Dresdner Kleinwort Wasserstein

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Seven Sins of Fund Management

A behavioural critique

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A behavioural critique

How can behavioural finance inform the investment process? We have taken a hypothetical 'typical' large fund management house and analysed their process. This collection of notes tries to explore some of the areas in which understanding psychology could radically alter the way they structure their businesses. The results may challenge some of your most deeply held beliefs.

- This collection of notes aims to explore some of the more obvious behavioural weaknesses inherent in the 'average' investment process.
- Seven sins (common mistakes) were identified. The first was placing forecasting at the very heart of the investment process. An enormous amount of evidence suggests that investors are generally hopeless at forecasting. So using forecasts as an integral part of the investment process is like tying one hand behind your back before you start.
- Secondly, investors seem to be obsessed with information. Instead of focusing on a few important factors (such as valuations and earnings quality), many investors spend countless hours trying to become experts about almost everything. The evidence suggests that in general more information just makes us increasingly over-confident rather than better at making decisions.
- Thirdly, the insistence of spending hours meeting company managements strikes us as bizarre from a psychological standpoint. We aren't good at looking for information that will prove us to be wrong. So most of the time, these meetings are likely to be mutual love ins. Our ability to spot deception is also very poor, so we won't even spot who is lying.
- Fourthly, many investors spend their time trying to 'beat the gun' as Keynes put it. Effectively, everyone thinks they can get in at the bottom and out at the top. However, this seems to be remarkably hubristic.
- Fifthly, many investors seem to end up trying to perform on very short time horizons and overtrade as a consequence. The average holding period for a stock on the NYSE is 11 months! This has nothing to do with investment, it is speculation, pure and simple.
- Penultimately, we all appear to be hardwired to accept stories. However, stories can be very misleading. Investors would be better served by looking at the facts, rather than getting sucked into a great (but often hollow) tale.
- And finally, many of the decisions taken by investors are the result of group interaction. Unfortunately groups are far more a behavioural panacea. In general, they amplify rather than alleviate the problems of decision making.
- Each of these sins seems to be a largely self imposed handicap when it comes to trying to outperform. Identifying the psychological flaws in the 'average' investment process is an important first step in trying to design a superior version that might just be more robust to behavioural biases.

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Sin city

Over the last year or so we have produced a series of notes that have sought to provide an 'outside' perspective on the fund management industry. The driving force behind these notes is that whenever I present on behavioural finance to those in the industry the most frequent response I get is "That it is all very interesting but how do I apply it".

This note is my attempt to take some of the basic biases and then demonstrate just where they might crop up. Having been privy to a great many clients and their processes over the last twelve years or so, I decided to create a composite 'typical' large fund management house. As I thought about the various aspects of this firm's investment process, so I began to see the areas where behavioural biases may reach their zenith. These became the seven sins of fund management.

Sin 1: Forecasting (Pride)

An enormous amount of evidence suggests that we simply can't forecast. The core root of this inability to forecast seems to lie in the fact that we all seem to be over-optimistic and over-confident. For instance, we've found that around 75% of fund managers think they are above average at their jobs! It doesn't matter whether it is forecasting bonds, equities, earnings or pretty much anything else, we are simply far too sure about our ability to forecast the future.

Given the dreadful track records that can be seen from even a cursory glance at the data, it begs the question of why we bother to keep using forecasts? Let alone putting them at the very heart of the investment process? (A mistake probably 95% of the investment processes I've come across persist in making).

The answer probably lies in a trait known as anchoring. That is in the face of uncertainty we will cling to any irrelevant number as support. Little wonder, then, that investors continue to rely on forecasts.

Some have argued that any forecast is better than no forecast at all. For instance, Joe Nocera writing in the New York Times (1 October 2005) opined "*Indeed, I wound up thinking that forecasting is to the market what gravity is to the earth. As much as we like to poke fun at faulty predictions, we can't function without them. Even if we disagree with, say, the analysts' consensus on Cisco, that consensus gives us a basis that helps us form our own judgments about whether it is overvalued or undervalued. Without forecasts, the market would no longer be grounded to anything.*"

This misses the point on many levels. Firstly, when it comes to anchoring we know that irrelevant numbers can influence people's behaviour. For instance, Englich, Mussweiler and Strack[1] show that legal experts were influenced by irrelevant anchors when setting jail sentences even when the experts were fully aware of the irrelevance of the input.

