国高校,用英语或双语教授专业课程(以下简称:英/双语教学)始于改革开放引进热潮,历经30年,虽发展不快,仍在缓慢推进。20世纪80年代,改革开放后留学归来的教育界学者们不仅引进了各学科先进的研究成果,也随之引进了西方高校的教材。以清华大学出版社为领军的国内出版社适时地引进了西方优秀教材的影印版,推动了一些高校开始在专业课程中开展英/双语教学。2007年以来,国家教育质量工程专设的“国家高校双语教学示范课程建设点”的评定项目被视为政府教育发展的政策风向标,正有力地推动着高校英/双语教学的发展。

但对英/双语教学的必要性,我国高校内部一直争议不断。争议首先围绕着中国人用英语教学的必要性。在公认英语是目前世界通用语言的前提下,英/双语教学的必要性取决于我国高校师生是否有必要及时汲取世界最新的知识和研究成果。答案是不言而喻的。况且英/双语教学省却了翻译过程,可以避免常见的信息减损和曲解问题。不过,信息发布者——教师的英语演讲能力和信息接收者——学生的英语解读能力不足又成为开展英/双语教学的障碍。因而常见的反对意见是,开展英/双语教学,课堂教学内容就会缩水,因为讲授者和听众都得花费精力和时间解译内容。如此看来,我国开展英/双语教学的高校教师必须应对挑战,洞察在我国现有条件下用英文原版教材开展英/双语教学的利和弊,并找到可行的扬长避短的路径。

在经济开放和全球化的大趋势推动下,我国中小学英语教学分量加重,英语普及程度逐年提高,高校新生的英语基础愈益扎实;教师的英语能力也随着师资的新陈代谢而日渐增强。这一趋势无疑在为英/双语教学营造越来越有利的条件。尽管如此,不同于以英语为主要语言或官方语言的一些国家,英语在我国的普及率仍较低。在青少年中,英语的普及程度和英语应用能力还仅处于初级水平;高校中能用英语演讲的教师尚属少数,且熟练程度还有待大幅提高。这样的师生英语基础,使得英/双语教学面临巨大的挑战。

同时,在多数的中国高校课堂里,教学任务多被视为逐章讲解某本教材的内容。本土中文教材通常是400~500页的32开本,含理论框架、主要知识点、计算方法和习题,但案例和故事不在其中,多由教师在讲解时添加,以演示和诠释理论要点。迄今仍然普遍盛行的“填鸭式”、“满堂灌”的传统教学法侧重于传授知识,从多数评教指标可见,只要学生感觉教师讲得精彩、有条理、能解惑,就算教学成功。

而引进的国外教材篇幅通常较长,16开大本,500~800页。习惯于上述传统教学法和评价标准的人们自然会产生一个疑问:在有限的课时内,这么厚的教材,怎么讲得完?其实,发达国家多数高校对学生阅读量的要求远远大于我国高校(即使是中文课本和资料),名校更是如此。它们的教材不仅涵盖理论框架和基本概念,而且富含长短不一、详简各异的演示性案例、故事和大量习题,总之它便于学生自学。课堂讲解只占一半课时,其余课时常被用于师生讨论和互动。于是,教师的讲解主要是勾勒理论框架,阐释重点和难点,还需针对事先布置的阅读资料和讨论题,引导学生展开讨论。可见,大厚本的教材适合于

能力培训教学法。两者相辅相成，致力于调动学生的主动性：他们必须大量阅读和思考，才能在课堂上有上好的表现，真正成为学习的主人。结果，他们的能力获得了必要和切实的磨炼。

由此可见，英/双语教学不只是教学语言的改变，它可以达到三重效用：传授专业知识；传授英语知识；同时训练专业方法和英语的应用技能。也因此，一些非英语国家的高校不惜成本，开展英/双语教学，使用与之相配的教材。对我国高校来说，要想成功开展英/双语教学，恐怕首先需要改变传统的教育思想和教学方法。换言之，如果高校想要使教育、教学接近世界先进水准，用英文原版影印教材开展英/双语教学是有效的途径。

迄今为止，原版英文教材的缺点也很明显。鉴于发达国家的作者是以其母国为背景，多数教材不涉及中国国情。教师必须在教学中紧密结合中国国情，提供相关案例、资料和思考讨论题，适时引导师生思辨现有理论的普适性，激励师生发现和创作适合我国国情的经济学、管理学、营销学规律。在我国作者编写和出版足量的优质英文教材之前，这些额外的工作必须由开展英/双语教学的教师来承担。

