


 Puget Sound Energy, United States

MACQUARIE ASSET MANAGEMENT

Private infrastructure debt: Where income meets resilience

Private infrastructure debt sits within the private credit universe, but behaves differently - its income comes mostly from contracts and essential services rather than credit quality and market conditions. As access expands beyond institutional investors,¹ it is increasingly considered for income generation and long-term stability in wealth portfolios.

Adding private infrastructure debt to a portfolio may provide:


Durable income streams supported by the essential nature of the services provided and contractual cash flow features that may be less sensitive to economic cycles



Defensive credit characteristics with a focus on downside protection and historically lower default rates relative to some other credit strategies



Predictable, inflation-linked cash flow characteristics that may align well with long-term portfolio objectives

What is infrastructure debt?

Infrastructure debt involves providing financing to support the development and operation of essential assets, such as roads, utilities and digital infrastructure. It is typically structured to emphasise downside protection and contractual income, offering a distinct risk and return profile compared to other private credit strategies.

1 Income designed for stability

Investors have increasingly focused on income alongside stable, long-term returns and private infrastructure debt seeks to deliver both. We estimate the annual gross yield on infrastructure debt is ~10-11%, nearly double that of corporate bonds and in line with direct lending assumptions.²

In addition, experienced private infrastructure debt managers can take a selective approach to sector, asset and regional exposure, focusing on investments backed by resilient revenues, established operators and political and economically stable markets to support long-term returns.

The asset class has several defining characteristics that support income generation and distinguish it from other investment approaches:



Essential services

Infrastructure assets provide fundamental services, such as clean water, reliable electricity and efficient transportation systems, all of which are critical for public health, safety and economic activity. Because these services are indispensable, demand has historically been steady, supporting stable operating revenues.



Low demand elasticity

Demand for essential services is generally inelastic and tends not to fluctuate materially with changes in price or income. This characteristic supports more stable revenue streams across economic cycles.



Regulated or contract-protected cash flows

Many infrastructure assets operate under regulatory frameworks or long-term contractual arrangements, providing greater visibility into future cash flows and helping insulate revenues from short-term market volatility.



Capital intensive and high barriers to entry

Infrastructure assets typically require substantial upfront investment, creating barriers to entry. This limits competitive pressures over time and helps protect revenue streams of established assets, offering lenders greater predictability.



Predictable and inflation-linked cash flows

Infrastructure cash flows are often forecastable and, in many cases, linked to inflation through contractual or regulatory mechanisms. This can help preserve real income over time and support long-term portfolio objectives.



Creditworthy counterparties

Infrastructure projects frequently involve partnerships with government entities or high-quality commercial counterparties with strong credit profiles. These partners, often having robust credit ratings, offer financial stability and a vested interest in a project's long-term success.



Specialised corporate structures

Infrastructure financing commonly employs purposefully built corporate structures that align revenues and expenses to a specific asset. These structures enhance transparency, simplify management and reduce complexity for lenders.

2 Structural protections that support future cash flows

Private infrastructure debt includes contractual protections and structural features designed to enhance downside protection and provide early indicators of underperformance. These features differ from those found in traditional corporate credit and can support earlier intervention if projects encounter operational or financial stress. Three primary ones include:

