

Infrastructure debt in Europe

An M&G Institutional perspective

January 2017

The value of investments will fluctuate, which will cause prices to fall as well as rise and you may not get back the original amount you invested. Where past performance is included, please note that this is not a guide to future performance.

Interest in gaining exposure to infrastructure has been growing globally in recent years, particularly among long-term investors such as insurance companies and pension funds. Investors are attracted by some of the key features of infrastructure, notably the security, reliability and longevity of cashflows, often extending over decades, and often with the income streams having some link to inflation.

The investor base is broadening steadily as the defensive qualities of the sector are more widely understood and acknowledged by insurers and other long-term investors seeking alternative opportunities to traditional publicly-traded securities.

What are infrastructure assets?

Infrastructure assets are those necessary assets intended to deliver essential services. As the name suggests, infrastructure typically forms the backbone of an economy, upon which economic growth and development is founded.

Transport networks such as rail and road are essential to an economy's development, as are airports and ports. All are involved in the transit of people and goods.

Utilities and the networks that ensure their delivery also form the basis of a developed economy with electricity, water and gas being the traditional essentials. Complex and demanding needs for communications networks are adding to spending demands.

Increasingly, renewable energy is attracting investment, often supported by public subsidy in some form to encourage otherwise costly start up or development, with solar and wind projects being popular. "New" energy initiatives are not the exclusive preserve of the modern day however. M&G's parent company, Prudential Group, was instrumental in financing the Carsfad hydroelectric dam in Scotland in 1935.

Infrastructure can also take the form of a social utility through the provision of public service buildings like hospitals, schools, student accommodation and social housing. National or local government sectors let long-term concessions to the private sector for the provision of public infrastructure.

Features of infrastructure debt

Investors can access the asset class by taking direct risk on large infrastructure corporates. Alternatively they can also seek to finance a specific project through the use of limited recourse financing which relies not on the strength of a large corporate but on the cashflows arising from the specific project being financed. Corporates tend to be 'perpetual' while projects have a life which is limited either due to the length of a concession or the new project's economic viability. For this reason, corporate infrastructure debt is usually in bullet form (like most other corporate debt) whilst project finance debt is generally fully amortising, so the average life of an investment is likely to be less than the final maturity of the debt.



Investors can access both these types of infrastructure debt through either public or private debt, although large corporates typically raise finance through the issuance of listed corporate bonds issued via the public markets. Other forms of debt open to both corporate and project finance infrastructure issuers include private placements or loans. The main difference in the form of debt chosen is its liquidity. Whatever form it takes, infrastructure debt will usually pay a regular income stream over the long-term, which can be fixed-rate (including index-linked) or floating.

The investment is also usually well-protected from adverse events, with loans having strong covenants attached to and being secured by the assets as well as by key contracts and shares of the borrower.

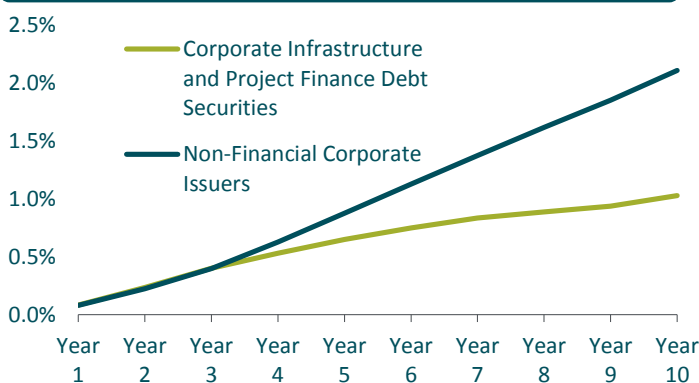
Currently, the margins available for investment grade assets are about 1.25-2.5% p.a. over government bonds of equivalent maturity. Higher margins, up to 8%, may be achievable for sub-investment grade assets, depending on the various risks associated with the deal such as credit, market or regulatory risks.

Attractions of gaining exposure to the asset class

The attractions relating to the reliability, security and longevity (in many cases) of cashflows that underpin infrastructure investment have already been mentioned, as well as the frequent presence of links to inflation. High barriers to entry can be another attraction as competition is unable to effectively impinge on an asset's economic position. Where monopoly-like conditions exist, regulators may also impose certain constraints on companies to prevent abuse of power but this can help to deliver stable cashflows as required. The cashflow features of infrastructure can provide a favourable liability-matching capability; hence the interest the asset class receives from pension funds and insurance providers.

