Are You a Rational Investor?

Most of us think we are, but the field of behavioral finance suggests that we often invest more with our hearts than with our heads. By understanding the emotional biases that color our perceptions and affect our decision-making, we can become better investors.

If you were on a diet, would you choose an ice cream that is “90% fat-free” or one that is “10% fat?” Most people choose the 90% fat-free ice cream, even though it’s exactly the same as the 10% fat version. Why? Because fat-free sounds more appealing.

This is just one example of how our choices are influenced by the way different options are presented to us. We all like to think of ourselves as rational and logical. But when it comes to investing — as in life — our emotional inclinations, ingrained thought patterns and psychological biases color how we perceive the world and how we make decisions. As this example of dieters choosing ice cream shows, we don’t necessarily act logically, even when we think we do.

The field of *behavioral finance* takes into account the human tendency to behave irrationally when making investment decisions. Its proponents study the psychological principles of decision making and their effects on investor behavior. Traditional economic theory assumes that people are rational agents who make decisions objectively to take advantage of the opportunities available to them. “In contrast, behavioral finance holds that many financial decisions are influenced by how we interpret and act on information — which is not always rational,” says Richard Thaler, professor of Behavioral Science and Economics, Graduate School of Business at the University of Chicago and one of the pioneers in the field. “Behavioral finance is essentially economics based on the realistic descriptions of the actual behavior of people.”

Fortunately, by understanding some of the factors that influence our decisions, we can make choices that are more closely aligned with our goals.
From the Madness of Crowds

The roots of behavioral finance go back to the 19th century, when the book *Extraordinary Popular Delusions and the Madness of Crowds* (1840) by Charles Mackay described mass irrational behavior, including its effects on the financial markets. Another influential work was *Security Analysis* (1934) by Benjamin Graham and David Dodd, which, in making the case for value investing, discussed investors’ overreactions to market movements.

Behavioral finance draws on research done in the 1970s by the psychologists Daniel Kahneman and Amos Tversky, who demonstrated that cognitive errors and emotional biases can lead to poor decisions. Their findings provided economic researchers with psychological models for studying how investors make decisions.

Some of the irrational behaviors to which investors can fall victim are overconfidence, loss aversion, mental accounting and present-biased preferences. Almost everyone, at one time or another, exhibits these behaviors in their financial lives. As investors, the key issue is whether we engage excessively in any of them. We offer strategies that can help you identify a tendency toward these behaviors, as well as some ideas for improving your investment decisions.

Overconfidence

A classic example of overconfidence is asking male drivers to rate their driving ability on a scale of zero to ten, says Brett Hammond, managing director, head of Investing Strategy, TIAA-CREF. “Despite five being the obvious average, most respondents rated themselves consistently higher — a sign that most had overrated their driving abilities.”

In investing, overconfidence can manifest itself in overtrading or switching between investment accounts in an effort to increase returns. Overtrading can have a detrimental effect on an investor’s portfolio because it creates a tendency to sell losers at low prices and to buy winners at high prices. Overtrading can also result in high transaction costs, high tax liabilities and the possibility of selling out of the market just when investment performance rises.

Studies by Terrance Odean, the Willis H. Booth Professor of Banking and Finance at the Haas School of Business, the University of California, Berkeley, and Brad Barber, professor of Finance at the University of California-Davis, Graduate School of Management, confirm that overconfidence among investors can lead to excessive trading. What’s more, investors’ decisions aren’t always sound. “We also found that even before taking trading costs into account, the
stocks investors purchased actually performed worse, on average, than the ones they sold,” says Odean. “In other words, investors who traded more tended to make more mistakes.”

Odean and Barber also found that men tend to be more confident investors than women. “Men end up trading more than women and consequently do worse,” says Barber. In fact, their research shows that men trade 45% more actively than women — reducing men’s net returns by 2.65 percentage points a year, compared with 1.72 percentage points for women.

This kind of behavior can also affect long-term savers. Research by a team led by Brigitte Madrian, Aetna Professor of Public Policy and Corporate Management, Mossavar-Rahmani Center for Business and Government at Harvard University, presented people with information about the cost of mutual funds. Although individual choices improved with additional information, people still tended to select funds that had been recent winners, even if they were significantly more expensive than the other choices.

**Solutions for Overconfidence:**

- **Look for the Signs.** Certain behaviors should raise a red flag. One is overtrading, which you can measure by carefully keeping track of your investment returns and trading costs. Another is *market timing*, an investment tactic based on buying or selling securities in anticipation of changes in market or economic conditions. Studies demonstrate that over long periods, market timing will not typically provide higher returns than maintaining a buy-and-hold strategy.

- **Consider Your Expectations for Different Investments.** Have realistic expectations. For example, in the bull market of the late 1990s, some people began to think they could count on yearly stock returns of 20% to 30% — rates of return much higher than historical averages. To keep your expectations for returns realistic — while being aware that past performance for any investment is not indicative of future returns — learn about the historical average returns for specific investments. Certain investments have the potential for high returns because they entail quite a bit of risk, which means you can lose money as well as make money on them. Knowledge of the historical performance for different types of investments can help you establish an asset allocation that’s appropriate and realistic for your goals.
Loss Aversion

Loss aversion refers to the fact that for most people, the fear of losing money is greater than the elation about potentially making money. For example, say all the members of a group are given $100. Each person must select one of two wagers. In the first, they have a 50/50 chance of either winning $200 or losing $50. The second wager is a 50/50 chance of winning $350 or losing the original $100.