古今中外，成才之士都乐于阅读和探索，而这种氛围却在当今我国的大学校园里愈见淡化。加之中国学生相对薄弱的英语基础，目前英/双语教学仍面临很大的挑战：“填鸭式”的讲授与之相悖；仅靠课堂讲授和互动也很难奏效。但如能培养学生阅读和探索真理的兴趣，并营造一个全方位的孵化温床或生态环境，英/双语教学是有望成功的。根据能力培育过程的所需，这个生态环境包含师生对教育、教学的共识，好学求知的校风，富有挑战和师生互动的课堂教学，从课外讲座、项目操作到校园竞赛等第二课堂活动，便于师生交流的校园互联网等。

要做到这些，教师亟待与时俱进。随着师资的年轻化和高学历化，如今年轻教师的英语基础更好。但逆水行舟，不进则退。英语能力的进退取决于使用频率的多寡，其实英/双语教学过程既是加强英语使用、提高英语能力，也是汲取世界新知的最佳机会。不过，这一过程通常比用汉语教学的付出大得多，且因学生也需成倍地付出，英/双语教学的课程不容易像汉语教学课程那样容易在短期内获得学生的好评。因此给予英/双语教学的教师足够的激励成为生态环境的首要组成部分；缺乏对教师的足够激励，上述英/双语教学的生态环境就无法营造。

诚然，在教育体制和环境不够理想的情况下，教师和学生仍然有个人自训和奋斗的条件。英语原版教材影印版在我国的出版和更新就是对英/双语教学的及时支持。清华大学出版社近期又有一批英文原版影印教材出版，相信必将更进一步推动英/双语教学的发展。如今，已有一些本土高校的教师与英语国家的教师合著英文教材；在可见的将来，还会有中国教师编写发行到世界各地的英文教材。总之，及时用好英文原版影印教材，编写优质的英文教材是我国高校教师的历史责任。

愿英/双语教学的师资队伍愈益壮大，愿英/双语教学更加有力地推动我国教学方法与国际接轨，愿我国高校各级学生在英/双语教学中受益良多，茁壮成长！

对外经济贸易大学
傅慧芬

PREFACE

Writing an overview of a burgeoning field is a daunting task. When we started our project, existing research in behavioral finance was already abundant. Since then, new work has appeared virtually daily. The only reasonable approach was to be selective. While we hope this book is a comprehensive treatment of the more important contributions in the field of behavioral finance, worthy research has certainly been excluded.

In writing this book, the students we have taught and the professional audiences we have addressed were a driving force. It is our hope that the material covered in this book will allow readers to consider financial decision-making in a new light. While a number of useful books that cover topics in behavioral finance are available to the interested reader, our goal was to write a book that would provide an accessible overview of the field, while at the same time illustrating how behavioral finance can be applied in real-world settings. With this in mind, the level of rigor has been kept low and theory has been kept to a minimum.

It is our belief that this book is suitable for undergraduate and graduate students in business and economics, as well as interested practitioners. The book can be used for a dedicated elective course or as a supplement to a more traditional corporate or managerial finance course.

To support the instructor and promote student learning an Instructor's Manual (IM) accompanies this book. The IM includes three parts: Solutions to Discussion Questions and Problems; Teaching Exercises; and Lecture Slides. Each of the 20 chapters in the book contains a number of Discussion Questions and Problems and the first part of the IM provides suggested solutions to each exercise. The second part of this manual presents Teaching Exercises that are designed to promote hands-on learning including experiments, cases and other items, running the gamut from Trading Simulators to Star Trek, from a price prediction game to a dice game, from a risk-taking survey to the Super Bowl, from Barings Bank to Royal

Dutch Shell, and so on. Finally, to give the instructor a head-start in the classroom, we have assembled a series of Lecture Slides.

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We are particularly indebted to those early researchers who provided a path for the growing numbers of scholars who have built upon their work, including Werner De Bondt, Robert Dreman, Daniel Kahneman, Robert Shiller, Hersh Shefrin, Andrei Shleifer, Vernon Smith, Meir Statman, Richard Thaler, and Amos Tversky.

