

**MSCI GLOBAL
QUARTERLY
PRIVATE
INFRASTRUCTURE
ASSET INDEX
(UNFROZEN)
METHODOLOGY**

May 2022



Contents

1	Introduction	4
1.1	Objective.....	4
1.2	Indexes	4
1.3	Index Determination And Dissemination Stages.....	5
1.4	Market Information	5
2	Data Collection and Validation	6
2.1	Data Provision Requirements.....	6
2.1.1	Equity Value Reporting Requirements	7
2.1.2	Other Data Requirements	7
3	Index Composition	8
3.1	Index Series.....	8
3.2	Change in Composition	9
4	Index Calculation Methodology	10
4.1	Total Return.....	10
4.2	Capital Growth.....	10
4.3	Income Return.....	11
4.4	Index Return	11
4.5	Longer Term Returns	12
4.6	Data Preparation For Index Calculation	13
4.6.1	Data Treatment for Assets With Shared Ownership ..	13
4.6.2	Interpolation of Data for Index	13
4.7	Rules for Performance Reporting.....	14
4.8	Other Market Information Reporting.....	15



4.9	Infrastructure Assets Allocation	15
4.10	Unfrozen History Reporting	16
5	Governance of the Index	17
6	Appendix I	18
6.1	Classification based on Infrastructure Sectors.....	18
6.2	Classification based on Regulated Asset Type.....	20
6.3	Classification based on Contracted Asset Type	20
6.4	Classification based on Development Type	21
6.5	Classification based on Asset Use	21
6.6	Classification Based on Investment Style	22
7	Appendix II	24
7.1	Versioning Table	24



1 Introduction

1.1 OBJECTIVE

The objective of the MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) is to accurately and objectively measure the performance of direct private infrastructure investments market. The constituents of the MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) are private infrastructure investments that are held in professionally managed portfolios. They therefore may include assets held in insurance and pension funds, sovereign wealth funds, unlisted pooled funds, and listed infrastructure companies amongst other directly owned infrastructure investments with the aim of generating an investment return.

The MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) is primarily based on equity value of infrastructure investments supplied by its data providers.

MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) is governed by [MSCI Real Estate – Index Policies](#).

1.2 INDEXES

MSCI distinguishes between Infrastructure Asset Index (Direct Investment), which measures the performance of aggregates of individual infrastructure assets held within investment portfolios, and Infrastructure Fund Index, which measures the performance of fund vehicles in their entirety.

1.3 INDEX DETERMINATION AND DISSEMINATION STAGES

The measures for MSCI Global Quarterly Private Infrastructure Asset index (Unfrozen) is compiled, produced and distributed in accordance with standardized procedures. The three main stages of index production are:

- 1) Data Collection and Validation
 - a) Gather, validate and verify data
- 2) Index Composition
 - a) Define the index universe (“dataset”) by applying inclusion/exclusion rules to validated data
- 3) Index Calculation
 - a) Headline Measures – Total Return, Capital Growth, Income Return
 - b) Non-headline Measures e.g., Gearing (%), Revaluation (%)

1.4 MARKET INFORMATION

Based on the Standard Index, market information product comprises sub-indexes based on Regions, Sectors, Asset Contracted Types, Asset Regulated Types, Asset Style, Asset Stage and Asset Use. In addition to index headline returns, measures such as Gearing (%), Revaluation (%) are also calculated.



2 Data Collection and Validation

To determine MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen), market information and analytics, MSCI assembles a set of comparable information on infrastructure assets, which are compiled to meet the needs of a broad range of investment purposes.

The data for infrastructure investment assets are generally provided to MSCI by or on behalf of the investors or managers of the infrastructure investment portfolios. Occasionally, MSCI may supplement this data with information from public or third-party sources, such as published financial reports.

MSCI's goal is to cover the largest possible proportion of professionally managed infrastructure investments market. Therefore, MSCI makes continual efforts to increase data coverage by recruiting new portfolios from both existing and new managers.

