



# Global Equity Strategy

Part man, part monkey

Leaving the trees could have been our first mistake. Our minds are suited for solving problems related to our survival, rather than being optimised for investment decisions. We all make mistakes when we make decisions. The list below gives a top ten list for avoiding the most common investment mental pitfalls.

- ▶ You know less than you think you do
- ▶ Be less certain in your views, aim for timid forecasts and bold choices
- ▶ Don't get hung up on one technique, tool, approach or view – flexibility and pragmatism are the order of the day
- ▶ Listen to those who don't agree with you
- ▶ You didn't know it all along, you just think you did
- ▶ Forget relative valuation, forget market price, work out what the stock is worth (use reverse DCFs)
- ▶ Don't take information at face value, think carefully about how it was presented to you
- ▶ Don't confuse good firms with good investments, or good earnings growth with good returns
- ▶ Vivid, easy to recall events are less likely than you think they are, subtle causes are underestimated
- ▶ Sell your losers and ride your winners

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## Global Investment Strategy

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### Equity asset allocation

Very Overweight	Overweight	Neutral	Underweight	Very Underweight
UK		Japan	US	Emerging markets
Cash				Cont. Europe

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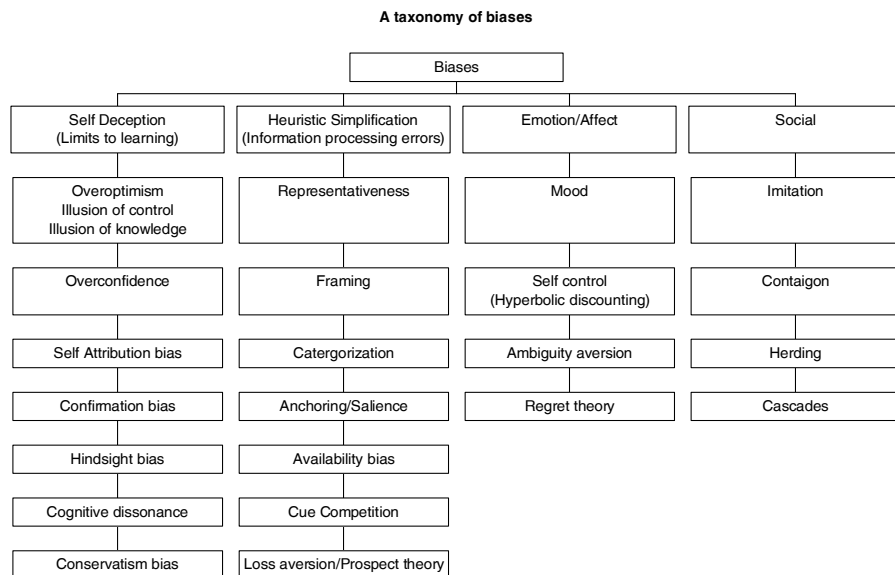
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# Part man, part monkey

The simple truth is that we make mistakes when we come to decisions. Psychologists have spent years documenting and cataloguing the types of errors to which we are prone. The main results are surprisingly universal across cultures and countries.

Hirschleifer<sup>1</sup> suggests that most of these mistakes can be traced to four common causes:- self deception, heuristic simplification, emotion, and social interaction. The table below tries to classify the major biases along these lines. The table outlines the most common of the various biases that have been found, and also tries to highlight only those with direct implications for investment.



The ten guidelines listed on the front cover try to suggest ways in which we can avoid some of the most perilous of these errors. Simply being aware of their existence is not enough. We need to take active steps to structure our thought process in such a way that it becomes hard to fall back into old habits.

Economists frequently assume that people will learn from their past mistakes. Psychologists find that learning itself is a tricky process. Many of the self-deception biases tend to limit our ability to learn. For instance, we are prone to attribute good outcomes to our skill, and bad outcomes to the luck of the draw. This is **self attribution bias**. When we suffer such a bias, we are not going to learn from our mistakes, simply because we don't see them as our mistakes.