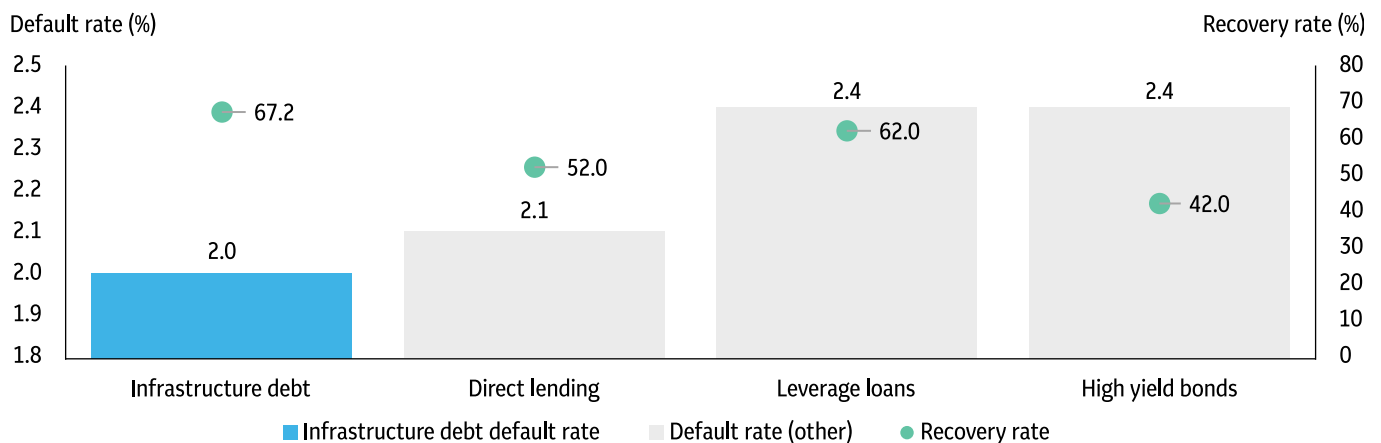
- **Seniority:** Senior loans are first to be repaid and are protected because other investors take losses before them.
- **Covenants:** Contractual requirements that help monitor cash flow adequacy, asset maintenance and financial discipline, providing early indicators of potential underperformance.
- **Control:** Lenders can replace underperforming project operators to secure continued asset performance.

Many projects also benefit from long-term contracts or regulatory support, which can enhance the predictability of future cash flows, especially during periods of market volatility.

3 Downside risk management to mitigate portfolio losses

Private infrastructure debt has historically been associated with greater resilience during periods of market stress. This has been reflected in more stable return profiles and lower default rates relative to some other credit strategies (Figure 1). For example, infrastructure debt is often compared to direct lending due to their income oriented characteristics; however, the underlying risk profiles differ. Based on historical data, infrastructure debt has exhibited a lower expected loss rate of about 0.7%, which is lower than the 1.0% expected loss rate in direct lending.³

Private infrastructure debt has experienced lower defaults and higher recovery rates (Figure 1)



For illustrative purposes only. Sources: Cliffwater Direct Lending Index (CDLI), 2005-2023; KBRA Analytics - Direct Lending Deals (KBRA DLD), 2024. JP Morgan Markets (2024), Moody's Infrastructure default and recovery rates (2024), internal analysis. Macquarie does not guarantee a particular rate of return or performance.



Chart takeaway

Fewer defaults and stronger recovery rates help preserve investor capital, especially when markets are under pressure.

Investing in infrastructure debt is not without risk

While private infrastructure debt can fulfill a defensive role in portfolios, it is still subject to risks common to private credit investments. Investments are typically long term and not easily sold (i.e. illiquid), projects can face financial stress during difficult economic periods, and private investments may offer less transparency. This is why investing through a diversified fund managed by an experienced team with a strong focus on due diligence and risk management can be an important consideration when allocating to this asset class.

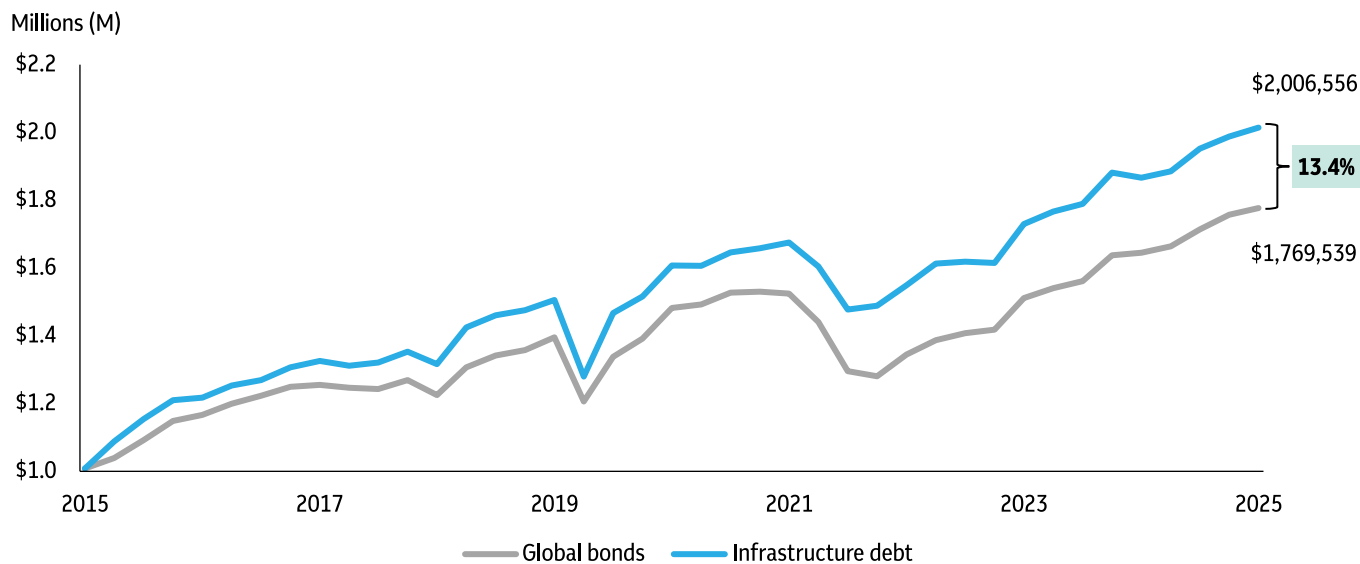
The bottom line: Playing offense and defense through income and safety

