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The unique properties of private infrastructure

Infrastructure is entering a growth phase on a global scale, requiring an estimated annual investment of US$6.9 trillion until at least 2030.

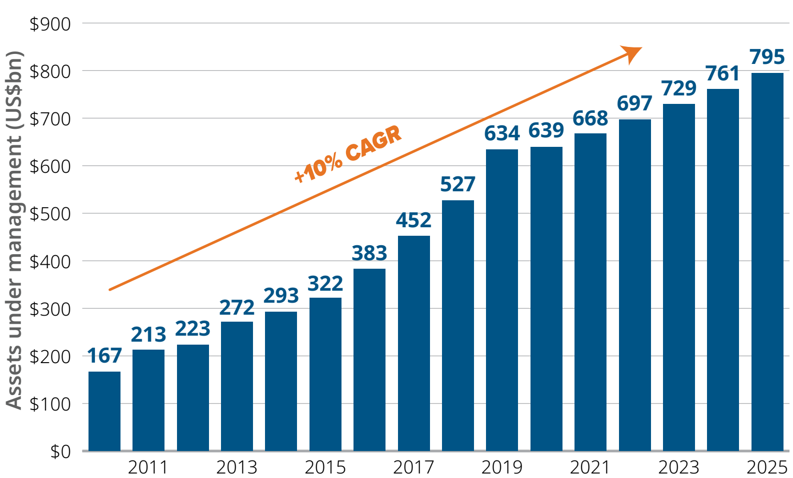
Infrastructure assets serve as the backbone of society by providing basic economic and social services. They range from the familiar – water utilities, energy pipelines, airports, seaports, roads and bridges – to more recent inclusions such as renewable energy projects and communications infrastructure such as transmission towers and data storage facilities.

Powerful trends are driving the need for new investment, including global population growth, urbanization and climate change. In much of the developed world, the refurbishment and modernization of existing infrastructure assets is long overdue.

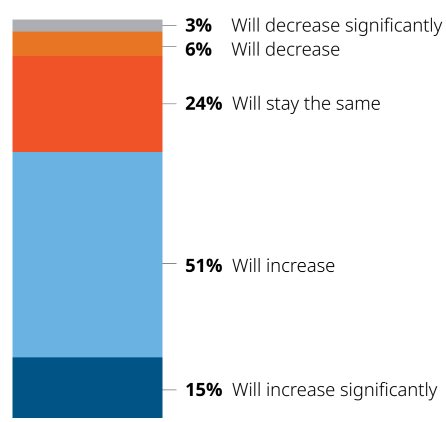
Given the heavily indebted nature of government finance, private investor capital will continue to play a key role in financing these essential projects predominantly through private infrastructure funds. With unique investment characteristics and attractive historical returns, private infrastructure has already earned a strategic allocation in many institutional investor portfolios and continues to be in extremely high demand among asset allocators.

Increasing demand for private infrastructure investments

Growth of private infrastructure AUM (US$bn)



Investors' plans for their allocation to private infrastructure by 2025



90% of institutional investors intend to commit as much, or more, capital to private infrastructure by 2025.

Source: Preqin

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The primary way that institutional investors access the value of infrastructure is through closed-end, illiquid private funds. Retail investors can participate in the value creation process, but until now, primarily only by buying the publicly traded equity of large infrastructure-related companies. In comparison to publicly traded equity, we believe investing directly in private infrastructure has a variety of benefits.

The following historical attributes of private infrastructure are particularly appealing for long-term investors seeking a combination of growth and income:

- Potential for equity-like total returns over time with limited volatility in the valuation of the underlying projects
- Low correlation to other private and public market asset classes
- Stable yield potential, often indexed to inflation, in excess of the yields seen in traditional equity and fixed income

1 Potential for equity-like total returns over time with limited volatility

Historically, private infrastructure as an asset class has offered attractive absolute and risk-adjusted returns relative to public market forms of infrastructure, real estate, equities and fixed income. It has also produced strong results relative to other private market "real asset" asset classes, such as private real estate and natural resources. This is a result of private infrastructure's relatively strong historical returns, which rival global public equities, as well as very low realized risk, as measured by standard deviation.

Risk and return – 10 yrs ended December 31, 2020	Real assets - Private markets			Public markets			
	Private infrastructure[1]	Real estate[2]	Natural resources[3]	Infrastructure equity [4]	Global equity[5]	REITs[6]	Global bonds[7]
Return	9.5%	9.7%	3.3%	6.5%	10.5%	8.3%	4.2%
Volatility	2.7%	3.2%	7.4%	15.8%	15.3%	16.6%	2.6%
Sharpe ratio[8]	3.0	2.6	0.3	0.3	0.6	0.4	1.1

Calculated based on data sourced from Preqin and Morningstar. All returns are in USD.

