

Choosing an Actively Managed Portfolio: Evaluating Active Share

There has been a lot of recent discussion focused on the merits of “active share,” one measure designed to illustrate the level of active management being employed within an actively managed portfolio. Active share can be useful when considered in the context of other metrics, such as a manager’s ability to add value and a portfolio’s relative risk or tracking error versus its benchmark index. However, we believe an analysis of the exposures that result in a portfolio’s active share and tracking error is essential to truly evaluate the merits of an active approach.

There are at least two attributes required for active managers to outperform their benchmarks with a high likelihood of continued success:

- Skill
- Active Exposures (those that differ from those of their respective benchmark indices)

Many measures have been touted as being correlated with the outperformance of active strategies. However, we believe that, in and of themselves, no single measure is a sufficient predictor of the size and nature of relative returns. To truly evaluate and compare active strategies, investors must consider not only *whether* a manager can outperform their benchmark, but also *how* they will outperform their benchmark. Multiple measures of volatility and risk exposures should be considered in the context of prevailing market conditions to form a better understanding of a portfolio’s positioning and its potential performance.

» The Importance of Skill

Before investors consider any other metrics, they should carefully evaluate a manager’s approach to investing – including their experience, the resources at their disposal and the process deployed to identify and capitalize on investment opportunities.

Skill is a necessary component in determining whether an active manager can select securities that have a greater likelihood of outperforming the broader market over time. However, a manager with all the skill in the world will not outperform their benchmark unless they make active investment decisions. Large differences between a portfolio’s exposures and those of the benchmark may lead to greater outperformance for managers with skill, or greater underperformance in instances where skill is absent. Because investors pay fees for active management, they should carefully consider the level and nature of active management deployed on their behalf – in addition to a manager’s skill – to have confidence they are getting what they are paying for.

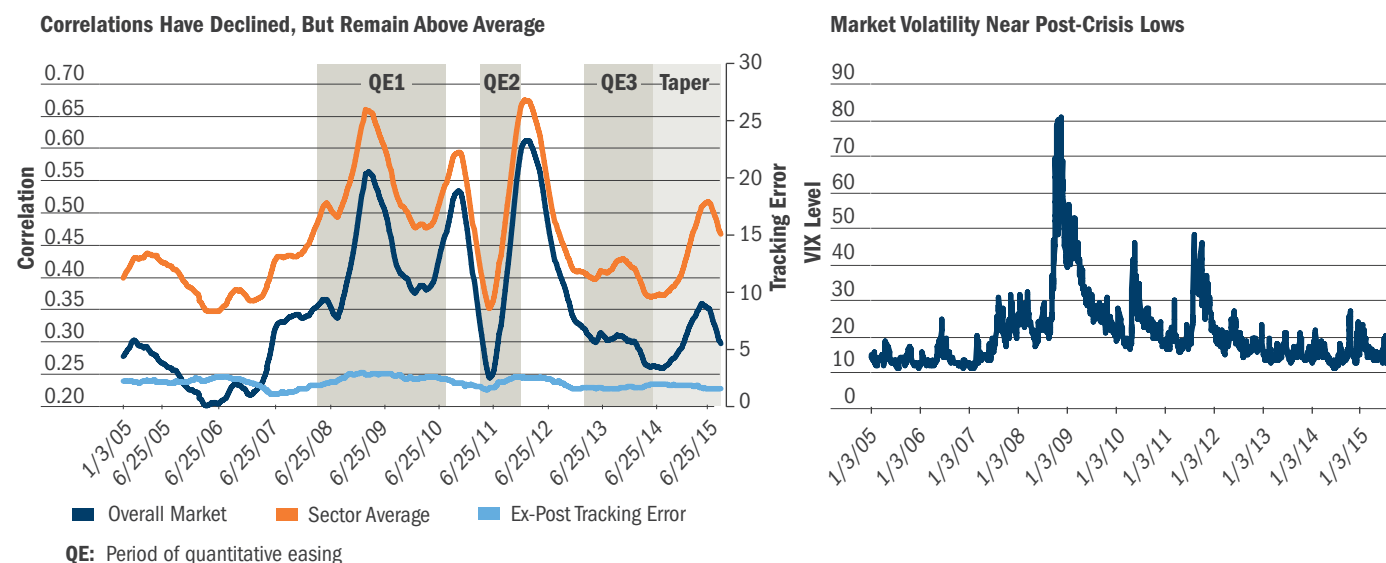
As mentioned above, a manager’s skill is not just related to whether they are likely to outperform, it is also related to how they outperform. Efficiency is a key consideration in evaluating a manager’s skill. For example, if two managers outperform their benchmark by a similar amount, all other things being equal, a manager who can persistently add value with lower risk is likely to be deemed to have more skill than a manager who offers the same return but with higher levels of volatility.

» Reliance on Past Performance Limits Effectiveness

One statistic many investors have come to rely on when evaluating the level of active management associated with a given strategy is tracking error, which measures the volatility of a portfolio’s performance relative to its benchmark over a specified period. Measures of tracking error can be predictive or historical in nature. Ex-post tracking error is a measure of the historical volatility of a portfolio’s returns relative to a benchmark. Ex-ante tracking error is a measure of a portfolio’s predicted volatility of returns relative to a benchmark.

