

FTSE Global Minimum Variance Index Series

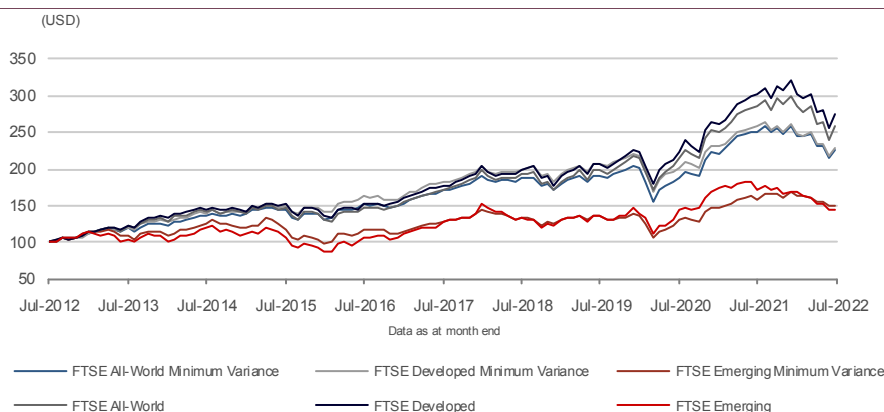
Data as at: 29 July 2022

The FTSE Global Minimum Variance Index Series aims to deliver reduced index volatility based on historical return information, thereby offering potential improvements to the risk reward trade-off, whilst maintaining full allocation to the relevant equity market.

Reduced volatility is achieved by applying a transparent rules-based approach which minimizes historical variance subject to additional constraints on the weight of individual stocks within an index, and, at aggregate level on the weight of countries and industries represented in the index.

The FTSE Global Minimum Variance Index Series offers global, regional and country indices. Minimum Variance versions of selected Shariah, ESG and Domestic indices are also available. Constituents are selected from the corresponding underlying universe at the time of the review and aspects such as index reviews and company classification are governed by the corresponding Ground Rules of the universe index.

10-Year Performance - Total Return



Performance and Volatility - Total Return

| Index (USD) | Return % | | | | | | Return pa %* | | Volatility %** | | |
|---------------------------------|----------|-------|-------|-------|------|------|--------------|-----|----------------|------|------|
| | 3M | 6M | YTD | 12M | 3YR | 5YR | 3YR | 5YR | 1YR | 3YR | 5YR |
| FTSE All-World Minimum Variance | -2.2 | -8.0 | -12.4 | -9.7 | 18.1 | 32.8 | 5.7 | 5.8 | 12.6 | 18.5 | 15.0 |
| FTSE Developed Minimum Variance | -2.1 | -7.3 | -12.6 | -11.8 | 11.0 | 25.8 | 3.5 | 4.7 | 12.5 | 18.5 | 14.8 |
| FTSE Emerging Minimum Variance | -2.3 | -8.2 | -10.5 | -5.0 | 10.9 | 17.0 | 3.5 | 3.2 | 11.4 | 15.5 | 13.8 |
| FTSE All-World | -1.9 | -9.9 | -14.2 | -10.0 | 29.6 | 49.2 | 9.0 | 8.3 | 16.2 | 20.4 | 16.5 |
| FTSE Developed | -1.4 | -9.3 | -14.1 | -9.3 | 32.7 | 54.4 | 9.9 | 9.1 | 17.0 | 20.8 | 16.8 |
| FTSE Emerging | -5.9 | -15.1 | -15.5 | -16.3 | 5.7 | 11.7 | 1.9 | 2.2 | 18.0 | 20.9 | 16.6 |

* Compound annual returns measured over 3 and 5 years respectively

** Volatility – 1YR based on 12 months daily data. 3YR based on weekly data (Wednesday to Wednesday). 5YR based on monthly data

FEATURES

Methodology

The approach applies a rules-based strategy to minimise volatility. Some constraints are applied, for example, to avoid over concentration in any particular stock, sector or country.

Objective

The indices are designed for the creation of index tracking funds, derivatives and as a performance benchmark.