<sup>1</sup> Hirschleifer, D (2001) Investor Psychology and Asset Pricing, Journal of Finance 56



The two most common biases are **over-optimism and over-confidence**. For instance, when teachers ask a class who will finish in the top half, on average around 80% of the class think they will!

Not only are people overly optimistic, but they are over-confident as well. People are surprised more often than they expect to be. For instance, when you ask people to give a forecast, and provide estimates of 98% confidence intervals, the true answer only lies within the limits around 60-70% of the time!

Over-optimism and over-confidence tend to stem from the **illusion of control** and the **illusion of knowledge**. The illusion of knowledge is the tendency for people to believe that the accuracy of their forecasts increases with more information. So dangerous is this misconception that Daniel Boorstin opined “The greatest obstacle to discovery is not ignorance – it is the illusion of knowledge”. The simple truth is that more information is not necessarily better information, it is what you do with it, rather than how much you have that matters. This leads to the first guideline: **(1) You know less than you think you do.**

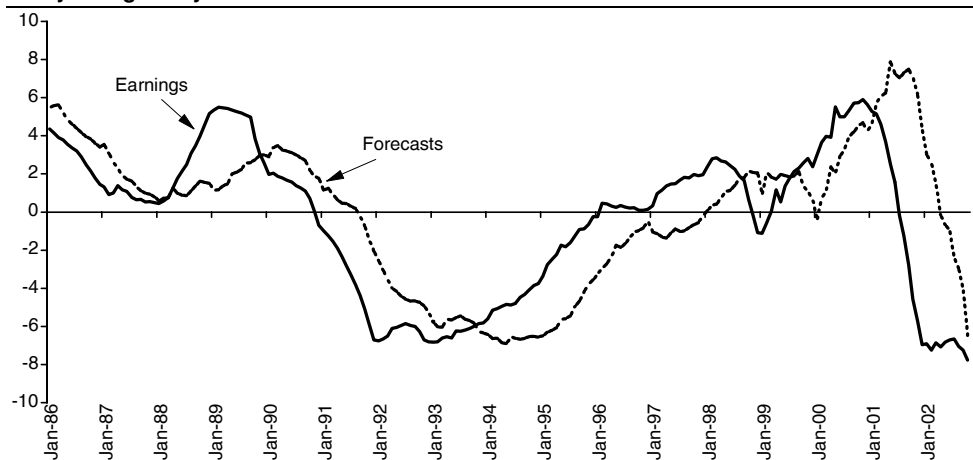
The illusion of control refers to people’s belief that they have influence over the outcome of uncontrollable events. For instance, people will pay more for a lottery ticket which contains numbers they choose rather than a random draw of numbers. People are more likely to accept a bet on the toss of a coin before it has been tossed, rather than after it has been tossed and the outcome hidden, as if they could influence the spin of the coin in the air! Information once again plays a role. The more information you have, the more in control you will tend to feel.

Over-optimism and overconfidence are a potent combination. They lead you to over-estimate your knowledge, understate the risk, and exaggerate your ability to control the situation. This leads to bold forecasts (over-optimism and over-confidence) and timid choices (understate the risk.). In order to redress these biases **(2) Be less certain in your views, aim for timid forecasts and bold choice.**

People also tend to cling tenaciously to a view or a forecast. Once a position has been stated most people find it very hard to move away from that view. When movement does occur it does so only very slowly. Psychologists call this **conservatism bias** (it can lead to anchoring which we will discuss a little later).

The chart below shows conservatism in analysts’ forecasts. We have taken a linear time trend out of both the operating earnings numbers, and the analysts’ forecasts. A cursory glance at the chart reveals that analysts are exceptionally good at telling you what has just happened. They have invested too heavily in their view, and hence will only change it when presented with indisputable evidence of its falsehood.

Analysts lag reality



Source: DrKW

This leads to our third rule **(3) Don't get hung up on one technique, tool, approach or view. Flexibility and pragmatism are the order of the day.**

We are inclined to look for information that agrees with us. This thirst for agreement rather than refutation is known as **confirmatory bias**. The classic example is to consider four cards, each card carries one alpha-numeric symbol, the set comprises of E, 4, K, 7. If I tell you that if a card has a vowel on one side, then it should have an even number on the other, which card(s) do you need to turn over to see if I am telling the truth?

