

Behavioral Finance: Loss and Regret Aversion

- Prospect Theory proposes that investors' decision-making processes are contingent on the perceived values and costs of gains and losses, rather than the likelihood of each outcome.
- Loss aversion suggests that investors tend to be disproportionately risk averse in relation to their expected outcomes in order to avoid the pain associated with financial loss.
- Regret aversion posits that investor indecision and failure to take action typically stems from wanting to avoid responsibility for a poor result.

Daniel Kahneman and Amos Tversky (K&T) conceived Prospect Theory in 1979, three years after the publication of their seminal *Judgment Under Uncertainty: Heuristics and Biases*.

Prospect Theory was a critique of and alternative offered to the "expected utility theory," which stated that people can assess the value of decisions by combining outcome probabilities with the values of those outcomes. On the contrary, K&T sought to explain, decision-making processes are contingent on the values and costs investors associate with gains and losses rather than the likelihood of each outcome. According to Prospect Theory, investors tend to qualify these gains and losses through the lens of various heuristics (rules of thumb), further limiting their ability to make reasonable decisions.

As a result of K&T's work on Prospect Theory, new investor bias theories, including loss aversion and regret aversion, entered the behavioral lexicon.

Loss Aversion

K&T's empirical research demonstrated that investors typically feel the pain of financial loss much more intensely than the pleasure felt from financial gain of the same size¹. That pain often results in risk-averse behavior, or risk avoidance that is disproportionate to the expected outcome. This loss aversion can cause investors to shun investment strategies that have demonstrable long-term success because they are not always profitable in the short term.

Behavioral economic theorists Hersh Shefrin and Mier Statman said, for example, that investors attempt to secure gains by selling winning investments and avoid permanent losses by holding losing investments.

However, securities prices often rise or fall for good reason, after new information comes to light (see *Behavioral Finance: The Three A's – Availability, Anchoring and Adjustment* for a more thorough explanation).

When investors fail to appropriately adjust the estimated value of their investments as a result of new information, causing them to sell winners too early or losers too late, they change the risk-reward profile of their portfolios for the worse.

Such loss aversion, combined with myopia (or short-term perspective), accounts for the "equity premium puzzle," according to theorists Shlomo Benartzi and Richard Thaler (B&T)². The equity premium puzzle is the phenomenon that stocks consistently outperform bonds over the long run. B&T theorized that a volatile, short-term stock market leads myopic investors to shun the long-term rewards of investing in stocks in favor of the short-term safety of bonds—despite evidence that such behavior is inferior over the long-term.

Conviction in valuation estimates can neutralize the worst effects of loss aversion. Investors can develop such conviction by emphasizing estimates based on measurable accounting values and updating estimates when new fundamental information becomes available. The resulting portfolios should exhibit better risk-reward profiles than those constructed on decisions to buy, hold or sell based on holdings trading at gains or losses.

² "Myopic Loss Aversion and the Equity Premium Puzzle," Benartzi, S. and Thaler, R. (1995). *The Quarterly Journal of Economics*

¹ "Prospect Theory: An Analysis of Decision under Risk," Kahneman, D. and Tversky, A. (1979). *Econometrica*

Regret Aversion

Indecision and failure to take action due to fear of bad outcomes—regret aversion—stems from the desire to avoid feeling responsible for a poor result. Regret can arise through omission (failure to act) or commission (an act), but is usually stronger for commission in the short run. Death-bed regret often relates to omission, or misgivings about those things we wish we had done.

Investors who suffered recent losses can become too conservative relative to reasonable outcome expectations and prevailing risk levels. Regret aversion can also unnecessarily prevent investors from deviating from a habitual course when favorable opportunities arise. For example, if an investor always owned short-term bonds for fear of stock-market volatility, and then stock prices plummeted to a point where high-quality businesses could be bought cheaply, regret aversion could prevent them from breaking their bond-buying habit to capitalize on the high-potential stocks.

Investors are so prone to regret aversion that even the great Harry Markowitz, who won the Nobel Prize in Economics and whose work largely represents the cornerstone of Modern Portfolio Theory, was once influenced by regret aversion when choosing his retirement investment options³.

³Money Magazine (1997).

Rather than using his own sophisticated investment model, he split his contributions equally between bonds and equities.

Markowitz explained:

“I visualized my grief if the stock market went way up and I wasn’t in it—or it went way down and I was completely in it. My intention was to minimize my future regret.”

To avoid such a behavioral trap and counterbalance the weight of regret aversion, investors must recognize that failure to make a decision or take action is a choice in itself. In effect, it is a passive decision to maintain the status quo and keep their current portfolio holdings.

Investors should regularly assess estimated values and allocate capital accordingly, maximizing the best alternatives within a given timeframe, risk budget or tax situation. Perhaps they can use regret aversion to their benefit, recognizing that failure to take these steps will likely produce poor outcomes over the long run.

The next paper in our series, entitled: “Behavioral Finance: Optimism and Overconfidence,” examines subsequent behavioral investment bias discoveries.

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