



The sustainable investor for a changing world

#### INTRODUCTION



With the onset of the Covid-19 pandemic, 2020 proved to be an incredibly challenging year for markets as lockdowns and ensuing societal uncertainties elevated volatility levels across most major asset classes.

While not immune to the Covid-related impacts, infrastructure debt proved to be a resilient asset class by continuing to provide stable income throughout the year. Key sectors such as telecommunications and utilities encapsulated this resilience through the essential nature of the services provided.

This proven resilience and stability earmarks infrastructure debt as the ideal investment solution in a post-Covid environment. Moreover, the growing demand and appreciation for renewable energy as countries embrace the energy transition, in tandem with the digitalisation movement, represent a significant tailwind for the asset class. For investors searching for stable income with contained volatility, infrastructure debt can represent a compelling solution for 2021 and beyond.

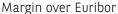


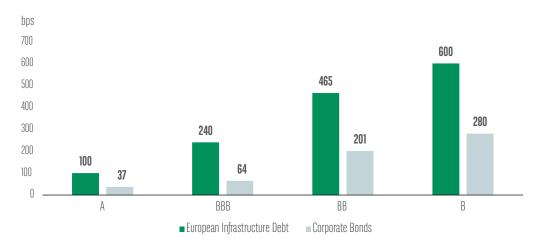
### 2020 - The first true test of fundamentals

As an asset class, infrastructure debt possesses key characteristics that contribute to resilient performance. These include the large physical nature of the underlying asset, high barriers to entry and stable revenues linked to the operation and/or construction of the asset. These key characteristics have allowed a historically strong credit performance with low default rates and high recovery rates (of 0.34% and 76%, respectively) when compared to equivalently rated corporate debt.<sup>1</sup>

Infrastructure debt typically also delivers relatively high yields compared to equivalently rated corporate debt by virtue of an illiquidity premium. As the projects being financed often have long-term financing lifespans (of over 10 years), investors are compensated for their commitment with relatively higher yields.

Exhibit 1: Yield premia for European infrastructure debt relative to equivalently rated corporate debt





Source: BNP Paribas Asset Management, May 2021, Bloomberg, Corporate bonds: Average Libor option-adjusted spreads by rating for non-financial corporate bonds (BAML, EN10/EN20/EN30/EN40/HE1C, 30 April 2021. European Infrastructure Debt: Estimated average based on a sample of market observations.

Despite this attractive risk-return profile, it is worth noting that European infrastructure debt has only been readily accessible to non-bank investors since the late 2000s. This means that from an asset management perspective, the challenges arising from Covid represented the first major test to the resilience of infrastructure debt.

<sup>1.</sup> Moody's, Default and Recovery Rates for Project Finance Bank Loans, 1983-2019, Moody's definition of default

#### ..... KEY CHARACTERISTICS AND FUNDAMENTALS



Infrastructure debt broadly involves the financing of loans issued by projects that provide large, capital-intensive critical assets which underpin economic activity. Typical infrastructure debt finances utilities, power generation systems, telecommunications systems, transportation systems (including roads, bridges, airports and rail networks), as well as other fundamental facilities that provide essential services.

Large physical assets: The projects financed are not only large physical assets, but typically operate in markets with high barriers to entry. These features are beneficial to investors from both a risk and a performance perspective. As infrastructure debt investments have significant underlying collateral in the form of the large physical asset, there is greater security and a higher recovery rate in the event of a material credit event. High barriers to entry reduce potential competition for the services that a project will provide, mitigating risk from a performance perspective.

**Stable revenues:** Infrastructure debt typically offers regulated and/or contracted revenues. An example is the financing of a photovoltaic (solar) power plant, where there will be priority of dispatch off the grid. That is, there is contractual uptake of the service provided, ensuring stable revenues. Furthermore, many services produced by the infrastructure will often bear low technological risk and resilience to economic cycles.

**Cash flow-based lending:** Investments into infrastructure debt relate to the operation and/or construction of a single asset or a portfolio of assets. From an investor (or lender) perspective, performance is cash flow-focused, with little to no emphasis on the price of the underlying asset.

**Portfolio diversifier:** As an alternative asset class, the nature and characteristics of infrastructure debt convey low correlation to financial markets, especially against the more traditional asset classes (i.e. equities and core fixed income).