In one study, participants (judges) were asked to role dice to determine the sentencing request from the prosecution. The pair of dice they used were loaded to either give a low number (1, 2) or a high number (3, 6). Having rolled the dice, participants were told to sum the scores and this number represented the prosecutions demand. Since the judges themselves rolled the dice, they could clearly see the input was totally irrelevant. However, the group who received the total score of 3 issued an average sentence of 5.3 months; those who received a total score of 9 issued an average sentence of 7.8 months! So by even providing a forecast, people are likely to cling to it.

[1] Englich, Mussweiler and Strack(2005) Playing dice with criminal sentences: the influence of irrelevant anchors on experts' judicial decision making, Personality and Social Psychology Bulletin, forthcoming

Secondly, and this is a really radical idea, how about we anchor share values in something we can measure like dividends! Since we know people will stumble into the pitfall of anchoring, our best hope is getting them to anchor to something vaguely sensible. Support for this idea is offered by the work of Hirota and Sunder[2]. They show that in experimental markets, bubbles are much more likely to appear when investors lack dividends as an anchor.

Sin 2: The illusion of knowledge (Gluttony)

All too often it seems that we thirst for more and more information. Investors appear to believe that they need to know more than everyone else in order to outperform. This belief actually stems from an efficient markets view of the world. If markets are efficient, then the only way they can be beaten is by knowing something that everyone else doesn't know i.e. knowing more information or knowing the future. So it is all the more paradoxical to find fund managers regularly displaying such a belief.

The psychological literature suggests that we have cognitive limits to our capacity to handle information. Indeed we seem to make the same decision regardless of the amount of information we have at our disposal. Beyond pretty low amounts of information, anything we gather generally seems to increase our confidence rather than improve our accuracy. So more information isn't better information, it is what you do with it, rather than how much you collect that matters,

Sin 3: Meeting companies (Lust)

Why does meeting companies hold such an important place in the investment process of many fund managers? Is it because they provide deep insights into why we should invest in them? Or is it because we need to fill out time with something that makes us look busy?

There are at least five psychological hurdles that must be over-come if meeting companies is to add value to an investment process. Firstly, is the point just made above. More information isn't better information, so why join the futile quest for an informational edge that probably doesn't exist? Secondly, corporate managers are just like the rest of us. They tend to suffer from cognitive illusions, so their views are likely to be highly biased. Thirdly, we all tend to suffer from confirmatory bias – that is a habit of looking for information that agrees with us. So rather than asking lots of hard questions that test our base case, we tend to ask nice leading questions that generate the answers we want to hear. Fourthly, we have an innate tendency to obey figures of authority. Since company managers have generally reached the pinnacle of their profession, it is easy to envisage situations where analysts and fund managers find themselves effectively over-awed.

Finally, the sad truth is that we are simply lousy at telling truth from deception. We all think we are great at spotting liars, but the data show otherwise, we generally perform in line with pure chance. So even when you meet companies you won't be able to tell whether they are telling the truth or not.

Sin 4: Thinking you can out-smart everyone else (Envy)

One of the responses I occasionally encounter when teaching behavioural finance is "now I understand behavioural finance, I can out-smart everyone else". To me this fails to learn the two most common behavioural traits mentioned earlier, over-optimism and over-confidence. To try to illustrate just how hard it was to be just one step ahead of everyone else, we played a version of Keynes' beauty contests with our clients. The results illustrate just what a tall order such a strategy actually is. Only 3 people out of 1000 managed to pick the correct answer!

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[2] Hirota and Sunder (2003) Stock market as a beauty contest: investor beliefs and price bubbles sans dividend anchor, available from www.ssrn.com

Sin 5: Short time horizons and overtrading (Avarice)

Because so many investors end up confusing noise with news, and trying to out-smart each other, they end up with ridiculously short time horizons. The average holding period for a stock on the New York Stock Exchange is 11 months! Over 11 months your return is just a function of price changes. It has nothing to do with intrinsic value or discounted cash flow. It is just people punting on stocks, speculating not investing.

