



10 cognitive biases that can lead to investment mistakes.

To be a successful investor over the long term, we believe it is critical to understand, and hopefully overcome, common human cognitive or psychological biases that can often lead to poor decisions and investment mistakes. Cognitive biases are 'hard wired', and we are all liable to take shortcuts, oversimplify complex decisions and be overconfident in our decision-making process. Understanding our cognitive biases can lead to better decision making, which is fundamental, in our view, to lowering risk and improving investment returns over time. Below we outline key cognitive biases to be aware of that can lead to poor investment decisions.

1. Confirmation bias

Confirmation bias is the natural human tendency to seek information that confirms an existing conclusion or hypothesis. In our view, confirmation bias can be a significant contributor to investment mistakes. Investors often become overly confident when they repeatedly receive data that validates their decisions. This overconfidence can result in a false sense that nothing is likely to go wrong, which increases the risk of being blindsided when something does go wrong.

To minimise the risk of confirmation bias when investing, we attempt to challenge the status quo and seek information that causes us to question our investment thesis. We are always seeking to 'invert' the investment case to analyse why we might be wrong. We continually revisit our investment case especially considering new information and challenge our assumptions. Conducting thorough research is at the foundation of what we do.

2. Information bias

Information bias is the tendency to make decisions based on useless or irrelevant information. The key in investing is to see the 'forest for the trees' and to carefully evaluate information that is relevant to making a more informed investment decision and to discard (and hopefully ignore) irrelevant information. Investors are bombarded with useless information every day and it is difficult to filter through it to focus on information that is relevant.

In our view, daily share price or market movements usually contain no information that is relevant to an investor who is concerned about the medium-term prospects for an investment, yet there are entire news shows and financial columns dedicated to evaluating movements in share prices on a moment-bymoment basis.

3. Loss aversion/endowment effect

Loss aversion is when people strongly prefer to avoid a loss than make a gain. Closely related to loss aversion is the endowment effect, which occurs when people place a higher value on a good that they own than on an identical good that they do not own. The loss aversion/endowment effect can lead to poor and irrational investment decisions whereby investors hold onto losing investments for too long in the hope that they will eventually recover or sell winning investments too quickly to lock in gains.

The loss-aversion tendency breaks one of the cardinal rules of economics, the measurement of opportunity cost. To be a successful investor over time you must be able to accurately measure opportunity cost and not be anchored to past investment decisions due to the inbuilt human tendency to avoid losses.

It's important to evaluate the opportunity cost associated with retaining an existing investment versus making a new investment in a portfolio. For example, when investors consider selling an existing investment, they may hesitate due to the fear of losing money, even if a new opportunity could bring better returns. So, understanding this balance may help investors make rational decisions to grow their portfolios while managing risk effectively.

We believe investors would make better investment decisions if they understood their risk tolerance (the amount of risk they are willing to accept in order to achieve their investment goals) and



took a disciplined approach to weighing up the opportunity cost 6. Hindsight bias between keeping an existing investment or not.

4. Incentive-caused bias

Incentive-caused bias, a concept introduced by renowned investor Charlie Munger, is the tendency for people to act in ways that align with their incentives, rewards, or self-interest, even if those actions are not in their best interest or the best interest of others. The sub-prime housing crisis in the US is a classic case study in incentive-caused bias. Financiers were lending money to borrowers even though they knew the borrowers had appalling credit histories, and in many cases no income or jobs and limited assets.

How did this happen on such a massive scale? We believe the answer can be found in the effect of incentives. At virtually every level of the value chain, there were incentives in place to encourage people to participate. The developers had strong incentive to construct new houses. The mortgage brokers had strong incentive to find people to take out mortgages. The investment banks had a big incentive to pay mortgage brokers to originate loans so that they could package and securitise these loans to sell to investors. The ratings agencies had strong incentive to give AAA ratings to mortgage securities to generate fees, and banks had a big incentive to buy these AAA-rated mortgage securities as they required little capital and produced enormous, leveraged profits.

One of the key factors we focus on when making investment decisions is our evaluation of agency risk. We evaluate the incentives and rewards systems in place at a company, to assess whether they are likely to encourage management to make rational long-term decisions. We prefer companies that have incentive schemes that focus management on the downside as well as the upside and encourage management to return excess cash to shareholders. For example, executive compensation that is overly skewed towards share-option schemes can encourage behaviour that is contrary to the long-term interests of shareholders, such as retention of earnings above those that can be usefully reinvested into the business.