2.1 DATA PROVISION REQUIREMENTS

Data gathered by MSCI can be divided into three categories:

1. Data for index calculation
2. Classification data
3. Data for enhanced analytics and market information measures

A mandatory core set of data used for the calculation of headline measures, is required for all investments. The set includes Equity value, Net Capital Invested, Distributions.

MSCI collects additional data, to allow for more detailed analyses and the production of customized sub-indexes. This information is not used for headline measure calculation but may be used in market information and analytic products to provide additional insight. This category of information may be used for Allocation (%), Gearing (%), Revaluation (%).

2.1.1 EQUITY VALUE REPORTING REQUIREMENTS

Equity value is the net asset value of direct private infrastructure investments, which is to be provided at ownership share. The requirements for the Equity Value are as follows:

- a. Funds are required to report the Equity value of investments at least on a quarterly basis and to have done so for the whole of the period of the investment's performance history within the Index.
- b. Constituents of the Indexes must agree to calculate the Equity value on a consistent basis from quarter to quarter. The Equity value calculation should be as specified in the fund's articles of association (or equivalent).

2.1.2 OTHER DATA REQUIREMENTS

Distributions: Income distributions payable, gross of tax, net of expenses for the investment, timed on a daily basis. Distributions should be provided in the same period when they are accrued and accounted in the Equity Value calculation.

Net Capital Invested: Total amount of new capital invested for the investment asset during the period less amount of capital returned to investors in the asset. The amount should be net of capital returned to the investor in the asset, during the period.

Ownership Share (%): The share of the ownership held in the investment asset. All financial values must reflect ownership share.

Enterprise Value: Enterprise value (which can also be called firm value, or asset value) is a measure of an investment's total value for direct investments, provided at ownership share.

Gearing (%): Investment level Debt (liability) held in the infrastructure asset.

Revaluation (%): Data collected for Internal and External valuation indicator to calculate Revaluation % for index.



3 Index Composition

3.1 INDEX SERIES

The standard index publication for MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) comprises of the following Index series divided by sector:

- a. **Global:** This is the headline index series of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) constructed as per rules mentioned in section 2.1. This index starts with a base period of March 2008.
- b. **Power:** The 'Power' sector series is a sub-index of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen). It comprises of investments into Power Generation, Power Transmission & Distribution and Renewable Energy assets. This index starts with a base period of March 2008.
- c. **Transport:** The 'Transport' sector series is a sub-index of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen). It comprises of investments into infrastructure assets that facilitate movement of passengers or goods from one place to another including airports. This index starts with a base period of March 2008.
- d. **Water:** The 'Water' sector series is a sub-index of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen). It comprises of investments into 'Water' management infrastructure assets. This index starts with a base period of March 2008.
- e. **Communication:** The 'Communication' sector series is a sub-index of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen). It comprises of investments into infrastructure assets facilitating dissemination of information. This index starts with a base period of December 2016.

The rebalancing of the headline index and the sub-indexes is done on a quarterly basis by adding or excluding investments, as applicable.



3.2 CHANGE IN COMPOSITION

Index composition changes may result from new investment, sale of existing investment, as well as other changes to MSCI's access to data, including newly launched or existing funds providing data to MSCI. Where the resulting index composition change is deemed material, as defined in the [MSCI Real Estate – Index Policies](#), MSCI will publish an index announcement on the MSCI website describing the change.

The historical data provided by any data provider withdrawing from the index will be retained and continue to be used in index calculations. For an index with unfrozen history, data for new investments that meet MSCI's quality standard, will be included in the index historically.

Composition for all indexes is checked for Confidentiality and Dominance Rules defined below.

Any index may be discontinued or suspended, without notice, if fewer than the required minimum number of funds or assets are eligible and available for inclusion, or if one portfolio or fund dominates the composition, when applying a given methodology to a market. MSCI may resume calculation of such indexes if over time enough funds become eligible and available.



