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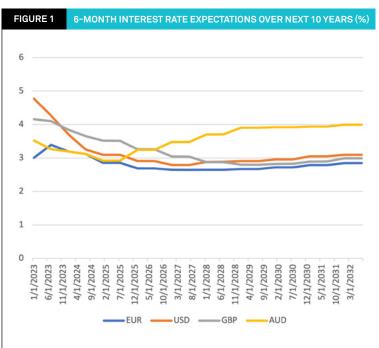
Secular tailwinds are creating opportunities in infrastructure debt

The investing landscape across all asset classes is likely to remain challenging over the coming months, given high inflation, higher interest rates and the possibility of recession and continued market volatility. However, we believe infrastructure debt's built-in resilience to cyclical slowdowns will be a key theme over the next year, with two secular tailwinds continuing to drive deal activity in the market – the strength of government infrastructure investment and the enormity of investment required to fund the energy transition to decarbonise the global economy.

by David Cooper and Jacob Otto

April 2023

INFRASTRUCTURE INSIGHT



Source: Bloomberg, based on implied 6-month forward rates with maturities over the next 10 years. As of 17 March 2023.

Setting the macro scene

In response to the sharp rise in global inflation, central banks have been aggressively tightening monetary policy. Recent banking turmoil and potential spill-over effects into the broader economy means the interest rate outlook is mixed. Current market pricing suggests interest rates will remain elevated for some time as central banks continue to fight inflationary forces (Figure 1).

A global recession remains a significant risk if central banks tighten too much. Consumers are already having their real incomes eroded by inflation, dealing with the spike in energy prices, higher food prices and potentially higher mortgage payments. Lower aggregate demand could ultimately weigh on corporate earnings, particularly in highly cyclical industries that are more sensitive to consumer discretionary spending.

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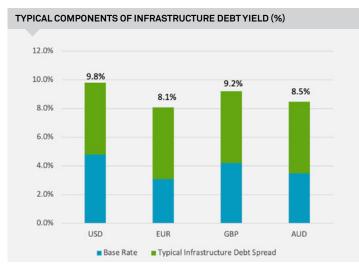
This scenario could increase default risk in corporate debt markets, but there are reasons to believe infrastructure debt will remain more robust given its cyclically resilient features.

Infrastructure debt performance in cyclical downturns

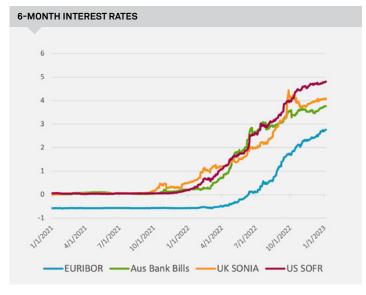
Infrastructure assets are traditionally quite resilient to cyclical slowdowns due to inelastic demand for their services. This is because infrastructure assets are essential to the smooth functioning of daily life, providing services like electricity, heating,

FIGURE 2 COMPONENTS

COMPONENTS OF INFRASTRUCTURE DEBT YIELDS



Source: IFM Investors, Bloomberg. As of 17th March 2023. Base rates used are, EURIBOR, Aus Bank Bills, UK SONIA, and US SOFR.



Source: Bloomberg

water supply and transport. They are not completely immune to cyclical slowdowns, but the impacts should be less severe than for corporations that are leveraged to discretionary consumer spending.

From a credit perspective, infrastructure businesses are judged to be resilient to rising inflation as they often have contracted pricing mechanisms that are linked to inflation, and the ability to hedge the cost of business inputs given the long life of their assets and relatively stable, predictable inelastic demand.

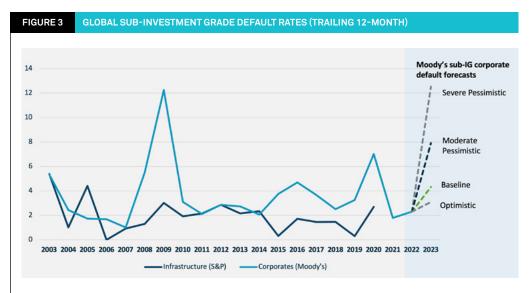
Whilst it is true that the valuation of fixed rate assets will be impacted by rising interest rates, a stable credit profile held to maturity should help to ensure that investors receive all principal and interest and realise the expected yield to maturity of an infrastructure debt investment throughout its life.

In addition, a lot of infrastructure debt deals are floating rate structures, which can help investors manage duration risk and allow them to benefit from rises in baseline interest rates. This is particularly true of the sub-investment grade market where a higher percentage of deals are based on floating rates, and tenors are typically in the 5 to 10-year range.

