

Richard Thaler’s “Misbehaving” and Implications for Investors and Advisors

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by Joe Tomlinson

Richard Thaler is out with a new book, *Misbehaving*, tracing his career in behavioral economics. It offers an appealing combination of entertaining writing and serious discussion of the many areas he has researched. The book is a natural complement to Daniel Kahneman’s classic, *Thinking, Fast and Slow*. I’ll briefly compare these two books and then address what Thaler’s work says about two issues particularly important to financial advisors.

Misbehaving is a quicker read than Kahneman’s book, but it still provides a wealth of material on a behavioral economics. It’s also a more personal book, chronicling Thaler’s career starting in the late 1960s when he began to take note of inconsistencies between the economists’ model of rational choice and how people actually behaved. The books are different in that Kahneman has studied human decision-making from a psychologist’s viewpoint, whereas Thaler’s is from an economist’s perspective, with much of the focus on how his views differ from those of classic economists.

A central theme of both books is the distinction between normative and descriptive theories. Normative describes the “right” way to make decisions in terms of a logically consistent approach to optimizing a goal. It’s the classical theory on which many economic models are based, including models that assume individuals make decisions with an aim of maximizing utility. Descriptive theories attempt to characterize how decisions get made in practice – with limited information, affected by a variety of biases and often relying on imperfect rules of thumb. It’s important to understand the descriptive aspects in order to better predict behavior and help people to achieve their long-term goals.

Kahneman makes a distinction between what he called “system 1” thinking, which is quick and automatic, and “system 2,” which demands much more effort. Thaler makes a similar distinction between humans and Spock-like “econs.” Dealing effectively with financial issues such as choosing an asset allocation, determining a retirement withdrawal plan or deciding how to react to a market downturn calls for system 2 or econ thinking. However, people are limited in their intellectual and emotional capacity, so system 1 and the human approach to decision-making more often come into play.

Investment insights

Historically there have been opportunities to earn higher risk-adjusted returns by following certain investment strategies, for example, investing in small-cap value stocks. The econ view, consistent with the efficient market hypothesis (EMH), is that such anomalies should not exist, but clearly they

do. The lack of enthusiasm for such strategies among econs reflects further arguments (despite some contrary evidence) that the risks have been mis-specified or that such anomalies will be arbitrated away in the future. Therefore it is not worth following these strategies unless one is willing to accept more risk.

But the behaviorists make the argument that such opportunities are likely to persist into the future. The difference stems from human versus econ decision-making. The human approach relies heavily on system 1, characterized by an incomplete view of history, overconfidence based on over-reliance on recent information and headlines, and confirmation bias stemming from the way the mind filters information.

Chapters 22 and 23 of *Misbehaving* summarize research that Thaler did with Werner De Bondt in the 1980s, proposing a behavioral explanation for the value premium. They started by noting the surprisingly high trading volumes in stocks, and they hypothesized that this resulted from investor overconfidence and overreacting to new information. They tested their hypothesis by constructing portfolios of winner and loser stocks based on past performance and demonstrated that, going forward, the losers outperformed the winners. The losers, having produced poor results for a number of years, tended to fall in the value category. More details can be found in their [1985 paper](#).

Thaler's research on the value premium and overreaction in the valuation of individual stocks parallels Robert Shiller's research on overall stock market overreaction, which led to his development of PE 10 or cyclically-adjusted price-to-earnings ratio (CAPE) as a predictor of long-term stock market performance. An often-debated question is whether PE 10 will continue to be a useful indicator. Econs argue that investment professionals will incorporate the PE 10 effect in tactical investment strategies and arbitrage its predictive power away. The behavioral view is that such professionals are still human and will continue to exhibit the same biases in decision-making that have made PE 10 a useful indicator historically. Thaler describes Shiller as a "fellow co-conspirator" in the behavioral economics crusade.