5. Oversimplification tendency

In seeking to understand complex matters people tend to want clear and simple explanations. Unfortunately, some matters are inherently complex or uncertain and do not lend themselves to simple explanations.

In our view, investment mistakes can be made when people oversimplify uncertain or complex matters. Oversimplification bias can lead to poor decisions based on overly simplistic or incomplete analyses of complex investment situations. Underestimating risk or misinterpreting data can have negative impacts on investment strategies. We consider that investors should conduct thorough and comprehensive analyses of investment opportunities, consider multiple perspectives, and seek out diverse sources of information.

A key to successful investing is to stay within your 'circle of competence'. At Magellan part of our 'circle of competence' is to concentrate our investments in areas we consider exhibit a high degree of predictability and to be wary of areas that are highly complex and/or highly uncertain. Our extensive bottom-up stock analysis and industry research is a critical tool in understanding the underlying fundamentals of individual companies, enabling us to make well-informed investment decisions and build portfolios we believe are positioned for long-term success.

Hindsight bias is the tendency for people to believe that they could have predicted a past outcome accurately, even though they were unable to do so in real-time. As an example, many people claimed "I knew it" when the dot.com bubble burst hit in 1998, however very few predicted it.

Hindsight bias has the potential to lead to overconfidence in investment knowledge and skills. Investors may start to make irrational and risky decisions as they only remember the instances when they were right and overlook the times when they were wrong. Investors may look for expected outcomes in investment decisions rather than looking at all the possible outcomes.

In our view, hindsight bias is a dangerous state of mind as it clouds your objectivity when assessing past investment decisions and inhibits your ability to learn from past mistakes. To reduce hindsight bias, we spend considerable time upfront setting out the detailed investment case for each stock, including our estimated return. This enables us to accurately assess our investment history with the benefit of hindsight. We do this for individual stock investments and macroeconomic calls.

7. Bandwagon effect (or herd mentality)

The bandwagon effect, or herd mentality, describes gaining comfort in something because many other people do (or believe) the same. In recent times, we have seen the bandwagon effect or herd mentality with the events that surrounded the GameStop stock event. Where many people saw the rise in stock prices and without proper research jumped on the bandwagon and invested. This impacted a lot of investors who bought the stock due to the fear of missing out and the hype it created.

We believe, to be a successful investor, you must be able to analyse and think independently. Speculative bubbles are typically the result of herd mentality. Herd mentality in investing can overshadow rational decision-making and could increase the risk of financial losses.

Investors need to recognise the feeling of pressure to conform to popular opinion or follow the crowd and instead consider conducting research and analysis before making decisions, as well as seeking alternative views to challenge the consensus.

Our investment process is focussed on deep fundamental research and analysis, backed by an investment team with many years of experience. At the end of the day, we will be right or wrong because our analysis and judgement is either right or wrong. While we don't seek to be contrarian, we have no hesitation in taking 'the road less travelled' if that is what our analysis concludes.

8. Restraint bias

Restraint bias is the tendency to overestimate one's ability to show restraint in the face of temptation. The issue for many investors is how to properly size an investment when they believe they have identified a 'sure winner.' We believe, 'sure thing' investments are exceptionally rare, and many investments are sensitive to changes in assumptions, particularly macroeconomic assumptions.

Investors need to have in place a well-thought-out investment plan that aligns with their financial goals, risk tolerance, and time horizon. Having a clear plan in place can help to maintain focus on long-term objectives and avoid making impulsive decisions based on short-term market movements.



At Magellan, we hardwire restraints or risk controls into our process, which may include placing maximum limitations on stocks and combinations of stocks that we consider carry aggregation risk.

9. Neglect of probability

Humans often overlook or misjudge probabilities when making decisions, including investment decisions. Instead of considering a range of possible outcomes, many people tend to simplify and focus on a single estimate. However, the reality is that any outcome an investor anticipates may just be their best guess or most likely scenario. Around this expected outcome, there's a range of potential results, represented by a distribution curve.

This curve can vary widely depending on the specific characteristics of the business involved. For instance, companies which are well-established and have strong competitive positions, tend to have a narrower range of potential outcomes compared to less mature or more volatile companies, which are more susceptible to economic cycles or competitive pressures.