This increase in the yields on offer should make infrastructure debt investments more attractive to investors. While currency hedging could impact returns for investors in different parts of the world, current local market yields are shown in Figure 2. These yields are based on a sub-investment grade spread expectation of 400-600bps (for B through BB+ rated deals), along with associated up-front arrangement fees. We would expect the recent volatility in credit markets to continue to impact infrastructure debt spreads in the coming quarters, as the private markets tend to react with a delay to public market spread movements. However, we believe relative value against liquid corporate spreads should continue to be an important part of private infrastructure debt investment analysis.

Will there be a credit default cycle?

While public market credit spreads ground tighter during the beginning of the year, investors have been questioning whether we could see an uptick in credit defaults. The recent bank industry turmoil, which can in part be linked to the effects of higher



Source: S&P, US Bureau of Economic Analysis (BEA), Moody's, IFM Investors, US Federal Reserve, DoT, MSCI, Bloomberg, HIS Markits. Past performance does not guarantee future results

interest rates, could be an early sign of things to come and credit spreads have repriced wider partially to reflect potentially rising default risk. Naturally, a big question on investors' minds is how much of the credit universe could be impacted. Figure 3 shows a range of possible default forecast scenarios from Moody's Investor Service at the start of 2023. The "baseline" forecast is for only a small rise in speculative grade defaults, with only the more pessimistic scenarios, which are now looking less likely, pointing to a more significant spike.

Under most of these scenarios, we expect infrastructure debt deals to remain relatively resilient and this is supported by Figure 3 which shows that infrastructure credit defaults have historically tended to stay relatively low during periods when corporate credit defaults have moved higher.

To avoid credit incidents in the infrastructure sector in the current environment, we believe it is important to be prudent when taking certain risks. For example:

- We are generally more reluctant to lend to greenfield projects if there is a significant risk of recession and when considering such opportunities, we pay particular attention to assessing the equity sponsor and constructors' experience.
- It is important to be prudent when considering technology risk in the current environment, so we prefer to invest in tested/proven technologies

- that we understand well.
- There is the potential for regional differences in credit performance and opportunities given differing economic conditions across regions and individual countries.

Secular tailwinds driving attractive opportunities

Against this challenging macro backdrop, we believe the following two secular trends are creating significant new opportunities for investors across investment grade and sub-investment grade infrastructure debt markets:

Increasing government investment in infrastructure

In recent years, a new wave of government investment in infrastructure has emerged in response to two key developments – recovery efforts from the COVID 19 pandemic and the pressing need to decarbonise the global economy to reduce climate change risks.

Infrastructure investment was a key feature of many pandemic-related government stimulus packages across developed economies, as governments matched the immediate need to stimulate weak growth with the longer-term imperatives of decarbonisation and modernising ageing and outdated infrastructure. For example, the UK government announced £100bn in infrastructure-type spending for 2021-22

to help build roads, rail and fibre, amongst other investments, to make the British economy more resilient as part of the 'Build Back Better' plan.

Similarly, in the US, the Biden
Administration has been successful in
passing legislation that invests over US\$1
trillion in improvements to America's
infrastructure. The Infrastructure Investment
and Jobs Act includes historic support and
funding for public-private-partnerships
at the state and local level. Coupled with
the renewable energy provisions in the
Inflation Reduction Act, we can expect
generational investments to be made in the
US' transportation and energy infrastructure
over the next decade and beyond.

Increasing government infrastructure spending can bolster the whole infrastructure investment ecosystem and create opportunities for long-term debt investors. This is because infrastructure financing is nearly always more heavily weighted towards debt than equity, with debt often accounting for over 60% of the required capital. So the potential for new infrastructure debt deals of significant size is greater.

Government support for infrastructure can also reduce the risk associated with debt deals as the investment can come in the form of direct capital investment, or other forms such as guarantees or paying for infrastructure services. As government policy and priorities continue to be enacted and we see an evolution in preferences for a sustainable economy, the supply of attractive infrastructure debt opportunities should continue to increase.

2 The enormity of the energy transition and energy security

The entire energy system is expected to undergo a profound and deep transition in the next two decades. The International Energy Agency estimates the annual investment required to achieve net zero emissions by 2050 is around US\$2.8 trillion over the decade to 20301.

