

2018 Real Estate Outlook

The Australian Perspective

February 2018

Executive summary

Things look positive in 2018 for the real estate and construction industries. Although the uncertainty of previous years has not entirely gone – and some markets won't be as buoyant as they have been – on the whole the road ahead looks more settled and business like. It will however be a very busy year on the implementation front.

Multiple variables that impact the sector are beginning to settle, and as the complex ecosystem of third parties as well as regulatory requirements expands, there continues to be new frontiers and structural changes to manage.

In the following pages of this Outlook, we discuss these frontiers and changes, and look forward to discussing how the trends we outline apply to your business.



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Contents



Market and investment

Macroeconomic backdrop	03
Outlook investment trends	07
A-REITS – Reflection on value	11
Development in Western Sydney	14



Technology

Why should companies focus on real estate fintech startups?	18
Cyber in real estate	21
Embrace robotics and cognitive automation	23
Digital finance – The new superhero	26



People

Reimagine talent and culture	30
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The last word

Scenario – What if?	37
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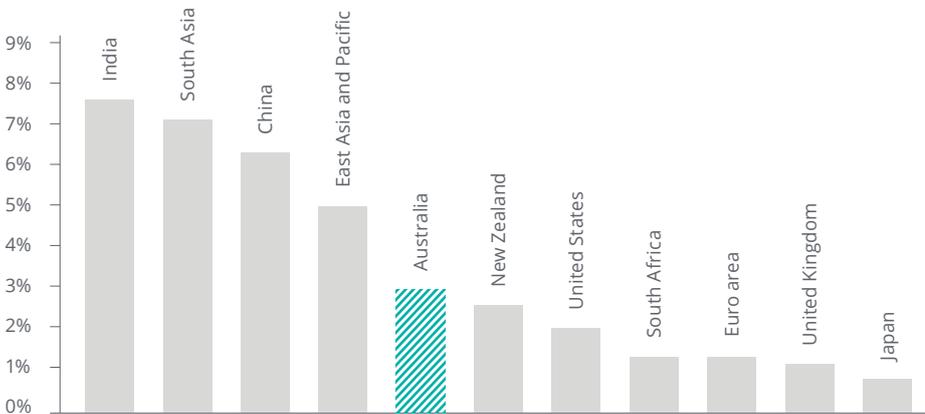
Macroeconomic backdrop

Australia has chalked up its 26th consecutive year of economic growth, and the clouds around Australia's economy are clearing. Commodity prices have firmed up and the slowdown in mining investment growth is now mostly in the rear view mirror. Mine approvals came to a halt a while ago, but it wasn't until 2017 that the already approved projects were completed.

The good news for Australia is that global economic growth has picked up during 2017, much of that driven by Asian economies, and in recent months that has translated into much stronger employment growth in Australia. That growth should also lift demand for capital, boosting the outlook for business investment.

Australia remains at the upper end of developed economies for projected growth, supported by population growth and linkages to Asia, but constrained by high household debt.

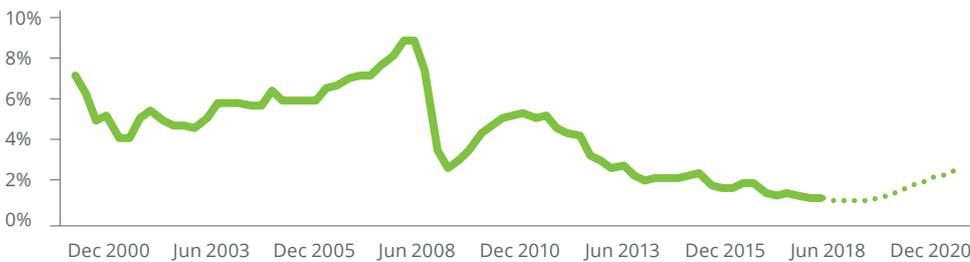
Chart 1 - Expected GDP growth of major economies, average annual growth across 2017 and 2018 (forecast)



But global growth is yet to translate to inflation. While there are encouraging signs of global inflation emerging, the outlook is for official Australian interest rates to stay near record lows until late in 2018 or early in 2019, a blessing for real estate markets, especially so in NSW and Victoria and the ACT.

While the general consensus is that the next move for Australian rates will be up, we expect no upward movements in Australian interest rates until late in 2018 or early in 2019.

Chart 2 - Australian interest rates, 90 day bank bill



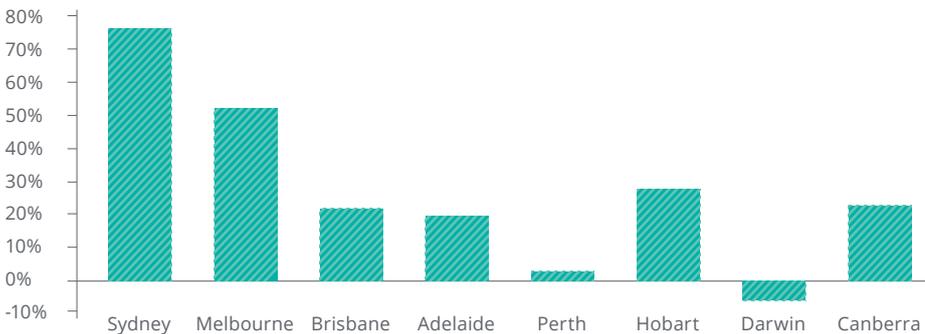
Having said that, **the Royal Commission into the banking industry** may raise the effective cost of borrowing as banks are likely to respond by continuing to limit lending to risky initiatives, including some property development and foreign borrowers.

Outlook for the residential segment

The current residential property upswing has seen strong price inflation, up around 47% across capital cities since December 2012 (around the beginning of the current upswing nationally). Chart 3 shows that price growth has been uneven across the states, pulled along by the Sydney and Melbourne markets.

Household debt has escalated with house prices – Australia’s household debt to income ratio is now the second highest in the world, behind only Switzerland.

Chart 3 – Change in nominal house values, Dec 2011 – Sept 2017 (per cent)



Source: ABS Cat.6416

In 2017, house prices fell in Perth and Darwin, linked to population movements and employment opportunities. Slower price growth in the Brisbane market also likely reflects low employment growth as well as the risks of oversupply in the apartment segment, but this may have bottomed out now.

Household debt has escalated with house prices – Australia’s household debt to income ratio is now the second highest in the world, behind only the Swiss. And while growth in debt has been most pronounced for higher income households, higher debt adds to the economy’s vulnerability in the face of a shock, and could also lead to lower future growth (IMF 2017).¹

Chart 4 – Housing debt to income



Source: Reserve Bank of Australia

Regulators aiming to restrain increasing property debt amid concerns of an overheating market have targeted investor lending. Tighter lending standards and restrictions on the

volume of ‘interest only’ loans to total new residential mortgages, have pushed up rates for investors. Market activity has begun cooling with house price growth slowing in the latter half of 2017.

1. IMF, 2017, Global Financial Stability Report, October.

Despite the vulnerabilities, the residential market generally continues to be buoyed by other fundamentals. Underlying demand remains solid with strong (albeit uneven) population growth expected to continue into 2020, and jobs growth has been strong, especially in Victoria.

Chart 5: Average population growth, past five years and across 2017-18 and 2018-19



And the outlook for construction activity in the near term varies across the states:

- For both NSW and Victoria, growth in housing construction has slowed from its peaks but remains at high levels and is underpinned by strong underlying demand. In Victoria, population growth is containing risks of oversupply.
- Housing construction fell in QLD over 2017, having reached its peak in mid-2016. Despite population growth edging higher, housing construction is likely to remain relatively flat in the near term. Similarly for SA, the housing construction outlook is also relatively flat, because while approvals have picked up in late 2017, population growth projections remain weak.
- WA's housing construction has seen a large downturn in recent years (including a large fall in 2017), but looks to be stabilising, with building approvals and loan approvals steady.

Taken together with the outlook for interest rates, slowing house price growth (moderating the prospect of further capital gains), restrictions on lending (such as on interest only loans and loans to investors, as well as lending to foreign investors); we expect the current upswing to peter out and enter a period of moderation rather than an abrupt adjustment.

Outlook for the commercial segment

Demand for new office space is largely determined by white-collar employment growth. The standout performers in 2017 were the Melbourne and Sydney CBD markets. Melbourne has seen particularly strong growth, while Brisbane is gradually catching up to its east coast competitors after an extended period of weakness. Overall office vacancy rates have continued to fall, due to positive net demand in CBD markets and withdrawals in non-CBD markets.

The outlook for white collar employment over the next few years is a positive news story – job growth is increasingly being driven by service-based sectors, with health care by far the front runner, and with professional services and education also expected to generate jobs.

Commercial construction has been a relatively disappointing part of the Australian economic story over the past few years – it was initially hoped that construction could fill some of the hole left by the mining construction ‘cliff’ (after the first phase of the China boom), but it didn’t pan out that way.

That looks set to change in 2018, with commercial construction set to grow over the year. Building approvals have picked up since mid-2016, supported by strength in the office, and education sectors.

In total, there are \$20 billion worth of office projects under construction across Australia in late 2017, the largest of which is the \$6 billion Barangaroo development. There are a further \$8 billion worth of projects yet to kick off.

Likely trends for commercial property over the near term include:

- Constrained supply in the Sydney and Melbourne markets provide a positive outlook for rental growth. The Perth and Brisbane markets have likely bottomed out, with the economic and property outlook improving.

- A shift in focus to rental income growth for value appreciation given cap rates are near historical lows and further tightening potential probably limited.
- Although some firms are now discouraging remote working, in general the trend toward flexible working arrangements is becoming more mainstream and as a result there’s likely to be ongoing consolidation of office space requirements by large space users.

Outlook for the industrial segment

The outlook for industrial space demand is dependent on what is happening across a range of sectors that drive demand for industrial space. Renewed global growth and the easing of inflationary risks (and thus the delay in expected timing of interest rates) has been good news for a number of these sectors, and will likely buoy demand for Australian industrial property.

- It has reduced the risk for wholesalers and retailers that sagging housing prices could pose problems before wage growth improves to provide a rising tide for the sector.
- 2017 has seen reasonable gains in engineering activity in NSW, Victoria and Queensland, as work continues on a number of large infrastructure projects. We expect engineering construction to stop detracting from the economy’s overall growth and become a more neutral contributor in the near term.
- Transport investment continues to go from strength to strength, with more than \$95 billion worth of transport and storage projects underway in the latter half of 2017 and \$140 billion worth of projects in planning. Much of that activity is focused in the nation’s east and south.
- Conditions have improved for manufacturing supported by an increase in public sector infrastructure spending, improved global growth and an Australian dollar that, despite gaining ground in 2017, is still below the peaks of mid-2014. However, higher energy costs are weighing on profitability for manufacturers and could affect investment prospects. That said, \$18 billion worth of manufacturing investment projects are in various stages of planning as at late 2017.

Likely trends for industrial property over the near term include:

- Industrial property is a tightly held market, and there are pockets of supply constraints – strong continued capital growth is expected in the near term, buoyed by the national infrastructure rollout.
- The trend of urban regeneration seen in recent years, with industrial land converted to mixed use for residential purposes, is expected to continue. This is especially true of Melbourne and Sydney where jobs growth is expected to be concentrated in the CBD.
- Further growth in foreign investor participation in the market is expected to emerge as market sophistication and maturity evolves.
- Yields will eventually be pressured by a rising global and local cost of capital, but that doesn't loom as a major risk for 2018. Yields may remain relatively stable in the coming calendar year, with some opportunity for further compression in select markets.

Outlook for the retail segment

Retail spending is becoming more uniform across the states as retail spending growth slows in the previously robust eastern states (Deloitte Access Economics' Retail Forecasts, December 2017). While the resource states are still facing challenges, particularly in Western Australia and the Northern Territory, Queensland is less pressured. Annual retail spending growth in New South Wales and Victoria has slowed significantly in the latter half of 2017, towards the more modest growth seen in the slower population growth jurisdictions of South Australia and Tasmania. The ACT is also witnessing a significant retail slowdown after a strong period.

Kristian Kolding leads the Deloitte Access Economic macroeconomic forecasting and policy team in Sydney. Kristian is co-author of Deloitte's flagship series, *Building the Lucky Country*, that consider future profitability models for the nation. Working closely with Deloitte Access Economics, Chris Richardson, Kristian also forecasts the effect of policy changes on the economy.

Anthony Moeller leads the real estate advisory area of the Financial Advisory group in Sydney and is a leading provider of strategic property advice to government and the private sector underpinned by his close working relationship with the Deloitte Access Economics team. Anthony has 25 years' experience in a number of leading developers, fund managers and advisory groups.

But forward indicators are suggesting a good basis for spending to lift in 2018, including:

- Strengthening employment outcomes
- An improving outlook for wages growth
- Low cost of borrowing
- Continued (albeit slowing) wealth gains from housing.

The value of building approvals fell slightly in the year to September 2017, ending a run of impressive gains. In terms of project activity, there are more than \$5 billion worth of retail projects under construction, as well as a further \$6 billion in the various planning stages (Deloitte Access Economics' Investment Monitor, December 2017).

Key risks to the sector include the effect of Amazon's recent entry and slowing growth in household wealth. We will get a better idea of the impact of Amazon's entry on bricks and mortar retailers in coming months – and therefore demand for retail floor space. But the results of a recent survey suggests that retailers are not overly alarmed by Amazon's entry to the Australian market (Deloitte's Retailer's Christmas Survey 2017). While a third of respondents believed Amazon would have a negative impact on their business, 40% believed it would benefit them. Continuing a tone of confidence, looking forward to 2018, 51% of respondents expected to grow their earnings by more than 5% next year (down from 2016 expectations, where 60% believed this would be the case).

Despite challenges and disruption in the sector, demand for retail space within the Australian market remains solid, in part due to the number of new large-scale international entrants setting up operations in Australia.

Likely trends for retail property over the near term include:

- High levels of demand for centre space are set to continue in the near term – with growth in food and hospitality uses and smaller footprints for many larger format retailers.
- There may be the potential for further yield compression in the near term, concentrated at the prime/super regional end of the spectrum. This is likely to be driven by the low frequency that these assets are offered to market and weight of capital in the sector.
- The impact of online retailing to continue to test the sector – given the relatively current low rate of penetration in Australia and Amazon opening its doors locally!

Risks

There are risks to the outlook for Australian property: part of today's good news is also bad news. Thanks to renewed stimulus, Chinese construction activity has picked up again. But much of that money is supporting the worst performing State Owned Enterprises (SOEs), thereby increasing China's vulnerability to a sharp adjustment as the economy transitions. That's also true for Australian rates. We've used lower interest rates to ward off risks of recent years, boosting property prices, and household debt along the way.

While the most likely path for the Australian economy doesn't see a triggering of those new risks (China and/or housing), they're both plausible and relevant risks and worthwhile exploring further.

In a later chapter we present our China Stumbles scenario, and step through how scenarios can be used for strategic planning for our model REIT.



Outlook investment trends

Future investment models such as build to rent and capital flows.

