AUSTRALIAN INFRASTRUCTURE INVESTMENT REPORT 2019

INFRASTRUCTURE PARTNERSHIPS AUSTRALIA

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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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Our market leading infrastructure, renewable energy, and project financing teams advise across the full lifecycle of infrastructure projects. They play an active role in the development of the markets in which we operate.

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Our origin as a trustee company, together with our outstanding track record in investment management, has built our reputation as one of the most respected brands in financial services in Australia.

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Our passion is to protect and grow our client's wealth with our vision to be Australia's largest and most trusted independent wealth manager.

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About the 2019 Infrastructure Investment Report

Infrastructure Partnerships Australia, Allens, and Perpetual Corporate Trust are pleased to jointly present the 2019 edition of the *Australian Infrastructure Investment Report*.

This year's survey captures the views of international and Australian investors who together collectively own or manage around AU$490 billion of infrastructure assets across the globe.

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

Special thanks to Robert Montgomery for his valuable stewardship of this project.

EXECUTIVE MESSAGE

The 2019 *Australian Infrastructure Investment Report* marks the fifth anniversary of the study. The last five years has seen the global economy enter a period of heightened uncertainty. A low interest rate environment has intensified the hunt for yield and has changed the risk/reward calculation for investors. After examining this year's results against several years of historical data it's clear investors in Australian infrastructure have not been immune to this changing risk environment. Investors understand well the balance of risk and reward, and are adapting their risk appetite to seek new opportunities in an Australian infrastructure market, which remains highly competitive and active. However, this year's report shows that in some areas the necessary risk/reward balance has been disrupted, and we are seeing growing risks without rewards.

Australian infrastructure is highly attractive, but also highly competitive

Investor appetite for Australian infrastructure remains strong, with 90 per cent of participants 'highly likely' to invest in Australia in the next two to three years (equal to the 2018 result). The attractiveness of the Australian market is primarily driven by our strong track record for infrastructure delivery and the sophistication of local market participants and partners.

The strength of the Australian market also creates challenges for investors. Forty-five per cent of participants reported that competition for assets and a lack of opportunities are creating challenges in finding new investments. This has led to some investors moving up the risk curve or expanding their investment mandate to pursue opportunities in core-plus infrastructure assets such as data centres or land-titles registries. Termed 'core-plus' assets for their similar characteristics to core infrastructure assets, they may also exhibit shorter contracts, higher volatility and potential earnings. In fact, 64 per cent of participants showed a preference for core-plus assets, making them just as popular as passenger rail or water infrastructure from an investor's perspective.

Some risks are symptoms of a flourishing market

A competitive market is a healthy market, and it would be anticipated for investors to move up the risk curve into assets such as core-plus infrastructure. In recent years, Australia's strong infrastructure market has made it a destination of choice for international investors. Australian governments and infrastructure developers have harnessed private capital and expertise to accelerate the pipeline of infrastructure projects across the country.

However, Australia is somewhat a victim of its own success, with the sector feeling the pressure of a high volume of projects simultaneously entering the delivery phase. This increased market pressure is seeing risk allocation on complex projects, and capacity constraints in the construction market, begin to impact the cost of infrastructure delivery. Ninety per cent of participants agreed that the Australian infrastructure market is facing capacity constraints, with these constraints felt to a high degree in civil and tunnelling projects. While challenging, many of these risks can be traced to a flourishing market and are typically priced to match risk and reward.

Policy and regulatory risks are without reward

Not all risks in the Australian infrastructure market are matched by commensurate reward. Eighty-three per cent of participants agreed that uncertainty in Australia's policy and regulatory settings is limiting their willingness to invest. Many investors have long investment horizons and their memories are just as long. A flurry of government interventions, tax changes and regulatory reviews in recent years has caused concern for many investors. While some risks are symptoms of a busy market, or offer rewards proportionate to the risks being taken, policy and regulatory uncertainty have little upside for investors, taxpayers or customers. Instead, policy and regulatory uncertainty dampen incentives and drive poorer outcomes for infrastructure users.

Over recent decades, Australia's reputation as a leading infrastructure investment market has been built on stable market frameworks and rules, with ongoing uncertainty in energy policy and regulation being the notable exception. This year's report confirms that new challenges have arrived, with the risk environment changing on several fronts. As we navigate this new environment, policymakers and regulators must work to reduce those risks which offer few rewards.

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

Adrian Dwyer
Chief Executive Officer – Infrastructure Partnerships Australia

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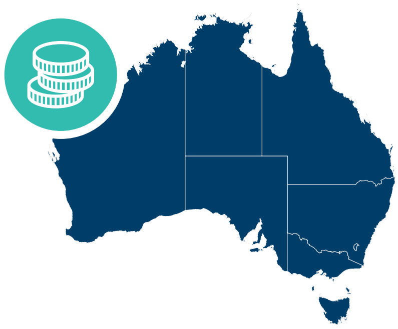
Group Executive – Perpetual Corporate Trust

KEY FINDINGS



Investor appetite for Australian infrastructure remains strong and steady

90 per cent are 'highly likely' to invest in Australia, the same level as in 2018

But investors are struggling to find enough investment opportunities in the competitive Australian market

79 per cent of investors say North America provides compelling investment opportunities

whereas only **49 per cent** of investors say the same about Australia

45 per cent said competition for assets and a lack of opportunities are significant challenges for investment

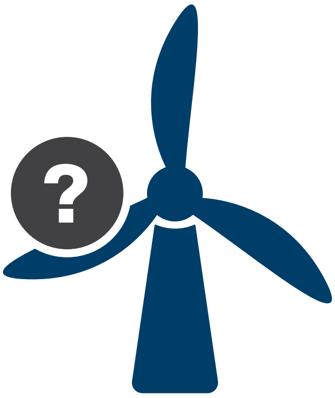
So, investors are moving up the risk curve to pursue opportunities in core-plus assets

64 per cent showed a preference for core-plus infrastructure, meaning it ranks the same as passenger rail or water infrastructure

Risk allocation and capacity constraints in the construction market are beginning to impact the delivery of infrastructure

90 per cent agree the Australian infrastructure market is facing capacity constraints.

Constraints are most severe for civil and tunnelling projects, with social infrastructure less affected by skills shortages and cost increases.



Interest in renewable energy generation is high, but policy uncertainty is creating risk

67 per cent are considering near-term investments in renewable energy

whereas just **21 per cent** are considering non-renewable energy investments

74 per cent agree that policy and regulatory uncertainty limit their willingness to invest in the energy sector

Across all sectors, investors remain concerned about policy and regulatory uncertainty

83 per cent agreed uncertainty in Australia's policy and regulatory settings is limiting their willingness to invest

When it comes to the attractiveness of the Australian market, emerging challenges are outweighed by our strong track record on infrastructure and our experienced local market participants

85 per cent say our track record of infrastructure business draws them to Australian investment opportunities, up from 70 per cent in 2018

70 per cent agree that the knowledge and experience of partners and market participants make Australia an attractive investment destination

METHODOLOGY & PARTICIPANT PROFILE

Methodology

This report provides a unique insight into the preferences, intentions and sentiments of major market participants considering investments in Australian infrastructure.

In September 2019, we conducted a quantitative survey of 49 senior market participants about investing in Australian infrastructure.

We followed this with detailed qualitative discussions with six of the participants to gain a deeper understanding of the issues.

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

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

Participant Profile

The market participants surveyed are senior representatives of major infrastructure organisations including banks, fund managers, domestic superannuation funds, foreign pension funds, investors, as well as infrastructure constructors and operators.

Over half of the participants had their head office located in Australia, with the remainder spread evenly across Europe, Asia, and North America. Almost all the 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, Chief Investment Officers, Fund Managers, General Managers, as well as Transaction and M&A Managers.

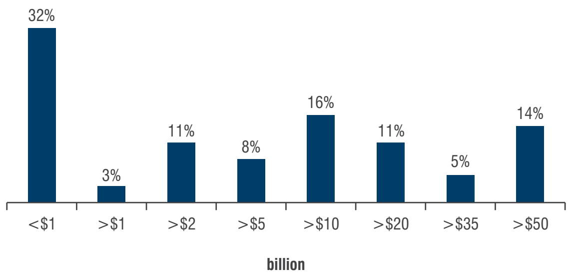
PARTICIPANTS' INVESTMENTS

PARTICIPANT STATISTICS

- Participants have over AU$490 billion in infrastructure investments globally
- Over half of the participants manage more than AU$5 billion of investments
- Over 70 per cent of participants hold road, social infrastructure and renewable energy assets

Each year, the *Australian Infrastructure Investment Report* continues to grow in terms of number of participants and the value of assets under management. In 2019, the report surveyed 49 participants managing more than $490 billion in infrastructure investments worldwide, up from the original 21 participants and less than $100 billion in 2015. This year, 14 per cent of participants have over AU$50 billion invested in infrastructure, as shown in Figure 1.