Another key attraction of infrastructure is that investments are usually well protected through the application of strong covenants, negotiated as part of the financing agreement, and taking of security by the lender. Research by Moody's, the credit rating agency, shows that, for project finance debt, on average there has been a recovery rate in the event of a default approaching 80%, with 100% recovered in almost two-thirds of cases. For senior secured infrastructure debt more broadly, the average recovery rate is 74%. This contrasts with a much lower average recovery rate of about 54% for senior corporate debt that is secured, which falls to just 38% for senior unsecured corporate debt (sources: Moody's Investors Service - Default & Recovery Rates for Project Finance Bank Loans, 1983-2014, Moody's Investors Service - Infrastructure Default & Recovery Rates, 1983-2015).

Credit loss rates for Baa-rated securities



Source: Moody's Infrastructure Default and Recovery Rates 1983-2015

Yields and returns available from infrastructure debt generally exceed those available on comparably rated publicly-traded corporate bonds. However, they vary depending on the type of investment undertaken and where it sits in the capital structure.

Overall, as the chart demonstrates, credit losses for corporate infrastructure and project finance debt have historically been lower than those of non-financial corporate debt rated investment grade, according to Moody's. Sub-investment grade infrastructure securities have similarly experienced lower loss rates than sub-investment grade non-financial corporate bonds.

Infrastructure debt also offers attractive diversification qualities. An EDHEC Infrastructure study in 2016 demonstrated that the revenues and profits of infrastructure firms are less, or not, linked to the business cycle than a representative group of public and private firms. As Moody's similarly highlighted, the volatility of



credit ratings for corporate infrastructure securities has been approximately one fifth of that seen across non-financial corporate issuers during its study period (1983-2015).

The opportunities for investors

As the public sector finance positions of many nations have deteriorated, existing infrastructure assets have been sold to the private sector and governments have also looked for other parties to provide financing for new development projects and refurbishments of existing stock. At the same time, the deleveraging of bank balance sheets and other constraints arising from regulations like the Basel Capital Requirements Directives, have meant that the availability of bank financing has been curtailed. As banks have stepped away from providing funding for infrastructure finance, greater opportunities have arisen for private sector investors.

Scale of infrastructure opportunities

Estimates for the scale of the infrastructure need vary, but it is apparent that the scale of current infrastructure investment is dwarfed by that need. Recently the European Council approved a two-year extension, to 2020, to the European Fund for Strategic Investments (EFSI), also known as the 'Juncker plan', and simultaneously increased the target for new investment across the European Union to €500 billion.

In October 2016, US financial giant, Citi, published a report suggesting that US\$58.6 trillion of global infrastructure spending would be required in the period to 2030, in order to achieve the OECD forecast growth rate of 3.8% p.a.

(Source: Citi GPS: 'Infrastructure for Growth')

Sourcing and managing private infrastructure debt assets

Key to successful investing in the infrastructure sector is the sourcing of appropriate assets, not paying too high a price for those assets and ensuring that all the necessary protections and covenants are in place.

Sourcing private assets can be a protracted process and requires an extensive network of market relationships. Lenders, like M&G, consider and review opportunities that arise in the market for which borrowers request proposals. Lenders and prospective borrowers discuss, negotiate and review bespoke packages of terms, conditions and covenants before entering into an agreement that creates the deal for the asset. Bidding is often entailed for competitive and attractive assets.

The resulting agreements can be highly bespoke and are usually unlisted. Accordingly the secondary market is less liquid than for a publicly-listed bond. Infrastructure debt investing typically involves a long term commitment. It is not just a case of do the deal and move on. Extensive and diligent credit analysis is required, to understand the risk and return profile of each opportunity which is generally not publicly rated.

Given the complexities involved with sourcing, negotiating and managing diverse portfolios of infrastructure assets, it makes sense to partner with a strong and experienced team with all the necessary expertise for a long-term investment commitment. Ideally, in order to achieve a diversified exposure across the breadth of the asset class, an investor should seek a manager with structuring specialists from project finance and corporate credit backgrounds. The ability to provide coverage across all the key sectors, transport, utilities, renewable energy and social housing amongst others, can be key to reaching the critical investment objectives.

Suitability for long-term investors

Infrastructure investing is primarily suited to investors that have long term requirements and are comfortable committing their capital for extended periods. Such a long term horizon could be ideally suited to the profile of the liabilities of investors like insurance companies and pension funds. They are likely to have commitments to which they will be exposed for many years, so having access to suitably long term assets can help them match their liability profile.

