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What Is Behavioral Finance and Why Does It Matter?

People in standard finance are rational. People in behavioral finance are normal.

—Meir Statman, PhD, Santa Clara University

If you are reading this book, you have decided that building the best portfolio for you, your family or your organization requires a solid understanding of human behavior. And the most important human behavior to understand is your own! After all, you need to make the best financial decisions possible and this requires understanding how you behave when money is involved. After advising individuals and families for over 25 years on their investment portfolios, and now running my own investment firm, I have found that understanding and applying behavioral finance to the investment process is the absolutely best way to manage portfolios for long term financial success. It may be counter-intuitive, but unless one has super-human capabilities to know which direction the markets are going all the time, the best strategy for managing a portfolio is to choose a comfortable level of risk and stick

with that strategy. The less tinkering the better! Does this mean you don't pay attention to it? Of course not! Investors need to pay attention to the value of assets they own, the structural changes in companies or industries that occur, portfolio rebalancing points, etc.—but the core asset allocation framework should remain the same unless personal circumstances have changed. So why is it so hard for investors to stay invested during periods of market volatility? Put simply, many people don't understand how emotions and irrational behaviors creep into the investment process. This book is all about understanding and diagnosing your own behavior so that you can create the best portfolios and have long-term investment success!

At its core, behavioral finance attempts to understand and explain actual investor and market behaviors versus theories of investor behavior. This idea differs from traditional (or standard) finance, which is based on assumptions of how investors and markets should behave. Investors from around the world who want to create better portfolios have begun to realize that they cannot rely solely on theories or mathematical models to explain individual investor and market behavior. As Professor Statman's quote puts it, standard finance people are modeled as "rational," whereas behavioral finance people are modeled as "normal." This can be interpreted to mean that "normal" people may behave irrationally—but the reality is that almost no one behaves perfectly rationally when it comes to finances and dealing with normal people is what this book is all about. We will delve into the topic of the irrational market behavior; however, the focus of the book is on individual investor behavior and how to create portfolios that investors can stick with for the long haul.

Fundamentally, behavioral finance is about understanding how people make decisions, both individually and collectively. By understanding how investors and markets behave, it may be possible to modify or adapt to these behaviors in order to improve economic outcomes. In many instances, knowledge of and integration of behavioral finance may lead to superior results for investors.

We will begin this chapter with a review of the prominent researchers in the field of behavioral finance. We will then review the debate between standard finance and behavioral finance. By doing so, we can establish a common understanding of what we mean when we say *behavioral finance*, which will in turn permit us to understand the use of this term as it applies directly to the practice of creating YOUR best portfolio.

Why Behavioral Finance Matters

Market research shows that when investors try to protect their portfolios by moving in and out of the market, they limit gains and increase losses. Taking a long-term view is challenging but it is the most rewarding strategy. This is because staying invested helps fuel long-term portfolio appreciation. The primary evidence linking investor behavior to sub-par investment returns is a study done by a firm called DALBAR in Boston every year. This study compares the returns actually earned by the investor to indexed returns and inflation. Investor returns are calculated by DALBAR using the change in total mutual fund assets after excluding sales, redemptions and exchanges. This method of calculation captures realized and unrealized capital gains, dividends, interest, trading costs, sales charges, fees, expenses and any other costs. The most recently available study as of this writing is 2019.¹ That report found that the average investor took some money off the table in early 2018 as the market went up, but was poorly positioned for the second half of the year. The average investor was a net withdrawer of funds in 2018. Poor timing caused a loss of 9.42% on the year compared to an S&P 500 index that lost only 4.38%. Figure 1.1 illustrates the DALBAR data as of the 2019 report. Note the 30-year difference of 6% per annum!

