AUSTRALIAN INFRASTRUCTURE INVESTMENT REPORT 2021





Infrastructure Partnerships Australia is an industry think tank and an executive member network, providing research focused on excellence in social and economic infrastructure. We exist to shape public debate and drive reform for the national interest.

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CONTENTS

Executive message	2
Key findings	3
Methodology and participant profile	5
Participants' investments	6
Investment intentions	7
Emerging market conditions	13
Why Australia for infrastructure?	15
Challenges for Australian infrastructure	17
State versus state	22
Conclusion	24



About the 2021 Infrastructure Investment Report

Infrastructure Partnerships Australia and Allens are pleased to jointly present the 2021 edition of the *Australian Infrastructure Investment Report*.

This year's survey captures the views of international and Australian investors who collectively own or manage over \$570 billion of infrastructure assets across the globe.

Our report provides a comprehensive view of investor appetite and sentiment. The report reveals insights into the drivers and challenges for infrastructure investors, which include sovereign wealth funds, pension funds, fund managers, banks and other infrastructure professionals.

We would like to acknowledge the contribution of Glen Byres from Headland Advisory to the research underpinning this report, as well as the support of Robert Montgomery in preparing this report.

EXECUTIVE MESSAGE

The 2021 *Australian Infrastructure Investment Report* marks the sixth edition of this research, and it remains the most comprehensive sector-wide analysis of the trends, issues and opportunities facing current and prospective investors in Australian infrastructure. With the previous edition having been undertaken in the second half of 2019, this report provides an important temperature check for the Australian market as the pandemic persists.

With governments adding to already record spending on infrastructure as a source of economic stimulus, we are at a critical moment. Understanding how investors' priorities have shifted and addressing barriers to investment will be crucial to leveraging private capital through Australia's economic recovery from COVID-19.

Australia remains a compelling infrastructure investment market, buoyed by a positive early response by governments to COVID-19

Our economic resilience and effective early management of the pandemic solidified our reputation as a mature and reliable home for investors' capital. This response, in combination with factors that have attracted investors to our domestic infrastructure market – including economic stability and a strong track record – underpin a confidence that even those asset types hardest hit by COVID-19 will bounce back over the medium term. However, a timely COVID-19 vaccine rollout remains key to retaining the early momentum which has seen Australia solidify its position as an attractive infrastructure market.

However, a lack of opportunities, the cost and complexity of bidding and policy instability are starting to bite

These positives are being counteracted by a range of challenges. Perhaps a victim of our own success, more investors are fighting for fewer deals, while research participants have also highlighted high costs and complexity of bidding as key issues. This is compounded by ongoing policy and regulatory uncertainty, most particularly in the energy sector. These factors increase risk without commensurate reward for investors, and undermine confidence in long-term investments.

Australia also risks being left behind by other regions on ESG investment

ESG has become a key factor in investment markets. Of those surveyed, 93 per cent believe ESG has grown in importance in the last two years, and all participants see its role growing over the next five years. In this context, investors' preference for social infrastructure and renewable energy assets has grown markedly. But Australia risks being left behind by more progressive, capital-hungry markets. Despite a clear preference to invest in renewable energy assets over fossil fuels, Australia still lacks a coherent set of decarbonisation policies. These could catalyse investment in more sustainable energy, transport, waste and construction projects. In the absence of policy and regulatory clarity in this area, investors are increasingly drawn to the US and EU, where ESGfriendly opportunities are more plentiful and backed up by strong public policy objectives.

We cannot afford to rest on our laurels given the growing competition for capital and the upside of getting it right

With other regions – most particularly the US and EU – re-emerging from the pandemic and also pulling the stimulus lever, getting our domestic investment settings right is more important than ever. The message from investors was clear, capital is a coward and will go where it is treated well – so maintaining Australia's position as a destination of choice will require renewed focus on the settings that attract and retain capital in this market.

We thank each participant for their contribution to the sixth Australian Infrastructure Investment Report.

Adrian Dwyer

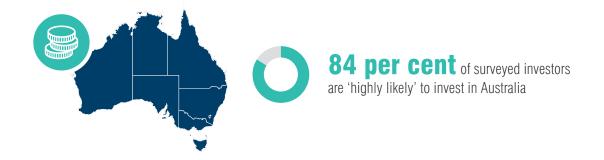
Chief Executive Officer – Infrastructure Partnerships Australia

David Donnelly

Partner – Allens

KEY FINDINGS

Investor appetite for Australian infrastructure is strong



The maturity and security of the Australian market continues to attract investors



94 per cent say economic stability makes Australia an attractive investment destination, up from 68 per cent in 2019





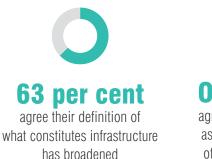
say Australia's track record for infrastructure business draws them to Australian investment opportunities, up from 85 per cent in 2019

But investors see limited opportunities, competition and high costs of bidding



Investors are broadening their definitions of infrastructure and moving up the risk curve







agree that core-plus¹ infrastructure assets will be the strongest driver of growth over the next few years

Capacity constraints and political or regulatory uncertainty continue to dampen investor confidence



78 per cent agree that Australia is facing capacity constraints in the delivery of projects



agree that uncertainty in Australia's

policy and regulatory settings limits their willingness to invest



ESG is a growing investment driver for traditional and emerging assets



93 per cent

agree ESG has become more important over the past two years, and 100 per cent agree ESG will become more important over the next three years

82 per cent

believe fossil fuel-powered energy assets have become less attractive over the past year

Investors' preference for renewable energy assets continued to grow to **72 per cent**

Over 50 per cent

agree that non-traditional renewable energy, such as hydrogen and gridscale battery storage, are more attractive than a year ago

1. Core-plus infrastructure broadly refers to emerging asset types that have similar characteristics to core infrastructure assets, but may also exhibit shorter contracts, higher volatility and potential earnings. Examples include data centres, social housing, land title registries and car parks.

