CHIEF INVESTMENT OFFICE

What Is Behavioral Investing?

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Behavioral investing begins with the investor's mindset, rather than a market outlook, and asks the question: What am I trying to accomplish with my money, and how might my reactions to markets alter my journey toward my life goals? By understanding their investment personality and goals, investors can exert an element of control and discipline over the investment process during challenging market times.

It is not uncommon for investors to initiate an investment approach by attempting to assess others' mindset: How can I maximize returns by better understanding other investors' psyche? Such a question assumes a returns-based goal, leading to the selection of an investment strategy that attempts to predict market behavior and profit from it—an analysis that is independent of an investor's own goals or behavioral tendencies.

Behavioral investing takes a decidedly different approach. It starts with the investor's own mindset, rather than others'. Once the investor's goals and personality are defined, only then are investment ideas and solutions evaluated.

As many investors now recognize, they did not readily acknowledge that their own investment personality—and lack of specific goals tied to their investment strategy—could affect their decision-making prior to 2008. Their eyes were opened, however, by their reactions to the 2008/2009 Great Financial Crisis. Countless investors sold low or, on the flip side, neglected to address liquidity issues in a timely manner. Many investors want to avoid making the same mistakes, especially now that they feel anxious about interest rates and the effect of quantitative easing.

By understanding their goals and reactions to their investments, investors can exert an element of control in an environment that can feel out of control. For example, research showed that investors worked with their financial team to avoid impulsive investment decisions that had cost investors about 3 to 5 percentage points in returns per year.[1]

BEHAVIORAL INVESTING

Consider starting with your own investment personality & goals

One way advisors can help investors make better investment decisions: they collaborate with investors to create a goals-based plan that acknowledges the investor's own investment personality.[2]

[1] Vanguard, "Putting a value on your value: Quantifying Vanguard Advisor's Alpha", June 2020; Russell Investments, "Value of an Advisor," 2022; Envestnet, "Capital Sigma: The Advisor Advantage", 2019.

[2] Chief Investment Office "Innovations in Behavioral Finance: How to Asses Your Investment Personality," 2023.

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KEY IMPLICATIONS

Behavioral Investing

Behavioral Investing can be a powerful tool to help investors pursue a set of financial goals with confidence. It begins when investors first consider their own mindset to determine their investment strategy.

Investment Personality

Investment Personality goes beyond objective concerns such as liquidity needs and investment time horizon. Investors have the opportunity to develop an understanding of their own psychology and beliefs about investing—e.g., their reactions to volatility—which can affect their investment decisions.

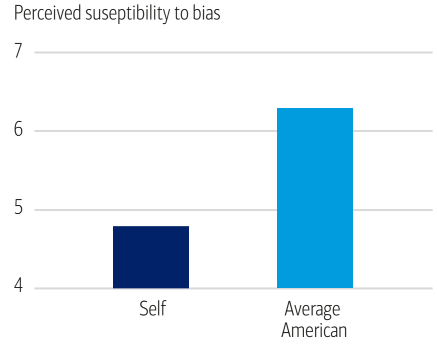
Goals

Pre-committing to an investment strategy with specific goals can help investors make good decisions. Working with an advisor to identify, prioritize and track progress toward goals can also allow investors to make the trade-offs that are right for them.

Bias Blind Spot

One reason some investors underestimate the power of behavioral investing is that people tend to acknowledge behavioral errors in others but not in themselves. This denial of personal bias has been coined the "bias blind spot."[3] For example, in one 2007 study sponsored by the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation, people thought that other Americans would be susceptible to "halo effects," but that they would be relatively immune.[4] A halo effect is when one attribute—e.g., the rising stock price of "Company X"—influences judgment of other attributes in the absence of objective evidence—e.g., "Since the stock price of 'Company X' is rising, I believe that 'Company X' is a well-managed firm." Or consider a more famous example from 1972 of the halo effect: good-looking people tend to be judged more positively on other, unrelated traits.[5] So how do investors overcome this bias blind spot? The FINRA study shows that simply warning people that they might be susceptible to halo effects helped reduce errors.

People's assessment of their own and the average American's susceptibility to the 'halo effect'



Source: FINRA Investor Education Foundation, 2007.