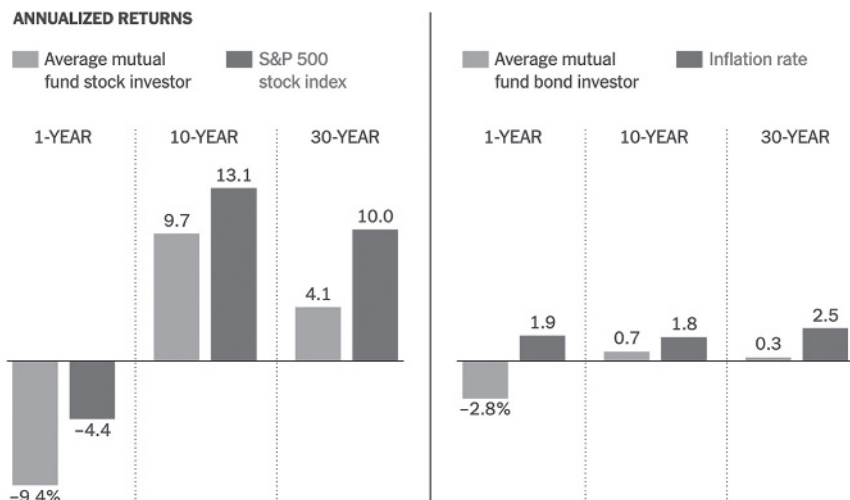


Figure 1.1 Investor Returns from the 2019 DALBAR Report

Source: DALBAR Report, 2019. ©2019, DALBAR, Inc.

¹ https://www.dalbar.com/Portals/dalbar/Cache/News/PressReleases/QAIB-PressRelease_2019.pdf

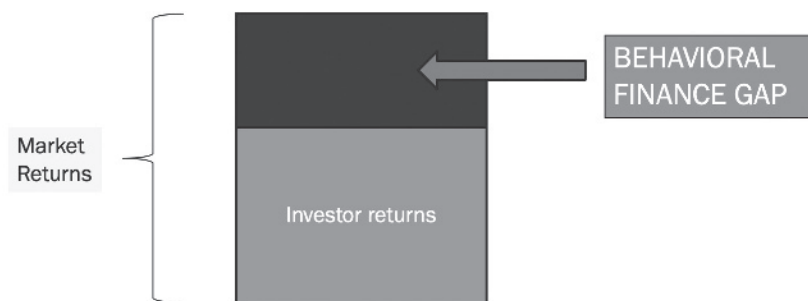


Figure 1.2 The Behavioral Finance Gap

The difference between the returns earned by investors holding a given index versus the returns earned by investors who move their money around in an emotional response to market movements is called the “Behavioral Finance Gap.” Figure 1.2 demonstrates this concept. The purpose of this book is to help you minimize this gap so that you can reach your financial goals. MIND THE GAP!

Behavioral Finance: The Big Picture

Behavioral finance has become a very hot topic, generating credence with the rupture of the tech-stock bubble in March of 2000. It was pushed to the forefront of both investors’ and advisors’ minds with the financial market meltdown of 2008–2009. A variety of confusing terms may arise from a proliferation of topics resembling behavioral finance, at least in name, including: behavioral science, investor psychology, cognitive psychology, behavioral economics, experimental economics, and cognitive science, to name a few. Furthermore, many investor psychology books refer to various aspects of behavioral finance but fail to fully define it. In this section, we will discuss some of the acclaimed authors in the field and review their outstanding work (not an exhaustive list), which will provide a broad overview of the subject. We will then examine the two primary subtopics in behavioral finance: behavioral finance micro and behavioral finance macro. Finally, we will observe the ways in which behavioral finance applies specifically to wealth management.

Key Figures in the Field

In Chapter 2 we will review a history of behavioral finance. In this section, we will review some key figures in the field who have more recently contributed exceptionally brilliant work to the field of behavioral finance. Most of the people we will review here are active academics, but many of them have also been applying their work to the “real world,” which makes them especially worthy of our attention. While this is clearly not an exhaustive list, the names of the people we will review are: Professor Robert Shiller, Professor Richard Thaler, Professor Meir Statman, Professor Daniel Kahnemann, and Professor Daniel Ariely.

The first prominent figure we will discuss is Yale University Professor Robert Shiller (Figure 1.3). He famously predicted two of the biggest bubbles of all time: the dot-com bubble and the housing bubble. Both times he published an edition of his book *Irrational Exuberance*, which described and predicted each respective bubble. Perhaps most impressive is the fact that Professor Shiller was one of three people to win the



Figure 1.3 Robert Shiller, Sterling Professor of Economics Yale University and 2013 Recipient of the Nobel Memorial Prize in Economic Sciences

Source: Bengt Nyman/Flickr

2013 Nobel Prize in Economics. The theme of the 2013 award was “Trendspotting in Asset Markets,” and the Nobel Committee pointed to Shiller’s work in forecasting intermediate-term moves in asset prices. The Nobel Committee was impressed with his work identifying that stock prices fluctuate much more than corporate dividends, and that the ratio of prices to dividends tends to fall when it is high, and to increase when it is low. More recently, Professor Shiller wrote *Narrative Economics: How Stories Go Viral and Drive Major Economic Events*.² In the book he gives a groundbreaking account of how stories help drive economic events—and why financial panics can spread like epidemic viruses.