METHODOLOGY & PARTICIPANT PROFILE

Methodology

This report provides a unique insight into the preferences, intentions and sentiments of major market participants who have invested or are considering investing in the Australian infrastructure market.

The report draws on both quantitative and qualitative research to provide insights into the perceptions of investors about Australian infrastructure and the factors that influence their decisions.

In early 2021, we conducted a quantitative survey of 44 senior market participants to understand investment trends in Australian infrastructure.

We followed the survey with detailed qualitative interviews with 12 leading Australian and international infrastructure investors to gain a deeper insight into the observed investment themes.

As the sixth edition in this series, the report also identifies changes in investment intentions over time and investigates the underlying causes of observed trends.

Participants

The market participants surveyed are senior representatives of major infrastructure organisations with over \$570 billion invested globally, including banks, fund managers, superannuation funds, pension funds, investors, consultants, advisers, investment managers and infrastructure constructors and operators.

Over half of the participants had their head office located in Australia, with the remainder spread across Europe, Asia-Pacific, North America and the Middle East. Almost all individuals surveyed are based in Australia, reflecting the importance of local presence to effectively participate in the Australian infrastructure market.

Survey participants included Chief Executives, General Managers, Investment Managers, Chief Investment Officers, Corporate Affairs Managers, M&A Managers, Fund Managers, Non-Executive Directors, Bankers, Directors, and Heads of Infrastructure.



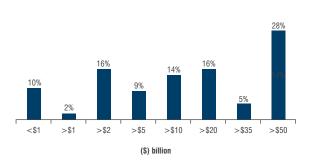
PARTICIPANTS' INVESTMENTS

PARTICIPANT STATISTICS

- Participants have over \$570 billion in infrastructure investments globally
- · Over half of the participants manage more than A\$5 billion of infrastructure investments
- · Over 60 per cent hold road, renewable generation, transmission and distribution, and social infrastructure assets

In each edition, the *Australian Infrastructure Investment Report* continues to grow in terms of the value of assets under management. In 2021, the report surveyed 44 participants managing over \$570 billion in infrastructure investments worldwide, up from the original 21 participants and less than \$100 billion in 2015. This year, 28 per cent have a total of over \$50 billion invested in infrastructure, as shown in Figure 1.

Figure 1: Profile of survey participants' global infrastructure investments (A\$)



In the 2021 report, 84 per cent of participants are already invested in Australian infrastructure, with a further 14 per cent identifying as market participants, but not investors. Only two per cent of participants are not currently invested in Australia but are seeking to invest in the next five years (see Figure 2). Half of the participants had either all of their investments in Australia or more than 50 per cent of their investments in Australia, as shown in Figure 3.

Figure 2: Current investment in Australian Infrastructure 202

We currently have investments in Australia

We have never invested in Australian infrastructure but we are seeking to invest in the next five years We are not an investor





Have all in Australia	Have more than ha	If in Australia 📕 Have less than half in Australia
29%	21%	50%

The participants invest in a broad range of asset types, however some forms of infrastructure are more prevalent than others. Like previous years, road and social infrastructure are the most common asset types, with renewable energy generation matching social infrastructure for the first time in the report's history, followed by energy transmission and distribution, as shown in Figure 4.

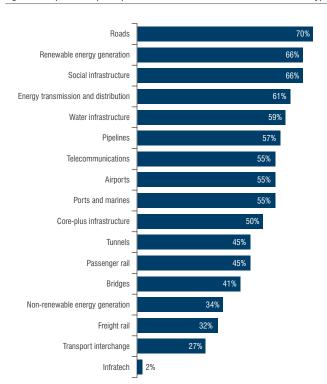


Figure 4: Proportion of participants with at least one investment in each asset type

INVESTMENT INTENTIONS

KEY FINDINGS

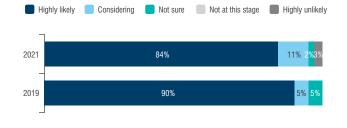
- 84 per cent of those surveyed are highly likely to invest in the Australian infrastructure market, and a further 11 per cent are considering investing over the next two to three years
- Investors' preference for telecommunications assets has grown by 23 percentage points since 2019
- Interest in regulated assets grew nine percentage points since 2019, as investors sought safety during the pandemic
- Preference for renewable energy assets reached 72 per cent, while 82 per cent believe fossil fuel-powered energy assets have become less attractive over the last year

Participants were asked about their investment intentions for Australia. The questions ranged from likelihood of investing in Australia, to the particular asset class and type preferred. While general investment appetite remains strong, it is clear that COVID-19 along with other prevailing themes have altered investors' preferences for different asset types.

The appetite for investing in the Australian infrastructure market remains strong

As shown in Figure 5, 84 per cent of participants are 'highly likely' to invest in Australian infrastructure in the next two to three years, and a further 11 per cent are 'considering' investing. However, there is evidence of growing uncertainty in the Australian infrastructure market following COVID-19, with the decline in 'highly likely' responses directly correlated to the growth in those 'considering' investing. Three per cent of the participants are 'highly unlikely' to invest in Australia.





COVID-19 has accelerated interest in data and telecommunication assets

As expected, the relative preferences of investors varied across forms of infrastructure. Spurred by the pandemic, investors' interest in telecommunications assets rose sharply, increasing 23 percentage points. This elevated telecommunications from the eleventh to the second most appealing infrastructure asset type, behind social infrastructure and equal to renewable energy generation, which rose by six and five percentage points respectively (see Figure 6 and 7).

