AMP Henderson Global Investors

Rational man v psychological realities

Or how I learned to stop worrying and love the market

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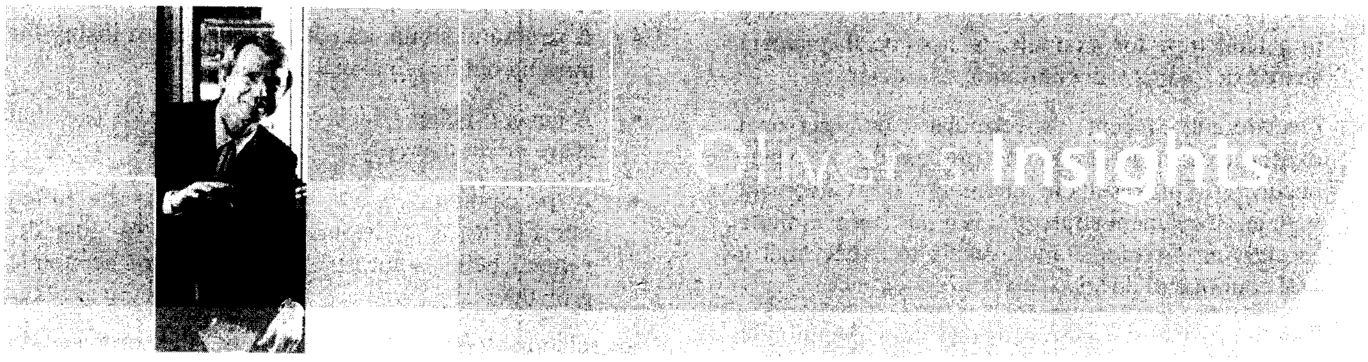


The awarding of the Nobel Prize in economics last year to a professor of psychology, Daniel Kahneman, for his work in combining psychology and economics has generated an increase in interest in behavioural economics. Behavioural economics is particularly pertinent to investment markets where bubbles and crashes suggest that investors are often anything but rational.

We first looked at investor psychology last year.[1] At a practical level, understanding how investor psychology drives investment markets is useful in helping us better understand why markets do what they do. Just as importantly though, being aware of how we are personally affected by psychological illusions is necessary if we are to become more savvy investors.

Rational Man and the EMH

For much of the post war period the dominant theory was that financial markets were efficient. The key aspects of the so-called efficient market hypothesis (EMH) are that:

1. All relevant information is reflected in asset prices – referred to as **information arbitrage efficiency**, and

2. It is done so in a rational manner – **fundamental valuation efficiency**.

Like much economic theory and analysis, a critical assumption underpinning the EMH is that individuals (in this case investors) are rational in the way they make decisions.2

Until the late 1970s most tests of the EMH focussed on information arbitrage efficiency and it was generally concluded that all relevant information is quickly reflected in asset prices and that short-term price movements are pretty close to a random walk (ie unpredictable). This had led many to conclude that share markets were efficient.

However, from the late 1970s, researchers started to focus on the second aspect of market efficiency. Evidence that share price returns follow long-term somewhat predictable mean reverting swings (over many years) and are too volatile to be justified by rational expectations of their key fundamental drivers (economic conditions, profits, etc) led many to conclude that the assumption that share markets are efficient is floored. The final nail in the coffin of the EMH was the October 1987 crash – changes in the long-term outlook for profits and interest rates cannot possibly explain the 30 per cent swing in US shares in late 1987. Likewise, changes in the outlook for IT stocks cannot possibly justify the 80 per cent swing in the tech. heavy Nasdaq index over the last few years.

[1] See Oliver's Insights, "Its all in the mind", October 2002.

[2] The assumption that individuals are rational has long been common to much economic analysis. However, it should be recognised that at a macro level economists have long recognised the influence of psychology. Keynes referred to the role of "animal spirits" in driving investment decisions and macro economists have been focussing on measures of consumer sentiment since long before the term "behavioural economics" was invented.