Although often used synonymously in the media, it is important to make the distinction between 'build to rent' and 'affordable housing', as build to rent can include a range of product types at different price points, but does not necessarily relate to low-cost/government-subsidised rental housing.

Build to rent

'Build-to-Rent' or 'Multifamily' as it is known in the US, is the terminology used to describe institutional rental accommodation where the whole development is owned and operated by developers or groups of investors.

Despite being relatively new to Australia, the concept of build-to-rent is well established globally; measuring \$A319bn in total, of which \$A106bn is in the United States. For the 11 markets where MSCI measures residential real estate, annualised income returns range from 3.3% (UK) to 5.7% (Canada) over the past 14 years, with the US sitting in the top half of the pack, averaging 5.2%.²

Research suggests similar yields could be achieved in the Australian market, making the sector increasingly attractive to investors as domestic commercial yields continue to compress to comparable levels.

The lower yields on residential build-to-rent by comparison to commercial assets, have generally been offset by a strong capital growth profile and diversification of risk across the property lifecycle.

Residential build to rent has typically become prevalent in markets with falling affordability, higher population growth and constrained supply – all factors which are applicable to the current Australian property climate.

2. Property Council of Australia and MSCI - Australian Property Still Performing Strongly, while Build-to-rent has Proven itself Globally

https://www.propertycouncil.com.au/Web/News/Articles/News_listing/Web/Content/Media_Release/National/2017/Australian_property_still_performing_strongly__build-to-rent_has_proven_itself_globally.aspx

However, domestically there are a number of government policies and taxes which make the build to rent model prohibitive. In the traditional build-to-sell model, GST is recouped at the time the product is sold, whereas this mechanism does not exist for build to rent. Land tax can also be a financial barrier, where the total land value of the development is attributed to one owner, rather than distributed across multiple owners in a strata scheme, and is therefore more likely to exceed the land tax threshold.

That said however, with its demonstrated success overseas, the build-to-rent model is beginning to gain momentum in Australia. This is driven in part by interest from offshore capital sources, which are generally more familiar with the concept.

The popularity of the sector will largely depend on whether commercial yields continue to compress to residential levels and whether build to rent will remain a competitive alternative. With the RBA cash rate remaining at a historic low of 1.5% and Deloitte Access Economics anticipating the cash rate will be on hold until well into 2018, the outlook does look positive.

Capital flows

Foreign capital continues to play a key role in driving Australia's economic growth. The latest Australia Bureau of Statistics data highlights the total level of foreign investment in Australia (including real estate and non-real estate sectors) increased by \$153.3bn (5%) to reach \$3,192.4bn for the year ended 31 December 2016. Overall the United States continues to be the biggest source of foreign investment at \$860.9bn, representing 27% of the total foreign investment market (Chart 1).

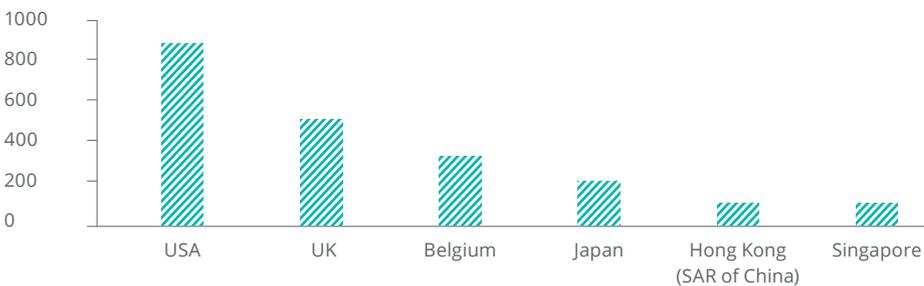
For the third consecutive year China represents the lion's share of foreign real estate approvals, by both value and number. Investment from China represents 26% of the total value of approvals and a growth of 31% since 2014-2015,³ according to the Foreign Investment Review Board (FIRB).

It is important to note that FIRB approvals data does have significant limitations, the most important being that approvals do not represent actual purchases, but rather provide an indication of the planned future investment. As much of the FIRB data is measured by value, significant one-off proposed transactions can distort the figures.

Foreign nationals are not permitted to buy an established residential dwelling in Australia, however they are allowed to purchase off the plan or newly constructed buildings and rent, sell or live in them.

This means that foreign investors are more active in certain sectors of the residential property market, for instance large scale apartment developments, which are concentrated predominately in inner Melbourne and Sydney and to a lesser extent, Brisbane.

Chart 1 – The billion dollar levels, by leading countries, of the total foreign investment in Australia for year end 31 December 2016



Source: ABS

According to the ABS, the leading investor countries for the year ended 31 December 2016 were:

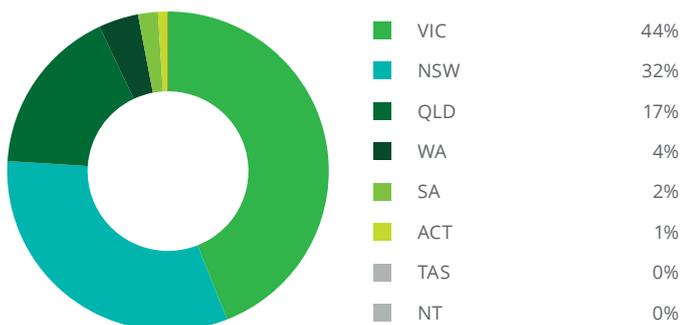
- United States of America \$860.9b (27%)
- United Kingdom \$515.5b (16%)
- Belgium \$270.1b (9%)
- Japan \$213.5b (7%)
- Hong Kong (SAR of China) \$100.9b (3%)
- Singapore \$98.9b (3%).

3. FIRB Annual Report 2015-2016 (for the year ending June 2016)

Victoria has the market share of foreign investment at a state level, representing 44% of the total number of foreign investment real estate approvals (Chart 2).

The FIRB's report notes that three-quarters of all residential real estate approvals were for purchases in Victoria and New South Wales. This is consistent with recent years and reflects strong demand for residential property in Sydney and Melbourne.

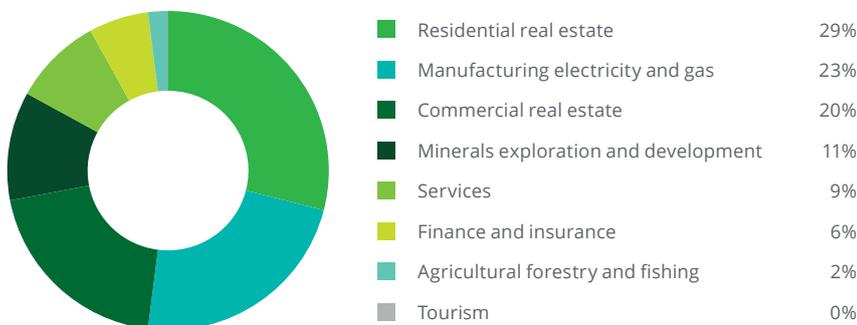
Chart 2 - Number of approvals by state and territory



Source: FIRB

The residential real estate sector represented the largest share of foreign investment value (29%) for the financial year ending June 2016, according to FIRB data (Chart 3)

Chart 3 - Share of total approvals by industry sector in 2015-16, by value



Note: Totals may not add due to rounding, Corporate reorganisations are excluded (99 in 2015-16)

Source: FIRB

Chart 4 - There has been a dramatic reduction in competition of active real estate debt lenders since the Global Financial Crisis:

Active lenders	Major banks	Regional banks	Mortgage funds	CMBS	Private/family office	Total
2008	4	12	60	4	4	84
2016	4	4	6	1	10	25

However Australia's mature and comparatively stable financial markets and well-regulated land title system does appeal to foreign investors. Similar markets such as New Zealand and Canada have likewise become havens for global capital in recent years, particularly for Chinese investors.

The regulatory environment, lack of political and economic freedom and conditions in the Chinese economy, make foreign markets particularly attractive to Chinese investors. In 2016, the Chinese currency depreciated nearly 5% against the US dollar, while appreciating against the Australian dollar by nearly 12%. The impact of such currency

Australia's appeal

Australia's supportive macro-economic environment and robust real estate fundamentals are attractive to foreign investors chasing yield and the opportunity to fill a local credit market gap.

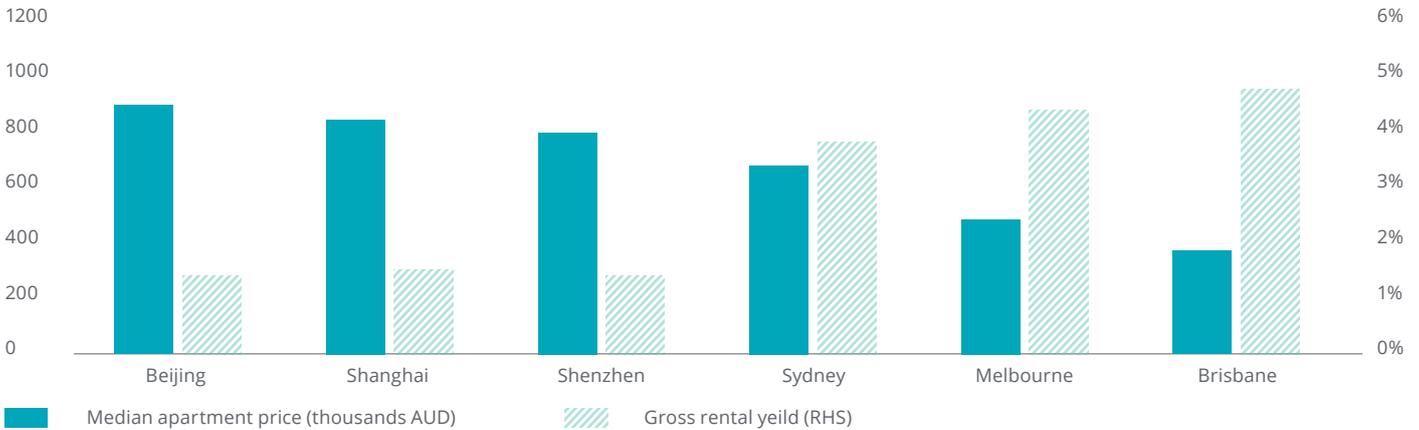
Banks dominate the Australian real estate development debt market. However, they are actively reducing their exposure (\$216bn) to commercial real estate lending, leaving many developers struggling to obtain alternative funding.

The banks represent more than 90% of the market, mortgage funds are minimal and private debt is inadequate, creating a significant dislocation in the real estate debt market. This gap in the market and lack of competition presents an immediate opportunity for a large pool of capital to capture the growing level of demand for development debt.

Provided the underlying asset class is sound, then the current lending environment is providing abnormally high returns, particularly in a low interest rate environment. The window of opportunity for these returns is anticipated to be 24-36 months, before more normalised capital flows return to the sector.

The most dramatic change in active debt lenders is the mortgage fund sector. The GFC saw the demise for mortgage funds in Australia, which effectively became the 'shadow banking' sector of the debt market. At its peak the mortgage fund sector had FUM of \$18 billion. Today the mortgage trust sector is estimated to have FUM \$2 billion.

movements results in Chinese investors reconsidering what and where they can afford to purchase, with the Australian real estate market looking increasingly attractive. Australia's gross rental yields of 4-5% in major cities are twice that of China's major cities (Chart 5).

Chart 5 – Median apartment prices and gross yields – December 2016

Source: Bloomberg, ABS, CASS, Centaline, Domain, Credit Suisse

In China urban land is state owned with a 70 year lease to housing owners. In contrast Australian real estate is mainly freehold. Rural land in China is owned by village collectives with limited competition and as a result low price growth. China also has a 30% deposit requirement on residential real estate purchases (which goes up even further for buyers looking to purchase a second property), compared to 10% in Australia.⁴

Housing acquisitions in Australia by Chinese investors are typically below the US\$5 million limit and therefore the restrictions on capital outflows introduced by the Chinese government may not have a large impact for Australia.⁵

The most dramatic change in active debt lenders is the mortgage fund sector. The GFC saw the demise for mortgage funds in Australia, which effectively became the 'shadow banking' sector of the debt market.

Stephen Hynes, Deloitte Financial Advisory Partner, has more than 20 years' experience in real estate, development, funds management and property finance. Stephen has also held a variety of senior roles within Lend Lease and Macquarie Bank.

4. Deloitte Access Economics - Juwai.com, 8 May 2017. Here's why domestic restrictions are driving Chinese buyers abroad. Available at: <https://list.juwai.com/news/2017/05/heres-why-domestic-restrictions-are-driving-chinese-buyers-abroad>

5. Deloitte Access Economics - Altmann, E. & Yang, Z., 2 May 2017. Why Chinese investors find Australian real estate so alluring. Australian Broadcasting Corporation (ABC). Available at: <http://www.abc.net.au/news/2017-05-02/why-chinese-investors-find-australian-real-estate-so-alluring/8489686>

A-REITs – Reflections on value

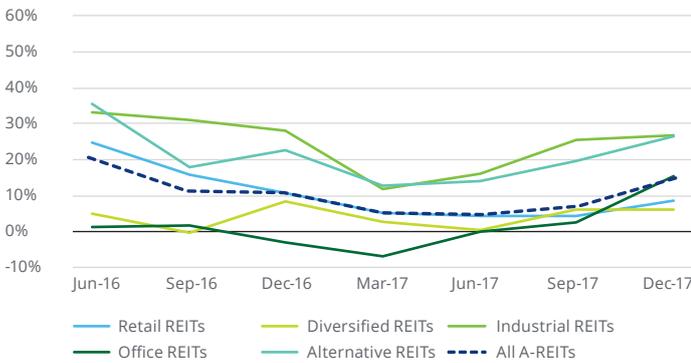
A-REITs are one of the most public faces of real estate in Australia, given the high level of corporatisation of the sector. Below we consider some of the trends in the current market and recent movements.

In Australia, listed A-REITs can be classified into a number of subsectors: Retail (45% of market capitalisation of all A-REITs), Office (12%), Industrial (12%), Diversified (27%) and Alternatives (4%). When considering the asset composition of Diversified REITs, they are largely weighted to the Office and Retail subsectors.

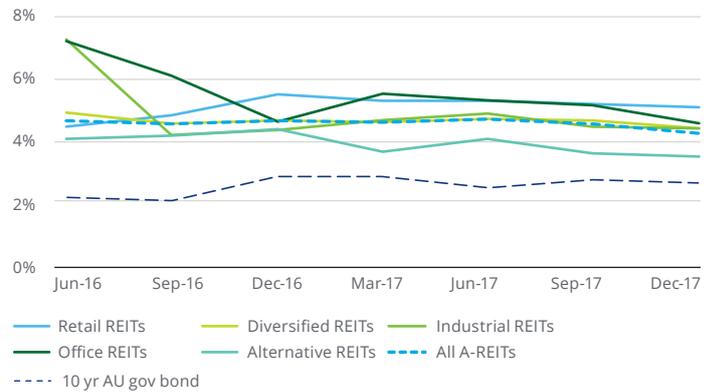
The market's perception of the cost of risk has lowered

The figure below shows the trading premiums to NTA and the dividend yields at which the A-REIT subsectors traded through 2016 and 2017:

Premium to NTA - median



Dividend yield - median



Notes: Diversified REITs are largely exposed to Retail and Office, with some exposure to Industrial and Residential. Consequently, its performance is not dissimilar to the specialised Retail and Office A-REITs.

