For professional investors - March 2023

INFRASTRUCTURE DEBT – A SUSTAINABLE, DIVERSIFYING SOLUTION

For investors eyeing stable long-term income from a broad and diverse asset class, investing in private assets, in particular infrastructure debt, can be a resilient solution. It has been robust in times of crisis – witness its performance during the pandemic – and across economic cycles. Its secret? Infrastructure provides services that are in demand whatever the economic climate.

NEW MACROECONOMIC CHALLENGES

Intermittent lockdowns over the last few years were thankfully followed by a reopening of European economies in 2022. Despite the drag on growth caused by lingering supply side constraints (labour markets, supply chain bottlenecks), and high energy prices following Russia's invasion of the Ukraine, European GDP still rose for the year.

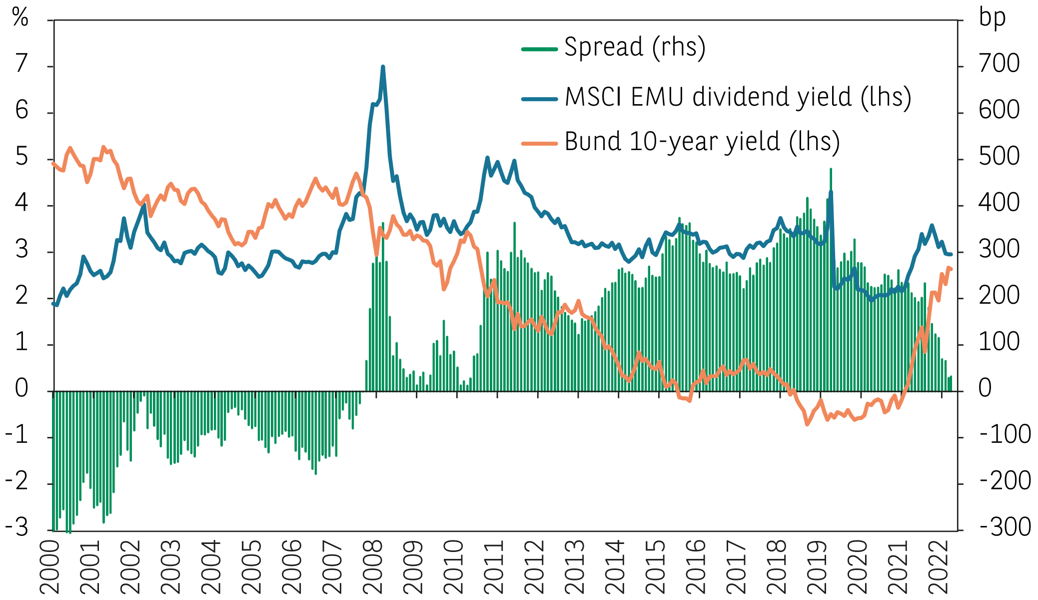
We expect growth to lose some momentum in 2023. Even if Europe escapes a recession, one in the US will likely hold back Europe's growth. The European Central Bank (ECB) looks set to keep policy rates high to contain inflation.

In contrast to the US, core inflation in the eurozone is still rising. We believe inflation is unlikely to return to the ECB's target until the end of 2024. We see the ECB's deposit rate peaking at 3.75% in 2023 and then falling only modestly in 2024.

Crucially, the ECB's main policy rate should remain in positive territory, at around 2.75%. That is much higher than the -0.5% level of rates we saw after the Global Financial Crisis.

Higher interest rates not only mean higher financing costs for infrastructure and other projects, but also a change in the relative attractiveness of investments. The gap between the dividend yield of eurozone equities (using the MSCI EUM index) and 10-year German government bonds (Bunds) has fallen to its lowest since 2010 (see Exhibit 1). This revaluation also applies to other fixed income asset classes.

Exhibit 1: Fixed income yields are now offering an alternative to equities
Spread between equity dividend and Bund yields



Data as at 9 March 2023. Sources: FactSet, BNP Paribas Asset Management.

The sudden and swift normalisation of interest rates over the last 15 months still leaves bond yields about 150 basis points (bp) below pre-GFC levels. With eurozone inflation ultimately likely to settle at the ECB's target (in contrast to the below-target level pre-GFC), we see scope for higher Bund yields in the longer term.

