

## METRIC DESCRIPTIONS

### **Alpha -**

Alpha measures the difference between a portfolio's actual returns and what it might be expected to deliver based on its level of risk. Theoretically, higher risk should equate to higher return. A positive alpha means the fund has beaten expectations. A negative alpha means that the fund has failed to match performance given its level of risk.

### **Beta -**

Measures a portfolio's volatility relative to broad market movements. With the market given a beta of 1.00, a portfolio with a beta of 0.50 will participate only half as much in market movements, so that a lower number means less portfolio volatility than the market.

### **Downside Capture / Upside Capture -**

The up and down capture measure how well a manager was able to replicate or improve on phases of positive benchmark returns and how badly the manager was affected by phases of negative benchmark returns. Measures the percentage of market losses/gains incurred by a portfolio when markets are down/up, compared to losses/gains incurred by the market.

### **Downside Risk/Semi Standard Deviation –**

Semi-standard deviation differs from the ordinary standard deviation insofar as the sum is restricted to those returns that are less than the mean (semi-standard deviation). Semi-standard deviation is thus a characterization of the downside risk of a distribution.

### **Maximum Drawdown -**

Measures the maximum loss in any losing period during a portfolio's investment record. It is the percentage retrenchment from the portfolio's peak value to its valley value.

### **Maximum Drawdown Recovery Length -**

As part of measuring Drawdown, this measures the number of periods it takes to reach the recovery level from maximum drawdown end date.

### **R-Squared -**

Generally speaking, R-squared (R<sup>2</sup>) provides a measure of how closely two portfolios track each other. Specifically, the R<sup>2</sup> of a manager versus a benchmark is a measure of how closely related the variance of the manager returns are with the variance of the benchmark returns.

### **Risk-Adjusted Return –**

Risk-adjusted performance is the annualized rate of return of a blend consisting of the manager's portfolio and cash. The blend is built in such a way that the resulting portfolio has the same standard deviation as the market benchmark. In other words, risk-adjusted performance "normalizes" a manager's standard deviation to equal that of the market benchmark.

**Sharpe Ratio -**

Measures a portfolio's return relative to its risk, with the return being the portfolio's return above the risk-free Treasury bill rate and the risk being the portfolio's standard deviation. The higher the Sharpe ratio the better the portfolio's risk-adjusted performance.

**Sortino Ratio -**

Similar to the Sharpe Ratio, but measures only a portfolio's downside risk. The higher the Sortino Ratio the better the portfolio's downside risk protection.

**Standard Deviation -**

Measures the degree of variation of a portfolio's returns around the portfolio's mean (average) return. A high standard deviation means that the portfolio is volatile. A low standard deviation means that the portfolio is generally consistent in producing similar returns.

**Zephyr K-Ratio -**

Measures the rate at which wealth is created and the consistency of the path of wealth creation. The higher the number the better. This answers the two questions many investors care about most: "At what rate did I grow my wealth?" and "Was that growth of wealth consistent?" A portfolio with a high K-Ratio has more consistent returns because the returns have a tighter distribution than market returns.