# Barra Aegis

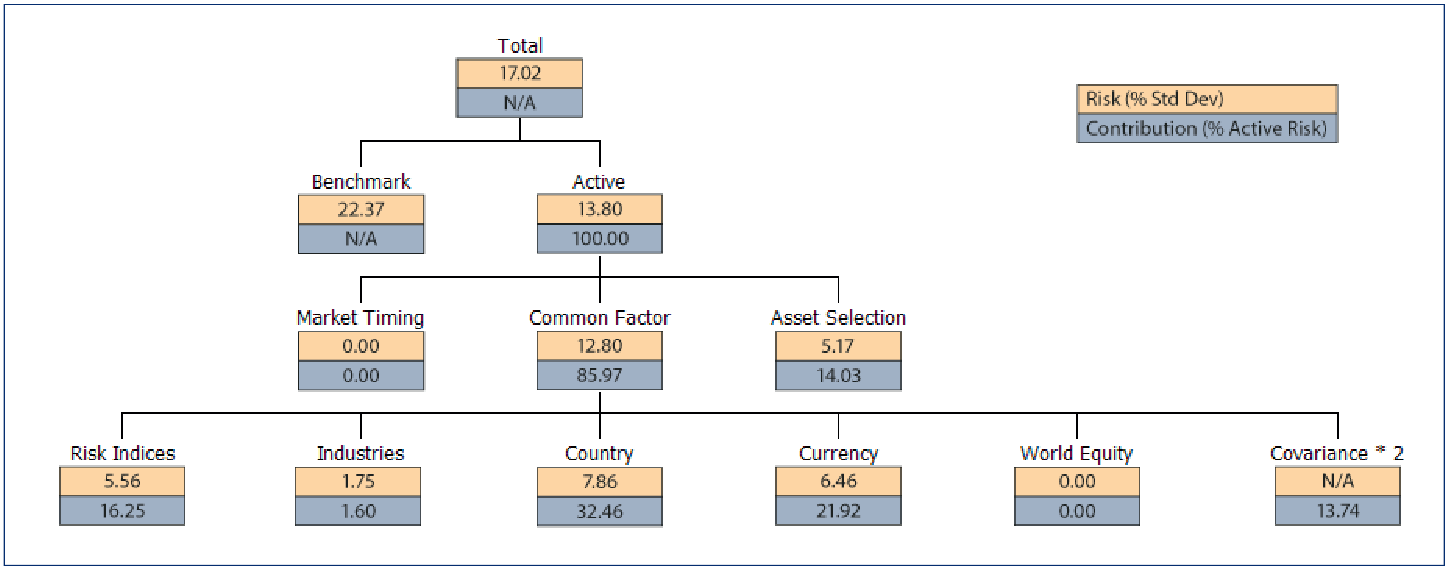
## Portfolio Manager and Optimizer

Risk analytics and portfolio construction using multiple dimensions of risk and return

Powered by Barra multiple factor models, Aegis Portfolio Manager provides a framework for decomposing your portfolio's risk to be consistent with your investment process. You can build efficient portfolios using the Aegis Optimizer and rebalance your portfolio by choosing your own parameters.

## Key Features

- **Identify sources of risk**—Isolate country, currency, industry, style, market or specific risk sources to see which policies are the largest contributors to the portfolio's risk.
- **Enhance performance**—Strengthen the trade-offs between risk and return by incorporating the interactions among transaction costs, timing, asset constraints, tax implications and other considerations to produce the best results.
- **Process control**—Create and maintain a consistent and replicable investment process.
- **Streamline reporting**—Streamline internal and external communication with automated reporting and industry-standard language and measures.
- **Create your own constraints**—Incorporate your own values into the construction process to neutralize unintended exposures and manage policies.
- **Reduce unintentional bets**—Combine the exposure and volatility of each source of risk to uncover unintentional bets.