Thaler's most ingenious application of behavioral economics to investments was the research he did with Shlomo Benartzi on the equity risk premium puzzle, summarized in chapter 20 of the book and originally presented in this [1995 paper](#). Classical economic theory and utility theory in particular could not explain the large difference between historical returns for stocks versus bonds. Benartzi and Thaler's research with individual subjects came up with the concept of "myopic loss aversion," concluding that ability to tolerate stock market risk is an inverse function of the frequency of checking on performance. Thaler lightheartedly suggests investing heavily in stocks, but avoiding all stock market news, especially cable television.

Thaler's research 20 to 30 years ago seems primitive compared to the much more mathematical performance attribution analysis being done today. However, history – including its countless market inefficiencies – keeps repeating itself, which supports the behavioral perspective. That underlies the striking difference in human versus econ views on investment opportunities.

The annuity puzzle

Perhaps the starkest difference in human versus econ behavior involves the much analyzed “annuity puzzle.” The econ view was first articulated by economist Menachin Yaari in 1965. He developed a theoretical demonstration showing that individuals without a bequest motive could maximize lifetime utility by annuitizing all their savings. The reality is that very few individuals choose to purchase annuities, at least the simple kind (e.g., single-premium immediate annuities - SPIAs) that turn savings directly into lifetime income. There have been numerous articles and papers over the years attempting to explain this dichotomy.

Neither Kahneman’s nor Thaler’s books discuss the annuity puzzle, but both books discuss behavioral biases that are applicable and other sources address the issue directly. The endowment effect – that people place higher values on things they already own than on what they would receive in the future – may partially explain the puzzle. We see individuals reluctant to “sell” savings in exchange for lifetime income, but we don’t see popular demand to allow cashing in the lifetime income from Social Security. The endowment effect is tied in to the “status quo bias,” inertia and regret avoidance – people experience greater regret when problems emerge as a result of taking action (e.g., buying an annuity) rather than staying with the status quo (e.g., leaving money in savings). Regret avoidance is also tied in with loss aversion, an indication of how the various behavioral biases are tied together.

Another contributor to the annuity puzzle is that humans are not good at doing the translation between savings and lifetime income. A recent [study](#) by economist Jeffrey Brown and a group of co-authors surveyed individuals about the savings/income tradeoff and included the question, “How much would you pay for an additional \$100 per month in Social Security income?” The median answer was \$3,000. But the price for an inflation-adjusted SPIA with an initial monthly payout of \$100 is about \$30,000. Small wonder that people are reluctant to purchase SPIAs.

Jeffrey Brown was also involved in an earlier [study](#) that demonstrated the impact of behavioral framing effects on the attractiveness of annuities. Framing the annuity as purchasing additional lifetime consumption proved more attractive to survey participants than an investment framing where returns vary with the length of life.

Overconfidence is another bias that may discourage annuity purchase, particularly if amplified by advisor overconfidence about producing superior retirement outcomes without annuitization.

This [study](#) by Steven Sass and Jorge Ramos-Mercado on Americans’ shortsightedness about finances provides more bad news for annuities. They found that Americans of all ages and income levels tend to focus on day-to-day finances while ignoring long-term financial issues. A shocking finding was that having no retirement plan had no significant effect on self-assessments of financial well-being, even for those approaching retirement. Although there are other surveys where Americans express retirement concerns when prompted, this particular study indicates that such concerns don’t rise to top-of-mind naturally, reflecting the behavioral bias of being present-focused.

Given all these behavioral considerations and today’s historically low interest rates (lowering annuity payout rates), it’s a wonder anyone buys an annuity.

Can the puzzle be solved?

There has been considerable progress in developing ways to encourage employees to save more for retirement, and a natural question is whether any of the lessons learned can be applied to de-accumulation after retirement. Thaler has been a leader in applying innovative ideas from behavioral economics to savings accumulation – advocating that 401(k) plans include auto-enrollment and auto-escalation provisions to make saving for retirement as automatic and painless as possible. His Save More Tomorrow program is summarized in chapter 31 of the book and covered more extensively in the book “Nudge,” which he co-authored with Cass Sunstein. Making effective change on the accumulation side depends heavily on 401(k) plan sponsors changing the way they administer their retirement savings plans.

