National Australia Bank

ASIAN INVESTORS AND AUSTRALIAN *Infrastructure*

TOWARDS A FUTURE-PROOF PARTNERSHIP

FOREWORD

I am delighted to introduce this paper, **Asian Investors and Australian Infrastructure: Towards a Future-Proof Partnership** — the first in our thought leadership series. Previous explorations of Australia's infrastructure sector have been published, but none have specifically addressed the emerging Asia-Australia infrastructure partnership, which is being supported by an investor-led and customer-centric approach.

The paper captures the leading role of foreign investment in Australia's development, and much of this investment has been generated in Australia's home region of Asia. Like many other prosperous and fast-growing nations, Australia is increasingly facing infrastructure constraints, largely due to its rapidly growing but ageing population. The first part of the paper highlights the need to support infrastructure improvements with innovative funding mechanisms.

In the next section, we examine the key types of Asian investors in Australia's infrastructure sector, and the approaches being developed to meet their financial, sustainability and business development goals. Importantly, the factors improving the infrastructure picture for investors – efficiency and a focus on results, long-term financial sustainability, and the desire to create positive environmental impacts – will ultimately benefit end-customers and communities at large.

Our research highlights a fast-developing ecosystem, encompassing businesses that build infrastructure in Australia; the people that deliver services through the infrastructure; domestic and Asian institutional investors that invest in the infrastructure; and the infrastructure's actual users. This view should encourage us to develop future infrastructure as a service, not only a physical asset.

We hope the paper provides valuable insights and that the topics raised help spark new dialogues with the investor community. A common theme throughout the paper is the many players in the infrastructure sector collaborating in the search for better outcomes. We also believe we have a role to play in championing a holistic approach to infrastructure development and funding, and supporting an emerging, proactive customer voice, contributing in the process to beneficial outcomes for all.

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GROWING DEMAND, HIGH POTENTIAL

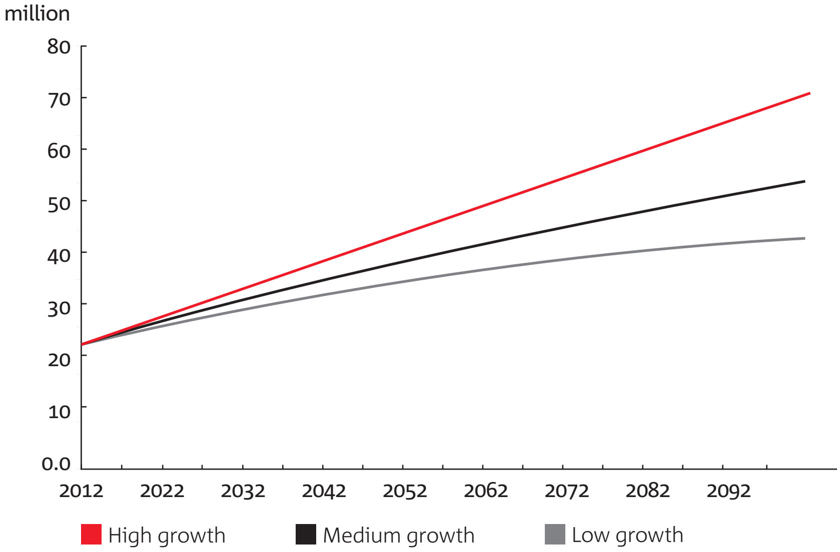
While in many respects Australia is indeed the 'lucky country', like many other prosperous and fast-growing nations it is grappling with infrastructure constraints. Infrastructure Australia, an independent statutory advisory body, has identified multiple pressure points where additional capacity and more customer-focused, market-driven approaches to infrastructure are needed, including urban transport networks, water, energy and telecommunications.[1]

To address these gaps Australia needs to do a better job not only of managing its current stock of infrastructure, but also planning for the years to come — both processes in which Asian investors are poised to play a critical role. The government has pledged a record A$80 billion (US$61 billion) in investment to fund vital infrastructure projects, including A$50 billion for transport and A$30 billion for initiatives like the National Broadband Network, water infrastructure, regional grants and project financing.[2]

