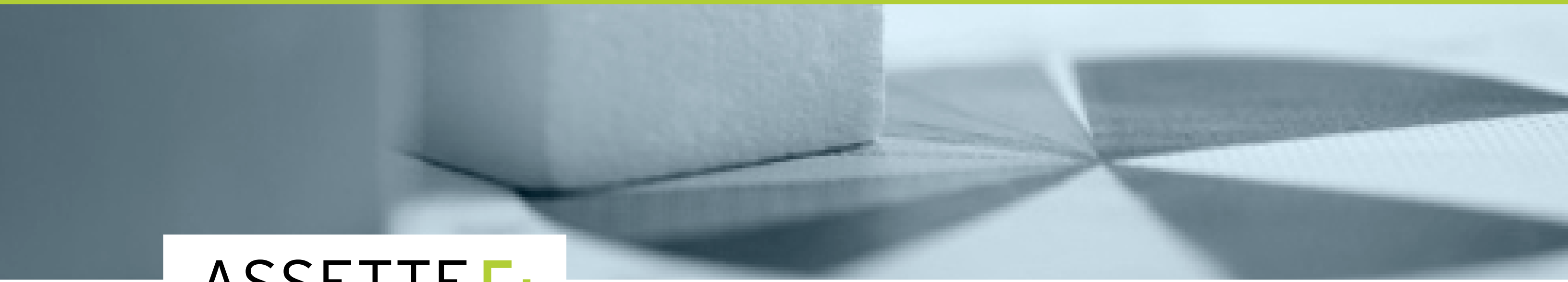


ASSETTE

Active Portfolio or Incompatible Benchmark?

Three ways active share can help asset owners tell the difference

4/25/14

As an asset owner, you know that statistics like active share can help you quantify just how active your investment managers are. An active share of at least 60% versus the benchmark is good, and an active share in excess of 70, 80 or 90% is even better, depending on the mandate.

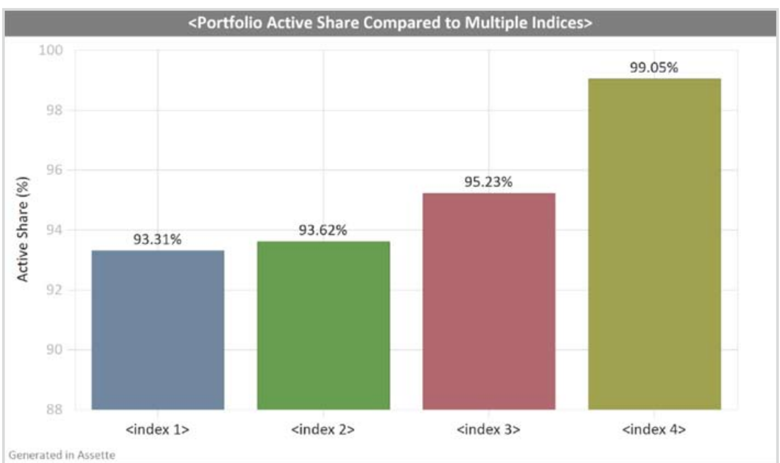
So how do you determine that a manager's high active share stats reflect their active investment skill instead of just a poorly chosen benchmark?

Fortunately, there are several ways to test a portfolio for benchmark compatibility and its slippery cousin, style consistency. Here are three types of active share analysis that should give you all the ammunition you need to validate a manager's active skill and the primary benchmark:

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

This analysis looks at how a portfolio stacks up against the holdings of its primary performance benchmark as well as the holdings of alternate benchmarks.

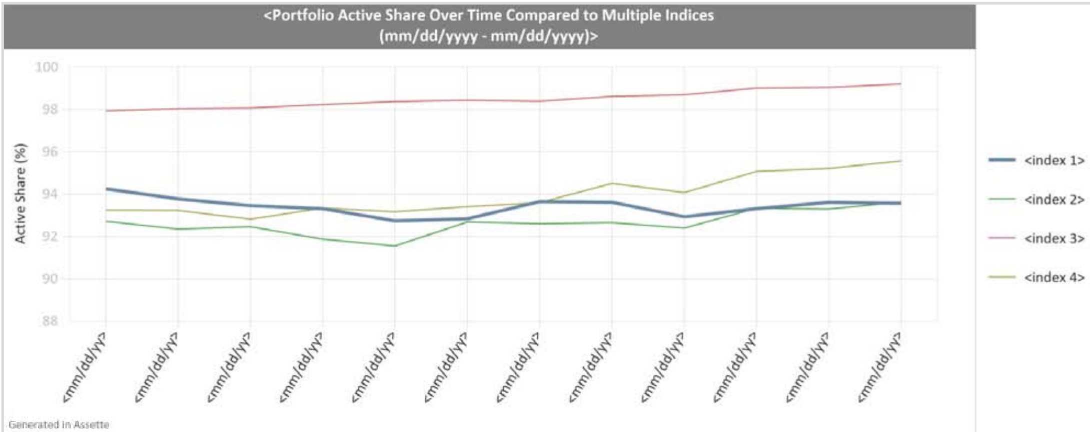
The idea is that a portfolio should have more in common with an appropriate benchmark index than it does with an incompatible one. You would expect that a small-cap growth portfolio's active share would be lowest against the Russell 2000 Growth Index, since it has the most overlap with that index. Conversely, its active share should be higher against less-appropriate benchmarks like the Russell 2000 or the Russell Mid-Cap. By running an active share analysis against multiple indices, you can determine whether a manager's primary benchmark is, indeed, the most appropriate proxy for their mandate.