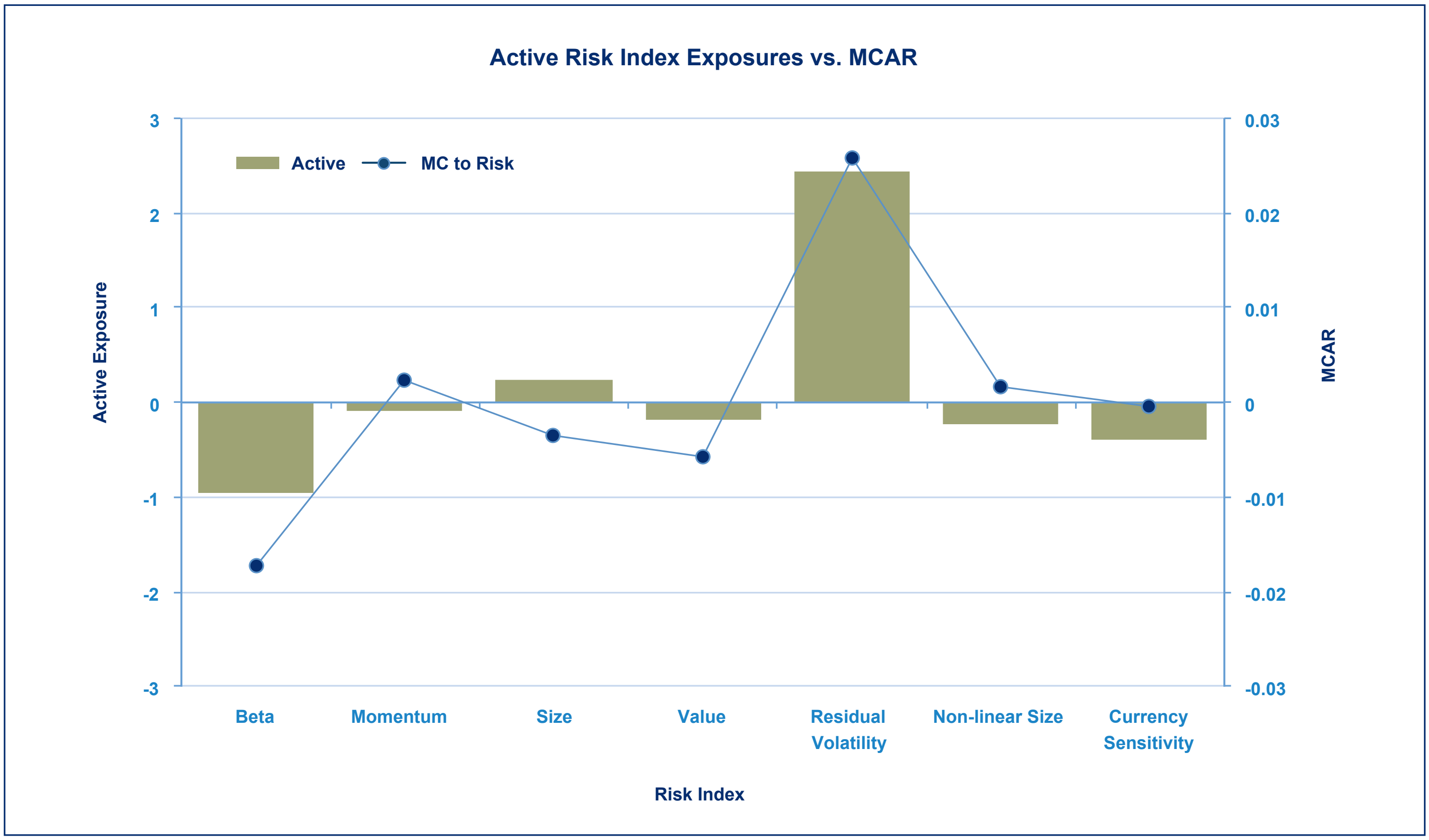

*Using Barra multiple factor risk models, Aegis Portfolio Manager allows you to decompose risk into meaningful sources of risk, relative to any benchmark.*

## Risk Modules & Tools

- **Trade simulator**—Simulate trades using various risk parameters in order to construct a portfolio with your intended risk and allocation.
- **Risk budgeting**—View the percentage of risk from each asset to decompose the contribution risk of each security makes to the overall risk of the portfolio.
- **Marginal contribution to risk**—Use marginal contributions to risk values to evaluate which assets or factors are the most diversifying and concentrating to the portfolio's risk. Marginal contributions to active risk (MCAR) represent a measure of correlation of an asset or factor with respect to the overall portfolio risk.

## Aegis Optimizer

- **Efficient frontier optimization**—Execute efficient frontier optimizations to construct numerous portfolios that maximize risk-return or utility-turnover trade-offs.
- **Mean-variance optimization**—Construct or rebalance your portfolio to achieve an array of results: optimal diversification, tilts on Barra or user-defined factors, indexing or maximized risk-return trade-off. Penalize Residual Alpha in optimization so alpha and risk factors can be better aligned according to your parameters.
- **Long-short optimization**—Dynamically neutralize or fine-tune sources of risk and increase your flexibility to pursue returns.
- **Tax efficient optimization**—Consider not only the return and risk aspects of each portfolio, but also the tax circumstances of the investor and the tax-lot by tax-lot cost considerations of the existing portfolio.




*Aegis Portfolio Manager allows you to isolate the effects of common factors contributing to risk and return. In this graph, style exposures are compared to their MCAR, allowing you to compare your active bets with the riskiness of those positions.*

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### About MSCI

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The company's flagship product offerings are: the MSCI indices with approximately USD 7 trillion estimated to be benchmarked to them on a worldwide basis[1]; Barra multi-asset class factor models, portfolio risk and performance analytics; RiskMetrics multi-asset class market and credit risk analytics; ISS governance research and outsourced proxy voting and reporting services; FEA valuation models and risk management software for the energy and commodities markets; and CFRA forensic accounting risk research, legal/regulatory risk assessment, and due-diligence. MSCI is headquartered in New York, with research and commercial offices around the world.



*[1] As of June 30, 2011, based on eVestment, Lipper and Bloomberg data.*



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