MSCI Global Minimum Volatility Indexes

The **MSCI Global Minimum Volatility (MV)** Indexes are designed to serve as transparent benchmarks for minimum variance (or managed volatility) equity strategies. The indexes aim to reflect the performance characteristics of a minimum variance strategy focused on absolute returns as well as volatility with the lowest absolute risk. Each Minimum Volatility Index is calculated by optimizing a parent MSCI index to produce an index with the least volatility for a given set of constraints and to ensure index replicability and investability.

Key Features and Benefits

- » Combine MSCI Index and Risk Modeling Expertise—The MSCI Global MV Indexes bring together MSCI's expertise in index design and maintenance and Barra's strength in portfolio risk and performance analytics.
- » Demonstrate Consistent Minimum Variance Strategy Characteristics across Markets—Historically, the MV indexes have shown lower realized volatility than their parent indexes, low beta relative to the parent, a bias towards smaller and less volatile stocks and a bias towards stocks with low idiosyncratic risks.
- » Offer Broad and Flexible Market Coverage—MSCI currently calculates 10 Minimum Volatility Indexes based on popular parent indexes such as the MSCI World, All Country World and Emerging Markets Indexes. Additional MV Indexes may be calculated for most MSCI Developed and Emerging Markets countries, regions and sectors, providing a wide variety of choices.
- » Index Licensing—The indexes can be licensed globally for portfolio management and benchmarking purposes and may serve as the basis for index-linked investment products such as indexed funds, exchange traded funds (ETFs), OTC and non-OTC derivatives and futures and options contracts.





Annualized Risk and Return (December 1998 - December 2013)

	Annualized Return (%)					Annualized Risk (%) ¹			
	1 Yr	3 Yr	5 Yr	Dec 98 - Dec 13	1 Yr	3 Yr	5 Yr	Dec 98 - Dec 13	
MSCI World Minimum Volatility Index	19.4	12.0	13.2	6.2	10.5	8.7	11.9	11.2	
MSCI World Index	27.4	12.1	15.7	4.8	9.2	13.7	17.2	16.1	

¹ Annualized standard deviation of monthly returns.

Index Methodology

The MSCI Minimum Volatility Indexes are designed to provide the lowest return variance for a given covariance matrix of stock returns. They are calculated by optimizing a given MSCI parent index to achieve the lowest mean-variance absolute volatility for a given set of constraints. The optimization relies on the factor exposures for all the securities in the parent Index and the factor covariance matrix of the relevant Barra equity model. The indexes are rebalanced semi-annually in May and November. At each rebalance, constraints (see example below) are used in the index optimization process to ensure index replicability and investability while achieving lowest volatility. Indexes maybe optimized for various currencies.

Example: Calculating the MSCI World Minimum Volatility Index



Index Licensing

The MSCI Minimum Volatility Indexes may be licensed individually on request by clients subscribing to corresponding Developed Markets or Emerging Markets security level products. MSCI currently calculates 10 Minimum Volatility Indexes. Each index has been optimized for one or more currencies including: the US, Canadian and Australian dollar, the Japanese yen and the euro.

» All Country World » World » EAFE » Emerging Markets » Japan » World ex Australia » Europe » Kokusai » USA » North America

Index Delivery

Index and security level data are distributed daily through vendors or via direct delivery (internet FTP). Real time index levels are available on request. Vendors providing index and security level data include: FactSet, Mellon Analytical Solutions, Rimes, Risk Metrics, Style Research and Thomson/DataStream. Index level data only is available through Bloomberg and Reuters.

Index History

Daily index level history is available from December 31, 1998.

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About MSCI

MSCI Inc. is a leading provider of investment decision support tools to investors globally, including asset managers, banks, hedge funds and pension funds. MSCI products and services include indexes, portfolio risk and performance analytics, and governance tools.

The company's flagship product offerings are: the MSCI indexes with approximately USD 7.5 trillion estimated to be benchmarked to them on a worldwide basis¹; Barra multi-asset class factor models, portfolio risk and performance analytics; RiskMetrics multi-asset class market and credit risk analytics; IPD real estate information, indexes and analytics; MSCI ESG (environmental, social and governance) Research screening, analysis and ratings; ISS corporate governance research, data and outsourced proxy voting and reporting services; and FEA valuation models and risk management software for the energy and commodities markets. MSCI is headquartered in New York, with research and commercial offices around the world.

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