The need for more spending is rooted in Australia's rapidly increasing population, which is highly urbanised and forecast to expand by 1.3 percent per year to 2055, a growth rate over twice as fast as China's and more typical of emerging economies like the Philippines. The total population is expected to reach 30.5 million by 2031, up from 22.3 million two decades earlier, in effect requiring the country to add a city the size of Canberra every year.[3] Infrastructure improvements will also be needed to support economic growth and to capitalise on the unparalleled export opportunity presented by Asia's burgeoning middle class, which by 2030 will account for two-thirds of the global total.[4]

Recognising this, the government has been pouring billions into sectors such as transport, telecommunications and irrigation. During 2014-2016, the government introduced some important innovations in infrastructure planning and funding, such as the Asset Recycling Initiative, under which the federal government added 15 percent to revenues received by state governments from asset sales provided those proceeds were reinvested in new infrastructure projects.

Chart 1: Projected population of Australia



Source: Australian Bureau of Statistics (2013b), National Australia Bank

[1] http://infrastructureaustralia.gov.au/policy-publications/publications/files/Australian-Infrastructure-Audit-Volume-1.pdf
[2] https://www.pm.gov.au/media/2016-11-24/address-parliament-annual-infrastructure-statement-and-australian-governments
[3] http://infrastructureaustralia.gov.au/policy-publications/publications/files/Background-paper-on-demographic-projections.pdf
[4] http://www.ey.com/sg/en/newsroom/news-releases/middle-class-growth-in-asia-pacific

Closing the funding gap

While commendable, funding mechanisms such as these are unlikely to keep pace with future infrastructure demand. For one thing, the national coffers are not bottomless; the budget is expected to remain in deficit until at least 2021 and the country's prized AAA credit rating is already showing signs of strain.[5] Yet Infrastructure Australia's 2017 Infrastructure Priority List identifies seven High Priority infrastructure projects and a further 11 Priority projects, worth a total of A$60 billion.[6] It is currently assessing a further 82 proposals.

The government's limited ability to take on more debt means private investment will play a critical role in making these projects a reality. Foreign capital has long played a leading role in Australia's development, and much of this investment can be generated in Australia's home region of Asia.

There are multiple factors that are poised to drive a closer Asia-Australia infrastructure partnership:

1. The region is increasingly integrated through various trade and investment pacts in which Australia is also playing a part, having concluded free trade agreements with China, Japan, South Korea and Singapore — four of its top five trading partners.
2. Investors from Asia have a long history of involvement in Australian infrastructure assets and are increasingly conscious of the potential of these assets providing favourable risk-adjusted returns in a yield-scarce environment.
3. Australia boasts a rare combination of robust population and economic growth with well-established investor protection measures and reliable legal code.
4. The spending being directed to the infrastructure sector, as well as greater willingness on the part of State and Commonwealth governments to consider alternative forms of financing, are poised to increase infrastructure investment opportunities.
5. "Asian investors like the stability of the political system in Australia, they like the legal system — all these things give them the confidence that infrastructure here will be a good investment," says Steve Lambert, Executive General Manager, Capital Financing, at National Australia Bank (NAB), "We've already seen a number of Asian banks build up their presence here."

At the same time, the challenges to foreign investment in the infrastructure sector should be acknowledged. Despite a history of infrastructure privatisation providing solid returns, there are some examples of governments cancelling procurement processes or rejecting the sale of equity stakes in assets seen as important to state or national interests. Moves such as these may bring uncertainty to the long-term, patient capital investing in the infrastructure projects.

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[5] http://www.reuters.com/article/australia-ratings-moodys-idUSL3N1GL5L9
[6] http://infrastructureaustralia.gov.au/projects/infrastructure-priority-list.aspx

MEETING THE NEEDS OF END USERS — AND INVESTORS

The most significant trend in Australia's infrastructure sector — a trend that will ensure it generates the demand and financial resources needed to thrive — is the emerging focus on the end customer, and on infrastructure as a form of service delivery rather than a physical asset.

"The key question in the discussion on infrastructure should be: how do you build something that's right for the consumer?" says Mr. Lambert. "Still in Australia, and definitely in Asia, a lot of infrastructure is built around the asset, not the service. But the approach ultimately has to move towards service provision — looking at the desired outcome, and figuring out a way to pay for it."

The latest national Infrastructure Plan calls for infrastructure centred on the user experience and based on transparency and market forces to deliver maximum value. This approach is being manifested in smarter cities with more green space and better integrated transport systems; in smarter, renewables-based energy supplies; and in better networked remote regions.[7]

Importantly, this new focus will also meet the demands of the investors leading Australia's infrastructure charge, through the refinement of regulation and financing mechanisms, a renewed emphasis on efficiency in infrastructure planning and execution, and the cultivation of a growing customer base.