Sin 6: Believing everything you read (Sloth)

We all love a story. Stock brokers spin stories which act like sirens drawing investors onto the rocks. More often than not these stories hold out the hope of growth, and investors find the allure of growth almost irresistible. The only snag is that all too often that growth fails to materialise.

Sadly, we appear to be hard-wired to accept stories at face value. In fact, evidence suggests that in order to understand something we have to believe it first. Then, if we are lucky, we might engage in an evaluative process. Even the most ridiculous of excuses/stories is enough to get results. For instance, Langer et al[3] asked people in a queue for a photocopier if they could push in. Sometimes, they offered the 'placebic' excuse it was because 'they needed to make copies', on other occasions an excuse was omitted altogether. When the excuse was left out, 42% of people let the experimenter push in front of them. When the excuse was included nearly 60% of people gave way to the experimenter! We need to be sceptical of the stories we are presented with.

Sin 7: Group based decisions (Wrath)

The final sin I've covered in this collection is the generally held belief that groups are better at making decisions than individuals. The dream model of a group is that it meets, exchanges ideas and reaches sensible conclusions. The idea seems to be that group members will offset each other's biases.

Unfortunately, social psychologists have spent most of the last 30 years showing that groups' decisions are amongst the worst decisions ever made. Far from offsetting each others biases, groups usually end up amplifying them! Groups tend to reduce the variance of opinions, and lead members to have more confidence in their decisions after group discussions (without improving accuracy). They also tend to be very bad at uncovering hidden information. Indeed, members of groups frequently enjoy enhanced competency and credibility in the eyes of their peers if they provide information that is consistent with the group view. So using groups as the basis of asset allocation or stock selection seems to be yet another self imposed handicap on performance.

Alternative approaches and future directions

Over the course of publishing these notes, some have noticed that they tend to provide a list of 'don'ts', as in don't forecast, don't meet company managements, etc. Personally I have no problem with this, as knowing what not to do should itself be a useful guide. However, some would prefer a list of what to do. I've explored in many notes the possible use of alternative approaches, these generally rely on a quantitative approach to investing (see *Global Equity Strategy*, 16 March 2005) and I will be writing on this again soon. The seven sins listed here are not the only ones that could occur. Future work will be directed towards other sins including the illusion of control, the possibility of having too much choice, and benchmarking. But in the meantime we hope the notes selected here provide some hints as to how we might construct an investment process that may be slightly more robust to behavioural biases than many currently appear.

[3] Langer, Blank and Chanowitz (1978) The mindlessness of ostensibly thoughtful action, Journal of Personality and Social Psychology, 36

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Forecasting

Sin 1

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24 August 2005

Global Equity Strategy

The folly of forecasting: Ignore all economists, strategists, & analysts

Both an enormous amount of evidence and anecdotal experience suggests that people are very bad at forecasting. This is often because we all tend to be massively overconfident. This begs two questions, firstly why do we persist in forecasting despite the appalling track record? And, more importantly, why do investors put forecasts at the heart of the investment process?