Investability

Stocks in the underlying universe are free-float weighted to ensure that only the investable opportunity set is included.

Liquidity

Stocks in the underlying universe are screened to ensure that the indices are tradable.

Transparency

Index rules are freely available on the FTSE website.

Availability

The indices are calculated based on price and total return methodologies, available end-of-day and in some cases real-time.

Industry Classification Benchmark

Index constituents are categorized in accordance with the Industry Classification Benchmark (ICB), the global standard for industry sector analysis.

Year-on-Year Performance - Total Return

| Index % (USD) | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------------|------|------|------|-------|------|------|-------|------|------|------|
| FTSE All-World Minimum Variance | 17.8 | 16.8 | 8.6 | 0.2 | 8.2 | 23.8 | -7.6 | 19.7 | 9.1 | 16.3 |
| FTSE Developed Minimum Variance | 15.8 | 21.1 | 9.1 | 3.4 | 8.2 | 23.7 | -7.4 | 21.5 | 5.2 | 12.6 |
| FTSE Emerging Minimum Variance | 23.6 | 2.9 | 4.8 | -12.6 | 6.3 | 24.8 | -10.1 | 10.8 | 6.5 | 14.0 |
| FTSE All-World | 17.1 | 23.3 | 4.8 | -1.7 | 8.6 | 24.6 | -9.1 | 27.2 | 16.6 | 18.9 |
| FTSE Developed | 17.0 | 26.8 | 5.1 | -0.3 | 8.2 | 23.9 | -8.6 | 28.0 | 16.7 | 21.4 |
| FTSE Emerging | 17.9 | -3.5 | 1.6 | -15.2 | 13.5 | 32.5 | -13.0 | 20.6 | 15.5 | 0.1 |

Annualised Rolling 252 Day Volatility - Total Return



Return/Risk Ratio and Drawdown - Total Return

| Index (USD) | Return/Risk Ratio | | | | Drawdown (%) | | | |
|---------------------------------|-------------------|-----|-----|------|--------------|-------|-------|-------|
| | 1YR | 3YR | 5YR | 10YR | 1YR | 3YR | 5YR | 10YR |
| FTSE All-World Minimum Variance | -0.8 | 0.3 | 0.4 | 0.7 | -19.4 | -34.2 | -34.2 | -34.2 |
| FTSE Developed Minimum Variance | -0.9 | 0.2 | 0.3 | 0.7 | -20.8 | -34.4 | -34.4 | -34.4 |
| FTSE Emerging Minimum Variance | -0.4 | 0.2 | 0.2 | 0.3 | -14.2 | -30.8 | -33.4 | -33.4 |
| FTSE All-World | -0.6 | 0.4 | 0.5 | 0.7 | -21.9 | -33.7 | -33.7 | -33.7 |
| FTSE Developed | -0.6 | 0.4 | 0.5 | 0.8 | -22.6 | -34.0 | -34.0 | -34.0 |
| FTSE Emerging | -0.9 | 0.1 | 0.1 | 0.2 | -22.7 | -33.4 | -35.1 | -35.7 |

Return/Risk Ratio – based on compound annual returns and volatility in Performance and Volatility table
 Drawdown - based on daily data

Top 10 Constituents - FTSE All-World Minimum Variance Index

| Constituent | Country | ICB Sector | FTSE All-World Minimum Variance (Wgt %) | FTSE All-World (Wgt %) | Diff % |
|------------------|---------|---------------------------------------|---|------------------------|--------|
| Seagen Inc | USA | Pharmaceuticals and Biotechnology | 0.17 | 0.04 | 0.13 |
| Moderna | USA | Pharmaceuticals and Biotechnology | 0.16 | 0.09 | 0.07 |
| Kellogg | USA | Food Producers | 0.16 | 0.03 | 0.13 |
| Dollar General | USA | Retailers | 0.16 | 0.09 | 0.06 |
| Royalty Pharma | USA | Pharmaceuticals and Biotechnology | 0.16 | 0.03 | 0.13 |
| Lilly (Eli) & Co | USA | Pharmaceuticals and Biotechnology | 0.15 | 0.46 | -0.31 |
| Campbell Soup | USA | Food Producers | 0.15 | 0.02 | 0.14 |
| General Mills | USA | Food Producers | 0.15 | 0.07 | 0.08 |
| Clorox | USA | Personal Care Drug and Grocery Stores | 0.14 | 0.03 | 0.11 |
| Vertex Pharm | USA | Pharmaceuticals and Biotechnology | 0.14 | 0.12 | 0.02 |
| Totals | | | 1.54 | 0.98 | |

