

FTSE Core Infrastructure Indexes

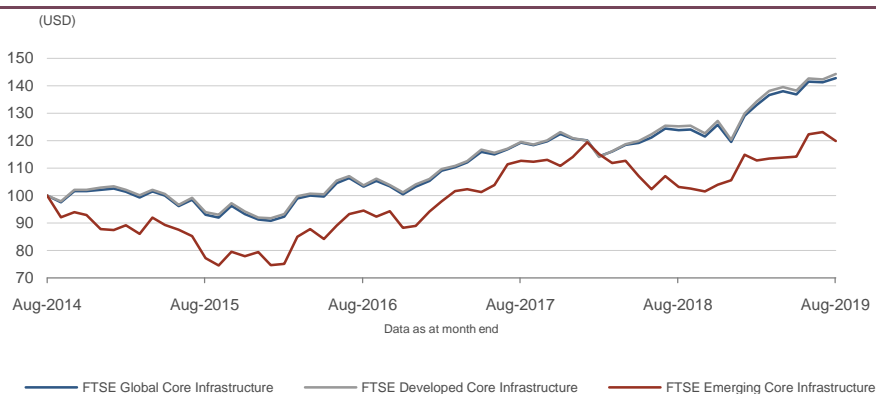
Data as at: 30 August 2019

The FTSE Infrastructure Index Series is a comprehensive set of nine cap-weighted indexes, diversified across six FTSE-defined infrastructure sub-sectors, to reflect the performance of infrastructure and infrastructure-related listed securities worldwide.

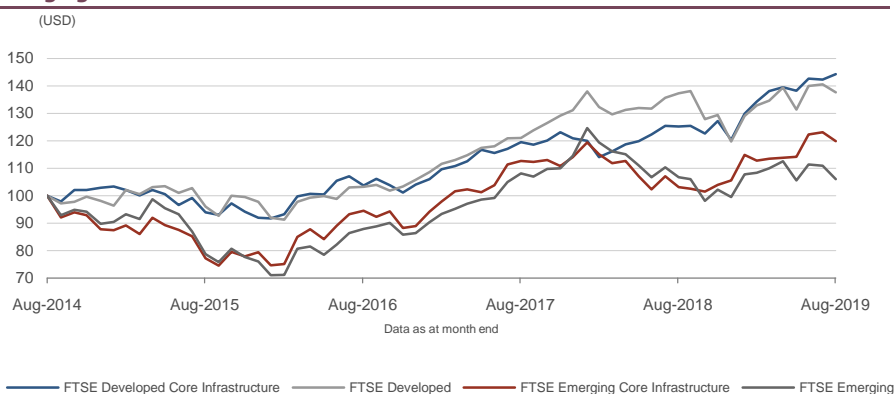
The Index Series uses a building block approach to give investors greater choice and flexibility in the way they can benchmark, research and manage their exposure to global infrastructure. Infrastructure is defined by FTSE Russell as companies that own, manage or operate structures or networks, which are used for the processing or movement of goods, services, information/data, people, energy and necessities. This definition forms the basis for the FTSE Core Infrastructure Sectors and the FTSE Core Infrastructure Indexes.

FTSE Russell further expands the definition of infrastructure from the structures and networks to include the conveyance of goods, services, information/data, people, energy and necessities. This forms the basis for the FTSE Infrastructure-Related Sectors and the FTSE Infrastructure Opportunities Indexes.

5-Year Performance - Total Return



FTSE Core Infrastructure Indexes against FTSE Developed Index and FTSE Emerging Index - Total Return



FEATURES

Coverage

Constituents are selected from the FTSE Global All Cap Index using FTSE Russell's definition of infrastructure. FTSE Russell applies minimum infrastructure revenue thresholds of 65% for constituents of the Core Infrastructure indexes and 20% for constituents of the Infrastructure Opportunities indexes.

Objective

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

Investability

Stocks are selected and weighted to ensure that the index is investable.

Liquidity

Stocks are screened to ensure that the index is tradable.

Transparency

Index methodologies are freely available on the FTSE Russell website.

Availability

The indexes are calculated based on price and total return methodologies, on an end-of-day basis.

Industry Classification Benchmark (ICB)

Index constituents are categorized in accordance with the Industry Classification Benchmark (ICB), the global standard for industry sector analysis. Constituents are screened according to ICB Subsectors that meet FTSE's definition of infrastructure.

