Behavioral Finance:

How Biases Impact Our Decisions

Ready to give your brain a workout?

Take your chance at these three quick brain teasers:

Question 1: A bat and a ball cost $110 in total. The bat costs $100 more than the ball. How much does the ball cost?

Question 2: If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?

Question 3: In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the lake, how long would it take for the patch to cover half of the lake?

Were you tempted to guess 10, 100 and 24? Don't worry you aren't alone. While a few clever individuals may have correctly answered $5, 5 minutes, and 47 days, respectively, most of us guessed the wrong answer. In fact, only 1/3 of groups that were given these three questions answered all three correctly. These were not just your typical groups either — they included individuals from Harvard students to top Hedge Fund managers. This is an example of how our behavioral biases can impact our decisions — especially those relating to money and investing.

While quickly glancing at these questions, the answers seem so obvious; however, when looking closer and taking a step back to analyze the questions closer, you may come to the correct solution. While it may be human nature to quickly guess incorrectly, many times we may also assume (incorrectly) that we have the correct solution. Here is a quick overview of some of the most common biases investor's exhibit.

Investor Behavioral Biases

Listed below are three different categories of behavioral biases. It's important to note that information processing and belief preservation are examples of cognitive biases and tend to be easier to fix than emotional biases.

Information Processing Biases:

- Making decisions based on how easy it is to recall something.
- Anchoring to a previous assumption (i.e. bought at $20 and goes to $10 won't sell until it is back to $20 again, even if information is saying it is not worth $20).
- Making decisions based on how the question/statement is being framed (25% of patients who take medicine will survive versus saying 75% of patients taking this medicine will die).

Belief Preservation Biases:

- Maintaining prior views or forecasts and failing to incorporate any new information.
- The opposite; focusing only on new information and not looking at any historical information.
- Looking for confirmation of our decisions, considering only positive information and ignoring negative.
- Belief that past events could have been predictable and reasonable to expect.

Emotional Biases:

- Investors prefer to avoid losses, rather than achieve gains.
- Overconfidence in your abilities
- Lacking self-control (i.e. spending money on a vacation that you can't afford instead of saving for retirement).
- Maintaining the status quo and doing nothing with the portfolio rather than making a change.
- Valuing your assets more than others (i.e. may believe your house is worth more than what it actually is).
- Not doing something for the fear of regretting the decision (this could be fear of picking a poor stock, so you don't pick one; or fear of missing out, so you purchase it now like everyone else even if it may not be the right decision).

Behavioral Biases and Financial Influence

Some examples of how these behavioral biases can impact your financial portfolio include:

- Under or overreacting to new information by not considering both new and historical info.
- Holding a disproportionate amount in a particular stock, sector, asset class (undiversified).
- Unfairly judging investments by believing the past was predictable.
- Holding onto a losing investment for too long, selling winners too early.
- Inaccurately accept too much risk or choosing sub-optimal investments by the way questions were framed.
- Choosing investments because of advertising, which also limits your investment opportunity set.
- Incorrectly estimating risk or returns estimates by being too confident in ability to predict.

- Taking too much risk by failing to save for the future and having to invest in riskier assets to "catch-up."
- By maintaining the portfolio as is, may be failing to explore other potential opportunities.
- By believing an asset is worth more than what it is (ex: inherited stock), may fail to sell at a fair price.

As mentioned above, emotional biases are the hardest to repair — even when we are aware of them. However, a good way to handle biases is to be educated and to quantify data. An example of this would be weighing the consequences of being in an undiversified portfolio by looking at huge potential loss in a portfolio that is too risky, or looking at the missed upside potential in a portfolio that is too conservative — versus truly understanding the importance of diversification. Below are some other courses of action to offset or remedy the consequences of our biases.

- Recognize that a bias exists.
- Seek the advice of a professional such as your financial advisor.
- Ask questions. Am I considering all information? Did I consider all my options? Is this decision based purely on my aversion to risk?
- Be neutral and open-minded when evaluating investments. Get information that may challenge your belief, support from other sources than what we always use.
- Keep records of past decisions so you can go back later to see what impact biases had.
- Seek education regarding the impact of the bias and maintain a disciplined documented approach to investing.
- Maintain a diversified portfolio that correlates with the risk/return profile of the investor. Recognize that even the best investors make mistakes. ■