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# Behavioral Finance and the Individual Investor: Psychology May Be Key to Financial Success or Failure

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The key to investment success isn't knowing the markets – it's knowing yourself. This may seem like an obvious bit of wisdom, but an emerging field of research – "behavioral finance" – is demonstrating just how difficult it can be for investors to overcome their own biases and mental mistakes.

Using many of the tools of behavioral psychology, researchers are examining how investors make key decisions – such as how often to trade, when to buy and sell, and what returns to expect on different types of investments. The insights garnered through this research have begun to challenge many previous assumptions about the nature of the financial markets.

More to the point, a growing body of academic research and real-world observation suggests that investors are often their own worst enemies. Too often, they fall prey to certain mental quirks, or habits of thought, that can lead them to overestimating their own investment management skills and underestimating the complexity of making sound investment decisions.

> **MORE TO THE POINT, A GROWING BODY OF ACADEMIC RESEARCH AND REAL-WORLD OBSERVATION SUGGESTS THAT INVESTORS ARE OFTEN THEIR OWN WORST ENEMIES**

Are these mistakes inevitable? Perhaps not. Behavioral researchers are starting to pay closer attention to the possibility that greater knowledge and skill can help investors avoid these common errors. This research suggests that investors who have a clearer understanding of the investment process may be less likely to be misguided by their own psychological blind spots. This, in turn, highlights the important role that financial advisors and professional money managers can play in an effective investment program.

Awareness of the importance of investor psychology is also rising in the investment community itself. In an effort to exploit market opportunities, a small but growing number of professional managers are incorporating investor behavioral insights into their investment strategies. Financial consultants and advisors, too, are becoming more conscious of the impact behavioral influences can have on investor decisions. This awareness increasingly is being reflected in consultant training programs and in the educational materials they provided to their clients.

## "Efficient" Markets?

As a field of research, behavioral finance is neither new nor revolutionary. Since the early 1970s, a number of economists and analysts have been seeking explanations for the growing number of market "anomalies" that are difficult or impossible to explain with the conventional tools of financial theory. Traditionally, financial theorists have assumed that investors are entirely rational, dispassionately evaluating all available information and taking that information into account when making specific investment decisions. While investors can and do make mistakes, these errors are random. In markets of any size, the sheer number of investors ensures that these random errors, in effect, cancel each other out.

In theory, the result is an "efficient" market, with asset prices that accurately reflect all available information – such as earnings estimates and economic statistics – that might influence asset values. In its most extreme form, this "efficient market hypothesis" holds that future market trends are inherently unpredictable – since only information that is not yet known, or that does not yet exist, could possibly influence asset prices. But over the years, researchers have discovered a number of market trends that couldn't be reconciled with efficient market theory. Well-known examples include the so-called "January effect" – the tendency of small-cap stocks to outperform large-cap stocks in the first month of the year. Some researchers also have detected a tendency for outperforming stocks to continue to outperform in subsequent periods – a seeming violation of the efficient market notion that future price moves are a "random walk."

"In many important ways, real financial markets do not resemble the ones we would imagine if we only read finance textbooks," noted Richard Thaler (1999 article, *Financial Analysts Journal)*, a professor at the University of Chicago and a pioneer in behavioral finance. Thaler, along with other pioneers such as Princeton University's Daniel Kahneman, have spent years studying the mental procedures that individuals use to make financial decisions. Although skeptics still abound – particularly among the more traditional defenders of efficient market theory – the arguments put forward by behavioral researchers have found increasing acceptance in the economic community. Indeed, Kahneman was awarded the Nobel Prize in Economics in 2002.

## Tricks of the Mind

Market patterns continue to defy conventional economic theory because investors are not computers, behavioral researchers argue. They can be guided – and misguided – by persistent psychological characteristics – traits that may have deep roots in the evolution of the human brain. Behavioral researchers call these psychological characteristics "cognitive illusions." They can deceive the brain much like a pair of converging lines on a sheet of paper can trick the eye into seeing depth on a two-dimensional surface. This can induce investors to make decisions that make intuitive sense but produce inferior results. Some examples are:

