

FTSE North America Minimum Variance Indices

The FTSE North American Minimum Variance indices aim 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 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 the index, and, at aggregate level on the weight of industries represented in the index.

Constituents of the relevant index are selected from the underlying index at the time of the biannual review. Aspects such as index reviews and company classification are governed by the FTSE All-World Index Series Ground Rules.

10-Year Performance - Total Return



FTSE Developed Ex US Minimum Variance
FTSE USA Minimum Variance
FTSE USA Minimum Variance
FTSE USA



Performance and Volatility - Total Return

Index (USD)		Return %						pa %*	Volatility %**		**
	3M	6M	YTD	12M	3YR	5YR	3YR	5YR	1YR	3YR	5YR
FTSE Developed Ex US Minimum Variance	1.3	9.3	1.3	8.3	-3.6	6.9	-1.2	1.3	9.0	12.1	14.9
FTSE Developed Ex US	5.5	16.9	5.5	16.1	14.8	46.7	4.7	8.0	11.2	15.6	18.2
FTSE USA Minimum Variance	7.1	15.9	7.1	13.5	15.7	43.1	5.0	7.4	9.3	14.2	16.8
FTSE USA	10.3	23.4	10.3	30.1	35.8	100.5	10.7	14.9	11.4	17.4	18.7
FTSE North America Minimum Variance	6.8	16.0	6.8	13.5	17.0	47.0	5.4	8.0	9.3	14.1	16.8
FTSE North America	10.1	23.2	10.1	29.6	35.4	98.9	10.6	14.7	11.3	17.3	18.6

* 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

Data as at: 29 March 2024

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 or sector.

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 freefloat weighted to ensure that only the investable opportunity set is included.

Liquidity

Stocks are screened to ensure that the index is tradable.

Transparency

The indices use a transparent, rules-based construction process. Index Rules are freely available on the FTSE website.

Availability

The indices are calculated based on price and total return methodologies, both real time (US index only) and end-of-day.

Industry Classification Benchmark

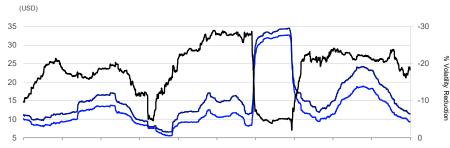
Index constituents are categorized in accordance with the Industry Classification Benchmark (ICB), the global standard for industry sector analysis.

FTSE North America

Year-on-Year Performance - Total Return

Index % (USD)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
FTSE Developed Ex US Minimum Variance	1.6	2.4	4.4	27.3	-10.3	16.1	1.6	3.8	-15.3	10.1
FTSE Developed Ex US	-4.0	-1.9	3.4	26.3	-14.1	22.6	10.2	11.8	-14.6	18.7
FTSE USA Minimum Variance	18.9	1.6	12.2	16.9	-3.3	27.6	3.9	21.4	-11.9	6.5
FTSE USA	13.3	1.0	11.8	22.1	-4.5	31.6	20.8	26.8	-19.3	27.1
FTSE North America Minimum Variance	18.0	-0.7	13.5	17.1	-4.1	28.3	4.7	21.6	-11.4	7.4
FTSE North America	12.6	-0.4	12.4	21.8	-5.1	31.5	20.2	27.0	-19.0	26.6

Annualised Rolling 252 Volatility - Total Return



Mar-2014 Mar-2015 Mar-2016 Mar-2017 Mar-2018 Mar-2019 Mar-2020 Mar-2021 Mar-2022 Mar-2023 Mar-2024

- FTSE North America

FTSE North America Minimum Variance

- % Volatility Reduction

Return/Risk Ratio and Drawdown - Total Return

Index (USD)	Return/Risk Ratio				Drawdown (%)			
	1YR	3YR	5YR	10YR	1YR	3YR	5YR	10YR
FTSE Developed Ex US Minimum Variance	1.0	-0.1	0.1	0.3	-9.4	-30.8	-32.3	-32.3
FTSE Developed Ex US	1.6	0.3	0.4	0.4	-11.3	-28.9	-34.7	-34.7
FTSE USA Minimum Variance	1.6	0.3	0.4	0.7	-9.7	-20.9	-37.1	-37.1
FTSE USA	2.8	0.6	0.8	0.8	-10.0	-25.3	-34.1	-34.1
FTSE North America Minimum Variance	1.6	0.4	0.5	0.7	-9.8	-20.3	-36.9	-36.9
FTSE North America	2.7	0.6	0.8	0.8	-10.1	-25.1	-34.4	-34.4

