

The Frontier Line

Thought leadership and insights from Frontier

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Infrastructure's
resilience through the
coronavirus downturn

About us

Frontier has been at the forefront of institutional investment advice in Australia for over twenty five years and provides advice over more than \$450 billion of assets across the superannuation, charity, public sector, insurance and university sectors.

Frontier's purpose is to empower our clients to advance prosperity for their beneficiaries through knowledge sharing, customisation, technology solutions and an alignment and focus unconstrained by product or manager conflict.



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Manish Rastogi is a Principal Consultant and Infrastructure Specialist with Frontier having joined the firm in August 2017. He provides infrastructure consulting and investment support to Frontier clients and also undertakes manager research. Prior to joining Frontier, Manish worked at IFM Investors as Vice President in the infrastructure team, based in Melbourne, undertaking direct investments and asset management with a specialisation in airports. Prior to IFM, Manish worked in corporate advisory with O'Sullivan Partners in Sydney and with Lehman Brothers in its TMT M&A team in the UK.



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Martin Thompson is a Senior Consultant at Frontier, having joined the firm as an Associate in 2009. Martin provides consulting support to a number of clients and undertakes investment and manager research. Prior to joining Frontier, Martin worked at Starfish Ventures, an Australian venture capital fund manager focused on high growth life sciences, information technology and clean technology companies. Prior to this Martin has worked in technology commercialisation at the University of Melbourne, virology research at Murdoch University and undertook a PhD in cancer research at the University of Western Australia.

Infrastructure's resilience through the coronavirus downturn

The infrastructure sector has historically delivered a rare triumvirate for asset owners: long-term capital gains, healthy yields, and low volatility compared to listed equities.

But this crucial component of many institutional portfolios was threatened by direct and adverse impacts on assets such as airports, seaports and toll roads caused by COVID-19 enforced lockdowns in early 2020. As valuations plummeted, super funds also faced the additional challenge of members withdrawing a total of almost A\$40 billion in retirement savings through an early release scheme. The combination of those two events raised liquidity concerns.

However, a year on, infrastructure assets have stood up remarkably well against the onslaught. There were no significant forced fire sales or collapses that we are aware of. While the operational performance of infrastructure has varied greatly by sub-sector, location, and sensitivity to GDP growth, underlying assets remain sound as investors look forward to a world living with and post-COVID.

It stands in stark contrast to the Global Financial Crisis when several heavily geared listed infrastructure structures ended up in a distressed state. Since that time, infrastructure investing has become more sophisticated. Leverage is now more moderate and financial engineering is limited. The rationale for investing in infrastructure assets is much better understood and the long duration of returns has gained wide acceptance, hence, the infrastructure asset class is more robust.

The performance of infrastructure assets today has also been supported by government stimulus packages, which has helped sustain their operations and jobs.

The European Union (EU), for example, legislated the 'Green Deal', a bold new initiative to drive an economic recovery and sustainable investment in Europe. This will see it invest EUR1 trillion to 2030 to fight climate change, transition the 28-nation bloc to a low carbon economy, and create new jobs while supporting innovation. Central banks around the world have also continued accommodative policies such as lowering interest rates and further quantitative easing to help their respective economies recover, a key driver and beneficiary of which will be development of new infrastructure.

However, the resilient performance of infrastructure through a global recession has not gone unnoticed. The infrastructure asset class continues to attract large pools of capital, and rising competition

is pushing up the prices of scarce assets. Technology is creating threats and opportunities in different sub-sectors. The pricing behaviour of crucial infrastructure owned by private investors is attracting more attention from governments and regulators.

These factors are changing the risk-return balance.

The COVID-19 pandemic has lifted some infrastructure sub-sectors such as renewables assets and digital infrastructure (particularly data centres and fibre networks) but has severely affected others (airports, toll roads). The longer-term impact of these changes is yet to play out. For example, airport passenger numbers are expected to recover – but when will they recover to pre-pandemic levels?

