

# FTSE Global Minimum Variance Index Series

## Objective

The FTSE Global Minimum Variance Index Series targets volatility reductions based on historical return information. FTSE has been calculating minimum variance indexes since December 2011, following the launch of the global series and the FTSE 100 Minimum Variance Index.

## Index Construction & Methodology

### Index Universe

FTSE All-World Index Series

### Weighting and Stock Selection

An optimisation algorithm is applied to determine the index constituents and weightings.

### Constraints

The optimisation is conducted subject to constraints on maximum component weights, maximum industry weights, upper and lower limits for country weights and a diversification constraint designed to avoid over concentration in individual stocks, industries and countries.

### Volatility Reduction

Application of a transparent rules-based approach to achieve reductions in volatility.

## Features

- The index methodology focuses on historic volatility and component correlations, expected returns play no role.
- Index outcomes are less sensitive to errors in estimates of the covariance matrix than to forecast returns.
- The methodology incorporates explicit constraints in order to achieve diversified outcomes.
- The series provides investors with an alternative to cap weighted approaches.
- The indexes are designed for the creation of index tracking funds, derivatives and as a performance benchmark.
- The indexes are calculated based on price, total return and net of tax methodologies, and are available end-of-day and in some cases real-time.

## Governance

FTSE is responsible for the operation of the FTSE Global Minimum Variance Index Series. FTSE maintains records of the market capitalisation and weightings of all constituents and makes changes to the constituents and their weightings in accordance with the Ground Rules. FTSE carries out reviews and implements the resulting constituent changes as required by the Ground Rules.

**Global****FTSE All-World Minimum Variance Index****Developed**

- FTSE Developed Minimum Variance Index
- FTSE Developed Europe Minimum Variance Index
- FTSE Developed Europe ex UK Minimum Variance Index
- FTSE Developed ex Japan Minimum Variance Index
- FTSE Developed World ex Korea ex Israel Minimum Variance Index
- FTSE Developed Asia Pacific ex Korea Minimum Variance Index
- FTSE Developed Asia Pacific Minimum Variance Index
- FTSE Developed Asia Pacific ex Japan Minimum Variance Index

**Emerging**

- FTSE Emerging Minimum Variance Index

**Shariah**

- FTSE Shariah Developed Minimum Variance Index

**ESG**

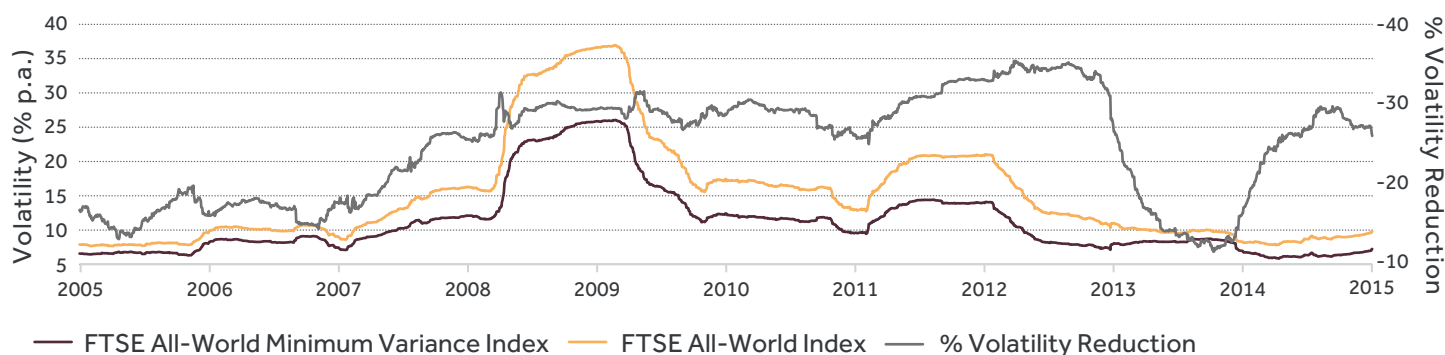
- FTSE4Good Global Minimum Variance Index

**Regional**

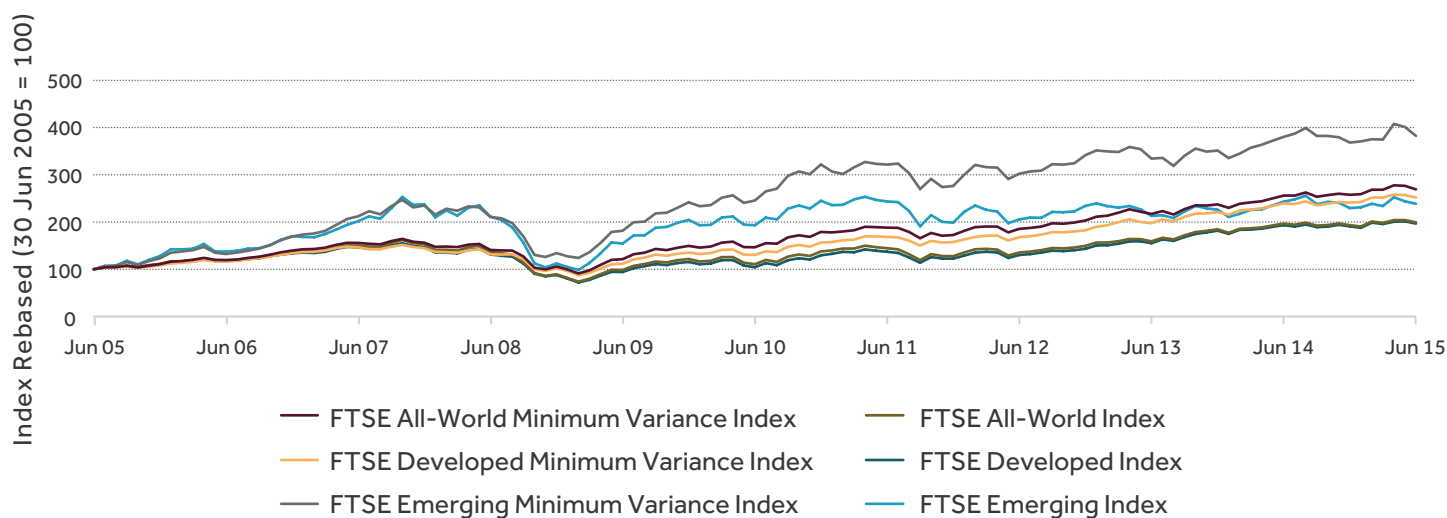
- FTSE USA Minimum Variance Index
- FTSE Eurobloc Minimum Variance Index
- FTSE North America Minimum Variance Index

**Country**

- FTSE Japan Minimum Variance Index
- FTSE Korea Minimum Variance Index
- FTSE ASFA Australia 300 Minimum Variance Index

**Rolling 252 Day Volatility & Volatility Reduction**

Source FTSE Group as at 30 Jun 2015

**10-year Performance**

Source FTSE Group as at 30 Jun 2015

**For more information about our indexes, please visit [ftserussell.com](http://ftserussell.com).**

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