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



In the 2019 report, 86 per cent of participants are already invested in Australian infrastructure, with a further 12 per cent identifying as market participants, but not investors. Only two per cent of participants are not currently active in Australia (see Figure 2). Fifty-five per cent of participants had more than half of their investments in Australia, as shown in Figure 3.

Figure 2: Current investment in Australian infrastructure

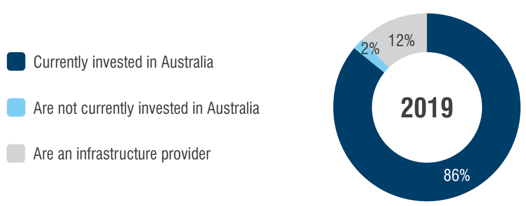
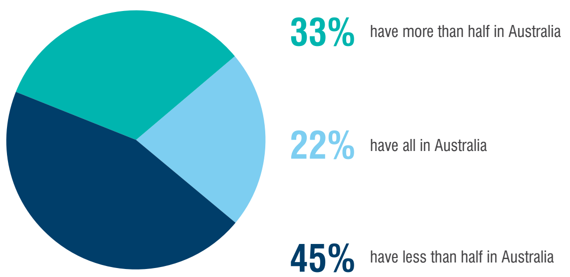
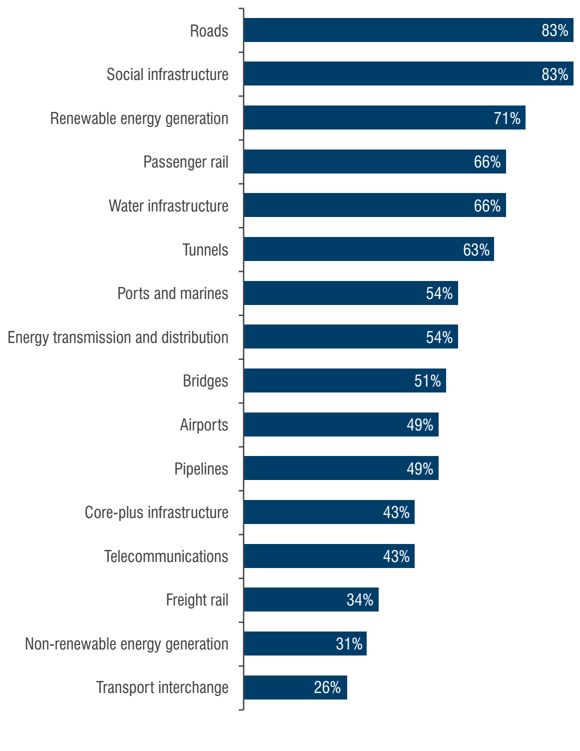


Figure 3: Proportion of total investments in Australia versus anywhere else



The participants had existing investment stakes in a broad range of asset types, however some asset types are more prevalent than others. Like previous years, road and social infrastructure are the most common types of assets in which participants hold investments, followed by renewable energy generation, passenger rail and water infrastructure, as shown in Figure 4.

Figure 4: Global profile of participants with an investment in each asset type



INVESTMENT INTENTIONS

KEY FINDINGS

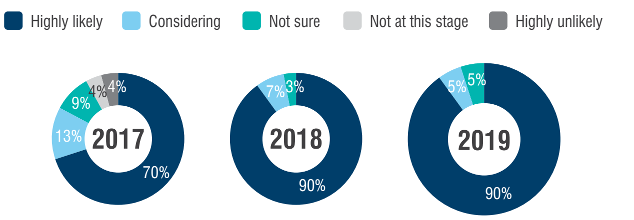
- 90 per cent of participants are highly likely to invest in the Australian infrastructure market, and a further five per cent are considering investing over the next two to three years
- Preference for renewable energy assets has increased by 15 per cent from last year
- 64 per cent of investors are interested in core-plus infrastructure
- Interest in unregulated assets has grown in line with regulatory uncertainty

Participants were asked about their investment intentions for Australia. The questions ranged from likelihood of investing to the particular asset class and type preferred. While general investment appetite remains strong, investment methods and asset preferences are responding to the current environment.

Appetite for investing in the Australian infrastructure market remains strong

As shown in Figure 5, 90 per cent of participants are 'highly likely' to invest in Australian infrastructure in the next two to three years. A further five per cent are 'considering' investing. The figures are largely unchanged from the 2018 results, confirming a consistently strong appetite for Australian infrastructure. None of the participants said they are 'unlikely' to invest in Australia.

Figure 5: Likelihood to invest in Australian infrastructure



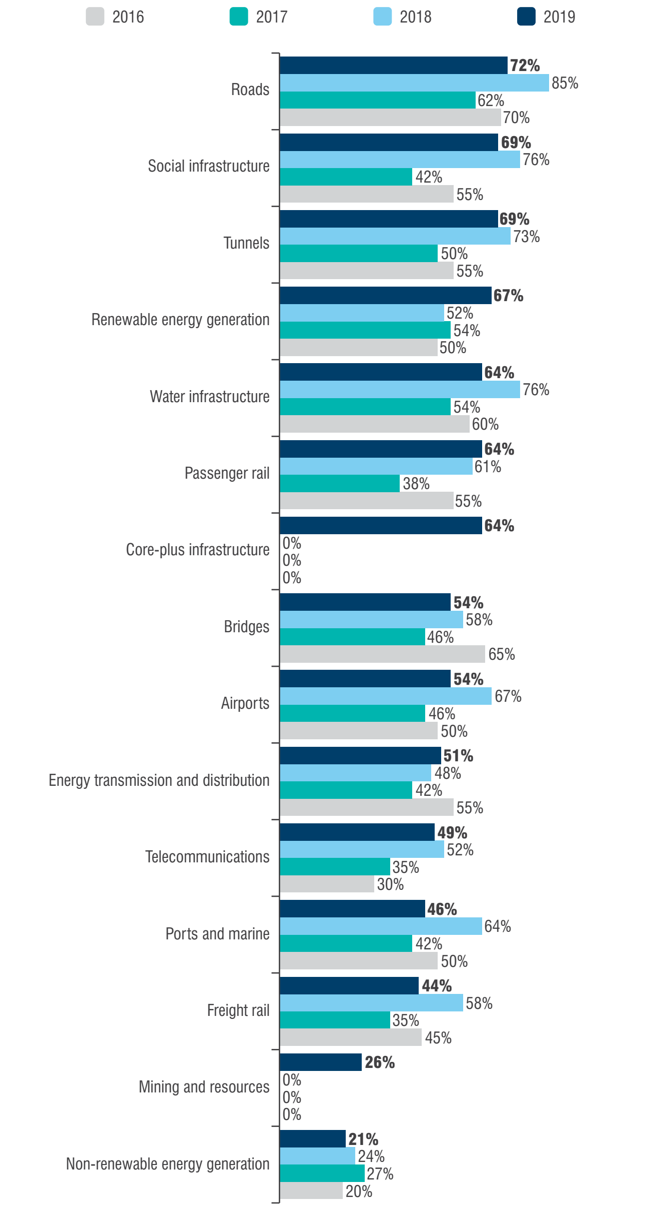
"Every major investor in the world would like to be in Australia. We've got lots of domestic capital and certainly most of the big overseas players… we're forever having people knock on the door, whether they are from Canada, Asia, or the Middle East."

Infrastructure investor & developer

High growth in preference for renewable energy generation, while interest in other assets has fallen

Relative investor preference fell for most asset types, except for renewable energy, passenger rail, and energy transmission and distribution (see Figure 6). Participants explained the fall in preference across asset classes was due to a lack of available opportunities rather than specific issues deterring investment.

Figure 6: Preferred Australian asset type to invest in



In contrast, the growth in renewables interest corresponds with perceived greater opportunities in the sector, due to lower barriers to entry for investment. Renewable energy generation assets experienced an increase of 15 percentage points on the 2018 results, which corresponds with heightened investment activity in the sector. This increase in interest has occurred despite uncertainty over the Federal Government's energy policy beyond the 2020 Large-scale Renewable Energy Target.

