

# **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 endof-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.

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#### 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**

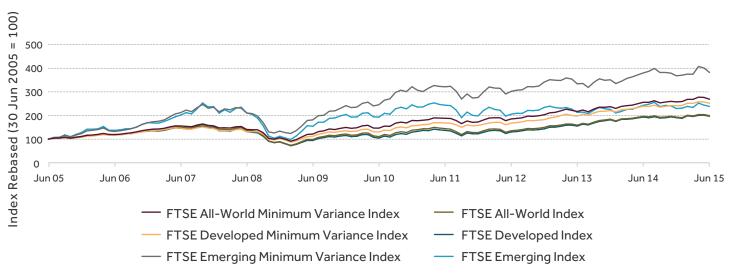
- FTSE Japan Minimum Variance Index
- FTSE Korea Minimum Variance Index
- FTSE ASFA Australia 300 Minimum Variance Index

### 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

Methodology overview

#### For more information about our indexes, please visit ftserussell.com.

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#### **About FTSE Russell**

FTSE Russell is a leading global provider of benchmarking, analytics and data solutions for investors, giving them a precise view of the market relevant to their investment process. A comprehensive range of reliable and accurate indexes provides investors worldwide with the tools they require to measure and benchmark markets across asset classes, styles or strategies.

FTSE Russell index expertise and products are used extensively by institutional and retail investors globally. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create ETFs, structured products and index-based derivatives.

FTSE Russell is focused on applying the highest industry standards in index design and governance, employing transparent rules-based methodology informed by independent committees of leading market participants. FTSE Russell fully embraces the IOSCO Principles and its Statement of Compliance has received independent assurance. Index innovation is driven by client needs and customer partnerships, allowing FTSE Russell to continually enhance the breadth, depth and reach of its offering.

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