In our portfolio construction process, we carefully consider the differences in businesses to account for the various risks and probabilities associated with different outcomes. This approach helps us construct portfolios that we believe are better suited to navigate the uncertainties of the market.

Another error investors may make is to overestimate or misprice the risk of very low probability events. That does not mean that 'black swan' events cannot happen, but that overcompensating for very low probability events can be costly for investors.

To seek to mitigate the risk of 'black swan' events, we include businesses in our investment portfolios that we consider are highquality and long-lasting, purchased at appropriate prices. We believe these companies have a tight range of potential outcomes, reducing the risk of major losses from unexpected events. If we have real insight that the probability of a 'black swan' event is materially increasing and the pricing is attractive enough to reduce this risk, we will have no hesitation in making a material change to our investment portfolios. However, spotting these events isn't easy and doesn't necessarily depend on how much attention they're getting in the media or the markets. As Warren Buffett famously said, "The biggest mistake in stocks is to buy or sell based on current headlines."

10. Anchoring bias

Anchoring bias is the tendency to rely too heavily on, or anchor to, a past reference or one piece of information when making a decision. There have been many academic studies undertaken on the power of anchoring on decision making. Studies typically get people to focus on a totally random number, like their year of birth or age, before being asked to assign a value to something. The studies show that people are influenced in their answer by, or anchored to, the random number that they have focused on prior to being asked the question.

Looking at the recent share price is a common way investors anchor their decisions. Some people even use a method called technical analysis, which looks at past price movements to predict future ones. However, just because a stock's price was high or low in the past doesn't tell us if it's a good deal now.

Instead of focusing on past prices, we look at whether the current price is lower than what we think the stock is really worth. We don't let past prices influence our decisions. We also don't rely solely on the current price when deciding whether to research a new investment. We want to be ready with well-researched options so we can make smart decisions when prices drop below what we believe is their true value.

info@magellangroup.com.au

+61 2 9235 4888

Important Information: This material has been delivered to you by Magellan Asset Management Limited ABN 31 120 593 946 AFS Licence No. 304 301 ('Magellan') and has been prepared for general information purposes only and must not be construed as investment advice or as an investment recommendation. This material does not take into account your investment objectives, financial situation or particular needs. This material does not constitute an offer or inducement to engage in an investment activity nor does it form part of any offer documentation, offer or invitation to purchase, sell or subscribe for interests in any type of investment product or service. You should obtain and consider the relevant Product Disclosure Statement ('PDS') and Target Market Determination ('TMD') and consider obtaining professional investment advice tailored to your specific circumstances before making a decision about whether to acquire, or continue to hold, the relevant financial product. A copy of the relevant PDS and TMD relating to a Magellan financial product may be obtained by calling +61 2 9235 4888 or by visiting www.magellangroup.com.au

Past performance is not necessarily indicative of future results and no person guarantees the future performance of any financial product or service, the amount or timing of any return from it, that asset allocations will be met, that it will be able to implement its investment strategy or that its investment objectives will be achieved. This material may contain 'forward-looking statements'. Actual events or results or the actual performance of a Magellan financial product or service may differ materially from those reflected or contemplated in such forward-looking statements.

This material may include data, research and other information from third party sources. Magellan makes no guarantee that such information is accurate, complete or timely and does not provide any warranties regarding results obtained from its use. This information is subject to change at any time and no person has any responsibility to update any of the information provided in this material. Statements contained in this material that are not historical facts are based on current expectations, estimates, projections, opinions and beliefs of Magellan. Such statements involve known and unknown risks, uncertainties and other factors, and undue reliance should not be placed thereon. No representation or warranty is made with respect to the accuracy or completeness of any of the information contained in this material. Magellan will not be responsible or liable for any losses arising from your use or reliance upon any part of the information contained in this material.

Any third-party trademarks contained herein are the property of their respective owners and Magellan claims no ownership in, nor any affiliation with, such trademarks. Any third-party trademarks that appear in this material are used for information purposes and only to identify the company names or brands of their respective owners. No affiliation, sponsorship or endorsement should be inferred from the use of these trademarks. This material and the information contained within it may not be reproduced, or disclosed, in whole or in part, without the prior written consent of Magellan. MC446