"Renewable energy is a huge area of focus right now. There are pressures there as well. Regulation is a challenge but there's a lot of willingness to invest, there's lots of money and valuations are pretty high right now."

Global investment adviser

"I think on renewables, there's a lot of money there. There's more money than there are opportunities."

Investment banker

"The barriers to entry into renewables in Australia, certainly in the last two years, have been extremely low."

Institutional investor

The infrastructure categories of 'freight rail' and 'ports and marine' experienced the largest declines in interest, falling 14 and 18 percentage points respectively compared to the 2018 results. This is consistent with the fact that there are no significant asset divestments in the pipeline.

Strong interest for core-plus asset class

This year's report included two new asset categories, 'core-plus' and 'mining and resources'. Core-plus assets are those that would not be defined as traditional, 'core' infrastructure assets, yet retain similar characteristics such as high barriers to entry, long lifespans and stable revenues; examples include data centres or land titles registries. Core-plus is as popular as passenger rail and water infrastructure, with 64 per cent of participants stating a preference for investing in these asset classes. The lack of new traditional infrastructure investments and the pursuit of higher yields in a low interest rate environment, is driving the search for new asset types.

"I think the rise in interest for core-plus assets is symptomatic of the shortage of core infrastructure assets, so investors are looking beyond the core definition"

Institutional investor

Interest in unregulated assets has grown in line with regulatory risks

Investors continue to demonstrate a preference for unregulated assets over regulated assets (see Figure 7). In some cases, this is driven by the desire to seek the higher returns offered by unregulated assets. In other cases, it is underpinned by a desire to avoid the regulators themselves.

"I much prefer to negotiate with my customers than go cap in hand to a regulator every five years to find out what my revenue is going to be."

Global investor

"The shift away from regulated assets was primarily due to trying to get higher returns in the non-regulated environment combined with the level of policy and government intervention."

Institutional investor

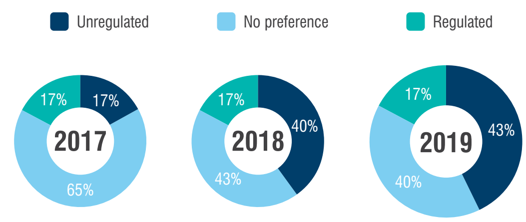
"Unregulated offers a better risk adjusted return but it also offers greater volatility in those returns."

Institutional investor

"At the moment regulated assets are an acquired taste in Australia given the amount of intervention from regulators and from politicians, but over the medium term, I don't see a big shift away from it."

Institutional investor

Figure 7: Preferred regulatory model for investments



Experienced investors are chasing both Brownfield and Greenfield opportunities

When asked about Greenfield (new developments) or Brownfield (asset divestments) intentions, 43 per cent of participants had no preference (Figure 8). This year's report adds further granularity to the data on investor preferences for Brownfield or Greenfield assets by adding an expansion (or Khaki) category. Expansions are considered investments in Brownfield

assets which involve a significant planned capital upgrade as part of the transaction. Participant comments reflected mixed sentiments around the two main asset classes, with pros and cons acknowledged for each. Investors are increasingly willing to take either option due to a lack of opportunities.

"Absolutely prefer Brownfields. You really don't want construction risks as an infrastructure investor if you can avoid it."

Global investor

"There are more Greenfield assets out there, there are hardly any assets being privatised, or Brownfield assets being recirculated through secondary sales. Much more common is the PPP style development which is Greenfield."

Global investor

While Greenfield investments carry additional risks due to the construction element, there is a perception that investors are increasingly capable of taking on the construction risks. Australia has a long history of Public Private Partnerships (PPPs) with many local investors well experienced in Greenfield construction.

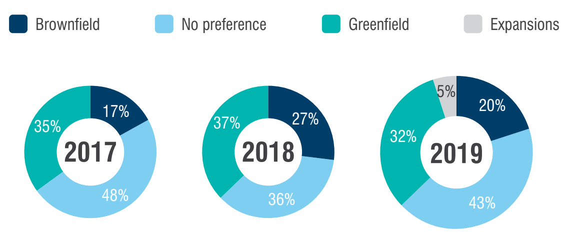
"I think there's a longer track record on Greenfield where people are more confident they can price the risk. Back in the day, not many people had done Greenfield, now more people have done it and more people are comfortable doing it, therefore there's more interest in it."

Investment banker

"We are seeing an increase in risk appetite for Greenfield projects from traditionally more conservative investors who've tended to want to shy away from construction and development risk. It's a sign of the increasing sophistication of equity investors, particularly local equity investors."

Infrastructure investor & developer

Figure 8: Brownfield or Greenfield



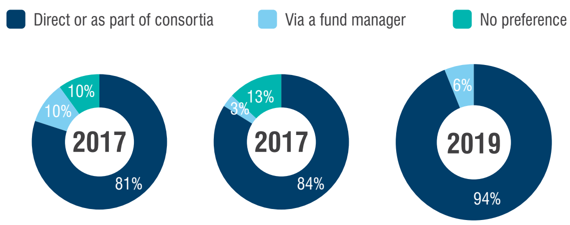
Direct investment via in-house teams preferred over fund manager

The trend towards direct investment continues in 2019, with 94 per cent of participants preferring to invest directly or via consortia (see Figure 9). The trend is explained by the growth of in-house capability, particularly among the large super funds, which negates the need for intermediary managers.

"The preference for going direct is an ongoing trend. I think it will just keep increasing as the Australian super funds get bigger and more sophisticated. Increasingly people have in-house teams and therefore want to invest directly."

Infrastructure investor

Figure 9: Preferred method for investing in Australia



Greater interest for higher value assets

Participants continue to prefer higher value assets, as shown in Figures 10 and 11. Participant portfolio sizes are growing, as is the corresponding pressure to deploy larger amounts of capital.

"The larger funds have gone up the asset size curve mainly because of a desire not to deploy capital into a whole host of middle assets which create some management difficulties."

Global investor

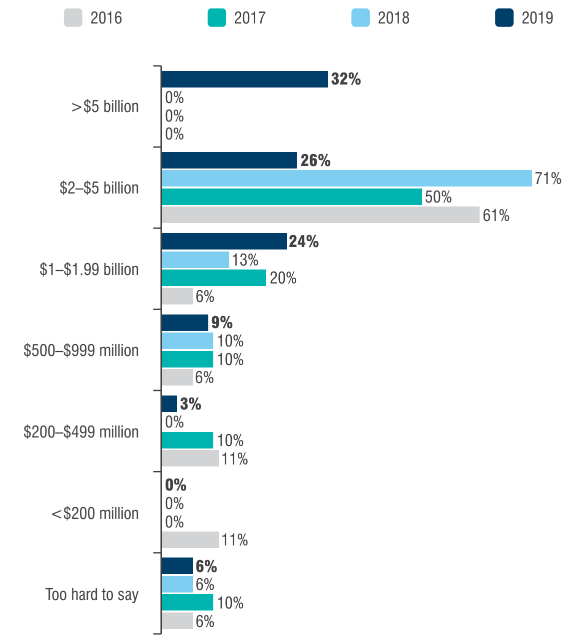
"The amount of work that goes into doing that $2 billion project is not that different from a $500 million project."

Super fund manager

"We would be keen to commit $2 billion plus in capital to a single project, primarily because of the fund the capital's sourced from, it's a very substantial fund and to move the dial, you need to be investing at least $500 million to $750 million."

