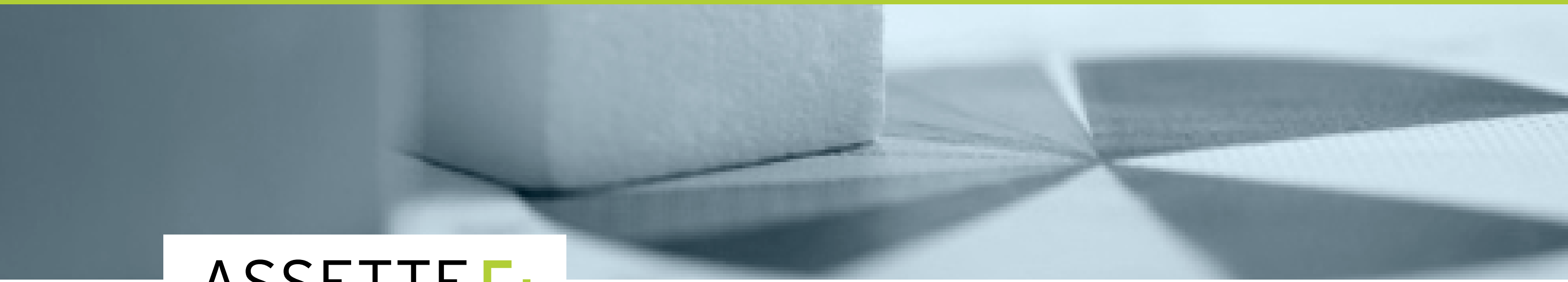


ASSETTE

Are You Paying Active Management Fees for Not-So-Active Management?

How active share helps plan fiduciaries see how active their investment managers really are—including graphics that illustrate eight practical ways to use active share in portfolio analysis

2/4/14

Seven years ago, professors Martijn Cremers and Antti Petajisto introduced a new metric for determining which mutual fund managers were making active bets against their benchmark. They called the new tool "active share" and went on to conclude that managers with an active share of 80% or higher tend to outperform their benchmarks—after fees—and they do so with persistence.[1]

Since then, active share has been the subject of further research by Cremers, Petajisto and others. While there is some debate as to whether it can predict managers who are likely to outperform, there is one thing everyone seems to agree on: Active share is an excellent way to identify whether a manager is a closet indexer.

Identifying truly active managers is a constant challenge for plan sponsors. Since the volatile markets of 2007–2008, more managers are staying close to their benchmarks in an effort to avoid underperformance. According to a follow-up study by Antti Petajisto, by 2009 approximately one-third of all U.S. equity mutual funds were actually closet index funds.[2]

Fiduciary responsibility

Active share can help investors identify just how active their managers' portfolios really are. For plan fiduciaries, active share can help fulfill three important fiduciary responsibilities:

1. Ensure plan assets are diversified.

Investment committees and their consultants work hard to create a diversified mix of investment assets, styles and approaches for their funds. Knowing the active share of the fund's equity managers can identify portfolios that are converging close to the index, drifting away from their style mandate or otherwise affecting the overall asset allocation targets of the fund.

2. Hire and monitor investment service providers.

Active share analysis can help plan fiduciaries identify and eliminate closet indexers from consideration during new manager searches. Ongoing active share monitoring can tell you whether your managers continue to deliver active value to the plan and maintain their conviction to their specific investment mandates.

The eight charts at the end of this paper illustrate various ways fiduciaries can use active share to monitor manager portfolios.

3. Determine whether investment fees are reasonable.

Active managers deserve to be compensated for their skill and judgment. But paying active management fees for a portfolio that is a closet index fund is unreasonable. Active share analysis helps fiduciaries quantify how "active" a portfolio is and make sure the fees they are paying are justified.

What is active share?

The idea behind active share is simple: In order to beat the benchmark, a portfolio must be different from the benchmark. In order to be different, a manager must make active judgments, usually categorized as:

1. Holding securities that are not in the index.
2. Holding securities in the index, but overweighting the position.
3. Holding securities in the index, but underweighting the position.
4. Not holding securities that are in the index.