Irrational man and reality

Naturally, all of the assumptions that underpin the EMH have come under question at some point, in particular the assumption that individuals are rational. In reality, individual decision-making is heavily influenced by psychological influences. Numerous studies by psychologists (including by Professor Kahneman) have identified that people:

- Tend to down-play uncertainty and project the current state of the world into the future (resulting in a tendency, for example, to assume that recent share price gains will continue);
- Overweight recent spectacular or personal experiences in assessing the probability of events occurring. This results in an emotional involvement with an investment strategy – if it has been winning recently an investor is more likely to expect that it will continue to do so;
- Tend to focus on occurrences that draw attention to themselves (such as stocks or asset classes that have risen sharply or fallen sharply in value);
- Tend to be overconfident in their own abilities. Interestingly, men are observed to be more overconfident than women, which results in men trading more than women and generating poorer investment returns than women (something that fund managers should take note off in recruiting!);
- Tend to regard events as obvious in hindsight. By fostering the illusion that the world is more predictable than it really is, overconfidence tends to be promoted, thereby setting investors up for disappointment;
- Tend to be overly conservative in adjusting their expectations to new information and do so slowly over time (explaining why bubbles and crashes normally unfold over long periods);
- Tend to ignore information that conflicts with past decisions (again helping to perpetuate a bubble once it gets under way);
- Require less information to predict a desirable event than an undesirable one ("wishful thinking"), which may partly explain why asset price bubbles normally precede crashes rather than the other way 'round;
- Dislike losing money much more than they like gaining it. Various experiments have found that a potential gain must be twice the potential loss before they will consider accepting the risk.; and
- Are influenced by numerous irrelevant considerations in making decisions. For example, one experiment offered individuals a choice between getting $3000 today or $3800 in a few months' time. Individuals who were allowed to eat a bag of sweets first and then answer the question were quite happy to wait for the extra money. Those who could only eat the sweets after answering the question tended to take the lower amount of cash.

What others do - "crowd psychology", magnifies errors in individual judgements. Collective behaviour requires the presence of several key aspects, including:

- A means by which behaviour can be contagious (eg, mass communication, etc);
- A structural strain – such as the threat of losing (or missing out on) financial wealth;
- A general belief which grows and spreads (eg, that share prices can only go down); and
- A precipitating event which takes place (often referred to as a displacement event) to give the general belief some substance (eg, poor economic growth).

In relation to investment markets, the propagation mechanisms for collective views on markets include the general media (where stories of sharp rises/falls in asset prices, etc, grab investor attention) and pressure for conformity via such diverse mechanisms as industry standards, interaction with friends, monthly fund managers' performance charts and benchmarking (which discourage big "risk" taking and deviation from the crowd), etc.

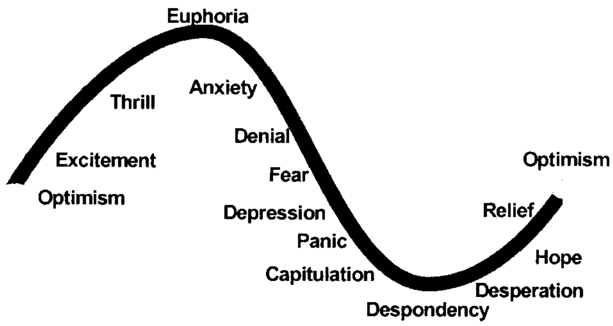
Investor irrationality goes a long way to explaining market behaviour

To professional investors, the notion that investors are not always rational is not new. The well-known advocate of value investing, Benjamin Graham, coined the term Mr Market (back in 1949) as a metaphor to explain the share market. Sometimes Mr Market sets sensible share prices based on economic and business developments. At other times he is emotionally unstable, swinging from years of euphoria to years of pessimism. But not only is Mr Market highly unstable, he is also highly seductive – sucking investors in during the good times with dreams of riches and spitting them out during the bad times when all hope seems lost.

The combination of lapses of logic by individuals in making investment decisions and the reinforcing effect played by crowd psychology go a long way to explaining why speculative surges in asset prices develop (usually after some good news) and how they feed on themselves (as individuals project recent price gains into the future, exercise "wishful thinking" and receive positive feedback via the media). Of course the whole process goes into reverse once buying is exhausted, often triggered by contrary news to that which drove the rise initially.

Specifically, investor psychology appears to develop through a market cycle which looks something like this.

