What Makes a Valid Benchmark?
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A benchmark is a point of reference for measuring performance. A choice of benchmark can greatly influence decisions throughout the investment process. When selecting investments such as mutual funds or separately managed accounts (SMAs), we can use benchmarks to assess a fund manager’s skills and track record. If your performance as an advisor will be measured against a benchmark, the choice of benchmark is doubly important.

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 uses these benchmarks will incorrectly assess performance.

As an alternative, blended benchmarks provide an appropriate reference for manager selection and performance attribution.

Single indices are inappropriate benchmarks

Popular indices such as the S&P 500 are ubiquitous and readily available, but they are usually a poor choice for benchmarking assets and portfolios. We will use a balanced mutual fund to illustrate the issue. This 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 U.S. equities and the remaining 30% in U.S. investment-grade fixed-income securities. The following chart compares the trailing one-year cumulative returns of the fund against a U.S. equity index (S&P 500 total-return – “TR”) and a U.S. bond index (Barclays US Aggregate).

The fund seems to have performed well, but even if the S&P 500 TR index seems a close match, neither of the indices is an appropriate benchmark to give us a reliable measure of merit.
We can substitute a balanced portfolio for the balanced fund described above to illustrate the problem when your performance as an advisor is incorrectly interpreted by your client. When reviewing his or her periodic statement, the client may inquire why the portfolio “underperformed the market.”

**What makes a valid benchmark?**

Before we describe a practical solution to our needs, it is useful to recall the essential properties that an investment benchmark should possess. These qualities are easily remembered through the acronym SAMURAI:

- Specified in advance: The benchmark is specified prior to the start of the evaluation period.
- Appropriate: The benchmark is 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: The 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 is aware and accepts accountability for the constituents and performance of the benchmark.
- Investable: It is possible to simply hold the benchmark.

Single indices satisfy most properties but are not necessarily appropriate, as shown in our balanced-fund example. Style indices (large vs. small cap, growth vs. value) are problematic because the definition of

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1 *Managing investment portfolios: A dynamic process* (CFA institute investment Series), Third edition, John L. Maginn, Donald L. Tuttle, Jerald E. Pinto, Dennis W. McLeavey

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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 analysis, I used 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 could also be triggered dynamically when allocation goes above or below tolerance limits.

Our example will use the S&P 500 TR index 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:

The balanced fund produces returns close to the equity index but with less volatility. The lower volatility can be observed on the cumulative returns chart, where the drawdowns for the balanced fund are lower than for the equity index. When compared to the blended benchmark, the balanced fund produces more return for the same amount of volatility.

**Improving upon the basic approach**

To facilitate the index selection step, you can use returns-based style analysis, a method that analyzes the series of monthly returns of the investment and mathematically determines the set of indices 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 exchange-traded funds (ETFs) for indices whenever index historical data is not available. Provided that the tracking error and the expense ratio of an ETF are low, the resulting performance is sufficiently close to an index.

Using a blended benchmark is compatible with the Global Investment Performance Standards (GIPS®) standards, 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 and for portfolio performance reporting.

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.

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