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Smart Beta:
Part 4: Monitoring challenges

How does smart beta change investors' approach to due diligence?

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Centre for Asset Management Research

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1. Introduction

In the first paper in this series on smart beta investing we explored the origins of smart beta, tracing these origins back to academic research from the 1970s, 1980s and 1990s. Paper two in the series examined and then decomposed the performance of some of the smart beta investment strategies that are now commercially available; we found, perhaps unsurprisingly, lying beneath the performance of these investment approaches were the very same risk factors identified in the academic literature. These findings led us to a simple question: is it possible to build smart beta portfolios from the component, risk factors? In paper three of this series we found evidence to suggest that it may be possible to build these smart beta portfolios by investing in funds, or ETFs that tracked smart beta factor indices.

In the final paper of this series we take a step back and explore the challenges of investing in individual smart beta funds or ETFs, or indeed portfolios of these investment vehicles. We explore the challenges involved in monitoring the performance of smart beta investments, by contrasting these challenges with those posed by investing in traditional, active mutual funds.

2. Finding and monitoring the performance of 'active' fund managers

2.1 Choosing a manager – what are you looking for?

In the first paper in this series we highlighted the rapid growth in popularity in index tracking. Recall that the IA's survey[1] of the UK fund management industry reported that 20% of institutional assets were managed on a passive basis. This of course means that 80% of total institutional assets are managed on an active basis. So despite the undoubted, impressive growth of index tracking, active fund management is still the dominant style of fund management. Having come to the decision about the asset class in which they wish to invest, either with or without the help of professional advisers, many investors then face the task of choosing a fund and fund manager to manage those assets on an active, or discretionary basis.

So how do you go about choosing an active fund manager? Unfortunately this is art not science, there is no hard evidence in the academic literature, or elsewhere that can really help in this regard. However, according to John Chatfeild-Roberts[2] a good fund manager should:

- have the necessary skills built into them. There isn't an exam you can take to make you a good fund manager;
- be inquisitive, hardworking and ultra-competitive;
- have the ability to think independently and focus on what's relevant rather than becoming bogged down with irrelevancies;
- have the humility to admit and rectify mistakes. After all, it can often take ruthless action to sell those severely loss making stocks that are hurting the portfolio;
- stick to a proven investment process even when it is not currently working in their favour;
- be sufficiently experienced, having been exposed to several market cycles; and
- be in tune with the psychology of the market.

A manager that demonstrates all of these qualities may well be a 'good one', but identifying whether they do have these qualities would probably require forensic examination of their portfolios, their investment decisions and their personalities. Arguably, the sort of manager that Chatfeild-Roberts is looking for is one that is less susceptible to the behavioural biases that tend to destroy investor wealth rather than to augment it. It was Professor Daniel Kahneman, who shared the Nobel Prize for Economics in 2002, who was one of the first to identify these biases. The field of behavioural finance, to which Professor Kahneman and his colleague Professor Tversky inspired in the late 1970s, has since identified a whole set of biases to which fund managers, as humans – and yes, they are humans – are prone. These include the tendency to:

- subconsciously create and extrapolate patterns and trends from a series of random events, without investigating the reasons for the apparent trend, known as representativeness;
- place too much or too little emphasis on the likelihood of an extreme event occurring, based on how easy it is to visualize the event;
- confuse shorter-dated samples of data with longer dated samples of the same population resulting in the formulation of incorrect notions, referred to as the 'gamblers fallacy';
- overestimate one's own investment knowledge, skill and ability, resulting in undiversified portfolios and excessive portfolio turnover to the detriment of investment returns, in other words, the tendency towards overconfidence;
- leave forecasts unadjusted even in the face of new, contradictory evidence, known as 'adjustment conservatism';

[1] http://www.theinvestmentassociation.org/investment-industry-information/research-and-publications/asset-management-survey/
[2] Fundology: The secrets of successful fund investing. John Chatfeild-Roberts, Harriman House, UK.

