

# Irrationality in financial markets

We'd all probably like to believe that we're always making rational decisions when it comes to handling our finances. But if we stop and really think about it, do we honestly always make rational or sensible decisions? Sometimes it comes down to the affordability and value you get for the money you spend. Other times, these decisions are made due to the need to participate in social circles, or sometimes it's even driven by the hope that, one day, what you invested in the purchase price will in time be worth a lot more.

Most economic and financial theories developed in the last century make one very important and rudimentary assumption: People make rational decisions when it comes to personal finance in an attempt to maximize their wealth, and that their decisions are not affected by their emotions or any special circumstances they are currently in. But in reality, we know this assumption doesn't always hold true. We're only human, and we all let our emotions influence our decision making at some time or another.

On an aggregate level, these decisions can lead to mispricing in financial markets. Prices of stocks, bonds and other assets tend to either trade above or below fair values due to behavioural biases, which is contradictory to conventional financial theories. These mispricing opportunities are classified as financial anomalies. Over the years, a number of institutional investors and money managers have capitalised on these mispricing opportunities by using sophisticated mathematical models which can help to maintain an objective approach to investing. In this spotlight, we highlight a few examples that can lead to irrational investment behaviour, anomalies caused by this behaviour and ways to avoid or even profit from such existing anomalies.

## Follow the herd or be left behind

One of the most common and persistent behavioural biases existing in financial markets is the *"herd mentality"*. All humans have certain hard-wired evolutionary behaviours. "Herd behaviour" or "mentality" is a tendency for individuals to want to be part of a larger social group and may result in acting or behaving (rationally or irrationally) in tandem with the group. Many of us belong to at least one or many types of social circles or groups - be it through our friends, family or involvement with work colleagues. We naturally behave in a way that enables us to follow or be part of the group – acting in a certain way that ensures we belong and are accepted in that group environment. As an individual, you may not behave in that particular way, but you often modify behaviours to enable you to follow the group. Even though you may believe that a particular course of action is irrational, you might still follow the herd by rationalising that a large group of people cannot all be wrong. They probably know something that you don't! This is more prevalent in situations where the individual has limited experience.

## Implications of herding in financial markets

So how does herding happen in financial markets? Have we witnessed such behaviour? Yes we have! Not just once, but on numerous occasions. The Dot-Com bubble in 2000; the housing crisis of 2008; the Bit-Coin bubble of 2013-2014 and most recently, the Chinese stock market crash of 2015. These are all examples of herd behaviour.



# Irrationality in financial markets continued



It all starts when a few good market experts identify an undervalued asset relative to its fundamentals, foreseeing high growth rates for the near future (**value strategy**). These assets can be anything from a sector of stocks to real estate, to gold. Most of the time, undervalued assets are never in the news because they are not desired by the masses and may have had extremely poor returns over the near term. As time passes, these undervalued assets realize growth rates much higher than most people expect, grabbing the attention of the media and the public. This leads to a price rise and the asset now starts to trade close to or even higher than its fundamental value. A bandwagon of analysts starts to closely follow it, some even sighting much higher and unsustainable growth rates. The price continues to rise further, gathering **momentum** and everybody starts to talk about how much money they made by investing in that asset class. Our herd mentality draws us into a desire to profit in the rising market and not be left out. Wealth is a relative term, by not investing in the “hot” asset, you would conserve cash, but if the price continues to rise, everybody else who is invested will be richer than you and you may then run the risk of being poorer than everyone else! Even though you may not have any knowledge of the asset or even investing, you end up investing in it anyway because everybody else is invested. You would easily justify the investment by saying, “such a large group of people, including informed analysts and traders cannot be wrong.” If they say the price will continue to go up, most likely it will. Herding occurs with fund managers, analysts and traders too! They refrain from making bold statements or taking positions which contradict their peers because if they are wrong they would stand out from the crowd and be labelled incompetent. They would rather blend in and join the party, even if they objectively believe in taking a contradicting view.

