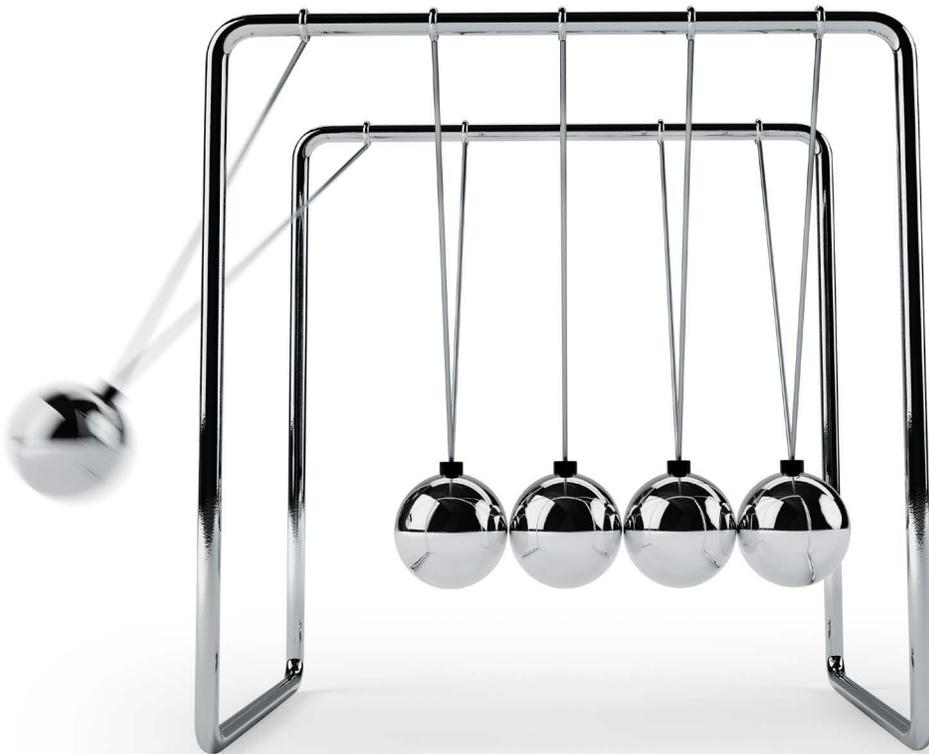


BEHAVIOR

How to avoid common behavioral biases



Why do investors react differently to the same market event?

It depends on a number of factors, such as what the investor's objectives are, including their risk tolerance and return target, what their beliefs are about where they are in the market cycle and what markets will do next within the investor's time horizon.

For example, if markets fall 10% and news headlines about an increased probability of near-term recession fuel anxiety in investors' minds, the following may happen:

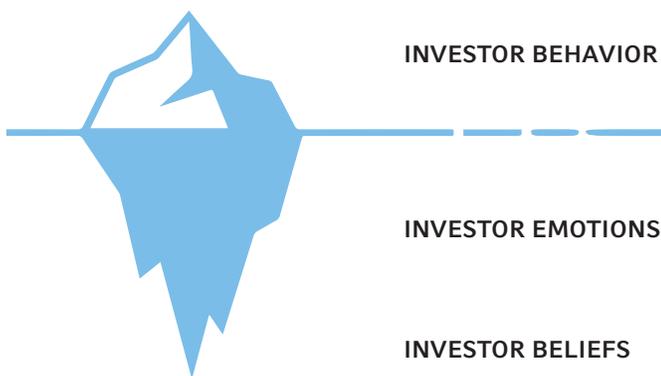
- A common response may be to stop investing until markets stopped falling;
- Some worried investors may even start selling in case it's the start of a bear market;
- Contrarian investors may see the market correction as an opportunity to buy stocks 'on sale' at lower prices.

Same event. Three different types of behaviors.

Conversely, if markets or particular asset classes, sectors or stocks rally, the following may happen:

- A common response may be to follow the herd and join in the buying activity, bidding up prices;
- Some cautious investors may wait to see if the rally will be sustained before investing;
- Contrarian investors may sell because they believe the prices are too high.

Some beliefs may lead to successful investment strategies and behaviors. However, other beliefs may lead to behavioral biases that are counterproductive and jeopardize the likelihood of achieving an investor's objectives. This could ultimately have a long-term negative impact on their wealth.



Examples of behavioral biases & portfolio implications

To understand what these biases are and why investors exhibit them, we need to remember that our human brains are hardwired for a world of limited and poor information.

¹ Source: Advances in Prospect Theory – Cumulative Representation of Uncertainty, Tversky and Kahneman, 1992.

Historically, survival depended on quick pattern recognition and decisive action. As a result, stereotyping and generalizing have proved helpful in survival.

However, when it comes to investing in a world of uncertainty, these traits can push investors to find patterns that may not actually exist, especially for short-term horizons.



In "Thinking Fast and Slow", behavioral scientist Daniel Kahneman categorized the human thought process in two different ways: System 1, or "Blink" and System 2, or "Think". System 1 is our intuition – fast, automatic and emotional. System 2 is our reasoning – slow, deliberate and systematic.