Active share identifies the extent to which a portfolio's holdings diverge from those of the benchmark. It is based on a 0% to 100% scale. Index funds have an active share of less than 20%, meaning 80% of the portfolio overlaps with its benchmark. Portfolios with an active share of 80% or more are considered quite active—only 20% of their portfolio's holdings mirror those in the benchmark index.

So, what percentage of active share should you look for in your managers' portfolio? According to Dr. Cremers, the number varies by manager style. In a recent Wall Street Journal article, he said that an active share of at least 60% is good. Large-cap managers should be in the 70%-plus range; midcap managers in the 85%-plus range; and small-cap managers should have an active share in excess of 90%.[3]

Calculating Active Share for Your Funds

Active share can be calculated as follows:

Active Share = 100% -∑|Overlapping Weights [portfolio, i and index, i]|[4]

Plan sponsors and fiduciaries should ask to see active share numbers for their equity portfolios. Many investment consultants now provide active share analysis of manager portfolios, and more managers are taking the initiative and including active share in their client communications and reporting. If you don't see it, ask your investment managers to provide it.

Active share vs. tracking error

In the past, investors have used tracking error volatility as the primary measure of active management. Tracking error measures returns—the extent to which a manager's returns differ from the benchmark return over the same time period. High tracking error is indicative of active management. Expressed as a standard deviation percentage, the tracking error of an index fund should be close to zero percent. An actively managed portfolio would have a higher tracking error.

But tracking error is based on a pattern of returns—a pattern that infers, but does not demonstrate, the level of active management. Active share, on the other hand, is based on actual holdings compared to benchmark holdings at the same point in time. It quantifies the active contribution in a way that gives investors a clear picture of where and how a manager is deriving active return.

> While tracking error infers active contributions from return patterns, active share is based on actual holdings vs. the benchmark.

This is not to say that active share should replace tracking error in a plan sponsor's toolkit. Far from it. Active share complements tracking error by providing a different perspective on the portfolio. Even Dr. Cremers advocates using both in order to get a more complete picture of a manager's active skill, saying, "I would say, use active share within the fund-selection process, but as one of the many ingredients, including tracking error."[5]

Conclusion

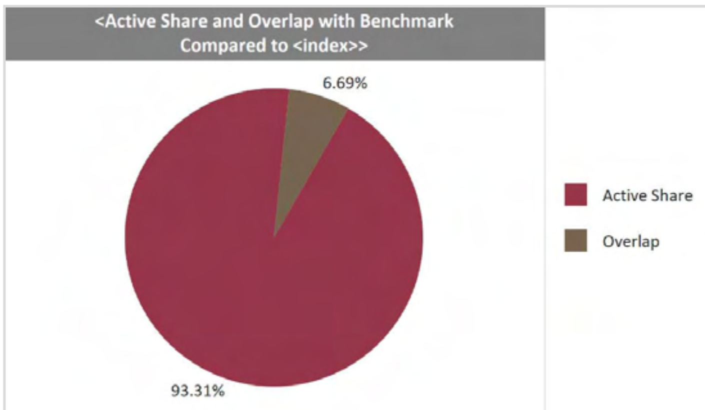
Active share provides a new perspective on how and where managers differ from their benchmark and can offer powerful confirmation of a manager's active contribution to returns. Used in tandem with traditional measures like tracking error and r-squared, it adds depth and nuance to portfolio analytics by relying on a different set of observations. And last, but certainly not least, active share helps plan fiduciaries carry out their primary responsibilities to maintain a diversified fund, hire and monitor qualified investment managers, and make sure they are getting full value for the active management fees they pay.

The bottom line is that active share is a "must have" statistic for fund sponsors and fiduciaries who want the benefit of the latest thinking in portfolio analysis and attribution. If your investment managers are not providing you with active share information for their portfolios, you should ask them to include it as part of their standard performance reporting package.

