



## 5 Key Metrics to Benchmark a Portfolio

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Comparisons are a part of daily life for everyone. They provide important context that helps us better understand and make decisions about the world around us. How long does my commute take on the train compared to the bus? How much has my daughter grown since I marked her height with a pencil on the door frame in the garage? How is a particular investment fund performing compared to its peers? How is my investment portfolio performing compared to the broader markets?

In the investment world, the process of comparing investment choices to a predetermined index is called benchmarking. Because the goal of benchmarking is to provide a common measuring stick for differing products or portfolios, benchmarks are unmanaged portfolios of securities depicting a specified market segment – typically an index such as the S&P 500 or Barclays Aggregate Bond Index. It is important that the benchmark you choose to compare a fund or portfolio to contains a similar asset mix.

The return side of benchmarking is clear to all investors, bigger is better. When it comes to the risk side of comparative analysis, things are not quite so obvious. Below we will take a look at five key metrics that can help give important perspective on the performance of a fund or portfolio relative to a benchmark.

## COMMON PORTFOLIO BENCHMARKS

**Standard Deviation** is a measure of the degree to which individual values vary from the distribution mean. Standard deviation, expressed as a percentage, is typically used to portray the volatility of a portfolio or benchmark and help identify trends to aid in forecasting. A security with a high standard deviation will experience larger swings in value in both directions than a security with a low standard deviation, which would have more predictable price movements.

**Beta** represents the sensitivity of a security's returns to swings in the overall market. Like standard deviation, Beta gives investors insight into the expected volatility of a fund or portfolio but gives additional detail as to the relationship between movements in the fund or portfolio relative to a chosen benchmark. For example: a fund with a Beta of 1.2 relative to the S&P 500 would theoretically be 20% more volatile than the benchmark, a beta of 0.8 would be 20% less volatile.

**Alpha** depicts the value added by the manager of an investment fund or portfolio by comparing the risk-adjusted performance of the portfolio to the risk-adjusted performance of the benchmark. Alpha seeks to quantify a fund or portfolio manager's ability to deliver risk-adjusted returns compared to a benchmark. Also referred to as "active return", alpha is expressed as a percentage, with a positive alpha figure depicting outperformance and a negative alpha depicting underperformance.

**Sharpe Ratio** is a ratio developed by Nobel laureate William F. Sharpe to measure the risk-adjusted performance of an investment. The Sharpe ratio is calculated by subtracting the risk-free rate - such as that of the 10-year U.S. Treasury bond - from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns. This measure tells us how much investors are rewarded from a return standpoint for taking on additional investment risk.

**R-squared** is a measure that tells us how much of a fund or portfolio's price movements can be attributed to movements in the broader market as depicted by the benchmark. R-squared values range from 0 to 1 and are commonly stated as percentages from 0 to 100%. An R-squared of 100% means all movements of a security can be explained by movements in the index. A high R-squared, between 85% and 100%, indicates the fund or portfolio's performance moves relatively in step with the index. A fund with a low R-squared, 70% or less, shows that the security does not generally follow the movements of the index.

## PORTFOLIO BENCHMARKS – TAKEAWAYS

These five metrics are far from an exhaustive list of ways to examine investment performance but an understanding of them can go a long way. Having a firm grasp on these concepts helps to paint a more complete picture of why an investment may have performed the way it did in the past and better predict how it may move in future market environments. As always, individual investors should understand that past performance is no guarantee of future results and lean on the expertise of their advisor when it comes to portfolio construction. With the addition of these terms to your investment vocabulary, you can have a more meaningful conversation about how your portfolio is positioned to pursue your ultimate investment goals.

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