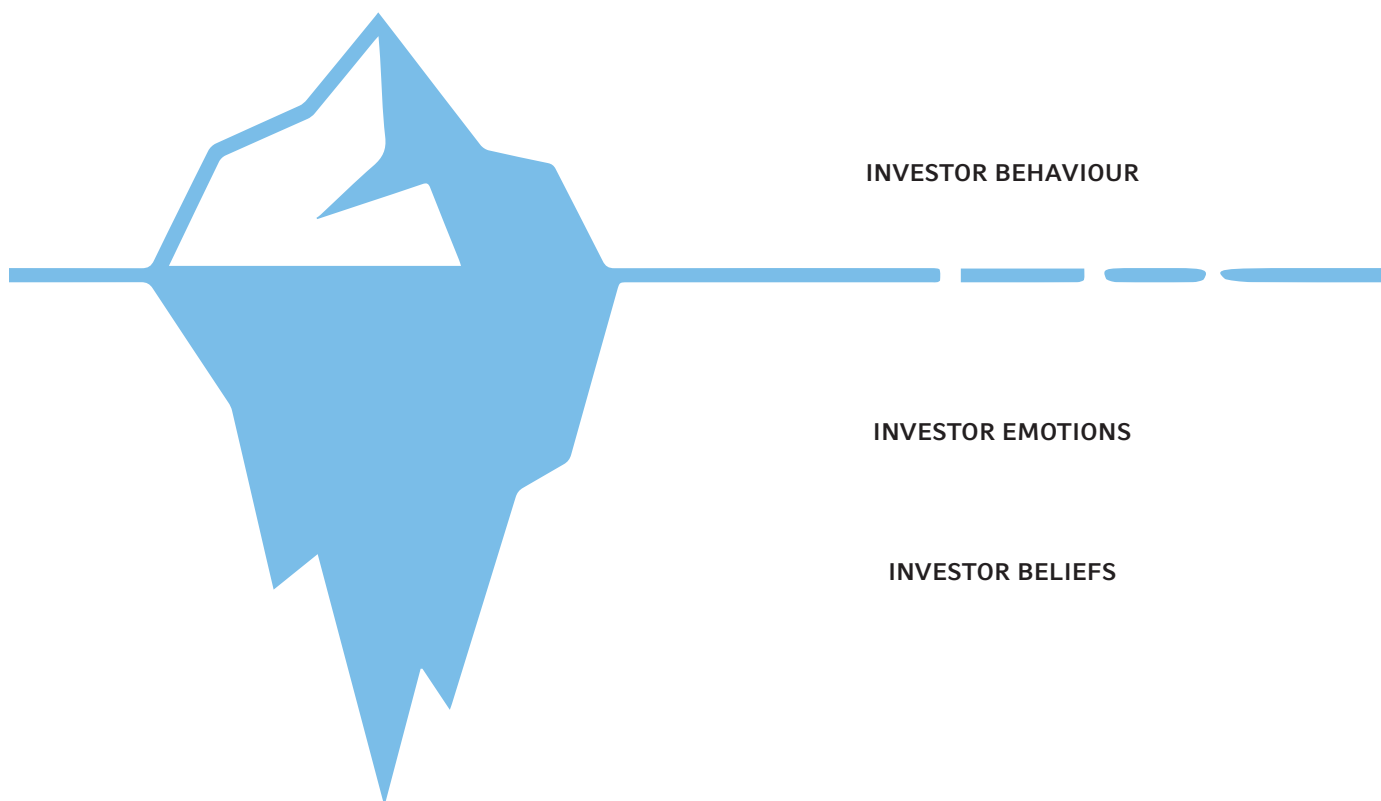


BEHAVIOUR

How to avoid common behavioural
biases and their detrimental impact
on investor portfolios





What drives investors to select one response over another?

It depends on a number of factors: what the investor's objectives are, including their risk tolerance and return target, what the investor's beliefs are about where they are in the market cycle and what markets will do next within the investor's time horizon. Depending on investor's beliefs, preferences, emotions and past experiences (all invisible to the market), they can come to contrasting conclusions, resulting in different investor behaviour and sometimes opposing investment strategies (the only things visible to the market).

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 behaviours.