Another high-profile behavioral finance researcher, Professor Richard Thaler, PhD (Figure 1.4), is the 2017 recipient of the Nobel Memorial Prize in Economic Sciences for his contributions to behavioral economics. Thaler studies behavioral economics and finance as well as the psychology of decision-making which lies in the gap between economics and psychology. At the University of Chicago Graduate School of Business, he investigates the implications of relaxing the standard economic assumption that everyone in the economy is rational and selfish; instead he entertains the possibility that some of the agents in the economy are human. He penned a classic commentary with Owen Lamont entitled “Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs,”³ on the general topic of irrational investor behavior set amid the tech bubble. The work relates to 3Com Company’s 1999 spin-off of Palm, Inc. and argues that if investor behavior were indeed rational, then 3Com would have maintained a positive market value for a few months after the Palm Pilot spin-off. In actuality, after 3Com distributed shares of Palm Pilot to shareholders in March 2000, Palm Pilot traded at levels exceeding the underlying value of the shares of the original company. “This would not happen in a rational world,” Thaler notes. Professor Thaler is also the author of the book *Advances in Behavioral Finance*, which was published in 1993.

More recently, Professor Thaler, is the co-author (with Cass R. Sunstein) of the global best seller *Nudge* (2008) in which the concepts of behavioral economics are used to tackle many of society’s major problems. In 2015 he published *Misbehaving: The Making of Behavioral Economics*.

² Robert Shiller, *Narrative Economics: How Stories Go Viral and Drive Major Economic Events* (Princeton University Press 2019)

³ Owen A. Lamont and Richard H. Thaler, “Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs,” *Journal of Political Economy* 111(2) (2003): 227–268.

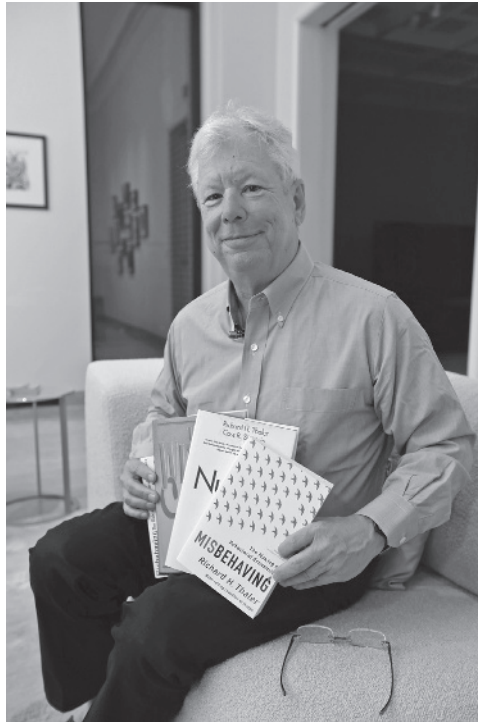


Figure 1.4 Richard Thaler, PhD, 2017 Recipient of the Nobel Memorial Prize in Economic Sciences

Source: Anne Ryan/Chicago Booth

He has authored or edited four other books: *Quasi-Rational Economics*, *The Winner's Curse: Paradoxes and Anomalies of Economic Life*, and *Advances in Behavioral Finance* (editor) Volumes I and II. He has published numerous articles in prominent journals such as the *American Economics Review*, the *Journal of Finance* and the *Journal of Political Economy*.

The following is an interesting and insightful excerpt from an interview Amazon.com conducted with Thaler and Sunstein.⁴ I particularly like the reference to choice architecture.

Amazon.com: What do you mean by “nudge” and why do people sometimes need to be nudged?

Thaler and Sunstein: By a nudge we mean anything that influences our choices. A school cafeteria might try to nudge kids toward good diets by putting the healthiest foods at front. We think that it’s time for

⁴ www.amazon.com

institutions, including government, to become much more user-friendly by enlisting the science of choice to make life easier for people and by gently nudging them in directions that will make their lives better.

Amazon.com: Can you describe a nudge that is now being used successfully?

Thaler and Sunstein: One example is the *Save More Tomorrow* program. Firms offer employees who are not saving very much the option of joining a program in which their saving rates are automatically increased whenever the employee gets a raise. This plan has more than tripled saving rates in some firms and is now offered by thousands of employers.

Amazon.com: What is “choice architecture” and how does it affect the average person’s daily life?