4 Index Calculation Methodology

The following measures are used to document the investment performance of direct private infrastructure investment assets.

4.1 TOTAL RETURN

The total return of infrastructure assets is calculated as the movement in month-end equity value of the infrastructure investment, net of capital invested and capital returned to the investor plus any distribution of income for the current month, expressed as a percentage of the equity value as at the end of previous month, as shown below.

Multi-period measures of performance and index values are time-weighted and calculated by the chain-linked compounding of single monthly-period percentage measures.

$$Total\ Return_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t + Dist_t}{EQV_{t-1}} \right) * 100$$

Where:

- EQV_t = Equity value of the direct infrastructure investment
- Dist_t = Income distributed during the month
- NCI_t = Net Capital Invested in month t, is the new equity capital invested in the asset. It is net of capital returned.
- t is the month for which return is calculated
- t-1 is the month prior to the one for which return is calculated

4.2 CAPITAL GROWTH

The capital growth of infrastructure assets is calculated as the movement in month-end equity value of the infrastructure investment, net of capital invested and capital returned to the investor during the month, expressed as a percentage of equity value as at the end of previous month, as shown below.

$$Capital\ Growth_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t}{EQV_{t-1}} \right) * 100$$

Where:

- EQV_t = Equity value of the direct infrastructure investment
- NCI_t = Net Capital Invested in month t, is the new equity capital invested in the asset. It is net of capital returned.
- t is the month for which return is calculated
- t-1 is the month prior to the one for which return is calculated



4.3 INCOME RETURN

The Income return of infrastructure assets is calculated based on Income distributed to investors during the quarter expressed as a percentage of the equity value as at the end of previous month, as shown below.

$$Income\ Return_t = \left(\frac{Dist_t}{EQV_{t-1}} \right) * 100$$

Where:

- EQV_t = Equity value of the direct infrastructure investment
- Dist_t = Income distributed during the month
- t is the month for which return is calculated
- t-1 is the month prior to the one for which return is calculated

4.4 INDEX RETURN

To ensure that the weight of each infrastructure asset is reflected in the overall index total return, infrastructure assets included in the index are weighted according to their equity value at the end of the month.

$$Index\ Return_t = \sum_{i=1}^n \left(\frac{AssetEQV_{i,t}}{IndexEQV_t} * AssetTR_t \right)$$

Where:

- AssetEQV_{i,t} = Equity value of the 'i' th direct infrastructure investment for month t
- IndexEQV_t = Aggregate Equity value of infrastructure investments in Index for month t
- AssetTR_{i,t} = Total return of the 'i' th infrastructure investment asset for month t
- n is the number of infrastructure investment assets within the index sample
- i is the infrastructure investment asset i from the index sample
- t is the month for which return is calculated



4.5 LONGER TERM RETURNS

4.5.1 INDEX VALUES

Starting from a base value of 100, each successive index value is calculated by multiplying the preceding index value by (1+monthly return):

$$Index_{t=0} = 100$$

$$Index_t = Index_{t-1} \times \left[1 + \frac{TR_t}{100} \right]$$

Where:

TR_t is the total return for the month t, expressed as a ratio

4.5.2 MULTI-PERIOD TIME-WEIGHTED TOTAL RETURN

The basis for calculating all annual and quarterly performance measures is timeweighted. Annual measures are calculated by compounding twelve monthly figures and annual figures are shown only when twelve months figures are available. These measures gives an equal weight to each month. To calculate quarterly and annual returns it is necessary first to construct an index from monthly values.

The 12-month return, for example, is calculated as the percentage change in the index (X_t) over the relevant 12 months

$$Annual\ Total\ Return = \left[\frac{Index_t}{Index_{t-12}} - 1 \right] \times 100$$

Where:

Index_t is the final indexed score.