Figure 6: Preferred Australian asset types to invest in

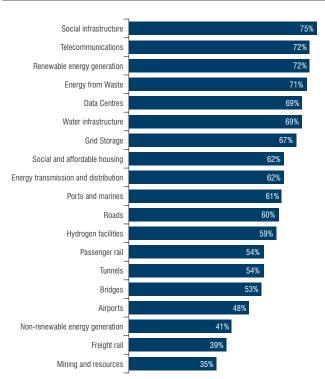
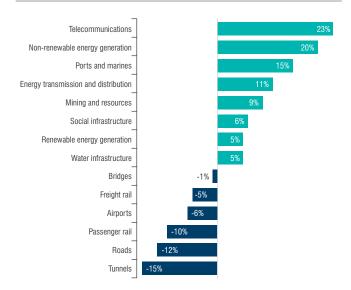


Figure 7: Preferred Australian asset to invest in, change in proportion of respondents compared to 2019



There was clear consensus that COVID-19 has accelerated a race towards telecommunications and data-related assets, with the digitalisation of the economy regarded as a dominant and lasting trend. Participants explained that digitalisation, which may have otherwise occurred over three or four years, is now occurring within a few months.

"The interest among both governments and consumers for telecommunications makes it a growing market and it is easier to be in a growth market." Super fund manager

"The telecommunications sector was always going to do well and COVID-19 accelerated it. There's more data whizzing around and that will escalate – whether that applies to data centres, fibre, towers, or anything else across the spectrum."

Super fund manager

"Everyone realised COVID-19 has highlighted a different way of working and there's been huge growth in the volume of information going through technology and people are looking to get investment exposure to the sector. There is a question of how much opportunity there is."

Institutional investor

However, participants made it clear that some risks and opportunities associated with telecommunications are difficult to quantify over the long term. Moreover, participants highlighted a more limited set of telecommunications and digital infrastructure investment opportunities in the Australian market compared to the rest of the world.

"There is a lot going on when you look globally – from data centres and towers, to 5G and broadband networks. We haven't seen much [in Australia] outside of data centres."

Institutional investor and developer

Investors' interest in social infrastructure is growing

This year, investment appetite for social infrastructure reached record levels, attracting interest from 75 per cent of investors, and overtaking roads as the top preference for the first time. Participants explained that pandemic-related factors such as population redistribution, pressures on health and education systems, as well as ageing populations, have accelerated the demand for social infrastructure assets. Participants also highlighted that social infrastructure assets are largely shielded from the negative effects of COVID-19 and meet ESG objectives.

This also follows a series of recent commitments by state and territory governments to major capital investment programs in health, education and social housing, to boost economic activity. Governments have flagged a growing role for the private sector in helping to finance, construct and manage assets in these historically publicly-provided infrastructure classes.

"Post-pandemic, governments are not going to get voted out for investing in hospitals so that'll be a safe place to invest."

Infrastructure investor and developer

"Social housing is something good to pick up as a stimulus activity."

Infrastructure investor and developer

"Healthcare lacks a correlation with the GDP and the economy. Instead it's driven by other mega-trends – not to mention COVID-19 has made people prioritise healthcare more."

Institutional investor

"There is also appeal in assets like social housing because they have a social impact." Institutional investor

"The focus on social in ESG will lead people to be more interested in things like social housing." Investment banker

With many Australian governments facing growing fiscal pressures, and with rapidly changing technology and delivery models in social infrastructure, participants highlighted the potential for the private sector to bring value to social infrastructure projects and service provision. In line with the findings of Infrastructure Partnerships Australia's recent research study with the University of Melbourne,² participants drew attention to the role Public Private Partnerships (PPPs) can play to strategically harness private capital and expertise in the pursuit of better services for users and value-for-money for taxpayers.

"Decentralising healthcare systems and the ageing population – as well as technical and medical innovation – makes healthcare a growing sector and governments will need to engage more with the private sector."

Institutional investor

"Traditional social infrastructure has re-emerged as something governments are looking at and lends itself quite easily to PPP models."

Infrastructure investor and developer

"Governments are sitting on piles of debt, so they should be looking at the most efficient way of procuring those assets." Institutional investor

"If there were more PPP-style assets brought to market, people would be jumping all over them

because they're defensive."

Infrastructure investor

Uncertainty around risk types was the primary hesitation to investing in social infrastructure. This reflects a broadening of investors' definition of what constitutes investable infrastructure over recent years – a theme picked up in the 2019 edition of this research. Participants noted there can be a lack of clarity around whether parallels can be drawn between the risks associated with traditional core infrastructure-type risks and those applying to social infrastructure asset types and procurement models.

"Some investors have their head around social housing, but others are still wrestling with the blend of infrastructure and income-type risk." Infrastructure investor and developer

"What makes social assets infrastructure is the way they are procured. So, if they're being procured as a PPP model, that's different to asking me to build and operate a stadium – where the commercial risk goes from zero to 100 per cent." Institutional investor

Interest in renewable energy continues to grow, particularly in emerging technologies

Investors' preference for renewable energy generation increased a further five percentage points to 72 per cent in 2021, making it the equal second-most preferred asset type. Participants also expressed a clear and growing desire to invest in non-traditional renewable energy assets as well as wind and solar. Reflecting on the development of emerging types of energy, 59 per cent of participants agreed hydrogen facilities are more attractive than a year ago, 58 per cent say the same for grid-scale battery storage, and 46 per cent indicated energy-from-waste facilities have become more attractive over the past 12 months.

"Well-established renewable assets are becoming hard to invest in and acquire because there is a saturation of capital in that corner of the market. People are now chasing emerging assets such as hydrogen and batteries." Institutional investor

"We are definitely not seeing hesitation. Batteries are happening now, even if they are still a difficult business case – be it storage or pumped hydro." Infrastructure investor

There is diminishing appetite for new investment in non-renewable assets, with 82 per cent believing it is less attractive compared to a year ago and participants explaining that this trend is permanently embedded in the market due to both responsible investment requirements, and the clear trend towards a decarbonised energy sector.

2. Infrastructure Partnerships Australia, 2020, Measuring the Value and Service Outcomes of Social Infrastructure PPPs in Australia and New Zealand.

"The acceleration is inevitable. Coal is getting close to unfinanceable, and the question is whether projects anchored in gas or other non-renewable resources become the same."

Infrastructure investor and developer

Although there is appetite for renewables, good value opportunities are few and far between

Despite the interest in renewable energy, participants explained that numerous barriers to investment in renewables remain, including limited opportunities, uncertain returns, as well as regulatory and policy uncertainty. Overseas markets are viewed more favourably, with some participants identifying the relative lack of regulatory and policy issues in the United States, and a more appealing risk-return trade-off in Europe.