- place too much emphasis on irrelevant facts and figures, e.g. the price paid for a stock, when considering the stock's future prospects and the price at which to sell, known as 'anchoring'.

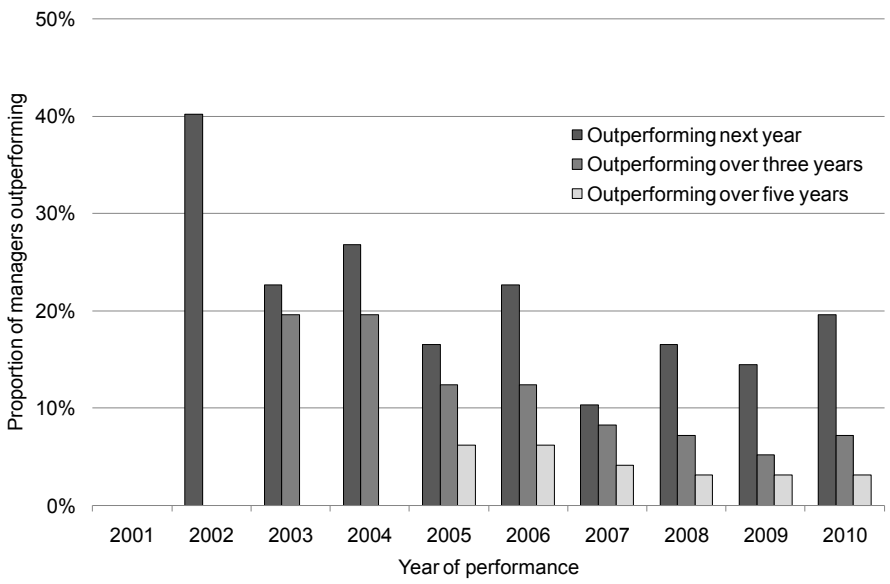
And so on. Assessing a manager's psyche is difficult enough, even for professional advisers who may have met and interviewed a manager regularly over many years, but for investors that do not have such direct access to the manager it is clearly going to be much, much harder. The good news is that the proof is in the pudding. Fund groups produce detailed fund performance statistics on all of their funds. These statistics are normally fairly easy to get hold of.

The solution to the dilemma of which fund and fund manager to choose should therefore be quite simple: look for the managers that have produced excellent performance in the past.

But in 2008, two US researchers[3] analysed how 3,400 pension schemes, endowments and foundations hired and fired fund managers between 1994 and 2003. They found that they had a tendency to hire managers who had recently performed well and to fire managers who had recently performed badly. Somewhat counter-intuitively, the sacked managers, on average, subsequently outperformed those that had been hired in their place!

Past performance then is, as we are constantly reminded by regulators, not a good guide to future performance. Figure 1, demonstrates this point further. The chart shows the proportion of active UK equity fund managers that outperform the market cap-weighted benchmark over various periods. The dark grey bars in the chart show the proportion of these managers that outperformed the benchmark over two consecutive years. So in 2002 around 40% of managers had outperformed their benchmark two years in a row; while in 2010 only 20% had outperformed over 2009 and 2010. The mid-grey bars in the figure show the proportion of managers that had outperformed the benchmark over three consecutive years; while the light grey bars show the proportion of managers that had outperformed the benchmark over five consecutive years. On average then, only around five percent of managers managed to outperform the market cap-weighted benchmark over five consecutive years. But even if we manage to choose a manager that subsequently outperforms their benchmark consistently, how can we tell whether the outperformance is due to luck or skill?

Figure 1: Actively managed UK equity, mutual fund outperformance



Source: DataStream and Authors' calculations.

[3] Goyal, A. and Wahal, S. The Selection and Termination of Investment Management Firms by Plan Sponsors. Journal of Finance 63, 2008.

