

A Scientific Infra & Private Assets Publication

Global Infrastructure Universe Review

Tracking Investible Private Infrastructure Companies in 25 Key Markets

February 2025

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A complex network diagram with numerous white nodes of varying sizes connected by thin white lines, set against a dark blue background with subtle bokeh light effects.

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Executive Summary

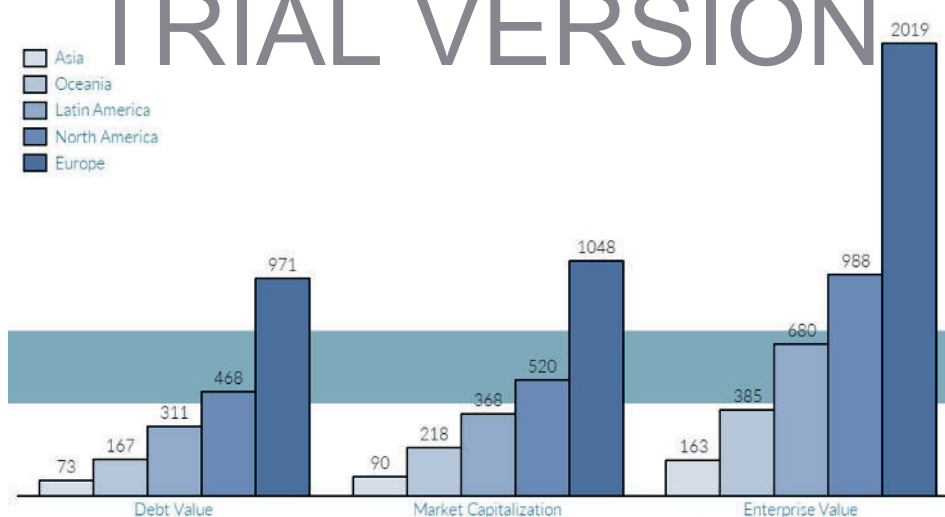
Executive Summary

This report aims to equip private infrastructure investors with a framework for analysing and managing investments by leveraging The Infrastructure Company Classification Standard (TICCS®) classification system, which categorises assets by business risk, industrial activity, geo-economic exposure, and corporate structure. By providing detailed insights into market size, trends, and revenue growth across 25 key markets, the report enables investors to identify opportunities, benchmark performance, and make informed decisions.



The infraMetrics Broad Market Universe provides a comprehensive view of the global unlisted infrastructure sector. The universe categorises each firm’s business model, corporate structure, and asset type according to the TICCS® framework. This classification system maps assets to the 4 dimensions of TICCS® framework across 3 class and 5 sub-classes of business risk, including 8 industrial superclasses, corresponding to 35 industry classes of specific industrial activities and 101 industrial asset-level subclasses, 4 geoeconomic classifications and 2 corporate structure classes. This aids pension funds, insurers, institutional investors, and asset managers in organising their infrastructure investments and understanding their exposure to specific segments within the sector. These segments are aligned with sub-indices, enabling tailored benchmarking against similar portfolio compositions.

FIGURE 1: ENTERPRISE VALUE, MARKET CAPITALISATION, DEBT VALUE BY REGIONS (USD IN BILLION), AS OF 2022



Executive Summary

In this asset universe, Europe leads the unlisted infrastructure market, accounting for nearly half of the global enterprise value. This prominence reflects extensive investment in infrastructure projects and the strong presence of large-scale, unlisted infrastructure companies across the region.

In 2022, the Renewable Power sector commanded the highest market capitalisation at 30%, highlighting considerable investment and emphasis on sustainable energy sources. This substantial share aligns with global trends toward renewable energy adoption and supports the ongoing transition to greener energy solutions, driven by climate change imperatives and the demand for sustainable development. Building on the significant role of the Renewable Power sector and its alignment with global sustainability goals, this discussion delves into a deeper analysis of investment strategies and market trends across various infrastructure segments, providing customised insights for investors and asset managers, allowing them to focus on specific segments—such as contracted and merchant infrastructure in the social and transport sectors—creating customised benchmarks that reflect the weighting of these segments within their own portfolios. The structured approach of the dataset supports portfolio diversification across sectors, reducing concentration risk and enhancing overall balance. For asset managers, it reveals substantial opportunities by highlighting regions with high market capitalisation and offering insights for a focused investment strategy. For instance, if ProjectCo entities hold more influence than CorporateCo entities within a sector, investment strategies can be adjusted to suit specific risk profiles.