Source: CapitalIQ, Company annual reports, Deloitte analysis,

While all A-REIT subsectors have generally traded at a premium to NTA since June 2016, performance across subsectors has been mixed and the investment themes have also been different. Despite this, the cost of risk has lowered with property valuations reducing the gap to market capitalisation and the yield differential to government bonds reducing by 90 basis points (2.5% to 1.6%).

The property valuers continue to play catch-up

Over the period, the overall median premium to NTA reduced from 21% at June 2016 to 5% at June 2017. This was primarily driven by NTA growth resulting from a broad based reduction in capitalisation rates in underlying property valuations.

This decline in capitalisation rates was largely influenced by investor (local and foreign) demand for investments with a secure income yield, underpinned by a view that interest rates that are likely to be lower for longer. At the same time, the market capitalisation was weighed down by an increase in government bond yields (circa 80 basis points) during the first half of FY17 and headwinds in the retail sector as noted below.

Since June 2017, NTA premiums have started to rise again driven by an increase in the market capitalisation, reflecting a view, in our opinion, that there will be further, albeit small, reductions in capitalisation rates applied in the underlying valuations.

Retail's Amazon moment finally arrived

Over the second half of 2016 and first half of 2017, the retail subsector experienced an increase in valuations as capitalisation rates decreased given the wide gap that had formed relative to other more secure property asset classes such as office. Consequently, the median NTA premium for retail declined over FY17 from 26% to 4%.

In the second half of 2017 there were concerns over the impending arrival of Amazon and the pressure on consumer spending driven by low wage growth, higher cost of living and slower house price growth.

Despite this, retail malls that were able to offer an improved shopping experience and diversity of tenant mix have been able to partially mitigate the impact from online. The recent proposed takeover of Westfield by Unibail-Rodamco is testament to the global capital markets' confidence in the continued relevance of quality malls and an acceleration of the consolidation that is occurring as a response to the online shift and impact on consumer expectations.

Office is already low and now waiting for uplifts on developments

For office, NTA increased by 19% between June 2016 and June 2017 driven by lower capitalisation rates and strong fundamentals. Strong economic fundamentals and infrastructure investment, particularly in east coast metropolitan cities such as Sydney, combined with a withdrawal of older stock has resulted in below average vacancy rates for prime space and upward pressure on rents and increased earnings for office A-REITs.

Development activity among the large players is strong but the uplift in office property values hasn't necessarily flowed through to the value of development assets and this has resulted in premiums to replacement cost being at historical highs, particularly in Sydney. Such arbitrage provides scope for a rerating of businesses with strong development pipelines.

Industrial's Amazon moment has also arrived

The significant NTA premium for Industrial A-REITs reflects a number of factors including the structural demand for quality industrial sites in order to achieve supply chain efficiencies in the shift to e-commerce, high portfolio occupancy rates, and a recognition of the security of tenure of tenants. Goodman Group continues to receive due recognition for the successful business and platform it has built and is an outperformer in this subsector and against A-REITs in general.

Alternative A-REITs are being priced for lower interest rates

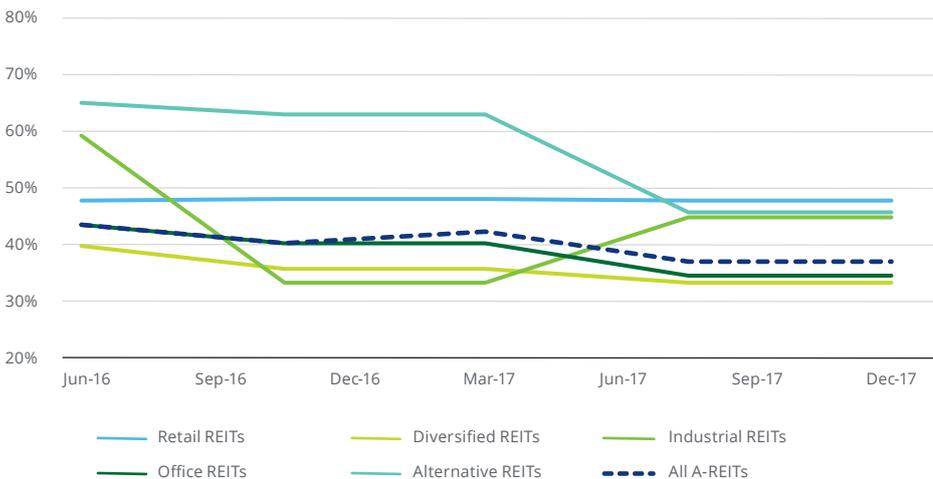
Alternative A-REITs are invested across a range of property types such as storage, rural, education, pubs, retirement, international residential, hotels and social. These alternative property assets are generally smaller, more 'operational' in nature, have exposure to the same risks as their tenants and tend to have a more concentrated tenant mix, implying greater risk with valuations typically based on higher capitalisation rates.

These A-REITs have traded at higher NTA premiums relative to the traditional subsectors as investors pursue yield particularly in the current low interest rate environment. With the increase in premiums over the second half of 2017, and subject to confidence in future improvements in earnings, we expect to see reductions in capitalisation rates and discount rates, especially for assets with exposure to food, ageing, health and capital city hotels.

A-REITs continue to play it safe on debt funding and are being rewarded

The figure below shows the gearing levels (net debt to book equity) of the various A-REIT subsectors through 2016 and 2017.

Net debt to book equity – median



Source: CapitalIQ, Company annual reports, Deloitte analysis

Gearing has been relatively stable across the sector for some time, with the sector substantially recapitalising balance sheets post GFC. Median gearing on a net debt to book equity basis has reduced slightly to below 40% over FY17.

However, in our opinion, A-REITs with lower gearing tend to trade at higher premiums to NTA as there is more scope to optimise equity returns via the increased use of debt.

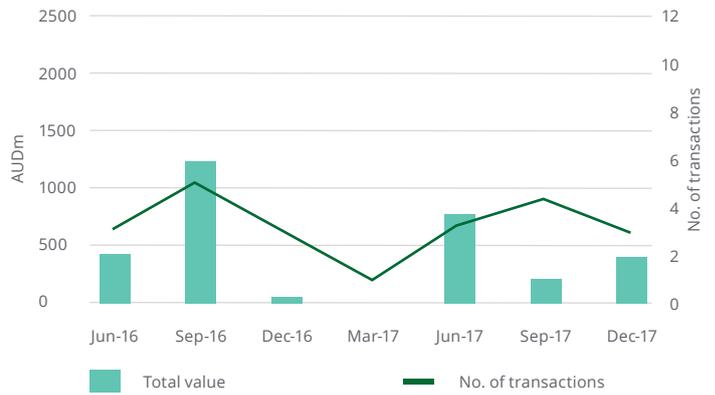
Transaction activity

The graphs show the capital raisings and M&A transaction activity in the listed A-REIT sector since the June 2016 quarter.

A-REIT – Capital raisings by quarter



A-REIT – M&A activity by quarter



Source: CapitalIQ, Deloitte analysis,

Since the June 2016 quarter, A-REIT capital raising activity has largely occurred in the retail sector with the \$1 billion IPO of Viva Energy in August 2016 and circa \$650 million capital raisings each by Vicinity, Westfield and Scentre. The investment theme spilled over to industrial, with a \$1.1 billion raising by Goodman Group in September 2017 and the \$500 million IPO of Propertylink in August 2016.

While M&A activity in the sector has been more subdued, the median NTA premium of deals since the June 2016 quarter was 15%, with notable transactions relating to the

Ribbon Darling Harbour Project (\$700 million, September 2016) and Generation Healthcare (\$670 million, June 2017).

Outlook

On the back of strong performance in 2016 and early 2017, we expect to see continued strong performance by A-REITs. However, this will be driven by earnings increases and consolidation among certain players, which is likely to be offset by the long awaited increase in interest rates towards the end of 2018.

Earnings increases will highlight the high quality management teams and platforms in place, but in particular, are expected to be driven by factors such as developments, operational efficiencies and optimisation (through the increased adoption of technology). The subsectors to watch will be the diversified, retail and industrials over the short term and office over the medium term. Notwithstanding its perception of being stable, we can expect to look forward to more interesting developments in the sector.

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Alex Collinson is the National Lead Partner – Real Estate and Construction and an audit Partner in Deloitte Australia. Alex has served global real estate and construction companies across the world, and in Sydney, London and Toronto in particular. He is a Member of the Property Council of Australia’s National Accounting Committee and is Deloitte’s representative on the Property Industry Foundation (the industry’s charitable arm).

Western Sydney – Australia's development site

The surge in infrastructure development and real estate construction projects to accommodate Sydney's growing population has begun.

What is your Western Sydney strategy?

Over the past five years, Western Sydney has been in transition from the poor customer to the big and shiny CBD to its east to a region full of potential – with the promise of becoming a key real estate, development and construction hub.

Back when people would ask: 'Why are you in Western Sydney?' there was a stirring recognition of the need for Western Sydney to thrive in order to unlock the economic potential in NSW, and potentially Australia. This was also driven by the need to accommodate our growing population.

Today, we have moved from ambitious concepts to more practical plans, many of which are under construction. A number of major government-backed infrastructure projects are already underway and others are progressing through the planning process. These large-scale projects are injecting confidence into the private sector to invest in the region through all forms of development.

A more integrated planning environment has also helped, with the creation of the Greater Sydney Commission and the release of the integrated Future Transport Strategy for NSW.

The question we now ask, is not, 'why are you in Western Sydney?' but how can you afford not to be?

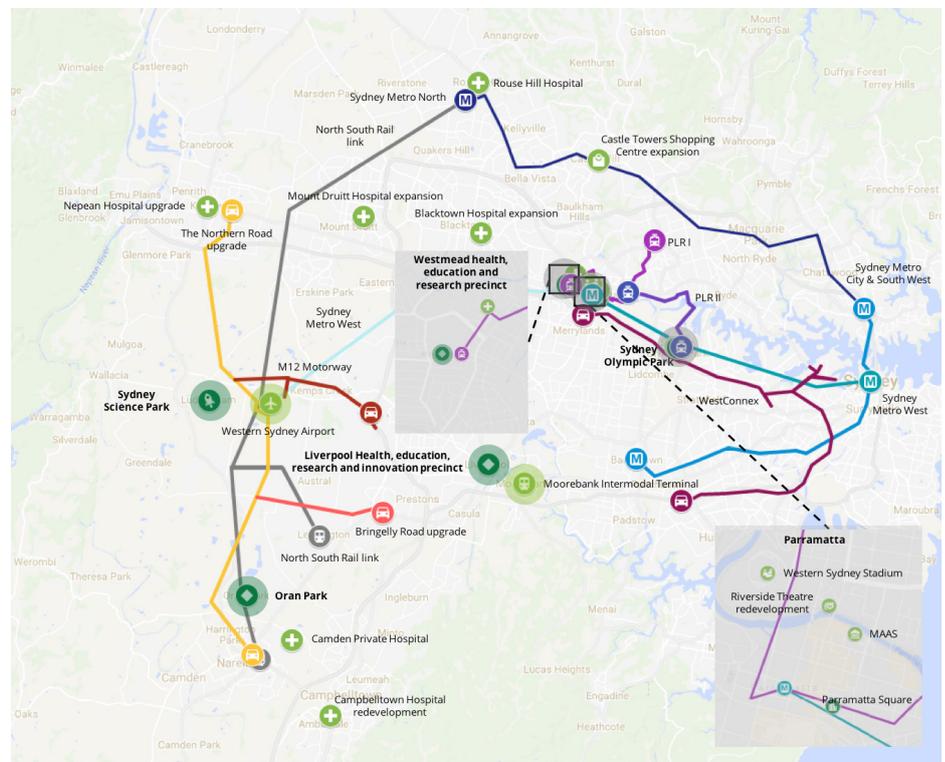
Precincts and zones are emerging across the region, which are going to provide large-scale development opportunities, and lead to other local supporting development. Three better known examples include: the health precinct being created across the South West; the aerotropolis envisaged adjacent to the airport to house advanced aerospace and defence companies; and the continued growth in industrial and logistics facilities around the Moorebank intermodal terminal along the M4/M7 corridor.

As jobs and supporting infrastructure are built, the demand for housing will continue. Government policy decisions around land release and planning approvals will be critical.

The nature of the housing product provided should diversify as well, catering to the new breed of locally based, well-paid workers. This will create a need for density along the new metro, rail and motorway corridors, and more premium quality housing.

In the following article we set out some of the key themes playing out across the region and highlight some of the major infrastructure projects.

Infrastructure projects across the Western Sydney region



Seize the opportunity in Western Sydney

The real estate development and investment community is constantly seeking opportunities in growth areas. The challenge is to identify and secure these opportunities before your competitors. The boom in infrastructure project spending and investment by the private and government sectors in Western Sydney is a catalyst for real estate and development opportunities. While these projects are not a secret, the advantage is to be gained through smart timing. Western Sydney is a long-term play and opportunities are plentiful.

Locations with current and planned concentrated investment and development activity.

Parramatta CBD

Statistics

Parramatta is located approximately 25 kilometres west of the Sydney CBD. It is four times the size of Perth city. The Parramatta Central Business District is the second largest employment destination to the Sydney CBD in NSW, and is growing rapidly.

Parramatta Square is a \$2bn city centre renewal project, with 135,000m² currently under construction across three new office projects. Pre-committed tenants include NAB, NSW Department of Education and the NSW State Government. Approximately 30,000 workers will be moving into the Parramatta CBD by 2020. Parramatta CBD office vacancy for 'A' grade buildings is currently at '0%'.

The high-rise and higher quality projects introduced into Parramatta CBD over the last five years have triggered strong residential development activity. Developers are invested in Parramatta CBD in the medium to long term, with a strong pipeline of residential and mixed-use projects at the proposal stage.

Any concern of apartment oversupply in Parramatta CBD appears to be overblown as developers react to the 'cooler' market conditions with a 59% decrease in DA-approved apartments, compared with those currently under construction for the period 2017 to 2018.

Infrastructure

With the proposed Parramatta Light Rail and Sydney Metro West, the new transport system will deliver both interconnectivity within Greater Parramatta to the Olympic Peninsula region by 2023. It has also improved routes to the Sydney CBD, with travel times down to less than 20 minutes between Parramatta CBD and Sydney CBD.

Investment in Parramatta's cultural precinct will attract more visitors to the area. It will also include the proposed move of the Museum of Applied Arts and Sciences (MAAS) to the Parramatta riverbank, planned expansion of Parramatta Riverside theatres, and a 30,000-capacity Western Sydney Stadium.

As this expected increase in workers and visitors materialises there will be a gap in the market for short-term accommodation. Currently 857 new hotel/serviced apartment rooms are expected to be built by 2020 in Parramatta CBD, to service the Parramatta CBD as well as the wider western Sydney precincts.

