

FTSE4Good Developed Minimum Variance Index

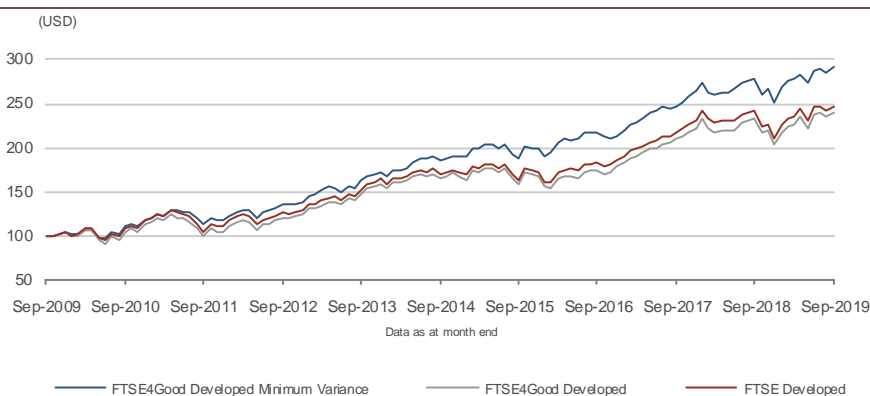
Data as at: 30 September 2019

The FTSE Developed 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 FTSE4Good Developed Minimum Variance Index is based on the FTSE4Good Developed Index, which is designed to objectively measure the performance of companies that meet globally recognised environmental, social and governance (ESG) standards, and to facilitate investment in those companies. 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
FTSE4Good Developed Minimum Variance	1.0	4.5	15.5	4.9	33.5	57.9	10.1	9.6	8.6	8.1	9.5
FTSE4Good Developed	1.3	5.9	18.4	3.5	38.3	44.8	11.4	7.7	12.4	10.5	11.7
FTSE Developed	0.6	4.7	17.6	2.0	35.6	44.9	10.7	7.7	12.6	10.5	11.6

* 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 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

Index methodologies are freely available on the FTSE Russell website.

Availability

The indexes are calculated based on price and total return methodologies.

Industry Classification Benchmark (ICB)

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

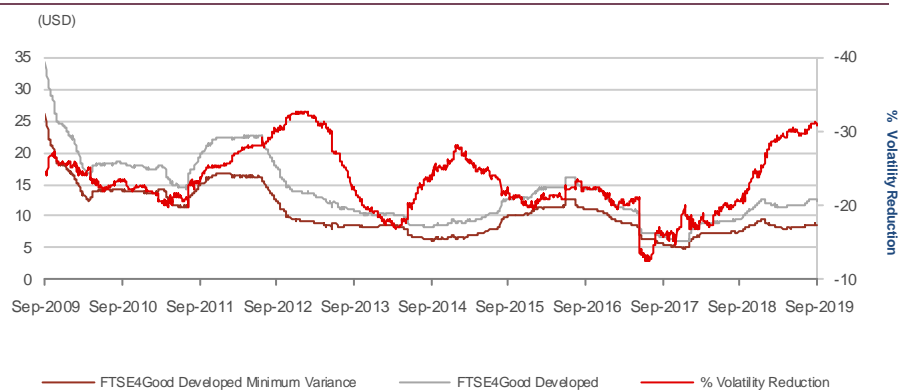
Criteria

The ESG criteria is based on the underlying FTSE4Good Index which is overseen by the independent FTSE Russell ESG Advisory Committee.

Year-on-Year Performance - Total Return

Index % (USD)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
FTSE4Good Developed Minimum Variance	30.8	13.3	0.0	18.0	23.3	11.0	4.6	7.7	23.8	-4.6
FTSE4Good Developed	33.5	7.9	-6.8	19.8	27.0	5.1	-0.3	7.1	24.1	-8.2
FTSE Developed	31.4	12.3	-5.5	17.0	26.8	5.1	-0.3	8.2	23.9	-8.6

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
FTSE4Good Developed Minimum Variance	0.5	1.3	1.0	1.0	-12.0	-12.5	-12.5	-15.4
FTSE4Good Developed	0.3	1.1	0.7	0.7	-16.5	-17.8	-18.4	-22.7
FTSE Developed	0.2	1.0	0.7	0.7	-17.5	-18.5	-18.5	-22.3