When we turn to the de-accumulation side and the annuity puzzle, things are much more in the hands of individuals and their advisors, but there may also be things employers can do to set employees up for retirement. Thaler and his co-authors provide some suggestions in this [article](#) on annuitization puzzles, focusing on steps the government could take to facilitate more annuitization. They looked at Social Security and how communications could be changed to encourage deferred claiming to generate higher benefits and build a more substantial base of guaranteed lifetime income before considering additional annuitization.

The authors then addressed what can be done to make more automatic de-accumulation features available, paralleling what has already been accomplished on the accumulation side. Their simple idea is that if you want to facilitate people doing something, you need to make it easy to do. Unfortunately, a significant barrier discouraging employers from encouraging annuitization is the potential legal liability for plan sponsors in choosing annuity carriers.

British economists David Blake and Tom Boardman have entered this discussion with their proposed spending optimally throughout retirement (“Speedometer”) program for de-accumulation. Their approach parallels Thaler and Sunstein’s Save More Tomorrow, and they apply Thaler’s econ and human concepts in addressing the behavioral issues that underlie the reluctance to annuitize and the suboptimal drawdown of retirement assets. They present their proposal in this [detailed paper](#), which is worth careful reading to appreciate how they have addressed the many behavioral issues.

The de-accumulation side presents bigger challenges than accumulation, but there is hope with innovative proposals that deal with the behavioral barriers.

The political dimension

Thaler has been accused by some of advocating paternalistic policies and too intrusive a role for government. His counterargument is that, if people make predictable errors, it may be feasible to devise policies that reduce the error rate without taking away the right to choose. The goal is to reduce what people themselves would call “errors.” I personally favor placing a lot of emphasis on the behavioral issues in designing policy solutions and delivering financial advice, but I realize many others will continue to view behavioral biases as irrelevant anomalies. The debate will go on.



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The Inventor of Behavioral Finance Looks Back

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by Laurence B. Siegel

“Economics is... a branch of... animal behavior.” – Walter L. Battaglia¹

Behavioral finance is one of the great discoveries of our time, and the University of Chicago professor and investment manager Richard Thaler is one of its principal discoverers. *Misbehaving* is Thaler’s personal account of his discoveries, which influence the way assets are managed, policy is conducted and economic theory is understood and taught.

Behavioral finance is the idea that investors do not act like the rational optimizers and profit maximizers that neoclassical economics assumes them to be. (Behavioral economics, a related field also closely linked to Thaler, studies irrational behavior in the real economy.)

Misbehaving is not an exceptional read. Thaler is not Michael Lewis or Peter Bernstein, weaving dry concepts into magical prose. His book, constructed as a memoir, is workmanlike and informative with much to recommend it. But the reader is unlikely to come away with a changed view of the world. Those interested in revolutionizing their thinking on human behavior as it relates to investing should start with Daniel Kahneman’s *Thinking, Fast and Slow* – a psychology book – and Hersh Shefrin’s *Beyond Greed and Fear*, which delves deeply into the investment issues raised by behavioral finance.² Read those and add Thaler’s book as enrichment.

Misbehaving is one part personal history, one part brief against neoclassical economics, one part primer on behavioral economics and finance and one part guide to practical applications. (The main applications are active investment management, where investors’ predictable errors provide a framework for beating the market and “nudge” policies, which are behavioral tricks intended to help people help themselves, for example by saving more.) While *Misbehaving* does not hold together as a unitary book, it combines different aspects of Thaler’s work into a single, accessible volume, and in that regard it succeeds.

A personal victory

Thaler’s journey through the economics profession was a curious one. As a young Ph.D. student, he attacked head-on one of the most fundamental principles of conventional economics, the assumption that economic agents (people) act rationally. Others who had taken this path did not get far. The late labor economist Sherwin Rosen, unimpressed with Thaler, said, “We did not expect much of him.”³ Yet, some decades later, Thaler ended up as president of the American Economics

Association, the field's most prestigious group. In that sense behavioral economists have won – it has become socially acceptable to be one – despite the persistence of the rationality assumption as the foundation of economic analysis.