Key points

- Infrastructure assets have remained broadly resilient in the wake of the COVID-19 pandemic with performance varying by sub-sector, geography, whether stimulus was provided in certain economies and whether their economic performance is linked to GDP growth.
- Infrastructure asset class' performance has been underpinned by government stimulus packages and nation building programs aimed at supporting economic growth and in some cases, accelerating the energy transition from fossil fuels to clean, renewable energy.
- Sectors hard-hit by lockdowns, such as airports, toll roads and car parks, are still essential, community infrastructure that will still play a significant role in a post-pandemic world. Other sub-sectors, such as digital and communications infrastructure, have benefited from behavioural change, as consumers adapt to virtual and remote trends.
- Infrastructure is currently enjoying significant demand from global investors and facing rising competition and supply-side constraints as a consequence, which is pushing up prices. These may potentially manifest into risks on multiple fronts for investors.
- Investors need skill or need to choose the most skilful managers for investment and to manage other risks such as constantly evolving regulation and potential technological disruptions.

Infrastructure sub-sectors: a mixed bag

The infrastructure sector is far from homogeneous. Multiple lockdowns aimed at curbing the spread of COVID-19 have had mixed impacts on different sub-sectors.

However, even those sectors that have been severely affected, such as airports, remain a crucial parts of the economy as the recovery from the pandemic takes shape. As lockdowns have been lifted, consumer demand for essential infrastructure has often picked up quickly, demonstrating the important role these assets play in society.

Digital infrastructure

The trend towards greater social and machine interconnectedness has been underway for several years. The pandemic has sped up its pace as people found new ways to stay connected.

Data usage has increased by about one-third around the world and, in Australia, NBN Co boosted broadband capacity by about 40% to address network congestion.

Demand for digital infrastructure, including mobile network towers, wireless networks, optical fibre networks and data centres, is on the rise, pushing up competition for these assets and valuations.

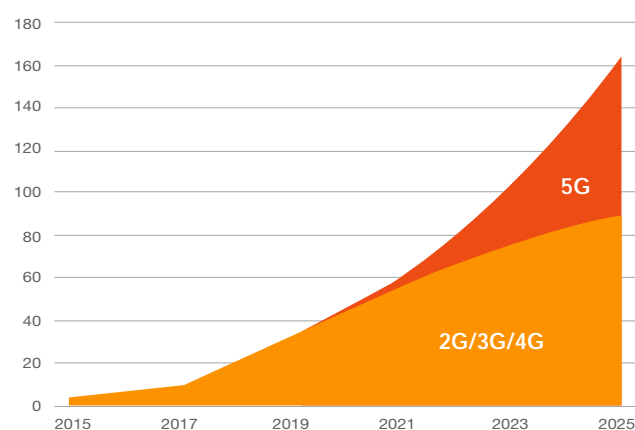
The rollout of superfast broadband via 5G networks is changing the digital communication landscape. It is expected to underpin a threefold increase in global mobile data traffic by 2025 as demand increases via Internet-of-Things devices and general internet use.

Mobile network operators are spinning out their mobile cell tower portfolios into separate tower companies or 'TowerCos', to raise private investment in order to fund their 5G rollout.

