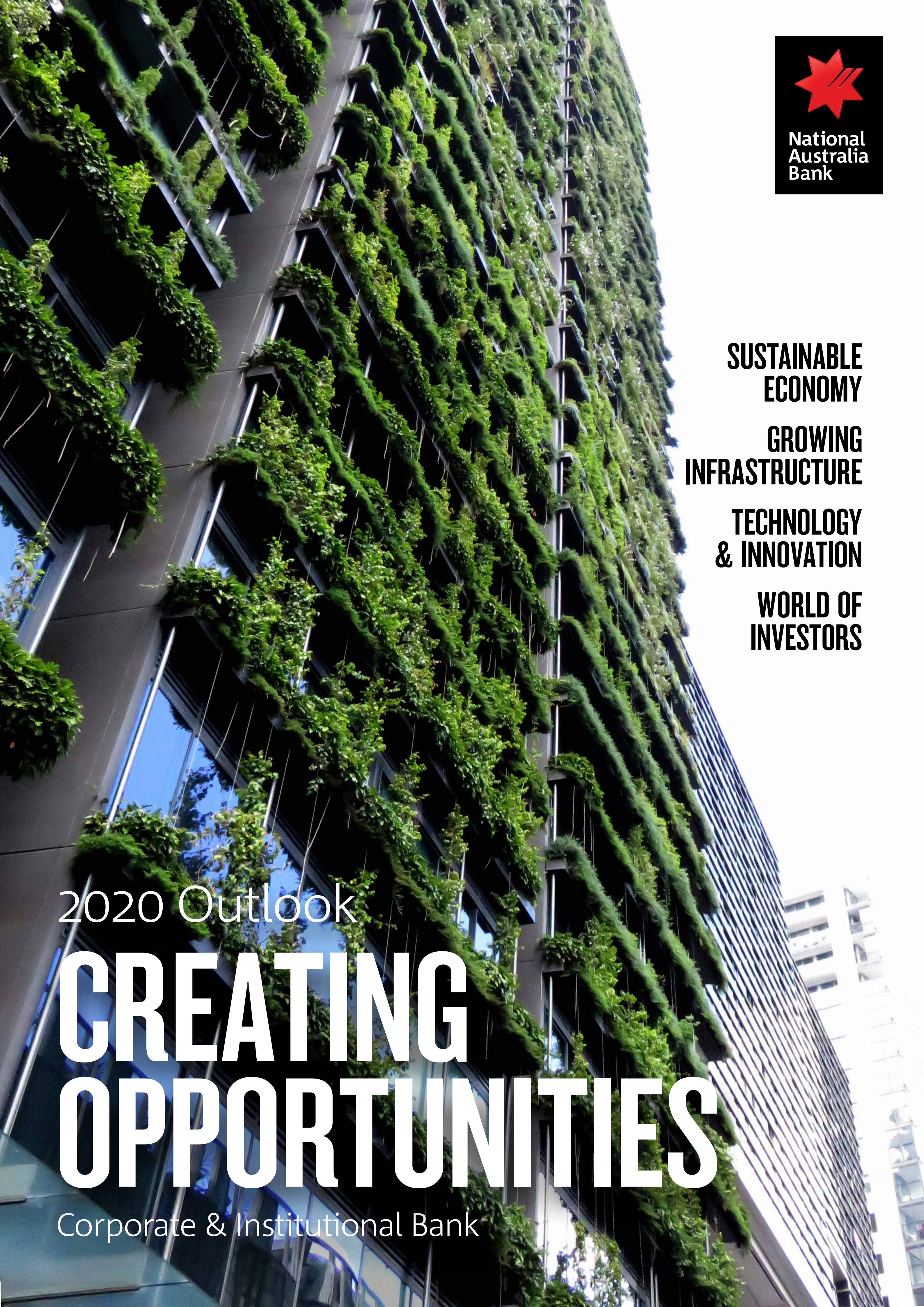

National Australia Bank

SUSTAINABLE ECONOMY

GROWING INFRASTRUCTURE

TECHNOLOGY & INNOVATION

WORLD OF INVESTORS

2020 Outlook

CREATING OPPORTUNITIES

Corporate & Institutional Bank

FOREWORD

DAVID GALL
Chief Customer Officer
NAB Corporate & Institutional Bank

I'm delighted to introduce to you our second edition of *Creating Opportunities*. This year we have again had the opportunity to support our Corporate and Institutional clients as they undertake some amazing new projects and venture into new markets. These bold steps are a demonstration of 'innovation in action' – as our clients solve real problems around sustainability and changing operating conditions. To achieve this, they have had to embrace new technology, adding scale to deliver more for Australia and the world. We're proud to showcase their achievements and bring you their stories in our annual magazine.

Inside you will find important themes brought to life, starting with **Sustainable Economy**, where we look at opportunities to deliver shared value across the community. This includes financing new recycling facilities for household food waste; providing support to specialist & affordable housing providers; and the rapid development of green debt markets.

In **Growing Infrastructure**, we highlight our recent collaboration with the CSIRO on the Australian National Outlook report, which looks at the key shifts that will be needed between now and 2060 to ensure future generations continue to enjoy the best quality of life available to any nation.

Our chapter on **Technology and Innovation** considers how blockchain is transforming the ASX, as well as looking further into the future and how new technologies will shape and change finance.

In our fourth chapter, the **World of Investors**, we examine issues of growing importance to the investor community including ESG risks; the fluid movement of capital across Asia; and the rapidly changing landscape of the superannuation industry.

Creating Opportunities shines a spotlight on NAB clients, succeeding and having an impact, in Australia and around the world. This is just a small representation of the exciting achievements we see across our entire customer base. We're proud of the role our bankers play in these stories, using their deep sector knowledge and experience to assist our clients.

We hope you enjoy reading these insightful stories.

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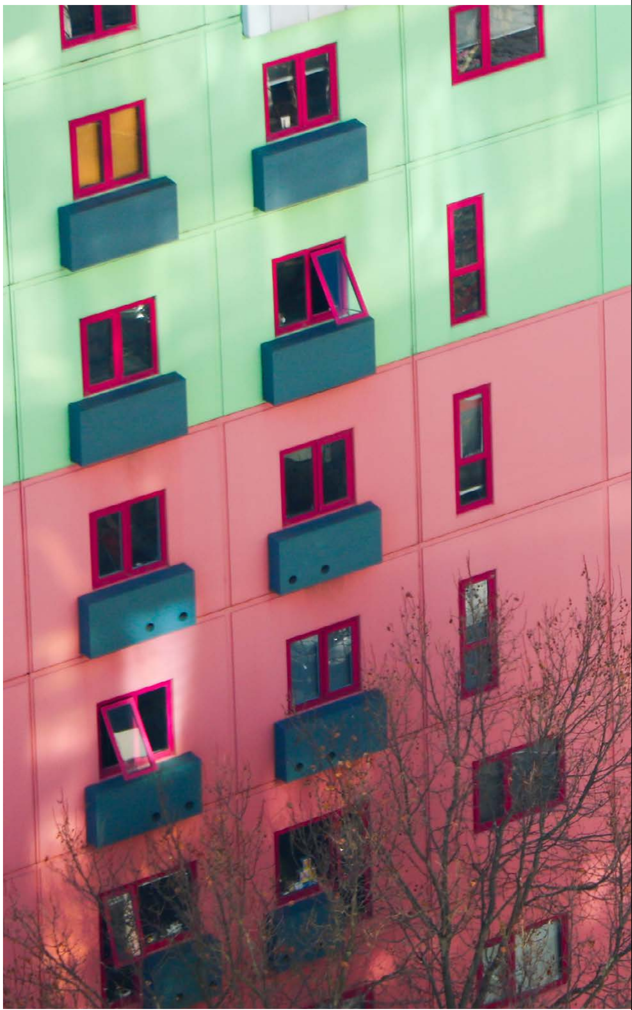
EDITOR Victoria Thieberger
ART DIRECTOR Candace Nascimento
PUBLISHED 13 November 2019



SUSTAINABILITY: THE NEW ECONOMY

Customers and investors alike want companies to create a positive contribution to society, alongside profit.

BY CATHRYN CARVER

CORPORATES HAVE LONG talked about sustainable business but recently, we've seen a broader definition of sustainability in these conversations. We've moved beyond strict definitions of "green" and "corporate responsibility" to viewing sustainability as one of the most strategic issues for CEOs and Boards. There's a clear imperative to shift to long-term thinking as well as focusing on rebuilding trust in the wider community. These are prominent issues facing all industries, including banking.

At its core, sustainability focuses on creating long-term sustainable value. True long-term sustainable value can only flourish in healthy economic, social and environmental conditions, where we have a holistic approach and a broad focus that goes beyond short-term financial returns. The narrative around the social contract of business has come to the fore and we're asking what contribution business is making and how is this impacting broader society?

Our customers, and in turn their customers, are demanding a wider societal focus but investor funds are also playing a role. Significant parts of our global investor community are now speaking as socially responsible investors, and they're calling on companies to create a positive contribution to society alongside profit. The very fabric of the global investment environment has shifted. Increasingly, evidence suggests that if companies don't take a broader view, they won't survive, as customers and investors choose to buy and invest elsewhere. With this shift, however, comes huge opportunity.

Creating shared value

So how will business embrace this opportunity and leverage our position to think differently about creating value in the new economy? "Shared value", a term first coined in 2006 by Michael Porter of the Harvard Business School and Mark Kramer of social impact advisory firm FSG, may be the answer. Their definition of shared value describes how successful business strategies can also produce positive environmental or societal outcomes – the intersection of commercial opportunities and social or environmental needs.

When we have a commercial opportunity, a social or environmental need and importantly, the expertise to deliver real outcomes, we create shared value. Using NAB's Clean Energy business as an example, we have built a leading global business which ranks as number 1 in Australia[1] having delivered 129 clean energy projects and 19 gigawatts of clean energy from wind, solar, biofuels and other sources. Critical to the creation of shared value is the ability to measure the financial and social or environmental impact of an activity, as we can do in this instance. With that in mind, we believe we can help our customers to discover their own shared value "sweet spot" across a range of industry sectors and different types of companies.

$2BN

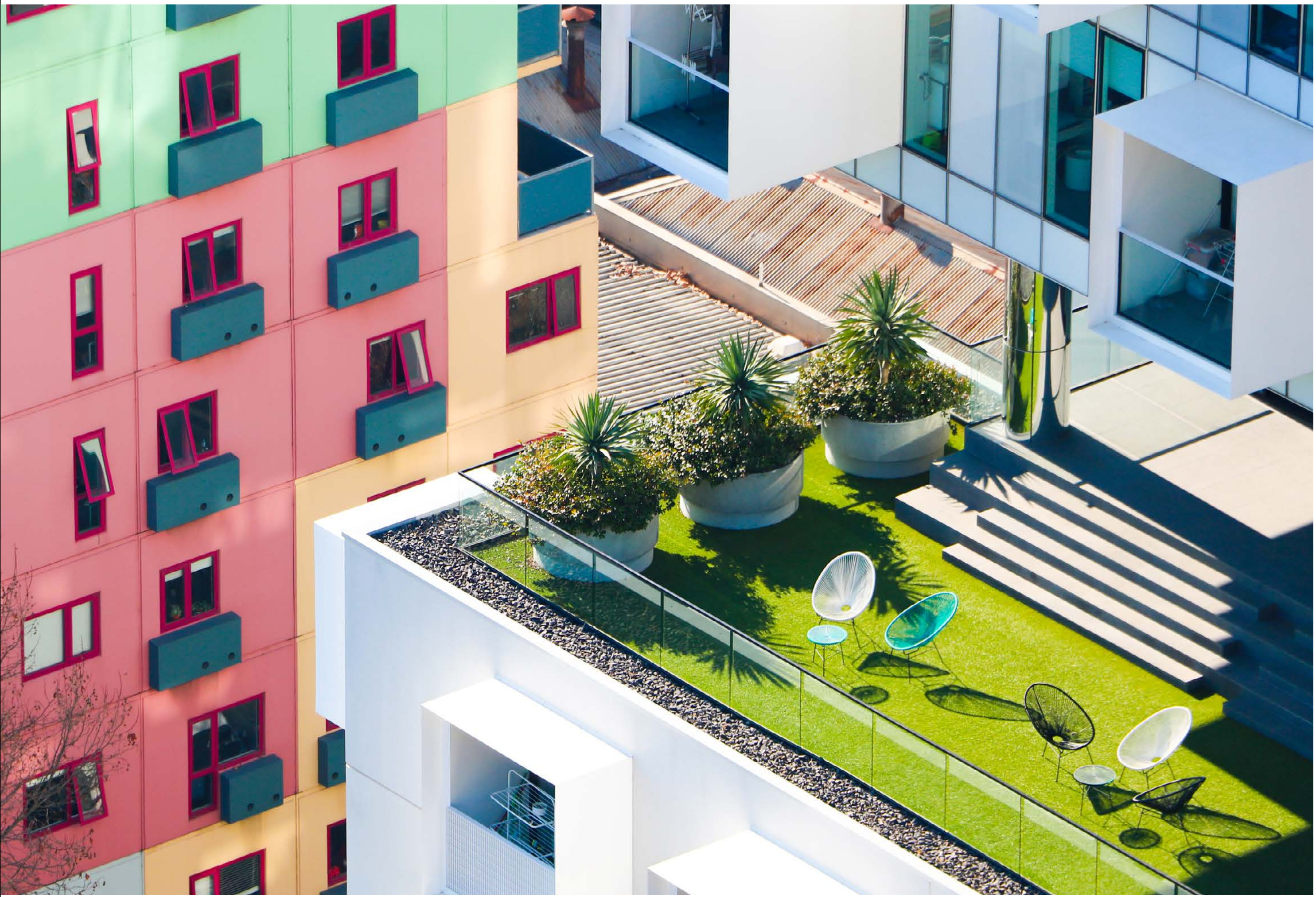
to fund Emerging Technology Companies.

$2BN

to fund Affordable and Specialist Housing.

FUTURE PROOF

Climateworks partnership to build sustainable agricultural metrics that will future proof our agricultural industry.



Making tangible commitments

Identifying opportunities to deliver in this new shared value economy isn't always easy. Nor is the process predictable or fast. It takes belief, investment and a willingness to experiment. An important precursor is thought leadership. We're proud of our 2019 flagship thought leadership project – the Australian National Outlook (ANO) – produced in collaboration with the CSIRO and more than 50 leaders from over 20 business, community and non government organisations, all committed to building a better future for Australia. The project examines some possible future outcomes for Australia up to 2060 and is designed to stimulate a national discussion and encourage considered action.

Importantly, the ANO considers economic, environmental and social outcomes, acknowledging the importance of this new holistic economy where sustainable and socially impactful business models will find success. NAB has responded to the report findings with tangible commitments such as:

- A$2 billion of funding directed to building the emerging technology sector;
- A$2 billion directed to affordable and specialist housing; and
- A partnership with Climateworks to develop a sustainable agricultural roadmap designed to future-proof our agricultural industry against climate events.

Building momentum for a culture shift

Bringing together an ecosystem of ideas, support and conversations is a first step towards that all-important shift in business culture. Once our thinking is aligned towards shared value and societal and environmental needs, we can follow with product and service innovation – and ultimately delivery, all supported by our deep sector expertise.

Today's approach requires a collaborative effort among businesses, government, regulators and communities to seek out and develop business activities with the capacity to deliver measurable societal benefits and financial returns. Much of this comes back to culture. Indeed, the ANO report identified a "culture shift" as one of the prerequisites for a more prosperous future, calling for broader decision making to include social and environmental outcomes. We look forward to working with you to deliver sustainable and meaningful success in this exciting new economy.