Examples of how to use active share to analyze a manager's active contribution

In the following section, we offer eight illustrations of how asset owners can use active share to evaluate new manager-candidates and monitor existing active managers.

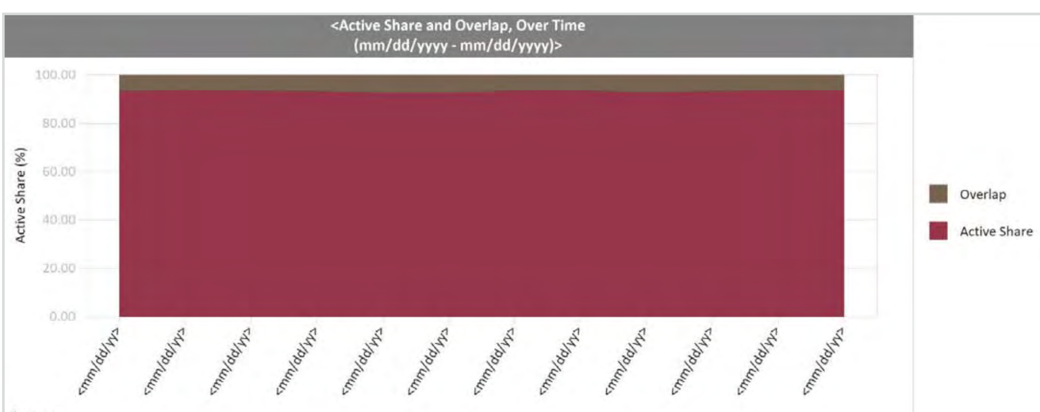
1. ACTIVE SHARE AND OVERLAP WITH BENCHMARK: POINT IN TIME



This chart illustrates the active share of the portfolio (93.31%), as well as the portion that overlaps the benchmark index (6.69%). In this example, the portfolio has a high active share as of the holdings date, which indicates active judgments are being made.

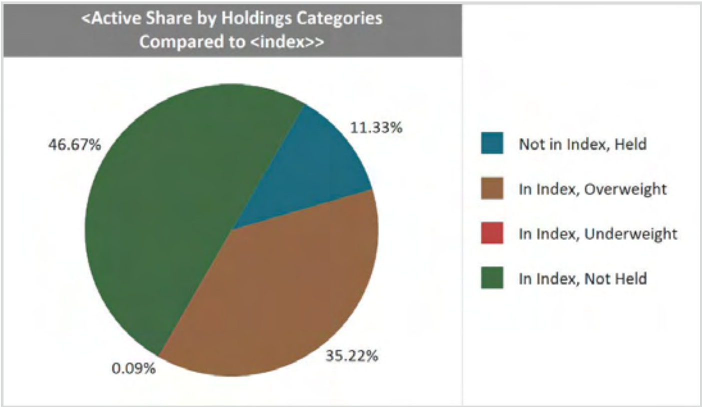
Active share is always measured against the benchmark index for the portfolio. It is, therefore, important that you make sure the manager has selected a benchmark that is appropriate for the portfolio strategy under consideration.

2. ACTIVE SHARE AND OVERLAP WITH BENCHMARK: TIME SERIES



This chart illustrates how consistent the portfolio's active share has been over time. A persistently high active share is an indication that the manager is doing what they are paid to do—taking positions above and beyond the benchmark.