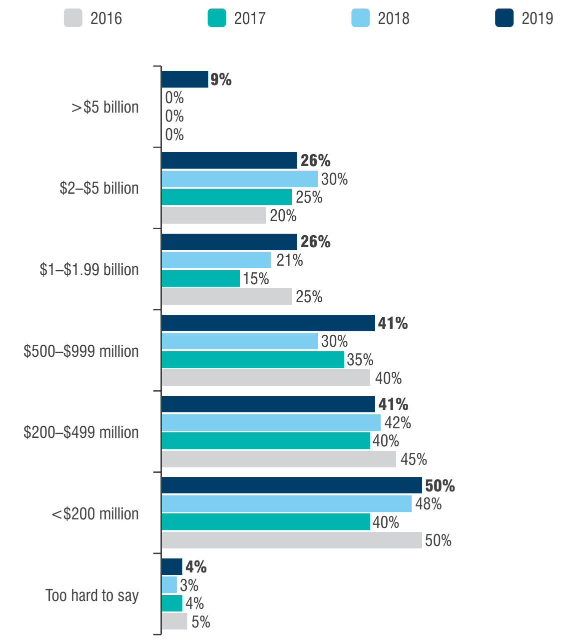
Institutional investor

Figure 10: Total amount comfortable investing in Australia



Note: The $2-$5 billion category and >$5 billion category were represented as >$2 billion from 2016 - 2018

Figure 11: Single investment sizes considered by participants



Note: The $2-$5 billion category and >$5 billion category were represented as >$2 billion from 2016 - 2018

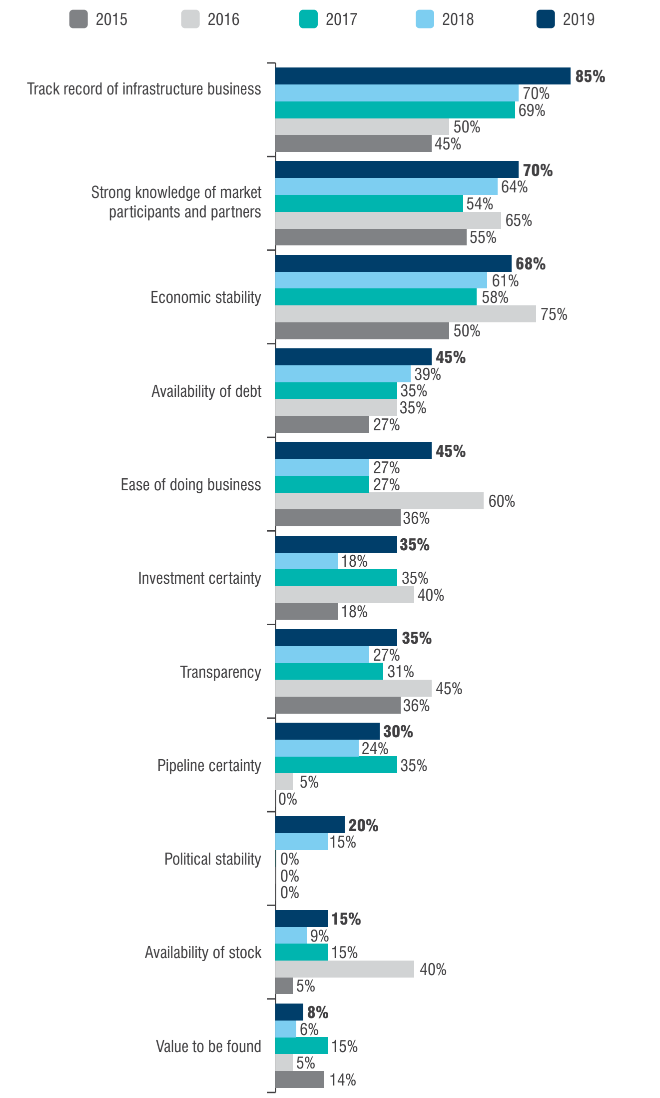
WHY AUSTRALIA FOR INFRASTRUCTURE?

KEY FINDINGS

- The big three attractions for investment in Australian infrastructure continues to be track record for infrastructure, knowledgeable market participants and economic stability
- Ease of doing business is up 18 percentage points due to increased public service capability
- Investors accept that lower returns are a by-product of Australia's stable, mature market

While participants expressed an improvement in attractiveness for infrastructure investment across all measures in 2019, three core indicators continue to outperform the rest - track record, knowledgeable market participants and economic stability. Over the past five years, these indicators have ranked consistently high and centre on a perception of Australia as a stable, capable and proven infrastructure market. Interestingly, participants have low expectations of value for the same reasons.

Figure 12: What makes Australia attractive for infrastructure investment?



Australia's track record continues to attract infrastructure investment

The leading attraction for investment in Australia continues to be the country's track record for infrastructure business (Figure 12). This indicator encompasses Australia's history of infrastructure investment, delivery and operation, and was nominated by 85 per cent of participants. The fact that this has remained the leading indicator for the past three years underscores the importance of Australia's established reputation for attracting investment.

Knowledgeable market participants and a stable economy continue to underpin interest

Australia's long history of infrastructure delivery and use of sophisticated procurement techniques, including being a pioneer of Public Private Partnerships (PPPs), have given rise to a strong pool of experienced and capable firms and individuals. This is underscored by a continued appetite for PPPs, and the increasingly sophisticated relationship between governments and private partners across procurement, investment and construction.

"If you look back 10-15 years ago, infrastructure was a very young asset class. You had a whole lot of fledgling managers coming into the market. Through the post-GFC period they have weeded themselves down into a smaller number of very strong survivors."

Global infrastructure investor

Market participants value Australia's economic stability as a key attraction for infrastructure investment, which requires stable revenue over long time horizons. This stability has underpinned an increasing appetite for large asset investments, as reflected in Figure 10 (Investment Intentions section).

Ease of doing business had the largest increase from last year

Ease of doing business has increased by 18 percentage points since the 2018 results. Participants said this is closely tied to the improvements in the skill and expertise of personnel in market-facing government departments that oversee infrastructure procurement and management. Some participants indicated that this has recently improved through targeted recruitment to key positions.

"Governments have stocked the key departments with very talented people from the private sector."

Global investment adviser

Only eight per cent of participants see value in Australia's market as a key drawcard

Australia's success as an infrastructure market is a double-edged sword for investors seeking value. While only eight per cent of participants rated value as an attraction for investment, they acknowledged that the low returns are a by-product of a stable, sophisticated, competitive and mature market.

"The returns are pretty low because the assets are good, the environment is good, the rule of law is great. Everything works so it's hard to find real value."

Infrastructure investor & developer

"Value is hard to find because it's an expensive country, we've got good assets and good innovation and the product is good, it just costs a lot of money."

Investment banker

EMERGING MARKET CONDITIONS

KEY FINDINGS

- Open-ended, direct investment is rising, with 31 per cent of participants intending to hold assets for more than 20 years
- Limited opportunity and a competitive market are driving investment in core-plus assets
- Interest in renewables has grown 31 per cent over five years, but investors are wary of policy uncertainty

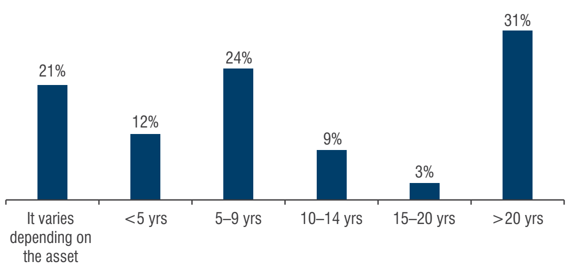
As in previous years, participants expressed a series of views on emerging market conditions. Commonly cited themes included evolving investment methods in the form of open-ended, direct investment; limited opportunities and a search for new assets; as well as a wariness of the strong renewables market.

Rise of open-ended, direct investment

In 2019, participants were asked about their intentions in terms of investment tenure. Responses showed that 31 per cent of infrastructure investors are looking to buy and hold assets, with less focus on divestment strategy. Participants noted that the intention to hold assets for longer is a result of increasingly sophisticated super funds and pension funds, looking for assets with long-term returns that will match their ongoing liabilities.

Macroeconomic conditions are also contributing to this trend. A low interest rate environment across the globe has encouraged long-term investors to increasingly look to asset classes such as infrastructure for stable returns. This has seen many superannuation funds and other institutional investors increase their focus and expertise in infrastructure, leading to a greater incidence of open-ended investments, which are made directly by experienced in-house teams.

Figure 13: How long are infrastructure assets typically held?



"You're seeing the closed-end fund investors diminishing and the real money investors starting to take their place; pension and super fund investors who are very focused on asset liability matching. Whilst they've got an asset that's matching liabilities, they can't see themselves exiting at all."

Infrastructure investor & developer

"Both of our investment funds are open-ended, so we don't factor in a divestment strategy at the outset and given the time and effort challenges of actually securing good quality investments, we like to hold on to them."

Institutional investor

"Debt markets continue to be really favourable, so there's lots of refinancing and stretching tenure, which is very sensible in this current environment"

Global investment adviser

Although almost a third of participants look to hold assets for more than 20 years, 12 per cent intend to hold assets for less than five years, with 24 per cent declaring a typical investment intention of five to nine years. Explaining the differing investment strategies, some participants challenged the value-add of open-ended investment, arguing that closed-ended investment incentivises improvements to the asset.