Index_{t-12} is the initial indexed score

t represents last month in the measurement period



4.5.3 ANNUALIZED RATE

The annualized rate is the geometric mean of the individual annual rates of change for a series of years. It is calculated as the nth root of the final indexed score converted back into a percentage:

$$Annualized\ Rate = \left[\left(\frac{Index_t}{Index_{t=0}} \right)^{1/n} - 1 \right] \times 100$$

Where:

- n is the number of years.
- Index_t is the final indexed score.
- Index_{t=0} is the initial indexed score.

4.6 DATA PREPARATION FOR INDEX CALCULATION

4.6.1 DATA TREATMENT FOR ASSETS WITH SHARED OWNERSHIP

MSCI calculates index returns based on data collected at shared ownership based on contract share¹. The data treatment based on shared ownership ensures accurate reflection of the ownership of assets in the dataset and only to the extent of what is provided to MSCI by the data provider based on their respective investment exposure. If assets with shared ownership are reported at full share (100%), it would result in overweighting of shared assets in index and impact the representativeness of the index.

4.6.2 INTERPOLATION OF DATA FOR INDEX

For equity values in index where no data is received monthly, the Equity value of previous period is held down (kept unchanged) and the new data is used at the quarter end. Distributions provided are included in calculation at the end of quarter.

¹ The contract share represents the fund's share of the investment at acquisition. This share typically will not change unless there is a significant capital event during the period such as a Joint Venture buyout or partial sale



4.7 RULES FOR PERFORMANCE REPORTING

4.7.1 CONFIDENTIALITY AND DOMINANCE RULES

In order to protect the confidentiality of investment asset data provided, MSCI applies strict confidentiality rules, which set the minimum number of constituents necessary to permit the reporting of a dataset. In any aggregate, the minimum acceptable number of portfolios and assets is respectively three and five.

4.7.2 FUND DOMINANCE RULES

In order to avoid the possibility of the weight of one portfolio dominating the representativeness of an index, MSCI employs investor dominance rules while determining the composition of an index.

When calculating an index, a maximum weight for any single contributing fund is calculated based on Equity Value. When the weight of a fund contributing to any index series exceeds 75% of index or segment Equity Value, the results will not be reported.

4.7.3 RANKING / DISTRIBUTIONS OF RETURNS

A percentile measure indicates the value below which a given percentage of a group of observations fall. For example, the 20th percentile is the value (or score) below which 20 percent of the observations may be found. The term percentile and the related percentile rank are often used to report scores describing performance levels, and are therefore very popular in summarizing a portfolio's return position within a peer group. For example, if a score is on the 86th percentile, it is higher than 86% of the other scores. In MSCI asset return reporting, the minimum sample required for showing percentile distributions is at least 10 portfolios.

The 25th percentile is also known as the lower or first quartile (Q1), the 50th percentile as the median or second quartile (Q2), and the 75th percentile as the upper or third quartile (Q3). In general, percentiles and quartiles are specific types of quantiles. In computing the weighted average of a compounded measure over longer than one month, a different sample of funds may be included as the period lengthens. When calculating percentiles, only those portfolios or assets that have contributed in every period are included. Therefore, the ranked sample may be smaller than the weighted aggregate results sample.



4.8 OTHER MARKET INFORMATION REPORTING

4.8.1 GEARING (%)

Gearing % measures the level of debt in the infrastructure investments and is expressed as Gross debt as a percentage of Enterprise value

$$(Debt\ to\ Enterprise\ Value)_t\% = \left(\frac{Gross\ Debt_t}{Enterprise\ Value_t} \right) * 100$$

Where:

Gross Debt_t is the investment level debt at the end of month t

Enterprise value_t (also called firm value or asset value) is the investment's total value for direct private infrastructure investment at the end of month t

t is the end month of the period for which measure is calculated

4.8.2 REVALUATION %

Revaluation % measures the percentage of Enterprise value of direct infrastructure investments revalued during the quarter, either internally or externally.

4.9 INFRASTRUCTURE ASSETS ALLOCATION

Allocations for Infrastructure investment assets are calculated based on the Enterprise Value of the investment assets. The aggregated Enterprise value is reported at Segment level in the market information products. Detailed definitions of various Infrastructure Segments are available in Appendix 6.