Thaler and Sunstein: Choice architecture is the context in which you make your choice. Suppose you go into a cafeteria. What do you see first, the salad bar or the burger and fries stand? Where’s the chocolate cake? Where’s the fruit? These features influence what you will choose to eat, so the person who decides how to display the food is the choice architect of the cafeteria. All of our choices are similarly influenced by choice architects. The architecture includes rules deciding what happens if you do nothing; what’s said and what isn’t said; what you see and what you don’t. Doctors, employers, credit card companies, banks, and even parents are choice architects.

We show that by carefully designing the choice architecture, we can make dramatic improvements in the decisions people make, without forcing anyone to do anything. For example, we can help people save more and invest better in their retirement plans, make better choices when picking a mortgage, save on their utility bills, and improve the environment simultaneously. Good choice architecture can even improve the process of getting a divorce—or (a happier thought) getting married in the first place!

Amazon.com: You point out that most people spend more time picking out a new TV or audio device than they do choosing their health plan or retirement investment strategy. Why do most people go into what you describe as “auto-pilot mode” even when it comes to making important long-term decisions?

Thaler and Sunstein: There are three factors at work. First, people procrastinate, especially when a decision is hard. And having too many choices can create an information overload. Research shows that in many situations people will just delay making a choice altogether if they can (say by not joining their 401(k) plan), or will just take the easy way out by selecting the default option, or the one that is being suggested by a pushy salesman.

Second, our world has gotten a lot more complicated. Thirty years ago most mortgages were of the 30-year fixed-rate variety, making them easy to compare. Now mortgages come in dozens of varieties, and even finance professors can have trouble figuring out which one is best. Since the cost of figuring out which one is best is so hard, an unscrupulous mortgage broker can easily push unsophisticated borrowers into taking a bad deal.

Third, although one might think that high stakes would make people pay more attention, instead it can just make people tense. In such situations some people react by curling into a ball and thinking, well, err, I'll do something else instead, like stare at the television or think about baseball. So, much of our lives is lived on auto-pilot, because weighing complicated decisions is not so easy, and sometimes not so fun. Nudges can help ensure that even when we're on auto-pilot, or unwilling to make a hard choice, the deck is stacked in our favor.

Another prolific contributor to behavioral finance is Meir Statman, PhD, of the Leavey School of Business, Santa Clara University (Figure 1.5).

Statman is the author of many significant works in the field of behavioral finance, including an early paper entitled "Behavioral Finance: Past



Figure 1.5 Meir Statman, PhD, Glenn Klimek Professor of Finance at the Leavey School of Business, Santa Clara University

Source: www.scu.edu

Battles and Future Engagements,”⁵ which is regarded as another classic in behavioral finance research. His research posed decisive questions: What are the cognitive errors and emotions that influence investors? What are investor aspirations? How can financial advisors and plan sponsors help investors? What is the nature of risk and regret? How do investors form portfolios? How important are tactical asset allocation and strategic asset allocation? What determines stock returns? What are the effects of sentiment? Statman produces insightful answers to all of these points. Professor Statman has won the William F. Sharpe Best Paper Award, a Bernstein Fabozzi/Jacobs Levy Outstanding Article Award, and two Graham and Dodd Awards of Excellence.

More recently, Professor Statman has written a book entitled *What Investors Really Want*.⁶ According to Statman, what investors really want is three kinds of benefits from our investments: utilitarian, expressive, and emotional. Utilitarian benefits are those investment benefits that drop to the bottom line: what money can buy. Expressive benefits convey to us and to others an investor's values, tastes, and status. For example, Statman contends that hedge funds express status, and socially responsible funds express virtue. Emotional benefits of investments express how people feel. His examples are: insurance policies make people feel safe, lottery tickets and speculative stocks give hope, and stock trading gives people excitement.

Perhaps the greatest realization of behavioral finance as a unique academic and professional discipline is found in the work of Daniel Kahneman and Vernon Smith, who shared the very first behavioral finance-related Nobel Prize in Economic Sciences in 2002. The Nobel Prize organization honored Kahneman for “having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty.” Smith similarly “established laboratory experiments as a tool in empirical economic analysis, especially in the study of alternative market mechanisms,” garnering the recognition of the committee.⁷

⁵ This paper can be found on Meir Statman's home page at <http://lsb.scu.edu/finance/faculty/Statman/Default.htm>

⁶ Meir Statman, *What Investors Really Want: Discover What Drives Investor Behavior and Make Smarter Financial Decisions* (New York: McGraw Hill, 2011).