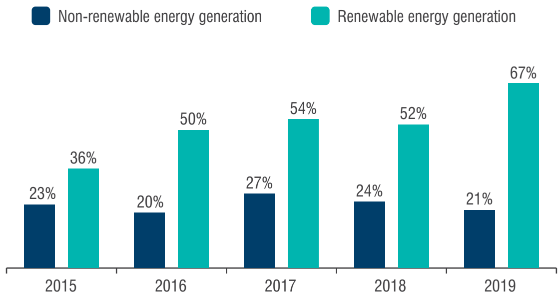
Limited opportunity is driving core-plus investment

Infrastructure investors are turning to core-plus assets because of greater competition and a lack of opportunities in core assets and increasing pressure to chase higher returns in a low-yield environment. Investors view core-plus assets as those that are 'adjacent' to traditional infrastructure assets, but with shorter contracts, bringing higher volatility and potential earnings. Recent transactions have seen infrastructure players invest in assets such as shipping lines, bus and ferry operators, storage terminals and motor vehicle registries. The NSW Government's possible privatisation of the NSW Forestry Corporation's Softwood Plantation Division is an example of a potential upcoming investment opportunity that would be categorised as core-plus.

Despite a flood of investment, participants are wary of the lack of policy frameworks in the renewables sector

Investment intentions for renewable and non-renewable energy generation have clearly diverged over the five years of data recorded by the Australian Infrastructure Investment Report, as shown in Figure 14. Desire to invest in non-renewable energy generation has remained stagnant, whereas interest in renewable investments has grown by more than 30 percentage points over the five years since the report began. Although market participants acknowledged the popularity of investing in renewable energy generation, they are sceptical of the certainty of expected returns given the lack of a stable policy framework.

Figure 14: Energy generation investments considered over the next two to three years



"Investors are looking beyond the core definition for infrastructure-like businesses that are adjacent to the sector in some way. You find them within businesses such as airports, ports, etc. They have separate characteristics but they wouldn't have the same barriers to entry, they'd have shorter contracts, they'd offer up more volatility and earnings."
Institutional investor

"Core-plus are infrastructure-like assets that are monopolistic or have high barriers to entry. It's telecom towers, data centres, land titles registry."
Global investment adviser

"Core assets are firmly single digit returns now and therefore if you want mid-teens returns, or anything above 10 per cent internal rate of return, then you're really looking at core-plus exposure."
Global infrastructure investor

"The people buying higher risk infrastructure are more your private equity style investor, or funds looking to generate larger returns, and the way they do that is buy it, develop it and flip it."
Super fund manager

"I think interest in renewables will continue, but I don't think renewables will deliver in terms of the way people expect them to."
Global investor

"We simply are not prepared for bringing such a large volume of renewables into the system in the last two to three years. We don't have a clear road map ahead of us as to what the energy mix is or how the system will cope in the next six months, never mind the next six years."
Institutional investor

"Chopping and changing the policy framework around renewables is not conducive to investment."
Investment bank

"Australia is not somewhere we're looking at, and I think it's a deadly place to invest [in renewables]. Environmental policy is very volatile. It changes quite a bit, and currently there is a lack of policy."
Super fund manager

AUSTRALIA VERSUS OTHER MARKETS

KEY FINDINGS

- Close to 80 per cent of investors see North America as providing the greatest investment opportunities globally, up from 38 per cent in 2016
- Perceptions of Australian investment opportunities have remained stable in recent years, whereas Europe dropped from first place in 2018, to third in this year's report
- Changes to stapled structures have seen the tax pendulum swing against foreign investors, making Australian opportunities less attractive globally

In 2019, market participants believe the most compelling investment opportunities are to be found in North America, where the privatisation pipeline is growing. Participants preferred Australia to Europe because of our track record for infrastructure, strong knowledge of market participants, and stable economy. However, taxation benefits and political stability in Australia are viewed unfavourably by investors.

North America provides the greatest investment opportunities

Interest in North America has grown steadily over recent years, with investor preference for the region more than doubling since 2016. In 2019, North America leads the world as the most attractive investment destination, with 79 per cent of participants saying it has the most compelling opportunities. Participants explained that growth in investment opportunities has been particularly strong in the United States, where state and local governments are successfully engaging private capital through asset recycling and in the development of new assets. This contrasts with the Australian market, which has seen the privatisation pipeline all but dry up and a slowdown in procurement of infrastructure through Public Private Partnerships.

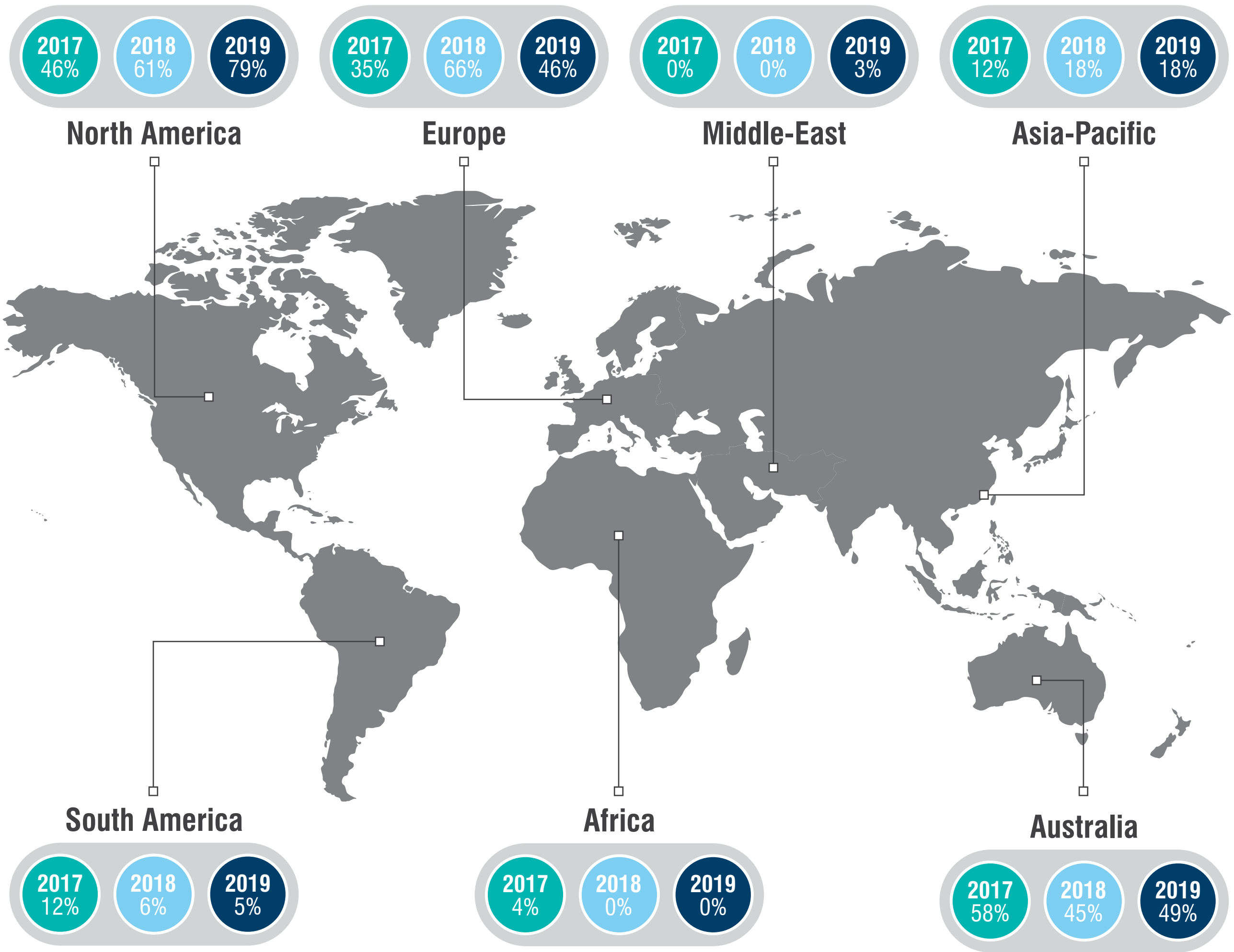
"The increase in opportunity in the United States is Trump-irrelevant. What's happening is; at the state/city/county level governments are latching onto private capital as a really useful tool to help them procure infrastructure and to recycle assets."