Identifying opportunities to deliver in the new shared value economy takes belief, investment and a willingness to experiment.

1. Number 1 ranking in Renewables in Australia over the last 10-year period by both deal count and transaction value - IJGlobal.

CREATING A PROJECT FINANCE MARKET FOR THE WAR ON WASTE

As more local governments around Australia seek new ways to treat food waste, councils in southeast Melbourne have met the challenge of bulging landfill and rising greenhouse emissions by composting household organic waste on an industrial scale.

FOR THE FIRST time, residents in eight council areas in Melbourne's southeast are now able to add food scraps to their garden waste instead of putting them into their bins, helping to address the growing problem of food scraps adding to landfill.

With financing arranged by NAB, the new South Eastern Organics Processing Facility will take up to 120,000 tonnes of food and garden waste a year and turn it into 50,000 tonnes of usable compost.

As the food waste isn't going to landfill where it would ferment and produce methane, the processing facility will reduce greenhouse emissions by the same amount as taking nearly 14,000 cars off the road.

Carlos Gros, a Director of Sacyr Environment Australia, a subsidiary of Spanish construction giant Sacyr S.A., explains the composting process at the facility is the same process that happens naturally but sped up through the circulation of water and oxygen through the waste. "We can do it in less time and on a bigger scale," he says.

The oxygen ensures the material doesn't ferment enough to produce any greenhouse gases, as it would in anaerobic – or oxygen-free – decomposition that takes place in sealed landfills.

The facility produces high quality fertiliser in six to eight weeks which can be either used by the councils or sold for profit.

Gros says that as a general principle, anything that can be reused or have a new use shouldn't go into landfill.

Sacyr will operate the facility for 15 years with the option of a five-year extension.

New funding model for councils

Overseen by Victoria's Metropolitan Waste and Resource Recovery Group, the A$65 million project was funded with A$38 million of debt from the federal government's Clean Energy Finance Corporation (CEFC).

While the CEFC has funded other waste projects, it's the first time it has been involved in a standalone organics diversion project.

"This is a landmark transaction for us," says Mac Irvine, Associate Director at the CEFC. "It's one we wanted to do both for the benefits of the transaction itself as well as for the broader industry impact and potential."

Irvine says there's significant potential to roll out similar projects across Australia, in both capital cities and regional areas.

"There's still a huge proportion of organic matter that goes to landfill as part of people's red or black bin. We're seeing an increasing demand for these types of facilities coming from community pressure as well as industry and political momentum," he says.

Setting a precedent

The investment is via project finance – a funding model that hasn't been widely used by councils in the past.

"It's important to have different models of investment available to allow new investors and capital to come into the market because the scale of transformation the industry needs to undergo requires a significant amount of capital," Irvine says.

NAB acted as the financial advisor to Sacyr, providing expertise on the local capital market and raising the debt, and working on due diligence with the CEFC.

While project financing has long been used in the infrastructure space, it's relatively new in waste processing, says Janet Wong, Director, Financial & Equity Advisory at NAB.

This presented a challenge because there were no precedent transactions for this type of deal in waste for potential lenders to look at. Furthermore, because the loan was being made against the project's cashflows rather than against a corporate balance sheet, the deal came under closer scrutiny from lenders.

The councils supported the deal with 15-year waste supply contracts and by guaranteeing a minimum amount of waste which helped reduce risk.

"For councils to guarantee a certain amount of waste can be challenging, because you can forecast but not everything always goes to plan," says Wong.

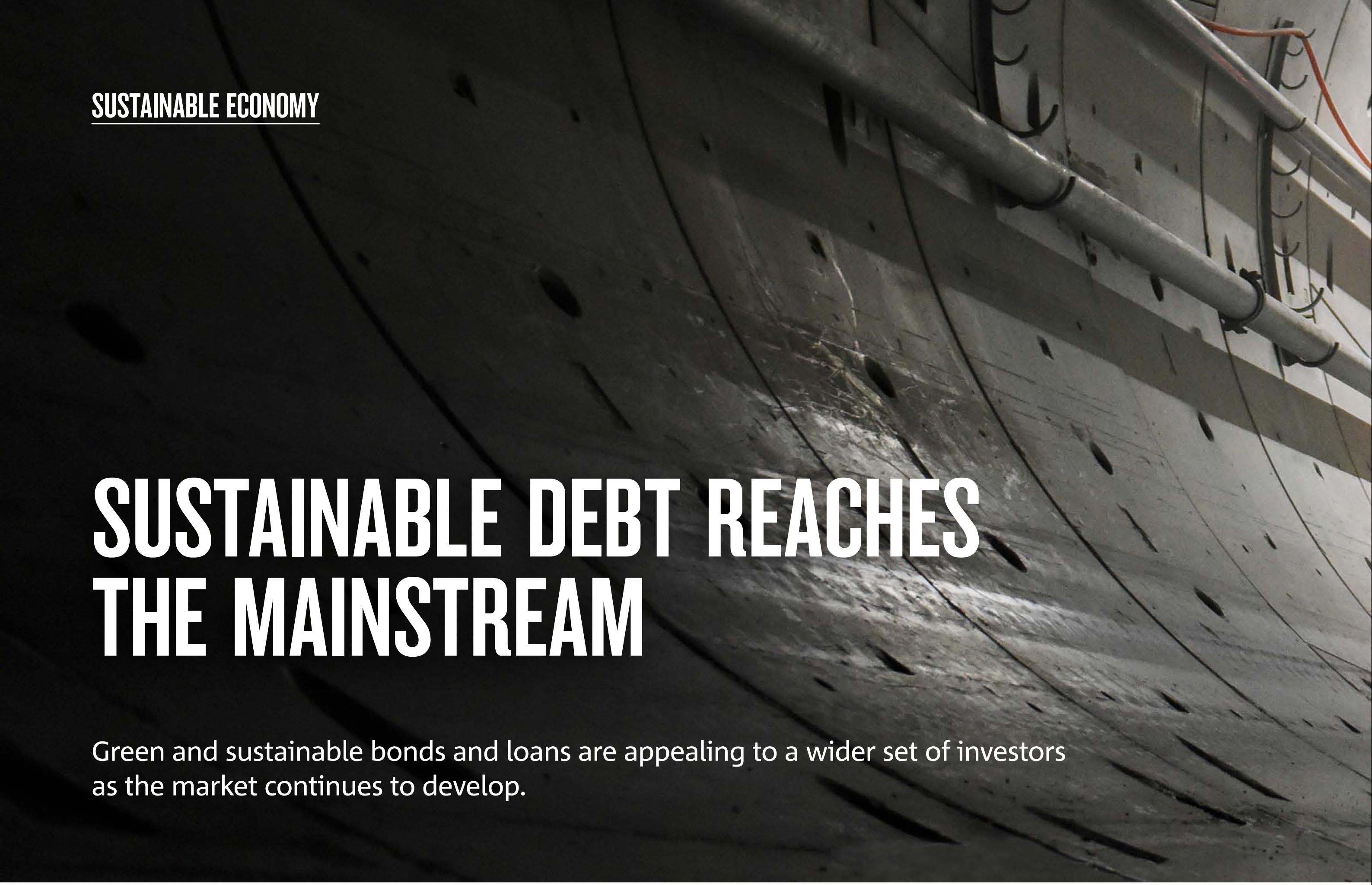
"We're seeing an increasing demand for these types of facilities coming from community pressure as well as industry and political momentum."

— Mac Irvine, CEFC

"Getting the right balance of what was the minimum volume guarantee we needed to support the deal was probably the most critical part to unlocking the project finance."

Wong says NAB and CEFC are supporting a new market in project financing for waste projects and the South East Organics project is an important first step.

"The project finance market in Australia for waste projects is a growing and developing market," she says. "By having more of these precedent deals, it then allows sponsors as well as advisors and banks to point to examples of where it's been done, where it's working and look at those structural elements to then roll out for future deals."



SUSTAINABLE DEBT REACHES THE MAINSTREAM

Green and sustainable bonds and loans are appealing to a wider set of investors as the market continues to develop.

BY VICTORIA THIEBERGER

> "Investors are definitely more sophisticated in their understanding of what a green bond is, and what a social bond is."
>
> **— Katherine Palmer, TCorp**

THE MARKET FOR sustainable debt encompassing green, social and sustainability bonds, and increasingly green loans and sustainability linked loans, has grown rapidly in recent years and is now attracting strong demand from mainstream fixed income investors as well as those with a particular focus on sustainable investment.

New South Wales Treasury Corp (TCorp) said they were surprised by the level of demand for their recent 10-year green bond, arranged and led by NAB, which at A$1.8 billion is the largest green issue in the Australian market to date.

"The scale of investor demand far surpassed other precedents, and we were able to include investors that were mainstream, for want of a better word," said Katherine Palmer, Acting Head of Funding and Balance Sheet at TCorp, at the 2019 KangaNews Sustainable Debt Summit.

"We had investors that we haven't seen before – about 15 new investors – demonstrating the effectiveness of this issuance type as a means to diversify the investor book. We also allocated roughly 40-45% of issuance across mainstream investors. The participation from the breadth of investors was reflective of the evolution of the market."

The size of the green bond eclipsed the usual "benchmark" issuance from a state government, which generally is sized between A$750 million and $1 billion, and reflects the growing maturity of the green debt asset class in Australia.

In 2014, NAB issued the first Australian green bond at A$300 million. Fast forward five years and investors have flocked not only to the TCorp transaction but seven other sustainability and green bonds brought to market by NAB and BNZ in 2019, including New Zealand's first sustainability bond for Housing New Zealand, NZD green bonds for Contact Energy, Auckland Council and Argosy, a $A1.25 billion Queensland Treasury Corp green bond, FlexiGroup's 4th green bond offering and the world's first Climate Bond-certified green bond from a retail property landlord, the $A300 million QIC Shopping Centre Fund Green Bond.

In addition, this year NAB arranged the world's first Climate Bond certified retail green term deposits for its subsidiary, UBank, and participated in sustainability linked loans for both AGL and Sydney Airport.

Investing responsibly

"TCorp really has been a game changer for the Australian sustainable bond market. What we're seeing is the mainstreaming of sustainable investment as an asset class," said David Jenkins, Head of Sustainable Finance at NAB.

More and more investment managers, superannuation funds and financial advisers are committing to invest in a socially responsible manner by integrating environmental, social and governance (ESG) factors into their portfolios.

In addition, investors have realised that investing in sustainable financial products does not come at the cost of an inferior financial return – a myth that was roundly deconstructed at the conference.

"We know from our experience, modelling and back-testing that integrating ESG factors in your investment decision process actually improves the consistency and quality of long term returns," said George Bishay,

Portfolio Manager at fund manager Pendal Group, which has A$92 billion in funds under management.

Pendal, which has been managing dedicated sustainable fixed income portfolios for about 10 years, integrates ESG factors into its investment decisions, and then ranks issuers based on those ESG factors.

Demand for new debt products

NAB, which has now brought 25 green, sustainability and social bonds to market across Australia and New Zealand, has developed a range of new products to satisfy investor demand — including Australia's first retail green term deposit offering, a green residential mortgage-backed security in 2018 and the Low Carbon Shared Portfolio, which offers institutional investors direct access to the bank's own loans to wind farms and solar parks.

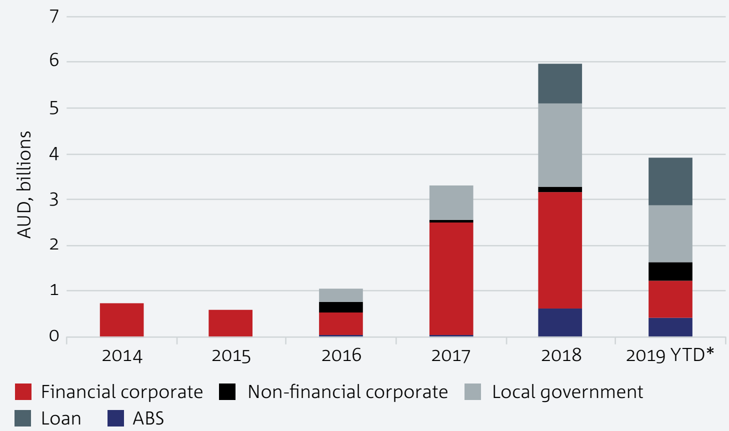
Housing New Zealand this year became the first public sector entity in the New Zealand market to issue a sustainability bond, with a NZ$500 million 7.5-year issue to finance homes that meet certain green criteria and homes that include accessibility considerations in their design. Offshore investors accounted for 21% of the allocation.

TCorp's Palmer noted that investors are increasingly asking for green products rather than having to be convinced. "Investors are definitely more sophisticated in their understanding of what a green bond is, and what a social bond is. There's a willingness to participate."

The next step in the market's evolution will be to create a liquid secondary market for green and sustainable bonds, to provide for active trading after the initial launch. Investors currently tend to buy into the initial issue in the primary market, and then hold onto the securities for the duration of the bond.

"It can be very difficult to source stock via the secondary market and often the pricing can be more expensive. We'd like to see the market moving to address that," said Pendal's Bishay.

Australian green bond market is growing



*to 30 June
Source: Climate Bonds Institute

IMPROVING HOUSING OUTCOMES FOR AUSTRALIA'S FUTURE

Faced with rapid population growth, Australia needs to add an estimated one million social and affordable homes to solve the affordable housing crisis.

BY JAMES WADDELL AND LEANNE BLOCH-JORGENSEN

WE OFTEN HEAR that Australia is facing a housing crisis in part driven by the high cost of real estate. Indeed, Australia is facing many complex challenges across a spectrum of issues beyond affordability, such as the need for specialist housing for different sectors of the community and the increasing issue of homelessness. The lack of housing options for those locked out of the mainstream market is a significant social issue.

Australia's population is forecast to increase to 41 million by 2060[1]. Melbourne and Sydney will edge towards 8.5 million, similar in size to London or Chicago about 10-15 years ago. Other capital cities such as Brisbane and Perth will grow to around 5 million, similar to the size of Sydney and Melbourne today. That rapid growth, is expected to add further pressure to existing housing stress. This stress is exacerbated for very low to low income households where there is a chronic shortage of appropriate housing. It's estimated that an additional one million social and affordable homes will be required across Australia by 2036[2].

$2bn commitment to affordable and specialist housing

In October this year, NAB made a $2 billion commitment to help address Australia's affordable and specialist housing needs. The commitment was made in response to the "urban shift" outlined in the Australian National Outlook report, produced in collaboration with the CSIRO and 20 other organisations, which is featured on pages 12-13. The "urban shift" suggests the need to plan for multi-centre cities as well as diversifying housing and land use. Social, affordable, specialist and sustainable housing options should be included in these multicentre cities and should also be part of the diversified housing mix located closer to jobs, services and amenities. The economic case for better housing outcomes on productivity has also been established by the City Futures Research Centre, which identified travel time savings and human capital savings of billions of dollars[3]. NAB's commitment will help fund more affordable and specialist homes and build out the financial maturity and capacity of the sector so that it can attract more investment.

The complexity of the housing spectrum

The housing requirements range from accommodation traditionally provided by state governments and community housing providers through to mixed development build-to-rent projects and more traditional market based home ownership models. Each sector brings its own complexity, meaning this is not one generic asset class. The complexity within the housing system informed the $2 billion commitment, recognising that we require different responses to address each aspect of the system and that each aspect requires deep sector understanding.

The various housing segments are also at different stages of maturity. For example, the build-to-rent asset class is mature in other countries such as the United States, but is in the early stages of development in Australia. This asset class also includes build-to-rent projects initiated by state governments, such as in NSW and Victoria, where the governments are exploring how to deliver build-to-rent projects that include a component of social and affordable housing together with market based rental options.

