Equity Services Incorporated®

Demystifying Portfolio Analysis
ESSENTIAL CONCEPTS FOR FINANCIAL ADVISORS

This document serves as a valuable resource for financial advisors utilizing the ESI Illuminations Platform.

Designed to enhance your portfolio analysis capabilities, this guide provides clear definitions, practical examples, and insights into key portfolio analysis terms used on the ESI Illuminations Platform. From measuring return and risk to analyzing performance indicators and downside risk, you will gain a deeper understanding of the essential concepts necessary for effective investment evaluation and decision-making. By aligning your knowledge with the platform's functionalities, you will be equipped to leverage its features, analyze portfolios, and communicate valuable insights to your clients.

Benchmark Relative Statistics

Benchmark-relative statistics are a set of analytical tools used to evaluate the performance of a managed portfolio against a relevant benchmark. They enable financial advisors to measure a portfolio's performance against industry standards, providing insights into the effectiveness of the investment strategy. They are pivotal in determining whether a portfolio's returns are a result of market trends or the manager's skill, aiding in the refinement of investment decisions.

Active Return
Active Return measures the difference in performance between an investment or portfolio and a benchmark index. It indicates the excess return generated by active management strategies.

Example
Let's say you have a portfolio that generates a return of 10%, while the benchmark index returns 8%. The active return of your portfolio would be 2% (10% – 8%).

Beta
Beta measures the sensitivity of an investment or portfolio's returns to the overall market movements. It helps assess the level of risk associated with the investment in relation to the broader market.

Example
If a stock has a beta of 1.2, it means the stock tends to move 20% more than the market. If the market goes up by 1%, the stock, on average, would be expected to rise by 1.2%.

Alpha
Alpha represents the excess return generated by an investment or portfolio compared to the return predicted by its beta. It measures the skill of the portfolio manager in outperforming the market.

Example
If an investment has an alpha of 2%, it means it has outperformed its benchmark by 2% after adjusting for the level of market risk (beta).

R-Squared

R-squared is a statistical measure that represents the proportion of a portfolio's variation in returns that can be explained by changes in the benchmark index. It indicates the level of correlation between the portfolio and the benchmark.

Example

An R-squared value of 0.8 means that 80% of the portfolio's movements can be attributed to the movements in the benchmark index, while the remaining 20% may be influenced by other factors.

Tracking Error

Tracking Error measures the standard deviation of the difference between a portfolio's returns and the returns of its benchmark index. It quantifies the extent to which the portfolio deviates from the benchmark.

Example

If a portfolio has a tracking error of 2%, it means, on average, the portfolio's returns differ from the benchmark returns by 2%. A lower tracking error indicates a closer alignment with the benchmark.

Batting Average

Batting Average is a term used in portfolio analysis to assess the consistency of positive returns. It calculates the percentage of periods in which the portfolio outperforms the benchmark.

Example

If a portfolio outperforms the benchmark in 8 out of 10 periods, the batting average would be 80% (8/10). A higher batting average suggests a more consistent ability to beat the benchmark.

Correlation

Correlation measures the degree of association between two investments or portfolios. It shows how their returns move relative to each other, indicating the strength and direction of their relationship.

Example

If two stocks have a correlation of +0.7, it means they tend to move in the same direction 70% of the time. When one stock goes up, there is a higher probability that the other stock will also go up.

Information Ratio

Information Ratio measures the risk-adjusted return of an investment or portfolio relative to a benchmark. It evaluates the excess return generated per unit of risk taken.

Example

If an investment has an information ratio of 0.8, it means it has generated 0.8% of excess return for each unit of risk taken above the benchmark. A higher information ratio indicates better risk-adjusted performance.

Risk-Return Statistic

Risk-return statistics in portfolio analysis evaluate the relationship between the level of risk taken and the expected returns, serving as a fundamental gauge of investment performance efficiency. They are vital for financial advisors as they quantify the trade-off between the risk a client is taking and the returns earned, ensuring that the investment strategy aligns with the client's risk tolerance and financial goals. These metrics guide advisors in optimizing portfolio construction and in managing client expectations regarding investment outcomes.