⁷ Nobel Prize web site: <http://nobelprize.org/economics/laureates/2002/>

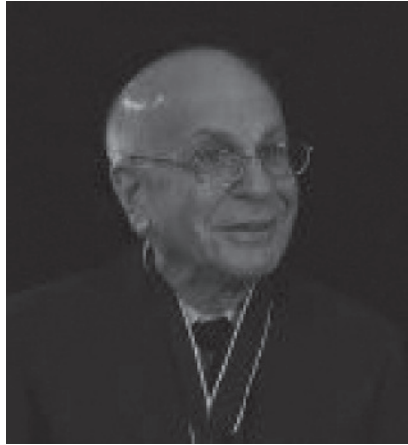


Figure 1.6 Daniel Kahneman, 2002 Nobel Prize Winner in Economic Sciences

Source: The White House

Professor Kahneman (Figure 1.6) found that under conditions of uncertainty, human decisions systematically depart from those predicted by standard economic theory. Kahneman, together with Amos Tversky (deceased in 1996), formulated prospect theory. An alternative to standard models, prospect theory provides a better account for observed behavior and is discussed at length in later chapters. Kahneman also discovered that human judgment may take heuristic shortcuts that systematically diverge from basic principles of probability. His work has inspired a new generation of research employing insights from cognitive psychology to enrich financial and economic models.

Another notable figure is Professor Dan Ariely (Figure 1.7). Professor Ariely is the James B. Duke Professor of Psychology and Behavioral Economics at Duke University and a founding member of the Center for Advanced Hindsight. He does research in behavioral economics on the irrational ways people behave. His immersive introduction to irrationality took place as he overcame injuries sustained in an explosion. He began researching ways to better deliver painful and unavoidable treatments to patients. Ariely became engrossed with the idea that we repeatedly and predictably make the wrong decisions in many aspects of our lives, and that research could help change some of these patterns.



Figure 1.7 Professor Dan Ariely, James B. Duke Professor of Marketing

Source: Yael Zur, for Tel Aviv University Alumni Organization, https://commons.wikimedia.org/wiki/File:Dan_Ariely_January_2019.jpg. CC BY-SA 4.0.

His works include *Irrationally Yours*, *Predictably Irrational*, *The Upside of Irrationality*, *The (Honest) Truth About Dishonesty*, the movie *Dishonesty* and the card game *Irrational Game*. These works describe his research findings in non-academic terms, so that more people will discover the excitement of behavioral economics and use some of the insights to enrich their own lives.

Behavioral Finance Micro versus Behavioral Finance Macro

As we have observed, behavioral finance models and interprets phenomena ranging from individual investor conduct to market-level outcomes. Therefore, it is a difficult subject to define. For practitioners and investors reading this book, this is a major problem, because our goal is to develop a common vocabulary so that we can apply behavioral finance. For purposes of this book, we adopt an approach favored by traditional economics textbooks; we break our topic down into two subtopics: behavioral finance micro and behavioral finance macro.

1. Behavioral finance micro (BFMI) examines behaviors or biases of individual investors that distinguish them from the rational actors envisioned in classical economic theory.

2. Behavioral finance macro (BFMA) detects and describe anomalies in the efficient market hypothesis that behavioral models may explain.

Each of the two subtopics of behavioral finance corresponds to a distinct set of issues within the standard finance versus behavioral finance discussion. With regard to BFMA, the debate asks: Are markets “efficient,” or are they subject to behavioral effects? With regard to BFMI, the debate asks: Are individual investors perfectly rational, or can cognitive and emotional errors impact their financial decisions? These questions are examined in the next section of this chapter; but to set the stage for the discussion, it is critical to understand that much of economic and financial theory is based on the notion that individuals act rationally and consider all available information in the decision-making process. In academic studies, researchers have documented abundant evidence of irrational behavior and repeated errors in judgment by adult human subjects.

Finally, one last thought before moving on. It should be noted that there is an entire body of information available on what the popular press has termed the *psychology of money*. This subject involves individuals’ relationship with money—how they spend it, how they feel about it, and how they use it. There are many useful books in this area; however, this book will not focus on these topics, it will focus on building better portfolios.

Standard Finance versus Behavioral Finance

This section reviews two basic concepts in standard finance that behavioral finance disputes: rational markets and the rational economic man. It also covers the basis on which behavioral finance proponents challenge each tenet and discusses some evidence that has emerged in favor of the behavioral approach.