INFORMATION

Index Universe

FTSE All-World Index

Index Launch

July 2012 & May 2013

Base Date

15 June 2012

Base Value

100

Investability Screen

Actual free float applied and liquidity screened

Index Calculation

Real time (selected indices) and end of day

End-of-Day Distribution

Via FTP and email

Currency

USD, EUR, GBP, JPY, AUD

Review Dates

March and September

Country Breakdown

| Country | FTSE All-World Minimum Variance | | FTSE All-World | | Diff % |
|---------------|---------------------------------|---------------|----------------|---------------|--------|
| | No. of Cons | Wgt % | No. of Cons | Wgt % | |
| Australia | 44 | 0.85 | 110 | 2.14 | -1.29 |
| Austria | 4 | 0.07 | 7 | 0.05 | 0.02 |
| Belgium | 11 | 0.25 | 16 | 0.24 | 0.01 |
| Brazil | 10 | 0.17 | 95 | 0.64 | -0.47 |
| Canada | 19 | 0.42 | 51 | 2.70 | -2.29 |
| Chile | 15 | 0.23 | 20 | 0.07 | 0.16 |
| China | 387 | 5.65 | 1036 | 3.50 | 2.15 |
| Colombia | - | - | 9 | 0.02 | -0.02 |
| Czech Rep. | 3 | 0.05 | 3 | 0.02 | 0.03 |
| Denmark | 19 | 0.45 | 22 | 0.67 | -0.22 |
| Egypt | 5 | 0.07 | 7 | 0.01 | 0.06 |
| Finland | 10 | 0.25 | 17 | 0.33 | -0.08 |
| France | 34 | 0.71 | 77 | 2.61 | -1.90 |
| Germany | 41 | 0.87 | 85 | 1.88 | -1.02 |
| Greece | 4 | 0.08 | 12 | 0.03 | 0.04 |
| Hong Kong | 79 | 2.21 | 89 | 0.82 | 1.38 |
| Hungary | 3 | 0.05 | 4 | 0.02 | 0.04 |
| India | 160 | 4.20 | 198 | 1.70 | 2.49 |
| Indonesia | 29 | 0.67 | 36 | 0.20 | 0.47 |
| Ireland | 3 | 0.07 | 4 | 0.05 | 0.02 |
| Israel | 27 | 0.58 | 42 | 0.20 | 0.38 |
| Italy | 22 | 0.45 | 37 | 0.57 | -0.12 |
| Japan | 486 | 12.40 | 507 | 6.18 | 6.22 |
| Korea | 121 | 2.53 | 163 | 1.35 | 1.19 |
| Kuwait | 11 | 0.36 | 11 | 0.11 | 0.26 |
| Malaysia | 41 | 1.39 | 42 | 0.19 | 1.20 |
| Mexico | 17 | 0.34 | 37 | 0.26 | 0.07 |
| Netherlands | 15 | 0.36 | 30 | 1.06 | -0.69 |
| New Zealand | 15 | 0.36 | 15 | 0.08 | 0.27 |
| Norway | 7 | 0.12 | 18 | 0.22 | -0.10 |
| Pakistan | 3 | 0.03 | 4 | 0.00 | 0.02 |
| Philippines | 27 | 0.66 | 29 | 0.08 | 0.58 |
| Poland | 6 | 0.11 | 13 | 0.06 | 0.05 |
| Portugal | 3 | 0.08 | 4 | 0.05 | 0.03 |
| Qatar | 18 | 0.68 | 18 | 0.14 | 0.54 |
| Romania | 3 | 0.06 | 3 | 0.01 | 0.06 |
| Saudi Arabia | 49 | 1.53 | 54 | 0.53 | 1.00 |
| Singapore | 36 | 0.93 | 37 | 0.35 | 0.58 |
| South Africa | 21 | 0.38 | 60 | 0.42 | -0.04 |
| Spain | 13 | 0.27 | 26 | 0.58 | -0.30 |
| Sweden | 15 | 0.29 | 62 | 0.82 | -0.53 |
| Switzerland | 42 | 1.04 | 52 | 2.49 | -1.45 |
| Taiwan | 111 | 3.05 | 114 | 1.66 | 1.40 |
| Thailand | 41 | 0.87 | 51 | 0.25 | 0.62 |
| Turkey | 19 | 0.34 | 27 | 0.04 | 0.30 |
| UAE | 12 | 0.30 | 22 | 0.17 | 0.12 |
| UK | 46 | 0.95 | 118 | 4.03 | -3.08 |
| USA | 604 | 52.21 | 620 | 60.40 | -8.18 |
| Totals | 2711 | 100.00 | 4114 | 100.00 | |