Disability housing is another example of an asset class in early development. The National Disability Insurance Scheme ("NDIS") is expected to contribute to the development of a significant disability housing asset class over time. In addition, some of the more developed sectors, such as housing provided by Community Housing Providers ("CHPs") are also evolving. Some of this evolution has occurred through the transfer of stock by state governments to CHPs. In addition, the recent creation of the National Housing Finance and Investment Corporation ("NHFIC") by the federal government seeks to encourage further investment in housing by CHPs by delivering cost-effective funding through its Bond Aggregator.

Innovative financing models

Arguably, there is no shortage of capital that could be directed to help address better housing outcomes in Australia. This capital can come from many sources; from direct lending and the capital markets through to impact investment and even philanthropic capital. Sometimes it is a blend of a number of different capital sources that enables a transaction to take place. A recent example is the Sacred Heart Impact Investment transaction, an innovative financing structure which brought together the public, private and non-for-profit sectors and included funding from the Catholic Development Fund of the Archdiocese of Melbourne as well as loan guarantees from philanthropic sources including the NAB Foundation.

Drawing on international expertise

The $2 billion commitment will build on our global expertise, including our London-based team who support the UK social housing market. Australia has much to learn from the UK, including the benefits of a more holistic regulatory and governance structure for social and affordable housing providers. The UK also demonstrates the benefits of scale with social and affordable housing comprising a much larger part of the UK housing market compared with Australia. The solutions will be many and there will be no single initiative which solves all Australia's housing needs. And the best solutions will require collaboration across the public, private and for-purpose sectors together with a shared purpose to solve this significant challenge.

In October, NAB made a $2 billion commitment to help address Australia's affordable and specialist housing needs.

1. CSIRO Australian National Outlook 2019
2. UNSW City Futures Research
3. https://www.cmhc-schl.gc.ca/en/developing-and-renovating/develop-new-affordable-housing/programs-and-information/about-affordable-housing-in-canada

AUSTRALIA-CHINA TRADE RELATIONSHIP WILL ENDURE

China's growing middle class and ageing population present new opportunities for Australian exporters.

BY TAPAS STRICKLAND

MARKET JITTERS AROUND trade tensions between the United States and China continue, although to date Australia has managed to steer a middle path. Exports to China continue to grow, both in commodities such as iron ore and agriculture, and services such as tourism and education.

With trade tensions likely to persist for some time, we look at how Australia's trade relationship with China may evolve in the years to come. In the near term, trade tensions present an opportunity to gain market share with China at the expense of the US. Longer term, three secular trends are likely to dominate the relationship:

1. China will continue to urbanise;
2. China's middle class will grow and become wealthier; and
3. China's population will start to age meaningfully from 2020.

Market share opportunities from trade tensions

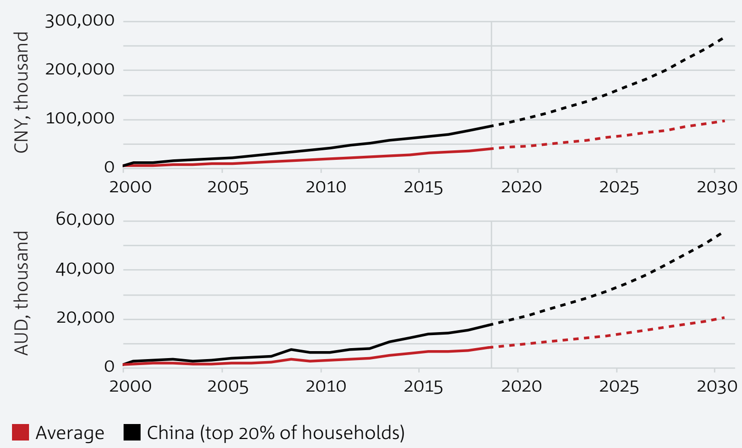
In the short run, trade tensions present an opportunity for Australian farmers and food manufacturers to gain market share. China until recently imported around 30% of its agricultural and food imports from the US, while around 5% came from Australia. Areas where Australia already has a significant market share and where the US is a competitor include wheat, sorghum, oranges and cattle hides. More recently African Swine Flu has devastated the pig herd in China with around 100 million pigs slaughtered over the past year. Such devastation will likely see China seek alternative sources of protein, including lamb, sheep, beef and chicken. China is also seeking to quickly rebuild its pig herd and feed crops will also likely be increasingly in demand in the coming years.

Iron ore and coking coal will still dominate

China continues to urbanise with the urbanisation rate (i.e., the urban population as a percentage of total population) increasing to 59% in 2018 from 36% in 2000, representing some 380 million people moving to cities over the past two decades. Despite that rapid rise in urbanisation, China still has a low level of urbanisation relative to the average of the G-7 group of countries of 81% and is also below close neighbours such as South Korea (81%) and Japan (92%).

> China's middle class is becoming wealthier as it grows. Disposable income per capita is growing around 8% a year.

China - urban disposable income per capita



Source: National Australia Bank, Macrobond

If China achieves urbanisation rates comparable to that of G7 countries, that would equate to an extra 300 million people moving to cities in coming decades, similar to the experience of the past 20 years. Australia remains well positioned to supply the raw materials to fuel the growth of China's cities (particularly iron ore and coking coal) and recent experience also suggests Australian supply is more reliable than other exporters. Indeed, Australia's trade experience with South Korea and Japan suggests iron ore and coking coal will remain integral to the trading relationship as China's economy matures.

A rising middle class will lift demand for high-end food and services

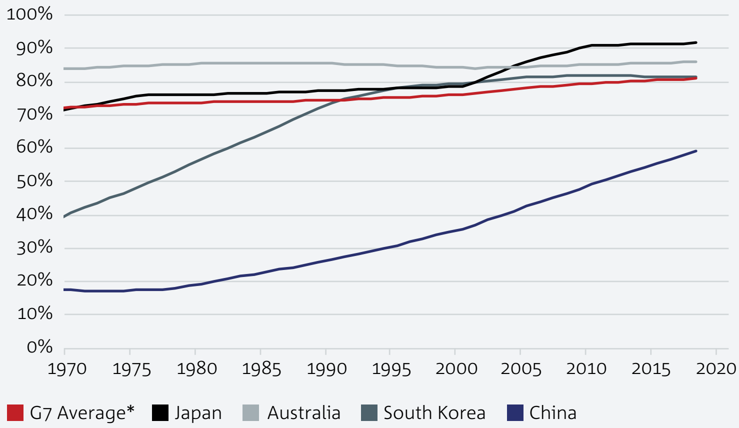
China's middle class is becoming wealthier as it grows in size. Disposable income per capita is growing by around 8% a year with average disposable income of ¥39,000 being equivalent to around A$8,300. Income growth is stronger for the top 20% of households at 10% with income of ¥85,000, equivalent to A$17,600. By 2030 should these growth rates persist then the top 20% of households in China could have disposable income equivalent to around A$60,000! While income growth will likely slow as the Chinese economy matures, it does highlight the potential purchasing power that a rising middle class brings.

In line with the rise in disposable income, tourism to Australia has surged in recent years with around 1.5 million Chinese short-term arrivals to Australia over the past year. The average spend of each visitor has been increasing with surveys suggesting the average Chinese visitor spends around A$7,200 in Australia, well above that of the average tourist from the UK (at A$2,700) or the US (A$2,500). More recently growth in Chinese tourism has slowed, but we expect as China's middle class grows that tourist numbers will resume their secular rise. China's growing middle class will also continue to demand high-quality agricultural products, with agricultural exports likely to head further up the value chain to include greater focus on manufactured food and beverages such as wine and cheese.

Ageing population will weigh on growth

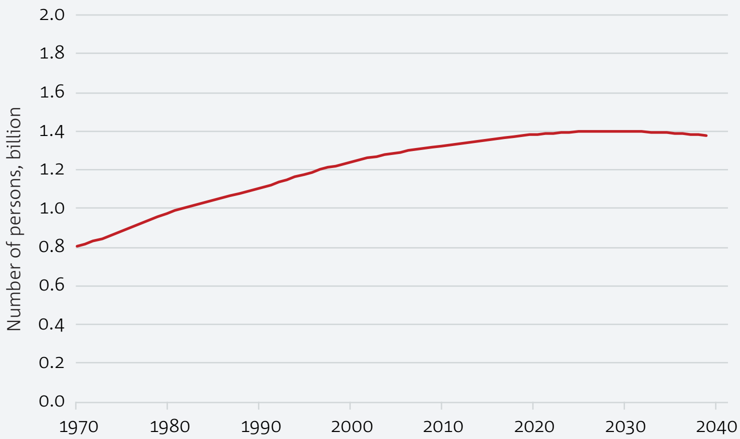
The final trend that is likely to shape Australia's relationship with China is that China's population will start to age significantly from 2020, with ageing set to accelerate more sharply from 2030. As the population ages, growth is likely to slow – likely an echo of the experience of Japan in the 1990s and South Korea more recently. However, an ageing population may present opportunities for Australia in areas of aged care, healthcare and nutrition. China is already Australia's second largest market for pharmaceuticals, with exports worth some A$1 billion in 2017-18.

Urbanisation rate - share of population in urban areas



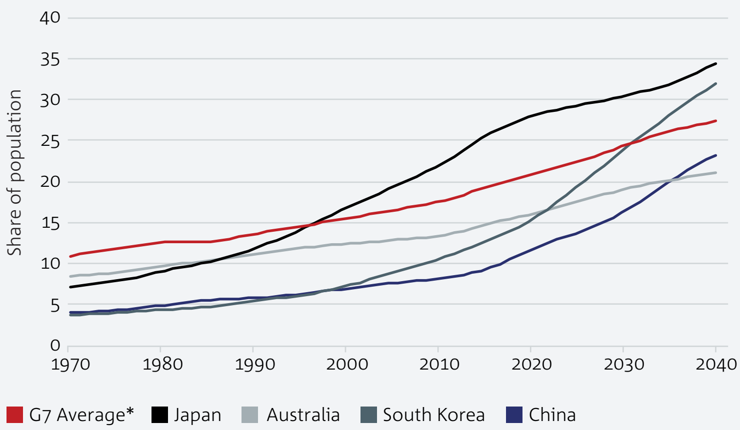
*G7 is the average of Canada, France, Germany, Italy, Japan, UK and the US
Source: National Australia Bank, World Bank

China's total population

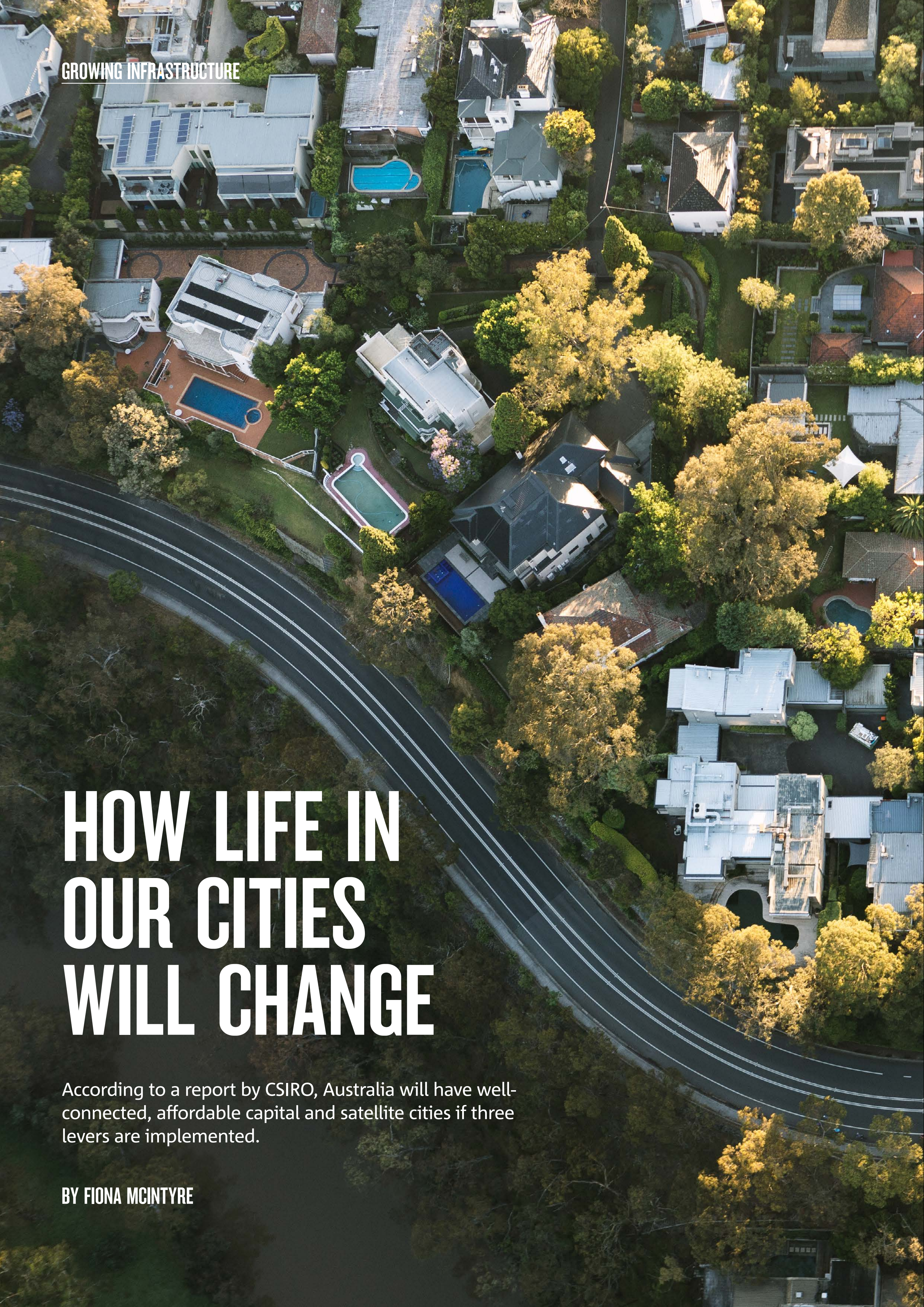


Source: National Australia Bank, World Bank

65+ years as share of total population



*G7 is the average of Canada, France, Germany, Italy, Japan, UK and the US
Source: National Australia Bank, World Bank



HOW LIFE IN OUR CITIES WILL CHANGE

According to a report by CSIRO, Australia will have well-connected, affordable capital and satellite cities if three levers are implemented.

BY FIONA MCINTYRE

BY 2060 LIFE in Australia's largest cities could look very different.

Rather than travelling to the city centre on a spoke-and-hub public transport system or battling traffic in our cars, we'll use a mix of autonomous and shared vehicles, and mass transit to get to work at our nearest city centre less than half an hour from home. A majority of people will live in well-designed apartments, semi-detached homes and townhouses, closer to the city centre or clustered around one of several high-density precincts.

It's a vision outlined in the Australian National Outlook 2019 report, which lays out the challenges facing the nation in several key areas and how we should respond.

The landmark report – by the CSIRO, NAB and 20 other organisations – draws on the latest scientific data and states that Australia is at a crossroads, and we face a stark choice – strive towards a more positive future of growth and prosperity or suffer a slow decline.

Australia's population is expected to increase to 41 million by 2060 with the four largest cities increasing their share of the population from 58% to 66%.

How we accommodate those people and plan our cities will be a key determinant in achieving the the best outcome for our cities, titled Outlook Vision:

- Average density increasing by 68%
- Urban vehicle kilometres travelled reduced by up to 45% per capita
- Greater social cohesion and inclusiveness.