Cognitive biases

Behavioral economics and behavioral finance are based on the observation that people do not process information rationally. Instead, they suffer from cognitive biases, imperfections in processing that cause people to believe things that aren't true, misunderstand the consequences of even simple decisions and act against their own interest. Thaler devotes several chapters to documenting these often amusing foibles.

For example, a plurality of people surveyed think that if they paid \$20 for a bottle of wine, but it is now worth \$75, drinking the bottle costs them nothing (because they already paid for it), but dropping and breaking the bottle costs them \$75. If that is the best that people can do in assessing the costs and benefits of an action, no wonder they misprice securities, invest in funds that have already gone up and fail to save enough for retirement! The behavioral critique of rationality in economics and finance certainly has strong intuitive appeal.

Humans and econs

Thaler draws a sharp distinction between real people, who make mistakes – “humans” – and the fictional agents of economic models, whom he calls econs.⁴ Econs are lightning-fast calculators who have access to complete information about every situation, understand all of the ramifications of their decisions and make each decision with an eye to maximizing utility, invoking a kind of enlightened selfishness.⁵ People don't behave like that, so it's sensible to question what would happen to economic theories and predictions if one drops the assumption that they do. That is the essence of Thaler's contribution to economics, and it's a valuable one.

Yet Thaler overstates the faults of conventional economics. There may have been (and there still may be) economists who believe that humans act like utility-maximizing genius robots, but I haven't met one. More realistically, economists tend to believe that economic models can be constructed as *if* people behave like econs, and that such models are much more useful and accurately predictive than they would be if one had to drop the rationality assumption. Without the rational-agent assumption, economics would be lost at sea, unable to make a prediction or a policy recommendation – but that doesn't mean the assumption is, or should be, realistic. A half-century ago Milton Friedman famously argued that the test of a theory is the accuracy of its predictions, not the realism of its assumptions, and that principle still holds.⁶

The “as if” critique, dismissed by Thaler, is actually relevant

Thaler, noting that he encountered the “as if” critique often in his early effort to persuade colleagues of the behavioral view, is dismissive of it:⁷

One of the most prominent of the putdowns had only two words: “as if.” [T]he argument is that even if people are not capable of...solving the complex problems that economists assume they can handle, they behave “as if” they can... Even today, grunts of “as if” crop up in economics workshops to dismiss results that do not support standard theoretical predictions.

While Thaler is dismissive of this concept, it deserves a fair hearing.

It is hard to overstate the beauty and power of neoclassical, rationality-based economics as an explanation for the world as we see it (or “theory of everything”). Once you’ve grasped the importance of tradeoffs, incentives, competition, cooperation, decision-making on the margin and so forth, you see these principles in everything, including non-human realms such as biological evolution.⁸ Yet behavioral economics says that the founding principles of conventional economics, especially the assumption of rationality, are, in some sense, wrong. If that is the case, we can’t rely on the intuition provided by conventional economics, about the real economy, financial markets or much of anything else.

For example, conventional (neoclassical) economics says that companies increase their production until the marginal cost of a unit of production equals marginal revenue. By asking corporate managers, Thaler found that many companies don’t even know that their marginal cost varies with the amount produced, nor do they maximize profits by setting output at the optimal level. Instead, they try to sell the greatest number of units they possibly can.

Does behavioral economics, then, overturn this foundational idea, that companies set marginal cost equal to marginal revenue? Yes and no. “Sell as much as you can” is a pretty good – not perfect – heuristic for getting close to the profit-maximizing level of output because of the limits placed on “as much as you can” by competitors’ production and pricing, alternative uses for the money and consumers’ limited ability to pay. There will be some waste, some unsold goods, but not a lot! And there will be some waste with the marginal-cost method, too, because of error in estimating the proper level of output.