A clearer pipeline

Asian investors approach the Australian market in various ways, each with its own opportunities and bottlenecks. On the debt side, Asia-based banks have been actively involved in the lending needed to get infrastructure projects off the ground. Activity was in the past constrained by a lack of visibility on the future infrastructure pipeline, but that is changing, and more investors are being given what many crave most — certainty.

"One of the criticisms historically was it was never really clear what to expect," notes Mr. Lambert. "The emergence of Infrastructure Australia, which has been replicated at the state level, has built a clear pipeline of future deals and created a sense of which ones will get prioritised. So it's now a lot easier in Australia than probably anywhere else in this time zone to know what's coming down the tracks. That reassurance that there will be a steady march of opportunities in areas like roads, rail and airport projects is really important for banks to build up the relevant teams."

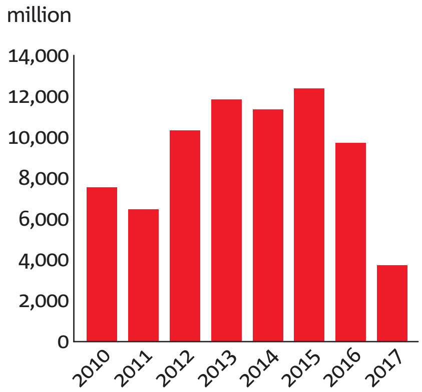
Historically, Asia-based banks have been most active in the second phase of debt investment — after projects have been 'de-risked' by passing through the construction and ramp-up phase.

However, as more Asian investors contend with mounting domestic obligations and low yields on traditional assets, investor profiles and risk appetites are changing, with institutional investors such as insurers and even retail investors becoming more active. This points to a need to position projects and transactions for various risk profiles.

"There's a big difference between the insurance companies and the banks in terms of how they approach risk," says Christy Tan, Head of Markets Strategy and Research Asia, at NAB. "The insurance companies want something longer-dated but higher up the risk curve; their preference is for 10-year minimum transactions, they prefer fixed-rate, they typically need an explicit rating. Banks typically want a floating rate, and their sweet spot is three to five, maybe seven, years, but they're also not focused on getting an external rating and can be more flexible around what they will buy."

Debt capital market funding from institutional investors such as insurance companies also meets the needs of infrastructure in diversifying funding sources and spreading debt maturities. Growth in this market has been gathering momentum yearly.

Chart 2: Historical Australia infrastructure issuances, 2010-2017 (YTD)



Source: Bloomberg, National Australia Bank

> "Still in Australia, and definitely in Asia, a lot of infrastructure is built around the asset, not the service. But the approach ultimately has to move towards service provision." says Steve Lambert, Executive General Manager, Capital Financing, National Australia Bank

[7] http://infrastructureaustralia.gov.au/policy-publications/publications/Australian-Infrastructure-Plan.aspx

The need for regulatory consistency

Also increasingly prevalent is equity financing, in which investors own part of the underlying infrastructure asset. This is a more common approach in the resources or utilities sectors and typically involves a corporate sponsor buying into a related industry in Australia.

"Sponsors from markets like China, Korea and Japan are often strategic, entering deals to sell technology into a project or to help the technology develop, like turbines, battery technology or smart meters in the renewables space," says Ms. Tan.

Equity deals involving Asian firms have tended to attract greater regulatory and public scrutiny, particularly when they involve the ownership of potentially sensitive assets. Though pacts like the Korea-Australia FTA have raised the financial threshold for some investors at which deals have to receive Foreign Investment Review Board (FIRB) clearance.

"Investors need certainty that they can work on a project and see it come to fruition." says Ms. Tan. Lower corporate taxes are also needed to attract equity capital from Asia: Australia's standard rate (30%) is high relative to many countries in the region. "We support the government's proposed reduction in the corporate tax rate which would bring Australia's corporate tax rate closer in line with peer countries with the current small-to-medium OECD economies having moved to an average corporate tax rate of 23%." Ms. Tan adds.

In essence, for the infrastructure environment to be investor-driven, it needs to be bipartisan, with policies and projects enduring throughout various administrations. This is especially critical because so much infrastructure is built for the long-term.