When you choose the first wager, you have a guarantee of walking away with at least $50 and possibly $300. In the second wager, you could wind up with nothing or $450. Though the second wager has a higher maximum payoff and a higher average outcome, most people will choose the first wager because it has a smaller possible loss.

When thinking about loss aversion, you may think “shouldn’t investors try to avoid losses?” While it’s rational to want to avoid losses, it’s also true that an excessive fear of loss can negatively affect an investor’s prospects. For instance, during bear markets, many investors become excessively risk-averse and decide to move some or even all of their money out of stocks — a decision that’s likely, over the long term, to leave their savings susceptible to inflation.

“Loss aversion can be particularly damaging when it’s associated with certain types of market timing,” says Hammond. “Sometimes investors react to immediate losses in stock funds by pulling money out of these funds, with the idea that they will reinvest it when the equity markets are better behaved.” Such behavior can result in a systematic “buy high” and “sell low” strategy that can lead to lower returns and higher risk. Loss aversion has even led some investors to stop contributing to their 403(b) or 401(k) plans during down markets — a sure way to avoid losses, but also a sure way to have less money working toward their goals.

Solution for Loss Aversion:
• Examine Your Attitudes Toward Investing. If you’re prone to excessive loss aversion, examine how you think about the risks and potential returns for different types of investments. Rather than being concerned about what happens in the market every day, familiarize yourself with the various asset classes and their historical performance track records. If you stay the course, you’re more likely to experience that track record than if you bail out after every market downturn. Also, consider your goals and investment time horizon.
Focus on your goals. Make sure your investment decisions are in line with your long-term goals. For example, in the case of a bear market, only reduce your exposure to stocks if it makes sense in the context of your overall strategy; you may find that to get back to your intended allocation mix, now is actually the time to increase your exposure to stocks. Also, focus more on the overall returns in your portfolio than on the losses in your individual accounts.

Mental Accounting

Mental accounting refers to people’s tendency to categorize their assets into different “buckets.” They then treat each bucket independently, instead of viewing all their assets as part of a single investment plan. One example is the investor who splurges with a tax refund (money he puts into one mental bucket) while being conservative with his salary (money he puts into another bucket). Similarly, some people spend freely with credit cards (one bucket) while being much more frugal with cash (another bucket).

The proper use of mental accounting can be an effective way to manage your finances — think of the person who diligently puts money into a Christmas Club account or a mutual fund he or she has established to save for the down payment on a house. However, mental accounting can be problematic if it results in investment decisions that are not aligned with your overall goals.

For example, investors in employer-sponsored pension plans tend to maintain more conservative allocations for their employer’s contributions than they do for their own contributions. But the results may not be best for their needs. In research published in 2001, Thaler provided a good example of mental accounting in a study of employee asset allocations. In retirement plans that do not offer company stock as an option, the average allocation is 49% stock and 51% fixed income. In plans that do offer company stock, however, the average allocation is 42% company stock, 29.3% other stocks and 28.8% fixed-income investments — a total allocation of 71.3% to equities. Clearly, when allocating their assets, the employees placed the company stock in a separate mental account than the rest of their investments, including other stocks.

Solutions for Mental Accounting:

• Take a Holistic Approach. Look at the way you categorize your assets, including retirement accumulations, savings and salary. Then see how you make decisions about your
money. For example, some investors regard contributions to employer-sponsored retirement plans as money they can’t access for many years, so they invest as little as possible. But some of these same people would think nothing of maxing out their credit cards and making large interest payments — money that could be put to a much better purpose. One way to get a handle on your attitudes toward spending and investing is to analyze your cash flow — the money you take in each month and the money you pay out. You may be surprised to see how you spend and invest, depending on the “bucket” to which you’ve assigned your money.

• **Craft a Budget Based on Your Needs.** Once you see how you categorize your assets, define your goals and develop a strategy to achieve them. Your spending or investing habits may be holding you back from realizing your goals.

**Present-Biased Preferences**

Research reveals that people often focus on short-term financial events to the detriment of their long-term needs. This is known as present-biased preferences. “For example, if you give people a choice between receiving $100 today or $110 next week, some people will take the $100 now,” says Thaler. “But if you offer people $100 in a year or $110 in a year and a week, you’ll get no takers for the $100. We often put too much premium on getting something now, whether or not it’s the best choice for us.”

Being biased toward the present at the expense of the future can prevent people from proper budgeting or committing themselves to a regular savings plan. Closely associated with being biased toward the present is procrastination — telling yourself that you will work toward a specific goal but never getting around to actually doing it.

**Solutions for Present-Biased Preferences:**

• **Commit Yourself to a Plan.** Establish a savings and investment plan and periodically review it to see if you’re saving enough for your goals. A good way to commit to an investment plan is through what Thaler calls “forced savings.” Examples of forced savings include employer-sponsored retirement programs like 403(b) or 401(k) plans, where contributions come directly from your paycheck each month — without you having to think about making regular contributions.
Check How You’re Doing

To learn more about creating an appropriate investment strategy, call 800 842-2776 to speak with a TIAA-CREF consultant. To review your retirement asset allocation, try our Asset Allocation calculator by visiting www.tiaa-cref.org and looking in the Tools section.

You may also want to read an interview on behavioral finance by Robert Shiller, Stanley B. Resor Professor of Economics at Yale University, and author of the books *Irrational Exuberance* and *The New Financial Order: Risk in the 21st Century*. This article is also available on our online Library.

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