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

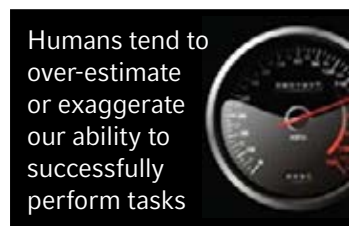
- A common response may be to follow the herd and join in the buying activity, bidding up prices;
- Some cautious investors may wait and see if the rally will be sustained before investing;
- Contrarian investors may sell because they believe the prices are too high.

Some beliefs may lead to successful investment strategies and behaviours. However, other beliefs may lead to behavioural biases that are counterproductive and jeopardise the likelihood of achieving an investor's objectives.

Herding



Overconfidence



Familiarity



Mental accounting



Examples of behavioural biases & portfolio implications

To understand what these biases are and why investors exhibit them, we need to remember that our human brains are hard wired for a world of limited and poor information, described as System 1 by behavioural finance specialists (or “Blink”).¹

Historically, survival depended on quick pattern recognition and decisive action. As a result, stereotyping and generalising 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.

“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

What are the implications for investors and portfolios if these biases are not kept in check? We will first consider some common bias, what behaviours they may lead to and how the biases may be overcome.²

¹ Source: “System 1” and “System 2” terminology taken from Daniel Kahneman, Thinking Fast and Slow.

² Multiple biases may contribute to some particular investor behaviours and investment strategies.

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

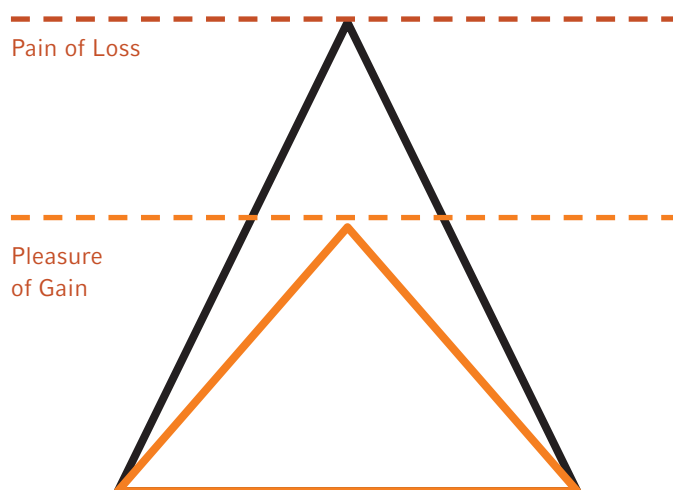
Humans tend to mimic actions of larger group and follow the crowd, e.g. if everyone selling, you sell too and vice versa. Herding comes from our evolutionary need to fit in with the majority because exclusion from the pack can be dangerous as there would be less protection from predators.

Greed

Many investors strive to extract every dollar of profit out of a position before selling out of the investment, which may mean they end up selling after the stock or market has peaked. Alternatively, it can mean buying when the market has already run, at higher prices after others have already made money and identified opportunities early. In both cases, it could be due to investors assuming the market will follow a pattern and continue the rally or decline.

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.³ 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 of negative market sentiment continuing the downward trend.⁴



Trade too often

In addition to herding bias, greed and fear emotions, investors may trade too often because of an overconfidence bias: humans tend to overestimate or exaggerate their ability to successfully perform tasks. Russell Investments' recent global analysis showed that the average investor's inclination to chase past performance has cost them 1.8% annually in the 34 year period from 1984 - 2017.⁵

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. For example, 75% of retail share owners in Australia hold only domestic shares despite Australia being less than 3% of the global market capitalisation.⁶ Our global analysis shows that regardless of which home country the investor resides in, this phenomenon is shared across most countries. The home country bias limits the amount of diversification in investor portfolios and exposes investors to significant country-specific risk.

³ Source: Advances in Prospect Theory – Cumulative Representation of Uncertainty, Tversky and Kahneman, 1992.

⁴ 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.