3. ACTIVE SHARE BY HOLDINGS TYPE VS. BENCHMARK: POINT IN TIME

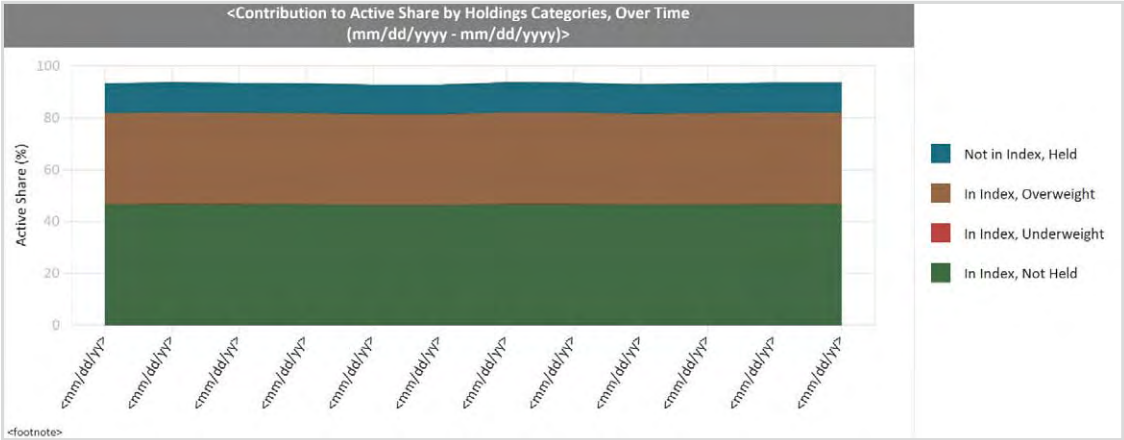


This chart lets you see what type of active investment decisions your manager has made to contribute to active share. There are four ways to be different from the index:

1. Hold securities that are not in the index.
2. Hold securities in the index, but overweight the position.
3. Hold securities in the index, but underweight the position.
4. Don't hold securities that are in the index.

By breaking out active share into these holdings categories, you can see how a manager's investment approach manifests in portfolio holdings vs. the benchmark. In the above example, we see a portfolio where the largest active share is coming from avoiding certain securities held in the index and virtually no active share is derived from underweighted positions in index securities.

4. ACTIVE SHARE BY HOLDINGS TYPE VS. BENCHMARK: TIME SERIES



This chart allows you to see how active share was achieved over a period of time, based on the four holdings categories described above. The more consistent the pattern of active share by holdings types is over time, the more likely it is that your manager's investment philosophy is being applied consistently.

5. ACTIVE SHARE BY SECTOR VS. BENCHMARK

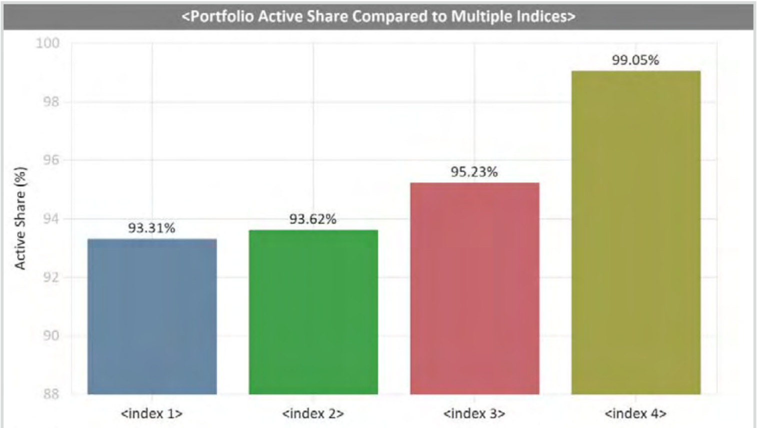
	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Sector 10
Active Share	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>	<nn.nn%>
Portfolio Weight	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>
Index Weight	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>	<nn.n%>
Relative Weight	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**	**+/-<n.n%>**

<footnote>

This chart lets you see the active share of each sector in the portfolio—demonstrating the extent to which each sector's holdings vary from those in the index. It is a simple way to isolate the "activeness" of each sector. The weights of each sector in the portfolio and the index, as well as the relative weight, are also displayed to provide context.