Though we are certainly forgetting numerous names, some of the researchers whose work has been influential and who appear prominently in these pages are: Maurice Allais, Marc Alpert, Solomon Asch, Clifford Asness, Malcolm Baker, Nardin Baker, Guido Baltussen, Brad Barber, Nicholas Barberis, Sanjoy Basu, Max Bazerman, Shlomo Benartzi, Itzhak Ben-David, Douglas Bernheim, Bruno Biais, Fischer Black, Robert Bloomfield, Nancy Brekke, Stephen Brown, Colin Camerer, Walter Cannon, David Centerbar, Lous Chan, John Conlisk, Michael Cooper, Joshua Coval, David Cutler, Antonio Damasio, Kent Daniel, Bradford De Long, Stéphanie Desrosiers, John Dickhaut, Orlin Dimitrov, John Doukas, Darren Duxbury, Jon Elster, Richard Fairchild, Eugene Fama, Ernst Fehr, Urs Fischbacher, Baruch Fischhoff, Christina Fong, Kenneth French, Laura Frieder, Simon Gächter, Simon Gervais, Gerd Gigerenzer, Thomas Gilovich, Markus Glaser, William Goetzmann, John Graham, David Grether, Dale Griffin, Mark Grinblatt, Dirk Hackbarth, Jeffrey Hales, Bing Han, Campbell Harvey, Robert Haugen, Chip Heath, Denis Hilton, David Hirshleifer, Charles Holt, Harrison Hong, Christopher Hsee, Ming Huang, Gur Huberman, William James, Narasimhan Jegadeesh, Wei Jiang, Eric Johnson, Charles Jones, Matti Keloharju, Thomas Kida, Alok Kumar, Josef Lakonishok, Owen Lamont, Rafael La Porta, Henry Latane, Susan Laury, Charles Lee, Jonathan Lewellen, Jean-François L'Her, Andrew Lo, George Loewenstein, Dan Lovallo, Brigitte Madrian, Ulrike Malmendier, Karine Mazurier, Rajnish Mehra, Stanley Milgram, Olivia Mitchell, Kimberly Moreno, Tobias Moskowitz, Margaret Neale, John Nofsinger, Gregory Northcraft, Terrance Odean, Dimitris Petmezas, Joseph Piotroski, Jean-François Plante, Michael Pompian, Thierry Post, James Poterba, Sébastien Pouget, Edward Prescott, Howard Raiffa, Raghavendra Rau, Marc Reinganum, Richard Rendleman, Mark Riepe, Stephen Ross, Yuval Rottenstreich, Richard Ruback, William Samuelson, Tano Santos, Stanley Schachter, Myron Scholes, William Schwert, Dennis Shea, Jeremy Siegel, Herbert Simon, Jerome Singer, James Smith, Brett Steenbarger, Avanidhar Subrahmanyam, Gerry Suchanek, Barbara Summers, Larry Summers, Bhaskaran Swaminathan, Geoffrey Tate, Robert Vallone, Martijn van den Assem, Robert Vishny, Robert Waldmann, Martin Weber, Arlington Williams, Timothy Wilson, Jeffrey Wurgler, Wei Xiong, Robert Zajonc, and Ganggang Zhang. While a number of these researchers are not overly sympathetic to the behavioral perspective, it is fair to say that all have contributed to the debate.

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Lucy Ackert (in Atlanta) and Richard Deaves (in Burlington), May 22, 2009

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In 1993 Dr. Ackert received a Smith Breeden Prize for Distinguished Paper in the *Journal of Finance*. Her research has received funding from various organizations including the Center for the Study of Futures Markets at Columbia University, the Chicago Board of Trade, the Canadian Investment Review, and the Social Sciences and Humanities Research Council of Canada. In 2008 Dr. Ackert received the Kennesaw State University Distinguished Graduate Scholarship Award.

Dr. Ackert has previously taught at Emory University, Berry College, and Wilfrid Laurier University. She has taught a range of courses for graduate as well as undergraduate students, including Behavioral Finance, Corporate Finance, Futures and Options Markets, Financial Institutions, Cases in Finance, Introduction to Statistical Methods, and Microeconomics.