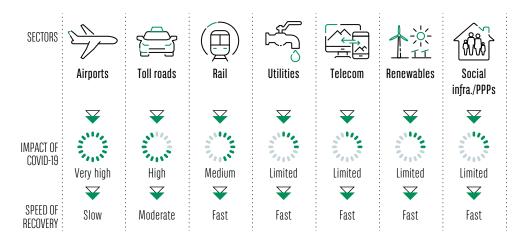
# The uneven impact of Covid: 2020 in review

From late February 2020 onwards, we witnessed extremely high levels of volatility across nearly all major markets, driven by the growing uncertainty surrounding the Covid-19 pandemic and ensuing lockdowns, which paralysed many aspects of society. While the infrastructure debt asset class as a whole demonstrated resilience by performing relatively well throughout the Covid pandemic, there were divergent impacts across the various sub-sectors.

With lockdowns confining people at home, physical movement and trade diminished, leading to reduced usage of transportation networks and systems. Furthermore, most countries closed borders to non-essential foreign travel. Consequently, the use of airports and air travel-related infrastructure, as well as interstate rail networks and roads declined significantly. Over 2020, activity in the transportation sector dropped substantially, with deals accounting for 19% of the European market, down from 30% in 2019. Hence, on account of the limited and restricted movement caused by lockdowns, the transportation sector unsurprisingly experienced the greatest adverse impact. Notably, there was an increase in (non-air) transportation deal activity towards the second half of 2020, providing early indications of a meaningful recovery ahead.

In contrast, a number of sectors performed well, with some even performing above expectations throughout the Covid-19 pandemic and lockdowns. Specifically, we observed an accelerating trend of digital transition and online connectivity, with masses of people left with little option but to embrace home working, online education, gaming and streaming services. This accelerating trend highlighted the growing essentiality of infrastructure to support the growth of data usage and the need for connectivity. With the growing demand for data and connectivity, the telecommunications and data services sectors performed above expectations. The telecommunications sector accounted for 20% of market transactions in 2020, compared to 16% in 2019.<sup>3</sup>

Exhibit 2: Impact levels and speed of recovery from the pandemic for major infrastructure sectors



Source: BNP Paribas Asset Management, March 2021.

Notably, a number of sectors showed resilience by virtue of the essential services they provide. These included the utilities and renewable energy sectors. Examples of such infrastructure projects include water treatment facilities and solar power plants, which provide services that remained essential despite the lockdowns. While a number of projects may have experienced construction delays during the initial stages of lockdown, both government and regulatory authorities recognised the essential nature of the services, allowing construction and maintenance services to be reinstated hastily as lockdowns eased. This mitigated construction and operational risks and mostly rendered the impact short term.

<sup>2.</sup> Infranews, January 2021, BNP Paribas Asset Management, May 2021.

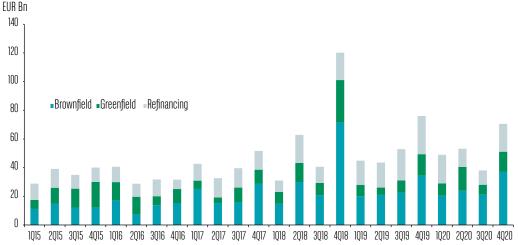
<sup>3.</sup> Ibid.

## Resilient performance through Covid-19

Given the private and illiquid nature of the asset class, default figures from 2020 are not yet available at the time of writing. However, as a positive indicator of the state of the European infrastructure debt market, primary issuance and deal flow gained momentum over the second half of 2020, returning to pre-Covid levels. Across a Covid-19 impacted year, there was still EUR 105 billion across 251 deals completed, with approximately 70% of volume financed through debt.<sup>4</sup>

Exhibit 3: European infrastructure debt: Brownfield, greenfield and refinancing deal volume totals by value, Q1 2015 - Q4 2020

EUR Bn



Source: Infranews, January 2021.

While deal flow can only act as a proxy for credit performance, when this proxy is analysed in tandem with historical credit performance, one can posit that infrastructure debt continues to demonstrate resilience with contained volatility. This is particularly so when analysed against equivalently rated corporate debt.