This type of sector-level active share analysis is based on treating each sector as its own portfolio and does not take into account the weight of the sector in the portfolio. Any sector not held in the portfolio, like Sectors 9 and 10, above, has an active share of 100%, since that sector is completely (i.e., 100%) different from the index sector.

6. PORTFOLIO ACTIVE SHARE VS. MULTIPLE INDICES: POINT IN TIME



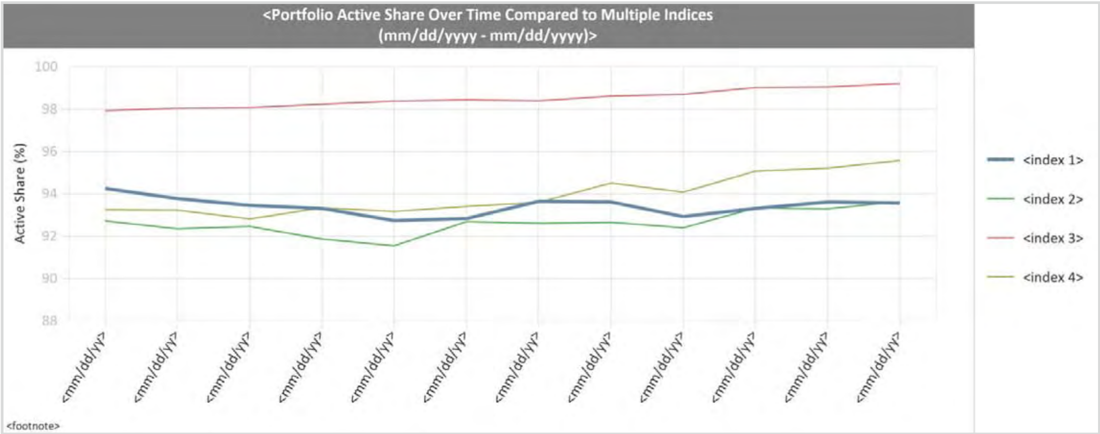
<footnote>

This chart is a useful way to see how a manager's portfolio conforms to the style of its chosen benchmark as well as other indices.

If the manager is true to their investment mandate, the portfolio's chosen benchmark, "index 1" in the chart above, should be the index that results in the lowest active share for the portfolio among the displayed indices. That makes sense, since the portfolio should have more overlap with that index than any other. Conversely, the higher the active share of other indices, the less like them the portfolio is. In other words, you have both positive and negative proof that the manager is — or isn't — staying true to their style mandate.

For example, let's assume you have hired a manager to run an active small-cap growth portfolio. Their primary benchmark is the Russell 2000 Growth Index. You decide to include the Russell 2000 Growth, Russell 2000, Russell Mid-Cap and Russell 2000 Value indices in the analysis above. If another index results in a lower active share than your primary benchmark, it is an indication that the portfolio has drifted into the style represented by that index. If not, you have point-in-time evidence that a) the portfolio reflects a small-cap growth bias and b) the portfolio has not drifted into small-cap, mid-cap or value territory.

