AQUILA CAPITAL

White paper

WHY INVEST IN INFRASTRUCTURE PRIVATE DEBT?

Infrastructure private debt is loan capital – often in the form of a subordinated debt – provided by the private sector to finance infrastructure projects.

- **INCREASING NEED FOR ENERGY AND INVESTMENT**
  Rising demand for energy and increasing decarbonisation require substantial investment from the private sector.
- **ATTRACTIVE RETURNS**
  Higher interest rates in the long term, together with premiums for providing loan capital not traded on the public markets.
- **INFLATION PROTECTION**
  Index-linked contracts and pricing power protect against dynamic inflation.
- **STABLE VALUATION OF INVESTMENTS**
  Low and stable default rates compared to equity investments and publicly traded corporate bonds, especially during market downturns, help to keep investment volatility low while contributing to portfolio diversification.

Continuing high demand for financing in the infrastructure sector together with higher interest rates mean that now is a promising time for private debt investors to enter this asset class. Experienced asset managers with strong networks in the market can offer customised financing solutions for portfolio construction.

Market trends

Over the last ten years, the global infrastructure market has seen a steady increase in transaction volumes, which fell slightly only in the period following the COVID crisis. Higher interest rates and continuing high demand for capital from the infrastructure market make this an attractive asset class for investors. Traditionally, investments in infrastructure debt are a source of predictable and stable income with interesting returns. These are based on secure, long-term cash flows from the underlying projects and on mechanisms in the corresponding revenue models to compensate for inflation. This contributes to stable valuations in times of rising prices.

In addition, investment in private debt has become more attractive in recent years due to rising interest rates. From 2021 to the end of 2023, short and long-term interest rates rose by around 450 and 350 basis points respectively, delivering higher returns to investors in private debt. In response to a recent cooling of inflation data in both Europe and the USA, central banks opted to lower base rates this year for the first time since 2020. The European Central Bank was the first to cut interest rates in June 2024, followed by the US Federal Reserve in September of this year. However, rather than returning to the pre-pandemic lows, interest rates are expected to settle at a higher level over the longer term, a prediction borne out by current yields on short and long-term government bonds.[1]

This interest rate outlook contrasts markedly with the extremely relaxed monetary policy seen over the last decade. One reason for this trend is increasing de-globalisation. Policy makers and industry alike have begun to reorganise production centres and supply chains to give them a different, more local emphasis going forward. Any fragmentation of supply chains, however, could give rise to inefficiency and increasing costs, which, in turn, is an argument for interest rate hikes. Moreover, Europe, in particular, is undergoing demographic change with an increasingly ageing population. The resulting contraction in the workforce is having a negative impact on total factor productivity. Coupled with constant demand, this leads to a rise in production costs and could ultimately prompt central banks to raise interest rates to counteract inflation. Higher interest rates, however, help sustain returns on debt financing, ensuring that infrastructure debt remains attractive in the medium and long term.

What are the economic factors driving growth in the infrastructure debt market?

Even though the total volume of raised infrastructure capital fell recently following ten years of growth, transaction activity in the energy transition and telecommunications sectors has remained high compared with the broader infrastructure market.[2]

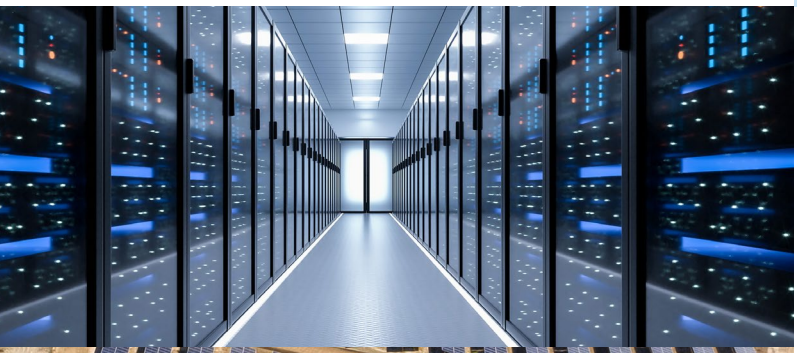
With banks becoming increasingly reluctant to finance infrastructure projects (only around 50% of loans are provided by commercial banks[3]), we are now seeing considerable demand for alternative sources of debt capital. This funding gap can be closed by private debt. At the same time, this opens up opportunities for project owners to access the tailored financing solutions available in the private sector.