- Lao Tzu, a 6th century BC poet observed, "Those who have knowledge don't predict. Those who predict don't have knowledge". Despite these age-old words of wisdom our industry seems to persist in producing and using forecasts. This is all the more puzzling given the easily available data on the appalling nature of track records in forecasting. Economists, strategists and analysts are all guilty. In general, forecasts seem to be a lagged function of actual outcomes - adaptive expectations dominate forecasts.
- The two most common biases are over-optimism and overconfidence. Overconfidence refers to a situation whereby people are surprised more often than they expect to be. Effectively people are generally much too sure about their ability to predict. This tendency is particularly pronounced amongst experts. That is to say, experts are more overconfident than lay people. This is consistent with the illusion of knowledge driving overconfidence.
- Several studies confirm professional investors to be particularly overconfident. For instance, one recent study found that 68% of analysts thought they were above average at forecasting earnings! I've found that 75% of fund managers think they are above average at their jobs.
- Why do we persist in forecasting given such appalling track records? There are two avenues to explore – simply put, ignorance and arrogance. *Dunning and colleagues* have documented that the worst performers are generally the most overconfident. They argue that such individuals suffer a double curse of being unskilled and unaware of it. Dunning et al argue that the skills needed to produce correct responses are virtually identical to those needed to self-evaluate the potential accuracy of responses. Hence the problem.
- *Tetlock* argues that experts regularly deploy five ego defence mechanisms. Experts use various combinations of these defences to enable them to continue to forecast, despite their poor performance.
- Why do we persist in using forecasts in the investment process? The answer probably lies in behaviour known as anchoring. That is in the face of uncertainty we will cling to any irrelevant number as support. So it is little wonder that investors cling to forecasts, despite their uselessness.
- So what can be done to avoid these problems? Most obviously we need to stop relying on pointless forecasts. There are plenty of investment strategies that don't need forecasts as inputs such as value strategies based on trailing earnings, or momentum strategies based on past prices. Secondly, we need to redeploy the armies of analysts. They should return to doing as their name suggests: analysing, rather than trying to guess the unknowable!

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The folly of forecasting

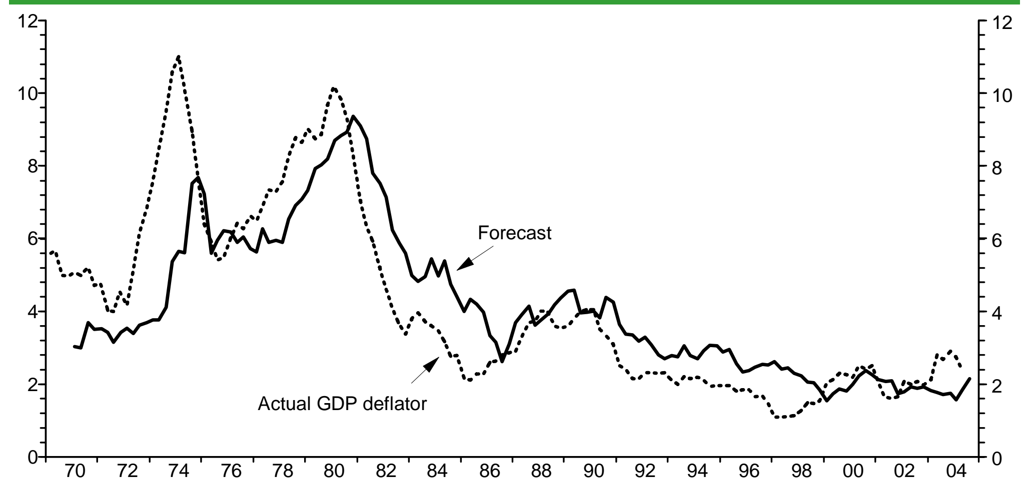
For those who have endured one of my behavioural finance presentations will have heard me rant and rave over the pointlessness of forecasting. I have finally got around to putting pen to paper on this subject[4].

The 6th century BC poet Lao Tzu observed "Those who have knowledge, don't predict. Those who predict don't have knowledge." Despite these age-old words of wisdom, our industry seems to eternally persist in basing the investment process around forecasts.

Before exploring the reasons for our dependency upon the irrelevant guess of unknowable future, I had better buttress my case by showing just how bad the track record of forecasting actually is. The charts below set out the forecasting performance of so-called professionals. For the ease of data accessibility, all series below are taken from the Federal Reserve Bank of Philadelphia Livingston survey or the Survey of professional forecasters. However, the findings are not the result of a strange data set, I have used different data and found similar patterns exist across them all.

The first chart shows economists attempts to forecast the rate of inflation as measured by the GDP deflator. Sadly it reveals a pattern that will become all too common in the next few charts. Economists are really very good at telling you what has just happened! They constantly seem to lag reality. Inflation forecasts appear to be largely a function of past inflation rates.

