Identifying real skill and behavioural weaknesses in the active management industry

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Guess what, active equity managers have skill and we can prove it. But it isn't that simple. We discovered when analysing the investment decisions of some 41 equity portfolio managers during 2004 that even some of the most skilful managers diluted their returns by falling into a number of well documented behavioural traps. They are after all human beings and therefore not perfect.

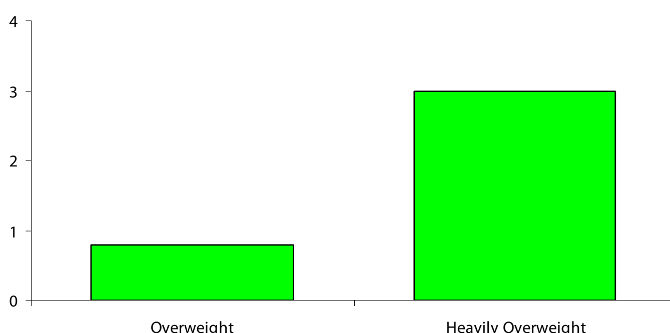
The fact that fund managers are fallible shouldn't come as too much of a surprise. However, what may well challenge preconceived notions is that even underperforming managers have skill. It is just they succumb to behavioural traps to a larger degree than their more successful colleagues. So we are left with a conundrum that, even though a manager may have skill, it doesn't inevitably mean that they will outperform. Or to put it the other way round, just because they underperform it doesn't mean that they don't have skill.

So how do we define and measure skill? Simple, we apply two pragmatic tests: firstly, do decisions generate alpha and, secondly, is the allocation across the different stocks in the portfolio efficient such that the larger positions generate larger quantities of alpha? The first is self evident. The second recognises that it is simply not sufficient to have the skill to identify opportunities. Managers also have to construct portfolios so that the size of individual positions is commensurate with the size of the opportunity and the risk. So in practice the job is clearly more difficult than simply having to generate great ideas. It also requires fund managers to back their judgement or conviction with commensurately large or small positions. Don't forget however this applies equally to longs and to shorts – a fact that we will be returning to later in the article.

So how do the managers we examined stack up against these two criteria? We analysed the 41 portfolios using our BPS service, which measures the impact of behaviour on investment performance. These portfolios cover a wide range of mandates from global to country specific and include value, growth and even two quant portfolios. Astonishingly the conclusions from this diverse sample were broadly the same and were independent of geography, size or style. We found real evidence of skill but also evidence of managers exhibiting the types of biases highlighted in the behavioural finance literature.

The BPS analysis starts by allocating each holding within the portfolio into the following bands of active weights: heavily underweight, underweight, neutral, overweight and heavily overweight and then measures how the stocks in each of these bands contribute to performance. We start with the overweighted stocks, i.e. those where the exposure to the company in the portfolio exceeds that in the respective benchmark:

Average monthly contribution from overweighted stocks



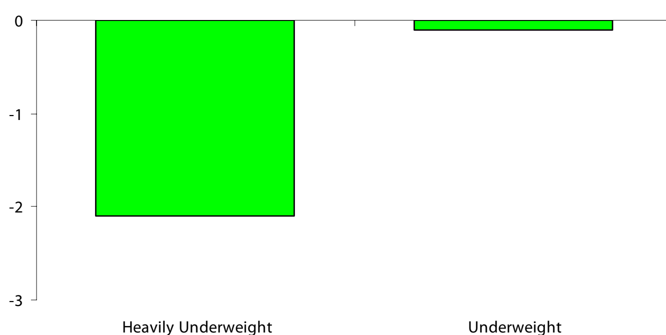
Note: the values are the average monthly contributions from each stock in the above size bands

We can see from the chart that the overweighted stocks typically added value, providing real evidence of manager skill. They are able to identify in advance the shares that subsequently outperform and then back their judgement with commensurately large positions.

Interesting result number 1 – that academics are right when they say that fund managers have the skills to pick stocks and build portfolios, before all costs are taken into account. Interesting result number 2 – we find that the underperforming managers also have selection skills and add value from their high conviction positions. However they are much more prone to falling into the same sort of behavioural traps than their more successful colleagues. This is what is really curious and will surprise many, i.e. that underperforming managers also have demonstrable skills.

Now for the darker side, just to prove that everything is not totally rosy in the world of active management. Fund managers are human beings like the rest of us and are therefore prone to behavioural biases. To demonstrate the point we carry out the same analysis as before but for the underweights. Sadly the average contributions from the stocks that long only managers don't hold is negative.