"BLINK": SYSTEM 1	"THINK": SYSTEM 2
Fast: Freeze, flight or fight	Slow: Considered
Intuitive/Autopilot/uncontrolled	Rational/Intentional/controlled
Ignores some information due to speed	Includes all relevant information
Developed over many years	More recently developed
Prone to predictable, systematic errors	Can be trained, rule-following
Unconscious/effortless	Self-aware/deliberate
Associative	Deductive

Source: "System 1" and "System 2" terminology taken from Daniel Kahneman, *Thinking Fast and Slow*. Random House, 2011.

Buy high, sell low

Contrary to the key to successful investing – buying low and selling high – many investors end up doing the opposite. This can inadvertently result because of:

Herding biases

Humans tend to mimic actions of larger group and follow the crowd, e.g. if everyone is selling, you sell too and vice versa. Herding comes from our evolutionary need to fit in with the majority because exclusion from the pack can be dangerous as there would be less protection from predators.

Fear and loss aversion

Humans tend to prefer avoiding losses than acquiring equivalent gains: If someone is confronted with equal amounts of loss and gain, the pain they experience from loss is nearly twice as strong as the pleasure of the gain.¹ Some investors may sell at low prices as the market is falling to avoid more losses despite

the investment being a sound one and helpful to achieve their long-term objectives. They may also miss out on true buying opportunities for fear that negative market sentiment will continue the downward trend.²

Trade too often

In addition investors may trade too often because of an overconfidence bias: humans tend to overestimate or exaggerate their ability to successfully perform tasks.

Humans tend to overestimate their knowledge and skills, underestimate the risks and exaggerate their ability to control those risks.

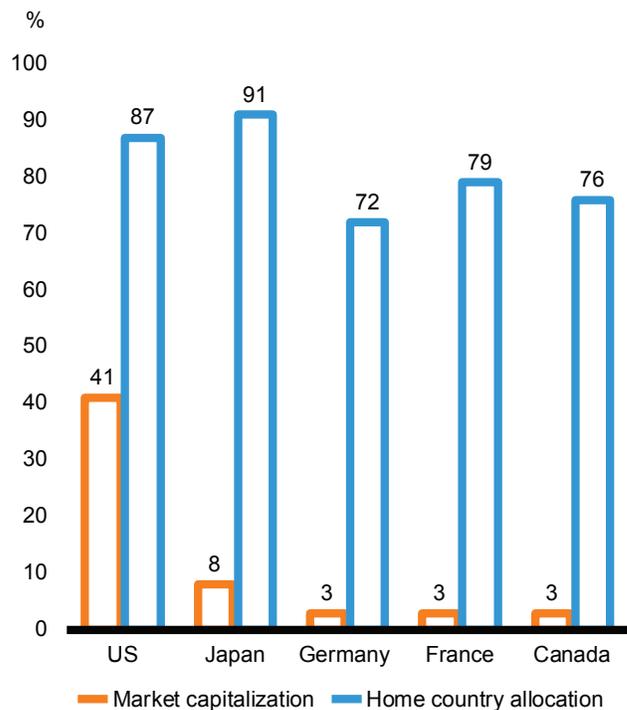
An overconfidence bias often translates into high portfolio turnover. Overconfident investors tend to believe they know more than the average person about investing and tend to be more thrill-seeking according to research by two professors at the University of California.³

Home bias & country specific risk

Humans tend to prefer what is familiar or well-known. One of the common results of this in portfolios around the world is the home country bias: the tendency to allocate a greater portion of one's portfolio to assets domiciled in your home country.

The home country bias limits the amount of diversification in investor portfolios and exposes investors to significant country-specific risk.

Home Country Bias



Source: Market capitalization of domestic listed companies (2017, in current USD)---World Bank <https://data.worldbank.org/indicator/CM.MKT.LCAP.CD?view=map> Accessed on May 15, 2019. Home country equity allocation—John R. Nofsinger, *The Psychology of Investing*, Fifth Edition, Pearson, 2014, p. 89.

² Also related to regret aversion bias: fear of bad outcomes and desire to avoid blame for poor result, e.g. fear of missing out on fads or stay out of market to avoid downturn.

³ Source: Brad Barber, Terrance Odean, "Boys Will Be Boys: Gender, Overconfidence, and Common Stock Investments," *Quarterly Journal of Economics* 116(2001): 261-292.

Common behavioral biases

Herding

Humans tend to mimic the actions of the larger group



Overconfidence

Humans tend to over estimate or exaggerate our ability to successfully perform tasks



Familiarity

Humans tend to prefer what is familiar or well-known



Can lead to

Buy high, sell low

Trade too often

Overweight home country

How to avoid behavioral bias

As humans, we all suffer from some biases. But many of these can be offset by a robust, objective and disciplined process.

As more and more investors prepare to retire and financial markets remain unpredictable, it will be increasingly important to keep behavioral biases in check.

A trusted financial advisor can help:



1

Provide education on potential biases and how to recognize whether they are affecting investment decisions



2

Take an objective view of how any decision can have a long-term impact on a portfolio



3

Create a process that considers an investor's goals, circumstances and preferences to keep them focused on their long-term outcomes

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