At any rate, companies will learn pretty quickly not to make massive, repeated mistakes in determining output because, if they do, investors will allocate capital elsewhere, driving the poorly-run company’s stock price down or running the company out of business (which is exactly as it should be; markets are a machine for allocating capital to its best use, unforgiving of poor management). The economy functions *as if* conventional economics is its set of operating instructions, even if that isn’t precisely true.

From behavioral economics to behavioral finance

As Thaler points out, finance is the branch of economics where behavior is most likely to be rational because financial markets tend to be liquid, transparent, deep, continuous and subject to arbitrage. Thus, it was in finance that the discovery of behavioral anomalies was most surprising and most vigorously resisted.

Still, the anomalies are there, and there are many of them. Thaler recounts many anecdotes familiar to readers of other behavioral finance literature. Among them are the stocks of 3Com and Palm, linked by crossholding, which were priced in such a way that, by using a long-short strategy, 3Com could theoretically be purchased at a negative price; the inconsistency of the prices of Royal Dutch and Shell, which are claims on the same corporate assets; the existence and persistence of value and small-cap anomalies that violate the CAPM; and many others. By the time Thaler is done, you would have to be immune to logical reasoning to believe that market prices, always and everywhere, reflect fundamental value.

The dogmatism of (some) academics

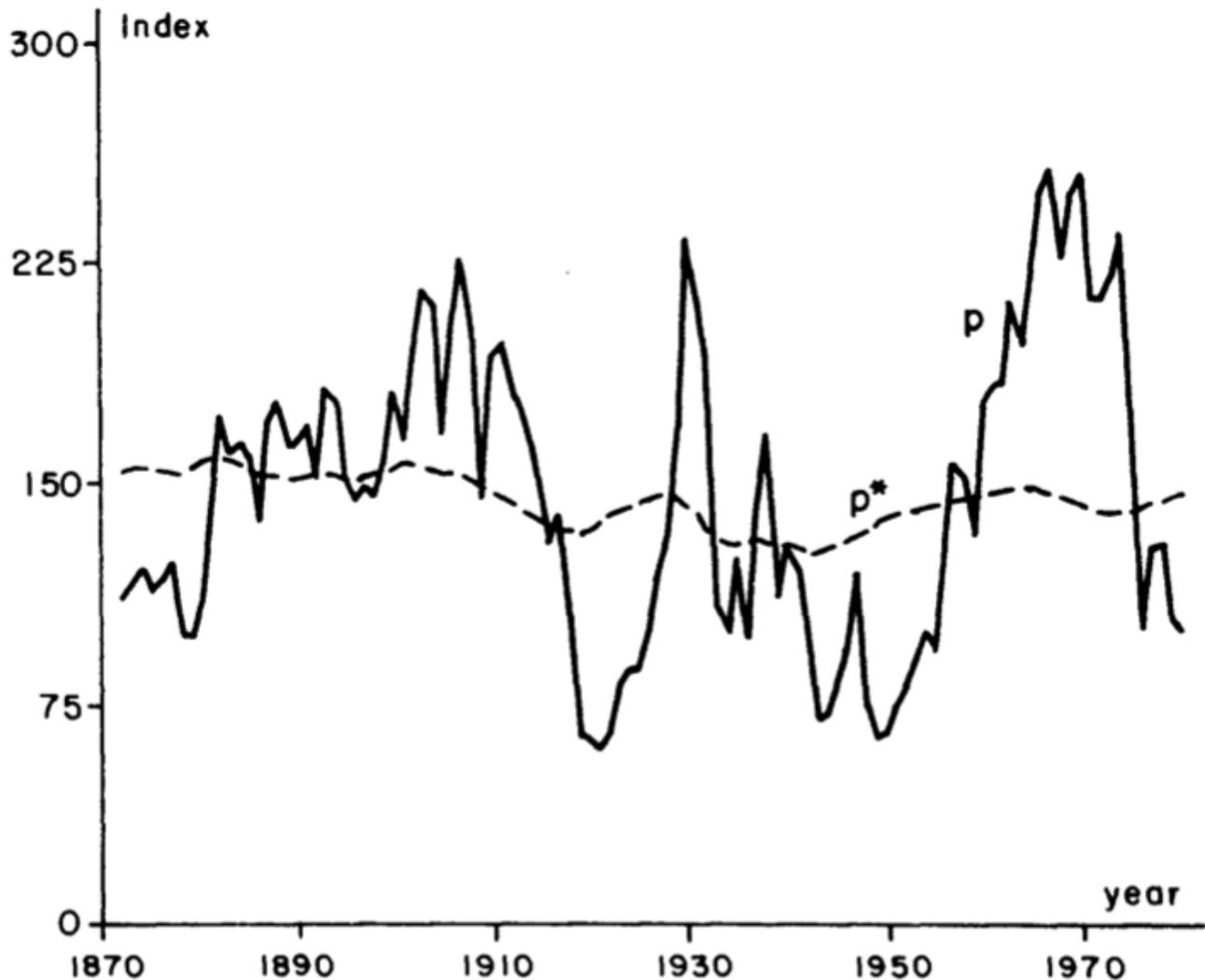
But today's investors are unlikely to appreciate the extent to which academics in the 1970s, when Thaler began his quest, shut out all attempts to show how or why markets might be inefficient. As Thaler notes, most papers that challenged efficient markets were rejected outright by prestigious journals, and the few that were accepted were accompanied by "abject apologies [from the authors] for the results."⁹ It was as though the authors had announced to their preachers that they had ceased to believe in God.