Parramatta's vision to create future growth and opportunities, and become an even more liveable city, is finally being realised, with benefits from multiple projects now underway.

Sydney Olympic Park

Sydney Olympic Park (SOP), which is located just 15 kilometres west of the Sydney CBD, houses Australia's largest sporting and entertainment precinct, which has now matured into both residential and commercial office locations, with significant expansion plans.

The potential development outline within the Sydney Olympic Park Master Plan 2030 will transform the area to include a mixed residential and office precinct with 23,000 new residents, 34,000 new jobs by 2030, new schools catering for 5,000 students, all complemented by investment in leisure and retail.

'Seizing the opportunity early in a strategic Western Sydney location is likely to deliver above average capital growth in the medium term.'

The Greater Sydney Commission has recognised the park as a precinct that forms part of Greater Parramatta to the Olympic Peninsula region and Stage 1 Light Rail will provide improved connectivity to Parramatta CBD and Westmead Health and Education precinct once completed, expected in 2023.

The new Sydney Metro West line will connect Sydney CBD and Parramatta, and will stop at Sydney Olympic Park. Travel times to the Sydney CBD will be halved to about 20 minutes.

It will include three precincts – Stadia, Central and Parkview that will capture the benefits from the recently announced rebuilding of ANZ Stadium. This will provide civic, retail, and other amenities in the heart of town centre, and will lead to the construction of a low-rise residential neighbourhood.

Stage 2 of the Parramatta Light Rail will improve connectivity, with a direct connection to Parramatta CBD.

The Sydney Olympic Park will continue to evolve and provide ample development/investment opportunities under the future vision of the Masterplan 2030, with the Sydney West Metro, the major enabler of growth of this precinct in the Western Sydney region.

Western Sydney Airport

Western Sydney's Airport project will be going ahead and is due for completion by 2026. It is a unique opportunity for Western Sydney to house Sydney's second international airport. There will be flow-on benefits to the region as the development of the 'Aerotropolis' will incorporate residential, industrial and commercial development around the airport and so benefit the whole region. It is proposed to be a 24-hour airport.

The airport site at Badgerys Creek is located in Western Sydney near the New South Wales Government's Western Sydney Employment Area, the Western Sydney Priority Growth Area, and the South West Priority Growth Area.

The Western Sydney Infrastructure Plan outlines future transport infrastructure including the 'M12 Airport Motorway' extending from Liverpool to the airport and connecting into the existing M7 Motorway. Also under construction is a \$509m, two stage upgrade to Bringelly Road, which connects into the Northern Road leading past the airport.

The NSW government is exploring six options to connect the Western Sydney Airport with rail infrastructure to Sydney Metro line. It is also proposed at some stage to establish vital transport infrastructure to the future airport.

The opportunities will become clearer as planning progresses and construction commences.

Liverpool and South West

Liverpool's vision is to re-activate its city centre by 'anchoring' the Liverpool Civic Place project at the southern end of the city (opposite end of the current Westfield shopping centre and Liverpool Hospital). The project is scheduled to take four years. New council offices and chambers, a civic plaza, amenities, as well as student, hotel, and residential accommodation, are all planned. The investment by Liverpool Council is around of \$75m.

The South West and Greater Macarthur region of Western Sydney continue to be areas supplying significant housing growth, with detached housing in release areas and in Liverpool, Campbelltown and other areas adjoining stations along an extension to the new railway line.

The growth of housing in these areas is supported by the NSW Department of Planning which has identified five priority precincts (out of a total of 30) that lie within the south western region of Sydney. These include Glenfield, Leppington Town Centre, Greater Macarthur Growth Area, South Creek West and Western Sydney Airport Growth Area.

With the evolution of the Campbelltown and Liverpool health, education and research precincts, the South West will become an advanced medical hub for NSW/Sydney, with a residential corridor and transport and logistic centre.

The existing health precinct in Liverpool will be expanded by the development of Camden Private Hospital, and Stage 2 redevelopment of the Campbelltown Hospital.

The health precinct will be complemented by the emergence of new university campuses in Liverpool, that are expected to accommodate up to 9,500 new students. The University of Wollongong recently completed its South Western Sydney campus, while Western Sydney University's Liverpool campus, is currently under construction, with completion expected early this year (2018).

Sydney Science Park

Sydney Science Park is set over 280 hectares and is located in the strategic 'Western Sydney Priority Growth Area' at Luddenham. With convenient access to both the M4 and M7 motorways, it is three kilometres north of the new airport at Badgerys Creek, and 24 kilometres west of Parramatta. The project value is \$5bn and is expected to deliver a community that will create more than 12,000 jobs, 10,000 students and be home to more than 10,000 residents.

Stage 1 Masterplan has been created and interest has been received from Birling National Avian-Laboratories Centre; CSIRO's First Dedicated Innovation Zone and 'Urban Living Lab' in NSW; and Catholic Education Diocese of Parramatta – delivering NSW's first STEM-inspired school.

Conclusion

The growth potential for Parramatta, the Western Sydney Greater Region, and the Greater Parramatta to the Olympic Peninsula region is significant. The growth potential is very exciting and the opportunities that it will create will be game changers for NSW.

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Fred Ibrahim is a Director and forms part of the Real Estate Advisory and Consulting team with a focus on Western Sydney clients. Fred has over 18 years' of experience, specialising predominately in property valuation and advisory services.

Top 10 infrastructure developments across the region





Why should companies focus on Real Estate fintech startups?

Technology startups seem to be here to stay.

Rapid advancements in technology have lowered entry barriers for tech startups. Over the past 15 years, the cost of establishing an internet-based startup has plummeted from \$3 million in the 1990s to just \$300 today,⁶ causing them to become more synonymous with disruption and innovation.

This has also meant exponential growth in the real estate sector. Globally, real estate fintech start ups increased by 18% from 246 in 2008 to 1,372 by 2017.⁷ In the same period, cumulative investments soared from \$2.2 billion to \$31.3 billion.⁸

While venture capital (VC) remains the dominant funding source, there is substantial capital flow from non-VC investors as well, including REITs, established real estate services companies and investors, private equity firms and high net worth individuals.

In the five-year period between 2011 and 2016, funding from non-VC sources for real estate tech startups increased at a compound annual growth rate (CAGR) of 72.4% to \$2.4 billion in 2016.⁹ And there is an all-time record funding of \$3.4 billion YTD, as of July 25, 2017¹⁰.

Globally, real estate fintech startups increased by 18% from 246 in 2008 to 1,372 by 2017.

6. "Disrupting the Disruptors: Startup Accelerators Feel Pressure to Evolve", Knowledge@Wharton, University of Pennsylvania, July 28, 2016, <http://knowledge.wharton.upenn.edu/article/why-startup-accelerators-are-feeling-pressure-to-evolve/>.

7. Venture Scanner database, data as of July 31, 2017.

8. Ibid.

9. Ibid.

10. Ibid.

See the NUMBERSPEAK chart over for more details.

We categorise real estate (RE) tech startups into two groups – RE operations and RE fintechs.

- **RE operations** – The operations-related tech startups focus on the core real estate business such as property search, leasing, facility management, smart building technologies, and home services.
- **RE fintechs** – Our focus area of discussion, are enabling financing and investments in real estate. They offer diverse services and solutions such as real estate transaction services, digital lending platforms for construction and real estate owners and lenders, online real estate investments options for individuals, or investments in single-family homes for institutional investors.

The general notion was that startups would threaten incumbent real estate companies. Certainly with the help of technology, they absolutely offer innovative solutions and enhanced user experience at a relatively lower cost, faster pace, and user friendly environment. However our research shows that while they were initially thought to be a competitive threat, they have been more about changing the pace of innovation than taking the place of the incumbents.

Take the case of startups that directly compete with REITs by providing online investment avenues for individuals to invest in commercial real estate in the US.¹¹ Also called eREITs, their solutions combine the features of nontraded REITs and crowdfunding, with lower fees.¹² But unlike traditional crowdfunding ventures, eREITs offer multiple and diversified asset lending services.

Large crowdfunding firms, such as Fundrise and RealtyMogul, have been key proponents of eREITs so far.¹³ Even companies such as RealtyShares provide similar investment opportunities in the Construction and Real Estate sector as they seek to potentially compete with traditional REITs. As such, RE Fintech startups comprise only 5% of the overall global real estate tech startup space by investments, having raised \$1.4 billion to date. But they are certainly disrupting traditional business models.¹⁴

But this is not just an overseas story with investment and innovation in Australia. Examples include BlochExchange and BrickX (fractionalised property trading platforms) and the emergence of foreign entrants into the local market, such as Purple Bricks, challenging traditional residential real estate agents.

How to benefit from RE fintechs?

There are many ways in which traditional real estate companies can benefit from the solutions offered by RE fintech firms. They can provide platforms that can expand and diversify the lender base and enable more individuals and institutions to get exposure to real estate.

This is especially useful for US-based companies, which face a challenging financing environment, where traditional lenders such as banks are tightening lending standards and CMBS issuances remain well below their historical highs due to the implementation of the new regulations following the 2008 financial crisis. In light of the fact that the global online lending industry is expected to grow from \$40 billion in 2016 to more than \$1 trillion in the next five years, the growth in construction and real estate financing may very well be led by these RE fintechs.¹⁵

Where should companies start?

Traditional real estate companies can benefit by engaging with these startups in different ways. Companies can make choices based on their investing capacity, the utility of a startup's services, their need for financing, and so forth. As end users, real estate companies can leverage some of the online services and solutions for key property-related decisions.

Companies can also access capital by using the innovative funding and investing platforms that RE fintechs have to offer. Alternately, they could also partner with the RE fintechs to help meet their financing and investment needs. Finally, real estate companies can invest in the RE fintechs and benefit through their growth.

RE fintechs' services

Construction and real estate owners, developers, and investors can use RE fintech platforms for a variety of services – including leasing, acquisition, disposition decisions, and managing the underwriting process, and accessing detailed financial models for property financing.

The most obvious and key benefits would be efficiency and convenience, as these online and sharable solutions have the capability to provide analysis faster, more cheaply, and efficiently.¹⁶ As an example, Assess+RE provides cloud-based services such as property level valuation models and related financial analysis.¹⁷

11. Fundrise website <https://fundrise.com/>, accessed on August 4, 2017.

12. Ibid.

13. Fundrise website <https://fundrise.com/>; RealtyMogul website <https://www.realtymogul.com/>, accessed on August 4, 2017.

14. Venture Scanner database, data as of July 25, 2017.

15. Beth Mattson-Teig, "How is the CRE Industry Adapting to the Emergence of Fintech Solutions?," National Real Estate Investor, April 25, 2017.

16. Assess+RE website <https://www.assessre.com/index.html>, accessed on August 4, 2017.

17. Ibid.

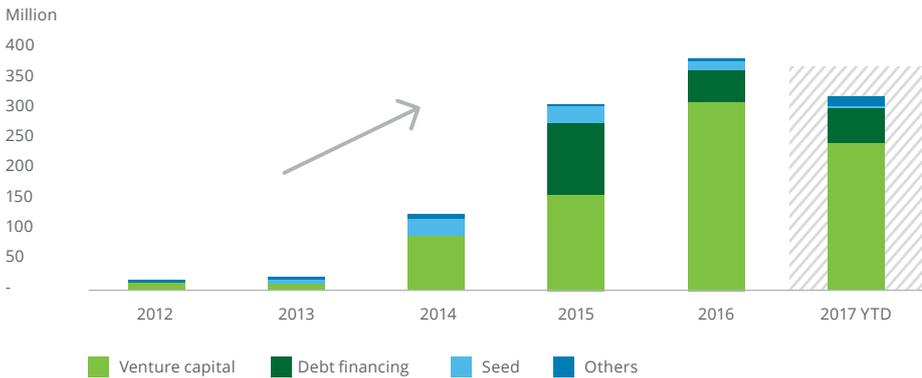
NUMBERSPEAK #2

Number of tech startups: Overall – 1372; RE fintechs – 177

Investments: Overall – \$31.3 billion; RE Fintechs – \$1.4 billion

RE fintech startups continue to receive increased funding each year, dominated by VC investors

Yearly investments in RE fintechs by investor type*



Invest: Real Estate companies that have a fair understanding of the startup business, substantial funds, and the appropriate risk appetite can invest in fintechs with a good value proposition. Such a route could bring relevance to existing business or beef up future strategy as well as gain knowledge of the technology and other intellectual properties of the startup. In some instances, real estate companies may want to create value for the startup by lending their expertise and/or relationships, or even contribute to their business by being customers for the products or services of the startup.

The bottom line

Almost every day there are new headlines about digital initiatives, digital incubators, innovation teams, acquisitions or collaboration with nimble fintech firms. Startups are constantly incubating new ideas as they continue to increase in size and services. Traditional real estate companies can learn from and in many cases benefit from collaborating with fintech startups. As they do it will cause a reassessment of their engagement approach given fintechs flatter and more nimble style of operations. All approaches will only stand organisations in good stead as they embrace the exponentially changing future.

Prominent RE fintech models

1. Digital lending platforms for CRE owners and lenders
2. Online RE investments solutions for individuals
3. Commercial and residential investment options for institutional investors
4. Property transaction services.

Top 5 RE fintechs

1. Money 360
2. Cadre
3. RealtyShares
4. Fundrise
5. Scalable.

*Analysis based on Venture Scanner data as of July 25, 2017

Source: Venture Scanner; Deloitte Center for Financial Services Analysis.

Based on total investment received*

Partner: Construction and Real Estate owners, operators, and developers can collaborate with these startups to raise equity, secure joint venture partners, or even sell their properties by getting access to accredited and institutional investors. Cadre, with US \$133.3 million in funding, is one such platform that helps connect owners, operators, and investors.^{18,19}

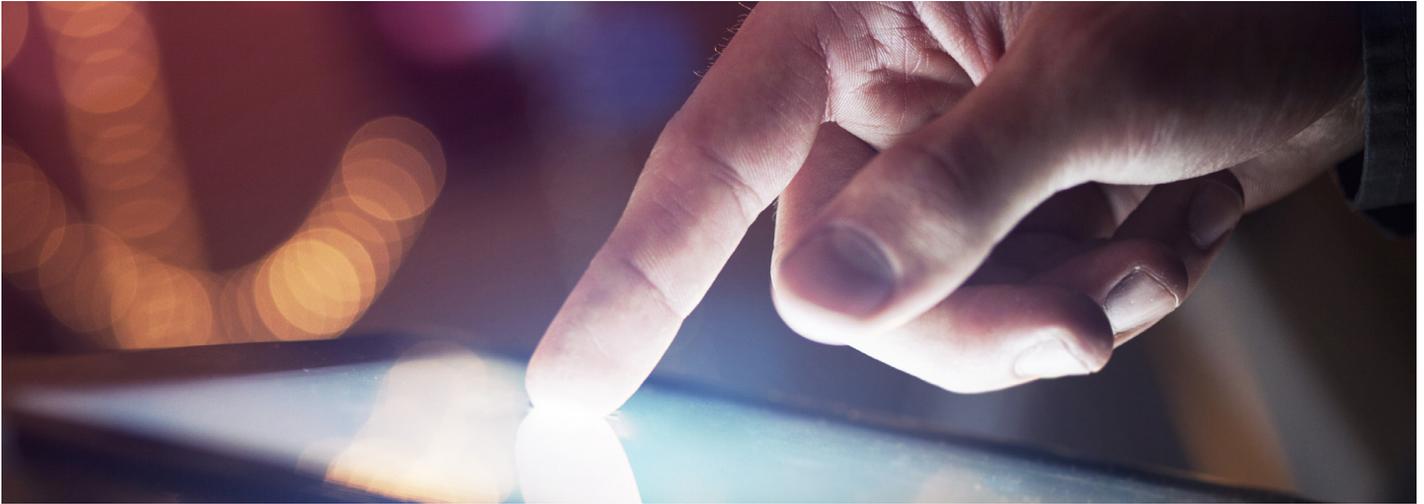
Owners can also partner with startups to finance projects and obtain loan offers from a diverse set of lenders including banks, private equity, and crowdfunders. For instance, digital lending marketplaces, such as StackSource, help connect Construction and Real Estate owners and lenders.²⁰

Alex Collinson is the National Lead Partner - Real Estate and Construction and an audit Partner in Deloitte Australia. Alex has served global real estate and construction companies across the world, and in Sydney, London and Toronto in particular. He is a Member of the Property Council of Australia's National Accounting Committee and is Deloitte's representative on the Property Industry Foundation (the industry's charitable arm).

