Blended benchmarks

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A benchmark is a point of reference for measuring performance. The choice of benchmark can greatly influence decisions throughout the investment process. For example:

- When selecting investments such as mutual funds or SMAs, you use a benchmark to assess the fund manager’s skills and track record.

- You are an advisor who manages investment portfolios and you agree with your client that your performance will be measured against a benchmark.

Single index benchmarks are widely used but seldom appropriate for these tasks because they don’t reflect the investment’s nature and purpose. The advisor or his client who use these benchmarks may incorrectly assess performance. As an alternative, blended benchmarks provide an appropriate reference for manager selection and performance attribution.

Single indexes may be inappropriate benchmarks

Popular indexes such as the S&P500 are ubiquitous and readily available, but often are a poor choice for benchmarking assets and portfolios. We will use a balanced mutual fund to illustrate the issue. However, the analysis would be the same for a balanced portfolio that you manage for a client.

Our example fund’s objective is to seek regular income, conservation of principal and opportunity for long term growth. The fund invests 70% of its assets in US equities, and the remaining 30% in US investment-grade fixed income securities. The following chart compares the trailing one year cumulative returns of the fund against a US equity index (S&P500 total return) and a US bond index (Barclays US Aggregate.)

The fund seems to have performed well, but neither of the indexes is an appropriate benchmark to give us a reliable measure of merit, even if the S&P500 TR index seems a close match.
We can substitute a balanced portfolio for the balanced fund in the above to illustrate the situation when your performance as an advisor is incorrectly interpreted by your client. When reviewing the periodic statement of his account, the client may inquire why his portfolio ‘underperformed the market’.

**What makes a valid benchmark?**

Before we describe a practical solution to our needs, it may be useful to recall the essential properties that an investment benchmark should possess. These qualities are easily remembered through the acronym ‘SAMURAI’ representing their first letters [1]:

- Specified in advance: specified prior to the start of the evaluation period
- Appropriate: consistent with the manager’s investment style or area of expertise
- Measurable: the benchmark’s return is readily calculable on a reasonably frequent basis
- Unambiguous: identities and weights of securities are clearly defined
- Reflective of current investment opinions: the manager has current knowledge of the securities in the benchmark
- Accountable: the manager should be aware and accept accountability for the constituents and performance of the benchmark
- Investable: it is possible to simply hold the benchmark

Single indexes satisfy most properties but are not necessarily appropriate, as shown in our balanced fund example. Style indexes (large vs. small cap, growth vs. value) are problematic because the definition of investment style may be ambiguous or inconsistent with the manager’s investment process. Peer rankings lack many of the properties listed above: they are not known
in advance and also are subject to survivorship bias (underperforming funds are more likely terminated.)

Using a blended benchmark

It is easy to create and use a blended benchmark with an analytics software package. For this article we use Kwanti’s Portfolio Lab. Similar functionalities exist in software by Pertrac, Zephyr, and others.

1. Decompose your portfolio into detailed asset classes or styles and identify an index for each. Whenever possible, use total return indices. While there is no convention to designate total return indices and differentiate them from standard indices, index providers often use the suffix “TR” or “Total Return”.

2. Assign weights to each index based on the portfolio investment mandate.

3. Choose a rebalancing frequency. The frequency should match the rebalancing frequency of your portfolio. Monthly and quarterly rebalancing are common choices. Rebalancing triggered dynamically when allocation goes above or below tolerance limits, may also be used.

Our example will use the S&P500 index Total Return and the Barclays Aggregate US bond index with weights of 70% and 30% respectively, with a quarterly rebalancing. The updated chart displays the blended benchmark, showing that the balanced management produced superior returns to the passive blend:
The chart shows that the balanced fund outperformed the blended benchmark. The merits of the balanced fund are even more obvious on the following risk/reward chart, where risk is calculated as the volatility of returns:

Enhancements

The index selection step may be facilitated by using returns-based style analysis, a method that analyzes the series of monthly returns of the investment and mathematically determines the set of indexes that best explain these returns. While not always accurate, the results of this analysis provide insights and a good starting point for the index choices.

Another practical enhancement is to substitute ETF for indexes whenever the index historical data is not available. Provided that the tracking error and the expense ratio of the ETF are small, the resulting performance is sufficiently close to the index.

Finally, it should be noted that using a blended benchmark is compatible with the GIPS® recommendations, as long as the index choices, their weights and the rebalancing method are disclosed.

Summary

Advisors and asset managers can use blended benchmarks for a meaningful representation of performance.
Blended benchmarks are easily composed and can be used:

- for assessment of a manager’s performance (mutual fund, SMA)
- for portfolio performance report

In practice, tools exist to easily compose blended benchmarks and use them in comparison to model portfolios. Whenever using a blended benchmark, it is important to disclose its composition as well as its rebalancing method.

References