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

Top 10 Constituents -FTSE Developed ex USA Minimum Variance

Constituent	Country	ICB Sector	FTSE Developed Ex US Minimum Variance (Wgt %)		Diff %
Loblaw Companies	Canada	Personal Care Drug and Grocery Stores	0.34	0.08	0.26
Waste Connections Inc	Canada	Waste and Disposal Services	0.33	0.21	0.12
BAE Systems	UK	Aerospace and Defense	0.33	0.25	0.08
Thomson Reuters	Canada	Finance and Credit Services	0.33	0.12	0.21
Metro Inc.	Canada	Personal Care Drug and Grocery Stores	0.32	0.05	0.27
Argenx S.E	Belgium	Pharmaceuticals and Biotechnology	0.31	0.11	0.20
Thales	France	Aerospace and Defense	0.31	0.08	0.23
Haleon	UK	Pharmaceuticals and Biotechnology	0.30	0.13	0.17
Weston (George)	Canada	Personal Care Drug and Grocery Stores	0.30	0.04	0.26
Fortis Inc	Canada	Electricity	0.29	0.09	0.20
Totals			3.16	1.16	

INFORMATION

Index Universe

FTSE All-World Index Series

Index Launch

July 2012 (US), May 2013 (North America), May 2015 (Developed ex US)

Base Date

15 June 2012

Base Value

100

Investability Screen

Actual free float applied and liquidity screened

Index Calculation

Real time (US only) and end of day

End-of-Day Distribution

Via FTP and email

Currency

USD, EUR, GBP, JPY, AUD

Review Dates

March and September

History

Available from September 2001 (US), December 2003 (North America), September 2003 (Developed ex US)

Top 10 Constituents - FTSE North America Minimum Variance

Constituent	Country	ICB Sector	FTSE North America Minimum Variance (Wgt %)	FTSE North America (Wgt %)	Diff %
General Mills	USA	Food Producers	0.56	0.08	0.48
Bristol Myers Squibb	USA	Pharmaceuticals and Biotechnology	0.54	0.23	0.31
Merck & Co	USA	Pharmaceuticals and Biotechnology	0.53	0.71	-0.18
Kroger	USA	Personal Care Drug and Grocery Stores	0.52	0.08	0.44
Johnson & Johnson	USA	Pharmaceuticals and Biotechnology	0.51	0.81	-0.30
McKesson	USA	Personal Care Drug and Grocery Stores	0.51	0.15	0.36
Kellanova	USA	Food Producers	0.51	0.03	0.48
Kimberly-Clark	USA	Personal Care Drug and Grocery Stores	0.50	0.09	0.41
AbbVie Inc	USA	Pharmaceuticals and Biotechnology	0.50	0.68	-0.18
J M Smucker	USA	Food Producers	0.50	0.03	0.47
Totals			5.18	2.89	

Top 10 Constituents - FTSE USA Minimum Variance

Constituent	ICB Sector	FTSE USA Minimum Variance (Wgt %)	FTSE USA (Wgt %)	Diff %
General Mills	Food Producers	0.65	0.09	0.56
Bristol Myers Squibb	Pharmaceuticals and Biotechnology	0.63	0.24	0.39
Merck & Co	Pharmaceuticals and Biotechnology	0.62	0.74	-0.12
Kroger	Personal Care Drug and Grocery Stores	0.60	0.08	0.52
Johnson & Johnson	Pharmaceuticals and Biotechnology	0.60	0.84	-0.24
Kellanova	Food Producers	0.59	0.03	0.56
McKesson	Personal Care Drug and Grocery Stores	0.59	0.16	0.43
Kimberly-Clark	Personal Care Drug and Grocery Stores	0.58	0.10	0.48
AbbVie Inc	Pharmaceuticals and Biotechnology	0.58	0.71	-0.13
Lockheed Martin Corp	Aerospace and Defense	0.58	0.22	0.36
Totals		6.02	3.21	

ICB Supersector Breakdown

		FTSE Developed Minimum Vari		FTSE Developed	I Ex US	
ICB Code	ICB Supersector	No. of Cons	Wgt %	No. of Cons	Wgt %	Diff %
1010	Technology	44	3.60	108	8.98	-5.38
1510	Telecommunications	37	5.34	42	4.12	1.22
2010	Health Care	69	7.54	105	10.87	-3.33
3010	Banks	69	7.31	91	11.34	-4.04
3020	Financial Services	24	2.36	61	3.63	-1.27
3030	Insurance	55	5.85	60	5.23	0.62
3510	Real Estate	76	9.49	105	2.40	7.09
4010	Automobiles and Parts	32	2.05	53	4.52	-2.48
4020	Consumer Products and Services	41	2.92	87	5.39	-2.47
4030	Media	14	1.31	22	1.14	0.17
4040	Retailers	28	2.80	41	1.68	1.11
4050	Travel and Leisure	37	3.61	55	1.42	2.19
4510	Food Beverage and Tobacco	75	9.67	77	4.55	5.11
4520	Personal Care Drug and Grocery Stores	45	5.55	47	2.40	3.15
5010	Construction and Materials	38	2.94	62	2.72	0.22
5020	Industrial Goods and Services	142	12.61	259	14.88	-2.27
5510	Basic Resources	19	1.13	56	3.62	-2.49
5520	Chemicals	43	2.74	64	2.64	0.10
6010	Energy	38	3.90	46	5.39	-1.48
6510	Utilities	56	7.28	60	3.06	4.22
Totals		982	100.00	1501	100.00	

