

Macquarie Global Listed Infrastructure¹

Same, same, but different - accessing the infrastructure megatrend

Infrastructure investments have become highly sought after. They have a range of potentially attractive characteristics, including inflation linkage, limited economic sensitivity, and strong yields and often provide exposure or contribute to some of the most significant global thematics, including changing demographics, decarbonisation, digitalisation and deglobalisation.

For investors, there are a range of options for gaining exposure to infrastructure. The two most common include private market funds and listed infrastructure equities. In our view, there is a place for both approaches in client portfolios, and they often provide complementary exposure. Listed infrastructure can be of particular interest for those investors that require more flexibility to meet liquidity needs.

The global infrastructure landscape

Infrastructure companies own and operate infrastructure assets that provide the essential services that support communities and underpin their economic competitiveness.

By their very nature, these essential services are used in high volumes on a daily basis by a large, captive customer base, including households, businesses, commuters, drivers, exporters and importers and travelers.

In general, pricing (tolls and fees) is often established and controlled by regulators, and revenues are predictable. Operating costs tend to be relatively low, and owners/operators have long-term contracts that typically include concession arrangements stipulating future price increases for use of the asset (highway tolls, for example).

Macquarie's pedigree

Macquarie is one of the largest and longest-tenured infrastructure manager in the world. In fact, Macquarie founded the infrastructure asset class back in the mid-1990s, after publicly listing a Sydney toll road, the Hill Motorway Group. Today, Macquarie is the world's largest infrastructure manager, with US\$208 billion in assets across a portfolio of more than 170 businesses, which more than 280 million people rely on every day.

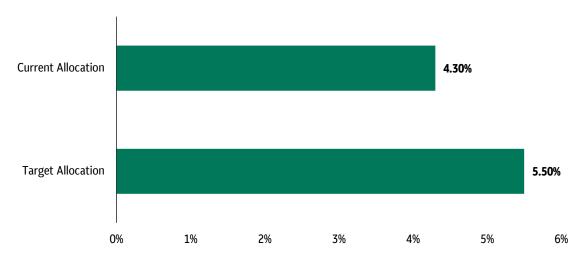
Our listed infrastructure business was also one of the very earliest. Established in 2004, the team today manages more than US\$2.6 billion for institutional and wealth clients all around the world.

¹ Macquarie Listed Infrastructure is an equity team within Macquarie Asset Management's (MAM) Equities & Multi-Asset business.

Size of the infrastructure markets

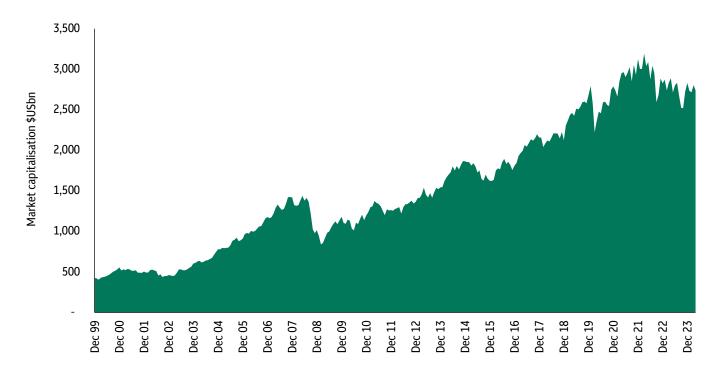
Despite the growth in interest globally, investors remain under-allocated to infrastructure and have not been able to deploy capital to reach target allocations. With global private infrastructure dry powder at near record levels, there is significant capital pursuing a limited number of deals, and competition is fierce.

Institutional investors current vs. target allocation to infrastructure



Source: HodesWeill@associates: 2024 institutional infrastructure allocations monitor.

The listed infrastructure market provides investors with a broad, deep and liquid collection of infrastructure investment opportunities. The infrastructure opportunity set is large. Using Macquarie Global Listed Infrastructure's (GLI) approach to defining infrastructure, we believe there is approximately \$US3.0 trillion of infrastructure assets globally under public ownership and available for listed-market investors.



Sources: FTW, Macquarie, GLIO.

We estimate that roughly \$US1 trillion to \$US1.5 trillion of global infrastructure assets are privately owned, making the listed market between two and three times the size of the private market. Despite the size differential, we believe that the investable universes for listed and unlisted infrastructure are complementary.