Let's look at an example of how this analysis plays out in real life. We'll assume the manager in question is running an active small-cap growth portfolio. Their primary benchmark is the Russell 2000 Growth Index—index 1—in the chart above. Index 2 is the Russell 2000; index 3 is the Russell Mid-Cap Index; and index 4 is the Russell 2000 Value Index.

The portfolio has a very high active share of 93.3% versus its primary benchmark. The active share against the other three indices gets progressively higher—indicating that the portfolio has more in common with the Russell 2000 Growth Index it does with the Small-Cap, Mid-Cap or Small-Cap Value index. So far, so good for our small-cap growth manager. You now have point-in-time evidence that a) their portfolio reflects a small-cap growth bias and b) the Russell 2000 Growth Index is an appropriate performance proxy for this portfolio.

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



As the graph above illustrates, things get even more interesting when you look at active share against various benchmarks over time. Time series analysis can reveal patterns of portfolio behavior. Portfolios that consistently demonstrate the lowest active share versus their primary benchmark are likely dedicated to their mandate and managed through a disciplined investment philosophy and process—an important consideration in manager selection and retention.

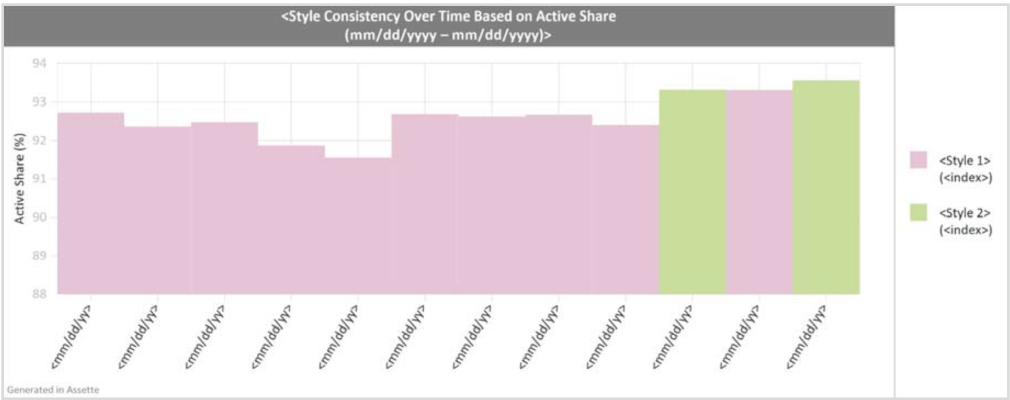
The thick blue line denotes this portfolio's primary benchmark index, index 1. As you can see, this hasn't been the one with the lowest active share in the past, but the portfolio has recently begun to align with its primary benchmark. Is this the best benchmark for this portfolio? Did the manager change style or let the portfolio drift? Is there something else at work here?

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. Structural changes to the composition of the benchmark index can also create misalignments, although these tend to be shorter-term anomalies that 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 against multiple benchmarks allows you to engage in a meaningful discussion with your manager and consultant about how exogenous factors affect the portfolio, the discipline of the manager's investment process and their commitment to their mandate.

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

This analysis lets you use active share/multiple indices analysis in a slightly different way, one suggested in the original research by Profs. Martijn Cremers and Antti Petajisto: Tracking the style of a portfolio over time.



Based on a specified set of color-coded indices, the chart above 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. Overall, it appears that the primary benchmark has been appropriate for this portfolio.

But there is more to be gleaned here. Using the indices as a proxy for style, this portfolio has been remarkably consistent in its adherence to its small-cap growth mandate. Even when its active share trended toward the Russell 2000, it was still a small-cap portfolio, albeit one with a less pronounced growth tilt—something that could be explained by a change in the composition of the indices themselves. Not only does the Russell 2000 Growth Index appear to be an appropriate benchmark for this portfolio, but the manager has also been consistent in sticking to their assigned mandate over the period of the analysis.

Armed with these active share analytics, you can now determine just how appropriate a portfolio's benchmark is, what the alternatives look like and how consistently the manager's investment process stays true to their style mandate over time.