It is important to note that changes improving the infrastructure picture for investors — a more transparent project pipeline; long-term planning supported by a more bipartisan infrastructure approach; greater diversity in funding mechanisms and project backers — also ultimately benefit end-customers, by helping ensure infrastructure assets are designed with efficiency and results in mind, and prove financially sustainable over the long term. This intersection of investor and consumer interests is will be explored further in the next section of this paper.

30%

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WHERE INFRASTRUCTURE MEETS INNOVATION

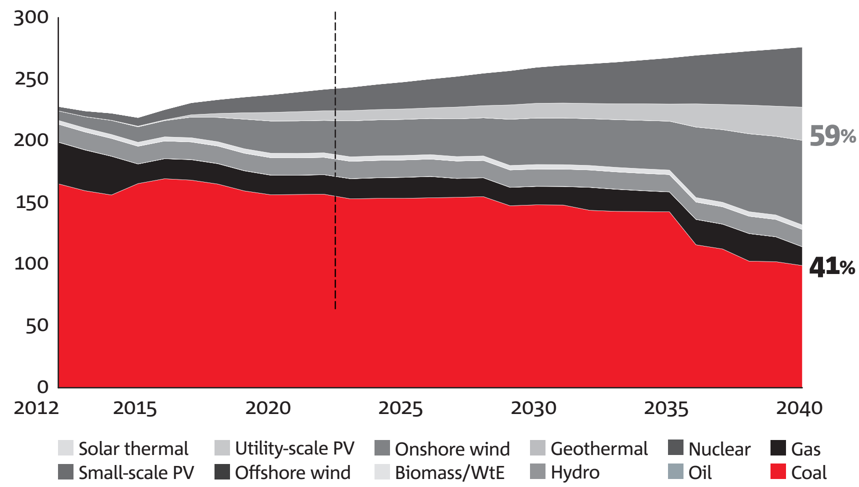
Bearing in mind the relatively conservative stance of many Asian investors, it has also become important for the government (and/or other deal backers) to address the patronage risks associated with infrastructure assets. These boil down to a common worry: given the initial outlay required to build something like a toll road, how can an investor be confident it will see enough use over the long term to get that money back?

The answer lies in devising deals with innovative service-linked or availability payment structures that address these concerns and help the asset appeal to a wider potential investor base. Examples of this from NAB's experience include a hospital that receives payments for operational consistency, and uses these payments to service its debt load, or government payments to prison operators that are abated in the event of inmate escapes. By connecting a guaranteed portion of revenues to performance, these mechanisms provide the reassurance investors require while also ensuring the asset is designed around providing consistent levels of service to end-consumers — which in turn supports user demand.

Chart 3: Australia's green bond issuance size

Source: National Australia Bank

Chart 4: Australia power generation by technology



Source: Bloomberg New Energy Finance, National Australia Bank

Greener finance

Financing options should also develop to meet rising demands from investors, and the broader community, that infrastructure projects factor in social and environmental targets. The G20 recently identified a clear opportunity to fund more infrastructure projects through green financing to address climate change and mobilise institutional investment.[8]

NAB in 2014 became the first Australian commercial bank to launch a green bond, or a debt instrument with proceeds earmarked to fund projects or assets that deliver environmental benefits. "We created that bond because we were aware there were investors who not only want to make money, but want their investment to add community value and have a strong social impact," says Mr. Lambert. "For many investors in Asia, the options to do that in their own market are limited."

NAB has followed this pioneering issue with several other milestone transactions, including the largest-ever green issuance by an Australian entity (the A$750 million QTC Green Bond) and the first offshore green bond issuance by an Australian bank (the EUR500 million NAB EUR Climate Bond). Proceeds from both these bonds will be used to finance renewable energy and low carbon transport projects.

There is no shortage of green bond potential in Australia. Indeed, renewable energy has emerged as one of the most promising areas of infrastructure growth as the country looks to catch up with its peers. As of 2015, Australia had just 15 percent renewable penetration, well below the global average of 23 percent. But with the government's commitment in mid-2015 to set the Renewable Energy Target (RET) at 33 terawatt hours (TWh), that share is expected to rise to 23.5 percent by 2020, and to keep climbing after that, providing opportunities for investors totalling more than A$10 billion[9] in a nation that is particularly well placed for both.