There is a strong nexus between infrastructure debt investments and sustainability, mainly due to the investment required to achieve this huge energy transition and supportive government investment policies that aim to increase the supply and use of renewables. For example, the European Parliament recently adopted a new target which seeks to raise the share of renewables in the EU's energy consumption to 45% by 2030, and many individual European governments also have their own pro-renewable policies and plans. We expect more of these public policy decisions in Europe and other developed economies in coming years, underpinning the supply of renewable transactions in the market.

Volatile energy prices have also heightened the need for increased energy security at the country-level and this is another potential driver of new investment. For example, gas has historically been viewed as a transition fuel, but the Russian invasion of Ukraine has disrupted supplies and significantly increased gas insecurity, particularly in Europe. This may accelerate renewables investment as a means of reducing the reliance on imported gas.

Energy security concerns are also impacting at the individual company level,



¹ International Energy Agency (2021), Net Zero by 2050, IEA, Paris

CASE STUDY

stimulating a trend towards corporate power purchase agreements, where companies agree to long term contracts at fixed prices direct from energy generators. Such agreements can help reduce risk from a lending perspective, although to some extent this involves swapping market price risk for corporate credit risk and this can limit the amount of real de-risking that is ultimately achieved.

To meet this growing supply of new deals, we continue to also see strong investor appetite for deals which focus on sustainability. Investments within widely adopted renewables sectors, such as solar and wind, which tend to be investment grade-rated, have been more resilient to widening spreads. We are seeing attractive value across the credit spectrum in sustainable opportunities beyond renewable energy investments such as electric buses, district heating, battery storage, biomass, and waste management solutions.

This link between infrastructure debt and sustainability is so strong that we believe that some investors are starting to view investing in infrastructure debt portfolios as an alternative to using pure-play sustainability-specific strategies.

Sectoral opportunities for investors

We believe there will continue to be particularly attractive relative value opportunities in sub-investment grade infrastructure debt in the coming year as this segment of the market is less trafficked by regulated entities, and

it encompasses many project finance opportunities that are supported by the secular tailwinds mentioned above.

AT IFM we are originating opportunities in a broad range of sectors:

- Energy transition the global shift away from fossil fuel powered energy generation to renewables, including wind, solar, hydroelectric, storage and renewable natural gases (biogas and landfill gas).
- Electrification of transport a key theme where we have made several investments and continue to see interesting opportunities in the pipeline. These include electrification of buses, ferry fleets and rail, as well as the necessary infrastructure to support electrical charging of these transportation assets.
- Energy efficiency opportunities include district heating, power networks, interconnectors and smart meters.
- Environmental management opportunities include water utilities, waste to energy and recycling facilities which are critical services for society.

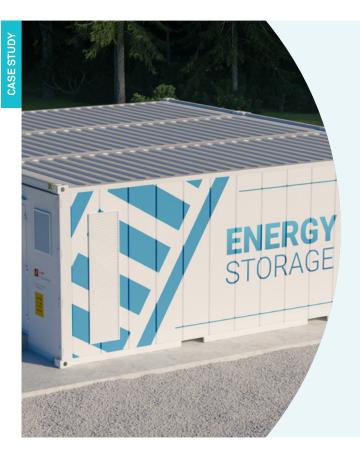
The following case studies illustrate some of the opportunities on offer in these sectors using recent infrastructure debt investments that IFM has been involved in.

European electric bus company

This investment was a 5-year, floating rate BB+ rated HoldCo loan. The proceeds were used to facilitate the acquisition of the largest fleet of electric buses in the Nordics which is fundamental to the region's net-zero transportation strategy.

The deal includes ESG-linked margin adjustment based on sustainability KPIs and benefits from stable contracted revenues from over 100 government public transportation authorities. The average life of the contracts is about six years.





US battery storage asset

This investment was a 5-year, fixed rate, BB- senior secured loan associated with a battery storage asset that helps enable the use of renewables to power the electric grid in California during times of peak energy use. It is the second-largest battery energy storage system in the US, supporting 30 million customers across more than 26,000 transmission lines.

The project benefits from having 25% of its revenues under contract with a large investment grade rated utility, under a 20-year resource adequacy contract. The project also helps support California's target of achieving 50% of the electricity grid being powered by renewables by 2050.

UK onshore wind farm

This investment comprised a 4.5-year, fixed rate, BB HoldCo loan associated with onshore windfarms in the UK. The company is already operating, with a 10-year track record and 28MW of installed capacity which is enough to power 56,000 homes.

The assets are considered long-life as each of the windfarms has seven turbines with design lives of 20-25 years. The deal also has multiple revenue sources, including long-term power purchase agreement (PPA) contracts with IG rated energy retailers in the UK.



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