The Investor's Paradox:
Making Intelligent Decisions amid More Choices

More choice is always desirable. This maxim is widely accepted, both in the investment arena and in general.

Certainly more choice can't be seen as having drawbacks – or can it?

In *The Paradox of Choice*[1], Swarthmore College professor of social theory Barry Schwartz convincingly argues that the process of making constant decisions amidst a sea of overwhelming choice – be it health care options, televisions, or investment products – can and often does result in behavioral biases, stress, and poor decisions. He suggests "…the fact that some choice is good doesn't necessarily mean that more choice is better… there is a cost to having an overload of choice. [Ellipses added]"

In this article, we share insights from *The Paradox of Choice* and discuss the potential implications of increased choice for investors. Investors cognizant of the potential pitfalls surrounding choices and decision making may find success in adhering to a disciplined investment strategy.

THE PROLIFERATION OF CHOICE, AND THE CUMULATIVE EFFECTS

Schwartz acknowledges that American culture, in particular, treasures freedom of choice, variety, and self-determination. More choice may suggest more control, a lack of restriction, and imply more opportunity. As he notes, "Our culture sanctifies freedom of choice so profoundly that the benefits of infinite options seem self-evident."

However, Schwartz identifies several psychological processes that may accompany more choices and impair our decision making, reflecting behavioral biases such as adaptation, regret, missed opportunities, raised expectations, and feelings of inadequacy in comparison with others.

In short, Schwartz argues more choice does not always result in good decisions.

The modern exponential growth in options and opportunities demands more and more of our time and concentration, Schwartz argues, with ubiquitous choice leading to three "unfortunate" effects:

1) Decisions require more effort
2) Mistakes are more likely
3) The psychological consequences of mistakes are more severe

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[1] Schwartz, Barry. *The Paradox of Choice.* New York: Harper Perennial, 2005. All statements, opinions, and data presented in this article are gleaned from *The Paradox of Choice* unless stated otherwise.

He suggests a detrimental cumulative effect, one that can result in distress. "As the number of options increases, the effort required to make a good decision escalates as well, which is one of the reasons that choice can be transformed from a blessing into a burden. It is also one of the reasons why we don't always manage the decision-making task effectively."

Quite simply, the author proposes more choice does not always mean more control. Schwartz suggests there is a point where opportunities may be so numerous that we feel overwhelmed, or unable to cope. Each new option may add to the list of trade-offs in a decision, and trade-offs have "psychological consequences."

To illustrate the challenge, *The Paradox of Choice* travels from supermarket aisle to healthcare choices to investment decisions. Schwartz starts with a visit to his local supermarket, where he finds 285 varieties of cookies; 120 different pasta sauces; 360 types of shampoo, conditioner, gel, and mousse; 75 different instant gravies; and 175 different salad dressings.

Schwartz does not neglect the investment world, where he finds more than 5,000 managed investment products to select from. Even in a single defined contribution retirement plan, he finds that the number of choices can be staggering. As an example, Schwartz cites a midsized accounting firm where, instead of five or six employee retirement plan options, there are 156.

DECISION AND INDECISION

We may acknowledge that choice is omnipresent in society, including the investment world. But does too much choice *really* contribute to indecisiveness or poor decisions?

Schwartz argues the pressure to select the best choice can be paralyzing, and shares the results of a study conducted in a gourmet food store. In this study, researchers put together a display of gourmet jams where customers could taste samples of the jam. Two settings were created: in the first one, six of the 24 jam varieties were set out for tasting. In the other scenario, all 24 different jams could be sampled. For both settings, customers could buy any of the 24 jams.

While the larger offering of jams attracted more customers to the display only 3% of customers exposed to the full sampling (with all 24 jams available to taste) made a purchase, compared to 30% of the customers who visited the smaller sampling of jams (with six options) who purchased a jar.

Why would customers be 10 times more likely to purchase a jam when having fewer, not more, options?

Schwartz shares a few possible explanations for these results:

- A wide range of options increases the effort needed to make decisions, thereby discouraging consumers.
- The effort that decisions require may detract from enjoyment of the choice.
- Thinking about the attractiveness of all the unselected options may lead to indecision – and regret after a decision is made.