"Most of the renewable assets here are not stacking up from a returns perspective and we're looking offshore instead."

Super fund manager

While there is growing interest in non-traditional renewable energy assets, technology risk and business case uncertainty still clouds investment and adds to a sense of first-mover disadvantage.

"On the face of it, renewables are not that attractive because we can't see the return we're going to achieve given the policy risk here." Institutional investor

"Hydrogen gets all the hype but what are the investment models and how do you finance a hydrogen model? How do you write a long-term PPA to buy hydrogen when prices are falling rapidly and will continue to fall?" Global investment adviser

"We are suffering from a lack of investable opportunities in more nascent or peripheral renewables like Energy from Waste, which is slow on the uptake in Australia, and hydrogen, which is some years away from being large-scale investment ready." Investment banker



A lack of capacity in transmission and distribution networks was also cited as an impediment to further development of renewable energy assets. The grid is seen as being in a state of flux, with distributed energy resources stretching a physical and regulatory structure designed for the last century. Investments in major transmission upgrades, such as the June 2021 approval and announcement of Project EnergyConnect – a new transmission interconnector between New South Wales and South Australia – will help to alleviate these transitionary pains for the National Electricity Market over the coming years.

"There is congestion in the network and that raises the issue of at what cost you can connect to the network." Institutional investor

"The ability to build renewables is restricted by transmission issues. The regulator doesn't reward transmission companies sufficiently to have them invest in the capex needed to facilitate renewables." Super fund manager

An overwhelming 97 per cent of participants agreed that clear government policy on decarbonisation is critical to their future investment decisions, however, participants also made it clear that market forces are continuing to drive investor appetite for renewables.

"We all know the end game here and whether or not governments are laggards is irrelevant. People want to invest in assets that reflect a decarbonised future and that's where they will land." Institutional investor "The market has moved and will keep moving despite the government's failure to establish clear policy settings." Institutional investor

Airports and toll roads took a hit during the pandemic, but investors are confident they will recover

Given closed international borders, travel restrictions and the shift to remote working during the pandemic, it is no surprise the 2021 survey saw a dip in interest from investors for airports and to a lesser extent, toll roads. Over half (52 per cent) of participants suggested airport assets were significantly less attractive compared to before COVID-19, and appetite for road infrastructure fell by 12 percentage points, the first time it was not the most preferred asset type since the *Australian Infrastructure Investment Report* commenced in 2015.

Despite the understandable decline in interest for these assets, participants expressed confidence that airports and toll roads will recover relatively quickly. A number of participants indicated airports will return to their previous trajectory and remain a good long-term investment.

"Of course, returns have been dented over the past 12 months and will be affected over the next two years. But we see them as essential to Australia given our international exposure and distance between major cities. There is no replacement for them." Institutional investor

"Their wings will be clipped a little, but people will travel once they're allowed to." Infrastructure investor and developer

Some participants indicated toll roads endured a smaller fluctuation in preference to airports but potentially have a longer recovery pathway, largely due to the smaller number of variables influencing airports. Once international borders are re-opened, airports are likely to bounce back. On the other hand, the lasting effects of COVID-19 on toll road patronage remain unknown. Evidence across Australia's toll roads indicates patronage and revenue has recovered strongly when lockdowns have been lifted, with transport users preferring private vehicles to public transport while the pandemic remains a perceived risk. "Toll roads are a slightly different question. The biggest structural issue is whether they lose because people don't want to travel to work and are more committed to working from home, or whether they benefit from a reluctance to use public transport." Super fund manager

COVID-19 instigated a 'flight to safety' in the form of a growing preference for regulated assets

While investors still prefer unregulated assets (39 per cent), this year's survey saw an uptick in investor preference for regulated assets, where 26 per cent prefer regulated assets compared to 17 per cent in 2018 and 2019 (see Figure 8).

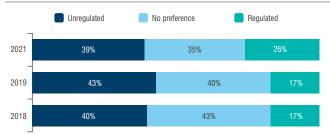
Largely, this shift can be attributed to what one participant labelled a 'flight to safety' during COVID-19 and the need for investors to gain a more balanced and diversified portfolio. However, participants also questioned whether this would be a sustained trend, with 40 per cent of respondents predicting their interest in unregulated assets will grow over the next couple of years.

"There is a need to balance your portfolio in a way that'll give you single digit but stable returns for a period and you can then seek higher returns elsewhere on unregulated assets." Super fund manager

"What COVID-19 has revealed is the insecurity attached to unregulated assets. Regulated assets can give you a comfort around income streams and returns and removing some of the variables that come with unregulated assets." Institutional investor

"I certainly don't think it is a case of people being more comfortable with regulators." Super fund manager

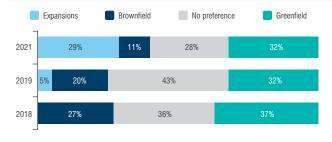




A preference for expansion of existing assets grows as investors seek to balance risk

When asked about preference for greenfield (new developments) or brownfield (mature operating assets) investments, approximately 30 per cent of participants expressed a preference for each of greenfield assets and expansions to existing assets. A further 28 per cent expressed no preference, as shown in Figure 9.

Figure 9: Investors' preferences for greenfield, brownfield or asset expansions



Although only 11 per cent of participants showed a clear preference for brownfield assets, this fall reflected a lack of available opportunities rather than specific issues deterring investment.

"A lot of the assets bought through privatisations have been purchased by Australian-domiciled funds and none of them are ever a seller other than for corporate reasons."

Infrastructure investor and developer

"Governments can support the pipeline in two basic ways: build new infrastructure using private sector finance or do privatisations. The issue is the states that are open to doing it have largely done it and the states not open to it won't be budging." Investment banker

There is declining interest in multi-billiondollar investments

Participants expressed uncertainty when asked of the maximum total and single investment values they were comfortable making, with a 15 percentage point increase in participants selecting "too hard to say". This is possibly a sign that COVID-19 has disrupted investment plans, with uncertainty reigning until the pandemic passes.