Infrastructure investor & developer

"There is interest in North America because it's a deeper market, there's more to do, returns are higher, and you can deploy bigger equity cheques. The U.S. is where everyone is starting to look."

Global investment adviser

Figure 15: Regions with the most compelling opportunities



Australia is preferred to Europe

Perspectives on opportunity in the Australian infrastructure market have remained relatively stable since this report started tracking sentiment. Conversely investor impressions of opportunity in Europe have been more volatile with Europe falling from first place globally in the 2018 report to third place behind North America and Australia. These results demonstrate that despite perceptions of political instability in Australia, when compared to other regions, Australia enjoys relative stability in a political and economic sense.

"Returns are higher here for the same sort of asset than they are in the European market, so from that perspective there's value in Australia."

Global investment adviser

"Because we are still in population growth mode, there'll be follow-on investment, I think people can see potential for more."

Global investment adviser

The tax pendulum has swung against foreign investors

When considering Australia's competitiveness with other infrastructure investment destinations, the taxation environment plays a major role. Australia is a net importer of capital and as such tax arrangements for foreign investors play a significant role in encouraging investment into the local market.

This year, participants reflected on recent changes to taxation conditions for foreign investors, noting that the taxation environment has become significantly less attractive within the global market. The Federal Government's recent package of changes to the tax treatment of stapled structures has greatly reduced benefits for foreign investors, who often use these investment vehicles when entering into Public Private Partnerships and privatisation transactions in Australia.

The changes have increased the Managed Investment Trust (MIT) withholding tax rate from 15 per cent to 30 per cent and have limited the availability of concessions for these investors.

These changes have reduced the attractiveness of Australian infrastructure opportunities for foreign investors, as rising taxes increase their cost of capital and put them at a competitive disadvantage when competing with domestic investors. For domestic investors, the changes reduce the field of potential partners for consortia. For governments procuring infrastructure or divesting assets, the amount of competition in the investment market could potentially shrink.

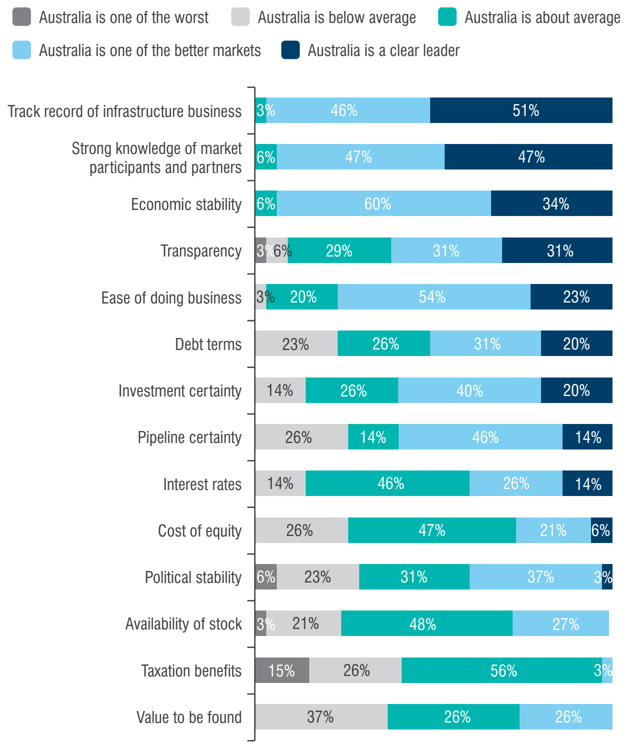
"Tax is a significant issue for overseas investors, local super funds had felt that overseas investors had a tax advantage…The pendulum has swung too far now and there is a disadvantage and a disincentive for foreign investment."

Global investment adviser

"Aussie investors are holding for longer and are less likely to sell, the foreigners are a little bit different. A big part of it is the changes in tax law have made it less attractive and there's less regulatory certainty for them and so we're seeing quite a few of them look to sell assets, even though they're long-term investors."

Investment Bank

Figure 16: How does the Australian market compare to other infrastructure markets?



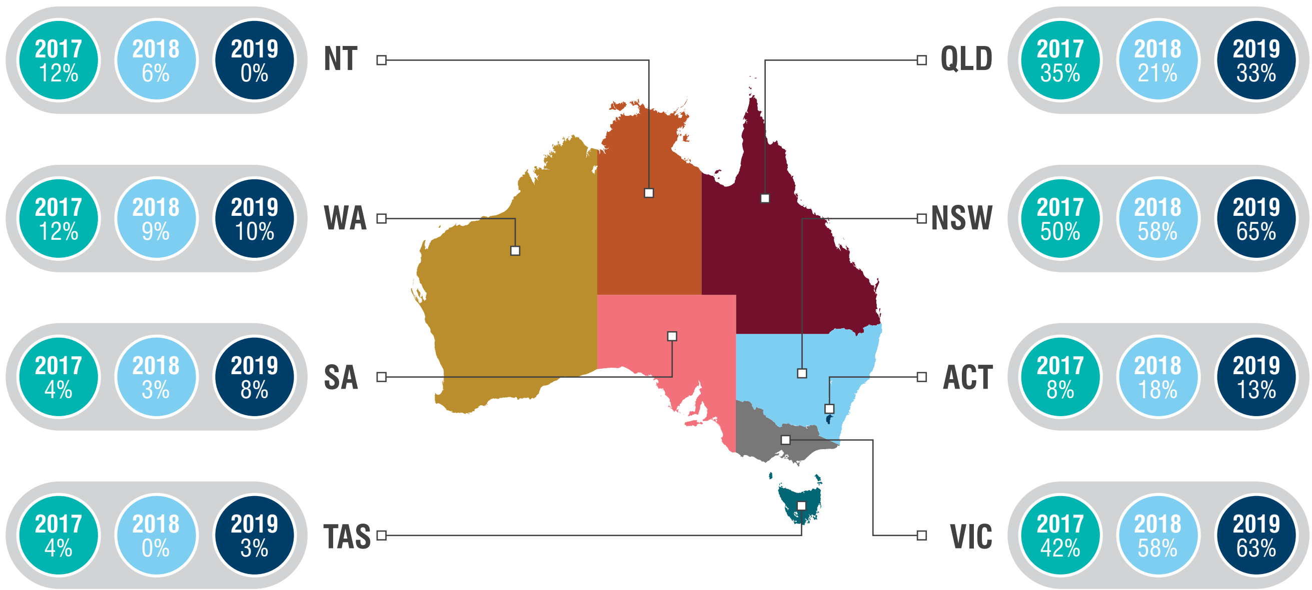
STATE VERSUS STATE

KEY FINDINGS

- NSW (65 per cent) and Victoria (63 per cent) are Australia's most preferred infrastructure investment destinations
- Preference for Queensland has rebounded strongly since last year but remains relatively low
- When deciding which state to invest in, 89 per cent of investors say track record for infrastructure is the most significant factor
- This year, participants reported that availability of stock is emerging as a key factor in determining which state to invest in

New South Wales and Victoria continue to be preferred by investors – matching the significant infrastructure build taking place in both states. Queensland has rebounded after a sharp decline in 2018, with the proportion of participants expressing a preference to invest there rising from 21 per cent to 33 per cent. Interest has increased in Western Australia, South Australia and Tasmania. However, interest in the Australian Capital Territory and the Northern Territory has declined.

Figure 17: Preference to invest on a state-by-state basis



Investors' preference for Australia's two largest states continues to grow in 2019, increasing to 65 per cent in NSW and 63 per cent in Victoria. These figures reinforce the two-speed economy divide in the Australian infrastructure market. NSW and Victoria have had significantly larger infrastructure funding capacity in recent years, much of it as a result of successful asset recycling undertaken by both states. While NSW ranked slightly higher than Victoria, participant comments suggest Victoria has the strongest pipeline of investment opportunities.

Investor preference for NSW and Victoria is directly linked to the large government infrastructure funding programs which are creating investment opportunities in these two states. Combined, the NSW and Victorian governments have committed $125 billion[1] to infrastructure over the next four years, which represents 68 per cent of Australia's total general government infrastructure funding[2] over the period.