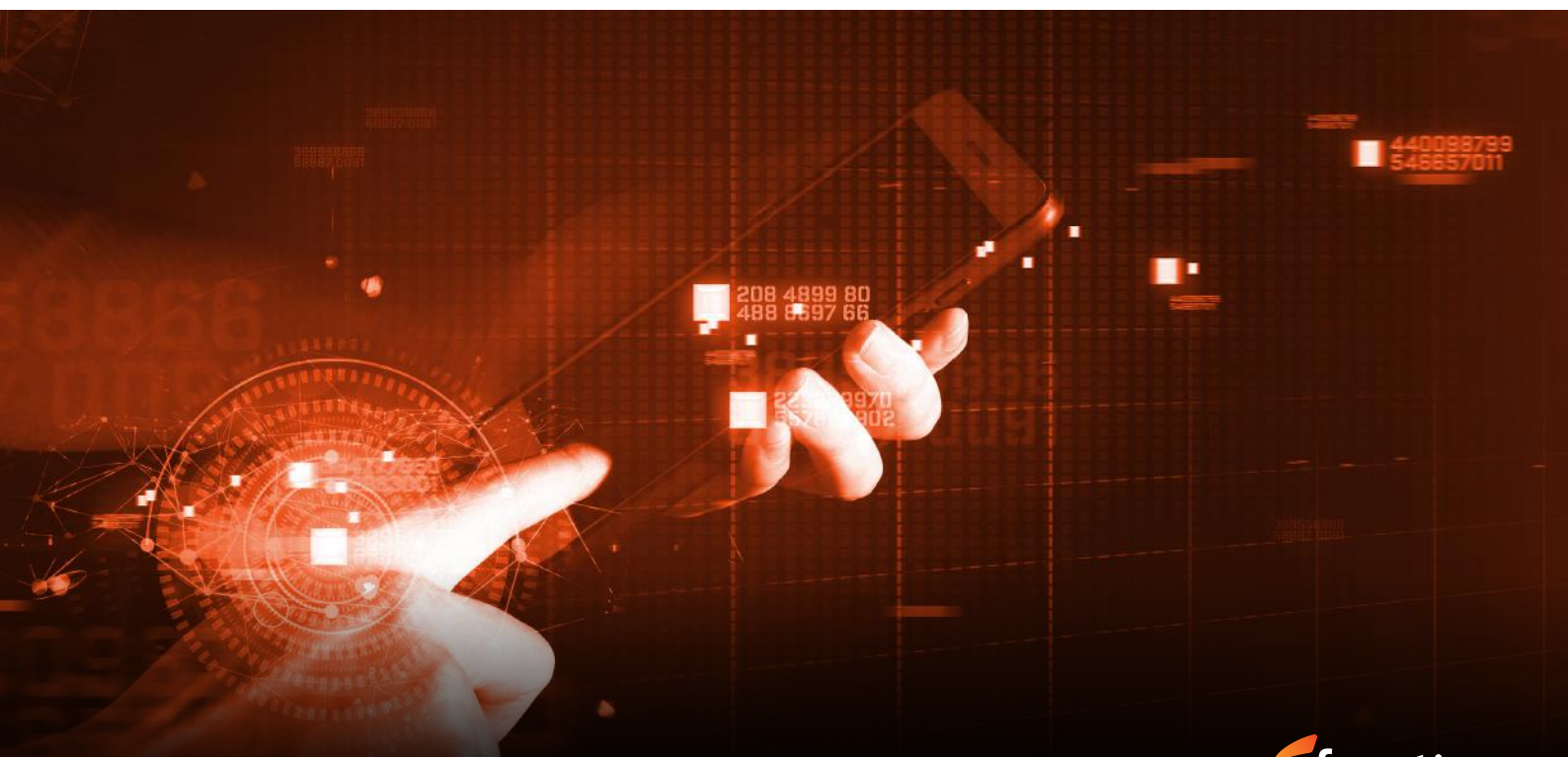
Similarly, optical fibre networks are being bundled into 'FibreCos' and attracting infrastructure investors across Europe, the US and Asia.

A steep rise in general internet use, as well as growing concerns about privacy, localisation, and data security, has also pushed up demand for data centres.

Chart 1: Global mobile data traffic (EB per month)



Source: Ericsson mobility report, June 2020



Renewables

Renewable energy generation has become a dominant part of the infrastructure universe, making up more than half of all transactions.

Wind generation has historically accounted for the most renewable energy investment, but in recent years large scale solar generation infrastructure has benefited from the falling cost of solar panels. The opportunity set is expanding to include battery storage, commercial and industrial (C&I) solar, and distributed generation.