Over 50 per cent of participants prefer single investments of less than \$500 million (Figure 11). The total amount that investors were comfortable investing in also fell, underlined by a 19 percentage point decline in those willing to invest over \$2 billion compared to 2019 (see Figure 10).

These findings suggest investors may be shying away from large investments to avoid the perceived risks of mega-projects and pooled risk. For procuring agencies, this highlights the importance of market sounding and right-sized packaging of investable projects as governments roll out record levels of infrastructure spending over the coming years.



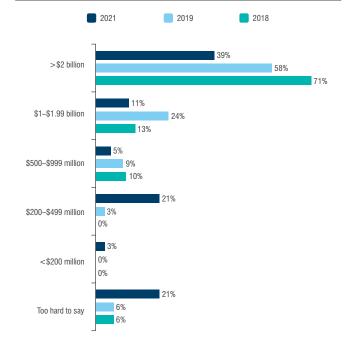
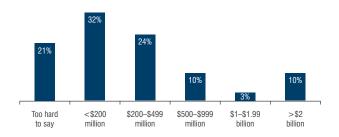


Figure 11: Single investment sizes considered by participants



EMERGING MARKET CONDITIONS

KEY FINDINGS

- Open-ended, direct investment continues to grow, with 41 per cent of participants intending to hold assets for more than 15 years
- The definition of what constitutes 'infrastructure' continues to broaden
- The importance of ESG considerations has accelerated

Open-ended, direct investment continues to grow

In 2021 and 2019, respondents were asked about the intended tenure of their investments. Responses show investors are looking to buy and hold assets for the long-term, with 41 per cent preferring to hold assets longer than 15 years, and 29 per cent of those preferring to hold assets over 20 years (see Figure 12).

This year's research also saw an 11 percentage point increase in participants selecting 'it varies depending on the asset', indicating that market dynamics alongside COVID-19 may be leading more investors to take a flexible approach to the types of assets and investment tenures they are considering.

Figure 12: How long are assets held on average?



Limited opportunity is broadening the definition of 'infrastructure' as investors look toward core-plus assets

A lack of opportunities and greater competition in traditional core assets is driving investors toward coreplus assets, with 63 per cent of participants agreeing their definition of what constitutes 'infrastructure' has broadened over the past three years. Some participants suggested organisations are investing in 'themes' and thus have a more agnostic view of asset classes. "There are no big deals around anymore and until such time as privatisations come back via more active state governments, there is no natural place for investors to put money and they need to find a home for their cash."

Infrastructure investor

"People are still wanting the returns we previously enjoyed, even if we have to go up the risk spectrum to get them."

Infrastructure investor

"We're seeing a transition away from old world to new world sectors and they are coming into the market at pace to offer a greater suite of options." Institutional investor

The pandemic has caused investors to question some assets' risk profile

Participants identified that COVID-19 has the potential to accelerate a drift away from assets exposed to patronage risks, toward assets that offer more consistent and stable returns. One participant noted that 'new world assets', such as telecommunications infrastructure and data centres, have benefitted from COVID-19, and there is a scramble to reassess portfolios and gain exposure to those assets which rely on technology rather than patronage.

"We have asset owners or fund managers sitting on old world assets that were exposed to similar risk profiles like GDP."

Global investment adviser

ESG has evolved into a key decision-making factor for investors

While ESG and social licence considerations have been recurring themes but secondary drivers of investment in past years, they now sit at the forefront of investors' mindsets. This year, 93 per cent of participants believe that the ESG credentials of investments have become 'more important' or 'much more important' in their investment decision-making over past three years (see Figure 13). All participants agreed that the importance of ESG in investment strategies will continue to increase in the next five years, and 87 per cent believe maintaining a social licence to operate has become 'more important' or 'much more important' when managing or making investments.

"The uplift in the amount of capital and the fervour in which it is seeking a home in something ESG-related is remarkable." Investment banker

"This is the topic of our time and COVID-19 has really accelerated the importance of ESG. Investors are now competing for capital based on their ESG credentials." Global investment adviser

However, investors are still grappling with finding the right balance of ESG elements. Participants explained that investors are currently more comfortable with defining environmental performance than they are with the social and governance elements of ESG.

"Reputational risk is a huge factor that we've seen affect company performance. The amount of attention and scrutiny it gets now compared to even three years ago is exponential and often the first thing some investors want to talk about." Institutional investor

"It's easy enough to work out how much carbon you emit but social spans the work you do in the community, to safety, and to diversity." Infrastructure investor

"Environmental impacts are the ones that get the attention at the expense of social and governance, though I think it's the latter where we are starting to better understand the model and the measurement." Super fund manager

Participants noted Australia is a clear leader in governance, but in the social and environmental space, Australia lags behind European markets. Moreover, participants made it clear that improving gender diversity, in organisations and in company leadership groups, needs to extend beyond 'poaching' women from other sectors towards attracting more women to the infrastructure sector to grow the talent pool.

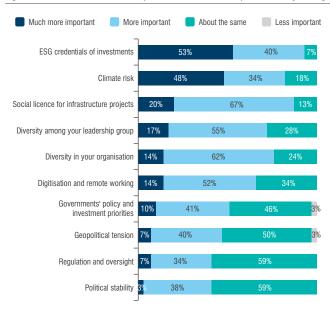
"The bit where we still have a way to go is diversity, particularly gender diversity. The industry is struggling with how to get there and address the underlying problem." Super fund manager



"The speed has taken me aback in terms of people changing their investment philosophy and targets. I thought COVID-19 might cause a pause but in fact it's had the reverse effect of focusing people more acutely on ESG."

Investment banker

Figure 13: Factors that are more important to investors compared to two years ago



WHY AUSTRALIA FOR INFRASTRUCTURE?