Private infrastructure debt can also appeal, by adding a layer of diversification to the investment programme, away from public securities such as bonds and equities.



It is widely appreciated that infrastructure assets tend to be illiquid. However, illiquidity usually brings with it a return or yield premium for an investor. The valuations of long-term assets like infrastructure are generally less volatile than publicly-traded assets, the values of which can rise or fall frequently as market perceptions shift and where there is greater availability of a secondary market.

Case study: Lightsource Renewable Energy

Lightsource Renewable Energy undertook a £247 million debt funding committed to 33 operational solar parks in the UK. The parks are capable of providing enough energy, through solar photovoltaic assets, to power 30,000 homes* with capacity of more than 100MW, saving more than 43,000 tonnes of CO₂ per annum*.

(*Source: Solar-trade.org.uk)



The 22-year amortising deal is linked to the retail price index (RPI). The project's cashflows are underpinned by the stable feed-in-tariff (FiT) subsidy regime in place in the UK. The covenant package in place is conservative including a provision for full cross collateralisation across the projects and prepayment protection. The debt is strongly secured on the assets of the issuer and the operating companies and is structured to include a small senior subordinated tranche that offers credit support to the larger senior unsubordinated tranche. This opportunity was sourced through direct relationships with the borrower and its financial adviser, and M&G negotiated debt terms on a purely bilateral basis.

Case study: CAV – Passante di Mestre

The Passante di Mestre project involved the financing of a 74 km toll road near Venice, Italy. M&G funds invested in €40 million of fixed rate, amortising bonds over 14 years, to December 2030, with the concession considered stable and in place until December 2032. This formed part of a larger overall refinancing of €830 million of bonds, rated A3 by Moody's, publicly-listed but privately placed with a small club of investors.



The road network is considered geographically important to the area of Northeast Italy with good historic traffic levels and few alternative route options. Tariffs are regulated to allow for a return on capital based on a weighted average cost of capital (WACC). The covenant package is strong and the deal benefits from the involvement of the European Investment Bank through an unfunded letter of credit which offers credit support to the senior bonds. In contrast to the deal discussed in the previous case study, this opportunity was brought to the club of investors by banks who had pre-arranged the finance on behalf of investors.

Keys to successful investing in infrastructure

Do your homework. Investing in infrastructure brings with it a combination of challenges, for which the assistance and support of an experienced team of professional managers can be a key path to success. It is essential to appreciate that the long term and illiquid nature of most infrastructure investments means that extensive and rigorous credit analysis of the underlying borrower is crucial. This is not only the case at the outset of a transaction, but also over the life of the deal.

Ongoing vigilance is essential, requiring active monitoring and intervening in transactions, reporting regularly during both construction and operating phases to ensure projects are progressing as anticipated and to ensure that the credit quality of the asset is maintained over the long term. Experienced experts enable effective investing.

Managers and investors should be patient. Managers should be prepared to invest time and effort in the analysis and decision making process before proceeding with a project. Although the amount of due diligence applied to a transaction prior to it being signed can be significant, the rationale for executing the



deal must remain strong throughout. The requirement for a long-term commitment means that managers should be prepared to decline further participation if deal-changing factors are identified, even if extensive work has been undertaken on the potential investment already.

It is also important to appreciate that not only do the standard credit-related risks of investing in debt apply. Other factors require consideration in project finance deals including construction and operational risks, as well as potential impacts of technological advances and volumes of business achieved, among others.


Potential reputational risks could arise from essential services should these not operate effectively. From a regulatory perspective there are also risks that changes in governments, or their priorities and preferences, could undermine key rationales and drivers for some projects, especially if those changes are made retrospectively.

Liquidity is the last key risk to infrastructure investing, as there is likely to be limited secondary market for investments, meaning that the commitment should be expected to be required for the anticipated duration of the projects.

M&G and Infrastructure debt

M&G Investments is one of the longest-established and most active asset managers in the infrastructure debt market with a dedicated team in place for almost 20 years, drawing on structuring specialists from project finance and corporate credit. We have expertise in all the key sectors of the asset class, including transportation, utilities, public sector, social housing, renewable energy, and universities.

Our investment professionals help manage over £40 billion of debt, across a range of infrastructure sectors and across public and private markets, as of 30 June 2016. In addition, they also draw on the expertise of M&G's 31 strong team of public credit analysts for sector expertise. M&G undertakes the origination, structuring and coverage for both public and private debt. More than 80 M&G Investments managed funds are invested in infrastructure debt.



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