4.10 UNFROZEN HISTORY REPORTING

The returns of the MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) are unfrozen, which means they do not have fixed histories and returns will be updated when new historical data becomes available or corrections are made. Therefore the inclusion of historical data for a new investment asset will impact the historical Index returns.

MSCI reviews each unfrozen index annually to decide whether these indexes potentially should also be frozen.

A proposal to freeze an index history is based on an analysis of the likelihood of future changes to historical data, including availability of new data, including:

- Market coverage level: The higher the ratio of MSCI data coverage to the estimated total infrastructure investments market, the greater is the likelihood that historical market results will remain representative through the addition of new funds to the dataset.
- Review of historical restatement impacts: Comparing the difference between published results and results including any newly provided data gives an indication of the consistency of historical results.
- Trends in numbers of portfolios joining the dataset and their perceived likelihood of supplying historical data.

A proposal to freeze the history of MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) will trigger a public consultation with market participants. If a decision is taken to freeze an index, that decision will be announced to the public before implementation as per the Methodology and Index Consultation Policy described in the [MSCI Real Estate – Index Policies](#) document.



5 Governance of the Index

MSCI uses the following committees to provide overall oversight and governance for benchmark administration for MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen):

- a. The index is owned, compiled, and calculated by MSCI
- b. Governance is provided by the Private Real Estate Index - Risk and Regulatory Committee ("RRC"), the Index Policy Committee ("IPC") and the Real Estate Index Committee ("REIC")

All of the committees are staffed solely by MSCI group company employees with extensive relevant experience.

All committee members are expected to act with integrity as is required of all our employees according to our Code of Ethics and Business Conduct posted on www.msci.com, and are subject to MSCI's compliance policies, including with respect to confidential information and relevant Chinese Walls. All decisions taken by the committees are the responsibility of their members.

MSCI retains all Intellectual Property Rights (IPRs) in the index methodologies and the index including those variations and derivative methodologies of the standard methodologies as well as those methodologies that may be generated during the course of the Agreement.

MSCI believes that its editorial and operational independence is critical to its objectivity, efficiency and avoiding conflicts of interest.



6 Appendix I

6.1 CLASSIFICATION BASED ON INFRASTRUCTURE SECTORS

Sectors	Definition
Power Generation (excl. renewable energy)	<p>Infrastructure that generates energy or power.</p> <p>Excludes infrastructure that falls under renewable energy.</p> <p>Examples: Nuclear reactor, coal fired power plant.</p>
Power Transmission & Distribution (excl. renewable energy)	<p>Transfer, distribution and storage of power including oil and gas transportation, distribution and storage.</p> <p>Excludes infrastructure that falls under renewable energy.</p> <p>Examples: Electricity transmission grid infrastructure and interconnectors, gas pipelines.</p>
Renewable Energy	<p>Infrastructure that sources energy from natural resources e.g. Wind, sunlight, rain, tides, etc.</p> <p>Examples: Wind farms, hydro-power generation, waste to energy, solar farms.</p>
Transport (excl. airports)	<p>Facilities consisting of the means and/or equipment necessary for the movement of passengers or goods from one point to another.</p> <p>Excludes Airports.</p> <p>Examples: Road/highway networks, bridges, mass transit system (metro), ports, railways (both for public and private use).</p>
Airports	<p>International and domestic airports.</p>



Sectors	Definition
Water	<p>Water management infrastructure.</p> <p>Examples: Sewage treatment plant, desalination plants, major irrigations systems, flood control systems, drinking water filtration and storage.</p>
Communication	<p>Facilities consisting of the physical plants and/or equipments for disseminating information.</p> <p>Examples: Television and radio transmission stations, mobile telephone towers.</p>
Public Facilities	<p>Facilities consisting of social infrastructure such as education, social housing, convention centres.</p> <p>Examples: Public buildings and facilities for public use i.e., schools, universities, prisons, convention centres</p>