KEY FINDINGS

- Economic stability, a track record of infrastructure business and knowledge of market participants remain in the top reasons for investment in Australian infrastructure
- · Australia's initial response to COVID-19 has made it a desirable investment location
- · Political stability is up 29 percentage points due to improved confidence in the forward pipeline
- · Investors accept that lower returns are a by-product of Australia's stable, mature market

While the relative attractiveness of investing in Australian infrastructure fell across most measures this year - as explored later in this report - participants indicated the same factors that have made Australia an attractive investment destination largely remain in place. The factors of economic stability, Australia's track record for infrastructure and knowledge of market participants have remained the most important factors for all six editions of the Australian Infrastructure Investment Report. Additionally, 85 per cent of participants highlighted the positive impact of Australia's initial response to COVID-19 as a key factor, as shown in Figure 14.

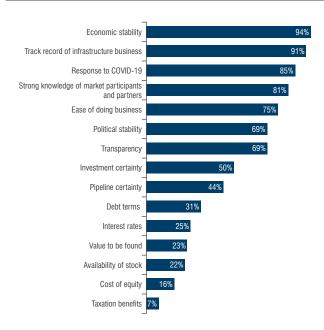
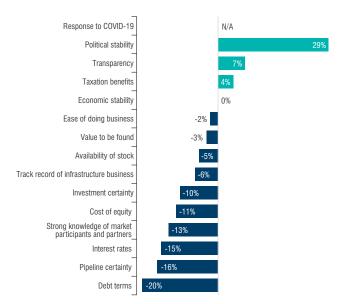


Figure 15: What makes Australia attractive for investment change in proportion of respondents compared to 2019



Economic stability remains the primary point of attraction for investment

Economic stability has remained unchanged as a positive for Australia's infrastructure investment environment since 2019, with 94 per cent of participants indicating this as important to the nation's attractiveness. Australia's economic stability provides infrastructure investors with predictability of revenues from their assets over the long-term and as such remains an extremely attractive feature of the Australian market.

Australia's track record for infrastructure (91 per cent) and knowledge of market participants (81 per cent) slipped six and 13 percentage points respectively, but remain dominant attractions for investment in Australia, as shown in Figure 14 and 15.

Less attractive aspects of the Australian market included 'value to be found' (23 per cent), 'availability of stock' (22 per cent) and the cost of equity (16 per cent). These

Figure 14: What makes Australia attractive for infrastructure investment?

factors reflect higher entry costs, fewer opportunities, and lower returns in the Australian market, but also show that Australia's stability and maturity has created a strong and competitive infrastructure investment market.

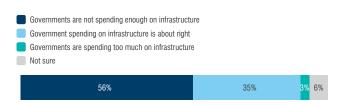
Australia's response to COVID-19 has supported the Australian market

Australia's response to COVID-19 was added as an indicator this year, with 85 per cent of participants agreeing that it is a leading factor in making Australia an attractive market for investment.

However, despite record levels of infrastructure investment announced through recent government budgets, 56 per cent also believe Australia's governments at the Federal, state and territory level could spend more on infrastructure to support the economic recovery from COVID-19, while only 35 per cent believe it is about right and three per cent believe spending is too high (see Figure 16).



Figure 16: Government spending on infrastructure



Political stability had the largest increase from last year

The largest movement on the 2019 results was political stability, which increased by 29 percentage points. In large part, this result is likely to reflect electoral timings, with the survey conducted at a point free of election campaigns or leadership changes at federal, state and territory level. By comparison, the research for the 2019 report was undertaken in the months immediately following the 2019 Federal election, and closely following state elections in New South Wales and Victoria.

Participants also welcomed political stability in the form of governments' commitments to infrastructure investment across Australia to rebuild from the pandemic-induced recession. In the final months of 2020, Federal, state and territory governments announced \$225 billion in public funding over four years for infrastructure projects in their 2020-21 Budgets, giving investors confidence in the forward pipeline and the resolve of governments to deliver projects.³ This has been followed up by even higher levels of infrastructure spending across the Federal, NSW and Victorian Governments through their 2021-22 Budgets, with a range of multi-billion-dollar projects to commence delivery over the coming years.

This level of spending has also seen perceptions of risks from previous years subside, with participants seeing reduced risk of governments back-tracking on project announcements or stalling the delivery of projects, and leading a greater feeling of stability in the Australian market.

CHALLENGES FOR AUSTRALIAN INFRASTRUCTURE



KEY FINDINGS

- Despite Australia's strong reputation, we risk being overtaken by the EU and US, where opportunities are more readily available and policy directions are clearer
- The cost of bidding (76 per cent) and complexity of bidding (50 per cent) are the two largest challenges to Australian infrastructure investment
- Competition for assets and a lack of opportunities continues to challenge investors, while the vast majority agree the market is facing capacity constraints in project delivery
- · Investor confidence is still undermined by political and regulatory uncertainty

COVID-19 has boosted the reputation of the Australian market, but this is likely to be temporary

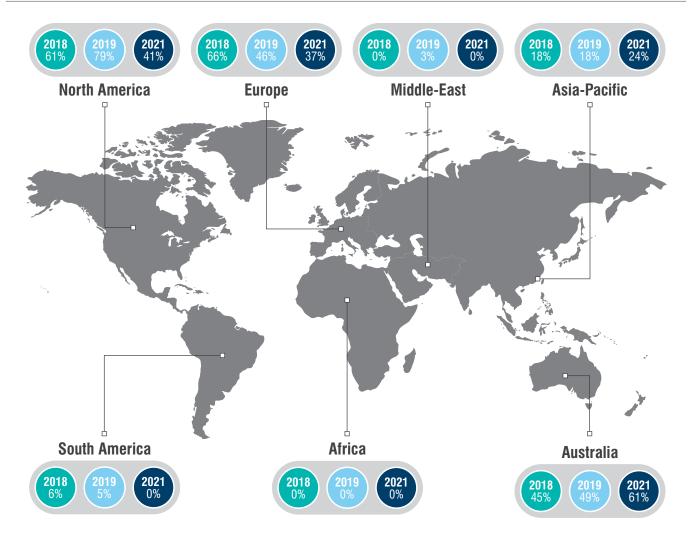
Survey participants ranked Australia first for investment opportunities globally, but this likely reflects a perception of its success in avoiding the worst economic and health impacts of the initial phase of the COVID-19 pandemic. Through more detailed engagement in interviews, participants explained that offshore markets have a deeper, more durable pipeline of investment opportunities compared to Australia. Other regions, particularly North America following a federal infrastructure investment package of unprecedented scale under the Biden Administration, provide more compelling opportunities over the long-term horizon. "Australia is more compelling than it had been because it dealt with the economic and social effects of COVID-19 fairly well."