However, the sector is complex, with the viability of technologies dependant on capital costs, location, regulatory regime, and subsidies.

A key challenge is to enable electricity transmission networks, which were traditionally designed for transporting centralised power generation, to reliably manage distributed generation from renewable energy assets. This should lead to new investment opportunities in smart transmission grids.

Investors are also set to find new infrastructure opportunities across Europe where a green infrastructure revolution, supported by legislation, is underway. Similar trends are taking place in North America and parts of Asia. While the Australian political landscape remains contentious, Australia may provide opportunities in the upcoming hydrogen infrastructure economy.

Airports and seaports

The performance of airports has been badly impacted by a lack of air travel primarily caused by lockdowns and border closures.

Consumer sentiment towards air travel has weakened considerably during the COVID-19 period and Australians may potentially require a vaccine to travel overseas. It will take several years for airline travel to recover as confidence is underpinned by mass vaccinations.

But despite these adversities, airports warrant consideration as an attractive long-term investment and Frontier remains positive on their outlook in a post COVID-19 world.

Seaports were also affected by lockdowns and a slowdown in international trade as the pandemic hit.

However, our discussions with global infrastructure managers suggest seaports have performed relatively better and recovered quicker than initially expected as trade flows rebalanced or recovered.

The diversified trade mix that flows through Australian seaports has helped them remain resilient through COVID-19 and other recent shocks such as volatile oil prices, China trade bans and industrial action.

Chart 2: Australian consumer sentiment towards travel

>58% will not travel until things are 'normal'...



>50% will take different types of vacations

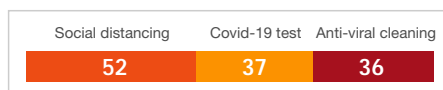


Protective measures a 'must' for low-risk travel; Vaccine a 'must' internationally

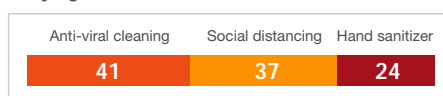
International travel



Domestic travel



Staying at hotel



Note: Question text: 'How much do you agree with each of the following statements about your future travel habits?' and 'When will you begin [doing activity] again?' and 'When do you think will begin [doing activity] again?' Sources: BCG COVID-19 Cosumer Sentiment Survey, October 30th to November 5th 2020 (N=2,730, unweighted, representative within ±3% of AUS demographics)

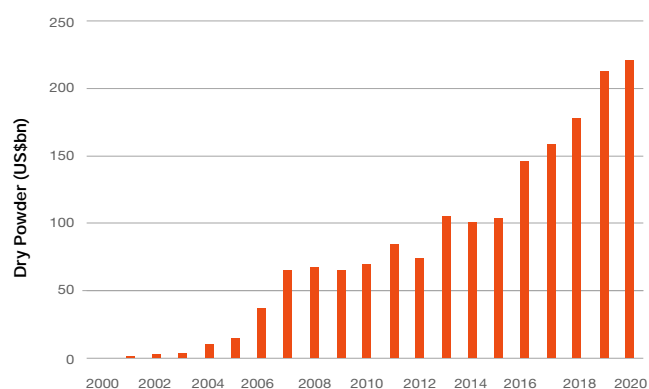
Source: BCG

New risks on the horizon as competition intensifies

While infrastructure has proved to be resilient under the strain of the global pandemic, other risks are now rising as competition for assets increases.

Asset owners and fund managers had accrued an estimated US\$220 billion ready to invest in infrastructure assets by the end of 2020, according to Preqin. New capital raised to invest in infrastructure has increased year-on-year and more than doubled in size compared to 2015.

Chart 3: Uncalled capital in infrastructure awaiting deployment (US\$ billions)



Source: Preqin, 4Q' 2020

This surging demand is driving up competition and prices for assets, particularly with a limited number of attractive core infrastructure assets around the world.