Average monthly contribution from underweighted stocks



Note: the values are the average monthly contributions from each stock in the above size bands

The graph shows that for the heavily underweights, the average contribution is negative because the large stocks that are either not owned or under represented outperform. To rub salt into the wound, we have taken the results for the months of 2004 and count the number of times the average contributions are positive and negative. The results are conclusive.

Number of months that the contribution was:	Heavily Underweights	Under-weights	Over-weights	Heavily Overweights
Positive	2	7	9	12
Negative	10	5	3	0

The consistency of the numbers speaks for themselves. As the average contribution from the heavily overweights are positive 12 months out of 12, whereas it is negative 10 months out of 12 for the heavily underweights.

So why is it that these managers are able to consistently pick stocks that outperform but not underperform? We turn at this point to Behavioural Finance literature for insights into these results. According to Boven, Loewenstein, and Dunning* the Endowment Effect is amongst the most robust phenomena in the field of Behavioural Finance. It recognises that people tend to value objects more because they own them. In practice, it means that once a manager has decided to go overweight in a stock it effectively 'goes on watch' and every tick in the price, company meeting and set of results is examined with precision. After all, what else would you do? Conversely it is not that the underweight stocks are ignored, as every institution has a well thought out investment process to research all corners of the market, but our results and experience suggests that the focus is just not the same. This is essentially the practical implications of the Behavioural Finance concept of the Endowment Effect and our research demonstrates that the opportunity to improve this part of the investment process is large.

We accept that 41 portfolios is a relatively small sample out of the possible number of actively managed portfolios across the globe, but the results are nevertheless important. We will be investigating these results further with Professor Richard Taffler of Cranfield School of Management, who is a leading authority on Behavioural Finance and Investment and who sits on our Advisory Panel.

Leaf Van Boven, George Loewenstein, David Dunning. Mispredicting the endowment effect: underestimation of owners' selling process by buyer's agents. Journal Economic Behavior and Organization Vol.51 (2003) 351-365

Are fund managers poor sellers? Presenting empirical evidence of the Disposition Effect

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Executive Summary:

- Contrary to conventional wisdom, fund managers don't run their winners and cut their losers. They do the opposite and it hurts performance.

- In fact we have found, using our proprietary tool *Trading P&L*, that poor selling negatively impacts returns on average by 94 basis point p.a.

- To some extent this is offset by favourable buying skills which contribute 47 basis points p.a., but it is clearly not enough to fully offset the losses from the sales.

- This is explained as the Disposition Effect in Behavioural Finance literature which shows that investors tend to lose more money when selling than by chance alone.

- The theory and our empirical results support our general hypothesis (see BPS Review: 01) that managers have skill, but that it often fails to translate into superior performance as it is offset by a serious of predictable and observable shortcomings. *In this case poor selling.*

An overview of the Disposition Effect

The Disposition Effect was first identified in 1985 and relates to the propensity of investors to lose more money when selling than they would be expected to do by chance alone. Academic studies up to now have primarily focussed on data from individual investors across a wide range of asset classes. Now, using the extensive Inalytics' database of transaction level data, we can investigate whether this bias is also evident in professional managers.

The Behavioural Finance literature explains this lack of skill when selling in terms of 'prospect theory' and 'mental accounting'. These two factors look at the psychological and behavioural challenges that investors face.

Prospect theory centres on the different attitudes to risk when investors are either looking at profits or losses. Consider the following examples where you are asked to make a choice.

(a) Between a guaranteed profit of $300, or an 80% chance of a $400 profit and 20% chance of winning nothing.

Most people opt for the guaranteed $300 rather than take the chance of a higher expected profit ($320=80% x $400).

(b) Between a guaranteed loss of $300, or an 80% chance of a $400 loss and a 20% chance of losing nothing.

In this scenario, most people prefer to run the risk of losing a higher amount (expected loss of $320 =80% x $400) than to take a guaranteed loss.

Prospect theory, in summary, suggests that investors are risk averse when looking at profits but tend to be risk takers when confronted with losses.

Mental accounting points out that investors view each position within a portfolio as an entirely separate item and treat them in an inconsistent manner. In particular, investors tend to bucket 'winners' and 'losers' separately and the chances of something being sold increases simply if they have made a 'profit' on the investment. Consequently it is hardly surprising that potential winners are sold too early and poor performers are retained because they are showing a loss, particularly if the latter involves feelings of regret and loss.