It is right for the proponents of a good theory to defend it from flaky, flat-Earth attackers. But, in the case of efficient versus inefficient markets, there were good arguments on both sides. The academic community should be embarrassed by the long delay between Fama's groundbreaking 1964 study showing that markets are likely to be efficient and the wide acceptance of market efficiencies in the 1990s; it was one of the worst examples of groupthink ever.¹⁰

Thaler and his behavioral compatriots, of course, had much to do with this shift in attitudes. Part of the shift came from the persistence of well-trained academics, such as Thaler, in poking holes in efficient markets – and part of it came from the obvious success of practitioners in exploiting inefficiencies, culminating in the hedge-fund craze of the last 20 years.¹¹ Readers interested in the history of financial thinking will find Thaler's account of this transition, and of his role in it, valuable.

Beating the market

The beginnings of behavioral finance, and of Thaler's story, rely heavily on Shiller's [1981] finding that stock indices fluctuate much more than can be justified by subsequent changes in fundamental value.¹² (See Exhibit 1, created by Shiller but reprinted in *Misbehaving*, comparing actual levels of the S&P 500 with hypothetical fair values calculated by discounting all future dividend payments, where the calculation is done as if those future dividends had been known with perfect foresight.¹³)



Do Stock Prices Move Too Much? Comparison of Detrended Real Stock Prices with Hypothetical Perfect-Foresight Prices Based on Future Dividends, 1871-1979

Source: Shiller (1981), p. 422.

I believe that stocks fluctuate more than is justified by changes in fundamentals – the crash of 1987 is a case in point – but Shiller’s argument is not a fully convincing one. Stock prices are present values and, as such, are exquisitely sensitive to changes in both the discount rate (which Shiller’s study takes into account) and the expected long-term growth rate (which it does *not* take into account). In the 1930s and, to some extent, the 1970s, it looked as though economic and earnings growth would be permanently much lower than before. In the 1960s and 1990s, growth was expected to be much higher than before. Nobody had perfect forecasts or even tolerably good ones. Of course stock prices fluctuated more than they would have if good long-term growth forecasts had

been available!

Today, stock prices are fairly high while growth is widely expected to be slow. Should equity owners sell? I did, prior to the crash of 2008, and I now regret my decision every time the market hits a new high. I'm also afraid to get back in. It's difficult to time the market, even if behavioral finance teaches us that the price is not always right.

Value versus growth

If stock prices overreact to changes in information – a hypothesis strongly supported by Thaler – then one should be a value investor. Good news causes a stock to become overpriced, even after taking into account the increase in fundamental value caused by the news, and you should sell the stock; likewise, bad news causes a stock to become underpriced and you should buy it. A value strategy will take advantage of this effect.