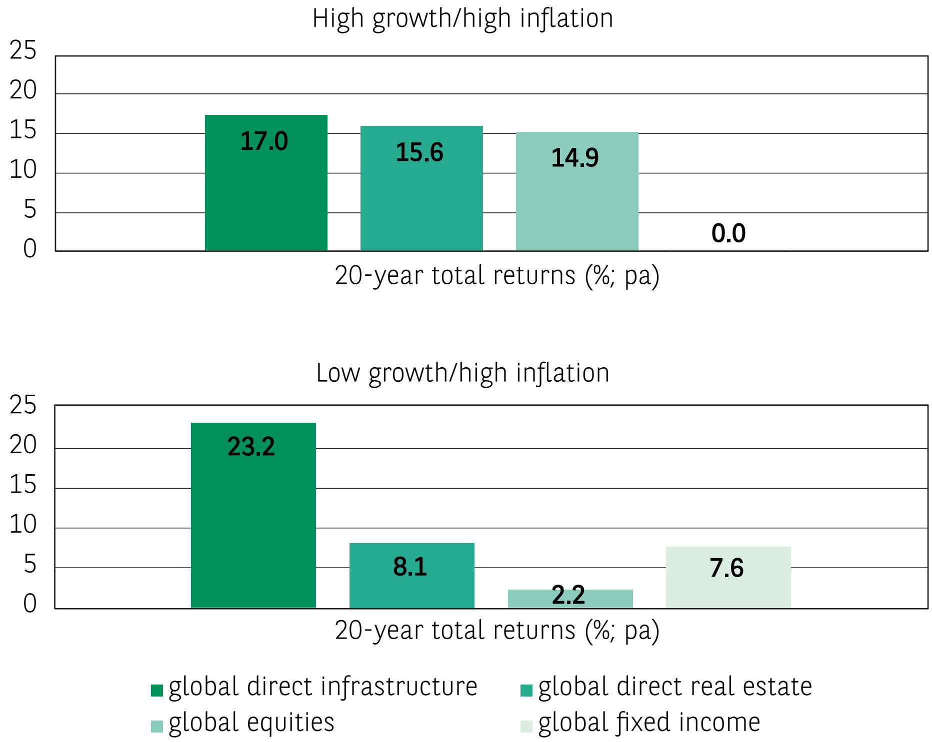
STRENGTH OF CHARACTER(ISTICS)

Aside from its macroeconomic impact, the war in Ukraine has triggered a significant change in the attitude of governments and society more broadly towards energy security. This coincided with the pre-existing drive towards low and zero carbon energy as the world works to minimise the increase in global temperatures caused by climate change.

Consequently, there is now even greater support for green energy sources. European policymakers and governments have sought to reduce countries' reliance on Russian gas, prioritising solar and wind power, as well as – eventually – green hydrogen. This rising demand highlights how essential infrastructure in general – and green infrastructure in particular – is and underscores the solid fundamentals underpinning infrastructure debt.

These fundamental attributes include:
- Demand for infrastructure services (which include water, telecommunications, and transportation) is relatively inflexible, so price increases do not typically lead to big drops in demand.
- Infrastructure service pricing is often indexed, that is, income from infrastructure services rises with inflation. Infrastructure can hence be seen as a good inflation hedge (see Exhibit 2).
- Infrastructure bonds typically have floating rate coupons tracking market developments. This characteristic adds to the stable value of the asset class.

Exhibit 2: **Infrastructure has historically fared well in inflationary environments**



Source: Bloomberg, Barclays (gllobal fixed income), MSCI (global equities), GREFI (global direct real estate), EDHEC (infrastructure: all equity),

Other reassuring features include the monopolistic position of many providers and the high barriers to entry for competitors. Here are two examples: rival glass fibre networks typically cover neighbouring zones and do not overlap; one motorway between cities usually suffices, giving the toll booth operator a monopoly on that stretch of road.

Given the demand for infrastructure and the attractions of infrastructure debt, it should be no surprise that bond issuance has been expanding steadily as new infrastructure is built to keep up with technological progress and existing infrastructure is modernised. This broad and diverse market saw about EUR 310 billion in deal value in 2021 (latest data available), of which 70% was financed with debt.[1]

APPEALING AREAS FOR INVESTMENT

A key area for investment is decarbonisation, which helps governments and companies meet their net-zero emissions targets. Examples include car charging platforms, the electrification of rail travel, and green mobility.

Demand for power continues to increase, in particular for green electricity. We are seeing more financing transactions in areas such as biogas, distributed energy, energy efficiency and recycling.

Capital is needed for renewables generation, distributed solar and green hydrogen, smart grids and upgrading transmission networks.

Finally, we are seeing a regular pipeline of opportunities in the healthcare infrastructure sector, boosted by post-pandemic demand and a scarcity of public money.

1 Source: Infranews & Inframation, October 2022

ENVIRONMENTAL, BUT ALSO SOCIAL

Currently, investors are looking beyond financial returns to the impact of their investments and how they can help finance projects that benefit the environment or communities.