We believe the reasons offered could also easily apply to investment decisions, where a wide number of stocks, bonds, managed portfolios, retail investment products, and other investment options can contribute to a perception of "choice overload" – or paralysis by analysis. For example, popular financial magazines, websites, and television programs often may recommend a new list of favored managers or investment products.

Schwartz also discusses the migration among retirement plans from defined benefit ("DB") to defined contribution ("DC") plans, and the shift in responsibility from employers to employees in selecting investment products for retirement accounts. Unlike the participants in the study involving jams, employees cannot refuse to choose.

So how do they choose? The author cites a study that found that when employees are faced with a large number of options for their retirement accounts, they tend to spread their choice over many options and/or defer to experts. For example, employees may divide contributions equally among a number of options. Schwartz suggests if a majority of the options are aggressive investments, a DC participant who simply divides contributions across them may falsely believe he has achieved diversification in his portfolio. In other words, many participants may not dedicate the time to understand and appreciate the differences in investment products, given a large menu of options.

In our eyes, people generally profess an interest in more choices, more options, and more control. Schwartz suggests, however, that once confronted with a wide array of options, this privilege can be perceived as a burden. For example, he cites a study in which 65% of people surveyed said if they were to get cancer, they would want to choose their treatment. However, the study found among people who do get cancer, only 12% choose their treatment. Once confronted with a high stakes decision, one may see choice among a great variety of alternatives as a burden, and emotional biases may come into play.

THE INVESTOR AND CHOICE

We believe Schwartz's book is relevant for investors because his insights are pertinent, even when introduced in a context outside of investments. For example, Schwartz observes that many national news sources (CNN, *USA Today*, etc.) in essence share the same story. "When you hear the same story everywhere you look and listen," he notes, "you assume it must be true."

Schwartz easily could be describing companies going through adverse circumstances, where many news sources may be writing an obituary for a company enduring temporary setbacks. The description also could apply to a "hot" stock that is glamorized in several news sources, thereby raising expectations. This incessant stream of "news" may contribute to rampant optimism or pessimism, which can result in irrational stock prices. As Schwartz says, "inaccurate information can create a bandwagon effect, leading quickly to a broad, but mistaken, consensus."

Investment decisions also can be biased when choice is seen as a burden. Earlier in this article, we saw this perception manifested when shoppers were far less likely to chose a jam when offered more choices.

To illustrate the perceived "burden" of making an investment choice, the author cites a study where participants read a scenario involving two investors. The first investor owns shares in Company A. Although he thought about switching to Company B, he decided against it. At the end of year, he finds out he would have earned $1,200 more if he had switched to the stock of Company B. A second investor owned shares of Company B, but during the year switched to Company A. Likewise, this investor would have been better off by $1,200 if he had stayed with Company B.

Does one investor experience more regret than the other? Both investors decided against alternatives that would have made them richer by $1,200. In the study, however, **92%** of the respondents said they thought the second investor would feel worse and experience more regret. This suggests that once we take action, the burden of that choice may sit squarely on our shoulders.

Schwartz points out the more time one spends thinking about opportunity costs, or what alternatives were passed over, the less satisfaction is derived from the chosen alternative. It can be "emotionally unpleasant" to think about the opportunity costs, and the losses they might imply.

Schwartz notes, "the prospect of regret is an important cause of many decisions."

HOW OUR DECISION MAKING MAY GO WRONG

We believe our perceptions and experience, whether in investments or other areas, can create behavioral biases that may distort our decision making. For example, we may be biased by our most recent experience, and neglect to consider our history of experiences.

One laboratory study that Schwartz references demonstrated the extent to which this bias can overpower logic. In the study, participants listened to a pair of very loud, unpleasant noises played through headphones. The first noise lasted eight seconds, while the other noise lasted 16 seconds. For the latter, longer noise, the first eight seconds were identical to the first noise,

while the second eight seconds were somewhat less loud, but still characterized as loud and unpleasant. It was assumed that the second noise was worse overall, as the unpleasant sounds lasted twice as long.

Surprisingly, when participants were told they would have to listen to one of the noises again, the "overwhelming majority" chose the second noise (which was twice as long!). While both noises were abrasive, the second noise had a less unpleasant end, which apparently is what the participants remembered.