Overview

On Monday, October 18, 2004, a significant but mostly unnoticed article appeared in the *Wall Street Journal*. Eugene Fama, one of the leading scholars of the efficient market school of financial thought, was cited

admitting that stock prices could become “somewhat irrational.”⁸ Imagine a renowned and rabid Boston Red Sox fan proposing that Fenway Park be renamed Mariano Rivera Stadium (after the outstanding New York Yankees pitcher), and you may begin to grasp the gravity of Fama’s concession. The development raised eyebrows and pleased many behavioralists. (Fama’s paper “Market Efficiency, Long-Term Returns, and Behavioral Finance” noting this concession at the Social Science Research Network is one of the most popular investment downloads on the web site.) The *Journal* article also featured remarks by Roger Ibbotson, founder of Ibbotson Associates: “There is a shift taking place,” Ibbotson observed. “People are recognizing that markets are less efficient than we thought.”⁹

As Meir Statman eloquently put it, “Standard finance is the body of knowledge built on the pillars of the arbitrage principles of Miller and Modigliani, the portfolio principles of Markowitz, the capital asset pricing theory of Sharpe, Lintner, and Black, and the option-pricing theory of Black, Scholes, and Merton.”¹⁰ Standard finance theory is designed to provide mathematically elegant explanations for financial questions that, when posed in real life, are often complicated by imprecise, inelegant conditions. The standard finance approach relies on a set of assumptions that oversimplify reality. For example, embedded within standard finance is the notion of *Homo economicus*, or rational economic man. It prescribes that humans make perfectly rational economic decisions at all times. Standard finance, basically, is built on rules about how investors “should” behave, rather than on principles describing how they actually behave. Behavioral finance attempts to identify and learn from the human psychological phenomena at work in financial markets and within individual investors. Standard finance grounds its assumptions in idealized financial behavior; behavioral finance grounds its assumptions in observed financial behavior.

⁸ Jon E. Hilsenrath, “Belief in Efficient Valuation Yields Ground to Role of Irrational Investors: Mr. Thaler Takes on Mr. Fama,” *Wall Street Journal*, October 18, 2004.

⁹ Jon E. Hilsenrath, “Belief in Efficient Valuation Yields Ground to Role of Irrational Investors: Mr. Thaler Takes on Mr. Fama,” *Wall Street Journal*, October 18, 2004.

¹⁰ Meir Statman, “Behavioral Finance: Past Battles and Future Engagements,” *Financial Analysts Journal* 55(6) (November/December 1999): 18–27.

Efficient Markets versus Irrational Markets

During the 1970s, the standard finance theory of market efficiency became the model of market behavior accepted by the majority of academics and a good number of professionals. The efficient market hypothesis had matured in the previous decade, stemming from the doctoral dissertation of Eugene Fama. Fama persuasively demonstrated that in a securities market populated by many well-informed investors, investments will be appropriately priced and will reflect all available information. There are three forms of the efficient market hypothesis:

1. The “Weak” form contends that all past market prices and data are fully reflected in securities prices; that is, technical analysis is of little or no value.
2. The “Semi-strong” form contends that all publicly available information is fully reflected in securities prices; that is, fundamental analysis is of no value.
3. The “Strong” form contends that all information is fully reflected in securities prices; that is, insider information is of no value.

If a market is efficient, then no amount of information or rigorous analysis can be expected to result in outperformance of a selected benchmark. An efficient market can basically be defined as a market wherein large numbers of rational investors act to maximize profits in the direction of individual securities. A key assumption is that relevant information is freely available to all participants. This competition among market participants results in a market wherein, at any given time, prices of individual investments reflect the total effects of all information, including information about events that have already happened, and events that the market expects to take place in the future. In sum, at any given time in an efficient market, the price of a security will match that security’s intrinsic value.

At the center of this market efficiency debate are the actual portfolio managers who manage investments. Some of these managers are fervently passive, believing that the market is too efficient to “beat”; some are active managers, believing that the right strategies can consistently generate alpha (alpha is performance above a selected benchmark). In reality, active managers have a hard time beating their benchmarks. This may explain why the popularity of exchange-traded funds (ETFs) has exploded and why venture capitalists are now supporting new ETF companies, many of which are offering a variation on the basic ETF theme.

The implications of the efficient market hypothesis are far-reaching. Most individuals who trade stocks and bonds do so under the assumption that the securities they are buying (selling) are worth more (less) than the prices that they are paying. If markets are truly efficient and current prices fully reflect all pertinent information, then trading securities in an attempt to surpass a benchmark is a game of luck, not skill.

The market efficiency debate has inspired literally thousands of studies attempting to determine whether specific markets are in fact “efficient.” Many studies do indeed point to evidence that supports the efficient market hypothesis. Researchers have documented numerous, persistent anomalies, however, that contradict the efficient market hypothesis. There are three main types of market anomalies: Fundamental Anomalies, Technical Anomalies, and Calendar Anomalies.