Richard Deaves earned his Ph.D. from the University of Toronto and currently teaches at the DeGroot School of Business, McMaster University in Hamilton, Canada. In addition to McMaster, Dr. Deaves has been a visiting professor at the University of Toronto, Concordia University, and Rollins College. He has taught a variety of courses, including Behavioral Finance, Security Analysis, Portfolio Management, Derivatives and Applied Investment Management.

Dr. Deaves's research publications have appeared in numerous journals, such as the *Journal of Financial and Quantitative Analysis*, the *Journal of Banking and Finance*, and the *Journal of Monetary Economics*. He has conducted research in such areas as investor knowledge and pension fund design, experimental asset markets, investment fund performance, fixed-income return enhancement, modeling and predicting interest rates, pricing and hedging futures contracts, and the relationship between financial markets and the macroeconomy.

Dr. Deaves has consulted for large and small private firms and government agencies, and has appeared as an expert witness, in such diverse areas as market efficiency, the behavioral aspects of investment, saving and pension design, the predictability of interest rates, the design of risk management programs, and capital market performance.

INTRODUCTION

The rapidly growing field of behavioral finance uses insights from psychology to understand how human behavior influences the decisions of individual and professional investors, markets, and managers. We are all human, which means that our behavior is influenced by psychology. Some decisions are simple, day-to-day choices, such as how hard we are going to study for the next test, or what brand of soda we are going to buy, but others significantly impact our financial well-being, such as whether we should buy a particular stock, or how we should allocate our 401(k) money among various investment funds. The purpose of this book is to present what we have learned about financial decision-making from behavioral finance research, while recognizing the challenges that remain.

Looking ahead, we will see that behavioral finance is very useful in helping us understand certain puzzles at the level of the investor. For example, why do people tend to invest in local companies? Why do investors confuse a good company and a good stock? Why do people increase the amount of risk they are willing to take on if they have experienced good *or* bad portfolio performance? Why are they reluctant to eliminate poorly performing investments from their portfolios? Why do many investors trade as often as they do? Why do they insufficiently diversify their asset holdings? Why do people follow the crowd?

While it would be difficult to find anyone who would seriously question the contention that psychology impacts individual financial decisions, there is less agreement on whether market outcomes are also impacted. This is because the belief that human psychology affects markets is inconsistent with the traditional view that market forces lead to efficient outcomes. Nevertheless, if human psychology can lead to individual behavior that is not optimal and such errors are sometimes correlated, and there are limits to arbitrage, then, provided there limits to arbitrage, the traditional view of markets is likely an incomplete story.

More recently, behavioral finance has also made strides in providing insight into the behavior of managers. Given what we have learned about investor psychology, it would be surprising if behavioral factors did not play a role in managerial decision-making. On the one hand, can managers take information relating to individual psychology into account in an effort to achieve improvements in personal performance? On the other hand, do managers, being themselves human, fall prey to their own behavioral errors?

PLAN OF THE BOOK

To make sense of how human psychology impacts individuals and markets, we need to take a few steps back. We begin, in Part I of the book, by reviewing the foundations of modern finance, its inability to account for various paradoxes and anomalies, and the genesis of behavioral finance as reflected in prospect theory and the limits to arbitrage perspective. Expected utility theory, reviewed in Chapter 1, is an axiomatic, normative model that demonstrates how people *should* behave when facing decisions involving risk. In comparing prospects, which are simply probability distributions of final wealth levels, the basic procedure is to assign a utility level to each possible wealth outcome, weight each utility value by the associated probability, and choose the prospect with the highest expected utility.

Although expected utility theory has been very useful in modeling individual decision-making, financial theorists required a paradigm to describe how investors evaluated risk and determined prices in markets. Mean-variance analysis and the CAPM, reviewed in Chapter 2, were central developments, providing for the first time guidance on how risk should be measured and risky assets priced. At around the same time, the notion of market efficiency became prominent. This is the view that, because competitive markets embody all relevant information, the price of an asset should be virtually identical to its fundamental value. The realization that information was not costless, along with the impossibility theorem of Grossman and Stiglitz, caused this to be altered to the contention that nobody should be able to earn excess (risk-adjusted) returns on a consistent basis.¹ Importantly, market efficiency is inextricably linked to asset pricing models because of the joint hypothesis problem, the fact that tests of market efficiency also require the use of a particular risk-adjustment mechanism.