- **Overconfidence**. Investors tend to assume they know more than they do. They also have a habit of remembering past decisions in ways that exaggerate their own predictive abilities. This can lead to overly aggressive trading.
- **Anchoring**. Investors often fixate on certain quantities, such as the price they paid for a particular stock. Result: Many investors will refuse to sell a stock at a loss – even when they have an opportunity to earn higher returns by accepting the loss and reinvesting the money in other assets.
- **Mental Accounting**. Rational investors should consider their entire portfolio when making investment decisions. Yet, they often divide their wealth into separate pots – either consciously or unconsciously. For example, they may view a big capital gain as "house money" and feel comfortable taking greater risks than if they were investing their "own" money.
- **Loss Aversion**. To a purely rational investor, the risk of loss and the possibility of gain should carry equal weight, but investors tend to place twice as much importance on avoiding losses. In other words, to accept a 50% chance of losing $100, most people will insist on having a 50% chance of winning $200.
- **Framing**. How investors react to choices often depends on how those choices are presented. In one behavioral test, researchers asked subjects how much they would be willing to pay to avoid a one-in-a-thousand chance of being killed. Average answer: $1,000. Those same subjects were then asked how much they would demand to be paid to accept that same risk. The answers ranged as high as $200,000. While the two questions were economically the same, subjects saw them very differently.

SOPHISTICATED ANALYTICAL TOOLS ARE REQUIRED TO PROCESS THIS INFORMATION AND REACH LOGICAL CONCLUSIONS, BUT THIS MODE OF THOUGHT DOESN'T COME NATURALLY TO HUMAN BEINGS

Why are these mistakes so persistent? Some researchers blame the speed of human evolution. Modern investors are confronted with vast amounts of data – economic forecasts, earnings estimates, balance sheet fundamentals, etc. Sophisticated analytical tools are required to process this information and reach logical conclusions, but this mode of thought doesn't come naturally to human beings. Instead, we often fall back on cruder problem-solving methods inherited from our primitive ancestors. Behavioral researchers call these simpler techniques "heuristics." They are, in effect, mental shortcuts that allow us to make decisions intuitively, without formal analysis. As one scholar has put it: "The current human mind appears most adapted to life in a Pleistocene hunter-gatherer society. Decision attributes that focus on negative events during stress, loss aversion and a preference for concrete over abstract information make sense because they have survival value."

## Investors Behaving Badly

To explore the impact this kind of intuitive thinking can have on investment performance, behavioral finance researchers have gone beyond controlled experiments to study the experience of actual investors. Some of the most detailed work has been done by Brad Barber, a finance professor at the University of California, Davis; and Terrance Odean, a finance professor at the University of California, Berkeley.

Barber and Odean were granted access to the trading records (but not the identities) of more than 66,000 customers of a major discount broker over a six-year period ending in 1997. The two researchers compared the collective investment performance of this group to a composite index of stocks listed on the New York Stock Exchange, the American Stock Exchange and NASDAQ. The results, published in the April 2000 issue of the *Journal of Finance,* showed that:

- The average investor earned an annualized return of 18.7% before commissions and other costs over the period studied, slightly higher than the 17.9% return on the equity composite. Net of trading costs, however, investors' annualized return fell to only 16.4%.
- Investors who traded frequently – defined by Barber and Odean as those who had portfolio turnover of 8.7% per month or more – earned just an 11.4% annualized return, considerably below the market return. Investors who traded more frequently had a strong tendency to sell stocks that later performed relatively well and buy stocks that later performed relatively poorly. This appeared to result from overconfidence, as well as an excessive reliance on past performance (a form of anchoring) in making buy and sell decisions. This, combined with

the higher costs generated by more frequent trading, had a serious negative impact on returns.

- Investors showed a strong preference for stocks with a higher-than-average "beta" – a statistic that measures exposure to market volatility. In classic market theory, investors should expect higher long-term returns as compensation for accepting the risk of holding more volatile assets. Yet, the average investor's returns were below the average market return. This means the typical investor underperformed the market by an even larger margin on a risk-adjusted basis.

Even when investors aren't trying to select individual securities themselves, psychological factors can still lead them to make expensive errors in the composition of their overall portfolio. University of Chicago professor, Richard Thaler, and another noted behavioral finance researcher, Shlomo Benartzi, demonstrated this in a study of the asset allocation decisions made by participants in self-directed pension accounts, such as 401(k) plans. Thaler and Benartzi found the choices made by these investors were often strongly influenced by the portfolio options they are allowed to choose. If their 401(k) plan offers more equity funds than fixed-income funds, investors tend to have a higher allocation to equities. But if their plan includes more fixed-income funds than equity funds, they allocate more to bonds, regardless of their financial goals and tolerance for risk.

