

FTSE Developed Europe Minimum Variance Indices

Data as at: 30 August 2019

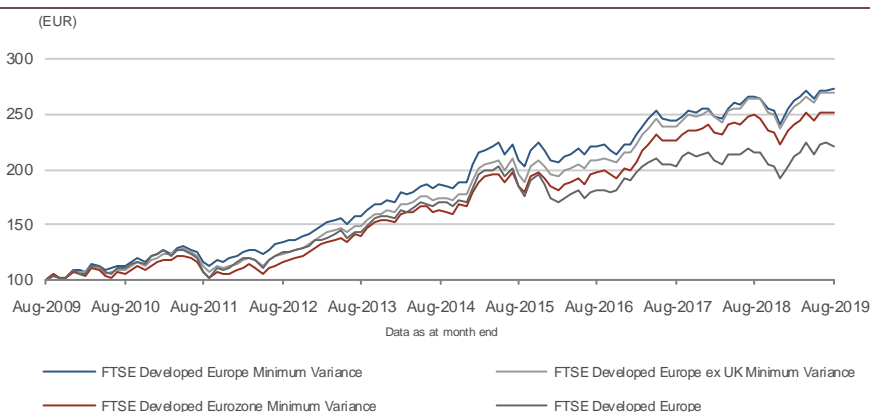
The FTSE Global Minimum Variance Index Series aims to deliver reduced index volatility based on historical return information, thereby offering potential improvements to the risk reward trade-off, whilst maintaining full allocation to the relevant equity market.

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.

Constituents are selected from the corresponding underlying universe of the FTSE All-World Index Series at the time of the bi-annual review and aspects such as index reviews and company classification are governed by the FTSE All-World Index Series Ground Rules.

There is also a UK-specific index - the FTSE 100 Minimum Variance Index - which is based on the FTSE 100 and has its own rules. See www.ftse.com for more information.

10-Year Performance - Total Return



Performance and Volatility - Total Return

Index (EUR)	Return %						Return pa %*		Volatility %**		
	3M	6M	YTD	12M	3YR	5YR	3YR	5YR	1YR	3YR	5YR
FTSE Developed Europe Minimum Variance	3.3	3.8	13.3	2.1	23.1	46.4	7.2	7.9	9.9	8.9	10.2
FTSE Developed Europe ex UK Minimum Variance	3.5	5.1	14.2	2.3	29.5	55.1	9.0	9.2	10.3	9.0	10.3
FTSE Developed Eurozone Minimum Variance	3.0	4.3	12.8	0.6	28.2	54.4	8.6	9.1	10.4	9.1	10.7
FTSE Developed Europe	3.3	4.3	15.4	2.8	22.2	30.4	6.9	5.4	12.4	10.6	12.4

* 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 indexes 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 indexes are tradable.

Transparency

The indexes use a transparent, methodologies-based construction process. Index methodologies are freely available on the FTSE Russell website.

Availability

The indexes are calculated based on price and total return methodologies, both real time and end-of-day.

Industry Classification Benchmark (ICB)

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

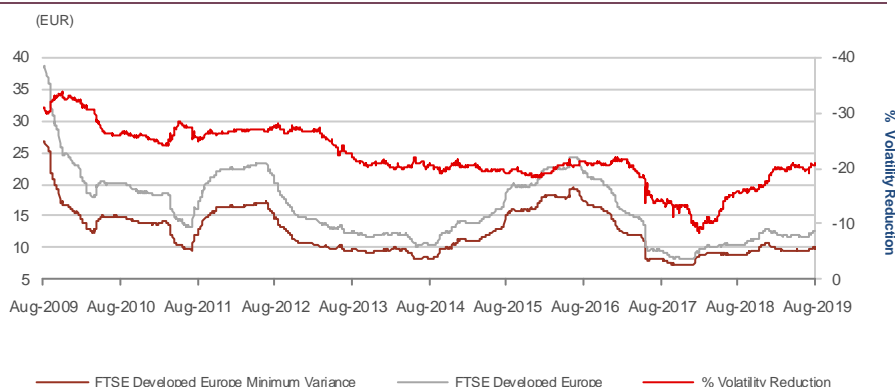
Index % (EUR)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
FTSE Developed Europe Minimum Variance	29.8	12.3	-1.9	18.4	22.2	10.0	14.7	3.0	14.1	-5.5
FTSE Developed Europe ex UK Minimum Variance	28.4	10.5	-5.6	17.7	23.7	8.8	15.3	5.9	15.7	-5.0
FTSE Developed Eurozone Minimum Variance	26.1	5.4	-6.6	18.6	24.4	7.5	15.0	5.5	17.4	-5.6
FTSE Developed Europe	33.1	11.6	-8.2	18.4	20.8	7.4	9.3	3.1	11.1	-10.1

Return/Risk Ratio and Drawdown - Total Return

Index (EUR)	Return/Risk Ratio				Drawdown (%)			
	1YR	3YR	5YR	10YR	1YR	3YR	5YR	10YR
FTSE Developed Europe Minimum Variance	0.2	0.7	0.8	1.1	-12.1	-12.2	-16.9	-17.0
FTSE Developed Europe ex UK Minimum Variance	0.2	0.9	0.9	1.0	-12.7	-12.8	-17.4	-19.9
FTSE Developed Eurozone Minimum Variance	0.0	0.9	0.8	0.9	-13.2	-13.5	-17.6	-21.3
FTSE Developed Europe	0.1	0.6	0.4	0.7	-14.3	-15.9	-25.3	-25.3