Listed vs. unlisted

The Macquarie GLI team does not differentiate public and private or listed and unlisted, and instead considers them the same type of assets, just offered in a liquid-market wrapper.

Below is a high-level comparison between listed and private infrastructure:

Importance of infrastructure definition

How a listed infrastructure manager defines what is and is not infrastructure is a key determinant to the outcomes received by investors.

Macquarie takes a pure approach to defining its investment universe, requiring 80% of enterprise value to come from infrastructure before being included.

In taking such an approach, the team believes it has a greater probably of delivering clients the benefits of infrastructure and mitigates some of the potential risk such as uncompensated volatility, reduced yield, or limiting diversification benefits

	Listed infrastructure	Private infrastructure
Investment type	Publicly traded companies (equity securities)	Physical assets, operating companies
Investment universe	Geographic and sector diversity	Availability based
Investment vehicles	Open-end, closed-end, UCITs, SICAV, CIT, institutional pool, Separately managed accounts (SMAs)	Institutional pool (LP structure), Separately managed accounts (SMAs)
Market depth	Active liquidity across multiple markets	Subject to deal flow
Portfolio diversification	Broad	Focused
Management control	Arm's length	Direct ownership
Liquidity for clients	High	Low
Liquidity for portfolio manager	High	Low
Valuation frequency	Daily	Varies, typically quarterly
Investment management expenses	Low	High
Investment commitment level	Low	High
Volatility	Similar to slightly lower than global equities	Low

Liquidity

The single most significant difference between the two approaches is liquidity.

GLI offers daily liquidity, unlike private or direct investments in infrastructure assets, enabling fund managers to tactically reallocate to potentially attractive opportunities as they arise. Listed markets offer the possibility of immediately deploying capital. As an example, we have not seen any issues in investing \$US50 million to \$US100 million in a single day.

Liquidity for the portfolio manager provides flexibility around the timing of entry and exit, size of the position, holding period, and incremental contribution to the portfolio.

Brad Frishberg, Head of GLI, neatly summarises the importance of this liquidity:

"Every morning when I wake, I ask myself if I would buy the same portfolio I have today. If the answer is no, then I need to consider changes."

Such an approach is not possible in private infrastructure, where liquidity is typically unavailable for extended periods of time.

Many investors highlight a belief of an illiquidity premium for private assets. We would argue that there is actually a liquidity premium (i.e. a value in being able to transact at any point in time) for listed assets, and any performance differential is driven more by a control premium.

Control

The primary approach in unlisted infrastructure is to buy an asset with the aim of improving it, then sell it at some point in the future to generate a return. To do this, private investors take control of the asset or company.

While listed market investors can align ourselves and influence management teams through engagement, we do not have direct control of day-to-day activities given our minority shareholding. From an unlisted perspective, direct control exists in the management of the assets.

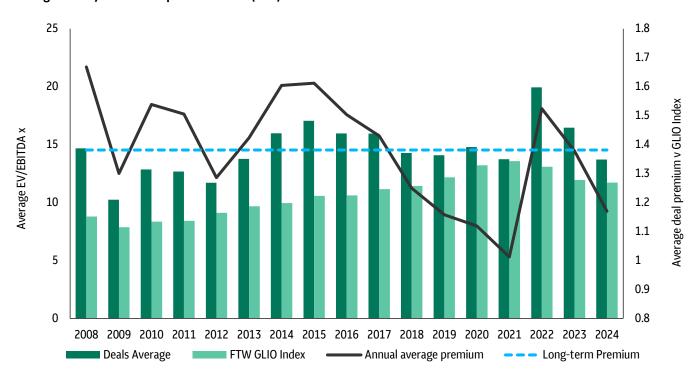
Diversification

Listed infrastructure portfolios offer diversification across geographies, sectors, and a broad range of assets. Unlisted funds' investments are based on availability during the period after a fund's launch, so these funds tend to be more focused.

Valuation

Listed infrastructure assets have typically traded at enterprise value (EV) / earnings before interest, taxes, depreciation and amortisation (EBITDA) multiples below those of equivalent assets in the private market. The higher transaction multiples reflect a range of factors, including a valuable control premium. On the contrary, unlisted investors should consider a negative impact due to illiquidity.