Plan for multicentre cities

As some international cities have grown, there's evidence a single city centre can become a stumbling block for better living, business and mobility. Cities including London, New York and Seoul have three or more CBDs surrounded by complementary districts.

Additionally, achieving the Outlook Vision requires the average density of major cities to increase by 80% to 90%, with multiple high density precincts not just in the city centres. Australian cities are planning for this with Perth's strategy to absorb about half of new population growth as infill development and the Sydney plan to become 'a metropolis of three cities'.

Australia's larger cities have approximately 1,600 people per square kilometre – a low average density when compared internationally.

Embracing diversity, as Singapore has done, is also important. "By bringing diverse groups of people closer together, the analysis suggests that Singapore is better placed to utilise people's skills, knowledge and entrepreneurship. Interaction amongst the population is also believed to foster inclusiveness, building trust, cohesion and understanding," the report states.

Diversify housing and land use

Mixing housing, services, employment and green spaces in smaller areas creates destinations in the form of diverse local precincts that provide people of different occupations and incomes better access to jobs, services and recreation, the report states.

In the Outlook Vision, Australian cities have land and housing mixes that allow more people to live comfortably in cities.

The vision strongly favours medium-to high-density dwellings to the point where they become the dominant form of habitation in Australia, with well-designed apartments, semi-detached homes and townhouses making up just over 50% of the housing stock by 2060.

The greater mix of housing types allows more people to live closer to a richer set of urban jobs and amenities, and to stay within their community throughout their life stages. Importantly, the increased mix of housing offers reasonable accommodation for those working in essential services, education, health and personal services.

Improve transport infrastructure

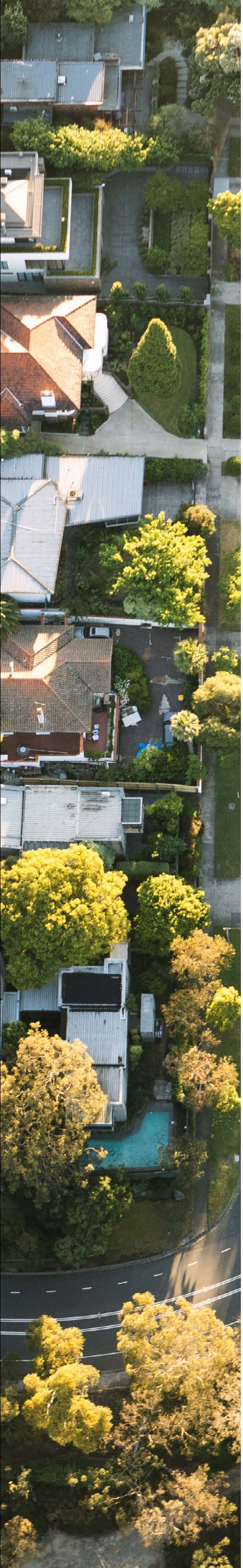
As a result of better planning and transport infrastructure, urban vehicle kilometres travelled per capita fall by as much as 45% in Outlook Vision.

Much of the improvement is facilitated by greater population density and multiple city centres. "As more transport choices and diverse travel routes criss-cross the city, '30-minute cities' can be realised, making work, shopping, socialising and services closer, increasing productivity," the report states. "At the same time, car dependency will fall and walking and cycling will be preferred options to the now-closer jobs, education and health services."

Likewise, population plays a key role in the viability of mass transit, where rail, light rail and rail-like bus services move the most passengers per hour and will work in tandem with autonomous vehicles. This combination will be "revolutionary", the report states. "Autonomous vehicles provide a new low-cost, on-demand service for trips between home and more frequent mass-transit services."

In addition to improving cities, there's a significant opportunity to both preserve the strength of inland regional towns and rural communities, and invest in the growth of regional satellite cities with strong connectivity to those capitals.

For more details on the Austriailian National Outlook, download the executive summary or the main report.



MAJOR RESEARCH CENTRE FINDS A 17-YEAR REFINANCING SOLUTION

A landmark PPP refinance meets the needs of investors for a low-risk investment as well as the needs of borrowers for longer-dated debt.

BY HAMISH NICOL AND VIJENDRA SINGAM

Image: HiVis Pictures, courtesy of Plenary Group.

ISSUERS AND INVESTORS are increasingly looking to longer-dated debt solutions than the Australian market has traditionally offered – providing greater certainty for issuers and more attractive yields for investors.

The 17-year refinancing of the AgriBio, Centre for AgriBioscience in Melbourne taps into this trend and takes refinancing risk off the table for the research facility.

AgriBio – a joint initiative of the Victorian Government and La Trobe University – is Australia's premier biosciences facility, supporting the agricultural sector by focussing on cutting-edge research to improve productivity, fight disease and reduce environmental impact. It comprises of 30,000-square-metres of research laboratories, glasshouses and office accommodation for more than 400 scientists, students and support staff.

The facility came about as a result of a 2009, A$288 million public-private partnership (PPP) between the Victorian government and the Plenary Research consortium – comprising Plenary Group as financial arranger, investor and asset manager, contractor Grocon, services provider Honeywell and investors CDPQ and Palisade Investment Partners – to design, build, finance, and maintain the facility for 25 years.

NAB was a lender for the initial financing of the PPP, and so were a natural partner when it was time to refinance the A$230 million facility last year.

We were able to tap into global liquidity pools and a growing appetite for longer tenor loans to provide a unique, single 17-year debt tranche for the consortium.

Plenary Head of Origination Paul Crowe said the structure is a first for a PPP refinancing in Australia. "Aligning the tenor of the refinancing with the end of the PPP concession completely removes the refinancing risk for the equity investors and the Victorian Government," Crowe said.

Along with providing certainty for AgriBio, the deal has allowed Plenary Research to lock in the base interest rate and the margin at the current attractive rates and liquidity is high for the remainder of the life of the PPP deal.

A flexible form of capital

By tapping into demand from global institutional investors for longer-dated debt, the deal overcomes the restrictive five to seven-year tenor that typically comes with Australian bank debt.

Demand for longer-dated debt has been spurred by prevailing low interest rates globally as investors chase yield. As a result, investors are willing to take illiquid unrated debt close to bond market rates for moving into a loan compared with a tradeable bond.

Non-rated, non-tradable debt has a couple of advantages for some corporates. Firstly, they don't have to go through the distraction and expense of seeking a credit rating and providing financial updates. Secondly, they are able to keep the financing provision of their projects private.

The deal also marks a broadening of the liquidity pools that Australian projects can access.

Two or three years ago, most longer tenor funding into projects would have come from bonds sold to US life insurers via the US private placement market. While the USPP market remains an important source of funds, investors who need a more flexible form of capital now have a broader range of options.

More long-dated project loans to come

The bulk of the funding for the AgriBio deal came from Japanese institutions, who are willing to invest at what look like competitive rates compared with their domestic rates. The funding was supplemented by funds from a domestic asset manager and from European institutions.

We were able to tap into global liquidity pools and a growing appetite for longer tenor loans to provide a unique, single 17-year debt tranche for the consortium.

We expect to see more of these project financing arrangements in the future, as they neatly bring together the needs of investors for a secure low risk investment with the needs of borrowers for longer-dated yet flexible debt.

In fact, NAB has already completed a similar transaction. Following on the successful AgriBio refinancing, Palisade has since used the same structure in the refinancing of the Hallett 1 Wind Farm in South Australia with a A$160 million, 13.75-year debt facility. The loan was syndicated to institutional investors in the Japanese life insurance market and like the AgriBio deal, removes the refinancing risk.

These can be complex deals.

Our understanding of the AgriBio project and the sponsors meant we appreciated the structuring elements that needed to go into the transaction to make it attractive for them. It also gave us the depth of understanding of the underlying project and the credit settings to help make the investors we brought into the transaction comfortable with it as well.

We also brought together several capabilities from across the NAB Corporate and Institutional Bank to bring the deal to fruition – including long-dated swaps, project finance, and capital markets origination and distribution.

For AgriBio, the deal means they can put their focus into their important research supporting Australian agriculture.

OFFSHORE WIND – A EUROPEAN EXPORT GOING GLOBAL

The offshore wind industry is booming, with 22GW of installed capacity worldwide and the first project planned for Australia.

BY ADAM COXHEAD AND ANDREW SMITH

The industry is set for continued growth as decarbonisation of the power sector and the broader economy picks up pace.

FLYING IN TO London from continental Europe, a striking sight that often greets visitors out of the window of the plane is offshore wind turbines churning out power for the homes and businesses of south east England. The wind farms in this part of the UK tend to be earlier projects – commissioned between 2010-2012, they typically employ 3 - 3.6MW turbines in water depths up to 30m and are located between 10-25km from shore.

Testament to the rapid growth and maturity of the sector, projects currently in development and construction are up to 3.6GW in size, utilising 9.5 – 12MW turbines in water depths up to 50m and located up to 130km from shore. This is truly large-scale electricity generation infrastructure.

A European success story

Borne out of the offshore oil and gas industry, the first offshore wind project (Vindeby) was 5MW and was commissioned in Denmark in 1991. Now, 28 years on there is 22GW of offshore wind capacity installed globally[1] (c.83% of which is in Europe), with a further 90GW or more forecast to be installed by 2030[2]. The distinguishing characteristics of offshore wind that appeal to governments and developers include higher capacity factors (often 50-60%) compared to onshore wind and solar, the ability to deploy at scale and being less susceptible to NIMBY-ism, and continuing innovation in technology such as larger turbines.

Dramatic cost reductions

The largest market in Europe is the UK, followed by Germany, Denmark, the Netherlands and Belgium, with development activity now also starting to gather momentum in France and Poland. Industry growth in the UK and elsewhere has been driven initially by subsidies that have de-risked cashflows. As the industry supply chain has matured, technology has become larger and more efficient and capital providers have become more comfortable with the risks, costs have come down dramatically, reflected in the reduction of UK CfD auction clearing prices from £114/MWh (2012£) in 2015 to £39/MWh (2012£) in the 2019 auction recently announced. At these levels CfDs become price stabilisation mechanisms rather than "subsidies" per se. Indeed, the International Energy Agency predicted in an October 2019 report that costs will fall by 40% and offshore wind could be the single largest source of power generation in Europe by 2040[3].

Industry in transition

This industry success has bought with it great rewards:

- for governments, the opportunity to procure renewable power at scale in a cost-effective manner;
- for project developers and contractors, the visibility of a sustainable future for the industry, enabling them to invest in technology, development and capability;
- for investors, the opportunity to meet ESG objectives through investment in large scale energy infrastructure with stable cashflows.

Going global

The offshore wind industry is set for continued strong growth in the coming years as decarbonisation of the power sector and the broader economy picks up pace globally.

With such significant reduction in costs and an increasingly clear imperative to accelerate the energy transition it was inevitable that the offshore wind industry would grow beyond Europe into new markets. China is anticipated to be the highest growth market in the coming years, forecast to overtake the UK with the largest installed capacity by 2023, although currently few international firms are present. Other markets with active late-stage development or construction projects are the east coast of the US and Taiwan, with Korea and Japan following.

In Australia, the first proposed offshore wind farm in development is a very large 2GW project off the south coast of Gippsland, Victoria known as Star of the South. The project is being developed by its Australian founders and Copenhagen Infrastructure Partners, an experienced offshore wind investor in Europe. They cite advantages such as greater wind speeds and strength than onshore wind, meaning offshore wind farms can produce more electricity, more consistently.

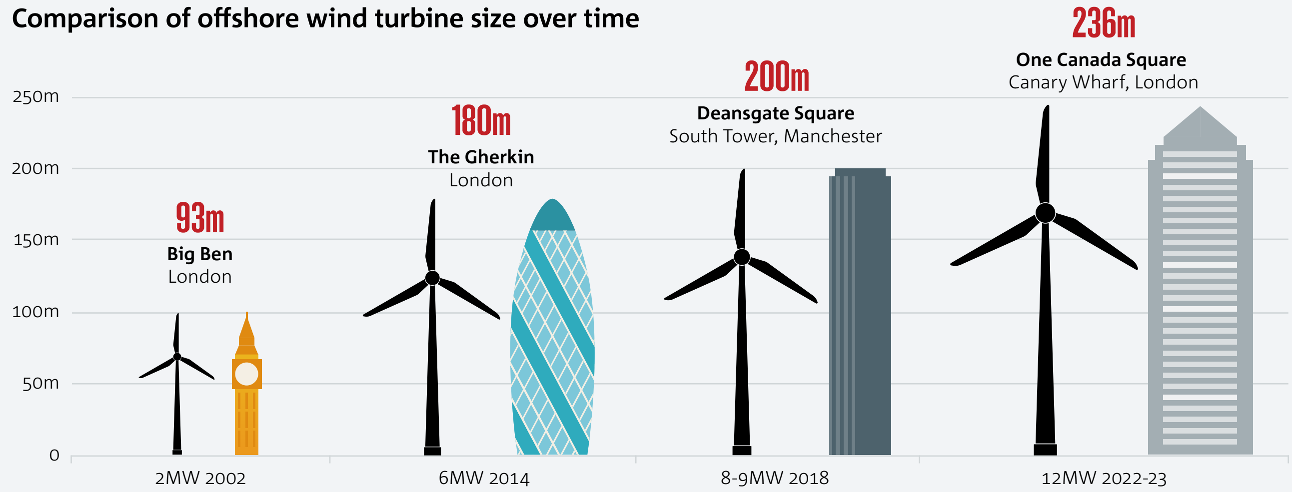
Unlike many European countries, Australia is not land constrained and has strong onshore wind resources, so there has not been a pressing need to build offshore. Star of the South would need to deliver electricity at a lower cost than the current A$50-60 MWh cost of onshore wind – which seemed unlikely until the recent sharp decline in UK CfD auction prices to A$78[4] suggesting the cost gap is narrowing.

There's also a question as to whether UK CfD costs are directly transferable to Australia, where there is no established supply chain and a smaller end market. One area where Star of the South might have an advantage is cost to the grid, as it would connect into the pre-existing Latrobe Valley transmission infrastructure which over time will have more capacity as coal continues to retire. It's certainly a project to watch.

Looking ahead, however, challenges for the industry are evident: continued pressure on costs across the supply chain in an effort to improve chances of success in auctions for subsidies and/or development rights; renegotiation of tariffs awarded reflecting cost declines; building capability in supply chains in new markets where governments often require minimum levels of local content; project economics creating the need to source large scale corporate Power Purchase Agreements to provide some price stabilisation.

1. Clarksons Research
2. Bloomberg New Energy Finance
3. https://www.iea.org/offshorewind2019/
4. £39/MWh (2012£) in the 2019 auction, adjusted for inflation to £43 in current pounds.

Comparison of offshore wind turbine size over time



Source: Bloomberg New Energy Finance

BALANCING EXPANSION NEEDS WITH ESG CONCERNS

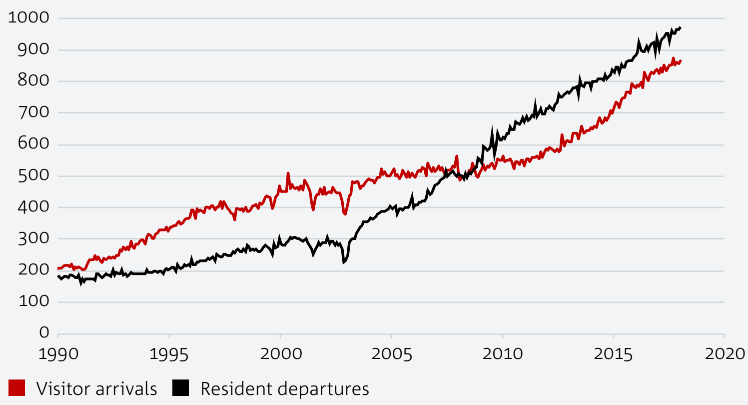
National Australia Bank hosted Treasury representatives from Heathrow, Changi, Sydney, Brisbane and Auckland airports in a Global Round Table to discuss the opportunities and challenges of rapid growth in passenger traffic.