US GDP deflator and forecasts

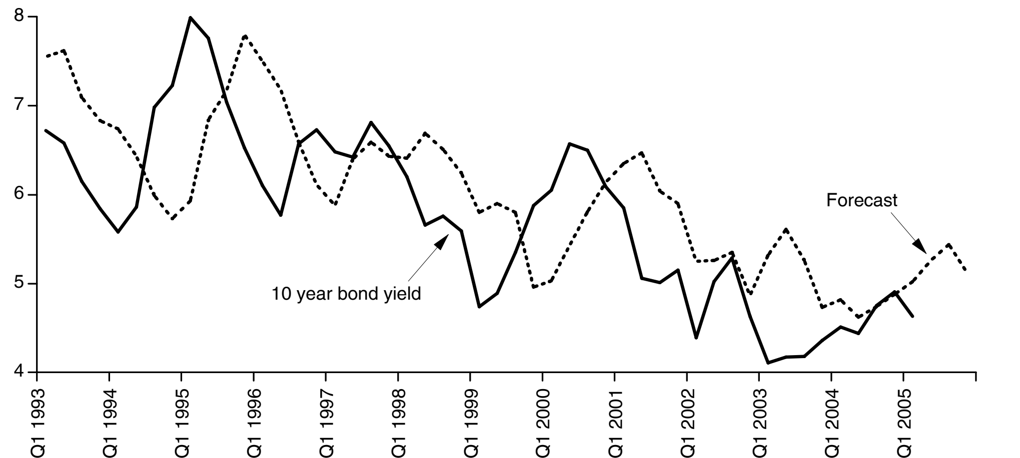


Source: DrKW Macro research

Our second category are the bond forecasters. Previously, we have analysed their behaviour in depth (see *Global Equity Strategy*, 22 February 2005). Much like the economists above, their performance is found to be severely lacking. Not only are bond forecasters bad at guessing the *level* of the yield, they can't get the *direction* of yield changes right either. The table below shows that when yields were forecast to rise, they actually fell 55% of the time!

4 I was much inspired to write this after reading Nassim Taleb's recent paper The Scandal of Prediction (2005). He renewed my vigour for this subject.

Consensus one year ahead bond yield forecasts and reality (%)



Source: DrKW Macro research

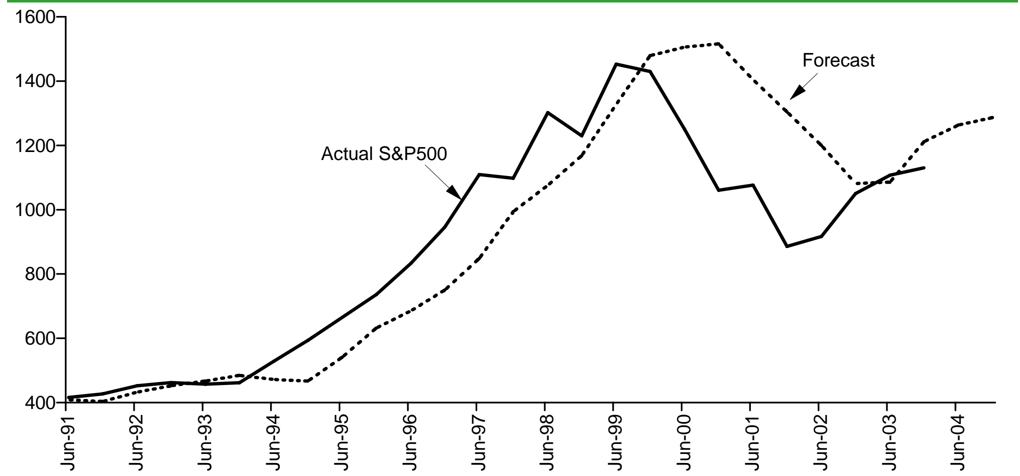
Predicted vs. actual yield movement (four quarters ahead , 1992-2004)

% of occurrences		Actual	
		Up	Down
Predicted	Up	45	55
	Down	22	78

Source: DrKW Macro research

Just in case you think this is just a case of an equity man picking on debt, the chart below shows the feeble forecasting abilities of equity strategists. They too seem to think that the recent past is best extrapolated into the future, and hence end up lagging reality. Acknowledgement of our own limitations is one of the reasons why we don't even attempt to produce index forecasts.