6.2 CLASSIFICATION BASED ON REGULATED ASSET TYPE

Regulated Type	Definition
Unregulated	<p>Asset where its capacity is fully built or funded to meet contracts with end users.</p> <p>Public Private Partnership (PPP) where a private party provides a public service and in return has rights for management of asset for a contracted period of time.</p> <p>Examples: PPP toll road or desalination plant</p>
Regulated	<p>Generally public owned asset or natural monopoly operating under a corporatised model.</p> <p>Regulation concerned with the nature of access agreement to use the public asset by the private sector or the regulation of monopoly pricing powers. Pricing parameters that directly effect cash flows generally set by government agencies.</p> <p>Examples: Sydney Water, City Rail.</p>
Partially Regulated	<p>Privately owned asset in which a government body has the ability to act as a mediator enforcing regulations.</p> <p>Example - Australian Airports</p>

6.3 CLASSIFICATION BASED ON CONTRACTED ASSET TYPE

Contracted Type	Definition
Uncontracted	<p>Private sector asset where the government provides no revenue guarantees and does not own the distribution network.</p> <p>Developer assumes construction, operating and market risk for the project.</p> <p>Examples: Power generator which is not subject to contractual agreements. Airport, PPP toll road.</p>
Contracted	<p>Regulated assets or assets where long term contracts are in place that avoid the need to for regulation.</p> <p>Examples: Desalination plant, Sydney Water, City Rail.</p>

6.4 CLASSIFICATION BASED ON DEVELOPMENT TYPE

Development Type	Definition
Greenfield/ Development	<p>Asset that is under development on land that has previously had no development. Includes assets that have been developed as greenfield and currently operational.</p> <p>Asset that is under development usually has little or no income or yield component, with predominantly long term capital growth potential.</p> <p>Examples: Wind turbine built on undeveloped farm land.</p>
Brownfield & Mature	<p>Former infrastructure asset that is being redeveloped with the intention to be used for infrastructure purposes or has been redeveloped and is currently operational.</p> <p>Existing site that may be redeveloped due to expansion or change in use.</p> <p>Examples:</p> <ul style="list-style-type: none"> Abandoned factories or industrial areas contaminated land turned into transportation hubs roadways or renewable power generators Existing toll road that is being widened to accommodate additional traffic flows

6.5 CLASSIFICATION BASED ON ASSET USE

Asset Use	DEFINITION
Social	<p>Projects where the government pays the private party a service fee for the availability of a facility. May include private sector where parties provide ability-based payments.</p> <p>Examples: Universities, schools, hospitals, stadiums, museums and tourism infrastructure. Shadow toll roads (PPP)</p>
Economic	<p>Project revenue is often derived from third parties and the private sector therefore bears demand risk</p> <p>Examples: Toll roads, airports, ports, water supply</p>



6.6 CLASSIFICATION BASED ON INVESTMENT STYLE

The following matrix is used as a guidance for self-reported classification by investment style for Direct private infrastructure investment assets:

	Guidance for classification	Low Risk	Moderate Risk	High Risk
Return Driver	- Income & Capital mix	- Income yield constitutes a significant component of total return target	- Generally income and capital both contribute equally to total return	- Capital return component primary driver of total return over the short to medium term - yield builds over time as capex sinks, revenues grow and debt is refinanced down
Nature of Income (Demand Profile)	- Degree of predictability and volatility of income - Timeframe for predictability of income	- Predictable & regulated revenues/costs - Long term contract (>10 years) - Long term concession - Assets for which sovereign counterparties (AAA or similar) pay revenues unrelated to volume/usage	- Relatively predictable/stable revenues and costs - Medium term contract (5-10 years) - Income streams with steady growth profile - Strong operational focus	- Assets with market-based revenue streams in the development stage or within emerging markets - Income stream with a higher degree of volatility
Investment Horizon	- Long term >20 years - Medium term: 10 to 20 years - Short term <10 years	- Long-term investment horizon	- Medium to long-term investment horizon	- Generally short to medium-term investment horizon - Characterised by J-curve investment phase
Market Exposure	- Low/Moderate/High risk assets can be found in mature markets Moderate/High risk asset can be found in maturing markets	- Geographically mature markets	- Geographically mature markets - Geographically maturing markets	- Geographically mature markets - Geographically maturing markets - Geographically emerging markets - Infrastructure asset located in non-OECD countries
Asset Stage	- Asset may move down risk categories through the construction phase or as they move from greenfield to brownfield	- Brownfield assets	- Brownfield or rehabilitated brownfield assets and certain state government privatisations (eg power transmission networks, Snowy Mtn Hydro scheme, plantation forestry, etc) - Greenfield social infrastructure assets with contractual protection during construction phase	- High risk brownfield assets - Greenfield assets (developed)