18. Cadre website <https://cadre.com/partnering>, accessed on August 4, 2017.

19. Venture Scanner database, data as of September 7, 2017.

20. Beth Mattson-Teig, "How is the CRE Industry Adapting to the Emergence of Fintech Solutions?," National Real Estate Investor, April 25, 2017.



Cyber in real estate

The commercial real estate sector is being transformed by technology

The rise of smart buildings is driving a rapid uptake of new interconnected technologies such as the Internet of Things (IoT), cloud and mobility. In parallel with this, the growing focus on the experience of occupants means that Construction and Real Estate companies are holding dramatically increasing volumes of regulated personal data relating to individuals.

The failure to detect and respond to security incidents could cause severe impact to the reputation of the industry, as gaining control of systems like a building management system (BMS) or building information modelling (BIM), can lead to more than just theft of data, it can also result in physical harm, safety issues or operational interruption.

What are the new tech trends?

Internet of Things: Increasingly, forward-thinking organisations are focusing their Internet of Things (IoT) initiatives less on underlying sensors, devices and smart things, and more on developing approaches for managing data, leveraging brownfield IoT infrastructure and developing new business models.

This is relevant because there is a growing desire to adopt emerging technologies for use in retail, commercial and residential development, operations and maintenance

Cyber implications: As companies put IoT to work, the smart, connected objects they deploy offer tremendous opportunities for value creation and capture. Those same objects, however, can also introduce risks – many of them entirely new – that demand new strategies for identification and value protection.

Reimagining Core Systems: Core systems that drive back, mid and front offices are often decades old. Today, many roads to digital innovation lead through these ‘heart of business’ applications. This means that there is a need for a significant adoption of new core solutions by the property industry.

Cyber implications: Efforts to reimagine the core can introduce both risk and opportunity. On the risk front, remediation efforts may add new points of attack with interfaces that inadvertently introduce issues or raise the exposure of long-standing weaknesses. Similarly, repurposing existing services can also create vulnerabilities when new usage scenarios extend beyond historical trust zones.

BMS: Building Management Systems are deployed across most office, industrial, residential and retail buildings. These computer-based control systems control and monitor the building’s mechanical and electrical equipment including ventilation, lighting, and power, fire, and security systems. With the expansion of the cyber footprint and attack vectors, real estate companies are struggling to have full visibility of their connected devices - the necessary first step to protecting them from the new cyber threats and risks.

Cloud first: Increase in cloud adoption with a cloud first strategy. This means that there is a critical need to refresh your cyber strategy to take into account identity management, monitoring, data leakage and information protection across cloud platforms.

IT unbounded: As organisations modernise their IT operating and delivery models, some are creating multifunctional teams and breaking down silos across IT. This includes looking beyond organisational boundaries to explore the open talent market and form new relationships with vendors, incubators and academics. Services become 'unbounded' and more efficient, transforming the IT organisation.

Cyber implications: IT unbounded can benefit an organisation's cybersecurity through initiatives such as 'bug bounty' programs. The challenge is to manage the increased risk brought about by allowing new, external users into the wider IT environment of an organisation.

How would these trends change the threat and risk landscape?

In addition to the real opportunities garnered by these trends, the Real Estate industry is already experiencing an increase in the attack surface from potential new threats and risks. These become critical as many companies own hundreds of connected buildings through thousands of technology systems and IoT devices that collect sensitive information for their customers and operations.

Some of the main cyber threats to look out for:

IoT

- IoT based distributed denial-of-service (DDoS) attacks will continue after the success of the Mirai botnet's model, and may begin to more frequently target e-commerce sites and others that heavily depend on uptime for profitability. DDoS attacks may also serve as a diversion for simultaneous exfiltration attacks.

- The mass compromise of IoT devices will be used for financial gain in ways beyond DDoS attacks. This could mean large privacy leak incidents involving location data, camera videos and health-related information.
- Attackers may begin to exploit IoT vulnerabilities to take control of property, for example by stealing a drone or taking control of a smart car's steering wheel.

Data breaches

- Internal and external actors will contribute to the continuous and exponential rise of data breaches across different industries and countries.

Ransomware and malware

- The movement to ransomware-as-a-service (RaaS) will continue to make ransomware available to a broader range of less-sophisticated cyber threat actors, who are starting to use additional deployment techniques as malware to infect more devices infecting a broad spectrum of networks.
- Attackers will begin to use malware to take control of IoT devices and demand ransom as soon as those devices reach greater saturation in households and corporate environments.
- Ransomware attacks will become more creative as attackers identify more repositories of valuable data that they can exploit.
- Email will continue to be a highly effective distribution vector for ransomware as companies scramble to put more effective advanced threat prevention systems and employee training procedures in place.

- Encryption of data and information is no longer the only consequence of being infected. Destruction of sensitive and critical information is becoming more and more popular.
- New generation of sophisticated and specific attacks have replaced the old generic ones.

The three main risks related to the threats detailed above are:

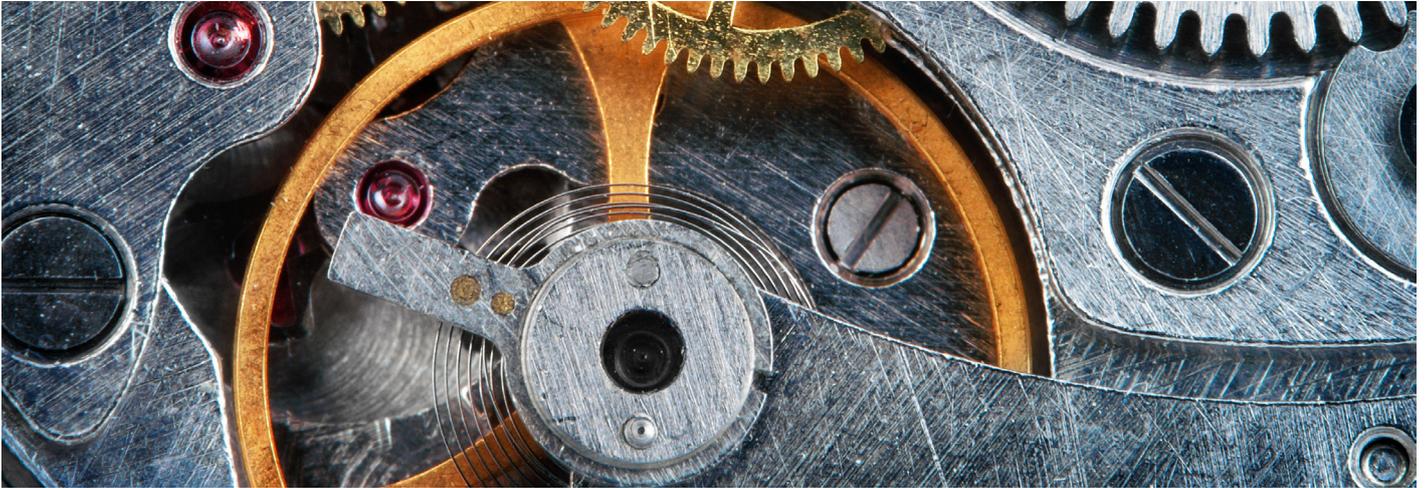
- Theft or destruction of personally identifiable information (PII) and sensitive data
- An attack on tenants through building systems
- Destruction of physical infrastructure.

How can we address these new threats and risks?

As a starting point we highly recommend conducting a comprehensive asset discovery process to identify which systems are critical for the business, from an information collection or operation perspective. Understanding the criticality of the information that is being stored and processed by these systems is extremely important for a proper risk and threat assessment.

Once you have an inventory of technology assets and collected the necessary information you can run various cyber threat intelligence and monitoring activities to help reduce the risks of being attacked and getting your operational systems compromised.

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Embrace robotics and cognitive automation

Real estate companies have been relatively slow to effectively adopt technology and this reflects in the many operational inefficiencies that exist in the industry today.

Augment productivity

Many real estate companies have been relatively slow to effectively adopt technology and is reflected in the many operational inefficiencies that exist in the industry today. For example, many real estate companies continue to use spreadsheets for recording, aggregation, and analysis of data for cost aggregation, lease administration, invoices, accounts payables, property valuation and forecasting. However, many other businesses in other industries (and some of the technology leaders among real estate companies) use sophisticated analytical tools on gathered data to provide enhanced business intelligence and visualisation.

Taking a deeper dive into a real estate company's lease accounting and administration processes suggests that many documents such as lease agreements, deeds, brokerage contracts, vendor payables and credit applications, property management agreements, and property tax assessments are still maintained in a physical (either scanned or excel) format. As a result, too much time is lost reading, manipulating, or abstracting paper or digital documents for relevant information.

When real estate players are challenged to perform in-depth analysis, as they frequently need to, the data is not structured in the desired format. Consequently, companies typically employ dedicated teams for defining parameters and analysing the data. More importantly, they are challenged to develop and capitalise on the insights locked within their documents to make informed decisions.

Inefficiencies and errors

The high level of human intervention increases the probability of fraud and error. Research suggests that most typical errors in accounting and tax functions tends to be due to human intervention, either by deleting excel formulas and/or making incorrect manual calculations, as well as using multiple sources of data input and storage of sensitive data on unsecured devices.

Robotics and Cognitive Automation technology (R&CA) can be a game changer in this evolving environment. Using a combination of robotic processes and cognitive automation, can help real estate companies reduce errors and increase operational efficiency by replicating human actions and judgement at tremendous speed, scale and quality, all at a relatively lower cost.

Let's understand the two technologies in more detail.

1. Robotic process automation (RPA) essentially uses software to automate many manual, repetitive and often rules-based processes and tasks. The technology has huge potential. The market is estimated to touch \$16.9 billion in 2024, reflecting a CAGR of 47.1% during the 2016-2024 period.
2. Cognitive automation uses machine learning capabilities for judgement-based processes and predictive decisions. Natural language processing, natural language generation, machine learning, cognitive analytics, and sensing are some of the cognitive capabilities that can revolutionise the real estate ecosystem.

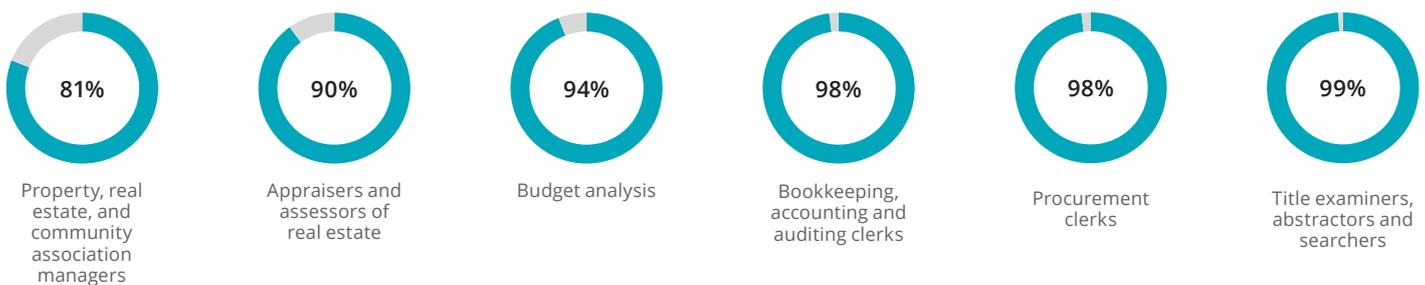
Implementing R&CA can eliminate inefficiency inherent in many finance and accounting tasks such as lease accounting and administration, invoice processing, and payroll management by:

- **Optimising costs:** RPA can bring down costs drastically and may end up being cheaper than even offshoring. R&CA software can enable processing 24/7/365 without breaks and holidays.
- **Improving speed and accuracy:** Mundane and cumbersome tasks, such as extraction and digitisation of data from lease contracts or invoices, can be accomplished faster and more accurately than humans. Studies have shown that using cognitive technology to generate actionable data from unstructured documents can increase efficiency by 4.5 times than traditional processes.
- **Streamlining record management:** Optical character recognition with cognitive technologies can enable lease records, invoices and other essential documents that are usually recorded manually or scanned to be converted into formats suitable for reporting and analysis.
- **Enhancing compliance and risk monitoring:** Given the rule-based nature of RPA, real estate companies can automate many of the risk and compliance monitoring activities. As examples, tracking invoices for compliance with contractual terms or periodic review of lease contracts to avoid any potential risks of tenant defaults of any contractual obligation can be easily automated.
- **Allowing informed decision making:** Using cognitive extraction technologies such as natural language processing (NLP) companies can cull relevant data and information from unstructured documents fairly quickly. Then they can use a variety of tools and technologies to convert the unstructured data into a structured format that visualises, and generates actionable insights. For example, converting lease data into a structured format could also provide benefits to property management, lease administration, and billing processes as it would be easier to integrate the data and store it in a more centralised manner.

Eventually real estate companies would be able to enhance their overall productivity and let their employees take on more meaningful tasks.

Real estate companies may also have to revisit their talent strategy, as using R&CA technologies may require reskilling existing employees to do higher order work that requires thoughtfulness and discernment. To learn more about this, see the 'People' section.

Automation probability of key occupations

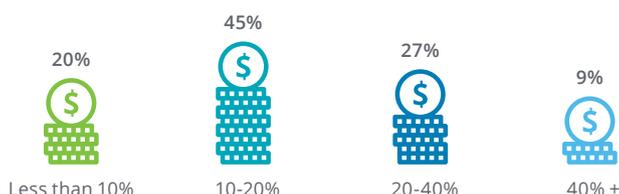


Note: The numbers mentioned above are based on the research paper "The Future of Employment: How Susceptible Are Jobs to Computerisation?"

