

# FTSE North America Minimum Variance Indices

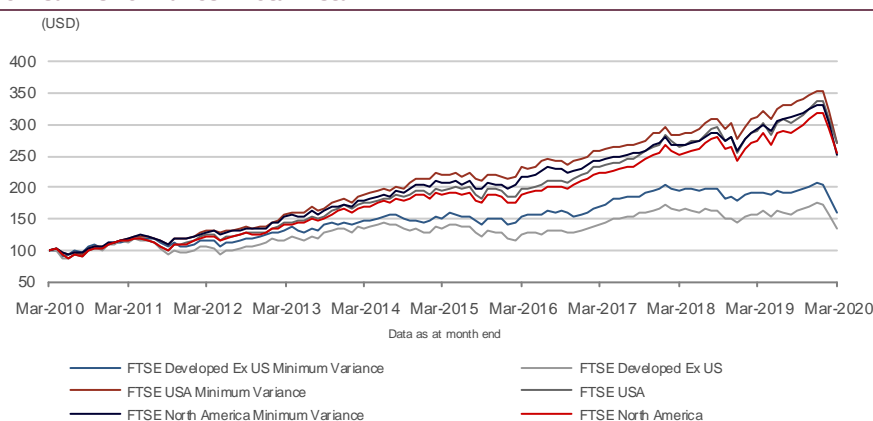
Data as at: 31 March 2020

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 bi-annual 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



## Performance and Volatility - Total Return

Index (USD)	Return %						Return pa %*		Volatility %**		
	3M	6M	YTD	12M	3YR	5YR	3YR	5YR	1YR	3YR	5YR
FTSE Developed Ex US Minimum Variance	-22.0	-17.0	-22.0	-16.3	-4.2	6.0	-1.4	1.2	16.0	15.1	12.7
FTSE Developed Ex US	-23.1	-16.7	-23.1	-14.4	-4.7	-0.4	-1.6	-0.1	19.6	18.3	14.5
FTSE USA Minimum Variance	-23.8	-20.3	-23.8	-13.8	4.3	21.6	1.4	4.0	28.1	16.1	13.3
FTSE USA	-19.6	-12.3	-19.6	-7.0	16.0	37.6	5.1	6.6	29.8	17.2	14.0
FTSE North America Minimum Variance	-23.7	-20.1	-23.7	-13.3	4.3	21.4	1.4	4.0	27.6	16.1	13.2
FTSE North America	-19.9	-12.8	-19.9	-7.5	14.7	35.2	4.7	6.2	29.7	17.3	14.0

\* 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 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 free-float 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.

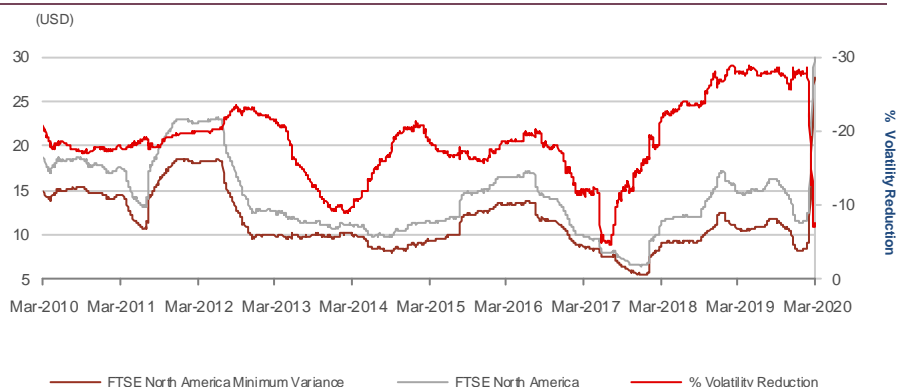
### Industry Classification Benchmark

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

**Year-on-Year Performance - Total Return**

Index % (USD)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FTSE Developed Ex US Minimum Variance	14.8	-4.2	16.4	15.8	1.6	2.4	4.4	27.3	-10.3	16.1
FTSE Developed Ex US	9.8	-12.0	17.8	20.6	-4.0	-1.9	3.4	26.3	-14.1	22.6
FTSE USA Minimum Variance	17.2	8.6	14.3	31.8	18.9	1.6	12.2	16.9	-3.3	27.6
FTSE USA	15.1	1.7	16.3	32.8	13.3	1.0	11.8	22.1	-4.5	31.6
FTSE North America Minimum Variance	18.2	7.0	14.0	27.5	18.0	-0.7	13.5	17.1	-4.1	28.3
FTSE North America	15.4	0.5	15.8	30.7	12.6	-0.4	12.4	21.8	-5.1	31.5