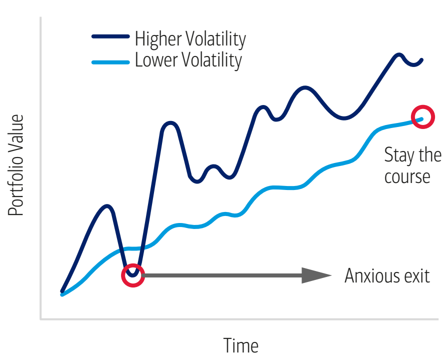
INVESTMENT PERSONALITY

Many investors confuse their investment personality with objective investment considerations. For example, an investor may have objective liquidity needs (e.g., 20% of their investment portfolio may need to be accessible on a daily basis) given their investment time horizon for a retirement-related goal (e.g., 15 years). Critically, addressing these objective considerations does not incorporate the investor's investment personality, or their own psychology and beliefs. Regardless of the time horizon, the investor may actually only be comfortable with a much higher liquidity level, perhaps 50%. If a low level of liquidity is maintained, then during tumultuous or challenging markets the investor might attempt to dramatically increase liquidity in order to reduce anxiety. However, moving from less liquid to more liquid investments can be costly and erase investment benefits.[6] This is why incorporating the investor's psyche into the investment strategy is especially important. Highlighted below are two personality attributes that are particularly relevant in this challenging market environment.

Response to volatility: How would it make you feel to know that market volatility hit a new high?[7] Some investors lose sleep at night while others sit back and relax. Many think that anxiety is "bad" and staying calm is "good," but both pose advantages and disadvantages. For example, anxious investors might be more likely to revisit their portfolio and tactically take advantage of market opportunities. However, they might also be more likely to exit the markets when volatility becomes too uncomfortable.

Conversely, those who ignore the wild swings in the market might be more likely to stay invested, but they might also fail to take advantage of tactical opportunities—or worse—neglect to rebalance their portfolios often enough, which is recommended during periods of high volatility.[8] The key is to know who you are and to take a decidedly balanced perspective to maximize the pros and minimize the cons. In any case, most investors feel some level of anxiety during tumultuous markets, just to varying degrees.[9]

Reducing volatility has the potential to yield better returns for investors



Source: Chief Investment Office as of September 2023. For illustrative purposes only.

[3] Irene Scopelliti, Carey K. Morewedge, Erin McCormick, H. Lauren Min, Sophie Lebrecht, Karim S. Kassam, "Bias Blind Spot: Structure, Measurement and Consequences," *Management Science*, vol. 61 no. 10, April 2015.

[4] Emily Pronin, "Overcoming Biases to Promote Wise Investing," *FINRA Investor Education Foundation*, 2007.

[5] Karen Dion, Ellen Berscheid and Elaine Walster, "What Is Beautiful Is Good," *Journal of Personality and Social Psychology*, Vol. 24, No. 3, December 1972.

[6] For a perspective on the "fire sale" of assets, please refer to the following journal article: Andrei Shleifer and Robert Vishny, "Fire Sales in Finance and Macroeconomics," *Journal of Economic Perspectives*, Vol. 25, No. 1, Winter 2011.

[7] Steven M. Sears "What to Do Now That the VIX-the Market's Fear Gauge - Has Crossed 30", *Barron's*, March 1, 2022

[8] During periods of high volatility, some assets will experience extreme outperformance while others will experience extreme underperformance—a phenomenon that can quickly lead to an asset allocation no longer resembling the original investment strategy.

[9] For a view on excess volatility and investor behavior, please refer to the following journal article: Roger J. Shiller, "From Efficient Market Theory to Behavioral Finance," *Cowles Foundation for Research in Economics at Yale University, 2002*.

Market focus: Imagine a potential investor who looks only in the rearview mirror and focuses on headlines like "Stocks Fall, Oil Leaps as Ukraine Crisis Deepens,"[10] Will they invest? Probably not. How about the same individual who is already invested; will they exit the markets? Possibly. At the same time, there are investors who are only forward-looking and ignore historical data. This investor may feel inert, unable to act because the future seems uncertain. A potential solution: the investor can work with their advisor to combine both historical data and future expectations to create an investment view that accounts for multiple scenarios, in the context of his goals, to help them to stay invested in a strategy.

Knowing your investment personality can enhance a behavioral investing strategy in many other ways. For example, at a very basic level, some investors are more risk loving than others. Working with an advisor to determine your risk tolerance can help balance downside risk with upside potential. Advisors can also help investors who are extremely underconfident or overconfident in financial matters. They can walk underconfident investors step-by-step through the investment process, or help overconfident investors set appropriate guidelines and strategies that are best suited for their goals. Indeed, overconfident investors tend to trade more, sometimes at the expense of investment returns.[11] Understanding your own beliefs and behavior can help avoid painful regret and enable you to stay the course.

GOALS

There is evidence from a 2008 study that pre-committing to a plan can move people to invest in a way that will help them meet their goals.[12] Consider a husband and wife who set three primary goals: support their children's educational costs, buy a second home, and retire with a sufficient amount of ongoing income. Let us assume they have already sent their children to school and they have just purchased their second home. Now they are tackling their retirement income goal in the current challenging market environment. What do they do?