BY JACQUELINE FOX

MAJOR AIRPORTS AROUND the world are finding new ways to balance their ambitious expansion plans to cater to rapid passenger growth while addressing environmental and social concerns of both investors and communities.

Passenger trips worldwide topped 4.3 billion in 2018, and this figure is forecast to double over the next 20 years, underpinning the need for airport terminal and runway expansions. To meet this anticipated surge in demand, airports are taking innovative approaches towards their existing facilities as well as putting into place infrastructure to cater for future growth.

Australia tourism indicators: inbound and outbound passenger traffic



Visitor arrivals ■ Resident departures

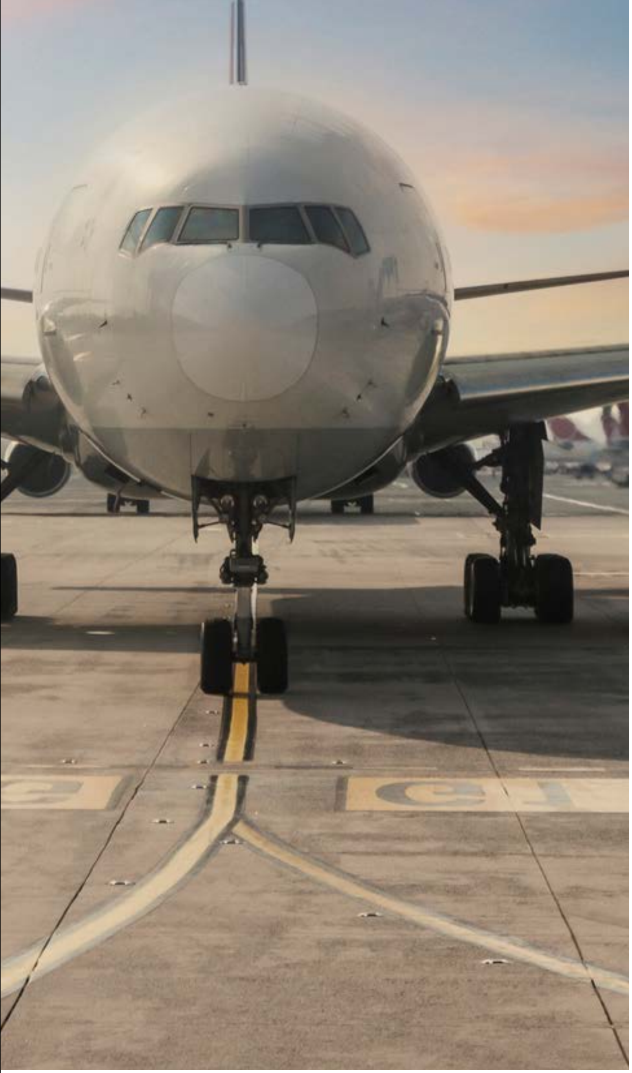
Note: includes minority of people coming by cruise ship
Source: National Australia Bank, ABS

"The whole world will have to move forward with sustainable growth, and aviation will be the same," says Sally Ding, Heathrow Airport's Director of Treasury and Corporate Finance. "We need to make sure that future generations can continue to enjoy the benefits of flying – that means unlocking a sustainable future for aviation."

Heathrow says it wants to use its scale and influence to drive change in the sector, setting a target for carbon neutral growth as its planned third runway is completed in 2026. "The challenge now is not just to get a project done on time and budget; the challenge with sustainability is how we grow the airport in the most responsible way," Ms Ding says. This includes an extension of existing limits on night flights; offering incentives such as cheaper landing fees for cleaner and quieter aircraft; and boosting efficiency in operations such as reduced taxi times.

Environmental considerations

Growth in airport footprints and traffic volumes have well documented environmental implications and this is especially the case for airports that are built close to downtown areas, such as Sydney Airport, which lies eight kilometres from the city. "We're actively thinking about ways to more efficiently operate and deliver further growth within our footprint," says Sydney Airport Treasurer Michael Momdjian. "This may involve opportunities that complement our service offering, in addition to leveraging technology and data."



All airports at the Round Table were focused on the customer experience including travel to the airport. Options under consideration include downtown check-in, which is used in some international airports such as Hong Kong. Passengers can drop their bags before catching the airport express train, instead of lugging their suitcases all the way to the airport.

Environmental considerations are also key at Heathrow Airport. This includes both the noise impact on local residents and a wider focus on carbon neutrality including limiting the increase in road traffic as passenger numbers grow.

Others have wildlife habitats to consider: Brisbane Airport, which is due to complete its new runway next year, has approximately 10 per cent of its total area designated as a biodiversity zone including wetlands that are home to bird species including the Lewin's Rail and the Eastern Grass Owl.

Common measures being adopted at several airports include installation of solar panels and fully electric fleets of buses, vans, or baggage handling tractors. Changi Airport has introduced machines that use microbes to break down food waste into water, which processed over 600 tonnes of food waste last year that would otherwise have gone to incineration plants.

For Auckland Airport, the focus is on the local community. Faced with a heavy infrastructure building program for a new domestic terminal at the same time as extensive construction projects are taking place across New Zealand, Chief Financial Officer Philip Neutze says it has been hard to procure the subcontractors needed. "So we've focused on training unemployed people, giving them the skills so they can be employed by the construction contractors, and getting them on the ladder for gainful employment," Mr Neutze says.

Investor focus on ESG

The focus on community is backed by investors, who are increasingly incorporating Environmental, Social and Governance (ESG) factors into their portfolios.

In some cases, this also means issuers need to educate investors about the role of airports in driving ESG outcomes within the aviation industry. Sydney has set a target to achieve carbon neutrality by 2025, and recently entered into a power purchase agreement to contract up to 75 per cent of its current electricity load from wind.

Heathrow's Ms Ding says that demonstrating the airport's ESG credentials has become increasingly important so as not to be screened out by investors with strict ESG criteria and the onus is on the airport operators to proactively demonstrate their credentials and challenge the assumptions of investors.

Airports have been steady borrowers in the medium-term note, US 144(a), Euro, and U.S. Private Placement (USPP) markets, with 60 new issues globally since 2016.

"We need to make sure that future generations can continue to enjoy the benefits of flying. That means unlocking a sustainable future for aviation."

— Sally Ding, Heathrow

To read the full Global Round Table - Airports publication, please click here.

Annual growth in global passenger traffic (commercial airlines, percentage yoy)

	2013	2014	2015	2016	2017	2018	2019F
Global	5.7%	6.0%	7.4%	7.4%	8.1%	7.4%	5.0%
North America	2.6%	3.0%	4.3%	4.0%	3.9%	5.3%	4.3%
Europe	4.7%	6.5%	5.8%	5.3%	8.9%	7.5%	4.9%
Asia-Pacific	8.0%	7.8%	9.6%	11.1%	10.9%	9.5%	6.3%
Middle East	11.5%	11.9%	9.9%	11.4%	6.8%	5.0%	2.0%
Latin America	6.3%	6.3%	6.7%	4.5%	7.3%	7.0%	6.2%
Africa	5.0%	0.6%	3.4%	7.3%	7.3%	6.1%	4.3%

Source: IATA, June 2019

EMBRACING INNOVATION PUTS THE ASX AT THE FOREFRONT OF NEW TECHNOLOGY

The ASX is moving to a blockchain-based system that will unlock efficiencies for the entire financial services industry.

BY DAVID KNIGHTS

> "ASX and Australia led the world in removing paper share certificates from the stock market in the '90s."
>
> **— Dominic Stevens, ASX Ltd**

IN A BOLD move, the Australian Securities Exchange (ASX) is forging ahead with a new generation post-trade settlement solution. The planned replacement of the Clearing House Electronic Sub-register System (CHESS) for cash equities clearing and settlement uses Distributed Ledger Technology (DLT) and heralds the next wave of transformation for the Australian financial services industry.

The ASX has steadily progressed toward its vision of replacing the 25-year-old CHESS technology for equities clearing and settlement functions by 2021, in what has been reported as the first industrial-scale blockchain-based system for a stock exchange globally.

The ASX's application of blockchain-based DLT has been described as microeconomic reform for the digital age and will unlock significant efficiencies for customers and the financial services industry.

NAB is working closely with the ASX to support the adoption of new DLT CHESS platform and we are excited to be part of this change.

"ASX and Australia led the world in dematerialising and removing paper share certificates from the stock market with the introduction of CHESS in the '90s," says Dominic Stevens, Chief Executive of ASX Limited.

"We are now continuing our history of innovation by providing a replacement of the CHESS system with new features, global standards and distributed ledger technology (DLT). Replacing CHESS with a DLT based system lays a foundation for the market to leverage this infrastructure investment and realise efficiencies and develop new solutions in ways not previously possible," he says.

Real-time data

The DLT based CHESS system will offer existing functionality along with the option to take up new features and connect with perfectly synchronised source data. The switch to synchronised real-time data will provide a solution to the long-standing inefficiencies associated with transaction matching and reconciliation.

Being uniquely positioned as the only full service domestic bank with a custody business, NAB can participate in all possible applications of the technology in financial services.

There are currently about 100 ASX participants who will need to transition to the new platform, including multiple NAB group business units.

We will continue to support post-trade processing accepting clients' existing messaging formats, and will also be uplifting SWIFT messaging standards to ISO20022 (a standard for electronic data interchange) to ensure all NAB group participants can transition seamlessly to the new generation CHESS platform.

Inbuilt trust features

DLT by its very nature is coded with inbuilt trust features such as the use of mutualised rules in Smart Contracts. We see this as a positive step towards streamlining the effort required to complete asset lifecycle management processes such as corporate actions and transaction reconciliation processes.

The ASX can see a future environment where more participants in the trading value chain will have access to not only the validated, authenticated source of truth of their data but also a marketplace of technology applications based on a digital smart contract language (DAML). This will reduce the time to complete operational tasks and enable richer and more efficient exchanges of trade information.

Over time the following benefits may also be realised:

- Faster settlement of trades than the current T+2
- Innovation of functionality available to investors and issuers
- Third party data access and analytics, including regulatory oversight

Implementation timeline

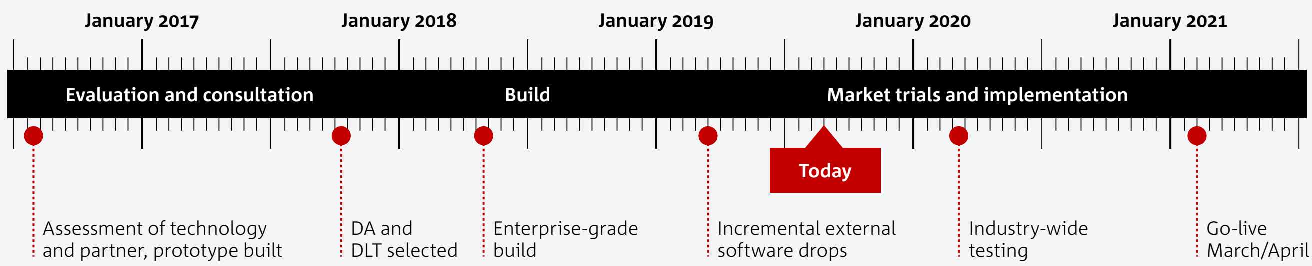
The ASX plans to have the platform implemented and fully tested for transition of all existing participants in April 2021. Refer to the timeline below for milestones.

The role NAB plays

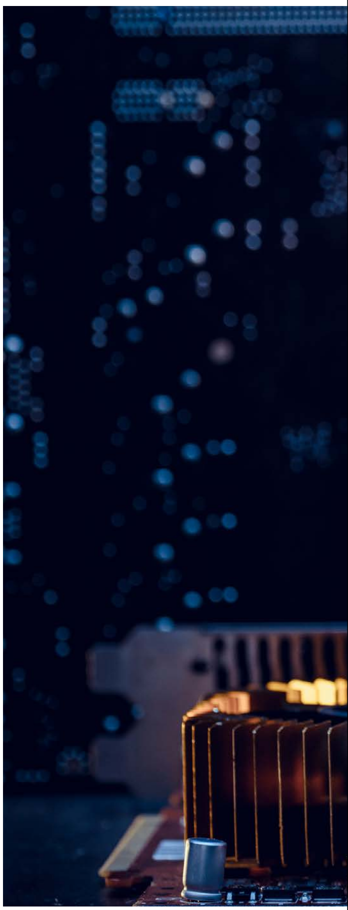
NAB has mobilised a project team to ensure all our investor clients are enabled to settle trades on the new CHESS platform when it goes live. We will continue to monitor advancements in DLT capability to ensure the solution provided to NAB best serves our Corporate and Institutional clients.

We will continue to keep you updated. As a Corporate & Institutional client we encourage you to get involved in one of the ASX webinars, review the stakeholder engagement calendar of events on the ASX website or contact your NAB banker.

Customer development environment (CDE) opened in April 2019, on-track for March/April 2021 go-live



Source: ASX



THE CHANGING FACE OF BANKING TECHNOLOGY

In a rapidly evolving technology landscape, corporate finance teams have a range of options to improve efficiency, productivity and security with bank communication.

BY SHAWN TRELOAR

"The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency."

— Bill Gates, Microsoft.

HISTORICALLY, MAKING PAYMENTS and getting bank transaction data was time-consuming for businesses, with little technology support for the function. Over the next decade, we expect the finance technology landscape to evolve dramatically. Businesses are already seeing replacement of on-premise legacy applications with either cloud infrastructure, or SaaS (Software-as-a-Service). Enterprise Resource Planning (ERP) systems will develop more real-time analytics, and bank connectivity will be enhanced to drive improved transaction and data exchange to support a broader range of business functions. So, what are the fundamentals a business should consider in this evolving landscape when it comes to banking?

Online Banking & Reporting Platforms

Online platforms continue to be a key area of focus for banks as the primary electronic interface with their customers, with increasing access to self-service tools, customised reporting options and wider range of payment options.

In a single bank relationship, using a bank hosted platform is a low-cost and secure approach. Increasingly however, these platforms lack the range of reporting and analytics sought by finance teams. Many corporates with complex needs are increasingly leveraging more capability from their ERP system, or turning to specialised 3rd party Treasury Management Systems (TMS). A well implemented TMS can support the full lifecycle of treasury transactions and presents a consolidated view of all positions for a business. Day-to-day activities are performed more efficiently, as all data is centralised, with controls supported by the TMS.