Despite the elegance of these foundations, it was not long before holes were found. Careful analysis of people's actual choices revealed a number of violations of expected utility theory. For example, while risk aversion was the norm for many, at times risk-seeking behavior was patently obvious, people's willingness to buy lottery tickets being a prime example. It soon became evident that a new theory of individual choice was required, one that would be grounded in actual behavior and research in psychology. Among alternative models that have been proposed, Kahneman and Tversky's prospect theory has attracted the most attention.² Positive rather than normative in nature, prospect theory is reviewed in Chapter 3. For some purposes, prospect theory is supplemented with mental accounting, an important thrust of which is path dependence. The key elements of these models include evaluating outcomes relative to a reference point (such as the status quo), a strong aversion to losses, and context-dependent risk attitudes.

Modern finance also came under siege as it became clear that CAPM and market efficiency were often at odds with empirical evidence using naturally occurring data. Chapter 4 begins by reviewing several anomalies, which are defined as findings inconsistent with the *simultaneous* validity of both the CAPM and efficiency. Theoretical developments also played a role. While in the past people were inclined to argue that profit opportunities could always be easily “arbitraged away” in competitive markets, some began to question whether arbitrage was as simple and risk free as the textbooks seemed to suggest. This school of thought argued that there were significant limits to arbitrage. These limits were driven by such factors as noise-trader risk (the possibility that wrong prices might get worse in the short run); fundamental risk (which exists when substitute securities do not exist); and significant implementation costs (trading costs and the potential unavailability of the security that must be short-sold).

Behavioral finance more than other branches of finance is interdisciplinary. It borrows heavily from the academic literature in accounting, economics, statistics, psychology, and sociology. The psychology literature is particularly useful in revealing how people make decisions and where biases may reveal themselves. In Part II, we provide the necessary foundations from psychology. The taxonomy we adopt slots potential psychologically based behaviors into three silos: cognitive limitations and heuristics, overconfidence, and emotion. We begin, in Chapter 5, by noting that modern economic and financial models often seem to be predicated on the existence of an emotionless decision-maker possessing virtually unlimited cerebral RAM. Such a decision-maker considers all relevant information, arriving at the optimal choice in a process known as constrained optimization. And yet a host of cognitive limitations are evident, including faulty and selective perception and memory, inattention, and frame influence. Complicated problems must be simplified, and heuristics, or rules-of-thumb, are designed for this purpose. Evolutionary survival pressures have led to the crafting of a host of such procedures. While they usually lead to judicious actions, at times man’s “toolkit” may be faulty. This is particularly so when decisions must be made in a complex modern environment, when many of the procedures were first developed to find and ensure food and shelter. We look at various classes of heuristics, including those impacting preference primarily via comfort-seeking and those designed to estimate probability. While there is abundant evidence of error, some, especially those espousing the “fast and frugal” heuristics view, have argued that heuristics perform much better than they are often given credit for.

Next, in Chapter 6, we recognize people’s tendency toward overconfidence. Overconfident people overestimate their knowledge, abilities, and the precision of their information, or are overly sanguine of the future and their ability to control it. Overconfidence takes on such forms as miscalibration (the tendency to believe that your knowledge is more precise than it really is), the better-than-average effect, illusion of control (an unfounded belief that you can influence matters), and excessive optimism. Overconfidence can encourage action when caution is warranted.

Finally, in Chapter 7, we consider what emotions are and how they impact decision-making. A lot of money, not to mention careers, is at stake when financial decisions are made, and high stakes can only raise the emotional thermometer.

There is certainly a presumption on the part of the media that emotions influence markets, which of course implies that they first impact individual decisions. While it is true that rampant emotion can be a bad thing, a balanced emotional state (as opposed to an emotionless state) can actually foster judicious decision-making.

Armed with this psychological background, Part III turns to an examination of how psychology impacts financial decision-making at the level of the individual. For the time being, our gaze is fixed on investors and related capital market practitioners rather than the managers of corporations. We begin, in Chapter 8, by investigating the extent to which the faulty use of heuristics leads to suboptimal financial decision-making. For example, the representativeness heuristic can persuade people that good companies are good investments, and companies with good recent stock market performance are good buys. Familiarity can lead to excessive domestic and local investment. The availability bias pushes people into concentrating investments in securities where information is freely available. Anchoring causes individuals to be excessively anchored to available cues, instead of relying on their own opinion or expertise.