Average deal EV/EBITDA multiple v FT Wilshire (FTW) GLIO Index



Sources: Infralogic and GLIO.

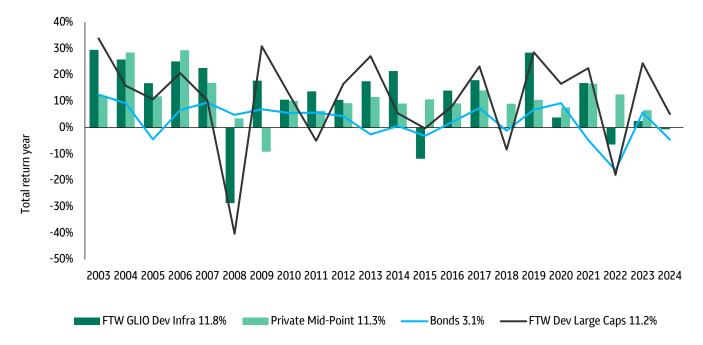
Unlisted infrastructure investors need to 'beat the competition' to secure assets. Scarcity of available assets and greater than \$US300 billion in 'dry powder' are contributing factors to a divergence in valuations between listed and unlisted markets.

The higher prices are likely attributed to more than the factors outlined above but are more difficult to isolate.

Performance

Over the longer term, listed infrastructure returns have been similar to unlisted infrastructure returns but with less structuring and no direct control. Despite this, there can be a significant valuation lag between the listed and unlisted markets given the revaluation cycles of unlisted assets.

Global infrastructure vs. equities and bonds, year-on-year \$US total returns: 2003 to 2024 (year to date, averages in legend)



Listed investment trusts (LITs)

Another common question from investors when discussing access is infrastructure is investment trusts (LITs)s. While performance of this group has been historically strong in recent times, many trusts, particularly those in the UK, have traded at significant discounts to their published net asset value (NAV), highlighting one of the challenges associated with such vehicles.

One of the key challenges for LITs is that, thanks to their own legal structures, some of them are unable to issue equity when they are trading below NAV. While this is intended to protect holders from dilution, this restriction often occurs at the exact time when one would hope to deploy incremental capital.

At Macquarie, while we can invest in trusts should we deem them attractive, we have historically not done so for several reasons, including:

- 1. **Disclosure (asset-level reporting) –** We model companies from the ground up on an asset-by-asset basis. LITs often do not provide operating statistics for the underlying assets. As a result, it is difficult to forecast the future cash flows of the underlying assets accurately.
- 2. **Operating assets** We aim to invest in businesses operating the respective infrastructure assets. This is often not the case with LITs, where the management of the underlying assets is outsourced.
- 3. **Costs** Costs charged to manage the assets can often be considerable and not always easy to understand or determine on a forward-looking basis. This has been particularly evident under the new synthetic charges' regulation.

- 4. **Diversification** Many of the companies in the portfolio are very large infrastructure businesses, which provide exposure to a considerable range and number of projects. For example, SSE in he UK currently has 66 different onshore and offshore wind projects that are either operational or in development, including the development of the world's largest offshore wind project, Dogger Bank.
- 5. **Governance** We believe it is important to understand how, and by whom, the assets in these trusts are being valued.
- 6. **Performance** As these are listed market trusts they can trade at either premiums or discounts to NAV. As a result, their performance can be significantly more volatile than an investor might expect given the underlying assets.

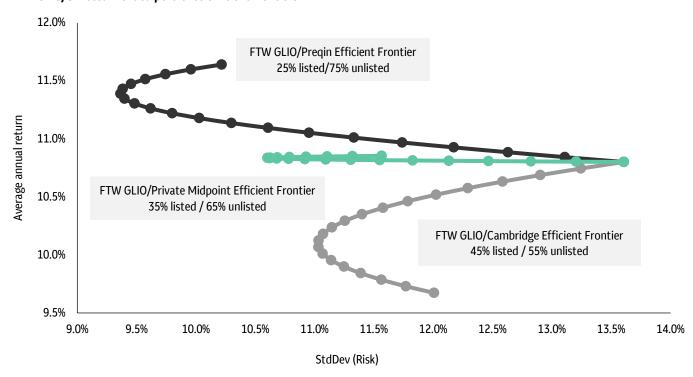
The world of hybrids: Democratisation of private markets

In the past 18 months, there has been significant evolution in interest and potential vehicle structures that aim to provide a hybrid solution combining both liquid and private markets.