Countries chosen to be included in the universe must pass the criteria set out to reflect accurate representation of what the private infrastructure markets truly entail. As information and data of private infrastructures are not readily available, we aim to identify and reveal these infrastructure gaps that are not easily captured in the market. Moreover, institutional investors can leverage private infrastructure datasets to stay attuned to emerging trends within the infrastructure sector by utilising the data to make informed, strategic decisions. To name a couple of examples, analysing sector trends and regional insights can help to identify emerging opportunities by uncovering which sectors are attracting the most investments or experiencing rapid growth, or using geographic data to pinpoint regions with rising demand. Also, by monitoring capital flows, investors can understand where funds are channelled to in specific sectors, thereby able to leverage the data to assess financing models.

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From 2012 to 2022, the YoY revenue growth across sectors reveals how various economic events influenced each industry's performance. IC10 (Power Generation x-Renewables) faced substantial volatility, with declines in 2014-2016 due to shifting policies and market downturns, but rebounded sharply in 2021-2022 amid post-pandemic recovery and energy security concerns. IC20 (Environmental Services) experienced notable drops in 2014 and 2016, tied to changes in environmental policies and global spending cuts, before recovering as sustainability gained prominence. Sectors like IC40 (Energy and Water Resources) and IC60 (Transport) faced disruptions, particularly during the 2020 COVID-19 pandemic, which caused sharp declines due to lockdowns and reduced mobility. However, they quickly rebounded as economies reopened in 2021 and 2022. IC70 (Renewable Power), despite initial slowdowns in the mid-2010s, saw substantial growth in recent years, propelled by global shifts towards clean energy. Notably, IC80 (Network Utilities), a majority regulated sector, showed relative stability between 2014 and 2016 compared to other sectors, with only modest declines. This stability is largely due to the regulated business model that provides consistent revenues, regardless of broader market volatility or commodity price changes, as utilities often have set tariffs and demand remains inelastic. Even during periods of economic slowdown or market shocks, such as the oil price crash in 2014 and global policy shifts, the essential nature of utility services allowed IC80 to remain least impacted, highlighting the resilience of regulated sectors during turbulent times.

TABLE 1: CORRELATION BETWEEN IC10 TO IC80 , GDP, AND CPI

	GDP	CPI	IC10	IC20	IC30	IC40	IC50	IC60	IC70	IC80
GDP	1									
CPI	0.40	1								
IC10	0.47	0.48	1							
IC20	0.24	0.47	0.90	1						
IC30	0.15	0.36	0.57	0.72	1					
IC40	0.39	0.40	0.89	0.73	0.26	1				
IC50	0.12	0.14	0.75	0.84	0.84	0.34	1			
IC60	0.71	0.67	0.71	0.62	0.34	0.74	0.36	1		
IC70	0.49	0.39	0.95	0.89	0.52	0.81	0.72	0.72	1	
IC80	0.26	0.39	0.35	0.53	0.27	0.52	0.36	0.35	0.25	1

The correlation matrix table above provides valuable insights into the relationships between various economic and revenues. GDP exhibits a positive correlation with all variables except for IC80-Network Utilities, indicating that as GDP increases, most other indicators also tend to rise, except for network utilities. CPI is positively correlated with all variables, with the highest correlation observed with IC60-Transport (0.67), suggesting a close link between changes in consumer prices and transportation infrastructure.

Executive Summary

IC10-Power Generation x-Renewables demonstrates strong positive correlations with IC70-Renewable Power (0.95) and IC20-Environmental Services (0.90), underscoring the interconnectedness of power generation, renewable energy, and environmental services. IC20-Environmental Services also shows strong positive correlations with IC50-Data Infrastructure (0.84), indicating a close relationship between environmental services and data infrastructure.

IC30-Social Infrastructure exhibits moderate positive correlations with IC50-Data Infrastructure (0.84) and IC20-Environmental Services (0.72), suggesting a moderate relationship between social infrastructure and both data infrastructure and environmental services. IC40-Energy and Water Resources exhibits strong positive correlations with IC10-Power Generation x-Renewables (0.89) and IC60-Transport (0.84), indicating a close link between energy and water resources, power generation, and transportation.

IC50-Data Infrastructure shows strong positive correlations with IC20-Environmental Services (0.84) and IC30-Social Infrastructure (0.84).. Whilst IC60-Transport exhibits strong positive correlations both with GDP (0.71) and IC40-Energy and Water Resources (0.84).

IC70-Renewable Power exhibits strong positive correlations with IC10-Power Generation x-Renewables (0.95) and IC20-Environmental Services (0.89). Finally, IC80-Network Utilities shows a negative correlation with GDP (-0.26) but positive correlations with other variables, with the highest being with IC20-Environmental Services (0.53).

The negative correlation between IC80-Network Utilities and GDP can be attributed to the tariff structure, where CPI is a factor in calculating tariffs. As GDP increases, the tariff structure based on CPI may not align with the overall economic growth, leading to an inverse relationship between network utilities and GDP.

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