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

Annualised Rolling 252 Volatility - Total Return



Top 10 Constituents - FTSE Developed Europe Minimum Variance Index

Constituent	Country	ICB Sector	FTSE Developed Europe Minimum Variance (Wgt %)	FTSE Developed Europe (Wgt %)	Diff %
Polymetal International	UK	Mining	0.98	0.05	0.93
Lindt & Spruengli - Reg	Switzerland	Food Producers	0.97	0.10	0.87
PSP Swiss Property	Switzerland	Real Estate Investment & Services	0.96	0.06	0.90
ICA Gruppen AB	Sweden	Food & Drug Retailers	0.90	0.04	0.86
Carlsberg (B)	Denmark	Beverages	0.90	0.18	0.72
Lindt & Spruengli - PC	Switzerland	Food Producers	0.89	0.09	0.80
Innogy SE	Germany	Gas Water & Multiutilities	0.87	0.07	0.80
Getlink	France	Industrial Transportation	0.82	0.07	0.74
Kesko B	Finland	Food & Drug Retailers	0.81	0.05	0.77
Compass Group	UK	Travel & Leisure	0.80	0.46	0.34
Totals			8.90	1.17	

INFORMATION

Index Universe

FTSE Developed Europe Index

Index Launch

July 2012

Base Date

18 June 2012

Base Value

100

Investability Screen

Actual free float applied and liquidity screened

Index Calculation

Real time and end of day

End-of-Day Distribution

Via FTP and email

Currency

USD, Euro, GBP, JPY, AUD, Local

Review Dates

March and September

History

Available from September 2001

Country Breakdown - Developed Europe

Country	FTSE Developed Europe Minimum Variance		FTSE Developed Europe		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %	
Austria	6	1.45	8	0.35	1.09
Belgium	8	2.89	12	1.66	1.23
Denmark	17	6.56	22	2.84	3.71
Finland	12	4.28	15	1.91	2.37
France	54	14.46	86	17.26	-2.80
Germany	40	10.86	81	13.75	-2.89
Ireland	5	1.84	5	0.37	1.47
Italy	18	4.51	37	4.03	0.49
Netherlands	15	4.87	27	5.62	-0.75
Norway	9	2.46	17	1.14	1.32
Poland	13	3.17	14	0.53	2.65
Portugal	4	2.10	4	0.25	1.85
Spain	23	6.21	30	4.63	1.58
Sweden	14	2.98	45	4.09	-1.11
Switzerland	28	11.75	49	15.08	-3.32
UK	70	19.61	132	26.50	-6.89
Totals	336	100.00	584	100.00	

Country Breakdown - Developed Eurozone

Country	FTSE Developed Eurozone Minimum Variance		FTSE Eurozone		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %	
Austria	6	2.60	8	0.70	1.90
Belgium	10	5.71	12	3.31	2.39
Finland	12	7.91	15	3.83	4.09
France	56	26.48	86	34.50	-8.02
Germany	48	21.58	81	27.49	-5.91
Greece	-	-	9	0.39	-0.39
Ireland	5	3.25	5	0.74	2.51
Italy	20	8.25	37	8.05	0.20
Netherlands	19	9.28	27	11.23	-1.95
Portugal	4	3.54	4	0.50	3.03
Spain	23	11.41	30	9.26	2.15
Totals	203	100.00	314	100.00	

ICB Supersector Breakdown

ICB Code	ICB Supersector	FTSE Developed Europe Minimum Variance		FTSE Developed Europe		Diff %
		No. of Cons	Wgt %	No. of Cons	Wgt %	
0500	Oil & Gas	15	3.52	23	7.38	-3.86
1300	Chemicals	8	1.87	23	3.26	-1.39
1700	Basic Resources	8	2.18	22	2.73	-0.55
2300	Construction & Materials	11	2.22	23	3.01	-0.79
2700	Industrial Goods & Services	38	9.80	97	11.36	-1.56
3300	Automobiles & Parts	7	1.35	18	2.50	-1.15
3500	Food & Beverage	23	10.90	23	8.60	2.30
3700	Personal & Household Goods	26	6.85	35	8.81	-1.96
4500	Health Care	29	9.28	49	14.55	-5.27
5300	Retail	22	9.27	29	2.74	6.53
5500	Media	16	5.45	22	2.15	3.30
5700	Travel & Leisure	10	2.77	15	1.36	1.42
6500	Telecommunications	16	4.89	19	3.14	1.74
7500	Utilities	28	9.83	31	4.42	5.42
8300	Banks	26	4.00	48	9.24	-5.23
8500	Insurance	27	8.06	34	5.84	2.21
8600	Real Estate	17	6.24	22	1.79	4.45
8700	Financial Services	4	0.98	30	2.21	-1.23
9500	Technology	5	0.53	21	4.91	-4.38
Totals		336	100.00	584	100.00	

Index Characteristics

Attributes	FTSE Developed Europe Minimum Variance	FTSE Developed Europe ex UK Minimum Variance	FTSE Developed Eurozone Minimum Variance
Number of constituents	336	295	203
Dividend Yield %	3.56	3.42	3.57
Constituent (Wgt %)			
Average	0.30	0.34	0.49
Largest	0.98	1.28	1.42
Median	0.28	0.31	0.48
Top 10 Holdings (Wgt %)	8.90	11.30	12.23

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Data definitions available from
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