Although there will likely be a higher number of infrastructure defaults in 2020 than in the previous year (in 2019 there were five defaults globally), the default rate will be substantially lower than that of corporate debt. Furthermore, infrastructure debt has historically incurred significantly fewer credit losses when compared to corporate debt, especially over longer horizons. On average, a total infrastructure debt security lost 0.3% of its face value over five years and 0.4% of its face value over 10 years. This compares with 5.8% and 8.5%, respectively, for a typical corporate debt issuer.<sup>5</sup>

Moreover, European infrastructure debt has demonstrated credit stability from a ratings perspective. Infrastructure ratings are predominantly investment-grade and have been more stable than corporate debt ratings. As of year-end 2019, 91% of total rated infrastructure securities held an investment-grade rating, compared with 43% for corporate debt issuers. On average, ratings for total infrastructure securities have been 61% less volatile than corporate debt ratings.<sup>6</sup>

<sup>4.</sup> Infranews, January 2021.

<sup>5.</sup> Moody's, Default and Recovery Rates for Project Finance Bank Loans, 1983-2019.

<sup>6.</sup> Moody's, Infrasfrastructure & Project Finance - Global, March 2021.

While it may be some time before the direct quantitative impacts from the Covid-related uncertainty are measurable, we can conclude that the Covid pandemic (via lockdowns) accentuated the importance of digitalisation – and the need for enhanced data mobility and connectivity. Furthermore, albeit more anecdotally, the sudden halt of mass transportation and general relocation away from metropolitan areas has helped many people become more appreciative of the environment, which in turn has likely increased recognition of the importance of the energy transition.

# Digitalisation and the energy transition: The asset class driving future trends

Looking ahead, the infrastructure market is likely to continue to face increasing financing needs, driven by favourable long-term trends such as digitalisation and the energy transition. The need for data and connectivity continues to grow, and as previously mentioned, this need has only gathered pace as more people have shifted to home working following Covid-19. Quite simply, more infrastructure will be required to support this rising data usage and need for connectivity.

Moreover, the trend favouring cleaner and renewable energy continues to gather momentum, with more governments making commitments to lower carbon emissions and a transition from coal-based power to renewables. This will lead to further demand for cleaner energy sources, in particular solar power plants and wind turbines.

On a broader view, these trends dovetail naturally with a greater need for infrastructure projects, financed by infrastructure debt, that provide a diverse range of essential services, such as gas, heating, water and waste treatment. Such utilities infrastructure projects remain essential and will always be in demand to support growing economies. In short, infrastructure debt is an asset class ideally placed to perform in a post-Covid environment.

### Digitalisation

The onset of the Covid-19 pandemic highlighted the importance of digitalisation as home working became more prevalent, which greatly increased the need for data and connectivity. Specifically, data usage surged as people embraced home working, online education and streaming services. This rising need for data and connectivity required high-speed telecommunications networks (fixed and mobile) and efficient data storage.

Notably, as the vaccination rollout programmes continue to make progress, there is an expectation of a return to the norm for many aspects of society. However, home working could represent a structural change, in that many companies will likely continue to allow a mix of home and office working, not least as this would offer the opportunity to reduce their commercial rent burden. Furthermore, many people have embraced home working, preferring a lifestyle away from urban areas. This will likely drive demand for greater telecommunications coverage and networks in rural areas.

<sup>7.</sup> PWC UK Outlook Report 2020, CNBC Report - Declining City Populations.

<sup>8.</sup> F.P. Rupani, M Nilashi et al, Coronavirus pandemic (COVID-19) and its natural environmental impacts, International Journal of Environmental Science and Technology, September 2020.

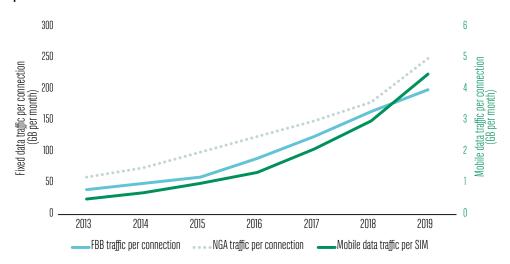


Exhibit 4: The growth trend in fixed and mobile data usage in Europe started long before the pandemic

Source: Analysys Mason, 2019. FBB: Fixed Broad Band; NGA: Next Generation Access.

This growing demand for data mobility, or digital transition, will require the support of greater wireless coverage, translating into rollouts of fibre optic cable networks, increasing demand for telecom towers with the implementation of 5G, data centres and general network infrastructure. This represents a favourable long-term driver for more infrastructure projects in the telecommunications and utilities sectors that support digitalisation.