2.2 Luck versus skill – how can you tell?

A simple test of whether an activity involves skill is to ask whether it is possible to lose on purpose. While you can't purposefully lose at the roulette wheel, you could lose on purpose at chess because this is a game that requires a tremendous amount of skill – luck is likely to play only a minute role in becoming a Grand Chess Master. In many human endeavours, including sport, outcomes are generally a combination of skill and luck. Discretionary fund management will almost certainly combine both, since it is clearly possible to 'lose' on purpose in this activity.

However, discerning the contribution of skill and luck is not an easy task, even if analytical tools are available. In sport, for instance, even if a player's skill remains consistent, their results will be affected by changing luck. An exceptional performance is rarely repeated for any length of time as the good luck that boosted this performance will typically be absent the next time around, or certainly the time after that. Conversely, poor outcomes can reflect a lot of skill being offset by a run of bad luck. However, over time, as luck evens out, any skill that exists will shine through.

A recent theme in the academic literature[4] has been the development of tools to identify the proportion of positive alpha, that is, fund manager skill that is due to luck or to skill. Many of these studies provide evidence to suggest that the limited amount of manager skill that can be identified is largely attributable to good luck rather than to skill.

2.3 What happens if your manager leaves?

However, suppose that an investor, or investment advisor has managed to identify a good fund manager, a fund manager that is not susceptible to behavioural biases, a fund manager that demonstrates skill in generating performance; and that this skill is genuine and not due to good fortune. What if the manager then leaves the fund?

Many investors have investment horizons that stretch many years into the distant future. But average manager tenure may be much shorter. There is now clear evidence in the academic literature that shows that a fund manager exit does affect the performance of the fund. For example, using a sample of active UK mutual funds, Clare et al (2014)[5] find evidence of a significant deterioration in the benchmark-adjusted returns of funds that were top performers before the manager exit and, conversely, a significant improvement in the average benchmark-adjusted returns of funds that were poor performers before the manager exit.

3. Finding and monitoring smart beta investments

The challenges involved in finding an active fund manager that is going to produce the risk-adjusted performance that an investor may be looking for, along with the related challenge of monitoring and understanding their performance, are significant. The fact that the majority of funds in the industry are still managed on an active basis suggests that many investors are willing to put the effort required to monitor and understand active fund manager performance. However, for those investors that wish to invest in smart beta funds instead, what challenges do these investors face?

3.1 Monitoring smart beta: what's the difference

In some respects the due diligence challenges facing investors in smart beta funds are less daunting than those that wish to invest with active fund managers. First, the investment process is generally very transparent and rules-based. And it is this transparency that allows index providers to produce indices based upon the rules. Second, there is generally significant evidence to indicate the sort of performance that investors should expect from these approaches. This does not mean that future performance is guaranteed, but investors may draw some comfort from the fact that much of the research into the factors driving performance is rooted in academic research where the aim was to test the predictions of the Capital Asset Pricing Model, and/or the Efficient Market Hypothesis. Some investors may then take comfort in the fact that these factors were not developed in the marketing departments of fund management groups. Third, the 'fund manager' will not be susceptible to behavioural biases over time, because the fund manager is a set of rules. In the same vein, they cannot leave either!

So many of the challenges relating to the monitoring of fund managers that use discretion in managing their investment portfolios do not apply when we consider smart beta investing, or at least represent a far less onerous challenge. But this does not mean that smart beta investing poses no challenges for prospective investors.

3.2 Finding and monitoring smart beta investments

First, with smart beta investing the index that the fund or ETF strategy needs to replicate plays a much bigger role than for active fund managers. Investors will need to be certain that the 'production' of the index is of a

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[4] See for example: Cuthbertson et al (2008), UK Mutual Fund Performance: Skill or luck? Journal of Empirical Finance., or E.F. Fama and K.R. French, (2010), Luck versus Skill in the Cross-Section of Mutual Fund Returns, The Journal of Finance.