**Annualised Rolling 252 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 Developed Ex US Minimum Variance	-1.0	-0.2	0.1	0.4	-32.3	-32.3	-32.3	-32.3
FTSE Developed Ex US	-0.7	-0.1	0.0	0.2	-34.7	-34.7	-34.7	-34.7
FTSE USA Minimum Variance	-0.5	0.0	0.3	0.9	-37.1	-37.1	-37.1	-37.1
FTSE USA	-0.2	0.2	0.5	0.8	-34.1	-34.1	-34.1	-34.1
FTSE North America Minimum Variance	-0.5	0.0	0.3	0.8	-36.9	-36.9	-36.9	-36.9
FTSE North America	-0.2	0.2	0.4	0.7	-34.4	-34.4	-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 %)	FTSE Developed Ex US (Wgt %)	Diff %
Chugoku Electric Power	Japan	Electricity	0.40	0.03	0.37
NTT Docomo	Japan	Mobile Telecommunications	0.34	0.27	0.07
PCCW	Hong Kong	Fixed Line Telecommunications	0.33	0.02	0.32
Lawson	Japan	Food & Drug Retailers	0.33	0.02	0.31
Barrick Gold	Canada	Mining	0.33	0.24	0.09
ICA Gruppen AB	Sweden	Food & Drug Retailers	0.32	0.02	0.30
Agnico Eagle Mines	Canada	Mining	0.31	0.07	0.24
Colruyt	Belgium	Food & Drug Retailers	0.31	0.02	0.29
Toyo Suisan Kaisha	Japan	Food Producers	0.31	0.03	0.28
Tokyo Gas	Japan	Gas Water & Multiutilities	0.31	0.07	0.23
<b>Totals</b>			<b>3.29</b>	<b>0.79</b>	

**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 %
Newmont Corporation	USA	Mining	0.89	0.16	0.73
Agnico Eagle Mines	Canada	Mining	0.66	0.04	0.62
Barrick Gold	Canada	Mining	0.66	0.14	0.52
Wheaton Precious Metals	Canada	Mining	0.65	0.05	0.59
Franco-Nevada	Canada	Mining	0.63	0.08	0.55
Citrix Systems	USA	Software & Computer Services	0.58	0.07	0.51
J M Smucker	USA	Food Producers	0.57	0.05	0.52
NextEra Energy Inc	USA	Electricity	0.55	0.51	0.04
WEC Energy Group	USA	Gas Water & Multiutilities	0.54	0.12	0.42
Verizon Communications	USA	Fixed Line Telecommunications	0.53	0.96	-0.43
<b>Totals</b>			<b>6.26</b>	<b>2.18</b>	

## Top 10 Constituents - FTSE USA Minimum Variance

Constituent	ICB Sector	FTSE USA Minimum Variance (Wgt %)	FTSE USA (Wgt %)	Diff %
Newmont Corporation	Mining	1.14	0.17	0.97
Citrix Systems	Software & Computer Services	0.68	0.07	0.61
J M Smucker	Food Producers	0.67	0.05	0.62
NextEra Energy Inc	Electricity	0.65	0.53	0.12
WEC Energy Group	Gas Water & Multiutilities	0.63	0.13	0.50
American Elec Power Com	Electricity	0.62	0.18	0.44
Verizon Communications	Fixed Line Telecommunications	0.62	1.00	-0.38
Duke Energy Corp	Gas Water & Multiutilities	0.62	0.27	0.35
Cons Edison Holding	Electricity	0.61	0.12	0.49
XCEL Energy	Electricity	0.61	0.14	0.47
<b>Totals</b>		<b>6.85</b>	<b>2.66</b>	

## ICB Supersector Breakdown

ICB Code	ICB Supersector	FTSE Developed Ex US Minimum Variance		FTSE Developed Ex US		Diff %
		No. of Cons	Wgt %	No. of Cons	Wgt %	
0500	Oil & Gas	33	2.55	53	4.91	-2.36
1300	Chemicals	28	1.86	69	3.16	-1.30
1700	Basic Resources	20	2.92	57	3.14	-0.21
2300	Construction & Materials	39	2.70	67	2.42	0.28
2700	Industrial Goods & Services	121	10.53	254	12.53	-2.00
3300	Automobiles & Parts	33	1.83	61	3.67	-1.84
3500	Food & Beverage	69	9.05	79	5.74	3.31
3700	Personal & Household Goods	61	6.29	97	7.83	-1.54
4500	Health Care	63	6.67	104	12.98	-6.32
5300	Retail	81	10.18	98	3.87	6.31
5500	Media	29	3.04	38	1.41	1.63
5700	Travel & Leisure	56	6.14	75	2.45	3.69
6500	Telecommunications	35	5.83	42	3.63	2.20
7500	Utilities	57	9.12	59	3.78	5.34
8300	Banks	60	4.82	107	9.86	-5.04
8500	Insurance	54	4.83	64	5.32	-0.50
8600	Real Estate	71	7.44	83	2.83	4.61
8700	Financial Services	26	1.27	71	2.77	-1.50
9500	Technology	37	2.92	87	7.72	-4.79
<b>Totals</b>		<b>973</b>	<b>100.00</b>	<b>1565</b>	<b>100.00</b>	