Renewables can be an obvious area for such investments given the billions needed to fight climate change and enable the shift to a low-carbon economy.

The economy of the future will also experience major demographic shifts. Greater migration from the countryside to cities and population aging will likely drive demand for infrastructure such as healthcare or day care facilities or the deployment of fibre glass networks in rural areas.

INFRASTRUCTURE DEBT VALUATIONS

Competition and abundant liquidity have put pressure on bond pricing. Accordingly, we believe due diligence is critical to assessing any new trends in the structuring of renewables' debt financing.

Key issues are greater merchant risk[2], the surge in corporate power purchase agreements (PPAs)[3] to reduce market price risk and the use of mezzanine debt to finance development pipelines before the ready-to-build stage. Other challenges include verifying a project's impact on the environment and keeping track of ever-evolving regulations.

There has been some repricing in specific sectors due to supply side concerns such as the rising cost of and a lack of availability of raw materials. This has affected certain digital and energy sectors. A scarcity of materials for greenfield projects or a lack of capital for renewables projects may impact business plans.

A SOLID ASSET CLASS

Infrastructure bonds have been resilient in the current high inflation environment, benefiting from inflation-hedged revenues among other features. An estimated USD 330 billion of 'dry powder' from institutional investors supports the market.[4] We believe this should stabilise valuations.

We have now seen a decade of strong fundraising, with 2022 a record year for capital raised for infrastructure. Whether this continues will depend on the asset allocation plans of investors. During periods of high volatility and market uncertainty, investors often turn to high-quality assets with a defensive profile on one hand and repriced high-yielding opportunities on the other.

European infrastructure debt markets include investment-grade[5] bonds with a senior ranking at a yield close to 5%. Other features include low volatility and floating-rate coupons. These bonds also offer diversification opportunities away from traditional public corporate bonds.

Investors looking for higher yields can find absolute returns close to core equity from subordinated infrastructure debt, which can offer yields of 7-8% while maintaining many of the protections afforded by senior debt.

2 Price volatility due to generated energy being sold into the wholesale market on a merchant basis rather than relying on fixed-price contracts or regulatory incentives for the entire debt term. Actual cash flows may deviate significantly from original expectations due to merchant market price volatility. Source: Fitch
3 A long-term contract under which a business agrees to buy power directly from an energy generator. This differs from the traditional approach of buying power from licensed electricity suppliers. Source: DLA Piper
4 Source: Preqin, December 2022
5 Equivalently rated based on internal ratings

MARKET OUTLOOK

Within private markets, infrastructure has been the second-fastest growing area in terms of assets under management. Data provider Preqin estimates compound annual growth at more than 13% until 2027 on the back of rising institutional and retail investor interest in private markets.

The current pipeline is particularly full of projects for renewable energy: we are seeing more projects in new sectors such as biogas, energy storage, hydrogen, upgrading of grids and distributed solar energy. The share of digital (telecom) transactions has more than doubled since 2019 and will likely continue to increase in view of the opportunities in telecom towers and datacentres.

We believe European infrastructure debt is attractive both for investors seeking higher risk-adjusted returns and those seeking a haven from challenging market conditions. As shown during the Covid-19 pandemic, the asset class is stable and resilient. A growth segment has been junior debt, which offers higher returns at a subordinated level while retaining debt-like protection.

Given the sustained infrastructure investment needs and demand from asset allocators for a stable asset class with attractive yields, we believe the future for infrastructure is bright.

PRIVATE ASSETS

Private Assets offers a unique range of investment solutions thanks to:

- A multichannel sourcing capacity with BNP Paribas top-tier financing franchises, an active relationship with 200+ General Partners (GPs) and a proven origination track record
- A team of seasoned experts across a broad range of private asset segments
- A sustainability leader drawing on a firm-wide, robust and consistent ESG integration approach applied to our in-scope strategies

With a team of over 100 investment professionals and the support of dedicated sustainability experts from BNP Paribas Asset Management's Sustainability Centre, Private Assets combines direct private asset management activities with indirect management and advisory services based on best-in-class fund selection capabilities.

Karen Azoulay

Head of real assets

Daniel Morris

Chief market strategist

Private assets are investment opportunities that are unavailable through public markets such as stock exchanges. They enable investors to directly profit from long-term investment themes and can provide access to specialist sectors or industries, such as infrastructure, real estate, private equity and other alternatives that are difficult to access through traditional means. Private assets do, however, require careful consideration, as they tend to have high minimum investment levels and may be complex and illiquid.

March 2023 - Design: Creative Services BNPP AM - P2303037

VIEWPOINT

BNP PARIBAS
ASSET MANAGEMENT

The sustainable
investor for a
changing world