	Guidance for classification	Low Risk	Moderate Risk	High Risk
Investment Grade		- BBB- or higher	- Low or high risk investment grade assets that contain features of a moderate risk infrastructure investment	- BB+ or lower
Example	- Some asset types have different risks depending on the nature of income	<ul style="list-style-type: none"> - Social Use Infrastructure - Pipelines - long term contracts, regulated - Established toll roads - availability - Energy transmission and distribution - Water and waste management systems 	<ul style="list-style-type: none"> - Pipelines - medium term contracts, unregulated - Airports - Seaports - landlords - Rail - Contracted power generation - long term contracts - Established toll roads - with volume risk - Some social infrastructure assets that include construction (e.g. hospital or prison development) 	<ul style="list-style-type: none"> - Pipelines - short term contracts, unregulated Merchant power plants - Contracted power generation - short term contracts - Seaports - stevedoring - Greenfield toll roads
External Factors		- Regulatory risk		<ul style="list-style-type: none"> - Assets with exposure to technology and volume/traffic/patronage and pricing risk - Assets with unclear regulatory regimes or high political risk Industries and/or asset sectors that rely on subsidisation schemes



7 Appendix II

7.1 VERSIONING TABLE

Version	Publication Date	Key Changes
V1	May 2022	Release of the MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) methodology document



Contact us

realestate@msci.com

+ 44 20 7336 4783

AMERICAS

Canada + 1 416 687 6284

US + 1 212 804 3900

EUROPE, MIDDLE EAST & AFRICA

UK + 44 20 7336 9200

France + 44 20 7336 4783

Germany + 49 691 3385 900

Italy + 44 20 7336 9684

Spain + 34 93 467 7403

South Africa + 27 11 656 2115

Sweden + 46 8 400 252 30

ASIA PACIFIC

Australia + 61 2 9033 9300

Hong Kong + 852 2844 9333

Singapore + 65 6826 9339

Japan + 81 3 5211 1455

ABOUT MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit

www.msci.com.

The process for submitting a formal index complaint can be found on the index regulation page of MSCI's website at: <https://www.msci.com/index-regulation>.



Notice and disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.



MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one-off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.

NO REGULATED USE OF ANY MSCI PRIVATE REAL ASSETS INDEXES IN ANY JURISDICTION IS PERMITTED WITHOUT MSCI'S EXPRESS WRITTEN AUTHORIZATION. THE PROCESS FOR APPLYING FOR MSCI'S EXPRESS WRITTEN AUTHORIZATION CAN BE FOUND ON THE INDEX REGULATION PAGE OF MSCI'S WEBSITE AT: <https://www.msci.com/index-regulation>.

PRIVACY NOTICE: FOR INFORMATION ABOUT HOW MSCI ESG RESEARCH LLC COLLECTS AND USES PERSONAL DATA CONCERNING OFFICERS AND DIRECTORS, PLEASE REFER TO OUR PRIVACY NOTICE AT [HTTPS://WWW.MSCI.COM/PRIVACY-PLEDGE](https://www.msci.com/privacy-pledge).