[5] Clare et al, (2014), What impact does a change of fund manager have on mutual fund performance? International Review of Financial Analysis.

very high standard and that all the rules are laid out clearly in the published description of the index. In order to give investors comfort in this regard, to enhance best practice in index construction and in an effort to define and establish industry-wide standards, in July 2013 the International Organisation of Securities Commissions (IOSCO) published a report entitled Principles for Financial Benchmarks[6]. The report proposed principles covering four aspects of index construction:

- governance;
- benchmark quality;
- methodology; and
- accountability.

Of course most responsible benchmark administrators already follow robust procedures, but their public support for the principles outlined by IOSCO establishes a clear commitment to maintain high operational and governance standards in their production of financial market indices. Before investing in a smart beta fund investors might wish to check that the index provider is committed to the high index production standards laid out in the IOSCO paper.

Second, it is a common misunderstanding that investors 'invest' in or 'buy' a financial market index. They do not. Investors wishing to adopt a smart beta investment strategy need to find either a mutual fund manager, or an ETF provider that will seek to replicate the necessary smart beta rules. Investors need to satisfy themselves then that the manager has the operational skills and capabilities to replicate the smart beta strategy in an efficient manner.

The integrity of the index and the operational capabilities of the fund manager are important considerations before investing in a smart beta mutual fund or ETF. However, once the investor is satisfied on these scores, perhaps the biggest challenge is identifying the smart beta strategy that they wish to follow. Over the past few years there has been a proliferation of smart beta products. Choosing between them could be seen as quite a challenge in itself.

So which smart beta strategies have investors been choosing?

Invesco Powershares recently commissioned a survey of financial advisors and wealth managers across Europe to try and understand how smart beta strategies were being used. The responses to one of the survey's questions revealed that the first smart beta strategy that wealth managers invested in and that advisors recommended had a strong academic pedigree. Of the 320 respondents, the two most popular smart beta strategies that they first invested in or recommended were Low Volatility (46%) and High Dividend (44%) strategies. The third most popular smart beta strategy Fundamentally-Weighted was the initial smart beta recommendation of 40% of the respondents. These results suggest that these three approaches were chosen in combination with one another. This would be consistent with one of the main reasons given by the respondents for investing in smart beta investment strategies in the first place, which was diversification.

The same survey revealed some clues about how professional investors and advisers were approaching the due diligence challenges of their clients' smart beta investments. 38% of respondents said that they were reviewing their clients' smart beta investments on a monthly basis; 45% on a quarterly basis; 13% every six months, with the remainder reviewing the investments annually. These results indicate that professional advisors and wealth managers do not follow an "invest and forget" policy with regard to the monitoring of these investments that follow transparent rules, even though there is no need to worry about manager behavioural biases etc.

4. Conclusions

In this final paper about smart beta investing we have looked at the challenges that monitoring smart beta investments pose, primarily by comparing the monitoring challenges that arise from investing in traditional, active funds. The due diligence challenges posed by smart beta investments are certainly different and, arguably, simpler than those posed by investment in active funds. However, it does not mean that they do not exist. Smart beta investors need to be confident in the research that lies behind the smart beta approach; confident in the integrity of the index being tracked or replicated; confident in the manager of the smart beta investment vehicle (since we do not invest in the index itself); and keep all these issues under regular review.

[6] http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf

Contributors

Prof. Andrew Clare

Andrew Clare is the Professor of Asset Management at Cass Business School and the Associate Dean responsible for Cass's MSc programme, which is the largest in Europe. He was a Senior Research Manager in the Monetary Analysis wing of the Bank of England which supported the work of the Monetary Policy Committee. While at the Bank Andrew was responsible for equity market and derivatives research. Andrew also spent three years working as the Financial Economist for Legal and General Investment Management (LGIM), where he was responsible for the group's investment process and where he began the development of LGIM's initial Liability Driven Investment offering. He is the co-author of "The Trustee Guide to Investment". He has also published extensively in both academic and practitioner journals on a wide range of economic and financial market issues. In a survey published in 2007, Andrew was ranked as the world's ninth most prolific finance author of the past fifty years. Andrew serves on the investment committee of the GEC Marconi pension plan, which oversees the investments and investment strategy of this £4.0bn scheme, and is a trustee and Chairman of the Investment Committee of the £2.5bn Magnox Electric Group Pension scheme.