Regardless of whether the tracking error is historical or predictive in nature, both measures rely on an analysis of past performance, which is why tracking error alone is an insufficient indicator of what to expect from an active manager in the future. For example, in periods of low volatility and dispersion¹ as well as high cross-sectional correlation², such as that experienced in the aftermath of the 2008-2009 financial crisis, tracking error may have declined – even in portfolios maintaining meaningfully different positions relative to their benchmarks. Under these conditions, there is little difference in the performance of any one security relative to others in the broad universe, rendering active investment decisions less impactful.

Periods of High Correlation and Low Volatility Have Led to Declining Tracking Error



Source: Bloomberg and Pioneer Investments. Last data points 8/31/15. **Data represents past performance, which is no guarantee of future results.**

The historical performance shown is provided to illustrate market trends. Tracking error data is represented by Morningstar's Large Growth Universe for the period shown. **Correlation** is the degree to which assets or asset class prices have moved in relation to one another. Correlation ranges from -1 (always moving in opposite directions) through 0 (never move together) to 1 (always move together). Market volatility is measured by the The CBOE Volatility Index® (VIX®), a key measure of market expectations of near-term volatility conveyed by S&P 500 stock index option prices. It is not possible to invest directly in an index.

¹ **Dispersion** refers to a limited variability of returns from a particular trading strategy or investment portfolio.

² **Cross-sectional correlation** refers to correlation at one specific point in time versus over a period of time.

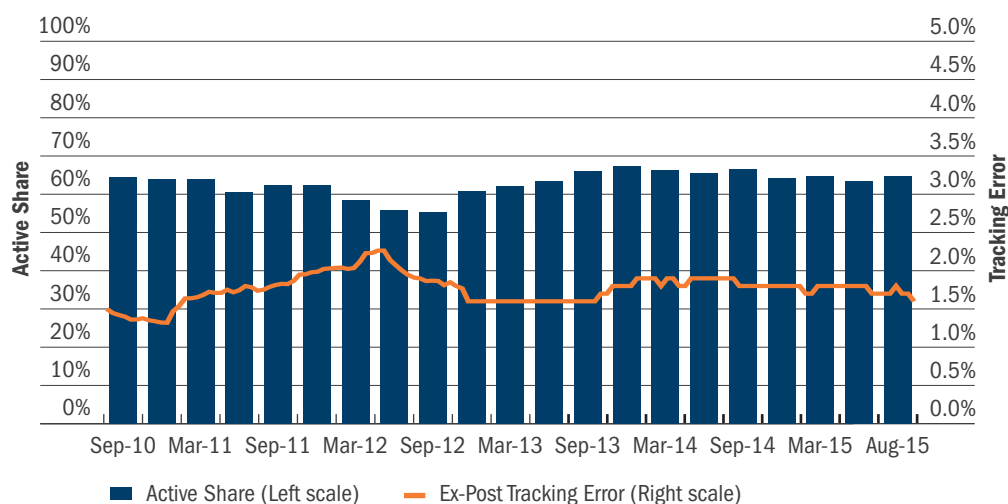
When both ex-post and ex-ante tracking errors fall, investors should be wary that these measures might meaningfully underestimate actual risk in subsequent periods – particularly when volatility and dispersion increase and correlations fall – because they are heavily dependent on past performance. To mitigate the likelihood of miscalculating the true level of active risk in a portfolio, investors should consider tracking error in the context of the prevailing market environment and the magnitude of differences between the portfolio's positions and those of its benchmark.

» Considering Active Share

The difference between a portfolio's positions and those of the benchmark is referred to commonly as "active share." Assuming the benchmark is appropriate for a given strategy, a larger active share indicates a higher level of active management. Measures of tracking error may vary as volatility, dispersion and cross-sectional correlations fluctuate, even if a fund's active share is constant.

Looking at active share and tracking error together, while considering expected and current changes in market conditions, can result in a more robust understanding of a portfolio's active risk. This, in turn, can help investors better understand the potential magnitude of outperformance and/or risk of drawdowns relative to their benchmark (see chart on next page).