ICB Supersector Breakdown

| ICB Code | ICB Supersector | FTSE All-World Minimum Variance | | FTSE All-World | | Diff % |
|---------------|---------------------------------------|---------------------------------|---------------|----------------|---------------|--------|
| | | No. of Cons | Wgt % | No. of Cons | Wgt % | |
| 1010 | Technology | 282 | 11.10 | 411 | 22.02 | -10.93 |
| 1510 | Telecommunications | 112 | 3.95 | 144 | 3.03 | 0.92 |
| 2010 | Health Care | 261 | 11.84 | 349 | 12.12 | -0.28 |
| 3010 | Banks | 174 | 5.18 | 266 | 6.81 | -1.63 |
| 3020 | Financial Services | 107 | 3.96 | 210 | 4.30 | -0.34 |
| 3030 | Insurance | 78 | 3.36 | 125 | 2.97 | 0.39 |
| 3510 | Real Estate | 164 | 6.04 | 249 | 2.98 | 3.06 |
| 4010 | Automobiles and Parts | 70 | 1.93 | 127 | 3.11 | -1.18 |
| 4020 | Consumer Products and Services | 117 | 3.90 | 196 | 3.04 | 0.87 |
| 4030 | Media | 37 | 1.68 | 57 | 1.08 | 0.60 |
| 4040 | Retailers | 72 | 2.94 | 109 | 5.30 | -2.37 |
| 4050 | Travel and Leisure | 77 | 2.86 | 116 | 1.67 | 1.19 |
| 4510 | Food Beverage and Tobacco | 177 | 6.93 | 219 | 4.36 | 2.56 |
| 4520 | Personal Care Drug and Grocery Stores | 84 | 3.44 | 106 | 2.30 | 1.13 |
| 5010 | Construction and Materials | 88 | 2.40 | 138 | 1.20 | 1.20 |
| 5020 | Industrial Goods and Services | 372 | 13.72 | 579 | 11.56 | 2.16 |
| 5510 | Basic Resources | 82 | 1.93 | 178 | 1.93 | 0.00 |
| 5520 | Chemicals | 117 | 3.14 | 171 | 1.85 | 1.29 |
| 6010 | Energy | 96 | 3.29 | 159 | 5.07 | -1.77 |
| 6510 | Utilities | 144 | 6.41 | 205 | 3.29 | 3.13 |
| Totals | | 2711 | 100.00 | 4114 | 100.00 | |

Index Characteristics

| Attributes | FTSE All-World Minimum Variance | FTSE All-World |
|-------------------------|---------------------------------|----------------|
| Number of constituents | 2711 | 4114 |
| Dividend Yield % | 2.41 | 2.22 |
| Constituent (Wgt %) | | |
| Average | 0.04 | 0.02 |
| Largest | 0.17 | 4.14 |
| Median | 0.03 | 0.00 |
| Top 10 Holdings (Wgt %) | 1.54 | 16.14 |

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