But Thaler also indicates that stock prices can underreact. If that is the case, then you should be a momentum investor! The reason is that good news, not fully incorporated in the stock price, will cause the stock to rise further after you've bought it.

So...which is it? The verdict seems to be that stock prices both overreact and underreact, and it's hard to tell which is which in any given situation. Stock prices, instead of being right all the time (the efficient market hypothesis), will be wrong much of the time. If that is the case, you should mostly be a value investor since wrong prices are a mixture of too high and too low, and value strategies overweight the low ones. This intuition has been vindicated by decades of value-stock outperformance although the value effect is highly variable and cannot be relied on in any short or even medium-length time period. Nor is there any assurance that the value advantage will not be arbitrated away as more capital flows into such strategies.

Nudge

The last chapters of *Misbehaving* recap Thaler's effort, with co-author Cass Sunstein, to help people achieve their savings goals and otherwise improve their lives.¹⁴ This effort, labeled "libertarian paternalism" by the authors, has begun to transform defined-contribution retirement savings. The idea is counter to the top-down, regulatory impulse of government and seeks to improve people's behavior *as judged according to their own criteria*. This last part is important.

Behavioral scientists have discovered that small influences or "nudges" can have big results. An example is Thaler and Benartzi's [2004] "Save More Tomorrow™" plan which, in a test site, increased employee savings for retirement from 3.5% to 13.6% in just four years by asking employees to commit to save part of their future raises.¹⁵ Since the normal cost of a traditional pension is only 15% of payroll, this plan could achieve the savings needed to help make DC plans work as well as DB plans (although the needed investment return at a savings rate of 15% is higher than one can reasonably expect under current market conditions).

Other “nudges” are having similar success in other areas, such as getting taxpayers in the U.K. to pay their taxes more promptly to avoid penalties. The idea is not new; the speed limit is basically a nudge, rarely enforced but widely followed within a standard error of about 9 miles per hour. But libertarian paternalism, in an era when government is not widely trusted but people desperately need help in achieving many different goals, is a concept with promise.

Conclusion

Misbehaving is a welcome addition to the literature on behavioral economics and finance. Its benefit to investors is indirect because it is a book on economic concepts, not investment strategy. Moreover, as a memoirist telling a tale of scientific discovery, it helps to be a natural raconteur like the great Richard Feynman.¹⁶ Thaler’s storytelling is drier and more matter-of-fact. But those wishing to round out their general knowledge of important topics that affect investors will benefit from reading *Misbehaving*.

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1. Battaglia, Walter L. 2005. *The Graduate Student's Question: Before the Last Tree*, self-published, p. 177. Let it never be said that I do not cite left-wing authors.
 2. Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. Random House, New York. Shefrin, Hersh. 2002. *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing*. Oxford University Press, Oxford, UK.
 3. *Misbehaving*, p. 12.
 4. Battaglia, Walter L. 2005. *The Graduate Student's Question: Before the Last Tree*, self-published, p. 177. Let it never be said that I do not cite left-wing authors.
 5. Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. Random House, New York. Shefrin, Hersh. 2002. *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing*. Oxford University Press, Oxford, UK.
 6. *Misbehaving*, p. 12.
 7. Or *Homo economicus* in the classic literature (see the discussion of John Stuart Mill at http://en.wikipedia.org/wiki/Homo_economicus). However, the *H. economicus* of Mill (he did not use the phrase, but it is used in discussions of his work) is the economically rational component of the human animal, the part that counts for economic analysis; he is not the same as Thaler’s econ. For Thaler’s take on this question (which contrasts with mine), see Thaler, Richard H., 2000, “From Homo Economicus to Homo Sapiens,” *Journal of Economic Perspectives*, Vol. 14, no. 1 (Winter), pp. 133-141.
 8. In an earlier work, *Nudge* (co-authored with Cass R. Sunstein, Yale, 2008), Thaler really lets fly at conventional economists and their imaginary friends, the econs. He is shocked that some people think of their fellow human beings in such robotic, dehumanized terms. He is at peace only when wandering over to the psychology department, where (he thinks) a more realistic view of human nature prevails. All this drama is kind of cute; I’m wondering why he chose to leave it out of *Misbehaving*.
 9. *Misbehaving*, p. 221.
 10. The small-cap and value anomalies were discovered as early as 1978-1979 (although Fama and French took credit for them in 1992) but most academics (including Fama and French) explained these away as compensation for hidden risks, not true inefficiencies (alpha opportunities). Meanwhile, DFA and other managers made fortunes exploiting these anomalies. Benjamin Graham, with and without co-authors David Dodd and others, had advocated value investing two generations earlier (see, especially, Graham [1963], a brilliant and prophetic speech recently rediscovered by Jason Zweig and re-published, along with Zweig’s commentary, [here](#))
 11. Despite this success, William Sharpe’s [1991] “Arithmetic of Active Management” (*Financial Analysts Journal*, vol. 47, no.1 [January/February]) still holds, so there were just as many dollars lost as won, relative to market benchmarks, over this