Give it some thought. Most people go for E and 4. The correct answer is E and 7, only these two cards are capable of proving I am lying. If you turn the E over and find an odd number then I was lying, and if you turn the 7 over and find a vowel then you know I was lying. By turning the four over you can prove nothing, if it has a vowel then you have found information that agrees with my statement but doesn't prove it. If you turn the four over and find a consonant, you have proved nothing. At the outset I stated a vowel must have an even number, I didn't say an even number must have a vowel!

By picking four, people are deliberately looking for information that agrees with them. Our natural tendency is to listen to people that agree with us. It feels good to hear our own opinions reflected back to us. We get those warm fuzzy feelings of content. Sadly, this isn't the best way of making optimal decisions.

Instead of listening to the people who echo our own view we should **(4) listen to those who don't agree with us**. The bulls should listen to the bears, and vice versa. You should pursue such a strategy not so that you change your mind, but rather so you are aware of the opposite position.

Our final bias under those related to self deception is **hindsight bias**. It is all too easy to look back at the past and think that it was simple, comprehensible and predictable. This is hindsight bias – a tendency for people knowing the outcome to believe that they would have predicted the outcome ex ante. The best example I can think of is the US stock market over the last few years. Now pretty much everyone agrees that the US



market witnessed a bubble, but calling it a bubble in 1998/99/00 was an awful lot harder than it is now! This faith in our ability to forecast the past gives rise to yet more bias towards overconfidence. This gives rise to our fifth rule **(5) You didn't know it all along, you just think you did.**

It is now time to move from self-deception to heuristic simplification. Heuristics are just rules of thumb for dealing with informational deluge. In many settings heuristics provide sensible short cuts to the "correct" answer, but occasionally they can lead us to some very strange decisions. This second group of biases effectively represents information processing errors. They cover biases that result from the admission that we aren't super computers capable of infinite dynamic optimisation.

When faced with uncertainty people will grasp at almost anything when forming opinions. In the classic experiment Tversky and Kahneman (1974) asked people to answer general knowledge questions such as what percentage of the UN is made up of African nations? A wheel of fortune with the numbers 1 to 100 was spun in front of the participants before they answered. Being psychologists Tversky and Kahneman had rigged the wheel so it gave either 10 or 65 as the result of a spin. The subjects were then asked if the answer was higher or lower than the number on the wheel, and also asked their actual answer. The median response from the group that saw the wheel present 10 was 25, and the median response from the group that saw 65 was 45! Effectively, people were grabbing at irrelevant anchors when forming their opinions. This is known as **anchoring**.

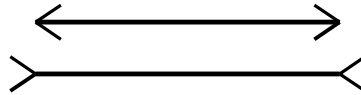
Think about this in the context of valuation. In the absence of any reliable information, past prices are likely to act as an anchor to current prices. Does it not strike you as strange that the average analysts price target is 28% above current market price? Too many DCFs are anchored around current market prices. I have even heard some analysts deliberately seek to arrive at a DCF target that is close to market price.

One way in which to overcome this bias is to turn the DCF on its head (reverse engineered). Take the market price and back out what it implies about future growth, then compare these with the forecasts. This should help mitigate the anchoring bias.

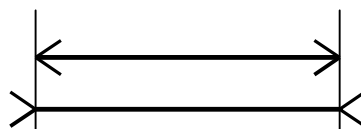
The other element to beware of is relative valuation. All relative valuation measures should be ignored. It is simply far too easy for an analyst to fixate (anchor) on her sector average as the 'correct' value. For instance, in the past I have been asked by analysts to construct tables of valuations on criteria such as PE and Price to book across industries, so that the analyst can compare the stock under investigation with its peer group. This tells us nothing about the true 'fair value' of the equity.

The tendency to anchor provides our sixth rule **(6) Forget relative valuation, forget market prices, work out what a stock is worth (use reverse DCFs).**

When information is presented to us, we aren't very good at seeing through how it is presented. We tend to take things at face value rather than drilling down to get to the detail. As an analogy consider the lines below, and which is longer?