8 http://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf
9 Clean Energy Council report "Clean Energy Australia Report 2015"
10 Stockland $433m AUD equivalent EUR offshore issuance
11 Hallet Hill $205.7m AUD equivalent USPP issuance. The issuance consisted of a 12 year A$76m tranche, and a 12 year US$99m tranche
12 Monash University $218.m AUD equivalent USPP issuance. The issuance consisted of a mix of both AUD and USD across multiple tenors
13 NAB $685m AUD equivalent EUR offshore issuance

Rural development and asset pooling

Another promising area of transformation is agriculture, particularly Australia's underdeveloped north, with 17 million hectares of arable land well suited for raising cattle, fruit and vegetables. This area will provide Australia with a significant opportunity to export products to Asia's burgeoning consumer class — but that will in turn require constructing vast infrastructure works, including dams, roads, railways, ports, hospitals and schools.

This is likely to drive a surge in investment in remoter regions. Already, for example, ports are being privatised (the lease on the Port of Darwin was awarded to Chinese energy and logistics conglomerate Landbridge), while private airports are set to export live cattle to China, and the government is due to channel millions of dollars in funding to improve supply chain and telecommunications networks in rural areas.

The rural infrastructure drive, as well as the focus on "social infrastructure" around for a rising population like healthcare and education, will present chances for Australia to demonstrate further innovation in bundling or pooling smaller assets so they are of sufficient scale to attract the attention of the institutional investor community. Recently, for example, eight schools in Western Australia were combined to create a deal large enough for institutions to look at.

"In Victoria we were involved in a local government funding vehicle that pooled 76 local councils, and there was an Asian investor presence in that deal," says Mr. Lambert. "Without that vehicle, it is almost impossible for Asian investors to potentially get that kind of exposure; they just wouldn't have the understanding or visibility on the local government. That sort of innovation is continuing, but every state should have something like it."

EXPORTING KNOW-HOW: INFRASTRUCTURE AS A SERVICE

The shift to more customer-centric infrastructure will both be driven by and to the benefit of Asian investors. Investor demands for more certainty around infrastructure policy, innovative financing models, and investment opportunities that contribute to sustainability as well as financial goals will spur refinements to individual projects and the country's overall infrastructure approach.

At the same time, the focus on efficiency and financial viability, and the new technologies Asian companies can bring to projects, will ensure infrastructure delivers more value to governments and the end-consumer. In this way Asian investors will become a key part of a partnership that will unlock a more technology, innovation and sustainability-focused vision for the future of Australia's infrastructure and economic growth.

Domestically, this partnership will see the government and the private sector building capacity and expertise in the very fields that will be critical in the infrastructure of the future — clean energy, 'smart' cities and transportation networks, healthcare for aging populations.

These trends play to the strengths of Australian banks, which have a long-established track record of structuring deals in an innovative fashion, factoring in both investor and end-user targets and devising solutions for when projects hit problems. The Asian Development Bank recently doubled its estimate of the infrastructure investment needs of the region's emerging economies, predicting they will need to spend as much as US$26 trillion through 2030 to sustain growth, power cities and address climate change.[14] Australia's deep experience in developing infrastructure as a service — that is, benchmarked against targets, with the end-user at the centre — will prove invaluable to markets in Asia and farther afield as also they seek to build infrastructure that is better designed, better funded and better delivered.

[14] https://www.adb.org/news/asia-infrastructure-needs-exceed-17-trillion-year-double-previous-estimates

ABOUT NAB

For more than 150 years, we've been helping our customers with their money. Today, we have more than 35,000 people serving 10 million customers at more than 800 locations in Australia, New Zealand and around the world. We have built our business on understanding our customers and supporting them. We aim to take the hard work out of banking.

As one of Australia's largest business bank, we work with small, medium and large businesses to help them start, run and grow. We fund some of the most important infrastructure in our communities — including schools, hospitals and roads. And we do it in a way that's responsible, inclusive and innovative.

We know that to be Australia and New Zealand's most respected bank, we need to be good with money. And we need to be just as good with people, too.

At NAB, Corporate & Institutional Banking (C&IB) division is a global business specialising in servicing and managing the relationships with corporate Australia in the public and private sectors. We connect Australian and New Zealand borrowers and investors into Asia, London and New York and international investment back into Australia and New Zealand.

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