period.

12. Shiller, Robert J. 1981. "Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Dividends?" *American Economic Review* (June).
13. In the original article, Shiller describes the diagram as follows: "Real Standard and Poor's Composite Stock Price Index (solid line p) and ex post rational price (dotted line p^*), 1871-1979, both detrended by dividing a long-run exponential growth factor. The variable p^* is the present value of actual subsequent real detrended dividends, subject to an assumption about the present value in 1979 of dividends thereafter." (p. 422)
14. Thaler, Richard H., and Cass R. Sunstein. 2008. *Nudge: Improving Decisions about Health, Wealth, and Happiness*, Yale University Press, New Haven, CT.
15. Thaler, Richard H., and Shlomo Benartzi. 2004. "Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving," *Journal of Political Economy*, Vol. 112, No. 1, pp. S164-S187 (February).
16. Feynman, Richard P., and Ralph Leighton 1985. *Surely You're Joking, Mr. Feynman*, W. W. Norton, New York.

Preview "Misbehaving" by Richard H. Thaler. Misbehaving: The Making of Behavioral Economics. by. Tradition Nobel laureate Richard H. Thaler has spent his career studying the radical notion that the central agents in the economy are humans—predictable, error-prone individuals. Misbehaving is his arresting, frequently hilarious account of the struggle to bring an academic discipline back down to earth—and change the way we think about economics, ourselves, and our world. Traditional economics assumes rational actors. Early in his research, Thaler realized these Spock-like automatons were nothing like real people. When economics meets psychology, the implications for individuals, managers, and policy makers are both profound and entertaining. ...more. Get A Copy. Amazon. Home/Posts/Other Insights/Book Reviews/Richard Thaler: Misbehaving His Way to a Nobel Prize! Richard Thaler: Misbehaving His Way to a Nobel Prize! By Wesley Gray, PhD|2017-11-13T13:55:59-05:00November 17th, 2017|Book Reviews|. Unless you live under a rock, you've probably heard that Professor Richard Thaler earned the recent Nobel Prize. (The University of Chicago is on fire these days with Eugene Fama and Lars Hansen winning the prize in 2013!) Thaler still thinks it's crazy. As my 2nd-year paper advisor, I had to ask him to sign off on the paperwork so I could get a 4-year sabbatical from the Ph.D. program and join the Marines. All I remember him saying was the following: Wait, Are you serious? Investors tap into the digital revolution. Richard Thompson's live lockdown session: moving and rich. How to Spend It. Sign In. From my perspective, as a special adviser in the business department during those years, however, Thaler's celebrations look premature. The idea of nudging appealed to commentators but in operation often represented little more than another box for officials to tick. Behavioural nudges, needing new rules and procedures to become effective, often fell foul of the government's somewhat unthinking hostility to regulation. As Thaler says at the very end of Misbehaving, the real triumph for his field will come when it ceases to exist and is fully absorbed by the broader discipline that ignored it for so long. Giles Wilkes is an FT leader writer.