# focus



Infrastructure is a cornerstone of economic growth and development for any nation. Often things we take for granted – driving to work, turning on our lights, or using our cell phone – requires robust infrastructure. It is essential for fostering economic resilience, competitiveness, and driving sustainable growth.





New Zealand, like many other countries, faces a significant infrastructure gap, underscoring the urgent need for investment in this sector. With governments burdened by debt and constrained budgets, many are increasingly looking to the private sector to fill the funding shortfall. This growth in private sector involvement is providing investors with a pipeline of opportunities. By contributing to the development and maintenance of essential infrastructure, investors not only stand to gain financially but also help drive economic growth and enhance the quality of life for communities worldwide.

While there are a wide range of estimates for the exact scale of the global infrastructure shortfall, the clear consensus is that current investment is running well behind what's required. The Global Infrastructure Hub suggests that, globally, between 2015 and 2040, we will need to lift infrastructure investment by about +30% from current levels. For specific sectors the gap is even greater. According to the International Energy Agency (IEA), in 2024 approximately US\$2 trillion is expected to be invested into clean energy technologies. This amount will need to at least double, to US\$4.5 trillion per year by 2030, if we are to meet global climate change goals.

In New Zealand, the Infrastructure Commission estimates that we currently have a deficit amounting to more than NZ\$100 billion. If we continue to invest at the current rate, this deficit is predicted to double over the next thirty years. New Zealand's situation is not unique. Australia, Europe, and the US all face similar

challenges, especially as economies try to meet green energy goals and accommodate growing demand for digital technologies.

Infrastructure investments can provide exposure to some of the key themes that will drive economies over the next couple of decades.

#### Decarbonisation

Infrastructure funds are increasingly directing capital towards decarbonising technologies. These funds evaluate opportunities across a spectrum of renewable energy, sustainable transportation, and innovative infrastructure aimed at reducing carbon emissions. Electricity and heating are by far the world's greatest contributor to greenhouse gases emissions globally (although not in New Zealand), with transport the second biggest contributing sector. Investing in decarbonisation technologies should not only deliver financial returns but also align with broader societal imperatives towards a greener, more sustainable future.

### Digital infrastructure

Digital infrastructure includes data centres, telecommunications networks, broadband internet connections, cloud computing services, and cybersecurity. These foundational elements form the infrastructure upon which the digital economy thrives, facilitating communication, commerce, education, healthcare, and countless other aspects of daily life. As countries and economies become increasingly reliant on digital technologies, ensuring the resilience, security, and accessibility of digital infrastructure is a necessity.

Data centres provide a range of digital storage and backup services, as well as computing power for machine learning, artificial intelligence (AI), and e-commerce. The recent explosion in the use of machine learning and AI models is fuelling incredible demand for both computational power and energy, which is only set to grow in coming years.

Electricity demand from data centres is expected to double between 2022 and 2030, requiring significant investment in modernising and expanding energy networks. Many data centres try to use renewable energy supplies in order to reduce their emissions and lessen the environmental impact. Further adding to demand for renewable power infrastructure and supply. Estimates from Goldman Sachs Research suggest power demand from data centres will increase 160% by 2030 and overtake the whole electricity consumption of countries such as Japan and Germany.

#### Mobility

Mobility infrastructure includes what many think of as traditional infrastructure: roads, bridges, railways, airports, seaports, and public transportation networks. As well as emerging technologies such as electric vehicle charging stations and smart traffic management systems. Effective mobility infrastructure enables efficient and safe transportation. It also plays a role in shaping urban development, economic growth, and environmental sustainability.

#### Water

In recent years New Zealand, and many other countries, have faced growing challenges around deteriorating water infrastructure. Ensuring access to clean and safe drinking water, as well as efficient management of stormwater and wastewater systems, has become a critical priority. With climate change shifting weather patterns and intensifying extreme weather events, the demand for reliable water infrastructure is only increasing.

## How investing in infrastructure can assist your long-term goals

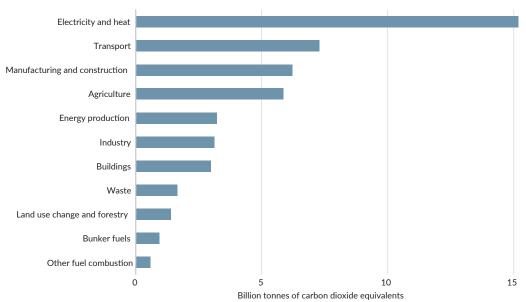
Infrastructure provides many attractive attributes for investors including:

**Diversification:** Infrastructure assets supplement traditional asset classes like stocks and bonds, and help to reduce overall portfolio risk by having a low correlation of returns to traditional asset classes. Additionally, infrastructure funds can potentially provide diversification across countries and jurisdictions.