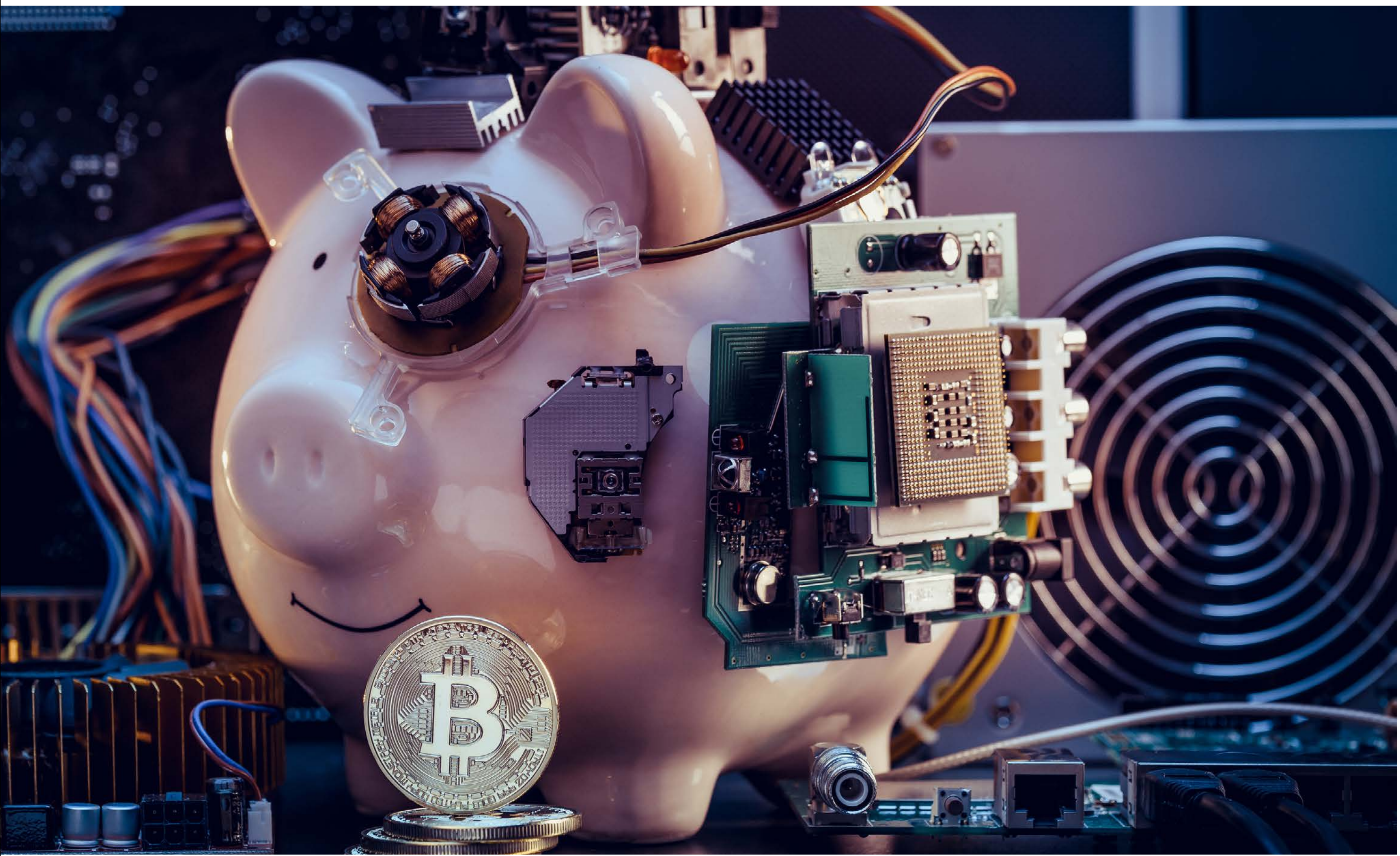
Some banks are building out more specialised capabilities to address this gap, with enhanced cash and liquidity management platforms to drive better control and efficiency. The reality, however, is that there is still much manual intervention with spreadsheets by staff to address this.

Straight Through Processing (STP)

In an evolving technology landscape, other interfaces with banks are becoming more common. STP, where a client's systems communicate directly with the bank's system for payments and transaction data, was once purely the domain of large corporates. We now see this being more frequently implemented in mid-sized operations. Access to technology resources, an increased focus on fraud and standardisation of connectivity and messaging have contributed to this. STP does drive operational efficiency and security; however, it can be expensive to set up, so sometimes is not best aligned for multi-bank relationships.

Corporate SWIFT

For multinationals, direct integration to the SWIFT (Society for Worldwide Interbank Financial Telecommunication) network is also a common approach. SWIFT is the common messaging network and standard for bank communication globally. This arrangement delivers a single point of integration with banks, using a standardised messaging structure. This can be costly however, and is usually only an option for corporates that regularly deal with multiple offshore banks.



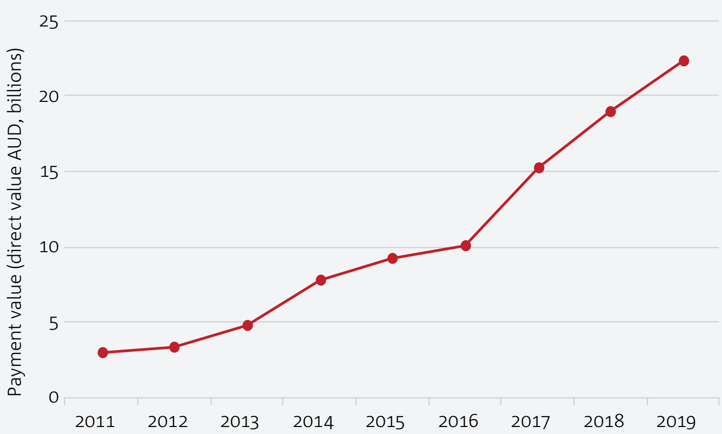
Corporates need to have a clear strategy for their technology systems, platforms and interfaces.

Application Programmable Interface (API)

Major ERP, accounting and billing platforms are trending towards API integration with banks. Simply put, an API is a small packet of data that is transmitted between two systems using a common language, and can easily be modified to align with business needs (eg payment instructions or account information). Banks are in various stages of opening their environments to APIs, with some offering mature developer portals today.

APIs are an example of how corporates can standardise connectivity and customise messaging with many banks in near real-time. Like STP, it is a 1:1 connection so requires configuration for each bank.

Growth in payment value processed via NAB Direct Link



Source: NAB data

What's next...

'Open Banking' captures the practice of securely sharing data between authorised parties on the request of a customer (data owner) . This is in place in the UK now, and given rise to many 'challenger' banks. In Australia, Consumer Data Right (CDR) legislation passed on 1 August 2019, and will take effect for the big four banks in February 2020.

Underpinned by API, data portability between banks, and the ability to engage third party fintechs for discrete functionality, products and services, open banking could herald a seismic shift in the role that banks play for business clients in future.

Other concepts around AI, robotics and Distributed Ledger Technology (DLT) will have implications for both corporate finance teams and their relationship banks, in terms of the data sought and its timeliness.

Choosing the right option

Corporates are faced with a broad range of technology options today for connectivity and finance administration. Themes of centralisation, automation and standardisation should be front of mind today and in the coming years.

In a rapidly shifting technology landscape, corporates need to have a clear strategy for not only their core business, but the technology systems, platforms and interfaces that underpin their operations. Banks, fintechs and solution providers will keep innovating at an increasing pace – paving the way for greater efficiency, flexibility, and profitability for corporate clients. Importantly, poor strategic choices on any of these technology fronts may drive the exact opposite effect.

INVESTORS POSITION FOR THE MEGATRENDS OF THE FUTURE

NAB's Fixed Income Beyond the Institutional Sector Summit looked at the trends that are likely to shape the way we live, work and interact for years to come.

AS INVESTORS GAZE across the now familiar landscape of ever-lower yields, negative real interest rates, and high but volatile equities, it can be hard to visualise where the opportunities of the future will lie.

So it's worth taking time out of the market's day to day fluctuations to step back and consider how the megatrends shaping the economy will change our lives over the coming decades.

How businesses and investors position to take advantage of investment opportunities offered by structural shifts in the economy was the key theme of the fourth annual Fixed Income Beyond the Institutional Sector Summit (FIBIS), hosted by NAB and KangaNews.

> "The future is already here – it's just not very evenly distributed."
>
> **— William Gibson, novelist.**

The Summit shared insights about the future of cities, work, agriculture and technology with more than 500 attendees from family offices, high-net worth investors, advisers and issuers.

"In an age of disruption, it's hard to predict who the winners will be in a range of sectors. So it's important that the people you are investing with are thinking about this. It's something we think about all the time at NAB," said Drew Bradford, Executive General Manager, Markets, at NAB.

Panellists pointed to the 2003 founding of GoGet, the first car-sharing service where founder Bruce Jeffreys described having to educate consumers and suburban councils to create the policy environment to support a scheme that already existed in the US and Europe; and the Australian technology that allows travellers to self-check their luggage at the airport, which has been adopted by airports worldwide.

Technology transforming wealth management

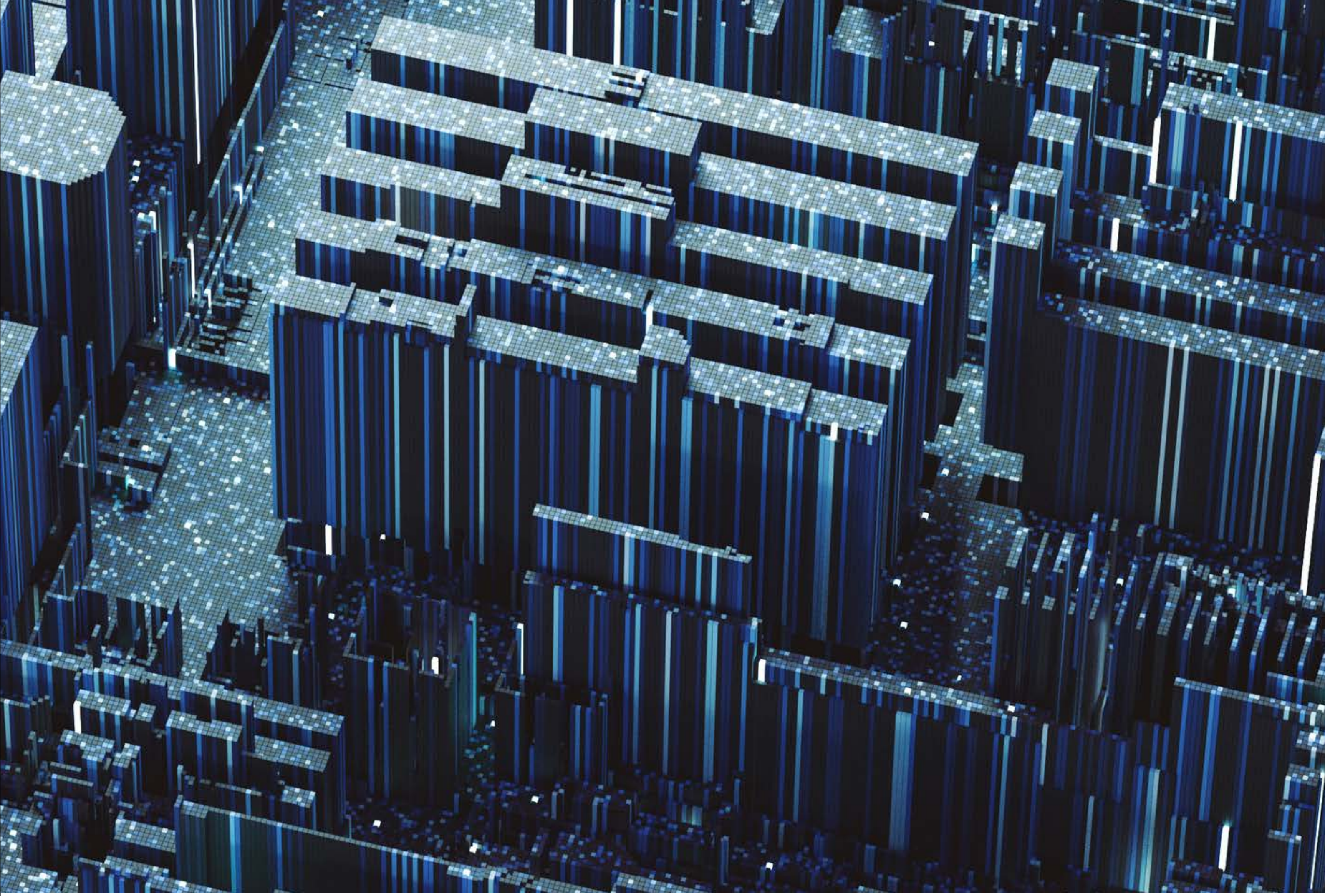
Artificial Intelligence is already helping transform the financial advisory world, where panellists pointed to a hybrid model where both data and personal advice combine in a portal that helps manage all of a client's financial needs including banking, insurance and super.

"People often throw about the phrase, 'Data is the new oil'," said Jessica Ellerm, co-founder and Chief Executive of Zuper. "We're looking at how can we use that data to help young people save more money, rather than spend it.

"We are passionate about redesigning what financial experiences will be for the next generation of investors coming through, and I choose that word 'experiences' very carefully rather than 'products'. That's where the world is shifting, thanks to technology," Ms Ellerm said.

Until recently, technology in the super sector has mostly been focussed on the processing and back office components of running a financial planning operation, rather than service delivery and client engagement, the panel heard.

The focus has now shifted to rethinking the interface between the financial adviser and clients and how it will change that relationship in the coming years.



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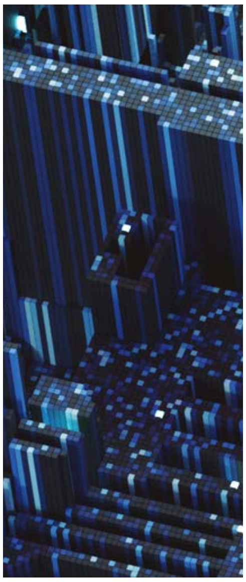


Planning for disruption

The FIBIS conference heard from both credit and equity investors on how they plan for disruption and take that into account in the pricing of assets.

One of the toughest questions posed by the panel was assessing companies with a long history of earnings growth – how do you trust earnings forecasts when disruptors can emerge to dominate the sector and transform the competitive landscape?

“One of most important things at any company is for management to continue to innovate,” said Jun Bei Liu, Portfolio Manager at Tribeca Investment Partners. “Every day, they need to think about: What is their customer proposition, What is the reason for that product or service to exist? With technological advances, they need to continue to make it easier for their customers.”

Ms Liu cited the rapid growth of online businesses such as Seek.com that cannibalised newspapers’ traditional source of revenue – “rivers of gold” of classified advertising for jobs, cars, and real estate.

Financing 30 years of retirement

Thanks to improved lifestyles and medical breakthroughs, life expectancy in Australia has improved dramatically. While it is a positive development that we are living longer, healthier lives, it also brings with it some challenges.

Funding for retirement hasn’t kept pace with changes in longevity. Australia’s superannuation system was designed for people who retire at 65 and live another 20 years in retirement. However, many people are retiring much earlier than this and living longer.

“Often people get caught in traps trying to generate a good income now rather than thinking 15 years ahead. They don’t think about longevity risk,” Chris Black, Managing Director at Alexander Funds Management, told the conference.

Mr Black said financing longer retirements also required a more conservative phase of asset allocation with a greater proportion of fixed income than the volatile property and equities sectors that tend to dominate the portfolios of self-funded retirees.

TOP 10 WAYS TECHNOLOGY AND DIGITAL SECURITIES WILL CHANGE FINANCE

A financial system that has taken centuries to evolve will change dramatically in the next few years.

BY LISA WADE

WHAT IS A DIGITAL SECURITY?

To keep it simple, it's any traditional financial instrument or security, loan or share, issued over a digital format. Most digital securities contain a piece of code called a "smart contract" or a "DAPP". These operate somewhat like an excel Macro and contain all of the legal documents and functionality of the financial instrument; for example, a digital loan would contain a digitised version of all of the terms and conditions and regular payments.

FUNDAMENTALLY, OUR FINANCIAL system has been built and governed by various forms of banks and financial institutions, whether they be merchant banks, retail banks, central banks, investment firms and everything in between.