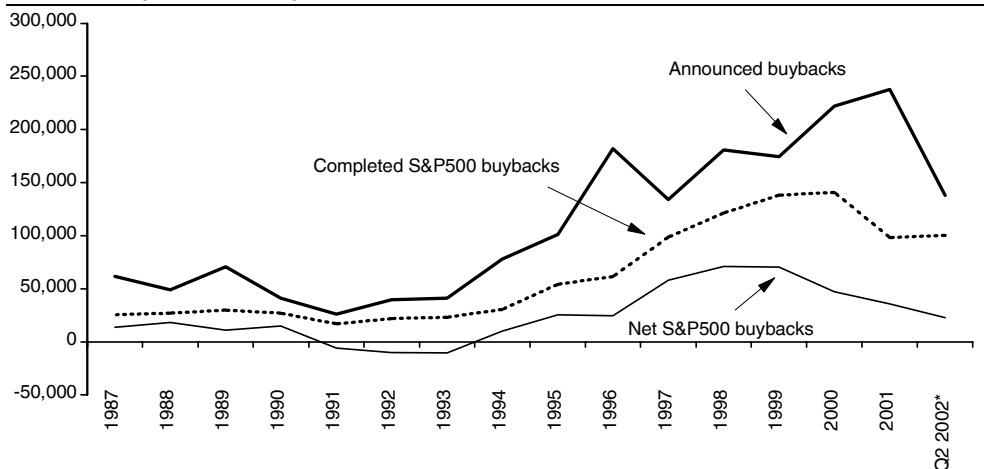
Most people will go for the lower line. However, as the picture below makes clear, both lines are exactly the same length. We fail to see through the way in which the lines are presented. Yet when we make the frame transparent (i.e. we add the vertical lines) it becomes immediately clear that both lines are exactly the same length. This inability to see through the way in which things are presented is called **narrow framing**.



Let's think about an example from finance. My own favourite is buybacks. Given that we have promoted the importance of dividends in contributing to total returns, a common retort is that surely we have missed the point that buybacks have replaced dividends as a cash distribution mechanism amongst investors.

When most investors talk of buybacks they are referring to announced buybacks. However, that is of no interest to us. After all there is nothing to prevent a company from announcing a buyback but not carrying it through. Hence the very least we should examine is completed buybacks. But even that is not enough. Too many buybacks are related to attempts to offset issuance (via option plans) and prevent dilution. These buybacks don't matter to me as an investor. I should only really care about net buybacks. The chart below shows the enormous gulf that appears when one starts to look at net rather than announced buybacks.

**When is a buyback not a buyback?**



Source: DrKW

This kind of narrow framing generates our seventh rule **(7) Don't take information at face value, think carefully about how it was presented to you.**

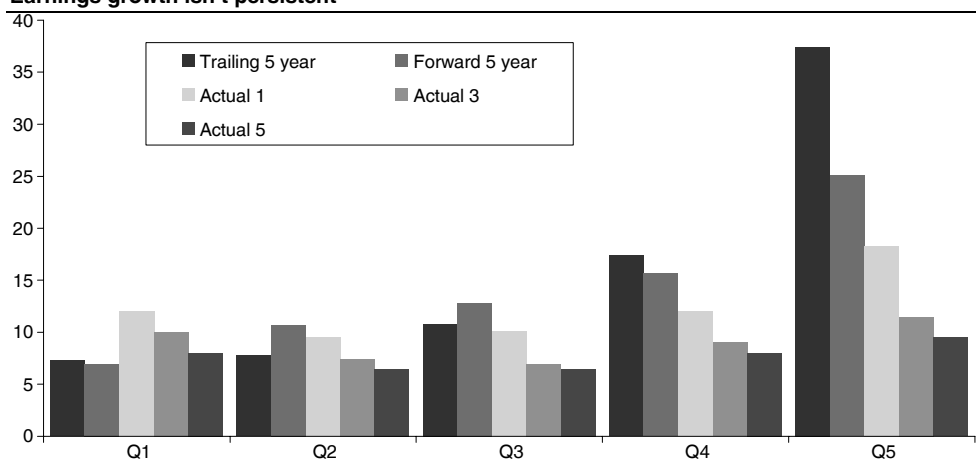
Let us turn our attention to Linda. Linda is 31, single, outspoken, and very bright. She majored in philosophy at university, and as a student was deeply concerned with issues surrounding equality and discrimination. Is it more likely that Linda works in a bank, or is it more likely that Linda works in a bank and is active in the feminist movement?