In Chapter 9, we explore the extent to which overconfidence can lead to suboptimal behavior on the part of investors and capital market participants. The tendency to believe that one's analysis is more accurate than is actually so appears to cause investors to trade too much. Other documented problems linked to overconfidence are underdiversification and taking on too much risk.

The final chapter of this section, Chapter 10, examines how emotion impacts financial decisions. The evidence appears strongest for the break even effect, the house money effect, and the disposition effect. It is notable that these observed behaviors have competing explanations based on prospect theory. What they have in common is that they are all in some sense based on path dependence. In the first two cases, results worse than or better than expectations may lead to an increase in risk taking: in the first case, because people, who hate to lose, want to get back to square one; and, in the second case, because people, after a windfall, know they can take on a high amount of risk without flirting with a loss. As for the disposition effect, a losing investment may be held too long because people fear the regret that would result if their poor investment is sold off.

In Part IV, we turn to an examination of how social forces impact the choices people make. This is an important issue in behavioral finance because investors, financial practitioners, and managers do not make decisions in isolation. We begin in Chapter 11 with evidence that social forces matter for people in distinct cultures around the world and in the business realm. While conventional theory postulates that man is a rational, self-interested decision-maker, the evidence suggests that human beings sometimes choose actions that are not in their material self-interest, and that social interests influence how people make decisions, including what we call other-regarding preferences, such as fairness and reciprocity. To illustrate their importance, we show how social forces can impact competition in markets and contract design.

Next, in Chapter 12, to illustrate the importance of social forces, we show that such forces contributed to the fall of a large American corporation, Enron. Of particular focus are two important sets of participants: the corporate board and professional financial analysts. The corporate board is charged with providing

internal governance to the firm, but how do social forces impact its effectiveness? Financial analysts are important information intermediaries for investors and managers, but can their opinions be shaped by the social group?

In Part V, we consider what behavioral finance can tell us about observed market outcomes. Following up on Chapters 2 and 4, where we noted that the first tests of market efficiency were largely supportive, while later tests produced evidence that was often at odds with the theory, we return, in Chapter 13, to a discussion of these anomalies, but now the focus is on describing potential behaviorally based explanations for them. Two anomalies in particular, the value advantage and momentum, are most troubling, and for this reason receive special attention.

Chapter 14 addresses some central stock market puzzles. Over the last number of years, researchers have begun to question whether observed stock market valuation levels and price volatility are consistent with the predictions of theory. Of particular note is that in the 1990s the entire U.S. market seems to have deviated far from valuations based on economic fundamentals. In addition to considering the basis for market valuations, we review evidence regarding the level of stock market volatility. Additionally, the equity premium puzzle, the historical tendency for equities to outperform fixed-income investment by more than their differential risk would seem to require, is also addressed in this chapter.

Part VI describes how psychological biases have the potential to impact the behavior of managers. How we think about the outcomes depends on whether the behavior of markets or managers is the source of bias. Both the abilities of rational managers to take actions when markets are believed to reflect irrationality and the possibility that managers are themselves the source of bias are addressed. Chapter 15 argues that there is evidence that rational managers at times take advantage of the valuation mistakes made by irrational investors. We begin with a heuristic model, which shows that rational managers in a world with irrational investors have conflicts between short-run and long-run goals. These conflicts can lead to choices that maximize price rather than value. We also describe examples of catering to investors, including changing the company name to something more appealing to investors and responding to dividend payout preferences. Empirical evidence consistent with these tendencies is presented.

Chapter 16 focuses on the potential for suboptimal financial decisions by corporate decision-makers and entrepreneurs. We first consider possible mistakes in the capital budgeting process caused by cognitive and emotional forces. Overconfidence may also impact managerial decisions deleteriously. In this regard, we address overinvestment, investment sensitivity to cash flows, mergers and acquisitions, and startups. Finally, we consider whether managerial overconfidence can sometimes play a positive role.

In Part VII we turn to retirement, pensions, education, debiasing, and client management. This is a key area where the lessons of behavioral finance are increasingly being put to good use. In Chapter 17, the focus is on retirement and pensions. Around the world, as firms have moved from defined benefit to defined contribution pension plans, affected workers have been forced to deal with the challenge of trying to optimally manage retirement savings. Unfortunately, such individuals are often susceptible to self-control problems, procrastination, and