**THE FIRST STEP TOWARDS AVOIDING BEHAVIORAL ERRORS IS UNDERSTANDING THE BEHAVIORAL INFLUENCED THAT CAN CAUSE THEM, BUT MOST INVESTORS FIND IT DIFFICULT TO IDENTIFY – MUCH LESS CORRECT – THEIR OWN STRENGTHS AND WEAKNESSES**

## The Learning Animal

Are investors doomed to repeat these mistakes over and over again? Some researchers think not. They point to one of the strongest characteristics of human intelligence: our ability to learn from experience. They believe that while the underlying trend in the financial markets is towards greater efficiency, investors constantly need to update and refine their understanding of the relevant data to overcome their behavioral biases.

Of course, this learning process takes time and effort – more time and effort than many investors wish to devote. By utilizing the services of a competent financial advisor and a professional money manager, investors may find they can make more informed, unbiased decisions, without having to master the finer points themselves.

This raises a question, however. If certain mental biases and "heuristics" are built-in features of human intelligence, aren't investment professionals – such as financial advisors and money managers – also affected by these same factors? The answer, of course, is that they are. But, if properly trained and qualified, they also have the skills to overcome these limitations through the application of sound analytical tools.

How important is this specialized expertise? Recent studies suggest it can significantly reduce judgmental errors caused by behavioral factors. One recent study, for example, evaluated the way investors respond to mutual fund advertising. Participants were shown ads for a number of hypothetical mutual funds, then asked to predict the future returns and volatility of each fund. The ads contained exactly the same product information but differing amounts of "emotional" content – such as graphic images, slogans and marketing appeals. The advertised funds were given names that incorporated specific numerical values, such as the "Euro 500" or the "Euro 100." Finally, half of the ads were attributed to a large, well-known financial institution, while the other half were credited to a lesser known foreign fund provider.

The study found that test participants consistently predicted higher returns for funds with emotionally appealing ads, for funds with higher numeric values in their names (Euro 500 over Euro 100, for example) and for funds offered by the well-known company – even though none of these factors can reliably predict future mutual fund performance. More to the point, researchers discovered that more informed participants – those with greater financial knowledge and investment experience – were less likely to be misled by fund names, brands and graphics. "Judgmental heuristics are found in both groups, informed and uninformed investors, but the latter show larger biases than informed investors," Thaler and Benartzi wrote.

## Conclusions

Investor psychology is a complex business – difficult to define and even harder to understand. The first step towards avoiding behavioral errors is understanding the behavioral influenced that can cause them, but most investors find it difficult to identify – much less correct – their own strengths and weaknesses.

By working with qualified financial advisors, investors can gain valuable feedback that may make it easier to recognize their own limitations. An advisor can help develop an investment strategy that takes into account each investor's particular goals and tolerance for risk, and develop an asset allocation plan that reflects that strategy. Finally, advisors can help investors select the appropriate investment vehicles for their strategy. For many investors, particularly high net worth individuals, this may include taking advantage of the unique benefits of professionally managed separate accounts.

With separate accounts, investors can obtain the services of experienced, qualified portfolio managers – increasing the likelihood that their investment strategy will be shaped by careful analysis, rather than behavioral biases. In addition, separately managed accounts allow investors to maintain direct ownership of the assets in those accounts. This provides flexibility to create customized portfolios in response to specific individual needs, such as tax planning and socially responsible investment restrictions.

Even the most carefully designed investment strategy may go astray. Even the most qualified financial advisor can't guarantee investment success. But though a better understanding of behavioral psychology, investors should at least be able to reduce the risk of making incorrect decisions. That's something even the most intelligent investor might find useful. ■

### About the Author

Jim Marren is Managing Partner of TorranceCo, an independent firm specializing in corporate, financial and marketing communications. He joined its predecessor firm, Powell Tate New York, in 1996 from Ogilvy Adams & Rinehart/New York, where he was a managing director with the firm's corporate and financial group. At TorranceCo, he has worked with clients including ALLTEL Corporation, The American Institute of Architects, Amvescap plc, Capital Institutional Services, Cardio Technologies, Inc., Korn/Ferry International, JP Morgan Chase, the Money Management Institute, XLRe Latin America (formerly Latin American Re), Nationwide, Oppenheimer Funds, Risk Management Solutions, Inc., and Trammell Crow Company. Jim is also a member of the National Investor Relations Institute. To more specifically discuss your communication needs, contact Jim at JMarren@TorranceCo.com or visit TorranceCo's web site (http://www.torranceco.com).

**Notes**

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