Source: Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, 114, 254-280. <http://doi.org/10.1016/j.techfore.2016.08.019>

Expected cost savings through RPA implementation

Savings anticipated by organisations



RPA technology is expected to help organisations achieve significantly higher savings and productivity gains.

Source: Deloitte Global Shared Services Survey, 2017.

NUMBERSPEAK #3

Where should companies start?

Given the apparent benefits of R&CA technology, companies should consider both evaluating processes and tasks that can be automated and the technology implementation approach.

Evaluate processes and tasks

To begin with, companies should assess current processes and tasks and identify what tasks are eligible for RPA and cognitive automation either respectively or collectively. Some of the key considerations could be the large volume and repetitive nature of work, scalability through addition of labour, high incidence of errors, use of traditional workflow tools, budget constraints that are limiting system modernisation, and finally workflows where decision making is based on disparate systems.

Roles requiring perceptual human skills such as handwriting recognition or facial identification, and other cognitive abilities, like planning and reasoning, could also be considered. Based on our analysis of some of the key jobs in the RE sector (highlighted in NUMBERSPEAK 3#), we believe many property appraisal, budget analysis, accounting, bookkeeping, and auditing and property management related tasks are ripe for RPA application.

Real estate companies may even consider using R&CA technology for future cash flow projections, billing, payables processing and payroll applications.

However there are a number of real estate occupations and skills that are less likely to be automated. These include architectural and engineering managers (1.7%), architects (1.8%), landscape architects, (4.5%), architectural and civil drafters (52%), electrical engineers (10%), industrial engineers (2.9%), civil engineers (1.9%), and mechanical engineers (1.1%).

Assess implementation approach

Along with assessing processes and tasks, companies will need to evaluate which technology approach they wish to pursue. This will largely depend on their budgets and estimated return on investment, and the sense of urgency to automate existing tasks.

In addition, real estate companies should consider two more things which go beyond financial considerations. First, it would be an imperative for companies to evaluate and implement data access, protection, and privacy measures based on the number of tenants' and employees' personally identifiable information (PII) processed using these technologies. Secondly, owners should acknowledge that the application of R&CA technology would enable information and analysis to be used across different functions. This would require more collaboration between a broader group of stakeholders.

The bottom line

As automation transforms industries and changes the nature of work, it is helping companies go beyond conventional barriers. To date real estate owners have generally been slow movers in this space.

This year there is a real need to consider how best to embrace automation to drive operational efficiency and augment productivity. And like any new technology, R&CA typically comes with the promise to radically improve routine tasks by making them faster, cheaper, and more accurate.

As the process matures, companies can then look beyond the immediate and begin to use R&CA to create more value through improved decision making rather than just cost efficiencies.

Jeremy Pitchford is passionate about digital disruption and assisting organisations to understand and embrace their digital transformation journeys. Jeremy has lived and worked across the United States, India, Singapore and Australia, with a particular focus on complex SAP enabled solutions.



Digital finance – The new superhero

Smart, integrated planning platforms give organisations a strong competitive advantage in the market. It is all about 'time to value', 'rate of change' and 'agility' in a market with declining opportunities.

Old traditional budgeting tools no longer give organisations the insight they need to keep ahead of the pack. The tools that cannot respond to the need for flexible 'what-ifs?' and predictive analytics, lack the integration speed to action, and have limited insight into the future. The days when long planning cycles were followed by offline stop, start forecasting were adequate to support an insight-driven organisation, are long gone.

Niche vendors solve specific problems well. However, the lack of flexibility in modelling, and their inability to keep up with change, still drives most organisations to model business questions in spreadsheets, and only record the final 'answers' in the tools to support the budgeting and forecasting process. Such basic modelling applied to planning, budgeting and forecasting is typically resource intensive, and frequently results in analysis that is flawed or comes too late.

The implication of this approach is not just sub-optimal performance, but also prevents the entire organisation from planning collaboratively across the business functions. These niche applications inadvertently become symbols of the siloed, disconnected enterprise planning process and increase the risk of human error.

Disconnected processes result in activities which do not clearly contribute to realising an organisation's strategic objectives. However planning, budgeting and forecasting that are seamlessly integrated with an organisation's strategy, its day-to-day operations and asset management processes, provide a strong competitive advantage in the market.

Organisations need collaborative and integrated planning across all business functions, to accommodate more frequent, efficient and synchronised plans.

The needs

For a connected planning, budgeting and forecasting process you need:

1. Basic and expert planners to be able to easily and fully adopt the planning solution – without spreadsheets
2. Speed and scale even with big numbers of users, high data volumes, and complex calculations
3. To model master data, and plan changes that are immediately reflected in all views
4. Modelling to be flexible for different business practices, incorporate sufficient details, and allow business users to enhance models over time
5. Real-time sharing of data across planning processes to avoid error-prone manual data transfers, latency, etc
6. A consistent user interface to avoid training issues and low adoption
7. A model exchange that allows model sharing and spreads associated planning decisions.

The answer

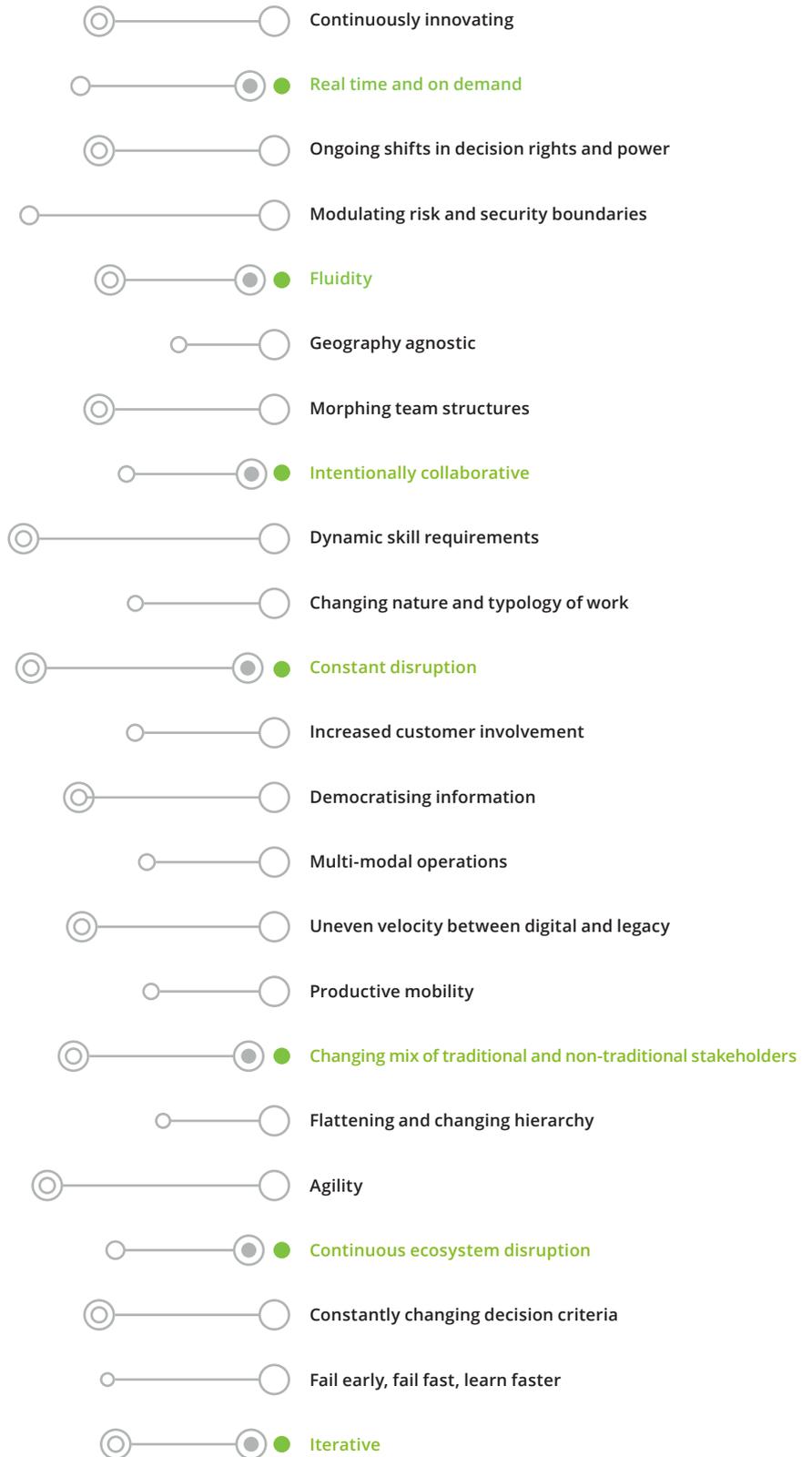
Finance functions that have digital DNA at their core have the characteristics to meet these needs. They thrive in an ever changing market where agility is no longer a choice, but a necessity.

Finance functions with digital DNA are very different from traditional businesses.

By transforming their planning, budgeting and forecasting culture, processes and technology, organisations can:

- Better align long term strategies to short term operational activity. Stress test decisions and responses to market changes in sophisticated models
- Plan in a standard consistent manner across the entire organisation.

To plan in a connected manner using a digital finance function requires a combination of core modernisations and exponential technology changes, underpinned by changes in process and people.



Technology changes



Platforms



Cloud



In-memory computing



Advanced analytics



Visualisation

Platforms not solutions

The right technology platform is the backbone of an efficient and effective, connected planning process. It will automatically integrate data into models across the whole organisation at varying levels of detail and generate easily understandable, highly visual reporting.

Cutting edge planning, budgeting, and forecasting platforms, automatically pull data from a range of core business systems. They spontaneously integrate it into planning, budgeting and forecasting models as and when required. It goes without saying this significantly reduces manual effort, allows models to be refreshed on a more frequent basis, and most importantly provides faster speed to insight for key decision makers.

Result: Data at a more granular level of detail (e.g. asset level or lease level) can be quickly and accurately integrated into the model and aggregated into different hierarchies with minimal additional effort. This provides the ability to view plans, budgets and forecasts at different levels of aggregation; from an individual asset up to regions, divisions and ultimately the organisation overall, providing insights from the lowest operational level to the top levels of the company. By having this ability to slice the data, the organisation can assess performance at the appropriate level or drill down where necessary, increasing the value driven from the financial data.

Cloud and 'in memory' processing

The computational and memory requirements to implement a cutting edge planning, budgeting and forecasting platform, can be significant. Cloud computing and 'in memory' processing address these issues by improving scalability, while dealing with complexity, without having to wait for long calculations to run. In fact 'in memory' translates to 'real-time'.

Result: The combination of these two technologies leads to improved processing times, which greatly enhance the performance of the platform and advanced analytics, benefiting timely decision making, planning, budgeting and forecasting.

Advanced analytics

The ability to incorporate advanced analytics within the platform can help answer complex questions in a predictive (what will happen), prescriptive, (what should be done), and ultimately cognitive manner (deciding what should be done, learning and improving). Advanced analytics focuses on future events, or values such as:

- Predicting whether a tenant is going to pay rent through Intelligent Debtors Management
- Predicting the likelihood of tenants accepting rent increases
- Predicting component failure (e.g. hot water heater, dishwasher, A/C)
- Understanding and analysing the future credit profile of your tenants
- Dynamic forecasting of utility costs enabling flexible pricing based on usage.

Result: When statistical models and data-backed knowledge are used to answer these questions, instead of 'gut feel', they provide trustworthy input into the planning, budgeting and forecasting process. This improves its validity and reliability. By being able to predict, understand, analyse, decide and iterate, an organisation can be proactive to dynamic and changing markets, rather than reactive.

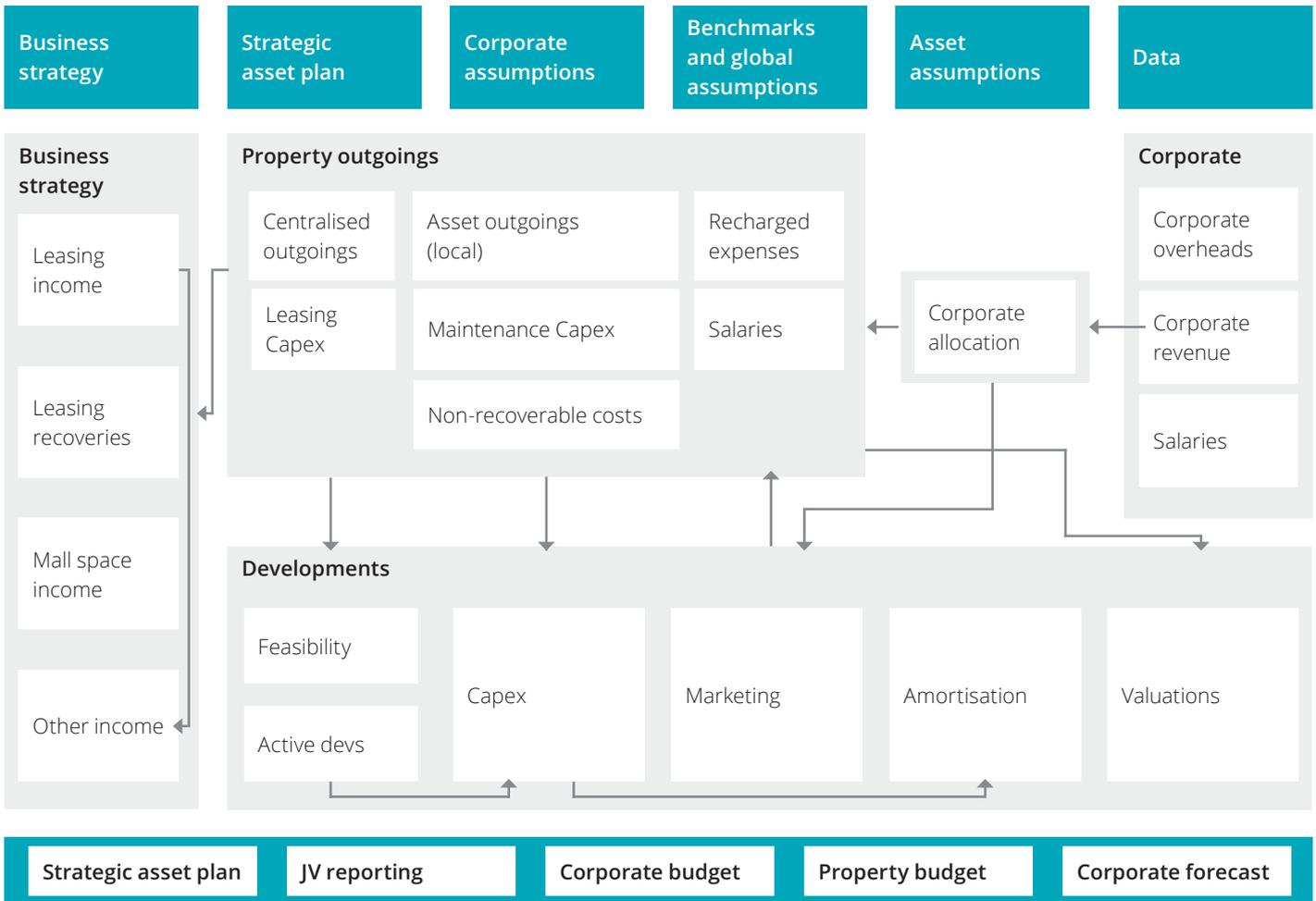
Process changes

Connected planning, budgeting and forecasting requires a different process. Due to the rate of change within the market, and the need to understand data, previous long, offline planning cycles are no longer acceptable to give both organisations and regulators where appropriate, the insight and direction required.