In Australia, a huge amount of capital has targeted the renewables sector – it has left a number of projects in the development phase awaiting connections and/or viable power purchase agreements.

Some core-focussed managers, who traditionally invest in regulated or contracted assets, are now chasing higher-risk assets to maintain a return premium. This can lead to overly complex or often times poor-quality investments.

Other managers are adopting overly optimistic business plans or straying from their strategy by investing in 'adjacent' infrastructure or classifying 'core-plus risk' as 'core risk'.

Regulatory risk on the rise

Western economy governments have often allowed the private sector to acquire and fund core infrastructure assets.

However, infrastructure managers and investors are quick to increase charges for monopolistic assets and slow to improve poor service standards, which can also lead to a public backlash against privatisation.

Regulators in developed markets are capping infrastructure returns on assets such as with UK water and electricity infrastructure, as well as with European utilities. Investors should expect lower returns (mid-single digit) from such assets in this higher regulatory scrutiny and low interest rate environment.

The shift to renewable energy also poses regulatory risk. While many energy companies have already started to transition, some regulators are penalising fossil fuel companies, reducing managers' ability to extract excess profits and lowering returns.



Technology creates threats and opportunities

Many infrastructure sub-sectors face the potential for technological disruption from automation, artificial intelligence, Internet-of-Things (IoT), electric vehicles, and hydrogen power.

This risk is particularly heightened for infrastructure investments due to the long investment horizon of most assets.

However, these forces are not just a threat. They also have the potential to create opportunities.

For example, the increase in renewable energy generation is a negative for existing power generation assets but a positive for transmission assets that benefit from new connections.

Greater renewable energy generation, in conjunction with reducing costs, is also a boon for large scale battery storage and hydrogen-fuelled infrastructure.

Will COVID-19 change long-term consumer behaviour?

The impact of COVID-19 radically changed short-term consumer behaviour as lockdowns became normal across the world. Many regions are still in lockdown and battling the virus even as the vaccine is being rolled out.

Infrastructure sub-sectors such as airports, toll roads and car parks, were hard hit by a lack of patronage and may struggle for a long period to recover to their previous levels, if this new consumer behaviour leads to permanent lifestyle changes. It's possible that a fall in long distance and international travel, international education and tourism, and travel to city centres becomes permanent.

Other infrastructure sub-sectors that provide essential goods and services or are protected from volume and patronage risk, have been less vulnerable to these changes. These include social infrastructure, public-private partnerships (PPP), regulated utilities, and contracted power generation.



The final word



Infrastructure assets have weathered a severe storm with COVID-19 induced lockdowns that drastically reduced demand for some sub-sectors in a way no one predicted. Yet the asset class has endured and delivered a healthy long-term yield, diversification and low volatility (over the long run) as institutional investors expected.

While the performance of airports, seaports, and toll roads suffered in the wake of the COVID-19 pandemic, they remain important essential infrastructure that are set to play a key role as the global economy continues to recover.

The government's stimulus packages helped sustain infrastructure assets and jobs, while monetary stimulus has also provided a cushioning effect from lockdowns.

However new risks are rising. Investors are facing increasing competition for core assets, which is creating pressure on returns.

The outlook for different infrastructure sub-sectors is mixed with some receiving significant tailwinds (renewable energy generation, digital infrastructure) while others are not yet through the headwinds (transport assets such as airports) and the performance of long-term shifts are not yet clear.

The European Union (EU) has committed EUR1 trillion to 2030 towards sustainable investments to stimulate an economic recovery and transition the EU-bloc to a clean, circular economy.