Somewhat bizarrely many people go for the latter option. But this can't possibly be true. The second option is a subset of the first option, and a subset can never be larger than one of the contributing sets!

So what is happening? Well, people judge events by how they appear, rather than by how likely they are. This is called **representativeness**. In the example of Linda, people picking the option that Linda works in a bank and is active in the feminist movement are underweighting the base rate that there are simply more people who work in banks, than people who work in banks and are active in the feminist movement!

Representativeness has many applications in investment. For example, do investors think that good companies make good investments? If so this is a potential case of representativeness. A further example of representativeness is outlined in the chart below. It shows portfolios based around long term earnings growth forecasts for consensus analysts<sup>2</sup>. The first bar shows the per annum growth rate in the five years prior to expectation formation. It also traces out the earnings growth per annum in the 1,3 and 5 years following the forecasts.

**Earnings growth isn't persistent**



Source: DrKW and Chan et al

The results show that analysts suffer representativeness twice over. Firstly, companies that have seen high growth in the previous five years are forecast to continue to see very high earnings growth in the next five years.

<sup>2</sup> It draws on work by Chan et al (2002) The level and persistence of growth rates, Journal of Finance forthcoming and our own work



Secondly, analysts fail to understand that earnings growth is a highly mean reverting process over a five year time period. The base rate for mean reversion is very high. The low growth portfolio generates nearly as much long term earnings growth as the high growth portfolio. Effectively, analysts judge companies by how they appear, rather than how likely they are to sustain their competitive edge with a growing earnings base.

These mistakes lead us to our eighth rule **(8) Don't confuse good firms with good investments, or good earnings growth with good returns.**

Our minds are not supercomputers, and not even good filing cabinets. They bear more resemblance to post-it notes which have been thrown into the bin, and covered in coffee, which we then try to unfold and read the blurred ink! In particular the ease with which we can recall information is likely to be influenced by the impact that information made when it went in. For instance, which is a more likely cause of death in the US, being killed by a shark attack, or being killed as a result of a lightning strike?

Most people go for shark attacks. Largely this is a result of publicity that shark attacks gain in the media, and the fact that we can all remember the film Jaws. In actual fact, the chances of dying as a result of a lightning strike are 30x greater than the chances of dying from a shark attack.

A less drastic example comes from Kahneman and Tversky (1973). They asked people the following: 'In a typical sample of text in the English language, is it more likely that a word starts with the letter k or that k is its third letter?'. Of the 152 people in the sample, 105 generally thought that words with the letter K in the first position were more probable. In reality there are approximately twice as many words with k as the third letter as there are words that begin with k. Yet because we index on the first letter, we can recall them more easily.

Think about this in the context of stock selection. How do you decide which stocks you are going to look at when you arrive at work in the morning? Is it because you read about them in the Financial Times? Or heaven forbid, that some broker sent you an email mentioning the stock, or some analyst wrote a research report on it? It is worth noting that Gadarowski (2001)<sup>3</sup> investigated the relationship between stock returns and press coverage. He found that stocks with the highest press coverage underperformed in the subsequent two years! Be warned all that glitters is not gold. **(9) Vivid easy to recall events are less likely than you think they are, subtle causes are underestimated.**