Source/Index: 1. Preqin, Preqin Private Capital Quarterly Index – Infrastructure 2.Preqin, Preqin Private Capital Quarterly Index – Real Estate 3.Preqin, Preqin Private Capital Quarterly Index – Natural resources 4.Preqin, S&P Infrastructure TR 5. Preqin, MSCI World TR 6. Preqin, MSCI US REIT TR 7. Morningstar, BBgBarc Global Aggregate TR Hdg USD 8. Morningstar, JPM Cash US 3 Month TR USD

These performance characteristics are largely due to the following factors:

- Infrastructure provides services that are virtually indispensable to a functioning society. They provide for basic socio-economic needs and the demand for their services is usually relatively constant.
- Infrastructure asset managers are generally able to maintain pricing power, since competition is limited due to the monopolistic nature of infrastructure projects, elevated building and development costs and/or government restrictions.
- Private market investments are illiquid, and so generally benefit from an illiquidity premium (an enhanced expected return in exchange for a limited ability to trade an asset).
- Infrastructure valuations are stable reflecting high predictability of long-term asset cashflows, quantifiable risks that can be mitigated and private valuation processes insulated from public market volatility.

2 Low correlation to other private and public market asset classes

The profitability of infrastructure assets is far less impacted by economic recession than most businesses listed on the stock market, due to the essential nature of the services they provide. Moreover, a large part of the risk in infrastructure projects tends to be unique to the specific asset, more operational and regulatory-based, and far less tied to broad fluctuations of the market overall.

Private infrastructure in particular benefits from the added advantage of private valuations. These tend to be stable, reflecting asset performance with limited impact from bouts of market pessimism/optimism that can drive up correlations in listed asset classes.

The low correlation between private infrastructure and other asset classes has historically provided investors with significant portfolio diversification benefits, including stability when it is needed most.

Correlations – 10 yrs ended December 31, 2020	Real assets - Private markets			Public markets			
	Private infrastructure[1]	Real estate[2]	Natural resources[3]	Infrastructure equity[4]	Global equity[5]	REITs[6]	Global bonds[7]
Infrastructure	1.0	0.6	0.6	0.5	0.4	0.4	-0.1
Real estate	0.6	1.0	0.5	0.6	0.6	0.4	-0.3
Natural resources	0.6	0.5	1.0	0.7	0.6	0.4	-0.2
Infrastructure	0.5	0.6	0.7	1.0	0.8	0.8	0.1
Global equity	0.4	0.6	0.6	0.8	1.0	0.7	-0.1
REITs	0.4	0.4	0.4	0.8	0.7	1.0	0.3
Global bonds	-0.1	-0.3	-0.2	0.1	-0.1	0.3	1.0

All returns are in USD

Source/Index: 1. Preqin, Preqin Private Capital Quarterly Index – Infrastructure 2.Preqin, Preqin Private Capital Quarterly Index – Real Estate 3.Preqin, Preqin Private Capital Quarterly Index – Natural resources 4.Preqin, S&P Infrastructure TR 5. Preqin, MSCI World TR 6. Preqin, MSCI US REIT TR 7. Morningstar, BBgBarc Global Aggregate TR Hdg USD

3 Stable yield potential, often indexed to inflation, in excess of the yields seen in traditional equity and fixed income

Incorporating infrastructure into a portfolio can potentially deliver long-term income enhancement benefits as many infrastructure assets generate predictable long-term cash flows which form a significant portion of their total returns. The revenues driving those cash flows can be explicitly inflation-linked, thereby providing a built-in hedge against the erosion of investor purchasing power from inflation. We identify three broad types of revenue frameworks for infrastructure investments:

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Contracted assets	Volume-linked assets	Regulated assets
Operated based on a contract between operator and owner, setting out a pre-determined pricing system and revenue.	Derive income per usage and prices are determined by the operator/owner.	Prices are determined by a regulatory body. The business derives income per usage and asset owners typically have pricing power protection.
Examples: certain power generation assets and wireless towers	**Examples:** airports and rail links	**Examples:** electrical transmission networks and gas pipelines
Return drivers: • Fulfilling contractual obligations • Acquiring bolt-on contracts, if available • Operational improvements	**Return drivers:** • Volume of users • Broadening revenue streams, if available • Operational improvements	**Return drivers:** • Regulated asset return on equity • Growth in capital base • Operational improvements
Primary risks: • Failing to fulfill contractual obligations • Poor operational performance	**Primary risks:** • Weak usage numbers • Inability to develop new revenue streams • Poor operational performance	**Primary risks:** • Regulatory environment • Weak demand for services • Poor operational performance
Inflation sensitivity: Limited/asset dependent • Many contracted assets have no contractual inflation protection • Some contracted assets have inflation linkage or contractual resets	**Inflation sensitivity:** Medium to high • Many volume-linked assets have market-based pricing power • Other volume-linked assets have contractual inflation linkage	**Inflation sensitivity:** Medium to high • Growing utilities typically have an inherent inflation hedge • Price indexed pipeline contracts provide inflation linkage

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Expanding the horizons of individual investors

The need for private infrastructure investment is unquestionable and institutional investors have been willing suppliers of capital. Retail investors on the other hand have yet to be able to participate in the space due to the illiquid nature of the asset class, the short supply of quality managers and highly restrictive investment minimums.

Growing demand from retail investors has, however, encouraged innovation in product development that promises to democratize the asset class, making it more accessible to accredited investors who have long-term time horizons, with market terms more suitable to their needs.

To learn more about the Mackenzie Northleaf Private Infrastructure Fund, speak to your Mackenzie Sales Representative.