## ICB Supersector Breakdown

ICB Supersector	FTSE North America Minimum Variance		FTSE North America		Diff %	FTSE USA Minimum Variance		FTSE USA		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %		No. of Cons	Wgt %	No. of Cons	Wgt %	
Oil & Gas	28	3.20	39	3.16	0.04	21	2.90	30	2.59	0.30
Chemicals	11	1.31	16	1.42	-0.11	10	1.38	15	1.40	-0.01
Basic Resources	8	3.76	12	0.68	3.08	4	1.45	7	0.37	1.07
Construction & Materials	7	1.07	8	0.48	0.60	7	1.23	8	0.50	0.73
Industrial Goods & Services	69	8.89	93	10.41	-1.52	61	9.20	90	10.41	-1.21
Automobiles & Parts	9	1.64	12	0.78	0.86	9	1.86	11	0.77	1.09
Food & Beverage	25	8.94	26	3.09	5.85	24	9.71	25	3.20	6.50
Personal & Household Goods	29	5.23	37	4.18	1.05	26	5.81	36	4.36	1.45
Health Care	46	8.01	60	13.76	-5.75	44	8.76	59	14.36	-5.60
Retail	35	8.15	40	8.67	-0.52	29	6.96	34	8.81	-1.85
Media	22	4.72	26	2.97	1.75	20	4.74	24	3.01	1.72
Travel & Leisure	24	4.32	27	1.99	2.33	21	4.57	26	2.03	2.54
Telecommunications	8	2.18	8	2.20	-0.01	4	1.41	5	2.15	-0.74
Utilities	34	14.35	34	3.46	10.89	31	15.52	31	3.50	12.02
Banks	22	2.86	27	5.10	-2.24	15	2.11	21	4.04	-1.94
Insurance	31	3.99	37	3.98	0.02	26	3.42	31	3.81	-0.39
Real Estate	37	8.68	41	3.06	5.62	36	9.69	40	3.18	6.51
Financial Services	18	2.98	39	5.46	-2.48	15	3.29	37	5.52	-2.23
Technology	32	5.70	80	25.16	-19.46	29	5.99	77	25.97	-19.98
<b>Totals</b>	<b>495</b>	<b>100.00</b>	<b>662</b>	<b>100.00</b>		<b>432</b>	<b>100.00</b>	<b>607</b>	<b>100.00</b>	

## Country Breakdown

Country	FTSE Developed Ex US Minimum Variance		FTSE Developed Ex US		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %	
Australia	66	5.33	104	5.43	-0.10
Austria	6	0.43	8	0.15	0.29
Belgium	8	1.06	14	0.78	0.28
Canada	51	8.67	55	7.40	1.27
Denmark	14	1.56	20	1.86	-0.30
Finland	12	1.14	15	1.05	0.09
France	55	4.39	85	8.83	-4.44
Germany	52	4.55	84	7.28	-2.73
Hong Kong	67	7.20	92	3.48	3.72
Ireland	5	0.53	5	0.22	0.31
Israel	27	3.12	30	0.46	2.66
Italy	27	2.39	40	2.07	0.32
Japan	307	32.55	509	23.98	8.57
Korea	51	3.88	136	4.13	-0.25
Netherlands	13	1.39	30	3.41	-2.02
New Zealand	11	1.65	12	0.28	1.37
Norway	6	0.68	16	0.51	0.17
Poland	7	0.40	14	0.23	0.17
Portugal	3	0.43	4	0.16	0.26
Singapore	35	3.94	38	1.09	2.84
Spain	21	2.02	26	2.21	-0.19
Sweden	21	1.37	48	2.45	-1.07
Switzerland	31	4.00	49	9.05	-5.05
UK	77	7.32	131	13.50	-6.18
<b>Totals</b>	<b>973</b>	<b>100.00</b>	<b>1565</b>	<b>100.00</b>	

## Country Breakdown

Country	FTSE North America Minimum Variance		FTSE North America		Diff %
	No. of Cons	Wgt %	No. of Cons	Wgt %	
Canada	43	10.22	55	4.33	5.89
USA	452	89.78	607	95.67	-5.89
<b>Totals</b>	<b>495</b>	<b>100.00</b>	<b>662</b>	<b>100.00</b>	

## Index Characteristics

Attributes	FTSE Developed Ex US Minimum Variance	FTSE Developed Ex US
Number of constituents	973	1565
Dividend Yield %	3.95	3.97
Constituent (Wgt %)		
Average	0.10	0.06
Largest	0.40	2.19
Median	0.09	0.02
Top 10 Holdings (Wgt %)	3.29	11.72

## Index Characteristics

Attributes	FTSE North America Minimum Variance	FTSE North America	FTSE USA Minimum Variance	FTSE USA
Number of constituents	495	662	432	607
Dividend Yield %	3.14	2.39	3.10	2.31
Constituent (Wgt %)				
Average	0.20	0.15	0.23	0.16
Largest	0.89	5.15	1.14	5.38
Median	0.17	0.06	0.19	0.06
Top 10 Holdings (Wgt %)	6.26	22.97	6.85	24.03

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