Listed infrastructure offers different subsector exposures, putting particular emphasis on both regulated utilities, particularly electricity, and GDP-sensitive assets such as airports, rail and toll roads. On the other hand, unlisted infrastructure can provide exposure to areas such as fibre, healthcare, and social infrastructure.

By allocating to both (below GLIO reflects the listed infrastructure exposure, while the Prequin, Cambridge and midpoint depict various unlisted exposures), an investor can effectively push out their efficient frontier as can be seen in the chart below.

FTW GLIO/Unlisted Blended portfolios efficient frontiers



Macquarie has already made significant progress developing and delivering such approaches and works with investors around the world to meet their specific requirements. Looking ahead, we believe this is an exciting space to watch.

Summary

Infrastructure assets have become highly sought because they offer investors a range of desirable characteristics. For investors, there are a range of options for gaining exposure. The two most common include private market funds and listed infrastructure equities. In our view, there is a place for both approaches in client portfolios, with often complementary exposures provided. Listed infrastructure can be of particular interest for those investors that require more flexibility to meet liquidity needs.

Contact us

Visit Macquarie Asset Management to find out more about our range of investments and how our solutions can help you to meet your goals.

Have a question? Please contact us and we will respond as soon as possible.

Key risks

The potential for adverse events in the global infrastructure sector to impact the performance of the investments of the Strategy. Investments in securities issued by companies which are principally engaged in the infrastructure business will subject the Strategy to risks associated with direct investment in infrastructure assets. Factors such as the availability of finance, the cost of such finance in general as well as in comparison to prior periods, the level of supply of suitable infrastructure projects and government regulations relating to infrastructure may influence the value of these investments and hence the Strategy.

The risks of investing in the infrastructure sector include those listed here.

New project risk: Where an infrastructure issuer invests in new infrastructure projects, it is likely to retain some residual risk that the project will not be completed within budget, within the agreed time frame and to the agreed specification.

Strategic asset risk: Infrastructure assets may include strategic assets, that is, assets that have a national or regional profile, and may have monopolistic characteristics. The nature of these assets may generate additional risk given the national/regional profile and/or their irreplaceable nature and may constitute a higher risk target for terrorist acts or political actions.

Documentation risk: Infrastructure assets are often governed by a complex series of legal documents and contracts. As a result, the risk of a dispute over interpretation or enforceability of the documentation may be higher than for other issuers.

Operation risk: Should an infrastructure issuer fail to maintain and operate the assets efficiently, the ability to maintain payments of dividends or interest to shareholders may be impaired. Failure by the infrastructure issuer to carry adequate insurance or to operate the asset appropriately could lead to significant losses and damages.

International investments entail risks including fluctuation in currency values, differences in accounting principles, or economic or political instability. Investing in emerging markets can be riskier than investing in established foreign markets due to increased volatility, lower trading volume, and higher risk of market closures. In many emerging markets, there is substantially less publicly available information, and the available information may be incomplete or misleading. Legal claims are generally more difficult to pursue. The Strategy may invest in preferred stock and hybrid securities, which may have special risks. Preferred and hybrid securities may include provisions that permit the issuer, at its discretion, to defer distributions for a stated period without any adverse consequences to the issuer. Some preferred and hybrid securities are non-cumulative, meaning that the dividends do not accumulate and need not ever be paid. A portion of the Strategy's assets may include investments in non-cumulative preferred or hybrid securities, under which the issuer does not have an obligation to make up any arrears to its investors. Preferred and hybrid securities may be substantially less liquid than many other securities, such as common stocks or US government securities. Generally, preferred and hybrid security holders (such as the Strategy) have no voting rights with respect to the issuing company unless preferred dividends have been in arrears for a specified number of periods, at which time the security holders generally may select a number of directors to the issuer's board. Generally, once all the arrears have been paid, the security holders no longer have voting rights. In certain varying circumstances, an issuer of preferred or hybrid securities may redeem the securities prior to a specified date. For instance, for certain types of preferred or hybrid securities, a redemption may be triggered by a change in federal income tax or securities laws. A redemption by the issuer may negatively impact the return of the security held by the Strategy.

Important information

Source for all performance data unless noted: Macquarie.

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