Performance and Volatility - Total Return

Index (USD)	Return %						Return pa %*		Volatility %**		
	3M	6M	YTD	12M	3YR	5YR	3YR	5YR	1YR	3YR	5YR
FTSE Global Core Infrastructure	4.4	7.3	19.4	15.3	38.2	42.8	11.4	7.4	9.4	8.7	9.4
FTSE Developed Core Infrastructure	4.3	7.4	19.9	15.2	39.0	44.2	11.6	7.6	9.7	8.9	9.5
FTSE Emerging Core Infrastructure	5.0	6.3	13.5	16.2	26.8	19.9	8.2	3.7	11.0	12.3	14.7
FTSE Global All Cap	4.2	2.6	14.0	-0.7	31.0	33.4	9.4	5.9	12.3	10.9	11.8
FTSE Developed	4.8	3.6	14.9	0.3	33.3	37.7	10.0	6.6	12.5	10.6	11.7
FTSE Emerging	0.4	-2.1	6.5	-0.6	20.5	6.0	6.4	1.2	13.5	14.5	15.5

* 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

Year-on-Year Performance - Total Return

Index % (USD)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
FTSE Global Core Infrastructure	15.2	13.8	7.8	9.9	17.1	18.9	-10.6	13.1	16.9	-0.9
FTSE Developed Core Infrastructure	12.0	13.4	9.5	9.4	18.5	20.1	-10.7	13.1	16.2	-0.5
FTSE Emerging Core Infrastructure	73.3	18.1	-14.6	18.7	-4.7	-0.6	-9.5	12.0	28.3	-7.4
FTSE Global All Cap	37.5	14.8	-7.6	17.2	23.9	4.5	-1.7	9.0	24.4	-9.6
FTSE Developed	31.4	12.3	-5.5	17.0	26.8	5.1	-0.3	8.2	23.9	-8.6
FTSE Emerging	82.6	19.8	-19.0	17.9	-3.5	1.6	-15.2	13.5	32.5	-13.0

Return/Risk Ratio and Drawdown - Total Return

Index (USD)	Return/Risk Ratio				Drawdown (%)			
	1YR	3YR	5YR	10YR	1YR	3YR	5YR	10YR
FTSE Global Core Infrastructure	1.5	1.3	0.8	1.2	-8.7	-8.7	-18.5	-18.5
FTSE Developed Core Infrastructure	1.5	1.3	0.8	1.2	-9.2	-9.2	-18.4	-18.4
FTSE Emerging Core Infrastructure	1.5	0.6	0.3	0.4	-7.6	-17.5	-31.4	-31.4
FTSE Global All Cap	-0.1	0.8	0.5	0.7	-17.5	-19.3	-19.3	-23.4
FTSE Developed	0.0	0.9	0.6	0.7	-17.9	-18.5	-18.5	-22.3
FTSE Emerging	-0.1	0.4	0.1	0.3	-10.3	-24.2	-35.7	-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 Developed Core Infrastructure Index

Constituent	Country	ICB Subsector	Net MCap (USDm)	Wgt %
Union Pacific Corp	USA	Railroads	114,556	5.43
NextEra Energy Inc	USA	Conventional Electricity	104,708	4.96
American Tower Corp	USA	Specialty REITs	100,990	4.78
Duke Energy Corp	USA	Multiutilities	67,466	3.20
Canadian National Railway	Canada	Railroads	66,885	3.17
Enbridge	Canada	Pipelines	66,299	3.14
Dominion Energy	USA	Conventional Electricity	62,123	2.94
Southern Co	USA	Conventional Electricity	60,538	2.87
Crown Castle Intl Corp	USA	Specialty REITs	60,106	2.85
CSX Corp	USA	Railroads	51,623	2.44
Totals			755,295	35.77

INFORMATION**Index Universe**

FTSE Global All Cap Index

Index Launch

31 March 2011

Base Date

16 December 2005

Base Value

1000

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 and AUD

Review Dates

Semi-annually in March & September

History

Available from December 2005

Fundamental Research

Fundamental research on the constituents of the FTSE Infrastructure Index Series is provided by LPX Group.