Similarly, we believe an investor may base decisions on his or her most recent experience, such as a manager's short-term performance, without fully weighing the potential effect of the decision on the investor's long-term strategy.

Schwartz calls attention to the fact that resources that we often believe help us make a decision often can lead to an overload of information, information that may be biased or conflicting. The Internet, for example, may allow us immediate access to an avalanche of information about a topic, including an investment product. The author's Web search for a brand name prescription drug turned up more than 20,000 hits. In the investment arena, with tens of thousands of investment options, we suggest it can seem overwhelming to navigate – and objectively evaluate – all the available information.

In our view, it's not just the *amount* of information available, but the frequency with which we're exposed to new information that presents a challenge. The average American is exposed to 3,000 advertisements *every day* – or about 200 ads per waking hour – between the Internet, radio, magazines, newspapers, and television. For an investor who understands the importance of disciplined, long-term investing, we believe this barrage of information may represent an obstacle to maintaining a disciplined investment strategy.

We also may encounter anecdotal information, such as stock tips. Often, the temptation to act on anecdotal information can outweigh logical, more objective conclusions. We think this can be seen in the author's example of a consumer in the market for a new car. The consumer may review a respected magazine to gather information on car reliability. This magazine bases its conclusions from the experience of thousands of people.

But what happens if a friend shares one negative experience with a car model that the consumer is considering? This information is based on one experience, not thousands of experiences, and therefore should carry much less weight, or none at all, in comparison to the magazine review.

However, that's typically *not* what happens.

In our opinion, people will typically pay substantial attention to this anecdotal information, whether it's a stock tip or the car story, even to the extent of cancelling their objective research.

Why? As Schwartz explains, the anecdotal stories "are extremely vivid and based on a personal, face-to-face account."

This tendency, commonly labeled the "availability heuristic," suggests that people give a disproportionate weight to information that is more vivid or recent.[2] In another example cited by the author, college students mulling what courses to take for the next semester tended to give more weight to one videotaped interview with a student, even if it contradicted a summary of course evaluations from hundreds of students. Thus, in our opinion, a whispered stock tip, especially delivered by a relative or close friend, or a television interview with a charismatic CEO, may carry more weight than an objective investment strategy that would demand a more sober, detached, and integrative assessment.

The author also investigates other behavioral biases that may interfere with our ability to make objective decisions or choices. These biases include:

- Anchoring – where a comparative price or number is offered to influence the appeal of another price, by comparison. For example, an appliance company may introduce a more expensive model of an appliance to make the first model seem more of a bargain.
- Framing – while two choices may be identical, how the choices are presented can greatly influence which seems more appealing. For example, a gas station might raise prices by 3%, then offer a 3% discount for paying with cash (appealing) as opposed to charging a 3% surcharge for paying by credit (less appealing).
- Sunk costs – people may be sensitive to realizing a loss, and thereby reluctant to acknowledge a misstep. For example, people may purchase a ticket to a sporting event, lose the desire to attend the event, but still go because they don't want to "lose" the money spent on buying the ticket. The bottom line is the money was already spent – the focus should be on what is the best course of action in the present.

Another bias he investigates, one related to tendency of aversion to loss, is the endowment effect. This bias suggests people dislike giving up something that they see as already theirs. Schwartz illustrates this tendency by presenting a car-buying decision. In one scenario, car buyers were offered a car loaded with options, and asked to eliminate the options they didn't want. In the second scenario, the car buyers were offered a car with no options, and added the

[2] Relying on heuristics in decision making may not always be a liability. According to researcher and social psychologist Gerd Gigerenzer, many people have limited time, knowledge, and computational capacities, and cannot always pragmatically operate as "omniscient," rational beings. His research suggests heuristics and instincts can be effective in decision making.

Gigerenzer cites several examples in which people with less information made better decisions. In one example, German students dramatically outperformed U.S. students when asked which of two U.S. cities had the larger population – San Antonio or San Diego (the correct answer is San Diego). He suggests the German students used a recognition heuristic: when one city is recognized (San Diego) and the other is not, the students can infer that the recognized city has the higher population. Conversely, he notes the American students could not use the recognition heuristic because they had heard of both cities (Gigerenzer, G. "The Adaptive Toolbox: Toward a Darwinian Rationality." Published in Evolutionary Psychology and Motivation (Nebraska Symposium on Motivation, 2001, Vol. 48, pp. 113–143). Lincoln: University of Nebraska Press.).