Fundamental Anomalies

Irregularities that emerge when a stock’s performance is considered in light of a fundamental assessment of the stock’s value are known as fundamental anomalies. Many people, for example, are unaware that value investing—one of the most popular and effective investment methods—is based on fundamental anomalies in the efficient market hypothesis. There is a large body of evidence documenting that investors consistently overestimate the prospects of growth companies and underestimate the value of out-of-favor companies.

One example concerns stocks with low price-to-book-value (P/B) ratios. Eugene Fama and Kenneth French performed a study of low price-to-book-value ratios that covered the period between 1963 and 1990.¹¹ The study considered all equities listed on the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), and the Nasdaq. The stocks were divided into 10 groups by book/market and were reranked annually. The lowest book/market stocks outperformed the highest book/market stocks 21.4 percent to 8 percent, with each decile performing more poorly than the previously ranked, higher-ratio decile. Fama and French also ranked the deciles by beta and found that the value stocks posed lower risk and that the growth stocks had the highest risk. Another famous value investor, David Dreman, found that

¹¹ Eugene Fama and Kenneth French, “The Cross-Section of Expected Stock Returns,” *Journal of Finance* 47(2) (1992): 427–465.

for the 25-year period ending in 1994, the lowest 20 percent P/B stocks (quarterly adjustments) significantly outperformed the market; the market, in turn, outperformed the 20 percent highest P/B of the largest 1,500 stocks on Compustat.¹²

Securities with low price-to-sales ratios also often exhibit performance that is fundamentally anomalous. Numerous studies have shown that low P/B is a consistent predictor of future value. In *What Works on Wall Street*, however, James P. O'Shaughnessy demonstrated that stocks with low price-to-sales ratios outperform markets in general and also outperform stocks with high price-to-sales ratios. He believes that the price/sales ratio is the strongest single determinant of excess return.¹³

Low price-to-earnings ratio (P/E) is another attribute that tends to anomalously correlate with outperformance. Numerous studies, including David Dreman's work, have shown that low P/E stocks tend to outperform both high P/E stocks and the market in general.¹⁴

Ample evidence also indicates that stocks with high dividend yields tend to outperform others. The Dow Dividend Strategy counsels purchasing the 10 highest-yielding Dow stocks.

Technical Anomalies

Another major debate in the investing world revolves around whether past securities prices can be used to predict future securities prices. "Technical analysis" encompasses a number of techniques that attempt to forecast securities prices by studying past prices. Sometimes, technical analysis reveals inconsistencies with respect to the efficient market hypothesis; these are technical anomalies. Common technical analysis strategies are based on relative strength and moving averages, as well as on support and resistance. While a full discussion of these strategies would prove too intricate for our purposes, there are many excellent books on the subject of technical analysis. In general, the majority of research-focused technical analysis trading methods (and, therefore, by extension, the weak-form efficient market hypothesis) finds that prices adjust rapidly in response to new stock market information and that technical analysis techniques are not likely to provide any advantage to

¹² Dream Value Management web site: www.dreman.com/

¹³ James O'Shaughnessy, *What Works on Wall Street* (New York: McGraw-Hill Professional, 2005).

¹⁴ Dream Value Management web site: www.dreman.com/

investors who use them. However, proponents continue to argue the validity of certain technical strategies.

Calendar Anomalies

One calendar anomaly is known as “The January Effect.” Historically, stocks in general and small stocks in particular have delivered abnormally high returns during the month of January. Robert Haugen and Philippe Jorion, two researchers on the subject, note that “the January Effect is, perhaps, the best-known example of anomalous behavior in security markets throughout the world.”¹⁵ The January Effect is particularly illuminating because it hasn’t disappeared, despite being well known for 25 years (according to arbitrage theory, anomalies should disappear as traders attempt to exploit them in advance).

The January Effect is attributed to stocks rebounding following year-end tax selling. Individual stocks depressed near year-end are more likely to be sold for tax-loss harvesting. Some researchers have also begun to identify a “December Effect,” which stems both from the requirement that many mutual funds report holdings as well as from investors buying in advance of potential January increases.

Additionally, there is a Turn-of-the-Month Effect. Studies have shown that stocks show higher returns on the last and on the first four days of each month relative to the other days. Frank Russell Company examined returns of the Standard & Poor’s (S&P) 500 over a 65-year period and found that U.S. large-cap stocks consistently generate higher returns at the turn of the month.¹⁶ Some believe that this effect is due to end-of-month cash flows (salaries, mortgages, credit cards, etc.). Chris Hensel and William Ziemba found that returns for the turn of the month consistently and significantly exceeded averages during the interval from 1928 through 1993 and “that the total return from the S&P 500 over this sixty-five-year period was received mostly during the turn of the month.”¹⁷ The study implies that investors making regular purchases may benefit by scheduling those purchases prior to the turn of the month.