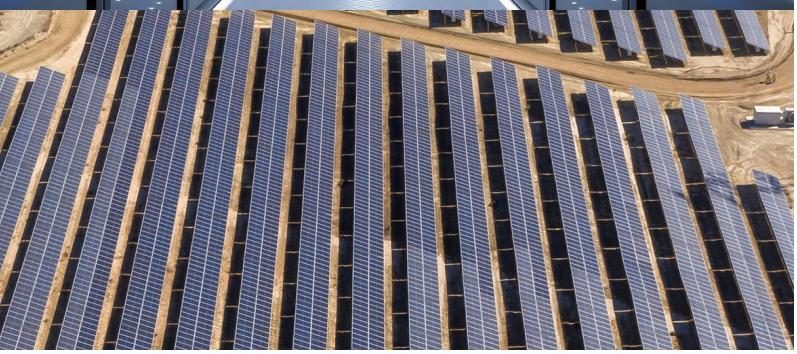
Regulatory initiatives such as European Union targets for reducing greenhouse gases (60% reduction on the 1990 figure; net-zero target by 2050) are driving the expansion of and investment in the energy transition. In addition to the expansion of renewable energy sources, this also includes additional energy efficiency initiatives, such as investments in grid infrastructure (smart grids). Furthermore, according to its own European Green Deal, the European Commission estimates that around EUR 390 billion a year will be required for the energy transition until 2030. Since the EU Member States cannot raise amounts of this size on their own, significant investment from the private sector is required.[4]

1 Bloomberg data point, ECB forecasts, Aquila Capital's own view (retrieved October 2024)
2 Inframation – Transaction analytics 2023 (retrieved October 2024)
3 Bloomberg Loan Search (retrieved September 2023)
4 European Environment Authority (retrieved October 2024)

The expansion of electro-mobility will also fuel demand for financing in the coming years. Although growth in sales of electric vehicles remained sluggish in Europe for many years, their popularity has increased sharply since 2020, with sales of hybrid and all-electric vehicles reaching new year-on-year highs. In 2023, sales figures in Europe were 18% up on the previous year, standing at 3.2 million vehicles in total. By comparison, only 0.6 million vehicles were sold in 2019.[5] With growth rates on this scale, charging infrastructure for electric vehicles is set to attract further attention in the years to come. This affects both policy makers who, mindful of carbon emission targets, welcome more electric vehicles on the road, and investors on the look-out for interesting investment opportunities in a growing market.

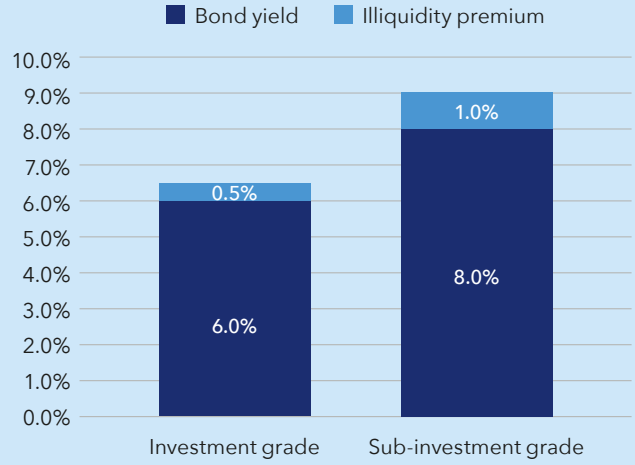
Telecommunications and digital infrastructure have been attracting the attention of infrastructure investors for some time now. In addition, recent significant advances in artificial intelligence (AI) applications such as ChatGPT have further boosted planned investments in large data centres. And this expansion in computing capacity is fuelling demand for electricity in the sector. The power required by a single rack of servers in a data centre designed for AI processes is around four times that of a rack in a conventional data centre. What are known as green data centres are one solution that can help offset the resulting higher ecological footprint. As they are supplied with clean energy, these data centres offer a further opportunity for infrastructure investors who wish to focus on sustainable technology and decarbonisation.





Benefits of private debt in infrastructure

Private debt offers predictable revenue streams on a level similar to that of equities, albeit with a better risk profile due to lower default rates. The cash flows generated comprise one-off fees and fixed interest payments. The interest payments also include a premium to compensate the investor for the illiquidity of these bonds (which are not traded on the capital market) and their usually more complex structures.