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

Top 10 Constituents (by Wgt %) - FTSE4Good Developed Minimum Variance Index

Constituent	Country	ICB Sector	FTSE4Good Developed Minimum Variance (Wgt %)	FTSE4Good Developed (Wgt %)	Diff %
WEC Energy Group	USA	Gas Water & Multiutilities	0.94	0.11	0.83
Newmont Goldcorp	USA	Mining	0.89	0.12	0.77
Nisource	USA	Gas Water & Multiutilities	0.78	0.04	0.74
Agnico Eagle Mines	Canada	Mining	0.76	0.05	0.71
Hershey Company	USA	Food Producers	0.72	0.08	0.64
American Water Works Company	USA	Gas Water & Multiutilities	0.67	0.08	0.58
Annaly Capital Management	USA	Real Estate Investment Trusts	0.65	0.05	0.60
Sempra Energy	USA	Gas Water & Multiutilities	0.64	0.15	0.49
Ventas Inc	USA	Real Estate Investment Trusts	0.62	0.10	0.51
CLP Holdings	Hong Kong	Electricity	0.61	0.07	0.54
Totals			7.28	0.85	

INFORMATION

Index Universe

FTSE4Good Developed Index

Index Launch

May 2013

Base Date

15 May 2012

Base Value

100

Investability Screen

Actual free float applied and liquidity screened

Index Calculation

End of day

End-of-Day Distribution

Via FTP and email

Currency

USD, EUR, GBP, JPY, AUD

Review Dates

Semi-annually in June and December

History

From 19 March 2004

Country Breakdown

Country	FTSE4Good Developed Minimum Variance		FTSE4Good Developed		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %	
Australia	40	6.04	64	3.52	2.52
Austria	2	0.09	6	0.10	-0.01
Belgium	4	0.62	8	0.47	0.15
Canada	17	3.66	30	3.40	0.26
Denmark	11	1.90	13	0.74	1.16
Finland	6	0.78	13	0.52	0.27
France	24	2.97	71	4.93	-1.96
Germany	18	1.93	45	3.41	-1.47
Hong Kong	16	3.69	20	1.03	2.65
Ireland	2	0.27	2	0.08	0.19
Israel	4	0.47	5	0.12	0.34
Italy	9	0.72	20	1.00	-0.28
Japan	94	13.74	175	7.92	5.82
Korea	16	1.73	32	0.56	1.17
Netherlands	11	1.08	21	1.81	-0.73
New Zealand	7	1.53	7	0.09	1.43
Norway	2	0.39	11	0.30	0.09
Poland	1	0.07	7	0.11	-0.04
Portugal	3	0.21	4	0.08	0.12
Singapore	12	2.42	13	0.41	2.01
Spain	9	0.93	26	1.52	-0.59
Sweden	5	0.55	32	1.16	-0.61
Switzerland	16	3.26	30	4.55	-1.29
UK	42	6.58	99	7.40	-0.81
USA	176	44.37	267	54.76	-10.39
Totals	547	100.00	1021	100.00	

ICB Supersector Breakdown

ICB Code	ICB Supersector	FTSE4Good Developed Minimum Variance		FTSE4Good Developed		Diff %
		No. of Cons	Wgt %	No. of Cons	Wgt %	
0500	Oil & Gas	15	1.06	36	3.37	-2.32
1300	Chemicals	13	2.07	46	3.02	-0.96
1700	Basic Resources	7	2.45	32	1.56	0.89
2300	Construction & Materials	5	0.53	27	1.13	-0.60
2700	Industrial Goods & Services	57	7.21	144	9.36	-2.15
3300	Automobiles & Parts	13	1.91	27	1.64	0.27
3500	Food & Beverage	38	9.82	46	4.48	5.34
3700	Personal & Household Goods	34	6.32	60	5.96	0.36
4500	Health Care	53	9.42	74	12.91	-3.49
5300	Retail	41	8.46	55	3.47	5.00
5500	Media	29	4.71	41	2.85	1.86
5700	Travel & Leisure	25	5.82	39	1.90	3.92
6500	Telecommunications	29	6.51	34	3.91	2.60
7500	Utilities	37	9.13	39	1.93	7.20
8300	Banks	35	4.35	79	10.07	-5.72
8500	Insurance	43	6.51	61	4.75	1.76
8600	Real Estate	30	6.94	41	1.87	5.08
8700	Financial Services	13	2.18	60	5.75	-3.57
9500	Technology	30	4.59	80	20.07	-15.48
Totals		547	100.00	1021	100.00	

Index Characteristics

Attributes	FTSE4Good Developed Minimum Variance	FTSE4Good Developed	FTSE Developed
Number of constituents	547	1021	2172
Dividend Yield %	3.02	2.66	2.45
Constituent (Wgt %)			
Average	0.18	0.10	0.05
Largest	0.94	3.99	2.49
Median	0.15	0.04	0.02
Top 10 Holdings (Wgt %)	7.28	17.41	12.52

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