S&P500 and forecasts

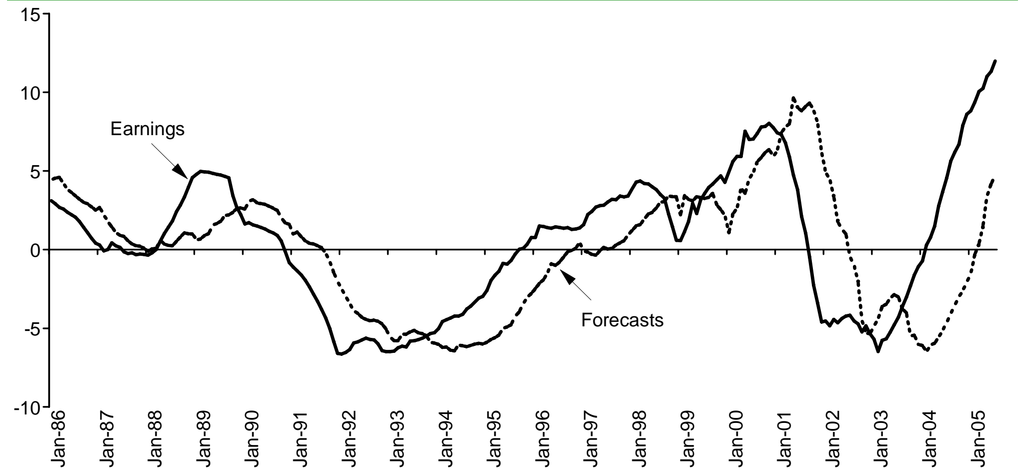


Source: DrKW Macro research

Our last category of truly inept seers are the analysts. Their inability is perhaps the most worrying, as their forecasts are possibly taken far more seriously than the average macro forecast.

The chart overleaf is constructed by removing the linear time trend from both the operating earnings series for the S&P500 and the analyst forecasts of those same earnings. I have simply plotted the deviations from trend in the chart overleaf. It clearly shows that just like the other forecasters examined here, analysts are terribly good at telling us what has just happened but of little use in telling us what is going to happen in the future.

Analysts lag reality (Operating earnings and forecasts, deviations from trend, $/Sh)



Source: DrKW Macro research

Overconfidence as a driver of poor forecasting

The two most common biases that psychologists have documented are over-optimism and over-confidence. Technically speaking overconfidence refers to a situation where people are surprised more often than they expect to be. Statistically we describe such individuals as 'not well calibrated'. What we really mean by that is if we ask people for a forecast and then ask them for the 98% confidence intervals, so that the true answer should lie outside of the bounds just 2% of the time, it tends to lie outside of the bounds 30-40% of the time! People are simply far too sure about their ability to predict.

Russo and Schoemaker[5] have devised a simple test. Before you go any further try and answer the questions below and see how you do.

Self-test of overconfidence

	90% confidence range	
	Low	High
Martin Luther King's age at death		
Length of the Nile River		
Number of countries that are members of OPEC		
Number of books in the Old Testament		
Diameter of the moon in miles		
Weight of an empty Boeing 747 in pounds		
Year in which Wolfgang Amadeus Mozart was born		
Gestation period (in days) of an Asian elephant		
Air distance from London to Tokyo		
Deepest (know) point in the ocean (in feet)		

Source: Russo and Schoemaker

The answers can be found at the bottom of the page[6]. If you are properly calibrated only one of the answers to the above questions should lie outside of the limits you wrote down. When I took the test two of my answers were outside of the bounds so I, like everyone else, am overconfident. However, compared to Russo and Schoemaker's sample of over 1000 participants I didn't do too badly. Less than 1% got nine or more answer correct, with most respondents missing four to seven items!

One key finding in the literature on overconfidence is that experts are even more overconfident that lay people. Experts do know more than lay people, but sadly this extra knowledge seems to trigger even higher levels of overconfidence.

[5] Russo and Schoemaker (1989) Decision traps: Ten barriers to brilliant decision making and how to overcome them, Simon&Schuster

[6] 39 years, 4187 miles, 13 countries, 39 books, 2160 miles, 390,000 pounds, 1756, 645 days, 5959 miles, 36,198 feet