Standard Deviation

Standard Deviation measures the dispersion or variability of returns for an investment or portfolio. It provides an indication of the investment's volatility or risk.

Example

If a stock has a standard deviation of 15%, it means its returns have historically varied, on average, by plus or minus 15% from its average return. A higher standard deviation indicates greater volatility.

Sharpe Ratio

Sharpe Ratio measures the risk-adjusted return of an investment by considering its excess return per unit of risk (as measured by standard deviation). It helps assess the return earned per unit of total risk taken.

Example

If an investment has a Sharpe Ratio of 0.8, it means it has generated 0.8% of excess return for each unit of total risk (standard deviation) taken. A higher Sharpe Ratio indicates better risk-adjusted performance.

Sortino Ratio

Sortino Ratio is a risk-adjusted performance measure that focuses on the downside risk. It considers the excess return per unit of downside deviation, which measures the volatility of negative returns.

Example

If a portfolio has a Sortino Ratio of 1.2, it means it has generated 1.2% of excess return for each unit of downside deviation. A higher Sortino Ratio indicates better risk-adjusted performance in relation to downside volatility.

Treynor Ratio

Treynor Ratio evaluates the risk-adjusted return of an investment by considering its excess return per unit of systematic risk (as measured by beta). It helps assess the return earned per unit of market risk taken.

Example

If an investment has a Treynor Ratio of 1.5, it means it has generated 1.5% of excess return for each unit of systematic risk (beta) taken. A higher Treynor Ratio indicates better risk-adjusted performance relative to market risk.

Up Months

Up Months refers to the periods in which an investment or portfolio generates positive returns.

Example

If a portfolio has positive returns in 8 out of 12 months, it had 8 up months. Up months indicate the periods when the investment performed well.

Up Capture Ratio

Up Capture Ratio measures how well an investment or portfolio performs relative to the benchmark during the up months or periods when the benchmark is positive.

Example

If a portfolio has an up capture ratio of 110%, it means it captured 110% of the benchmark's positive returns during the up months. A higher up capture ratio indicates outperformance during positive market conditions.

Down Months

Down Months refers to the periods in which an investment or portfolio generates negative returns.

Example

If a portfolio has negative returns in 4 out of 12 months, it had 4 down months. Down months indicate the periods when the investment performed poorly.

Down Capture Ratio

Down Capture Ratio measures how well an investment or portfolio performs relative to the benchmark during the down months or periods when the benchmark is negative.

Example

If a portfolio has a down capture ratio of 90%, it means it captured only 90% of the benchmark's negative returns during the down months. A lower down capture ratio indicates relative outperformance during negative market conditions.

Maximum Drawdown

Maximum Drawdown represents the largest peak-to-trough decline in the value of an investment or portfolio over a specific period. It quantifies the maximum loss suffered during that time.

Example

If an investment's value dropped from $10,000 to $6,000 at its lowest point, the maximum drawdown would be $4,000 ($10,000 – $6,000). Maximum drawdown helps assess the potential loss an investment can experience.

Downside Deviation

Downside Deviation measures the dispersion or variability of negative returns for an investment or portfolio. It focuses on the volatility of downside risk and is used in calculating risk-adjusted performance measures.

Example

If a stock has a downside deviation of 10%, it means the variability of its negative returns, on average, is 10%. Downside deviation helps assess the risk associated with negative performance.

Kurtosis

Kurtosis measures the "tailedness" or the shape of the distribution of returns for an investment or portfolio. It indicates the degree to which returns cluster around the mean or have fatter or thinner tails.

Example

If an investment has positive kurtosis, it means it has a distribution of returns with fatter tails, indicating a higher likelihood of extreme returns (both positive and negative) compared to a normal distribution.

Skewness

Skewness measures the asymmetry of the distribution of returns for an investment or portfolio. It shows whether the returns are skewed towards positive or negative values.

Example

If an investment has positive skewness, it means it has a distribution of returns skewed towards positive values, indicating a higher probability of positive returns compared to negative returns.

Remember, these examples are simplified for easy understanding. In practice, these measures are often used in more complex calculations and analyses to assess risk and performance characteristics of investments or portfolios.