"Globally, COVID-19 caused some issues because there weren't many transactions and a drought of opportunities emerged. But they have since reappeared in offshore markets, particularly in the US and Europe."

Super fund manager

"There would be a batch of noisy factors influencing Australia's near-term appeal, including COVID-19 and the back end of the previous US Administration. But clients fundamentally don't believe the risk-return is here given the limited number of opportunities compared to the weight and availability of capital." Investment banker

Figure 17: Regions with most compelling opportunities

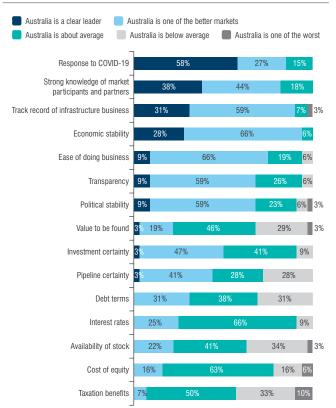




Australia compares poorly on taxation benefits and availability of stock

This year saw participants identify the measures 'taxation benefits' and 'availability of stock' as the two main shortfalls for Australian infrastructure compared to other infrastructure markets (see Figure 18). Only seven per cent of participants view Australia as above-average when considering taxation benefits, and only 22 per cent say the same of Australia's availability of stock. On the other hand, 43 per cent view taxation benefits as below average, and 37 per cent believe the same of Australia's availability of stock.

Figure 18: How does Australia compare to other infrastructure markets?



The cost and complexity of bidding are seen as major domestic challenges

The cost (identified by 76 per cent of participants) and complexity (identified by 50 per cent) of bidding have emerged as the two largest challenges identified by investors in Australia (Figure 19). These results represent 33 percentage point and 22 percentage point increases since 2019 respectively – the two largest increases (Figure 20). Competition for assets remains as one of the top three challenges for investors in Australian infrastructure but can also be seen as a result of a historically attractive market.

Participants identified that some state and territory governments are taking steps to address these issues, with efforts to improve collaboration between the public and private sectors, however, other participants acknowledge that meaningful change is likely to take time.

"We're witnessing a preparedness of governments to underwrite bid costs because they have become so stratospherically high that we can't afford to lose one of these bids. Governments get value-for-money because bidders are not including bid costs in the pricing through crazy risk multiples." Infrastructure investor and developer

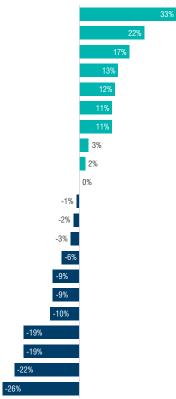
"We've seen little meaningful change so far and the negative view of the market will be hard to budge without real, transformational action seeping into the system." Institutional investor

"There is a need for a continued dialogue to keep improving the procurement model." Infrastructure investor and developer



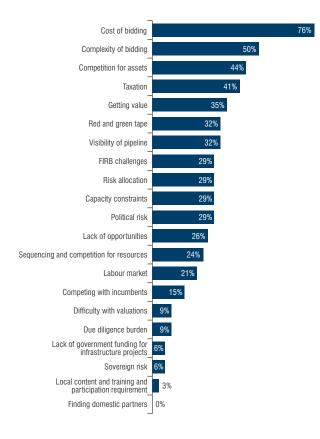


Figure 20: Most significant challenges to investing in Australian infrastructure, change in proportion of respondents compared to 2019



Cost of bidding Complexity of bidding Red and green tape Taxation Visibility of pipeline Sequencing and competition for resources FIRB challenges Local content and training and participation requirement Getting value Difficulty with valuations Competition for assets Labour market Due diligence burden Risk allocation Finding domestic partners Capacity constraints Competing with incumbants Lack of government funding for infrastructure projects Lack of opportunities Sovereign risk Political risk

Figure 19: Most significant challenges to investing in Australian infrastructure



Australia is highly competitive and there aren't enough opportunities for investors

The largest challenge facing Australia to emerge from the qualitative interviews was the level of competition and lack of opportunities presented in the Australian infrastructure market. Only 22 per cent of participants identified Australia as a leader for availability of stock (see Figure 18), and there is a perceived risk that the crowded market and limited number of opportunities is feeding into pricing.

"My view is that the Australian market is very tight and extremely crowded. Prices being bid are very toppy. We cringe when we see that." Institutional investor

"There is not one sector touched by an over-supply of assets. There is appetite across the board for core and even if you start drifting that definition, there's a lot of competition and capital for everything."

"The simple thing is the volume of transactions aren't here. A lot of people are here because it looks good, but the volume is missing."

Super fund manager

Participants also identified a lack of medium-sized projects in the Australian infrastructure pipeline, with either small or very large projects making up the few opportunities that are available. Over the past 20 years, major transport investment programs, designed to transform connectivity and accessibility in our largest cities, have evolved into mega-projects of unprecedented scale. Medium-sized projects – or mega-projects broken into smaller works packages – are attractive to a broader range of investors, and are likely to attract significant demand as investors look to balance risk in their portfolios through the recovery phase of the pandemic.

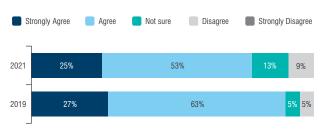
"There is massive pent-up demand to deploy capital – both foreign and domestic. Yet we seem to have mega-projects with nothing in the pipeline below \$1 billion. There is no pipeline of medium-sized projects so what do you do in between?"