LPX Group Website

www.lpx-group.com

Top 10 Constituents - FTSE Emerging Core Infrastructure Index

Constituent	Country	ICB Subsector	Net MCap (USDm)	Wgt %
Airports of Thailand	Thailand	Transportation Services	10,093	6.95
ENN Energy Holdings (P Chip)	China	Gas Distribution	8,633	5.94
China Gas Holdings (P Chip)	China	Pipelines	7,921	5.45
Guangdong Investment (Red Chip)	China	Water	6,156	4.24
Enel Americas S.A.	Chile	Conventional Electricity	5,995	4.13
Rumo S.A.	Brazil	Transportation Services	5,954	4.10
CCR SA	Brazil	Transportation Services	4,388	3.02
Sabesp ON	Brazil	Water	4,254	2.93
China Resources Gas Group (Red Chip)	China	Gas Distribution	3,960	2.73
Equatorial Energia S/A Ord	Brazil	Conventional Electricity	3,915	2.69
Totals			61,268	42.17

ICB Subsector Breakdown

ICB Code	ICB Subsector	FTSE Developed Core Infrastructure			FTSE Emerging Core Infrastructure		
		No. of Cons	Net MCap (USDm)	Wgt %	No. of Cons	Net MCap (USDm)	Wgt %
0577	Pipelines	11	266,010	12.60	3	11,849	8.16
2357	Heavy Construction	-	-	-	2	4,301	2.96
2775	Railroads	10	346,124	16.39	1	494	0.34
2777	Transportation Services	15	86,361	4.09	30	57,749	39.75
5553	Broadcasting & Entertainment	3	9,427	0.45	-	-	-
5759	Travel & Tourism	5	95,139	4.51	1	438	0.30
6535	Fixed Line Telecommunications	3	1,728	0.08	-	-	-
6575	Mobile Telecommunications	5	16,677	0.79	1	803	0.55
7535	Conventional Electricity	48	714,999	33.86	20	29,301	20.17
7573	Gas Distribution	20	100,339	4.75	11	20,481	14.10
7575	Mult utilities	12	229,246	10.86	-	-	-
7577	Water	7	53,052	2.51	10	16,883	11.62
8675	Specialty REITs	4	191,811	9.08	-	-	-
9578	Telecommunications Equipment	1	471	0.02	2	2,993	2.06
Totals		144	2,111,383	100.00	81	145,293	100.00

Country Breakdown

Country	FTSE Developed Core Infrastructure			FTSE Emerging Core Infrastructure		
	No. of Cons	Net MCap (USDm)	Wgt %	No. of Cons	Net MCap (USDm)	Wgt %
Australia	9	57,166	2.71	-	-	-
Austria	2	904	0.04	-	-	-
Belgium	1	2,915	0.14	-	-	-
Brazil	-	-	-	13	28,055	19.31
Canada	10	273,699	12.96	-	-	-
Chile	-	-	-	3	8,119	5.59
China	-	-	-	18	38,093	26.22
Colombia	-	-	-	1	2,236	1.54
Denmark	1	14,261	0.68	-	-	-
France	4	20,162	0.95	-	-	-
Germany	2	3,553	0.17	-	-	-
Greece	-	-	-	2	614	0.42
Hong Kong	6	58,222	2.76	-	-	-
India	-	-	-	14	13,601	9.36
Indonesia	-	-	-	2	2,271	1.56
Italy	8	41,472	1.96	-	-	-
Japan	19	151,870	7.19	-	-	-
Korea	3	6,360	0.30	-	-	-
Malaysia	-	-	-	2	2,788	1.92
Mexico	-	-	-	7	13,462	9.27
New Zealand	2	6,264	0.30	-	-	-
Pakistan	-	-	-	2	213	0.15
Philippines	-	-	-	4	6,505	4.48
Poland	1	206	0.01	-	-	-
Portugal	1	1,080	0.05	-	-	-
Russia	-	-	-	4	6,981	4.80
Singapore	2	2,112	0.10	-	-	-
Spain	5	42,711	2.02	-	-	-
Switzerland	1	3,472	0.16	-	-	-
Taiwan	-	-	-	1	2,513	1.73
Thailand	-	-	-	5	16,633	11.45
Turkey	-	-	-	2	938	0.65
UAE	-	-	-	1	2,272	1.56
UK	6	57,710	2.73	-	-	-
USA	61	1,367,243	64.76	-	-	-
Totals	144	2,111,383	100.00	81	145,293	100.00

Index Characteristics

Attributes	FTSE Developed Core Infrastructure	FTSE Emerging Core Infrastructure
Number of constituents	144	81
Net MCap (USDm)	2,111,383	145,293
Dividend Yield %	3.15	3.10
Constituent Sizes (Net MCap USDm)		
Average	14,662	1,794
Largest	114,556	10,093
Smallest	110	70
Median	6,079	1,055
Weight of Largest Constituent (%)	5.43	6.95
Top 10 Holdings (% Index MCap)	35.77	42.17

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Data definitions available from
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