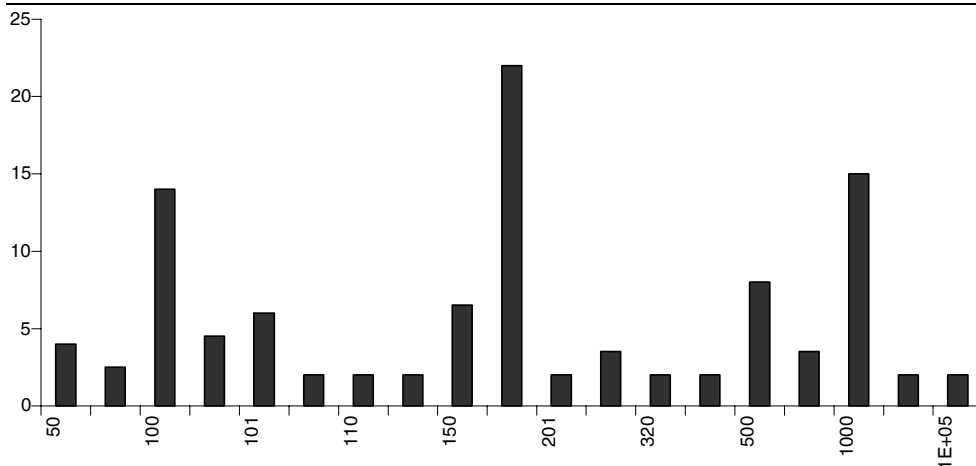
Our final bias beater is best explained by offering you the following bet. You are offered a bet on the toss of a fair coin, if you lose you must pay £100, what is the minimum amount that you need to win in order to make this bet attractive?

There are, of course, no right or wrong answers. It is purely a matter of personal preference. The most common answer is somewhere between £200-£250. That is to

<sup>3</sup> S Gadarowski (2001) Financial press coverage and expected stock returns, Cornell University Working Paper

say that people feel losses around 2-2½ times more than they feel gains. The chart below shows the outcomes when I asked this question of a set of colleagues at a previous employer (still an investment bank).

#### Loss aversion amongst stock brokers



Source: Montier (2002)

The mean answer is around the £200 mark. There was also a considerable number of individuals who required massive compensation in order to accept the bet – perhaps they just didn't trust a strategist! It is noteworthy that some players would have accepted the bet for £50...it is giving nothing away when I tell you that the person who was willing to accept this sum was a tech analyst. This told me everything I needed to know about tech analysts' ability to value companies!

There is a serious point to all of this. People hate losses (**loss aversion**) and find them very uncomfortable to deal with in psychology terms. Because losses are so hard to face, we tend to avoid them whenever possible. For instance, a loss isn't perceived as a loss on some level so long as it is not realized. Therefore losses will be realized infrequently, in the hope that they become winners (over-optimism again!). This tendency to ride losers and sell winners is known as the disposition effect. Even if we are right (and most of the time we aren't) that our losers will become winners there will be better opportunities to put the trade on lower down, rather than riding the position all the way down. This generates our final bias beater **(10) Sell your losers and ride your winners.**

This isn't a comprehensive survey of biases and their impact. We haven't addressed any of the emotional aspects of investment or indeed any of the social aspects (such as herding). However, the rules we have set out should help guide us to better decisions. All too often when we present on behavioural finance, institutional investors think that it applies to private clients and not to them. This is surely a prime example of the illusion of knowledge creating over-confidence. At the end of the day, each and every fund manager is an individual too. They too will be subject to the biases outlined above.



Being aware of the mistakes we make is the first step. To really avoid them takes a great deal of practice. After all, how many of us can remember how to perform long division by hand? Without regular use skills recede in our minds, and we will continue to fall into the regular pitfalls outlined above. Perhaps the best defence of all is to design an investment process that deliberately seeks to incorporate best mental practice!



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(Except as otherwise noted, expected performance over next 12 months)

Buy	10% or greater increase in share price	Reduce	5-10% decrease in share price
Add	5-10% increase in share price	Sell	10% or more decrease in share price
Hold	+5%/-5% variation in share price		

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	All covered companies		Companies where a DrKW company has provided investment banking services (in the last 12 months)	
Buy/Add	386	58%	87	68%
Hold	213	32%	34	27%
Sell/Reduce	72	11%	7	5%
Total	671		128	

Source: DrKW