Investor emotion through a market cycle

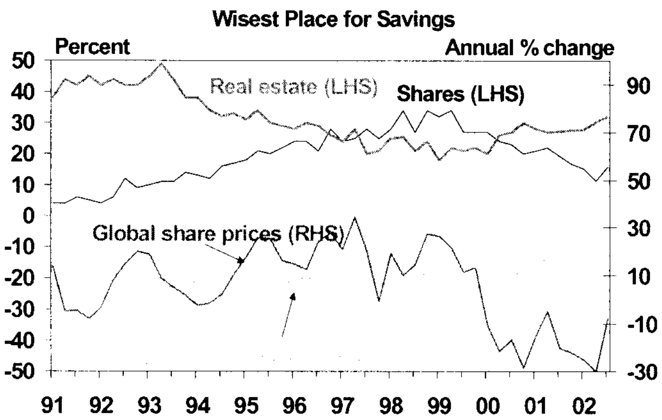


Source: Frank Russell Company

This cycle can be seen quite clearly in share markets over recent years. The investor euphoria in share markets of three years ago had, by late last year, given way to capitulation and despondency. Just as media stories helped fuel the bubble, they also helped reinforce the downswing.

The fluctuation in sentiment was clearly evident in the swing from record inflows into US equity mutual funds three years ago (euphoria) to record outflows last year (capitulation?).

That investor sentiment towards an asset class is largely driven by recent returns is clear from the next chart. After several years of strong relative returns for shares versus houses (see the bottom part of chart), by the late 1990s, Australians (as surveyed by Westpac/Melbourne University) regarded shares as a better destination for savings than real estate (see the top part of chart). With share markets having since fallen this has completely reversed, with real estate now seen as the wisest place for savings.



Source: Westpac/Melbourne University, Datastream, AHGI

In many ways today's residential real estate market is going through the euphoric part of the cycle, which shares experienced over three years ago. The surge in house prices has been reinforced by reports of strong house price gains (attracting investors), the conventional wisdom that "you are safe in bricks and mortar" and the fear of 'missing out'.

Implications for investors

The influence of investor psychology on investment markets has several implications for investors.

1. **The first is to recognise that investment markets are not just driven by fundamentals, but also by the often-irrational expectations and erratic behaviour of an unstable crowd of millions of investors.** But investors also need to recognise that not only are investment markets highly unstable, they can also be highly seductive. The trick here is to be at least aware of past market booms and busts, such that when they arise in the future one does not overreact (piling into unstable bubbles near the top or selling everything during busts and locking in a loss). This is the best defence against Mr Market's seductive tricks. [3]

2. **Secondly, investors need to recognise their own analytical and emotional capabilities.** In other words, investors must be aware of how they are influenced by the lapses of logic and crowd influences as discussed above. For example, an investor should ask, 'am I overly affected by recent developments (whether positive or negative)? Do I have a tendency to be too confident in my own expectations? Can I bear the thought of a loss?'

3. **Thirdly, investors ought to choose an investment strategy which can withstand inevitable crises whilst remaining consistent with their financial objectives and risk tolerance.**

4. **Fourthly, investors should essentially stick to this broad strategy even when surging share prices otherwise tempt them to consider a more aggressive approach, or when plunging values might suck them into a highly defensive approach.** [4]

5. **And finally, if an investor is tempted to trade they should do so on a contrarian basis.** Buy when the crowd is bearish, sell when it is bullish. Extremes of bullishness often signal market tops, and extremes of bearishness often signal market bottoms. But investors need to recognise that contrarian investing is not fool-proof – just because the crowd looks irrationally bullish (or bearish) doesn't mean that it can't get more so taking price up (or down) further.

[3] This is the same logic as to why commercial pilots spend hours in flight simulators – so that when storms and other events occur they have seen it all before and thus remain unfazed.

[4] This does not necessarily preclude periodically reviewing the strategy to allow for changes in relative valuation between markets (which is by definition a contrarian approach), taxation considerations, etc.

Conclusions

1. Investment markets are driven by more than just fundamentals. Investor psychology plays a huge role and helps explain why asset prices go through periodic booms and busts.

2. The key point for investors is to be aware of the role of investor psychology and the influence that psychological illusions can have. The best defence is to be aware of past market cycles (such that nothing comes as a surprise) and to adopt a long-term strategy and stick to it, as closely as is reasonably possible.

Finally, for those who are wondering: if investment markets are not efficient but rather are prone to swing from optimism to pessimism, how can we rely on them to best allocate scarce capital resources throughout the economy? The only answer to this is that for all their faults, free capital markets are better at this task than centralised government bureaucracies (as the inefficiencies and low living standards in highly regulated command economies show).

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