One of the key themes in finance over the past year has been the emergence of a new type of security, broadly called "digital assets' or "digital securities". These new securities will simplify the financial infrastructure through automation and provide a range of benefits.

So how do digital securities change this complex system? Whether you run a multibillion dollar corporation or want to buy an ice cream when you are not carrying any cash – the way we move, store and access money is about to change forever.

Here are the top 10 ways:

The way we move, store and access money is about to change forever.

1. **Access** – the first aspect is access to "credit" and money will be different. Currently there is a complex "credit" process around accessing money; even if you have it, you have to go through multiple layers of identity verification and anti-money laundering processes, and if you need to borrow, extensive credit checks. Digitisation will mean a lot of these processes are automated and it will change the way "credit" checks are done in terms of the underlying data used to assess borrower suitability. This will be the most powerful for the unbanked and we believe will also transform corporate finance in many ways. The second aspect is access for investors, who will be able to tap into new and previously inaccessible asset classes. Real assets are currently hard to invest in and fractionalize, whereas digital securities that are asset backed can be infinitely fractionalized. This will create the ability to unlock vast amounts of capital invested in real assets and will help with portfolio diversification.
2. **Better** – accessing credit and moving money will be more focused on the user experience so it will be better for everyone. We will shift from connectivity to interactivity.
3. **Cheaper** – the repetitive processes outlined above are expensive and time consuming. These savings will mean smaller margins, so that fees will fall as will "risk" premiums.
4. **Faster** – currently it can take weeks or months for credit checks, even for large corporates. Once you have your digital identity up and running, access to credit and moving money will be faster. We will move into a world of straight-through processing of complex transactions and "atomic" (or instant) settlement.
5. **Liquidity** – digital assets will be tradeable in secondary markets – in many asset classes these secondary markets do not currently exist. The creation of these new secondary markets will unlock liquidity in an unprecedented fashion and play its own role in re-pricing risk as currently real assets trade with a "liquidity" premium due to lack of liquidity.
6. **Transparency** – we will be able to verify and prove the origin of all digital assets and financial transactions embedded in the instruments. The implications of this are profoundly positive – no more cooking the books and deception. Financial instruments will be what they say on the box.
7. **Trust** – transparency will build trust in the entire marketplace.
8. **Blurring of the lines between public and private markets** – this will be a radical change. There will be little delineation between what are currently two distinct private and public capital markets. This has regulatory implications, and until regulation adapts, we need to regulate all digital securities to the highest standard for credibility.
9. **Frictionless trading and funding** – all of the above issuance will be done on open source ecosystems and market places and be frictionless. We will have access to real time price and liquidity discovery and instant access to what we need.
10. **Operational risk** – this is a real and pressing issue for many large financial institutions and places costs into the financial system. Digitising the process will allow many aspects subject to human error to be removed from the value chain of financial instruments. This will represent a dramatic reduction in operational risk – and therefore also costs.

BLOCKCHAIN FACTS AND FIGURES

Since mid-2015 global financial institutions have committed significant resources to research, experimentation and product development with blockchain technology across a wide range of use cases such as cross-border payments, trade finance, identity management and Know Your Customer (KYC) and securities settlement. According to recent reports from Gartner, IDC and CB Insights:[1,2,3,4,5]

- 100+ global financial institutions have joined blockchain consortia since 2016
- 90+ central banks have explored blockchain potential since 2016
- US$8 billion-plus has been invested in blockchain projects from 2014-2018
- 2500+ blockchain-related patents have been filed between 2014-2017
- In 2019, global financial institutions investments in blockchain initiatives will reach US$2.9 billion

1. http://www3.weforum.org/docs/WEF_The_future_of_financial_infrastructure.pdf
2. https://www.cbinsights.com/research/blockchain-disrupting-banking/
3. https://www.idc.com/getdoc.jsp?containerId=prUS45429719
4. https://www.idc.com/getdoc.jsp?containerId=prUS44898819
5. https://www.gartner.com/smarterwithgartner/the-cios-guide-to-blockchain/

ENHANCED YIELDS FROM CORPORATE BONDS

High net worth and sophisticated investors are increasingly looking to corporate bonds as a way to preserve capital while delivering higher yields than cash or government bonds.

"For clients with a self-managed super fund or a family trust, corporate bonds provide a good level of income and stability."

— Daniel O'Leary, Affinity Wealth

AS A SENIOR financial advisor at Affinity Wealth, Daniel O'Leary specialises in preserving and growing the wealth of his clients, many of whom are retired or nearing retirement.

When he was approached by NAB with the opportunity to invest in a corporate bond issued by Perth-based developer PEET, several things about the deal struck him as a good fit for his clients.

The fixed rate tranche of the bond offer had an attractive 6.75% coupon, which would deliver a solid, steady income over the five-year term to maturity. At the same time, this was a company that we believed was financially sound and focused on a relatively lower risk sector of the property market – affordable housing – and the bond was secured by underlying land.

"While higher risk than cash and not a direct replacement, we are comfortable with the risks of select bonds and the role they play in a well-diversified portfolio," O'Leary says. "The PEET bond offered an excellent level of income for clients, above the pre-franking levels of many dividend paying stocks and without the underlying equity risk of owning the stock. While the Peet bonds weren't without risk, the bond structure offered an extra level of comfort by providing some further capital protection."

He also met with the Peet CFO and CFO as part of due diligence on the company, which helped form a positive view.

Income and stability

The PEET bond is one of several corporate bonds that Affinity Wealth has invested in on behalf of its clients, who generally have portfolios ranging from $800,000 to $40 million.

"For clients with a self-managed super fund or a family trust, or clients who are retired and living off their income, corporate bonds provide a good level of income in their portfolio and generally, stability because you aren't sharing in equity upside or downside," O'Leary says.

He says income combined with stability is especially sought after by investors in the current environment of heightened equity market volatility and low cash rates.

"Corporate bonds we have participated in recent times, have offered income generally anywhere between 5% and 8%, and are trading in the 4-6.5% range at the moment, meaning we have also had some capital growth," he says. "By contrast, if the fixed interest allocation of client portfolios was all sitting in cash, we would be lucky to achieve a cash return of 1-1.5%."

Corporate bonds have a fixed interest rate or a floating rate pegged to benchmark interest rates, and are paid back in full on maturity. Interest payments are backed by the company's cash flow and in some cases, as in the PEET example, the company's assets.

Levelling the playing field

The Australian corporate bond market has grown by more than 40% since 2010 and there are now more than A$1 trillion of corporate bonds outstanding in Australia. That's more than two thirds the size of the listed share market. However only 16% of high net worth individuals in Australia directly own corporate bonds, according to Deloitte Access Economics[1].

Simon Donohoe, Director Wealth & Capital Markets Distribution NAB Investor Sales, says demand for corporate bonds is strong as investors increasingly hunt for yield, but the market remains dominated by institutional investors, partly because of the large minimum capital outlay required.

Investment in fixed income by self-managed superannuation funds is particularly low. Debt securities represent around 1.5% of their total portfolio on average[2], whereas large superannuation funds hold around 22% of their portfolios in fixed interest.[3]

That's something NAB is working to change, says Donohoe: "A key driver for NAB is to bring institutional grade investment to the non-institutional market, creating an access point to allow them to build out this part of their portfolio."

Donohoe heads a team at NAB working specifically to distribute those deals to non-institutional third parties such as financial advisors, family offices and family trusts.

Innovation creates opportunity

As Australia's biggest business bank, NAB has relationships with thousands of companies as a lender. As these businesses grow, many seek to go beyond bank funding and to tap the bond market in order to diversify their sources of capital.

A simple corporate bond structure makes it easier for retail investors to access corporate bonds, which typically have been the domain of wholesale and institutional investors.

"The simple corporate bonds allowed PEET to pay down their senior debt, which opened the door to finance some significant joint ventures, and gave the group more headroom to transact," explains Andrew Gordon, Director, Debt Dapital Markets at NAB.

BENEFITS OF A SIMPLE CORPORATE BOND

In 2014 the Australian government made it easier for companies and retail investors to access the corporate bond market by passing the Corporations Amendment (Simple Corporate Bonds and Other Measures) Act.

The new 'simple' bonds are issued under a two-part prospectus – a base prospectus with a three-year life and a tranche-specific prospectus – and can be traded using simple retail corporate bonds depository interests.

The amendment changes some of the key requirements attached to bond issuance to make the process faster and easier. The key changes include:

- simpler disclosure
- reduced directors' liability, so directors no longer have "deemed" civil liability on the combined prospectus
- faster due diligence.

1. https://www2.deloitte.com/au/en/pages/economics/articles/corporate-bond-market.html
2. https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Super-statistics/SMSF/Self-managed-super-fund-quarterly-statistical-report---September-2018/
3. https://www.superannuation.asn.au/resources/superannuation-statistics

ASIA'S GROWTH UNLOCKS VALUE OF NEW MARKETS

Investors in Asia are playing an increasingly important role in global capital markets and both the loan and bond markets have been beneficiaries.

BY MELISSA GRIBBLE

THE RISING GLOBAL stature of Asian investors and their search for fresh avenues to deploy their expanding wealth is aiding the growth of new markets.

"There is an exponential growth of capital across Asia and Asian investors are playing an increasingly important role in the capital markets as they look for alternative sources to invest their money," said Tabitha Chang, Director of Capital Markets Origination at NAB.

Chang was speaking at a panel on alternative capital markets and investment solutions at the sixth annual Asia Pacific Debt Capital Markets conference organised by NAB in Singapore, Hong Kong and Tokyo.

Of particular focus was the increasing fluidity of capital across formats and currencies in Asia, and the growing importance of the Asian investor bid across global debt markets, in particular the prominence of APAC based lenders in global infrastructure and renewable energy project developments worldwide.

In addition, the continued expansion of the US private placement (USPP) market was a key theme. The market has become a destination of choice for APAC issuers, with more Asia based borrowers recognising the benefits of this market: for instance, Singapore based food and agri business Olam has concluded two successful transactions to date in the USPP market.

Tailored issuance

Robust economic growth has helped boost Asian household incomes and, in a region known for its high savings rate, fuelled a boom in investible funds. In turn, the loan market has exploded with annual volumes rising from US$7 billion to US$734 billion in total outstanding over the last 20 years, according to NAB estimates.

Keen to capitalise on this trend, a growing number of borrowers are tailoring their issuances, whether in bond or loan format, to the Asian investor base, offering higher yields and larger allocations to institutional investors, according to Lorna Greene, Director/Head Debt Syndicate and Origination Asia.

Greene said the institutional term loan (ITL) market has also been a beneficiary of this trend, with a growing number of life insurance companies and asset managers, particularly in Japan, Korea, Taiwan and Hong Kong, now including longer-dated loans in their investment suite.

The ITL market is attractive from an issuer's point of view, as investors are increasingly prepared to expend resources on in-house credit analysis, to get comfortable with longer-tenor investments, as well as with other alternative investments, in the hunt for yield in the current low interest rate environment. "Sourcing these higher yielding investments has been a really big theme throughout the last 12-18 months given the backdrop of falling interest rates," Greene noted.

A$ & Reg S Market

Asian investors' appetite for longer dated securities is also helping burnish their market reputation, especially in Australia and New Zealand.

Australian borrowers tap into the liquidity in Asia through many markets, including the A$ MTN and Reg S bond markets. Asian investors, from a range of countries

including HK, Singapore, Taiwan, Japan, Taiwan and South Korea, are consistently active in the Australian MTN market, across sectors and tenors, and contribute to the depth and strength of the Australian market.

Another popular market for issuers and investors alike is the Reg S market, which complements issuers' existing Euro Medium Term Note (EMTN) programmes and offers flexibility in terms of minimum benchmark sizes, which can suit Australian and NZ borrowers who may have typically lower funding needs.

"Another aspect that keeps the focus on Asia is that a lot of Australian corporate borrowers have been doing business in the region for quite a long time," Greene said. "There's very strong interest in Australian credit in Asia and we expect more borrowers will access the market in the future."

Deep pools of capital

The USPP market is another major market for Australia and NZ based corporate borrowers, accounting for 40% of the A$35 billion that Australian corporations borrowed globally in 2018.

"Given that a lot of Australian borrowers are going to market, if investors want to have more extensive access to Australian credit, then this is a market that Asian investors can also focus on," Greene said.

Twenty years ago, only US investors were coming to the USPP market, said Geoffrey Schmidt, General Manager, Corporate Finance North America. The democratisation of market intelligence has also helped to eliminate the information asymmetry that previously handed a disproportionate advantage to a few investors, he noted.

"We were traditionally borrowing in the bank market in Australia. The USPP market is exactly the same, essentially the same covenants as we get with our banks in Australia," noted Matt Brassington, CEO of Melbourne-based Aquasure, which has taken the USPP route three times since 2016.

The USPP market has also become a go-to destination for borrowers looking to raise long-term finance, Brassington said. Aquasure has issued bonds with a tenor as high as 15 years in the USPP market. "Every time, there's been deep pools of capital available. We know if we want tenor, that's where we're going to get it."

ESG FACTORS BECOMING THE NORM FOR SUPER FUNDS

NAB surveyed Australian super funds to find out how they are applying ESG strategies in their investment decisions.

BY SKYE MASTERS AND LEANNE BLOCH-JORGENSEN

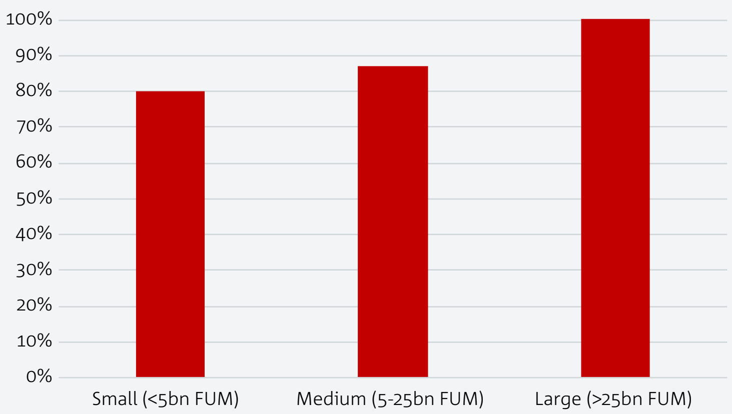
ENVIRONMENTAL, SOCIAL AND governance ("ESG") considerations are fast becoming incorporated into mainstream practice across all sectors of business. For Australia's superannuation funds, this manifests in the governance and practices of the corporate entity itself as well as the policies and practices that govern their investment portfolios, including investments that can be classified as "responsible investing".

Globally, the focus on ESG and responsible investing has moved to the forefront driven by several factors including customer expectations, fiduciary obligations as well as regulatory guidance on matters such as climate change risk. More broadly, there is an increasing awareness of the social and environmental impact of a company's activities, with the weight of investor money behind this shift. We are witnessing this trend in Australia, with the responsible investment market growing by 13% during 2018 to A$980 billion, representing 44% of totally professional managed assets under management which total A$2.24 trillion[1].

In response to the increased focus on ESG and responsible investing by Australia's superannuation funds, including in fixed income markets, NAB extended its Biennial Superannuation FX Hedging Survey to include questions on these themes. We received responses from 30 funds, representing about A$820 billion of assets under management, spanning the industry, corporate, government and retail sectors.

Overwhelmingly, the survey found that 90% of respondents have a policy to consider ESG factors in their investment decisions, with the most common strategy beyond ESG integration being the application of a negative screen, particularly for tobacco, cluster munitions, landmines and weapons. Interestingly, few funds cited a negative screen for fossil fuel investments. While respondents generally called for stronger ESG integration across the board, only one respondent articulated the connection to the opportunity of assessing ESG risk as a way of enhancing returns.