Connected planning is inextricably linked with day-to-day operational and asset management activity. Existing discussions on asset performance, risks and opportunities should be standardised and formalised across the organisation with the frequency and regularity of discussions matched to the operating rhythm of the business resulting in timely decision making.

Plans, budgets and forecasts should be key inputs into meetings to enable fact based and insight driven discussions. The model should be changed based on key decisions in these meetings. More frequent and less time intensive updates to the model ensure that an up-to-date view of financial performance is always available to decision makers, with minimal incremental effort.

Result: Clear sequencing of processes is key in connected planning, budgeting and forecasting. The model is more regularly updated and integrated across the entire organisation. A standard planning, budgeting and forecasting calendar enables stakeholders to understand what elements of the model have changed and need to be updated. This is particularly critical in the Real Estate industry, where revenues can be tightly linked to expenses (recoveries) and depend on changes in assumptions made by other teams (turnover rent).



Source: Deloitte Consulting

People changes

Cultural and behavioural change is critical in order to build trust in the connected planning process and what it can achieve, as well as to reinforce new, more efficient ways of working.

Cultural change must come from the top down. The effort, level of detail and number of iterations of plans, budgets and forecasts is driven by the expectations, queries and review points raised by executives. For connected planning to be successful, standard expectations need to be set across the organisation, and leaders accountable must adhere to these consistent standards. Leaders must also set the tone to engage and motivate to ensure their teams are fully committed to the new ways of working and not falling back on previous behaviours.

Conclusion

In the asset intensive real estate and property industry, the ability to efficiently and effectively update plans, budgets and forecasts, communicate this information across the organisation, and gather key stakeholders to make truly insight driven decisions is a key lever to fully exploit available opportunities and mitigate risks. In essence, connected planning, budgeting and forecasting enables organisations to make more informed decisions, faster; moving the finance function from a reporting business unit, to one that delivers real value to the organisation.

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Reimagine talent and culture

Advance people

Why should companies focus on talent and culture?

As real estate and construction companies adapt to today's dynamic digital environment, they must also confront a unique and challenging talent situation. As a new generation, Gen Z, are beginning their journey into the workforce, real estate and construction companies are accelerating their efforts to tackle growing business and talent disruption.

The rise of AI and automation, 24/7 connectivity and globalisation, coupled with an increasingly diverse workforce characterised by a large amount of expert knowledge leaving, but a highly creative workforce entering, has created a perfect storm. In fact, the MIT Sloan Management Review and Deloitte Digital's 2017 global study of digital business revealed that only 10% of the global real estate and construction sector respondents agreed or strongly agreed that their organisation had sufficient talent today to support their digital business strategy.²¹

As new skills with shorter life-cycles come into demand and existing skills leave with retiring employees, companies must seek to both understand the new norm and plan to respond to it. In this chapter we look at the challenges in the Australian market and identify key areas of focus for talent and culture strategies.

The Australian outlook for real estate and construction jobs currently ranks moderate to high, indicating a growing number of jobs will open up over the next five years.²²

However, attracting and retaining talent has been an issue; with many companies now offering incentives such as employee-funded training towards licenses, additional annual leave entitlements and team-based incentives to help draw in new talent²³ (mainly aimed at attracting Millennials).

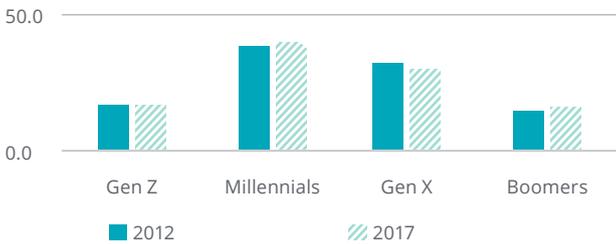
Only 10% of the global real estate and construction sector agree that their organisation has sufficient talent today to support their digital business strategy.

21. G.C. Kane, D. Palmer, A.N. Phillips, D. Kiron, and N. Buckley, "Achieving Digital Maturity" MIT Sloan Management Review and Deloitte University Press, July 2017.

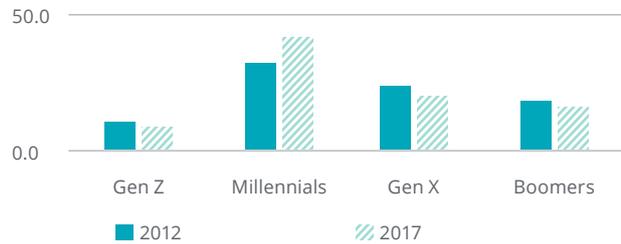
22. Australian Government Job Outlook, accessed on December 1, 2017.

23. Seek Insight & Resources, "Real Estate Employers Open for Inspection", SEEK, November 22, 2017.

Construction – demographics in the workforce (Aus)



Real Estate – demographics in the workforce (Aus)



Source: ABS Labour Force Survey, Cat. No. 6291.0.55.003

Demographic change

In the construction sector, the proportion of employees who are 55 years and older increased by 1.3% to 15% between 2012 and 2017. In contrast, the millennial²⁴ workers’ segment grew from 30.6% to 38.6% between 2012 and 2017 within real estate and from 37.9% to 39.6% in construction.

In the real estate sector, Baby Boomers are leaving with a 3% reduction over that time period. Compared to data from the US Bureau of Labor Statistics, this is an interesting reversal to the global trend, where there is an increase in Baby Boomer hires, and real estate and construction organisations are facing challenges in hiring Millennial and Gen Z talent.

The industry as a whole is being seen as an unappealing proposition for Millennials²⁵. In that regard the Australian real estate and construction leaders need to continue their focus on attraction particularly thinking about how to engage and retain the growing millennial segment and build future leaders to adapt to their needs and expectations.

A transition period is taking place, where a new generation of leaders will be required, moving away from the more traditional hierarchical approach to leadership, where decision making is driven by positional authority, and not skills or proficiency.²⁶

There is evidence that Millennials as a segment are staying longer in their jobs. However 38% still expect that they will leave their jobs within two years, creating implications for training and development.²⁷ Flexible working and role structure are influencing both loyalty and professional performance as well as significantly increasing chances of employee retention. Millennials tend to have a broadly positive view of the newest generation, Gen Z, in part due to the perception they will come into the workforce with strong IT skills and a penchant for creative thinking.²⁸

Culture and talent

With the inevitable decrease in Gen Xers and Baby Boomers, the implications on culture and talent can’t be ignored. Millennials often see Gen Z as being underprepared in traits such as patience, maturity and integrity,²⁹ all of which can be learned from experience, but also supported by mentoring programs.

With 53% of real estate and construction companies ranking ‘leadership’ as their top priority for the future,³⁰ strong mentoring programs can combine the existing knowledge base of later generational workers, with the capacity for Gen Z to be strong innovators and generators of new ideas.

Diversity and inclusion

The breakdown of current demographics demonstrates why a focus on leadership as well as diversity and inclusion is required. In construction, gender diversity shows only an 11.32% female participation rate (making it the industry with the lowest female representation rate in Australia) compared to 51.54% in real estate.³¹ Participation rates for both genders have been climbing over the years, albeit at different rates, and are shown below from 1997 – 2017.³² Males work nearly equal full-time employment rates in these industries at 89.80% and 87.61% respectively, while female full-time rates sit at 49.88% and 66.73%.³³

24. The Baby Boomers—those born between 1946 and 1964—were the first generation to adopt a widely accepted label. Then came the Gen Xers, followed by the Millennials (sometimes referred to as Gen Y). Though there is no universally accepted definition, the term Generation X is often applied to those born roughly between 1965 and 1980, and Millennial to those born between 1980 and 1995.

25. Diana Bell, “Real Estate Industry Strives to Attract Young Talent via Competitions, University Partnerships”, National Real Estate Investor, May 3, 2017.

26. Garth Andrus, Surabhi Kejriwal, and Richa Wadhvani, “Digital Transformation in Financial Services: The Need to Rewire Organisational DNA”, Deloitte University Press, November 2016.

27. Deloitte Millennial Survey 2017

28. Ibid

29. Ibid

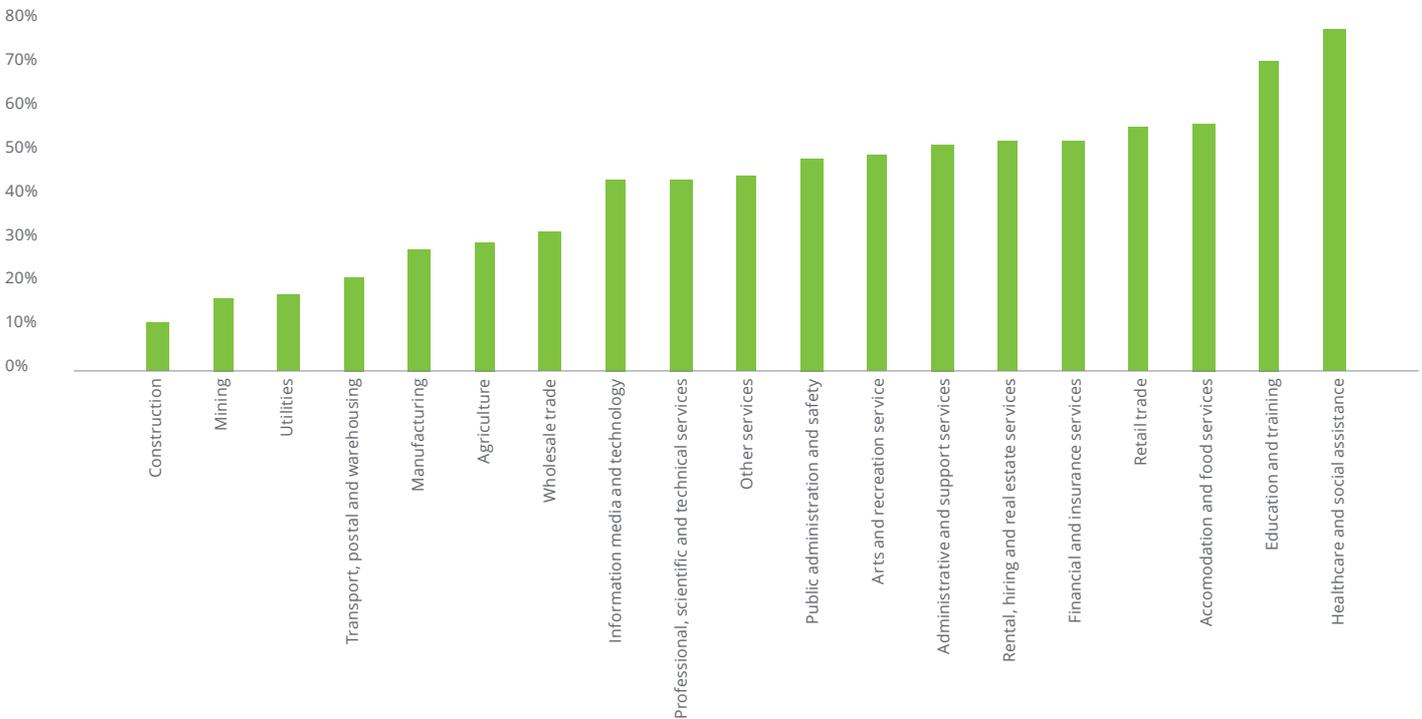
30. Deloitte Human Capital Trends 2017

31. Australian Bureau of Statistics, 2017, Labour Force, Australia, 'Table 06. Employed persons by Industry sub-division of main job (ANZSIC) and Sex', time series spreadsheet, cat. no. 6291.0.55.003, viewed 29 November 2017, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6291.0.55.003Aug%202017?OpenDocument>

32. Ibid

33. Australian Bureau of Statistics, 2017, Labour Force, Australia, 'Table 19. Underemployed persons by Industry division (ANZSIC) or Occupation major group (ANZSCO) of main job and Sex', time series spreadsheet, cat. no. 6291.0.55.003, viewed 29 November 2017, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6291.0.55.003Aug%202017?OpenDocument>

Female representation in industry



The chart above shows the construction industry's female employment share of around 11.2% is far less than education (70%) and health (77%), but is also less than other traditionally male dominated industries such as mining and transport.

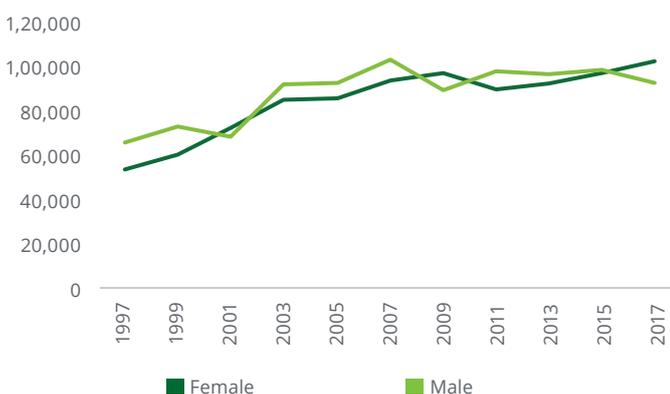
Given the construction industry is expected to see solid growth in new job openings over the next decade, female workers represent a potential source of labour supply to fill those job openings and avoid potential skill shortages.

Real estate and construction companies in Australia are realising the potential that females can bring to the workforce and are actively or possibly reactively supporting more females into the real estate sector.

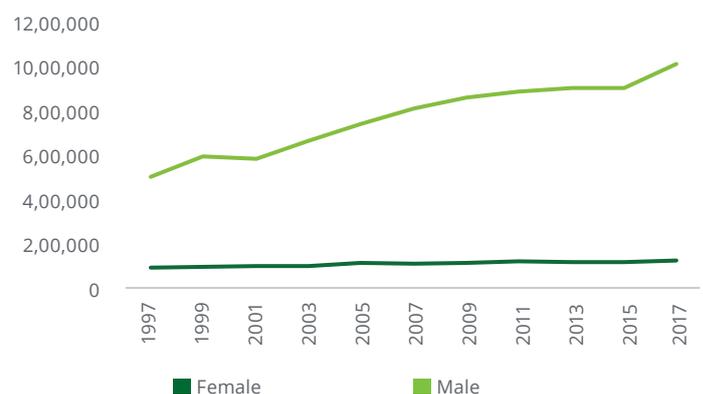
This has been championed by the pre-eminent industry association, the Property Council of Australia, which is backed by the major industry players. Programs include: Property Male Champions of Change, 100 Women in Property, Girls in Property, and the 40:40:20 target (40% male, 40% female and 20% discretionary in terms of committee representation).