Does this argument for the value of simple rules in decision making necessarily conflict with Schwartz's argument? On the contrary, we believe the theories may share much common ground. Both Schwartz and Gigerenzer propose that processing too much information can lead to ineffective decision making. Both propose eliminating irrelevant or distracting information, and identifying and focusing on the most relevant factors.

features they wanted. Buyers in the first scenario ended up with many more options, as they tended to see the options as something they were entitled to, and passing up these options was seen as a loss.

For a select group of people, their focus on maximizing opportunity leads to regret over every decision or choice they did *not* make. "Maximizers," as Schwartz labels these decision makers, invest a great deal of time and effort in even mundane decisions. A maximizer needs assurance that each purchase or decision was the absolute best one that could have been made. In other words, a maximizer will constantly second guess him- or herself – and then some. Maximizers, he states, are "nagged" by the options they didn't have time to investigate.

In our opinion, this trait can compromise a disciplined investment strategy. Imagine an investor who, rather than allowing his or her diversified portfolio to appreciate, bemoans that he or she did not focus on the "hottest" (in the short term), narrow area of the market – for example, Latin American real estate stocks, or small-cap biotech stocks, or a risky alternative asset – whatever happened to be in favor last year, or even last quarter.

HOW BIASES CAN MANIFEST INTO POOR DECISIONS

We've explored how more choice can contribute to more challenges in making decisions. Let's accept that we may be susceptible to subtle biases and tendencies in making decisions. To what extent can this impair the decision-making process?

Schwartz identifies research that shows positive emotion, or a "good mood," strengthens our thinking in making decisions, including being open to considerations and broadening our understanding. However, negative emotion leads to fear, close-mindedness, and a focus on the emotion, not the decision itself.

Schwartz observes:

> "This creates something of a paradox. We seem to do our best thinking when we're feeling good. Complex decisions, involving multiple options…demand our best thinking. Yet those very decisions seem to induce in us emotional reactions that impair our ability to do just the kind of thinking that is necessary."

In addition, we believe as the number of choices or options increases, the need to provide justifications for decisions also tends to increase.

In *The Paradox of Choice*, we learn even successful results can lead to regret when one dwells on the "nearness" effect, or how close he or she came to an even more compelling result. One would expect, for example, those who win a silver medal (second place) in the Olympics to be happier than one who wins a bronze medal (third place). However, Schwartz cites a study that finds, on average, bronze medalists are generally happier. The silver medalist tends to focus on the nearness he or she came to winning gold, to what the person *could* have done differently. The bronze medalist, on the other hand, tends to think about how close he or she came to

receiving no medal at all. This suggests how you perceive and compare results, whether in Olympic performance or in investments, can affect satisfaction and objectivity.

According to the insights presented in *The Paradox of Choice*, how are we likely to respond when making investment decisions? We believe investors would generally agree that certain amounts of fortitude, commitment, and discipline are needed for investment success, as well as calculated risks. As legendary value investor Benjamin Graham noted, "We have seen much more money made and *kept* by 'ordinary people' who were temperamentally well suited for the investment process than by those who lacked this quality, even though they had an extensive knowledge of finance, accounting, and stock-market lore."[3]

In *The Paradox of Choice*, Schwartz observes that people often choose the options that, in our opinion, will minimize the chance that we will experience regret. Investing is an area where we will learn not only the outcome of investment choices (the road taken), but also the results for other investment options and asset classes (the roads not taken).

From our perspective, regret also may surface in investing decisions involving sunk costs, which applies to the initial investment amount that was already invested. We may be tempted to hold on to a losing investment, in an attempt to avoid acknowledging a misstep. Instead, Schwartz says, "what *should* matter in decisions about holding or selling stocks is only your assessment of *future* performance and not (tax considerations aside) the price at which the stocks were purchased."