7. PORTFOLIO ACTIVE SHARE VS. MULTIPLE INDICES: TIME SERIES



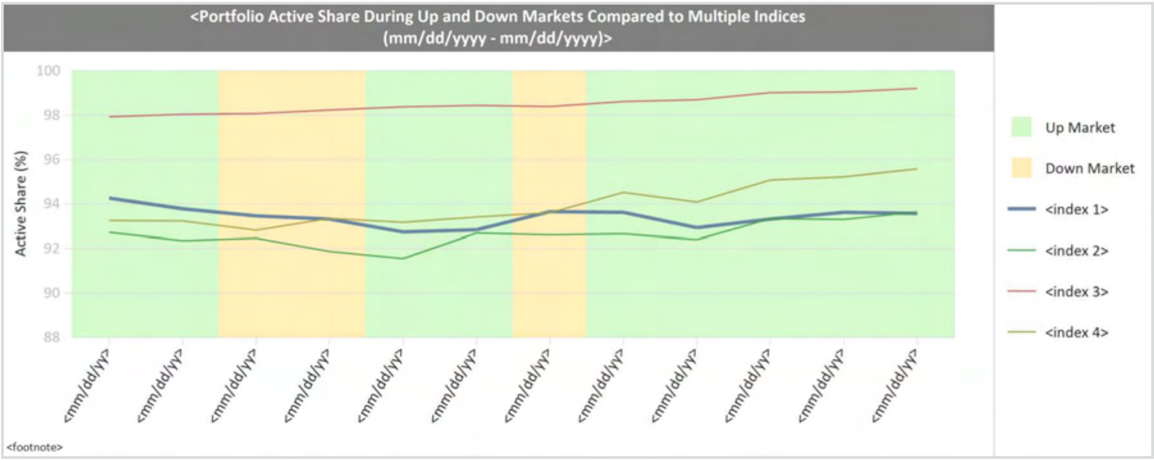
This graph shows you how a portfolio conforms to the style indicated by its primary benchmark and other indices over time. Portfolios that consistently demonstrate the lowest active share versus their primary benchmark are likely managed through a disciplined investment philosophy and process, an important consideration when evaluating managers.

This portfolio's primary benchmark index, <index 1>, is denoted by the thick blue line. As you can see, this hasn't been the one with the lowest active share in the past, but the portfolio is beginning to align with its primary benchmark as of the latest period. Is this due to style drift or are there other reasons why the portfolio didn't align with its primary benchmark in the past?

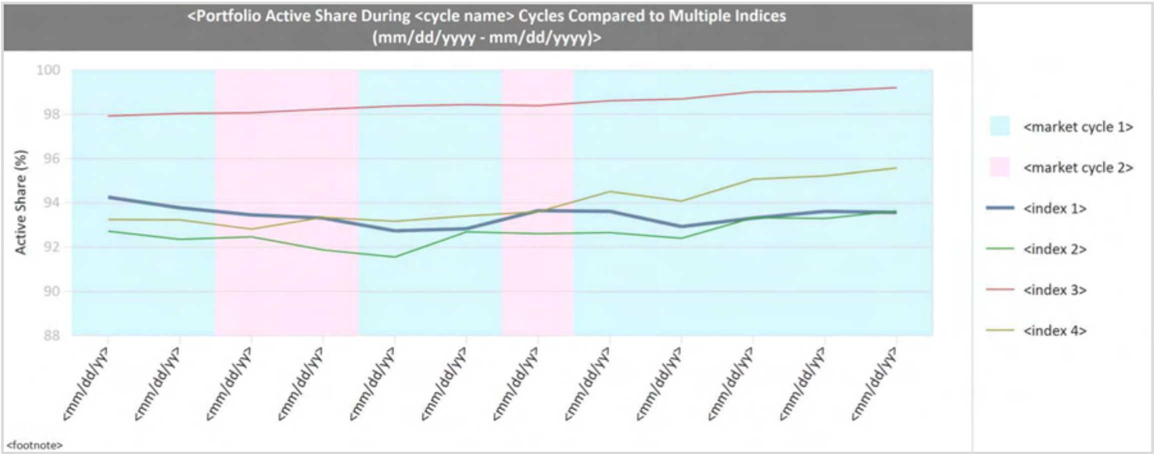
Perhaps the portfolio's strategic mandate changed during the period covered by the chart, or reallocations of cash into or out of the portfolio temporarily disrupted the manager's investment discipline. Both could explain the early periods of misalignment with the primary benchmark in the above chart. Structural changes to the composition of the benchmark index can also create misalignments, although these tend to be shorter-term anomalies and smooth out over time.

Of course, perhaps the portfolio simply has a history of style drift. No matter what the rationale in the example above, having access to this type of historical active share information allows you to engage in a meaningful discussion with your managers about how exogenous factors affect their portfolio, the discipline of their investment process and their commitment to style consistency.