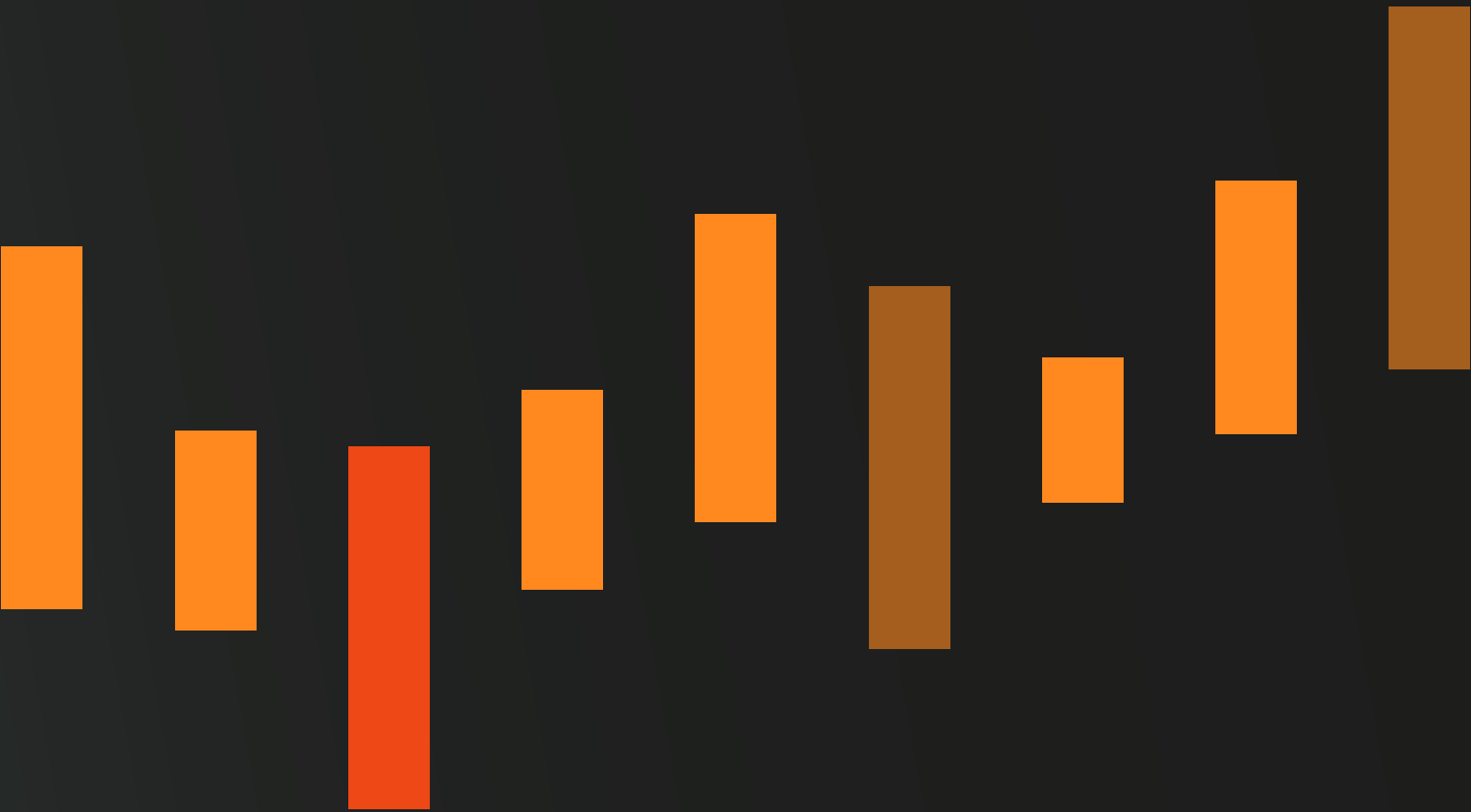
Investors will need to exercise skill and access high quality research and insights to identify the type of infrastructure assets that will continue generating strong returns in future.



Want to learn more?

We hope this paper has generated lots of ideas for your own portfolios. If this is the case, please reach out to Frontier to discuss how we can work with you to use in this space.





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