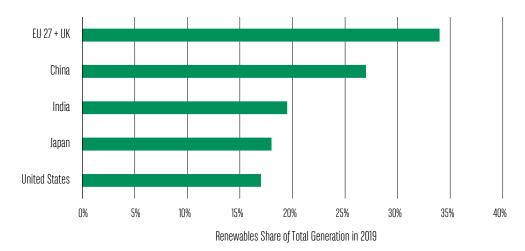
### The energy transition

Particularly in Europe, climate change has been at the forefront of government and public agendas. Although attention shifted to addressing the Covid-19 pandemic over the past year, the response to climate change – particularly in terms of the energy transition – looks set to re-emerge as a priority.

This can only support infrastructure markets, with increasing numbers of projects such as solar and wind power plants. New infrastructure that supports the increasing adoption of electric vehicles, such as charging stations and e-meters, will also be required. Climate change awareness is supporting the development of low-impact energy production based on renewable energy technologies, which is a large and growing sector, especially in Europe.

The energy transition trend has been gathering momentum for years, with countries shifting from coal-based power to renewables. Although the US has lagged other countries in this transition, there are positive signs ahead with the Biden Administration announcing a USD 2.25 trillion infrastructure plan to focus on green energy and decarbonisation. Nevertheless, the EU and UK together remain the clear leaders in energy transition, with renewable energy accounting for approximately 34% of total generation in 2019.

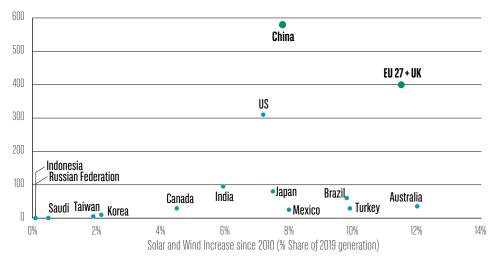
Exhibit 5: The US has the lowest renewable energy penetration among the top five global economies



Renewables include solar, wind, hydro, geothermal and biomass Source: Moody's Investors Service; BP plc's Statistical Review of World Energy

This relatively high uptake demonstrates the importance of renewable energy infrastructure in providing an essential service. Throughout the Covid-19 pandemic, renewable energy infrastructure projects continued to perform resiliently as they crucially remained open and in operation. This is also pivotal from an infrastructure debt perspective, as the continuing operation of such infrastructure projects ensured cash flows continued to pass through to the debtholders – another example of the resilient performance of the asset class.

Exhibit 6: China and the EU/UK are the clear leaders in solar and wind power generation



Source: Moody's Investors Service; BP plc's Statistical Review of World Energy

Demand for renewable energy is continuing to rise. In Europe, beyond what each country is already undertaking at a national level, the European Commission's EUR 1 trillion European Green Deal will also drive new investments in green infrastructure. The EU's action plan is for Europe to be climate neutral by 2050 by investing across green energy, transportation, energy efficient buildings and other environmentally friendly technologies. In summary, there will be great demand for renewable energy infrastructure in the coming years, and significant opportunities for infrastructure debt financing.

# European infrastructure debt: A resilient asset class supported by future trends

While 2020 was an immensely challenging year for financial markets, infrastructure debt proved to be relatively resilient: Many essential projects continued to operate throughout the height of pandemic. This was not only testament to the quality of the asset class, but a timely reminder of its ability to generate stable income irrespective of market conditions.

Looking ahead, we believe European infrastructure debt is well positioned to perform in the coming years. The asset class is poised to benefit from the digitalisation and energy transition trends, which are a strong tailwind driving demand for telecommunications and renewable energy infrastructure. Moreover, the infrastructure market should continue to need more financing for projects that provide essential services. In considering this positive outlook in unison with the core fundamental strengths of the asset class, European infrastructure debt is – and looks set to remain – an attractive investment opportunity.







Karen is head of infrastructure debt and lead manager of the BNP Paribas European Infra Debt Fund, a multiple award winning sustainability fund. The investments in the funds are subject to market fluctuations and the risks inherent in investments in securities. The value of investments and the income they generate may go down as well as up and it is possible that investors will not recover their initial outlay, the funds described being at risk of capital loss.

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