This buying frenzy typically continues for a while building momentum and leading to an almost exponential rise in price that is completely out of sync with all fundamentals. This euphoric state of the market is termed **Irrational Exuberance**. Robert Shiller, an American Nobel Laureate, refers to this whereby people make financial decisions which are completely irrational, driven by greed and a herd mentality. The asset class is now said to be in a bubble, because bubbles typically keep growing in size without any mass on the inside which will inevitably burst and vanish into nothing. The same could be said of bubbles in financial markets. The final stage of this cycle is when there is a trigger event, leading to a bursting of this euphoric buying spree. The trigger could be anything from a much weaker than anticipated growth number to informed investors starting to sell the asset in large quantities. Once again the herd behaviour comes into play with the entire group of investors looking to sell the asset at any available price as all buyers suddenly become sellers, leading to a massive collapse in price. The sentiment quickly shifts from greed to fear, with the whole group herding together and making an irrational decision to sell the asset at prices much below its fundamental value. This then gives rise to opportunities for more contrarian investors to snap up the asset, making a **value** buy.

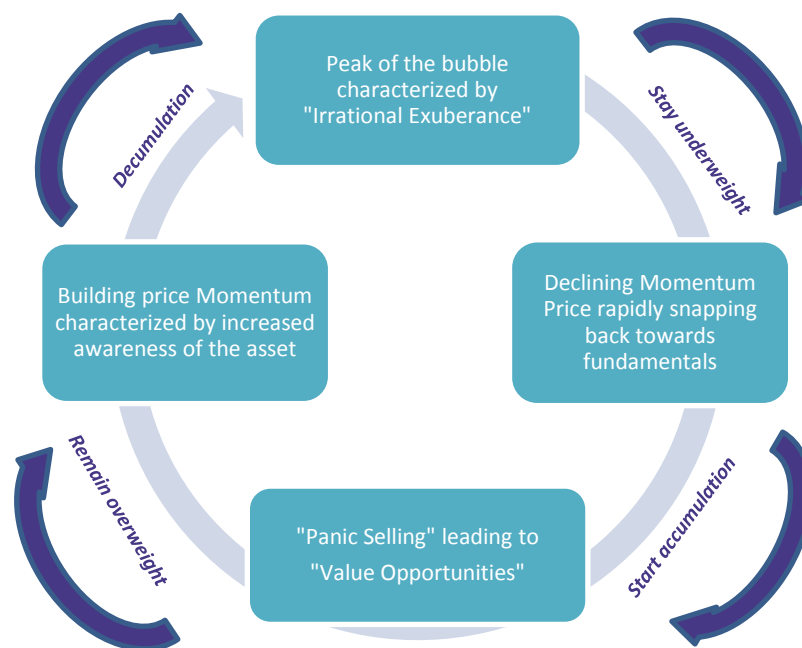
This cycle then repeats itself over time - some cycles are more pronounced than others but on an average they tend to have a span of around seven years – otherwise referred to as part of the “boom and bust theory”.

## Profiting from irrationality

We have highlighted two very persistent and well documented anomalies in financial markets known as **Momentum** and **Value**, which could be seen as examples of the effects or outcomes of investors’ behavioural biases. If we know such biases exist and will continue to do so, then why not take advantage of them and put ourselves in a position where we could benefit or gain advantage from these anomalies!

# Irrationality in financial markets continued

For example, we could achieve an advantage by being overweight in certain assets with positive momentum, as well as offering attractive valuations and underweighting those assets which exhibit negative momentum and trading at stretched valuations as illustrated in this flow diagram.



Although this may appear both simple and intuitive, investors, analysts and traders fail to make such rational decisions. The best way to take advantage of such anomalies is by having a systematic investment process that is able to quantify and objectively define the strategy. Once defined, the process needs to be followed through thick and thin, without emotional bias and with the least amount of deviation.

## The Copia way

At Copia we recognize the existence of such anomalies and understand its implications in financial markets. We maintain an objective approach to building multi-asset portfolios by using quantitative techniques. These techniques identify the mathematical relationships between economic data such as interest rates, GDP and inflation along with assets such as stocks, bonds, commodities and property. Our quantitative investment model enables us to predict the risks and returns for all asset classes and employs an optimisation process that allows us to achieve superior risk-adjusted performance by making optimal asset allocation decisions.

You can read more about our philosophy and investment process on our website at [www.copia-capital.co.uk](http://www.copia-capital.co.uk)