¹⁵ Robert Haugen and Philippe Jorion, “The January Effect: Still There after All These Years,” *Financial Analysts Journal* 52(1) (January–February 1996): 27–31.

¹⁶ Russell Investment Group web site: www.russell.com/us/education_center/

¹⁷ Chris R. Hensel and William T. Ziemba, “Investment Results from Exploiting Turn-of-the-Month Effects,” *Journal of Portfolio Management* 22(3) (Spring 1996): 17–23.

Validity exists in both the efficient market and the anomalous market theories. In reality, markets are neither perfectly efficient nor completely anomalous. Market efficiency is not black or white but rather, varies by degrees of gray, depending on the market in question. In markets exhibiting substantial inefficiency, savvy investors can strive to outperform less savvy investors. Many believe that large-capitalization stocks, such as GE and Microsoft, tend to be very informative and efficient stocks but that small-capitalization stocks and international stocks are less efficient, creating opportunities for outperformance. Real estate, while traditionally an inefficient market, has become more transparent and, there are REIT index products for gaining direct market exposure. Finally, the venture capital market, lacking fluid and continuous prices, is considered to be less efficient due to information asymmetries between players.

Rational Economic Man versus Behaviorally Biased Man

Stemming from neoclassical economics, *Homo economicus* is a simple model of human economic behavior, which assumes that principles of perfect self-interest, perfect rationality, and perfect information govern economic decisions by individuals. Like the efficient market hypothesis, *Homo economicus* is a tenet that economists uphold with varying degrees of stringency. Some have adopted it in a semi-strong form; this version does not see rational economic behavior as perfectly predominant but still assumes an abnormally high occurrence of rational economic traits. Other economists support a weak form of *Homo economicus*, in which the corresponding traits exist but are not strong. All of these versions share the core assumption that humans are “rational maximizers” who are purely self-interested and make perfectly rational economic decisions. Economists like to use the concept of the rational economic man for two primary reasons:

1. *Homo economicus* makes economic analysis relatively simple. Naturally, one might question how useful such a simple model can be.
2. *Homo economicus* allows economists to quantify their findings, making their work more elegant and easier to digest. If humans are perfectly rational, possessing perfect information and perfect self-interest, then perhaps their behavior can be quantified.

Most criticisms of *Homo economicus* proceed by challenging the bases for these three underlying assumptions—perfect rationality, perfect self-interest, and perfect information.

1. Perfect rationality. When humans are rational, they have the ability to reason and to make beneficial judgments. However, rationality is not the sole driver of human behavior. In fact, it may not even be the primary driver, as many psychologists believe that the human intellect is actually subservient to human emotion. They contend, therefore, that human behavior is less the product of logic than of subjective impulses, such as fear, love, hate, pleasure, and pain. Humans use their intellect only to achieve or to avoid these emotional outcomes.
2. Perfect self-interest. Many studies have shown that people are not perfectly self-interested. If they were, philanthropy would not exist. Religions prizing selflessness, sacrifice, and kindness to strangers would also be unlikely to prevail as they have over centuries. Perfect self-interest would preclude people from performing such unselfish deeds as volunteering, helping the needy, or serving in the military. It would also rule out self-destructive behavior, such as suicide, alcoholism, and substance abuse.
3. Perfect information. Some people may possess perfect or near-perfect information on certain subjects; a doctor or a dentist, one would hope, is impeccably versed in his or her field. It is impossible, however, for every person to enjoy perfect knowledge of every subject. In the world of investing, there is nearly an infinite amount to know and learn; and even the most successful investors don't master all disciplines.

Many economic decisions are made in the absence of perfect information. For instance, some economic theories assume that people adjust their buying habits based on the Federal Reserve's monetary policy. Naturally, some people know exactly where to find the Fed data, how to interpret it, and how to apply it; but many people don't know or care who or what the Federal Reserve is. Considering that this inefficiency affects millions of people, the idea that all financial actors possess perfect information becomes implausible.

Again, as with market efficiency, human rationality rarely manifests in black or white absolutes. It is better modeled across a spectrum of gray. People are neither perfectly rational nor perfectly irrational; they possess diverse combinations of rational and irrational characteristics, and benefit from different degrees of enlightenment with respect to different issues.