By focusing on their goals, rather than on market performance, they are more likely to make the tradeoffs that are important to them.[13] In other words, rather than making choices about whether to buy, sell, or hold a particular investment they are likely to evaluate what level of retirement income they are targeting and make adjustments to their portfolio with that goal in mind. Maybe that involves downsizing their second home, reducing costs, or working longer than expected. Or maybe that involves making modifications to their investment strategy and appropriate tactical shifts. But these shifts will consider the holistic goal, rather than the performance of a particular investment or class of investments (e.g., commodities; for more detail, please see the section at the end of this paper titled "A Holistic Investment Approach").

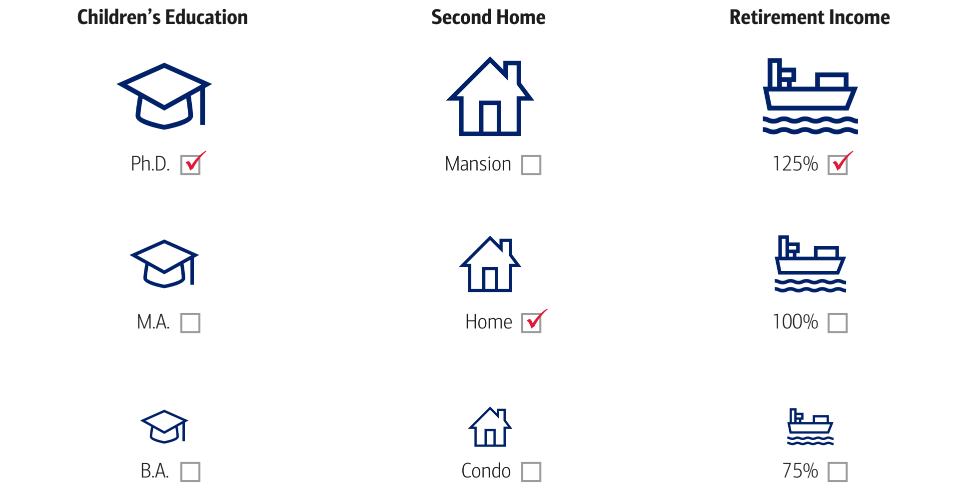
[10] Gunjan Banerji, Anna Hirtenstein and Rebecca Feng, "Stocks Fall, Oil Leaps as Ukraine Crisis Deepens," *Wall Street Journal*, February 28, 2022.

[11] Brad M. Barber and Terrance Odean, "Trading Is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors," *The Journal of Finance*, Vol. 55, No. 2, April 2000.

[12] Richard H. Thaler and Cass R. Sunstein, *Nudge: Improving Decisions About Health, Wealth, and Happiness*. New Haven: Yale University Press, 2008.

[13] Meir Statman, "Modern Portfolio Theory and Behavioral Finance" *Journal of Wealth Management*, July 2004 pp 16-22.

An investor contemplating retirement may be more successful by setting a plan and sticking to it



A behavioral investment strategy that focuses on goals, rather than on investment performance, can also open the door to nontraditional investment approaches. For example, the husband and wife may be interested in philanthropy but feel they no longer have the resources to give. However, by expressing their philanthropic goal, they could work with an advisor to build a portfolio that balances their philanthropic desires with their need for retirement income. One possibility could be a charitable gift annuity, whereby the couple gives their charity of choice a lump sum and that charity agrees to pay the couple a guaranteed stream of income for the rest of their lives. This tax-deductible approach would also tackle issues related to longevity risk and potentially hedge against the couple overspending or abandoning their investment plan.[14] At the same time, they have made a gift that enhances their (and others') well-being.

CONCLUSION

Behavioral investing can be a powerful tool, enabling investors to achieve a set of financial goals with confidence, while also freeing them from the anxiety brought on by the day-to-day fluctuations of the markets. By focusing on specific life goals rather than on the market's short-term swings, the investor may be able to attain those goals.

A HOLISTIC INVESTMENT APPROACH

Behavioral Investing may be the beginning of a more holistic, goals-based investment approach.[15] Once an investor defines their investment personality and goals—and a plan is set—they can invest in a way that best meets their needs. Importantly, feelings and beliefs will shift with the investment experience, and goals may change based on a variety of circumstances. For example, an investor may become more comfortable with volatility as they remain invested over many market cycles, and may shift to more volatile investment strategies[16]—potentially earning a risk premium on their investments. Or, due to an unanticipated liquidity event (e.g., the sale of a business), the investor may no longer have the same stream of income (e.g., a salary) that they once depended on. As a result, they may need to work to develop an investment income strategy around their spending needs. By systematically reviewing their progress, an investor can make the desired changes to their investment approach, and stay on track to pursue their goals.

Goals-based Investment Approach

[14] Chief Investment Office, Pitfalls in Retirements, 2023.

[15] Hungjen Wang, Anil Suri, David Laster and Himanshu Almadi, "Portfolio Selection in Goals-Based Wealth Management," *The Journal of Wealth Management*, Vol. 14, No. 1, Summer 2011.

[16] Riskier investments tend to be more volatile.

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