A More Complete Picture: Active Share and Tracking Error Together



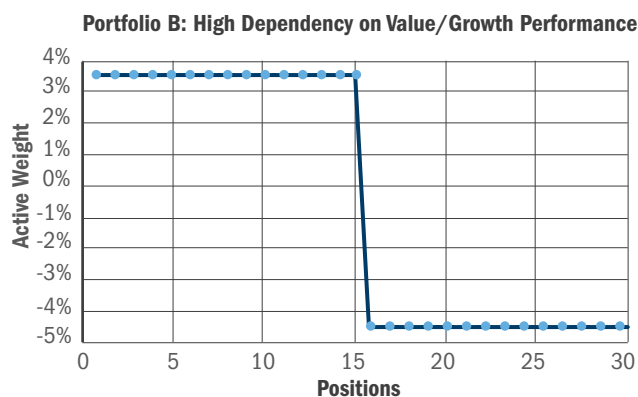
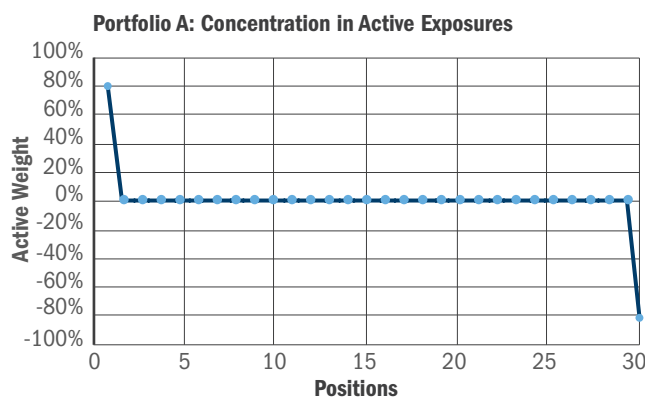
» Deconstructing Active Share

While it is desirable for managers with demonstrated skill to exhibit a higher level of active share, investors may benefit from further analysis – or decomposition – of a portfolio’s active share components. Understanding the sources of active risk may lead to even greater confidence in a product’s ability to outperform its respective benchmark. Active exposures should be consistent with a manager’s investment process and specified objectives. Further, concentration within a portfolio’s active share may lead to unwarranted risk and greater relative drawdowns over time. Consider the two examples below.

Portfolio A: Security Concentration. This equity portfolio of 30 stocks has high active share. Of those 30 stocks, one is materially overweight and one is materially underweight the benchmark, resulting in significant concentration within its active exposures.

Portfolio B: Style Concentration. This equity portfolio also has 30 stocks. It is overweight 15 stocks and underweight 15 stocks. However, if all of the overweight positions represent value (low price-to-book) stocks, and underweight positions reflect growth (high price-to-book) stocks, the portfolio is likely to exhibit concentrated exposure to a single factor: Value. In such a case, the portfolio’s relative performance will be highly dependent on the difference in performance of value and growth stocks.

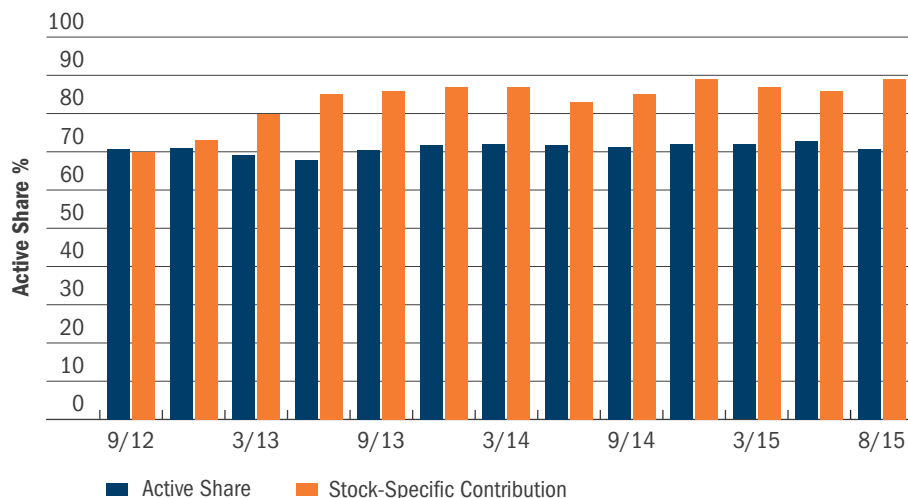
Deconstructing Active Share Can Reveal Hidden Risk



Note: The examples above are hypothetical in nature and intended for illustrative purposes only. They are not intended to represent the characteristics of any Pioneer investment. Source: Pioneer Investments.

While common factor exposures (such as growth or value characteristics) should align with the nature of a particular approach, security-specific elements offer the greatest opportunity for diversification. We believe that, assuming an active manager has skill, a portfolio with high active share and a high proportion of its active risk emanating from stock specific exposures, such as that illustrated in the example below, has a greater likelihood of outperforming its benchmark over time than portfolios with more concentrated active exposures.

Higher Stock-Specific Contribution to Active Share May Increase Likelihood of Outperformance



Source: Barra and Pioneer Investments. Last data point 8/31/2015. Data represented by Pioneer Fundamental Growth Fund portfolio. **Data represents past performance, which is no guarantee of future results.**

We believe an actively managed portfolio with well-diversified active exposures consistent with a manager's stated skill and specified objectives has a greater likelihood of achieving outperformance over time, while mitigating potential sudden large drawdowns relative to its benchmark.

Before investing, consider the product's investment objectives, risks, charges and expenses. Contact your advisor or Pioneer Investments for a prospectus or a summary prospectus containing this information. Read it carefully.

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A Word about Risk: Pioneer Fundamental Growth Fund

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