7a. ACTIVE SHARE VS. MULTIPLE INDICES: UP AND DOWN MARKETS

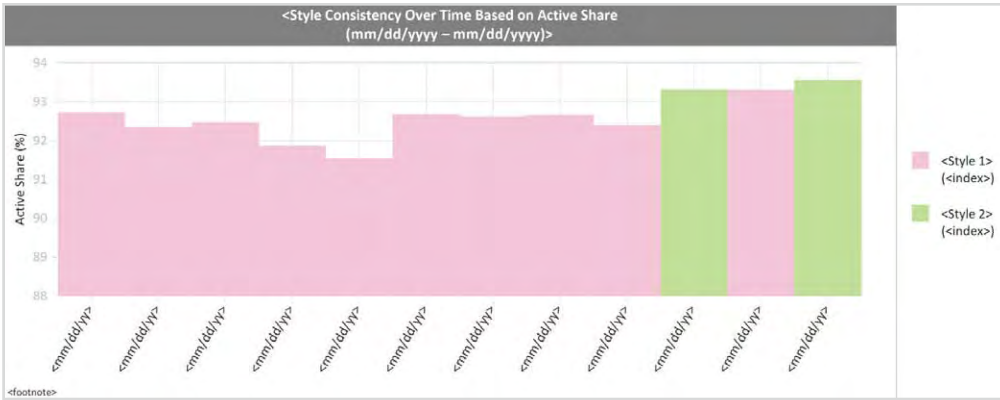


7b. ACTIVE SHARE VS. MULTIPLE INDICES: BY MARKET CYCLE



Graphs 7a and 7b, above, let you see how a manager's active share compares with multiple indices in up-and-down markets and over various market cycles. Consistent active share over a variety of market cycles tells you that your manager sticks to their style conviction no matter what economic or market conditions prevail.

8. ACTIVE SHARE VS. STYLE INDICES: CONSISTENCY OVER TIME



This chart lets you use active share/multiple indices analysis in a different way, one suggested in the original research—that active share could be used to track the style of a fund over time.[6]

Based on a specified set of color-coded indices, the chart identifies the index with the lowest active share at the end of each time interval. The portfolio is determined to "belong" to the style represented by the index with the lowest active share. If the color remains the same across all intervals, it indicates the portfolio has been consistent in its style and/or investment approach.

As an example, let's say you have a small-cap growth manager whose primary benchmark is the Russell 2000 Growth index. For the purposes of this chart, you specify the following indices and colors:

R2000 Growth	Small-Cap Growth	Pink
R2000	Small Cap	Green
R2000 Value	Small-Cap Value	Gray
Russell Mid-Cap	Mid-Cap	Blue

The portfolio has had the lowest active share to the Russell 2000 Growth index in all but two periods displayed in the chart. Those intervals may be anomalies, or due to index reconstitution, or perhaps they signal a change in the manager's investment approach. This information can be a powerful tool to validate the manager's consistency—or stimulate discussion as to why they drift from their mandate.

[1] Cremers, Martijn, and Petajisto, Antti. 2009. "How active is your fund manager? A new measure that predicts performance."

[2] Petajisto, Antti. 2010. "Active Share and Mutual Fund Performance." NYU. Stern School of Business. Working Paper Series. http://ssrn.com/abstract=1685942.

[3] Light, Joe. 1.18.14. "And the Next Star Fund Manager is . . ." Wall Street Journal. Retrieved from: http://stream.wsj.com/story/latest-headlines/SS-2-63399/SS-2-429840/

[4] This formula is an alternative to the original formula presented in the 2009 paper cited below. In email correspondence between Dr. Martijn Cremers and Thusith Mahanama, CEO of Assette, on 1.8.2014, Dr. Cremers stated that he now prefers this alternative formula for active share.

[5] Max, Sarah. 1.14.13. "Is your fund manager active enough?" www.online.barrons.com/article.

[6] Ibid. Cremers and Petajisto. 2009.