

# Fund Risk Measures Reviewed by Boards

Mutual Fund Directors Forum - Performance, Index Webinar (July 2022)



	<u>Definition</u>	<u>Formula</u>	<u>Measurement Basis</u>	<u>Primary Strengths</u>	<u>Primary Weaknesses</u>	<u>Widely Used in 15(c)?</u>
<b>Standard Deviation</b>	Measures a fund's deviation from its historical average performance. The larger the standard deviation value (%), the higher the historical volatility.	The square root of the sum of the squared differences from a fund's historical mean (average) performance.	The fund itself	Simple to understand; measured in percentage terms	Does not indicate anticipated performance in relation to the broader market	Yes
<b>Beta (Coefficient)</b>	Measures expected return in relation to the (appropriate) broader security market. For instance, a Beta of 0.50 would indicate that a fund is expected to realize 50% of the upside return of the broader market or lose 50% less if the market drops.	The covariance of a fund's return in relation to the broader market performance.	Traditionally the S&P 500, but can also be an appropriate ("best-fit") index	Provides the anticipated magnitude of a fund's returns (using the coefficient) under different equity market conditions	Coefficient can be volatile depending on period(s) chosen to measure; S&P 500 index not appropriate for many funds; implies predictive nature	Yes
<b>Alpha (Coefficient)</b>	Measures lagging or leading returns not 'predicted' by price movements in the broader market, indicated by Beta. Alpha is sometimes characterized as added value through portfolio management or "excess return."	Fund's Beta multiplied by broader market return and compared to actual return.	Beta	Designed to measure the added value of active management over holding a passive (indexed) portfolio.	Dependent on the stability of the Beta coefficient and, thus may shift precipitously; implies predictive nature	No
<b>Sharpe Ratio</b>	Measures returns on a risk-adjusted basis, thus it captures the incremental risk shouldered to achieve any excess return. The higher the Sharpe Ratio, the more return was realized per unit of risk/volatility (measured by standard deviation).	Fund's return exceeding the 3-mo T-Bill rate ("risk-free rate") divided by average monthly standard deviations.	Treasury Bill return and volatility	Incorporates return 'premium' and the risk assumed to achieve that return into one comparable ratio.	Results less intuitive and/or nonsensical for periods when returns negative.	Yes
<b>Information Ratio</b>	Also measures returns on a risk-adjusted basis. However, the Information Ratio uses benchmark-based returns and the volatility of those returns to gauge return per unit of risk. The higher the Information Ratio, the more favorable the risk/return trade-off.	Fund's average excess returns over its benchmark divided by the volatility (standard deviation) of the excess returns.	Benchmark Index	Ability to measure managers against one another (those using a similar style, benchmark) from a level of aggressiveness standpoint.	Information ratios inherently differ amongst asset classes, so cannot be compared across-the-board.	Yes