Proportion of funds that consider ESG factors in their investment decisions



Source: NAB biennial Superfund survey

Consideration of ESG and asset classes

Respondents were asked whether they consider ESG factors in their investment decisions, and if so, are these factors applied to specific asset classes.

All of the larger funds, that is, those with more than A$25bn funds under management, confirmed having an ESG overlay to their investment decisions. In addition, all of the industry funds surveyed confirmed having an ESG policy and all asset classes were included. However, some industry fund respondents indicated that ESG was most active for equities. One of the retail funds commented that rather than having an ESG policy in place for all investments, consideration of ESG factors is dependent on whether this is required by their client. Overall, while a small number of respondents advised they did not have an ESG policy, the survey results are consistent with broader investment trends suggesting the incorporation of ESG has become mainstream.

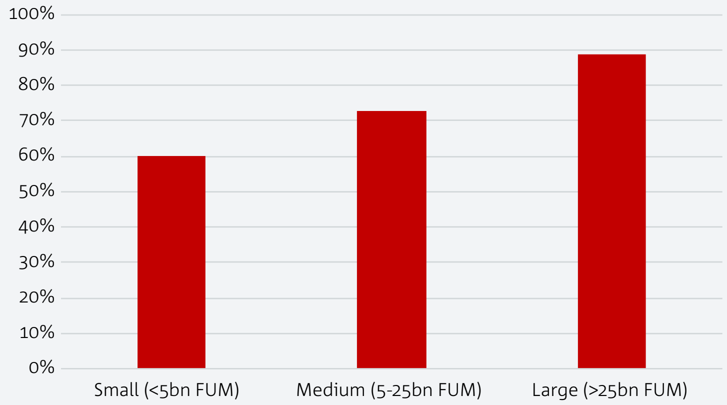
Practical application of ESG strategies

Respondents were asked how their ESG strategies were applied including negative and positive screening, direct investment in ESG products or whether other alternative strategies were applied. Unsurprisingly, 76% (totalling A$710bn FUM) confirmed applying a negative screen. Of the negative screens, tobacco, cluster munitions, landmines and weapons were the most commonly cited. A small number of industry funds cited fossil fuels and climate change, however, no other fund type reported a negative screen of this nature.

The Responsible Investment Association Australasia (RIAA) 2018 report reflects similar findings with controversial weapons and tobacco being the most prevalent execlusionary screens among Australian institutional investors, each being reported by 96% of survey respondents. However, RIAA's results differ on fossil fuels and climate change with 79% of their survey respondents reporting a negative screen of this nature. Consumer expectations tell a different story again, with RIAA's consumer data finding that consumers were most keen for their funds to screen out fossil fuels followed by investments that violate human rights[2].

Whilst only one respondent confirmed using a positive screen, that is, it actively invests in companies or industries with better ESG performance, 30% of funds (totalling A$368 billion) confirmed direct investment in ESG related products. Of these responses, the most commonly cited investments across all funds types were centred on natural resources including water and timber. One industry fund reported investing in social housing. In addition, 50% of the industry funds surveyed reported active ownership and engagement as a method of applying their ESG strategies.

Proportion of funds that apply a negative screen in their investment decisions



Source: NAB biennial Superfund survey

Future impact and responsible investment

In an ideal world, what would funds like to be able to access in the future? Respondents were asked what products or asset classes with an impact or responsible investment theme would they like to see available, which aren't easily accessed today. This could include impact and sustainable themed funds or indices, bonds, direct investments in projects or companies, as well as other alternative investments.

Funds responded with a wide array of comments, however, a few themes emerged across all fund types. Most prevalent was the call for stronger ESG integration across the board, with room for improvement across all asset classes. Areas of opportunity include private and unlisted markets, infrastructure assets and emerging markets

Some respondents expressed their desire for greater transparency and consistency of sustainable investment guidance and frameworks.

In recognition of the growing number of funds screening their investments for ESG factors, NAB Research is linking with MSCI research to include MSCI's ESG ratings alongside the Credit Ratings for the bonds listed in our corporate rate sheet.

All of the larger funds confirmed having an ESG overlay to their investment decisions.

Read the full results of the NAB Biennial Superannuation FX Hedging Survey, including the ESG component, click here.

1. Responsible Investment Benchmark Report 2019 Australia. Responsible Investment Association Australasia (RIAA).
2. Responsible Investment Benchmark Report 2019 Australia. Responsible Investment Association Australasia (RIAA).

SUPER TRUSTEES FACE CHALLENGES IN ASSESSING MERGER PARTNERS

In a rapidly consolidating sector, trustees must consider many factors as they eye potential tie-ups.

BY PETER HELE AND SCOTT CONNORS

Third-party service providers are well placed to offer insight and perspective to RSEs who are considering their future state.

THE LANDSCAPE OF the Australian superannuation industry is changing rapidly with fund consolidation a constant theme in recent years. The introduction of capital gains tax rollover relief and the release of several major governmental and regulatory reports over the past 12 months will surely serve to motivate further merger activity in the coming months and years, as funds look to increase scale and efficiencies and manage increasing regulatory obligations.

Regulatory authorities and political parties have been consistent in recommending that industry consolidation is the correct way forward in order to eliminate underperforming funds and reduce the total fees incurred on superannuation balances, ensuring that all Australians have the potential to maximise their retirement benefits.

Third party provider synergies

One important consideration for funds considering suitable merger partners is the potential for cost savings and the smoothing of transition complexity – which can be realised by merging with another fund (or funds) who are already using the same third-party service providers, such as custodians, asset consultants, health insurers and investment managers.

By seeking alignment in these servicing arrangements, the additional FUM scale which results from a successful merger can present an opportunity to renegotiate to more favourable contractual terms with those providers, while any fixed costs are spread across a larger pool of accounts, resulting in direct financial benefit to fund members. Additional value is realised by ensuring that various service outputs, such as the depth and quality of data, consistency in reporting formats; and application of policy standards (including accounting and tax treatment) are already being consistently applied across the merging funds. This removes the need to account for rationalisation of divergences in those areas when undertaking planning for the merger transition project.

The merging of superannuation funds is generally a very complicated process, and it would obviously be desirable for all parties involved if complexity can be limited wherever possible. The presence of existing third-party provider synergies is undoubtedly beneficial, and is a key consideration for an RSE when conducting due diligence on potential merger partners.

What role can third party providers play in supporting merger activity?

Given the intimate knowledge of the structure and investment activities of superannuation funds, and the expertise gained from being a party to previous fund mergers, third-party service providers are well placed to offer insight and perspective to RSEs who are considering their future state.

NAB believes that there is a significant role to play in the consolidation activity of our superannuation clients in the coming years. At the very least, input will be crucial in contributing to transition planning and execution. In our view, the role of the custodian does not need to be limited to a late stage in the merger process.

Custodians have significant expertise in superannuation structures, asset allocation strategies, and in addition have daily interaction with multiple member registry systems and providers. In some cases, the geographical location of two merging funds can be

supported more broadly by a third-party provider who can extend their offering to provide facilities on the ground in various states around Australia to help reduce costs.

Merger assessment and risk mitigation

- Indirect costs must be a key consideration. A merger partner may have competitive direct costs for funds management and custody fees, but significantly higher indirect costs for foreign exchange execution, tax efficiency and interest rate leakage. Fund members could be at a distinct disadvantage under a merged entity with a lack of operational efficiencies.
- Contractual terms are usually the last consideration but should be the first. Liens on assets, indemnities and liabilities are not always more favourable in large funds. Your members may be exposed to higher risk, which may have been the trade-off for lower fees in previous negotiations.
- A complicated registry transition could result in poor engagement, lost contributions and lost members. Effective planning, communication and a project staffed with industry experts is the only way to execute a successful registry transition.
- How is your merger partner positioned for upcoming regulatory change? Is their traditional fund-of-funds structure able to cope with pension and accumulation phases? Will your members be disadvantaged by an unfavourable structure that may on the surface appear effective and low cost?
- Advisor support may be critical, especially for high end balance members. How will your members be looked after in the combined entity – there may be an established relationship which is hard to break? Retention of key talent on the front line will play a big role in retaining members.

The choice of the right merger partner and effective execution of the transition in the best interest of members is probably the single biggest event a Trustee will be responsible for in their tenure. Making a decision taking into current and future events is challenging. It will be an interesting road ahead for the industry; on one hand the growing assets pools sends a strong signal of growth, while on the other hand we are seeing a significant decrease in supplier contracts due to consolidating opportunities.

Recent and proposed merger activity in the super sector

Merger partners		Merged FUM	Merged membership
VicSuper	First State	$120 billion*	1.1m+
Tasplan	MTAA	$22 billion*	328,000
Hostplus	Club Super	$45 billion*	1m+
Equip Super	Catholic	$26 billion	150,000
SunSuper	AustSafe	$58 billion	1.4m+

*Proposed merger
Source: Super fund web sites

MORTGAGE LENDERS PRIMED FOR GROWTH

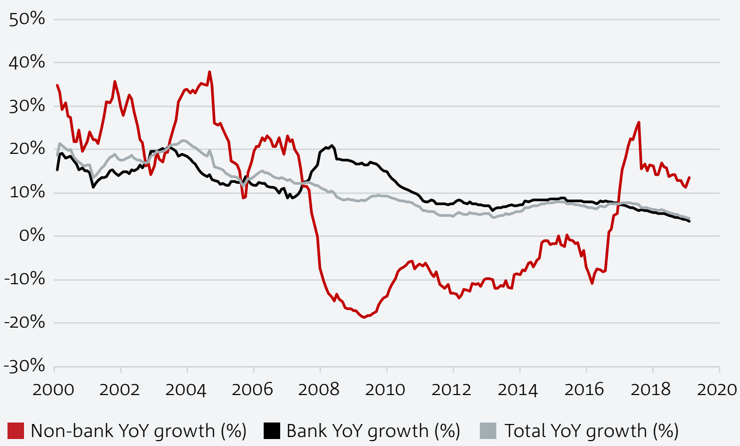
National Australia Bank hosted a Global Round Table with Treasury representatives from four non-bank financial institutions and one UK based asset manager to share their insights on the opportunities and challenges in their respective mortgage and securitisation sectors.

BY SARAH SAMSON AND JACQUELINE FOX

THE GROWTH OF the non-bank mortgage sector in recent years shows no signs of slowing and lenders have a range of strategies in place to capitalise on new opportunities, the NAB hosted Round Table was told.

As well as lending to traditional prime borrowers, non-bank mortgage providers specialise in financing borrowers who may not meet the banks' standard lending criteria. Regulatory change, consumer sentiment, technology, and new product offerings have all contributed to growth in recent years.

Australian bank and non-bank housing loan growth



Source: RBA

"We're able to operate with a different balance sheet and capital basis, and that affords long term structural opportunities for the non-bank sector in the Aussie market," said Andrew Marsden, General Manager Treasury at Resimac Group.

Tighter capital requirements were introduced in 2015 that required the major Australian banks to tighten lending standards and hold higher levels of capital against future economic downturns.

Borrowers with more complex loans moved to non-bank (also known as Specialist) lenders which can assess and manually underwrite those loans. Examples include self-employed workers whose income may be "lumpy" or salaried workers with varying amounts of overtime who do not fit traditional lending criteria.

"That in our view is going to represent a permanent structural shift in the Australian mortgage market. Banks are going to be more restricted to those mum and dad loans and an automated underwriting model, and speciality loans will be funded by alternate lenders," said Chris Andrews, Chief Investment Officer at La Trobe Financial.

"With banks changing their appetite, we as an alternative lender have benefited."

— **Peter Riedel, Liberty Financial**

To read the Round Table, Non-banks and Securitisation in full, click here.

Non-standard mortgages

Peter Riedel, Chief Financial Officer at Liberty Financial, said he expects to see a material change in how a non-standardised mortgage is defined. Whereas today, much of the decision is around whether the customer is insurable, looking ahead that will be more to do with the purpose of the loan and the nature of the asset.

"With banks changing their appetite, we as an alternative lender have benefited and we feel that's likely to persist for some time," Mr Riedel said.

The major banks dominate the A$360 billion a year market for housing credit, but the share of non-bank mortgage providers is growing and estimated to be up to A$75 billion for prime, specialist and nonconforming borrowers.[1]

In the UK, the structure of the mortgage market is quite different. Specialist bank lenders cater to non-traditional loans and make up around 10-15 per cent of the market and the true non-bank players are smaller again, but have used technology and innovative product design to grow rapidly.

"We've been growing at 25 per cent a year since we were formed (in 2015), but we do think that's tailing off," said Alex Maddox, Capital Markets Director at Kensington Group.

"There are a number of headwinds, there's more competition in the market, the High Street lenders are under pressure to grow volumes, and they are all awash with cash."

Funding options

To ensure they are able to capitalise on opportunities, Australian non-bank financial institutions have employed a range of funding options to support growth. They are frequent issuers of prime and specialist residential mortgage-backed securities (RMBS) in the securitisation market, with issuance to 30 September 2019 of A$23.98 billion equivalent and up A$4.1bn/20.5% from last year's A$19.91bn - the second highest issuance level as at 3Q-end sine the 2008 Global Financial Crisis (highest was the A$24.57 billion that had been issued as at 3Q17).

La Trobe Financial stands apart from its peers in that it runs a retail credit fund of nearly A$3.5 billion, which provides 45 per cent of its funding requirements.

Most of the other Australian non-banks see funding capacity and capital as the ultimate constraint on growth of their assets under management. "We can only originate an asset we can eventually securitise. That's an important principle to call out," said Resimac's Mr Marsden.

Offshore investors have a keen appetite for Australian RMBS and good understanding of the domestic market, helping lenders diversify their investor base. The large Australian issuers have all attracted a diverse set of investors in the European, Australian and Asian markets.

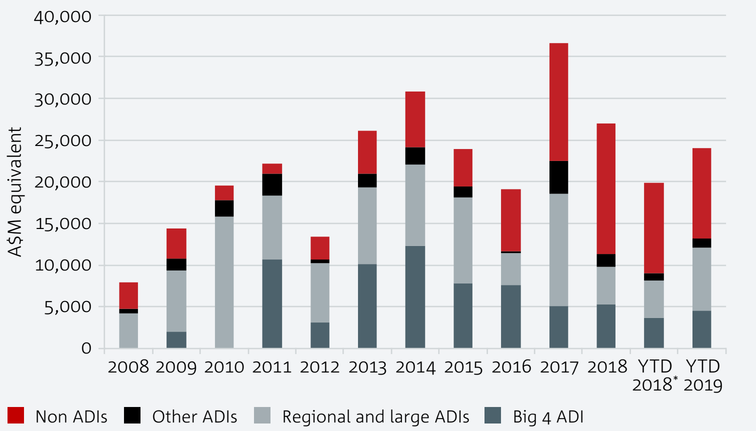
Resimac aims to raise half of its funding through non-domestic sources and similarly, Liberty has frequently tapped the euro market as part of public mixed RMBS transactions and has attracted a 50-50 split between domestic and offshore investors.

However, all of the Australian participants at the NAB Round Table lamented the structural bias in the Australian investment landscape that has traditionally seen limited interest in bond and fixed income assets.

"In Australia there is unfortunately a very low allocation by asset managers to fixed income relative to other global markets," said Liberty's Mr Riedel. "We need to be alive to this market structure when considering how to establish and manage a funding strategy."

1. https://www.apra.gov.au/media-centre/media-releases/apra-releases-statistics-adi-property-exposures-december-2018

Australian Collateral Backed RMBS Issuance



*YTD to 30 September.
Source: NAB, Bloomberg

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