⁵ (1) BNY Mellon Analytical Services, Russell 3000® Index annualised return from January 1, 1984 to December 31, 2017. (2) Russell Investment Group & Investment Company Institute (ICI). Return was calculated by deriving the internal rate of return (IRR) based on ICI monthly fund flow data which was compared to the rate of return if invested in the securities of the Russell 3000® Index and held without alteration from January 1, 1984 to December 31, 2017. This seeks to illustrate how regularly increasing or decreasing equity exposure based on the current market trends can sacrifice even market like returns. Indexes and/or benchmarks are unmanaged and cannot be invested in directly. Returns represent past performance, are not a guarantee of future performance, and are not indicative of any specific investment. See investor behaviour analysis for more detail.

⁶ ASX Australian Investor Study 2017, prepared by Deloitte Access Economics. <https://www.asx.com.au/education/2017-asx-investor-study.htm>
Australia's market capitalisation in the FTSE Russell Developed Large Cap Index is 2.5% as at 31 May 2018.

Naïve diversification

Due to our hard-wired brains looking for simplification and generalisation, investors may exhibit mental accounting in their portfolio decision making - a tendency to separate money into separate accounts⁷ and overlook the aggregate investment strategy. This can lead to unintended concentrated risks in portfolios and at worse, poorly diversified portfolios.

For example, during the market sell-off earlier in 2018, U.S. large cap equities were hit the hardest while returns from Treasury bonds also fell. On the other hand, non-traditional fixed income sectors like prepayment and bank loans delivered positive returns and real assets and other 'in between' investments (e.g. high yield, emerging market debt, commodity, real estate and infrastructure) were less impacted than traditional shares. These alternatives had lower correlations with the traditional asset classes of bonds and shares, potentially providing clients with a smoother path to long-term outcomes.

How to avoid behavioural bias

As humans, we all suffer from some biases. But many of these can be reduced by a robust, objective and disciplined process. The first step is to recognise and openly accept our biases. At Russell Investments, portfolio managers work very closely with investment strategists to challenge and debate with each other. Our organisational structure and team dynamics are designed to encourage active discussion to avoid the risk of seniority trumping real debate. In a similar vein, we also deliberately seek out challenge from outside the firm to avoid group think and provide impartial challenge to our views.

We take decision-making seriously and recognise that sometimes it's the decisions you choose NOT to make that count more than the decisions you do make.

We have also found that it's useful to regularly review portfolio decisions by documenting what actions were taken or not taken, the reasons why, what the prevailing market conditions were, the feelings and thoughts at the time and how we might do things differently (or do the same again) in future scenarios. This type of journal approach can encourage rational decisions when markets are irrational, helping investors become aware of inherent biases so they can be avoided and therefore increase the probability of achieving investment objectives.

Cycle, Value and Sentiment process

Russell Investments' process is based on three building blocks: Cycle, Value and Sentiment – the lenses through which we view the world.



Cycle helps us analyse whether an event or risk is expected to change the course of the business cycle. If so, we need to reflect that in our decision making.



Valuation helps us consider whether the magnitude of the market's response is under/overdone and there is opportunity to take advantage of the mispricing.



Sentiment tells us whether a change in financial markets as a result of an event is abrupt enough to push investors into a state of euphoria or fear.

Our approach to dealing with news and uncertainty involves measuring the probability versus the impact of events. A high probability event with negligible impact can largely be set aside; but an event with a significant potential impact – regardless of its probability – should be given due consideration. Instead of trying to predict what might happen, we model different scenarios that may occur and prepare for how we would position portfolios under those scenarios.

You can read more about our latest scenario analysis in our quarterly Global Market Outlook [update](#). These insights are dynamically implemented into all our funds, especially our globally diversified, dynamically managed [real return funds](#), which have consistently achieved its objectives over multiple time horizons.

⁷ For example, a cash account for basic expenditures, a growth shares portfolio to fund education needs or vacation, a conservative bond portfolio for retirement needs.

About Russell Investments

For more than 40 years, we've helped guide the investments of some of the world's largest companies, foundations and pension plans. Working with your plan sponsor or financial advisor, you can benefit from this same expertise through our multi-asset, outcome-oriented solutions that are strategically designed to address investors' wide-ranging investment needs and objectives. No matter what stage of life you are in, we believe how you invest matters. That's why we provide investment solutions that are designed with your goals in mind.

IMPORTANT INFORMATION

Investors should consider how the combined risks impact their total investment portfolio and understand that different risks can lead to varying financial consequences, including loss of principal.

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