Prof. Stephen Thomas

Steve Thomas is Professor of Finance and Course Director for the Executive MBA at Cass Business School, London. Prior to this he has been a Professor of Finance at the University of Wales, Swansea, and at Southampton University, and a Visiting Professor at the ICMA Centre,University of Reading,and Queen's University, Canada. He has been a Houblon-Norman Fellow at the Bank of England (1990).

Steve has published widely in the areas of market microstructure, economics, and investment strategy and in 2005 was ranked 11th in Europe for published finance research over the previous decade. His research has won a number of awards including prizes, for the Best Paper, Global Finance Conference, Dublin, 2005 and the Best Market MicroStructure Paper, Mid-West Finance Meetings, Chicago,2006. He has also co-authored the 13 editions of the Official Training Manual for the Investment Management Certificate for CFA UK.

Steve has been involved in private client investment strategy for Firecrest Hambro, and fund strategy with Hasley Investment Management and WM Capital; he was a director of Bear Stearns Global Alpha Macro Hedge strategy London, 2005-7. In 2011 he helped create Solent Systematic Investment Strategies which creates and advises on quantitative investment strategies. He was a member of the SME Business Finance Review Advisory Board for the Welsh Assembly Government(2013).

Dr. Nick Motson

Dr Nick Motson holds a BSc from City University Business School, an MSc from London Business School and a PhD from Cass Business School. Following a 13 year career as a proprietary trader of interest rate derivatives in the City of London for various banks including First National Bank of Chicago, Industrial Bank of Japan and Wachovia Bank, Nick returned to Cass in 2005 to pursue his doctoral studies. Upon completion of his PhD he joined the faculty of finance full-time in 2008.

Nick's research interests include asset management, portfolio construction, hedge funds, alternative assets and structured products. In 2009 he was awarded the Sciens Capital Award for Best Academic Article, in The Journal of Alternative Investments for his paper Locking in the Profits or Putting It All on Black? An Empirical Investigation into the Risk-Taking Behaviour of Hedge Fund Managers.

Nick teaches extensively at masters level on alternative investments, derivatives and structured products and in recognition of the quality of his teaching he was nominated for the Economist Intelligence Unit Business Professor of the Year Award in 2012.

As well as teaching and researching at Cass, Nick actively consults for numerous banks and hedge funds and has provided research or training clients including ABN Amro, Aon Hewitt, Barclays Wealth, BNP Paribas, Financial Express, FM Capital Partners, Invesco Perpetual, NewEdge, Old Mutual and Société Générale.

Source: Cass Business School, as at end of October 2015.

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PowerShares was founded in the US in 2003 on a vision of delivering investment performance through the benefit-rich Exchange Traded Fund (ETF) structure. In January 2006, PowerShares expanded its vision by becoming part of Invesco Ltd, whose global presence took the Invesco PowerShares story beyond the US.

When the first ever ETF was launched in 1993, its purpose was simple — to track the S&P 500 Index while trading on a major exchange. Since then, many traditional ETFs have been designed to mirror a number of different benchmark indices. Not all ETFs, however, seek to simply track a measure of a market.

Invesco PowerShares offers a selection of ETFs that track "next generation" indices: indices that go beyond merely tracking a particular market. These indices seek to outperform the performance of a particular market through intelligent security selection and weighting.

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About Cass Business School

In 2002, City University's Business School was renamed Sir John Cass Business School following a generous donation towards the development of its new building in Bunhill Row. The School's name is usually abbreviated to Cass Business School.

Sir John Cass's Foundation

Sir John Cass's Foundation has supported education in London since the 18th century and takes its name from its founder, Sir John Cass, who established a school in Aldgate in 1710. Born in the City of London in 1661, Sir John served as an MP for the City and was knighted in 1713.

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