Private infrastructure debt may be considered within a strategic asset allocation for investors seeking income with capital preservation. Its ability to play both offense and defense makes it an attractive addition to portfolios:

Offense: Private infrastructure debt can provide durable income backed by essential assets, helping support near-term income needs. Over time, it has also delivered attractive total returns compared with some traditional credit strategies. For example, over the last 10 years, infrastructure debt generated 13% more wealth than global bonds (Figure 2).

Defense: At the same time, private infrastructure debt is typically structured with features to enhance downside protection, including an emphasis on mitigating defaults while maximising recovery rates.

Growth of \$US1m investment: Infrastructure debt has outpaced global bonds over the past 10 years (Figure 2)



For illustrative purposes only. Source: Bloomberg Finance L.P. Data as of 31 December 2025. Graph is indexed to 31 December 2015. Macquarie does not guarantee a particular rate of return or performance. Past performance is not a reliable indicator of future performance.




Chart takeaway

Historically, infrastructure debt has shown resilient long-term performance, exceeding returns of traditional bonds over full market cycles.

Endnotes

1. Assets under management rising by 15.2% per year over the past decade – around 2.5 times faster than global investments overall. Source: Infrastructure debt data sourced from Preqin. Global AUM growth data sourced from Boston Consulting Group, January 2026. Past performance is not a reliable indicator of future performance.
2. Sources: Default and recovery rates are taken from Cliffwater Report on US Direct Lending (4Q2023) and Moody's Infrastructure default and recovery rates (2023). Return estimates are based on internal analysis for infrastructure debt and direct lending. The return estimates for corporate bonds are based on the Bloomberg US Corporate High Yield Bond Index. Fees have been obtained from internal analysis across infrastructure debt and direct lending funds. For corporate bonds, fees have been obtained from appropriate exchange-traded fund (ETF) indices. All data as at 31 December 2023 unless stated otherwise. For illustrative purposes only.
3. Sources: JP Morgan Markets (2024), Moody's Infrastructure default and recovery rates (2024), internal analysis. Macquarie does not guarantee a particular rate of return or performance.

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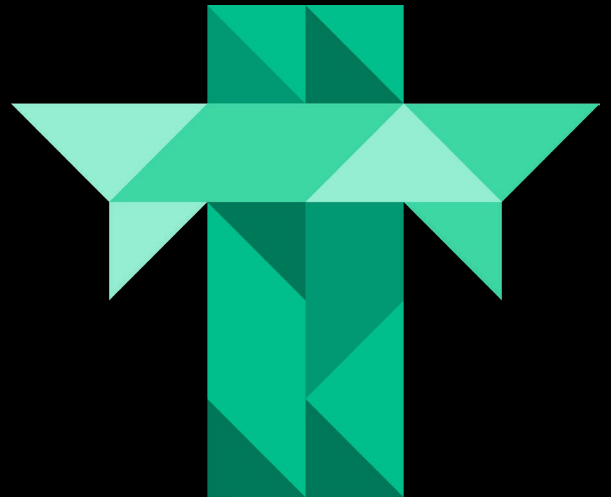
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