Several studies cited in *The Paradox of Choice* have documented this bias involving sunk costs. Respondents in one study were given a hypothetical situation where they had purchased nonrefundable lift tickets for two different ski resorts, and then found out the tickets were for the same day. One of the tickets cost $50, while the other ticket cost $25. They were also told there is good reason to believe they would have a better experience on the $25 trip. However, the majority of respondents choose to go on the $50 trip, ignoring the fact that the money was already spent.

Schwartz argues that sunk cost regret is greater when

- a person bears responsibility for the initial decision, be it lift tickets or stocks.
- an individual can easily imagine or measure a better alternative.

An increase in the number of choices, Schwartz contends, can exacerbate both factors. For example, where there are no competing options, one may have disappointment over the results, but not regret. However, the more alternatives that were present in the beginning, the greater the regret in hindsight (as he puts it, the more *"if only's"* you will be able to generate).

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[3] Graham, Benjamin. *The Intelligent Investor: A Book of Practical Counsel*, 4th rev. ed., New York: Harper & Row, 1973, p. xv.

We acknowledge that investment decisions usually carry more weight and importance than daily decisions such as what to eat, who to call, and what toothpaste to buy. As investment results unfold, we may have an emotional reaction, good or bad, to the outcome. It would make sense for us to manage our expectations so we are not taken by surprise, or likely to panic, if the interim performance is less than favorable.

However, behavioral bias may interfere with our level of expectations. The author notes "human beings are remarkably bad at predicting how various experiences will make them feel." Schwartz also suggests nearly every decision we make involves a prediction about our future emotional response.

For investment decisions, the challenge of trying to predict our responses to outcomes can impair our ability to objectively evaluate investment performance. "If people err systematically and substantially in making those predictions, it's likely they will make some bad decisions," according to Schwartz.

IN CLOSING

As we have learned, behavioral biases may affect not only how we make investment decisions, but how we evaluate these decisions. Schwartz offers four comparisons we are likely to make in evaluating decisions. Following each comparison, we provide an example that applies to investors.

1. Comparing an actual experience to what the investor *hoped* it would be
   ("I thought this investment manager was good; look at the underperformance over the last year!" (or other short-term time frame))
2. Comparing the experience to what the investor *expected* it to be
   ("I thought this manager delivered annual returns of roughly 15% over time; that's not what I got recently")
3. Comparing the experience to other experiences the investor has had in the recent past
   ("This stock was doing well for a while, but now that the price has retreated, maybe it's time to sell")
4. Comparing the experience to experiences that others have had
   ("My brother-in-law is bragging about the biotech stock he owns. Why have none of my investments gone up three-fold in the last two years?")

One valuable insight that Schwartz shares is that comparisons often lead to high expectations, and can result in changing investments at the wrong time for the wrong reasons instead of staying the course. As Schwartz reminds us, high expectations can be counterproductive. He notes '"How am I doing?" always carries "compared to others" in parentheses.

We believe the logical lesson is to avoid or limit making comparisons, especially regarding investment decisions, when they may be misleading or are short-term oriented. However, we

live in a social world, as Schwartz notes, one where we are constantly bombarded with information about how others are doing.

All of the interesting theories and hypotheses about choice discussed in the book will not offer value unless the author demonstrates that the factors surrounding choice may affect, or impair, our decision-making process. *The Paradox of Choice* argues that "overwhelming" choice may lead one to look over one's shoulder at what others are doing. "The more social comparison you do," Schwartz says, "the more likely you are to be affected by it, and the direction of such effects tends to be negative."

Schwartz's advice is to decide which choices or decisions are most important, and to focus time and energy on those decisions. In our opinion, an important decision for investors may be to meet with a financial professional and develop a long-term, disciplined investment strategy. Conversely, limiting the attention we give to speculative investments, short-term comparisons, opportunity costs, and unrealistic expectations may help to insulate us from behavioral biases in making choices.

Decision-making and choice involve a process, and like any process, careful analysis and strategy can improve the process…and the outcome.

For related readings on this topic, please see the following Brandes Institute articles:

Stumbling on Value Investing (August 2007)

Behavioral Finance - Pitfalls & Prevention for Plan Sponsors (February 2004)

Behavioral Finance - Pitfalls & Prevention for Plan Sponsors II (March 2004)

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