**Stable cash flows:** Earnings from infrastructure assets, such as toll roads and utilities, are often underpinned by long-term contracts or regulated prices, providing stable and predictable cash flows, ideal for income-seeking investors.

Inflation protection: Infrastructure investments can serve as a hedge against inflation, as many contracts allow for prices to adjust in line with inflation rates, helping to preserve the asset's real value and purchasing power over time.





Source: Climate Watch 2023 via Our World in Data, Forsyth Barr analysis

Potential for capital growth: Well-managed infrastructure assets can deliver solid capital growth over the long term, driven by increasing demand for infrastructure assets as economies expand.

Lower volatility: Infrastructure investments often exhibit lower volatility of demand and therefore revenue and earnings compared to traditional assets due to the essential nature of the services they provide, ensuring steady demand regardless of economic conditions.

Long-term investment horizon: Infrastructure assets typically have long lifespans, aligning them with investors who have a long-term perspective and can weather short-term market fluctuations.

High barriers to entry: Infrastructure investments often have significant capital requirements and regulatory approvals, creating high barriers to entry that limit competition and protect the profitability of existing assets. In addition, there are also many infrastructure businesses that could have a natural monopoly. Transpower is an example of this in New Zealand where, due to the high costs and impracticality of duplicating all its national grid infrastructure, it is the sole provider – making it a natural monopoly.

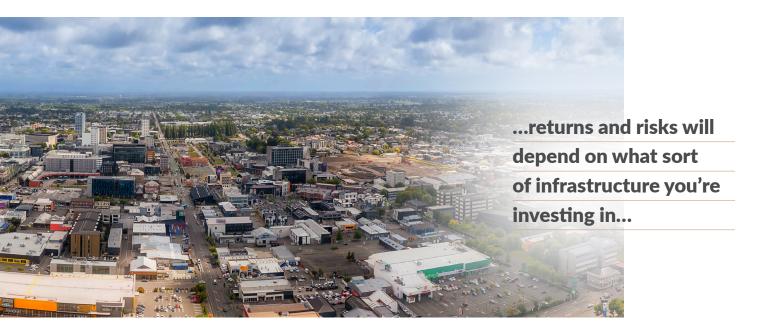
Social impact: Investing in infrastructure can often contribute to the development of essential services and facilities. Many infrastructure projects have a focus on decarbonising energy supplies and improving the quality of life for communities which can align with investors' environmental and social values.

#### What are the risks involved?

As with any good investment, it is important to understand the risks, and ensure that you are choosing an investment that aligns with your long-term objectives. Some of the key risk factors to keep in mind include:

Construction and operational risks: New infrastructure investments typically involve construction and operational phases, which can be impacted by delays, cost overruns, and technical challenges. Construction delays due to unforeseen issues, such as adverse weather conditions or supply chain disruptions, can increase project costs and reduce returns. Unforeseen events such as global pandemics can threaten the operations of certain infrastructure investments for extended periods – as experienced by airports and seaports during the COVID-19 pandemic. A strong management team with relevant experience can help mitigate these risks.

Debt and interest rate exposure: Infrastructure projects tend to be capital intensive and often have some component of debt to finance them. This makes infrastructure investments vulnerable to increasing interest rates. In addition, infrastructure assets tend to have a long lifetime (longer duration), which means higher interest rates typically lower the asset's current valuation (due to a higher discount rate on future cash flows). Effective capital management can reduce this risk.



Political risks and regulatory changes: Political perspectives can impact the demand for different types of infrastructure and create incentives or disincentives for various investments. Shifts in government policies, environmental regulations, or tax laws can impact project feasibility, timelines, and profitability. This means demand for some types of infrastructure can swing around with political cycles – creating uncertainty for the infrastructure providers and their investors. Companies can reduce this risk to some extent by locking in long-dated contracts. As an investor, one way to mitigate this risk is to ensure a good degree of diversification across different infrastructure types.

Not all infrastructure investments are the same. The level and types of returns and risks will depend on what sort of infrastructure you're investing in. This is one reason why picking winners can be tricky without significant due diligence, project selection, and risk-mitigation strategies.

Infrastructure can be a valuable addition to an investment portfolio because it often provides stable returns that aren't heavily affected by shortterm economic ups and downs. This is largely due to its link with long-term trends, especially in areas where infrastructure needs are well-known but underfunded. The New Zealand market has several high-quality infrastructure companies across sectors such as electricity generation and distribution, seaports, telecommunication networks, and airports. Investors often have the option to invest in the stock and/or bonds of these companies. When we look further afield there are options for investing directly in companies, or via specialist infrastructure funds that bring sectorspecific expertise.

If you're interested in finding out more about infrastructure investment options and suitability for your portfolio, your Forsyth Barr Investment Adviser is always available to provide advice and assistance.

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