

INTRODUCTION

TIME TO REVIEW RISK AND RETURN

Research findings are showing that there is a greater likelihood of generating robust returns from a low tracking error approach than from a higher one

In today's uncertain environment, the managers who focus on low tracking error strategies and who have historically managed to a tight "risk budget" have been gaining attention from both index-oriented investors and those focused on traditional active management strategies. Given the increased level of interest and the attractive performance attributes of these approaches, we wanted to provide investors with more information on this unique corner of the market.

We looked at the performance, tracking error, and information ratios of all large cap managers benchmarked to the S&P 500 for periods of three, five, and 10 years ended June 30, 2002. Our research produced some surprising results which we believe are useful for US portfolio managers.

» FINDINGS

- Lower tracking error (TE) approaches have had a high degree of success, generating, on average, significantly positive index-relative results. Over the last 10 years the median alpha for strategies in the zero to 2 per cent TE range has been 0.83 per cent. This is nearly twice the median alpha of 0.44 per cent in the 2 to 8 per cent TE range where more than two-thirds of the surveyed managers reside.
- There appears to be a greater likelihood of generating positive value added using low TE strategies rather than



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David Wonn, Invesco

high TE strategies. A very high proportion of low TE strategies have been successful at providing value added to investors.

- The concept that higher risk active managers generate proportionately higher returns appears to be a myth. When measured on an information ratio (IR) basis, low TE strategies have tended to generate stronger results than higher TE strategies.
- We believe there is a fundamental justification for higher IRs from lower TE strategies. It relates to the essential elements of portfolio construction that may lock in "decreasing returns to scale" as portfolio TE increases.
- Low TE strategies, often ignored by those seeking higher performance, are an attractive longer-term

MANAGER PERFORMANCE

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Tracking error range	Median (%) value added	Per cent of strategies
0-2	0.83%	4.7%
2-4	0.43%	16.6%
4-6	0.01%	32.3%
6-8	1.14%	20.9%
8-10	1.26%	12.2%
10-12	0.41%	8.1%
12 and higher	2.95%	5.2%

Source: Invesco

alternative to more active managers. This is due to the historical ability of low TE strategies to generate consistent value added in domestic large cap equities, a market segment where positive index-relative results are less common.

» 'BETS'

One possible fundamental rationale for the observed decay of information ratios along the tracking error continuum relates to the "asymmetrical bets" that can be made in the low TE strategies but which are less likely in higher TE regions. This means that low TE strategies are structurally more able to take "bets" on their index-relative underweights versus their overweights compared to high TE strategies.

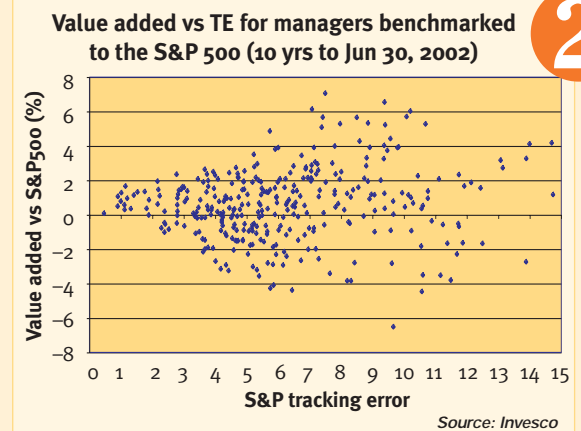
Many believe there is a natural bias in the market favouring "long" positions, making for the possibility that inefficiencies exist in the "short" side of the market. We have seen ample evidence of this in Wall Street research statistics, which cite that the vast majority of Street recommendations are "buys" and "holds" and a very small percentage are "sells". We have also seen evidence of this in our own work.

Note that while the top 20 per cent of stocks led the market by an annualised 3.7 per cent on average, the bottom 20% trailed by 7.1 per cent on average. Therefore, greater value may have been added by avoiding the poor performers than by selecting the best performers.

All of this brings us to the term asymmetrical portfolio construction. The concept behind this term is simple. If both longs and shorts (or overweights and underweights) added value equally, then a portfolio could be made up of "symmetrical" bets – equally overweighting some stocks and underweighting others. However, if the short side is more profitable, a manager focusing more on the underweights than the overweights (making "asymmetrical" bets favouring the underweights) may be in a stronger competitive position.

In the lower TE strategies, this is easier to do. These portfolios tend to be highly diversified and made up of many very small "bets" – market-relative underweights or overweights. A low TE manager thus may have a greater ability to make asymmetrical bets favouring the underweights versus the overweights than a high TE manager.

In the high TE strategies, portfolios are typically concentrated in fewer stocks with relatively large positions. While these managers could take a 500 per cent relative overweight in a particular stock, they can



only take a 100 per cent underweight (ie, not hold a stock that is in the benchmark). As tracking error increases, it is structurally more difficult for a manager to tilt portfolios toward the potentially more profitable "short" or underweight side relative to the potentially less profitable "long" or overweight side. This is what we meant by "decreasing returns to scale" as mentioned previously.

» CONSISTENCY

We have illustrated that most managers in the low TE region have had strong results and high IRs overall. Many have provided investors with another attractive attribute: consistently positive index-relative performance. We reviewed the rolling three-year performance results for all low TE managers covered by our analysis since the individual inception of each manager (we selected a three-year window as it is an analytical period favoured by plan sponsors). Our research showed most managers did well against the objective of outperforming the market index.

We looked at all managers who had a consistent history of low tracking error (below 2 per cent) in the three, five, and 10 year periods reviewed. Of those managers:

- a total of 28 firms, roughly 86 per cent, outperformed the market in two-thirds of the periods;
- 36 per cent beat the market in all rolling three-year time periods since inception;
- two of 28 or about 7 per cent failed to lead the market in more than 50 per cent of the periods;
- on average, the managers led the market in roughly 85 per cent of all three year time periods since inception.

These powerful statistics point to a key reason why individuals should be exploring this market segment.

David Wonn, product manager, Invesco

» CORPORATE STATEMENT

Invesco is part of Amvescap Plc, a leading independent global investment manager dedicated to helping people worldwide build their financial security. As one of the world's largest investment management organisations, Amvescap has more than 7100 employees, offices in 21 countries, and \$347.6bn of funds under management (as of June 30, 2003). Operating under the Invesco, AIM and Atlantic Trust brands, Amvescap strives to deliver outstanding investment performance and service through a comprehensive array of retail and institutional products for clients in more than 100 countries.



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