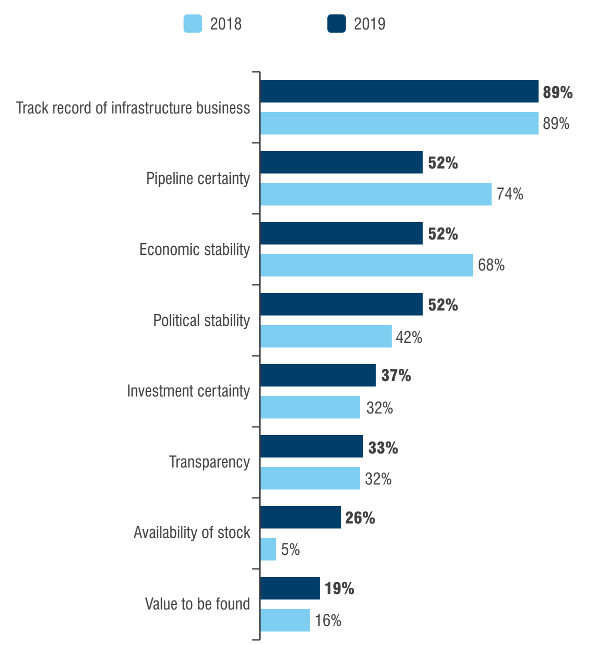
1. Infrastructure Partnerships Australia, *2019-20 Australian Infrastructure Budget Monitor*.
2. General government infrastructure funding does not include funding for government-owned enterprises as these businesses fund their own capital expenditure through user charges.

The largest movement on 2018 results was in Queensland, which rebounded 12 percentage points. This movement can be partly explained by the recent signing of contracts for Queensland's flagship infrastructure project, the Cross-River Rail Public Private Partnership (PPP). SA, Tasmania and WA also increased on the 2018 results, while the ACT and NT declined.

Digging deeper into what drives preference for particular states, Figure 18 shows that track record for infrastructure business remains the most important factor for infrastructure investors. In comparison to the 2018 findings, participants reported that economic stability and pipeline certainty were less important to them this year.

Interestingly, availability of stock is emerging as a more significant determinant of investors' preferences for particular states. This finding supports insights at the market-wide level that there is a lack of opportunities and a high degree of competition for assets.

Figure 18: What drives preference for particular states?



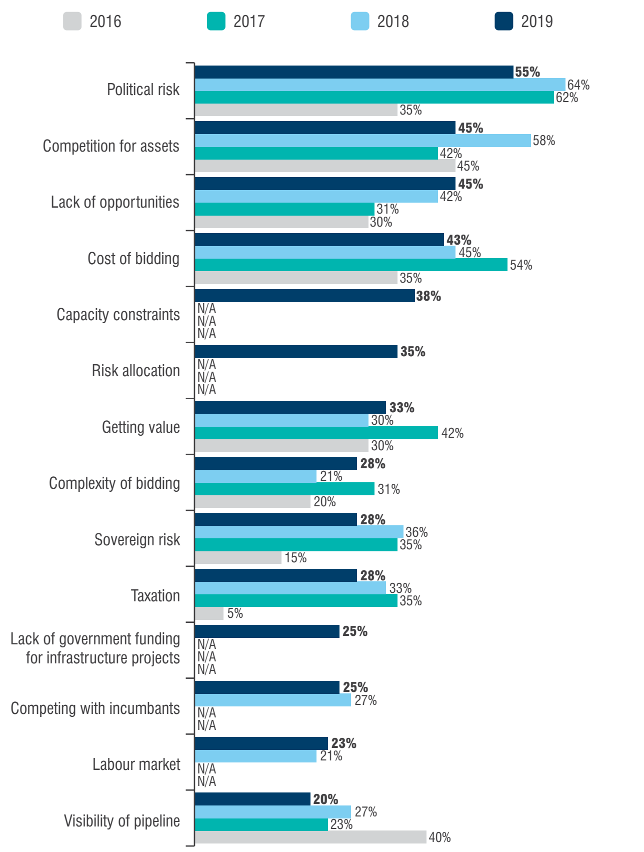
CHALLENGES FOR AUSTRALIAN INFRASTRUCTURE

KEY FINDINGS

- Political risk and regulatory uncertainty have dampened investor appetite
- Competition for assets and lack of opportunities continue to challenge investors
- Cost of bidding is high and risk allocation concerns investors
- Capacity constraints are beginning to impact infrastructure delivery

Participants were asked what they perceived to be the most significant challenges to investing in Australia. Political risk remains the biggest challenge, though it has moderated since last year. While competition for assets and lack of opportunities are challenging investors, these could also be considered signs of a healthy market. The bidding pool is narrowing due to current risk allocation and high cost of bidding for the private sector. Investors are also noticing capacity constraints, particularly for the civil contractors.

Figure 19: Most significant challenges to investing in Australian infrastructure



*N/A denotes these factors were not surveyed in past years

Australia continues to suffer from policy and regulatory uncertainty

Political risks remain the single largest challenge for investors in Australia (Figure 19), this is despite the Federal, NSW and Victorian governments all being returned at their respective elections in the last 12 months. While concern over political risks has declined by nine percentage points since the 2018 survey, suggesting an improvement in the situation, participants have not forgotten past interference and are wary of governments' susceptibility to electorate pressure. In 2019, both the NSW and Federal election campaigns featured threats of cancelling projects.

"People go 'oh yeah, the Government's just cancelled a project, or changed their views, or they're going to take you to court'. Investors have long memories, and so once you do one of those things, it's not like she'll be right next year or we'll just forget about it, I don't think people forget that quickly."

Super fund manager

"When you're dealing with government administrations that don't have large majorities, then they're very sensitive to the mood of the electorate and do have a propensity to make decisions that we would argue are short-sighted and to the detriment of long-term investing."

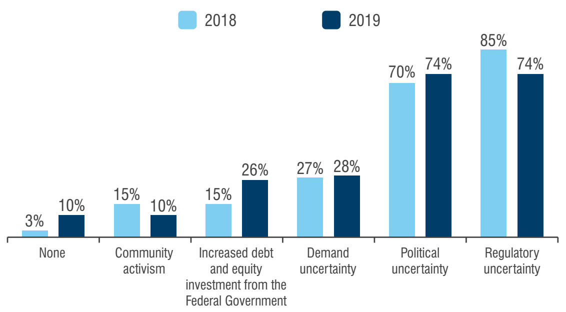
Institutional investor

Participants see political and regulatory uncertainty as a significant problem for the energy sector, where government intervention has been commonplace in recent years. This year, the Federal Government introduced a Default Market Offer for retail electricity prices and is currently seeking to legislate divestment powers. When asked what factors limit investing interest in the energy sector, participants rated political risk and regulatory uncertainty as the most limiting factors (see Figure 20).

"Whether it's the energy regulator, the ACCC, FIRB, or the Government, every one of them is making life more difficult for infrastructure investors, but not in a productive way."

Super fund manager

Figure 20: Factors limiting investor interest in the energy sector



Participants have noted an increase in regulatory reviews and suggest they are detrimentally affecting the value of Australian infrastructure assets. Events contributing to the current atmosphere of uncertainty include delays on the WestConnex transaction caused by the Australian Competition and Consumer Commission failing to complete its competition assessment in a timely fashion, and the Federal Government's proposed 'Big Stick' legislation in the energy sector, which would include divestment powers.

"You don't want to have too much concentration in Australia within your portfolio and to be perfectly honest, Australia is not as safe a place to invest in infrastructure as it was five or 10 years ago."

Super fund manager

"There are two general risks you take. One is you take risk on the GDP or the macro state of the world and the other is you take risk on the regulation that's imposed on an asset. The funny thing is, you look at the impact of Trump or Brexit or what's going on in China, or the Australian economy and just the fact that interest rates are getting so low. But people are still more willing to take the GDP bet, than a bet over regulators, which should spell how concerned people are about the regulators."

Super fund manager

Competition for assets and lack of opportunity continue to challenge investors

Participants rated 'competition for assets' and 'lack of opportunities' equally as the next most significant investing challenges behind political risk (Figure 19). Participants perceive competition in the market to be less of a challenge than last year, (declining from 58 per cent to 45 per cent) and acknowledge competition is also a sign of a healthy market.

"People are becoming more accepting of the fact that competition is everywhere. You have to accept that our market is driven by competitiveness and that's what makes it efficient."

Infrastructure investor & developer

The strong competition for assets is being fuelled by a lack of opportunities for investment and explains participant perception of a lack of value in the market. The high availability of capital in the current environment puts further pressure on investors to find infrastructure assets to deploy it on.

"For mature infrastructure assets, which really requires a privatisation pipeline, there's nothing coming into the market."

Global infrastructure investor

"Certainly, portfolios are getting larger and so equity cheques are getting larger, but I think the limit is just fundamentally, the number of projects."