ICB Supersector Breakdown

	FTSE I Amer Minin Varia	rica 1um	FTSE M Amer			FTSE Minin Varia	num	FTSE	USA	
ICB Supersector	No. of Cons	Wgt %	No. of Cons	Wgt %	Diff %	No. of Cons	Wgt %	No. of Cons	Wgt %	Diff %
Technology	42	6.60	86	33.39	-26.79	38	6.60	83	34.31	-27.70
Telecommunications	16	3.26	16	2.04	1.22	13	3.11	14	2.08	1.03
Health Care	54	14.27	66	11.43	2.83	53	15.82	66	11.87	3.95
Banks	16	2.00	22	4.23	-2.23	10	0.99	16	3.39	-2.40
Financial Services	21	4.01	39	5.10	-1.09	20	4.05	36	5.08	-1.03
Insurance	31	7.45	31	2.44	5.01	25	6.78	25	2.20	4.58
Real Estate	29	4.31	36	2.22	2.08	28	4.56	36	2.31	2.25
Automobiles and Parts	3	0.47	12	1.48	-1.01	3	0.50	11	1.50	-1.00
Consumer Products and Services	10	1.59	18	1.61	-0.02	8	1.74	18	1.67	0.07
Media	13	2.01	17	1.41	0.60	13	2.15	17	1.46	0.68
Retailers	16	3.63	22	7.14	-3.51	13	3.49	20	7.28	-3.78
Travel and Leisure	14	2.77	24	2.03	0.74	13	2.80	23	2.06	0.74
Food Beverage and Tobacco	26	9.92	26	2.65	7.27	25	11.03	25	2.74	8.28
Personal Care Drug and Grocery Stores	14	5.67	14	1.88	3.79	11	5.10	11	1.88	3.23
Construction and Materials	6	0.50	8	0.60	-0.10	6	0.46	8	0.62	-0.16
Industrial Goods and Services	76	11.88	90	11.29	0.58	71	12.34	88	11.38	0.96
Basic Resources	9	2.16	13	0.82	1.35	5	1.26	8	0.58	0.68
Chemicals	10	1.57	14	1.14	0.43	9	1.64	13	1.12	0.52
Energy	31	5.64	35	4.57	1.07	23	5.24	26	4.00	1.24
Utilities	36	10.29	37	2.54	7.76	33	10.33	34	2.47	7.86
Totals	473	100.00	626	100.00		420	100.00	578	100.00	

Country Breakdown

	FTSE Developed Varia		FTSE Develo	oped Ex US	
Country	No. of Cons	Wgt %	No. of Cons	Wgt %	Diff %
Australia	54	5.10	108	6.58	-1.48
Austria	3	0.20	7	0.17	0.03
Belgium	9	1.21	15	0.82	0.39
Canada	44	8.34	48	8.43	-0.09
Denmark	12	1.06	17	2.84	-1.78
Finland	10	0.85	14	0.81	0.04
France	36	3.83	69	9.65	-5.82
Germany	32	3.14	70	7.19	-4.05
Hong Kong	61	6.83	72	1.72	5.11
Ireland	4	0.59	5	0.24	0.35
Israel	27	2.83	30	0.55	2.28
Italy	21	1.68	35	2.48	-0.80
Japan	357	29.93	506	22.37	7.56
Korea	118	9.43	159	4.62	4.82
Netherlands	12	1.78	31	4.15	-2.37
New Zealand	15	1.84	15	0.25	1.59
Norway	9	0.73	18	0.54	0.19
Poland	1	0.01	10	0.28	-0.27
Portugal	4	0.41	4	0.14	0.27
Singapore	36	6.14	36	1.07	5.07
Spain	20	2.26	25	2.29	-0.03
Sweden	13	1.06	52	2.69	-1.63
Switzerland	32	4.48	52	7.61	-3.13
UK	52	6.26	103	12.52	-6.26
Totals	982	100.00	1501	100.00	

Country Breakdown

	FTSE North America Minimum Variance		FTSE North		
Country	No. of Cons	Wgt %	No. of Cons	Wgt %	Diff %
Canada	42	8.96	48	3.71	5.24
USA	431	91.04	578	96.29	-5.24
Totals	473	100.00	626	100.00	

Index Characteristics

Attributes	FTSE Developed Ex US Minimum Variance	FTSE Developed Ex US
Number of constituents	982	1501
Dividend Yield %	3.38	2.83
Constituent (Wgt %)		
Average	0.10	0.07
Largest	0.34	1.90
Median	0.09	0.02
Top 10 Holdings (Wgt %)	3.16	13.01

Index Characteristics

Attributes	FTSE North America Minimum Variance	FTSE North America	FTSE USA Minimum Variance	FTSE USA
Number of constituents	473	626	420	578
Dividend Yield %	2.25	1.41	2.20	1.34
Constituent (Wgt %)				
Average	0.21	0.16	0.24	0.17
Largest	0.56	6.64	0.65	6.90
Median	0.19	0.06	0.22	0.07
Top 10 Holdings (Wgt %)	5.18	29.58	6.02	30.73

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