These two observations clearly relate to each other, and go a long way to explain some of the investment decisions we see on a regular basis, which often result in investors selling their winners too early and holding on to losers too long.

Inalytics observations and explanations

It is a common place observation that the typical fund manager tends to be an optimist and feels most comfortable when looking for the opportunities that will do well. This tendency has a number of observable consequences.

It means that the majority of a fund manager's energy and time is taken up researching the 'Next Big Thing' and that selling simply becomes a cash raising exercise. Consequently it's hardly surprising that the decision on what to sell becomes influenced by these behavioural factors rather than the fundamentals.

We have also noticed that good sellers are a rare breed and tend not to fit in with the identikit fund manager. They tend to be cynical, pessimistic and always looking for the hidden problem lurking behind the next corner. As a result they don't tend to 'fit' and not surprisingly there isn't an abundance of individuals with these skills. Yet those with the ability to sell are highly valuable members of any investment team.

Inalytics' empirical research

In order to test the hypotheses in the Behavioural Finance literature and our own observations we have turned to Inalytics' extensive database of institutional investment decisions.

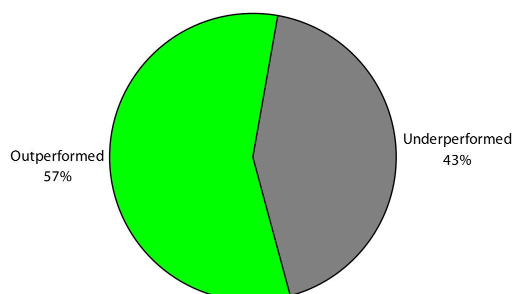
Rather than use the entire database we first removed any biases that may have arisen from the self selection of portfolios by our fund manager clients. Consequently we only used trades provided by our pension fund clients. This amounted to 45,000 individual trades and represents a broad spread in terms of industry, region, and benchmark. The data was taken from December 2003 to September 2006.

Do institutional investors sell their winners?

We first investigated whether the majority of stocks being sold had in fact been the winners or, contrary to the literature, whether investors were being disciplined by running the winners and systematically weeding out the losers.

On examination of the client database we found that 57%, a clear majority, of stocks that had been sold had outperformed over the previous 12 months. This result certainly underlines the Disposition Effect, namely that fund managers tend to sell their winners.

Percentage of time the sales out- or under-performed in previous 12 months.



We then investigated the shorter term performance of the stocks to see if there is an added dimension to this phenomenon.

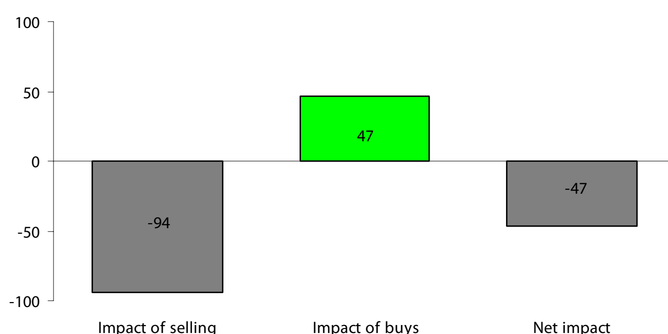
Curiously we found that the average performance turns negative in the month prior to the sale. This could suggest that short term momentum is being used as a proxy for research and to oversimplify the sell decision-making process.

Looking forward: impact on performance

Having found evidence supporting the thesis of the Disposition Effect, we then examined what impact it has on performance.

To do this we used our proprietary tool *Trading P&L*, which calculates the impact of every purchase and sale on the performance of the portfolio. The methodology borrows techniques for monitoring an investment bank's proprietary trading desk and adapts the results to the world of performance measurement and basis points contributions.

Performance impact of buys and sells



We found that the stocks sold impacted negatively on performance by a highly significant 94 basis points per annum. This observation represents a major step forward in our understanding of the skills set (or not) of the average fund manager, and provides empirical evidence of the impact that poor selling has on the performance of the portfolio.

Consistent with our views that fund managers tend to be better buyers than sellers we found that the buys added value (47 bps per annum). However, it was not enough to offset the losses from the sales.

For the first time, using *Trading P&L*, we have been able to quantify the value destruction that trading generates. On an annualised basis, the performance impact from poor selling decisions has been a sizeable 47 basis points greater than the benefit created through good purchases.

Conclusion

This confirms our general hypothesis (see BPS Review: 01) that manager have skill, but that it often fails to translate into superior performance as it is offset by a series of predictable and observable shortcomings. *In this case, poor selling*.