Global investment adviser

Capacity constraints remain a concern for investors

Despite growth in the infrastructure pipeline over recent years and record spending by governments in response to the pandemic, the proportion of investors agreeing that there are capacity constraints in project delivery has declined from 90 per cent to 78 per cent since 2019, as shown in Figure 21. However, the vast majority of investors still see this as an issue facing the sector, and the challenges caused by capacity constraints may be exacerbated as project commitments made in the past 12 months hit the procurement and delivery phases in the coming years.





Perceptions of political and regulatory risk have improved but uncertainty remains

Interestingly, while 73 per cent of participants agree that policy or regulatory uncertainty limits their willingness to invest, political risk has dropped from the most prominent challenge in 2019 at 55 per cent to 29 per cent in 2021. As explored in 'Why Australia for Infrastructure?', this can be attributed to several reasons, including the success of Australia's initial response to COVID-19 resulting in confidence that incumbent governments will remain in administration, and the expanding infrastructure pipeline and investments across Australia to rebuild from the economic effects of COVID-19.

However, participants still expressed concern about continued and increasingly frequent direct interventions by the Federal Government into the energy market, which are eroding confidence in a sector undergoing major transformation.

"Regulators can be very militant, so you need to be very careful"

Super fund manager

STATE VERSUS STATE



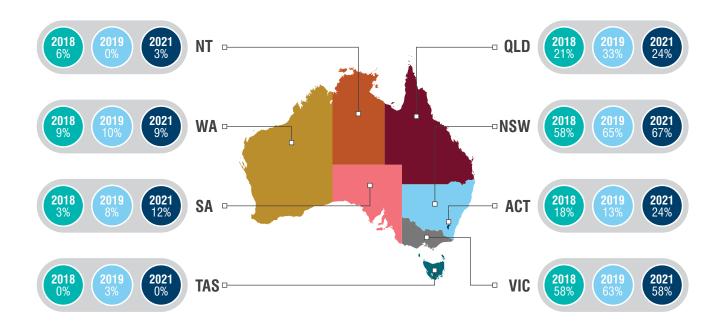
Figure 22: Preference to invest on a state-by-state basis

KEY FINDINGS

- New South Wales (67 per cent) and Victoria (58 per cent) remain Australia's most preferred infrastructure investment destinations
- Investment interest in Queensland remains less stable at 24 per cent, down from 33 per cent in 2019
- Each jurisdiction's track record for infrastructure remains the most important factor for investors when deciding where to invest

New South Wales and Victoria continue to be preferred by investors – matching the significant infrastructure pipeline being rolled out in both states (see Figure 22). Investor preference for Australia's two largest states remains consistent across the past four years, however, Victoria experienced a five percentage point decline since 2019. Investor preference for New South Wales reached a record 67 per cent this year, as Victoria slipped to 58 per cent.

Interest in these two states correlates with their significant infrastructure spends, with New South Wales allocating \$85.6 billion in general government expenditure on infrastructure in their 2021-22 Budget, and Victoria allocating \$90.2 billion in their 2021-22 Budget.⁴



4. Infrastructure Partnerships Australia analysis



Interest in Queensland has been less stable than the other major states, suffering a nine percentage point decline since 2019, after rising 12 percentage points from 2018.

The largest movement on 2019 results was the Australian Capital Territory, which rose 11 percentage points. This movement can be partly explained by the recent signing of contracts for health and transport projects, off the back of a 10-year infrastructure plan released in late 2019. South Australia and the Northern Territory also increased on 2019 results, while Tasmania and Western Australia declined.

What is driving investors to particular states?

Digging deeper into what drives preference for particular states, Figure 23 shows 'track record of infrastructure business' and 'pipeline certainty' remain the most important factors for investors.

This year participants were asked about additional factors, such as 'approach to project risk allocation', 'alignment with policy and investment priorities' and 'tax treatment of assets'. 'Approach to risk allocation' appeared to be a significant decider in preference between states. Each factor that had previously been recorded experienced a decline in importance to participants, indicating that as opportunities to enter the Australian market dry up, investors are less picky when determining which state they prefer.

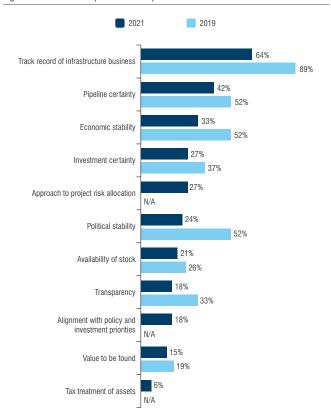


Figure 23: What drives preference for particular states?

CONCLUSION

The 2021 Australian Infrastructure Investment Report explores the changing investment environment as Australia emerges from a pandemic-induced recession. Australia's mature and stable market has maintained investor confidence and it continues to be a leading destination for investment. Between COVID-19 changing the playing field for investment and competition for assets, investors are broadening their definitions of infrastructure and accepting more risk by taking on coreplus assets.

However, investors face a range of growing challenges, chief among them a lack of investment opportunities. Australia's market has grown increasingly crowded, with some investors indicating a hesitancy to overcommit to the cost and complexity of bidding, or wary of overcommitting to mega-projects. Capacity constraints also continue to challenge the sector, and government interventions, especially in the energy sector, continue to drive policy and regulatory uncertainty.

This year, investors identified a marked increase in the importance of ESG and social licence for investment portfolios and asset types. Renewable energy and telecommunications assets are viewed by investors as appealing, with participants explaining that COVID-19 has accelerated an already inevitable trend toward these assets.

There is an opportunity for governments to capitalise on the moment created by record public investments in infrastructure to re-establish Australia as a world-class destination for infrastructure investment. Stronger policy leadership to assert Australia's environmental and social credentials, a recommitment to key market principles of competition and limited intervention, coupled with a push to bring more deals to market, will see investors lining up to support the domestic market. But further inaction could see Australia fall behind other regions – most particularly the EU and the US.



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