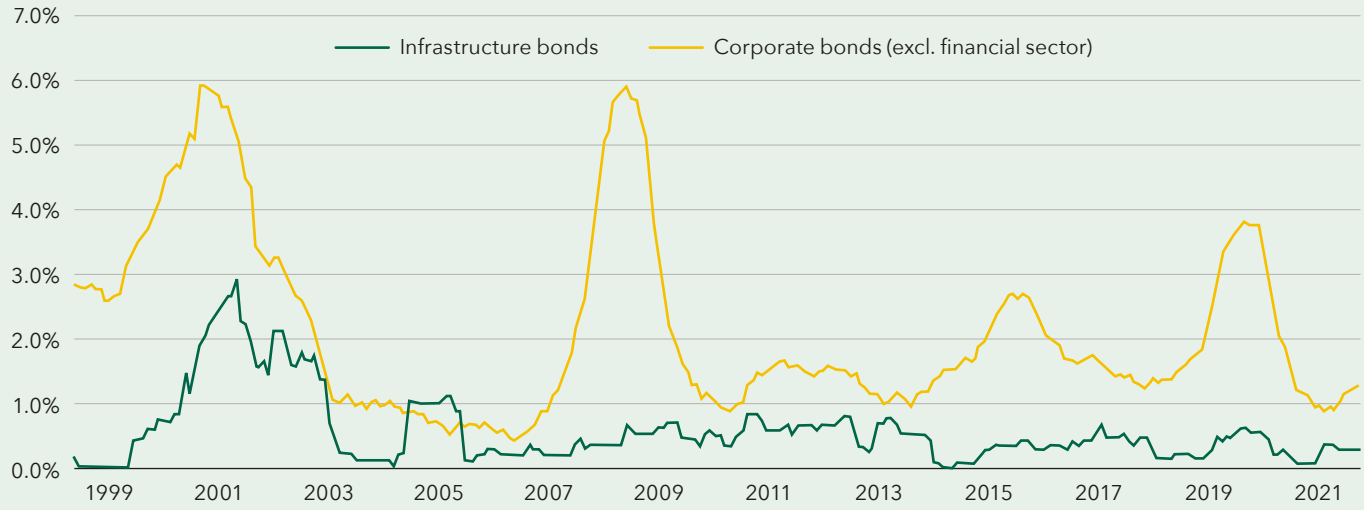


The illiquidity premium starts at up to approx. 50 basis points for investment-grade ratings and can exceed 100 basis points for sub-investment-grade investments[6], thus offering higher returns than actively traded bonds of a similar asset class. It is expected that these premiums will remain in place, even if interest rates fall. In principle, moderate interest rates as currently expected by the capital market offer a good environment for investors in private debt: while the achievable returns are comparatively high, the general interest rate does not inhibit transaction activity in the infrastructure sector.

In contrast to conventional asset classes such as equities and corporate bonds, infrastructure projects satisfy systemically relevant needs and thus tend to be more resilient to short-term fluctuations in the economy. In the past, infrastructure debt has exhibited lower and more stable default rates than corporate debt, especially during market downturns.[7]

5 International Energy Agency (retrieved October 2024)
6 Based on own analysis of loans secured by Aquila Group
7 S&P Global Ratings Credit Research & Insights (2022)

12-MONTH DEFAULT RATES (HISTORICAL)



Source: S&P Global Ratings Credit Research & Insights.

This greater stability of infrastructure debt reduces the volatility of investments in turbulent market phases and thus provides investors with diversification benefits.

Built-in inflation protection helps to stabilise the valuation of investments in infrastructure. This is usually achieved through contractual mechanisms that serve to sustain project revenues while cushioning the effect of any changes in the level of inflation. Even without a contractual agreement, investments in renewable energies can offer protection against inflation, as prices on the electricity market usually correlate strongly with the inflation rate. As soon as prices rise, the comparatively inelastic demand offers additional revenue protection.

As infrastructure financing usually involves complex transactions, experienced lenders are well placed to negotiate robust collateral and contractual covenants with project owners to protect the investment and thus reduce the risk of loan defaults. As a result, investments in private debt offer high risk-adjusted returns.

In addition, investors will find opportunities to invest in sustainable projects, particularly in the sub-sectors of renewable energies as well as in energy efficiency and electrification. Prudent due diligence conducted with such projects ensures that numerous ESG factors are taken into consideration.

The role of private debt in financing infrastructure projects

Infrastructure investments have evolved over time. Today, they also include projects for the generation of renewable energy, energy efficiency measures and digital infrastructure facilities. The revenue models of projects such as these are often more complex than those of public private partnerships (PPPs) in the transport sector, for example. Transaction structures have also become more complex due to the use of multiple sources of financing. The capital structure of a transaction may comprise the following elements, listed from high to low risk: share capital and preference shares, mezzanine financing or subordinated financing tranches and, finally, senior debt facilities.

In particular, the larger banks, which usually provide senior debt tranches, are looking for simpler forms of investment with lower risk. When transactions become more complex, banks can be less willing to provide high levels of debt capital, and this is where expert private debt investors can fill the resulting financing gap with mezzanine tranches.

Equity sponsors appreciate the flexibility of infrastructure private debt as an alternative or supplement to senior lenders, and thus its ability to provide customised and value-enhancing financing solutions. For investors, the resulting greater variety of transactions has a positive effect on the structure and diversification of the investment portfolio.

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