Investment bank

While Australia is punching above its weight in terms of the number of and size of infrastructure projects being delivered, it remains a smaller market by global standards. Strong competition for assets will help ensure taxpayers and end users receive value in terms of both quality and price when the Government engages private capital in the delivery of public infrastructure. However, opportunities must continue coming to market to keep the major players interested in Australia.

"There's just not many opportunities in Australia at the moment. Governments are delivering stuff but they're delivering it on their own balance sheet."

Super fund manager

Cost of bidding and concerns over risk allocation

Cost of bidding is less of a problem than in recent years, though it is still considered a significant challenge.

Bidding in Australia for public infrastructure projects is a costly and lengthy process. The current influx of civil infrastructure projects in the east coast market has reduced the capacity of bid teams to source suitable personnel, yet also provided them the luxury of picking and choosing which projects to bid for.

Participants noted that some government tender processes are suffering from a lack of bidders. The most notable example of this is WestConnex Stage 3B, or the 'Rozelle Interchange,' which attracted a single bid through an expression of interest process – a bid the government then rejected. To encourage a second bidder to enter the tender process, the NSW Government offered a compensation package of $20 million to cover the bid costs of the unsuccessful bidder.

"We have seen issues in getting engineering advice where there just haven't been enough engineers to go around multiple bidders. It's also an issue for government when they're trying to get competitive tension by getting that third and fourth bidder into the process. It is hard to get additional bidders when all the engineers get snapped up by bidder one and bidder two."
Investment bank

Participants spoke about the risk allocation on major infrastructure projects and its implication for bidding processes. Risk-averse governments have tended to contract out many risks to the private sector, but as the complexity of risk has increased, the pool of capable and willing design and construction bidders has narrowed. Participants are particularly wary of risk allocation within the PPP delivery model, and its effect on partner dynamics and the ultimate profitability of the venture.

"Risk allocation between the public and private sector in PPPs is certainly an issue for contractors in the civil space."
Infrastructure investor & developer

"PPPs are trading at seven per cent internal rates of return. So, everything's got to go your way to make sure that doesn't become a three per cent internal rate of return. That's why a lot of investors won't invest in a PPP style structure, particularly if it carries construction risk."
Global infrastructure investor

A more collaborative approach from government towards risk allocation may help widen the bidding pool and ensure value for money. Last year the NSW Government took initial steps to meet this need for collaboration by releasing an action plan, the Ten Point Commitment to the Construction Sector, which sought to address some of the perceived challenges being faced by the construction market, including risk allocation. Some participants saw the emerging challenge of risk allocation as a sign of a sophisticated market, whereby government and the private sector are learning by testing the ability for the market to price risk on increasingly large and complex projects.

"One of the critical issues right now is governments want competition from different contractors but to encourage it they need to be sensible about the risk allocation. There's no point encouraging everyone then slapping on a contract which is completely one-sided in terms of the risk allocations."
Global investment adviser

"One of the things that's probably not well understood is that it's not always challenges in risk allocation between government and the private sector or government and the contractors, sometimes government takes on too much risk as well."
Infrastructure investor & developer

"I think the market is readjusting, both in terms of the risks contractors are willing to take, but also in that governments are starting to understand that although they need to share the risk, they also need to do the work upfront to take the risk out of projects."
Infrastructure investor developer

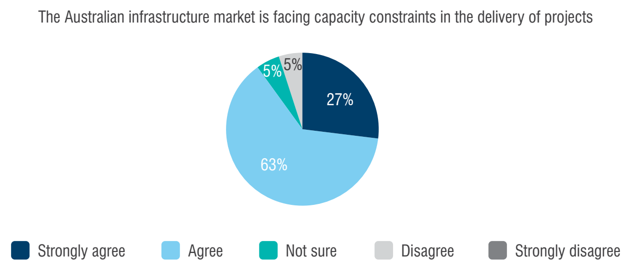
"I think government does have a role to play in terms of delivery and being more of a partner with the private sector as opposed to 'them' and 'us' and I think they're getting there on that."
Global investment adviser

"I differentiate civil transport style PPPs, from social infrastructure PPPs. While the risk allocation looks the same, the way the risks manifest is quite different. Building a 40-kilometre road is very different to building a 40-storey building."
Infrastructure investor & developer

Capacity constraints are impacting the delivery of infrastructure projects and in turn the pipeline

Confirming a very visible market challenge, 90 per cent of participants agreed there are capacity constraints on the delivery of infrastructure projects (Figure 21). Participants have noticed an increase in prices, with respondents seeing this as a symptom of a stretched civil construction sector. Participants have warned that the cyclical nature of rising prices will put pressure on the pipeline by restricting what can be delivered within a government's budget. Some participants noted changes to immigration policy around visas for skilled workers as a factor that has compounded the skills shortages and capacity constraints on major projects.

Figure 21: Is the Australian infrastructure market facing capacity constraints in project delivery?



"There certainly is concern on the capacity of the construction sector to take on major projects. We're starting to see construction prices increase which is a product of supply."
Institutional investor

"Price increases are putting pressure on government budgets which means the pipeline is affected. In NSW it's a direct consequence of having so many of these mega civil style projects going on. Costs are going up on road, rail and tunnelling projects and that's putting pressure on the whole budget and pipeline."
Infrastructure investor & developer

"We're starting to see construction prices increase, which is a product of supply, but also the economics of how projects are bid three, four, or five years ago. Back then the market was quieter, so margins are pretty skinny. Now we're seeing a situation where the pipeline has expanded significantly and contractors are facing pressure on projects which are bid a few years ago, so they are looking to recoup those margins on new projects."
Institutional investor

Participants believe better pipeline visibility and coordination will help to ease the strain, and importantly encourage global participants who require long lead times to enter a new market.

"It's really basic stuff like flagging to the market early what projects are happening and when so people can plan. There's arguably a skills shortage in Australia and there are lots of global companies who want to compete in this country. So it needs to be well telegraphed in advance, when things are coming."
Global investment adviser

"Whether it's a federal project like Snowy 2.0 or whether it's in Queensland, Victoria, or New South Wales, governments need to be a little bit more coordinated in terms of when things are going to happen as opposed to competing. Obviously, everyone wants their projects at the same time though."
Global investment adviser

Interestingly, participants commented that social infrastructure is not experiencing capacity constraints to the same degree as civil and tunnelling projects. Social infrastructure projects draw upon resources from the vertical building sector, which has generally experienced a slowdown due the housing market downturn. This may provide impetus for further funding of social infrastructure projects, from governments that are increasingly reliant on infrastructure spending as an economic lever.

"The skills are different in social infrastructure. The sense I get is that we're not seeing massive constraints in the housing and the vertical buildings market, the constraints seem to be in the civil and tunnelling projects."
Infrastructure investor & developer

CONCLUSION

The 2019 *Australian infrastructure Investment Report* explores a changing risk environment for infrastructure investors. In some ways Australia is a victim of its own success – the market is attractive, so competition for assets has led to a shortage of investment opportunities. On other fronts, policy and regulatory uncertainty are creating unnecessary risks for existing asset owners, as well as those looking at upcoming projects and transactions.

Successive government interventions, tax changes and regulatory reviews in recent years have left many investors unsure of the rules of the game, or the process by which those rules are changed. The risks for investors and the broader infrastructure sector created by this uncertainty offer little reward in exchange and serve to dampen investment into new and existing Australian assets.

At the same time, investors are coming to terms with emerging market dynamics such as a broadening of the definition of infrastructure to include investment opportunities in core-plus assets. This trend sees investors assessing new asset types which offer higher payoffs but with greater risk and volatility.

In traditional infrastructure, investors are concerned by risk allocation and capacity constraints in the delivery of projects. These challenges are symptoms of a flourishing market in which governments have successfully engaged private capital to accelerate Australia's infrastructure pipeline, and as such, these factors will require careful management by all parts of the sector.

As in previous years the *Australian Infrastructure Investment Report* confirms investor interest in the Australian market and offers valuable insight into how we can continue to maintain our status as one of the world's leading infrastructure investment destinations.

For more information on the projects mentioned in this report please visit infrastructurepipeline.org

The Australia & New Zealand Infrastructure Pipeline (infrastructurepipeline.org) provides a detailed and informed picture of upcoming greenfield and brownfield infrastructure investment and major construction opportunities, across the two countries. It is a joint initiative between the Australian & New Zealand Governments and Infrastructure Partnerships Australia.

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