Strategies for the long term



QUICK GUIDE TO RISK METRICS

Understanding key investment performance statistics

This quick reference guide defines some of the most commonly used investment performance terms. Refer to it as needed and feel free to share it with your clients.

Alpha

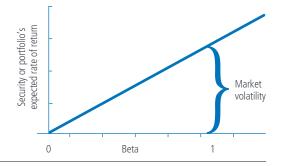
Measures a portfolio's risk-adjusted performance against that of its benchmark

- A positive alpha indicates relative outperformance.
- A negative alpha indicates relative underperformance.

Beta

Measures the volatility of a security or portfolio to market movements

- A beta less than 1.0 indicates likely lower volatility than the market.
- A beta greater than 1.0 indicates likely higher volatility than the market.



Capture ratio

Measures the percent of benchmark return captured by a portfolio manager during a specified period

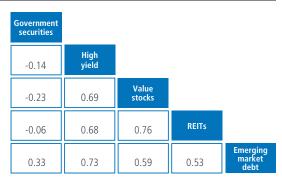
- Upside capture: A ratio greater than one indicates that the portfolio outperforms in up markets.
- Downside capture: A ratio less than one, even negative, indicates that the portfolio outperforms in down markets.



Correlation

Measures how a portfolio's asset classes move in relation to each other in response to market events

- Correlation ranges from +1 to -1. The closer two assets are to a +1 correlation, the more likely they are to move in the same direction.
- A negative correlation indicates two assets moving in opposite directions.
- Low or negative correlation among assets within a portfolio may help reduce overall portfolio volatility.



This is a hypothetical example for illustrative purposes only

Information ratio

Measures the consistency of a portfolio manager's performance versus the benchmark

• A higher, positive information ratio indicates the manager has beaten the benchmark without taking excessive risks.

INFORMATION RATIO = EXCESS RETURN TRACKING ERROR

R² (R-squared)

That part of a portfolio's volatility that can be explained by movements in its benchmark or market

- An R² of 100% shows that all movements of a portfolio are completely explained by movements in the benchmark or market.
- A low R² indicates that little of the portfolio's movement can be explained by benchmark or market movements.

Sharpe ratio

Measures the reward-to-risk efficiency of a portfolio

• The higher the Sharpe ratio, the better the portfolio's risk-adjusted performance.

PORTFOLIO'S RETURN - RISK-FREE RATE* SHARPE RATIO = PORTFOLIO'S STANDARD DEVIATION

*Defined as 3-month T-bill or appropriate market-specific asset for non-USD portfolios.

Standard deviation

A common statistical measure of portfolio volatility

- Standard deviation measures how much a portfolio's total return varies from its mean or average.
- The more a portfolio's returns fluctuate from month to month, the higher its standard deviation and the greater its volatility.

Tracking error

Measures the volatility of a portfolio's excess return versus its benchmark

- An actively managed portfolio typically has a high tracking error.
- An index fund is expected to have a tracking error close to zero.

Unless otherwise indicated, logos and product and service names are trademarks of MFS® and its affiliates and may be registered in certain countries.

Issued in the United States by MFS Institutional Advisors, Inc. ("MFSI") and MFS Investment Management. Issued in Canada by MFS Investment Management Canada Limited. No securities commission or similar regulatory authority in Canada has reviewed this communication. Issued in the United Kingdom by MFS International (U.K.) Limited ("MIL UK"), a private limited company registered in England and Wales with the company number 03062718, and authorized and regulated in the conduct of investment business by the U.K. Financial Conduct Authority. MIL UK, an indirect subsidiary of MFS, has its registered office at One Carter Lane, London, EC4V 5ER UK and provides products and investment services to institutional investors globally. This material shall not be circulated or distributed to any person other than to professional investors (as permitted by local regulations) and should not be relied upon or distributed to persons where such reliance or distribution would be contrary to local regulation. Issued in Hong Kong by MFS International (Hong Kong) Limited ("MIL HK"), a private limited company licensed and regulated by the Hong Kong Securities and Futures Commission (the "SFC"). MIL HK is a wholly-owned, indirect subsidiary of Massachusetts Financial Services Company, a U.S.-based investment advisor and fund sponsor registered with the U.S. Securities and Exchange Commission. MIL HK is approved to engage in dealing in securities and asset management-regulated activities and may provide certain investment services to "professional investors" as defined in the Securities and Futures Ordinance ("SFO"). Issued in Singapore by MFS International Singapore Pte. Ltd., a private limited company registered in Singapore with the company number 201228809M, and further licensed and regulated by the Monetary Authority of Singapore. Issued in Latin America by MFS International Ltd. For investors in Australia: MFSI and MIL UK are exempt from the requirement to hold an Australian financial services license under the Corporations Act 2001 in respect of the financial services they provide. In Australia and New Zealand: MFSI is regulated by the U.S. Securities and Exchange Commission under U.S. laws, and MIL UK is regulated by the U.K. Financial Conduct Authority under U.K. laws, which differ from Australian and New Zealand laws

MFS Fund Distributors, Inc., Boston, MA MFSE-RISKMET-FLY-6/16