Organisations such as CBRE are delivering more impactful women in leadership programs and network events. CBRE recently launched its NSW Women's Network with the aim of creating a platform for both women and men to share ideas on the industry.

Employment in real estate



Employment in construction



Source: ABS Labour Force Survey, Cat. No. 6291.0.55.003

Its goal is to shift toward a more inclusive culture and achieve more females in senior positions. Ensuring mixed teams at all levels must be a focus for real estate and construction companies, which is more complex given there are large differences between full and part-time employment rates.

In today's workplace the diversity and inclusion agenda is not just related to the female worker, real estate and construction organisations are also focused on ensuring the LGBTIQ and First Nations people are part of their strategy for workforce growth.

Organisations are now introducing unconscious bias training into manager training programs and ensuring ethnically and gender diverse project teams and working groups are managing key client activities. CBRE set up its Diversity and Inclusion Council in 2015 to show that equality was part of its agenda for growth.

Employee experience - the stats

A lack of focus on employee experience is another notable element that could have a negative impact on culture at RE&C companies. In this report we refer to "employee experience" to describe how employees feel about their employer organisation with regard to both opportunities for growth, skills development, employee engagement, and willingness to continue to work for their current company.³⁴

Legacy cultural attributes, which includes a company's adaptability to change, work style, leadership style, decision making, or for that matter risk appetite, may not be effective as work evolves and the war for talent intensifies.

Consider this: only 38% of the real estate and construction respondents of the MIT Sloan Management Review and Deloitte Digital's 2017 global study of digital business agreed, or strongly agreed, that their leaders have the necessary vision to lead a digital business.

And 77% of those respondents agreed, or strongly agreed, that they expect their jobs to change considerably over the next three to five years as a result of digital business trends. At the same time, only 30% of respondents agreed or strongly agreed that their organisation provides its employees with adequate resources to develop skills to thrive in a digital business environment.

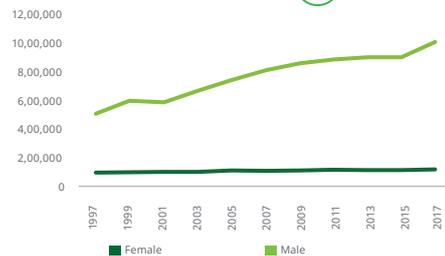
This presumed lack of focus on digital readiness and the employee experience may be contributing to the lack of talent 'stickiness' that many current organisations struggle with.

RE&C companies face several talent, leadership, and cultural challenges, which may hinder growth during the ongoing digital transformation of the industry.

Aging demographics

The proportion of Baby Boomers (55 years and older) in the RE&C workforce is 'on the rise'

Employment in construction



Employment in real estate



Source: Bureau of Labor Statistics, accessed on July 30, 2017

Traditional leadership models

Lack of leadership vision*



only **38 percent** of the respondents from the RE&C industry agree or strongly agree that their leaders have the vision necessary to lead their digital business efforts.

and limited focus on succession planning**



only **11 percent** of senior real estate leaders believe the industry is adequately prepared for CEO succession

* MIT Sloan Management Review and Deloitte Digital's 2017 global study of digital business and Deloitte Center for Financial Services analysis.

** "Avoiding Vacancy: Becoming a "Succession Leader" in the Real Estate Sector," Russell Reynolds Associates.

Less emphasis on employee experience



77 percent RE&C respondents agree or strongly agree that their jobs will change considerably over the next 3 to 5 years as a result of digital business trends

However...



only **30 percent** respondents agree or strongly agree that their organisation provides adequate resources to develop skills to thrive in a digital business environment

And...



59 percent RE&C respondents expect to work for their organisation no more than three years

* MIT Sloan Management Review and Deloitte Digital's 2017 global study of digital business and Deloitte Center for Financial Services analysis.

34. Garth Andrus, Surabhi Kejriwal, and Richa Wadhvani, "Digital Transformation in Financial Services: The Need to Rewire Organisational DNA", Deloitte University Press, November 2016.

Where should companies start?

To stay viable, clearly, real estate and construction companies should consider rethinking their approach to talent, employee experience, and diversity and inclusion in this changing landscape. In order to thrive in this ongoing change, the predominant focus has to be across four areas:

1. Tap the open talent economy
2. Enrich the employee or ‘worker’ experience
3. Redefine existing leadership models
4. Increase diversity and inclusion (especially in the construction sector).

Tap the open talent economy

Workers now take many forms – traditional ‘balance-sheet’ employees, contingent workers who are part of the ‘gig’ economy, contract outsourcers or ‘as a service’ workers, and autonomous machines/robots.

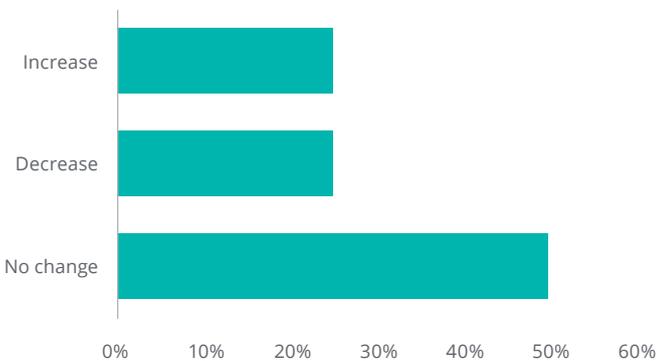
The best way forward for the sector may be to integrate the concept of the open talent economy into their talent strategy. This new open talent economy infers ‘a collaborative, transparent, technology-enabled, rapid-cycle way of doing business.’³⁵ It encompasses both traditional and alternative work arrangements such as salaried workers, hourly employees, freelancers, temp workers, independent employees, and open source talent.³⁶

According to the Deloitte Human Capital Trends Report 2017 respondents from the real estate industry in the Asia Pacific region demonstrated mixed views on the direction for the use of the open talent economy. Only 25% foresaw an increase in using an augmented workforce in the next three to five years. The use of an augmented workforce will be an important lever in becoming an agile organisation and attracting top talent from diverse sources.

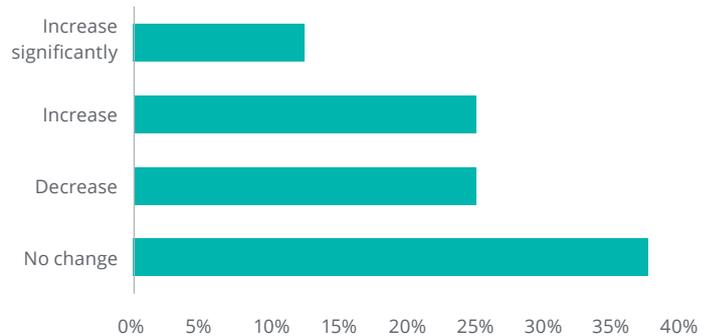
In response to the HC Trends Survey 2016-2017, real estate companies in the region were only 13% very able and 25% able, to leverage part-time and contingent talent.

Leaders could consider creating a digital employer brand and using online social technologies to attract and engage with prospective millennial and Gen Z candidates throughout the recruitment process. A good example again is CBRE, which uses NextGen employee resource groups that are focused on creating learning and networking communities for Millennials. These groups are driven and led by millennial participants with the aim of providing content and ideas on career advancement.

Your plans for the use of contingent, outsourced, contracted and part-time employees relative to the past year



Expected direction for the use of contingent, outsourced, contracted and part-time employees in the next 3-5 years vs the past 3-5 years



35. Andrew Liakopoulos, Lisa Barry, and Jeff Schwartz, “The Open Talent Economy: People and Work in a Borderless Workplace”, Deloitte, 2013.

36. Open source talent includes people who provide services for you for free, either independently or part of a community—for example, those who answer questions about your products on the web in an open source help function. Andrew Liakopoulos, Lisa Barry, and Jeff Schwartz, “The Open Talent Economy: People and Work in a Borderless Workplace”, Deloitte, 2013.

Enrich the employee experience

Companies should also consider a holistic approach to enhancing the employee experience. This would happen when companies successfully align their culture with the evolving business, operating, and customer models.³⁷ Companies could consider rewiring some of their core cultural attributes to include agility, collaboration, bolder risk appetite, distributed organisation structures, as well as the empiricism of data driven decision making. To explore these attributes in greater detail, please refer to our report “Digital Transformation in Financial Services: The Need to Rewire Organisational DNA”.

Deloitte’s Simply Irresistible Organisation™ framework suggests that five elements – meaningful work, hands-on engagement, positive work environment, growth opportunity, and trust in leadership – would help companies increase engagement.³⁸ Examples of how companies manifest this include time and location flexibility so that employees can better balance their personal and professional lives, corporate social responsibility (CSR) opportunities that give a sense of purpose by connecting the company and its employees with the community, and customised learning and development programs to cater to a more diverse workforce.

According to the Human Capital Trends survey 2017 less than half the real estate companies in APAC are updating their engagement strategy to account for changing workforce demographics and preferences. And only 22% have an integrated employee experience strategy.

Looking into the experience and value proposition of off-balance sheet workers, such as contingent workers, can also increase the size of this workforce segment. Real estate has a greater representation of permanent employees, with only 11.2% being contractors compared to 27.2% for construction. However 56% of real estate organisations in APAC use third-party specialists and teams, 14% above the APAC average (Human Capital Trends report 2017).

Organisations need to take time to review how this segment is recruited, onboarded, and kept engaged as part of the wider cultural and operational fabric.

Redefine existing leadership models

According to the MIT Sloan Management Review and Deloitte Digital’s 2017 global study of digital business, real estate and construction respondents considered an experimentation mind-set, a risk taking attitude, and willingness to speak out, as important leadership attributes for leaders to demonstrate the ability to meet a company’s digital business transformation objectives.³⁹ So developing inclusive leaders will be key in this industry.

Deloitte’s report on Six Signature Traits of Inclusive leadership focuses on curiosity, cultural intelligence, collaboration, commitment, courage and cognisance. Certainly, today’s leaders need to enhance these attributes which may require them to think, act, and react differently.⁴⁰ If leaders consciously build and display these traits, they can create an inclusive culture that drives high performance both for themselves, their people and their future leaders.

Increased focus on diversity and inclusion

As the data has shown, a more progressive approach to attracting diverse talent to lead and shape businesses for the future of work is needed. Although some companies in the sector have taken the initiative and have diversity and inclusion as one of their top strategies for growth, globally only 29% of real estate and construction organisations have a diversity and inclusion strategy. And only 22% of real estate companies in APAC provide unconscious bias training.

Diversity and inclusion is not a tick the box exercise. It is now a CEO level issue, as noted by Deloitte’s recent report on diversity and inclusion in the workplace.

Leaders need to develop and encourage diversity of thought and make a conscious effort to ensure diversity and inclusion is embedded in their DNA through their work practices and organisational processes.

Using the construction industry as an example, if more than a quarter of the Australian construction workforce are contractors, having a targeted approach to the value proposition and experience of this segment is key to achieve greater overall engagement and productivity.

37. Garth Andrus, Surabhi Kejriwal, and Richa Wadhvani, “Digital Transformation in Financial Services: The Need to Rewire Organisational DNA”, Deloitte University Press, November 2016.

38. Josh Bersin, “Becoming irresistible: A new model for employee engagement”, Deloitte University Press January 26, 2015.

39. G.C. Kane, D. Palmer, A.N. Phillips, D. Kiron, and N. Buckley, “Achieving Digital Maturity” MIT Sloan Management Review and Deloitte University Press, July 2017.

40. Anthony Abbatiello, Margorie Knight, Stacey Philpot, and Indranil Roy “Leadership Disrupted: Pushing the boundaries–2017 Global Human Capital Trends”, Deloitte University Press, February 28, 2017.

Juliet Bourke, Stacia Garr, Ardie van Berkel, Jungle Wong, “Diversity & inclusion – the reality gap, Global Human Capital Trends, Deloitte, February 2017.

Bottom line

It seems now is the right time for real estate and construction companies to make talent, the employee experience, inclusive leadership, and strategic talent management (with a segmentation focus) part of their strategic priorities. This would allow companies to better prepare for a digital future and to build these capabilities as a competitive talent differentiator. The way forward is likely not going to be easy.

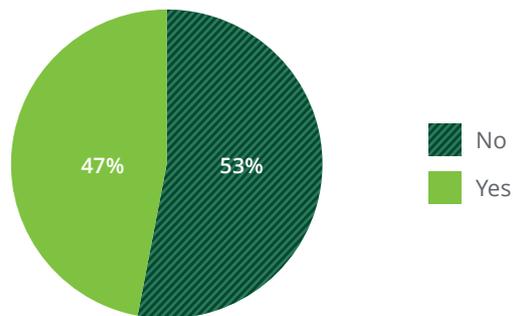
Many RE&C companies may have to rewire existing behaviours and remodel key aspects of their HR function – recruitment, the employee or worker experience, organisational design, and leader development, for example.

But, as the future of work evolves with the open talent economy and accelerating advancements in cognitive technologies, machine learning, and artificial intelligence, real estate and construction companies will have to become more agile, innovative, and collaborative to continue to stay ahead of their competitors in the race for positive financial impact.

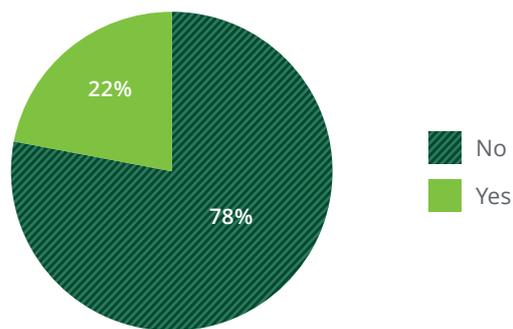
The choice is clear: keep pace with the changes in the environment around us or slowly become irrelevant.

Does your organisation provide training on unconscious bias? HC trends 2017

Global results - all industries



APAC real estate and construction



Pip Dexter leads Deloitte Australia's Human Capital Public Sector Consulting practice. Pip is passionate about improving the way people experience work in order to deliver better outcomes, and how humans, not only technology, will unlock the productivity gap.



Scenario planning

What if China stumbles?

We focus a lot on the baseline view of the Australian economy, our view of the most likely economic future. But if recent times (especially the GFC and Brexit) have taught us anything, it's that some of the assumptions that underpin 'most likely' can and sometimes do pan out differently than expected.

There are a number of risks to the most likely view, both upside and downside. They include anything from geopolitical tensions around trade, the potential for faster than anticipated global growth, through to longer term uncertainty about the speed of automation uptake. It could also include unlikely but possible risks, such as a biosecurity outbreak, or a policy change to cut migration.

That's where scenario analysis is useful. Scenarios challenge the key assumptions that underpin our baseline view, allowing us to peer around the corner at other alternative versions of the future. It allows us not only to identify risks but also the opportunities in a range of possible futures, supporting our ability to make good decisions under uncertainty.

We have modelled 10 scenarios using Deloitte Horizon – our large scale macro-econometric model of the whole Australian economy. The framework is a powerful tool that gives us insight into 56 separate industries and the ability to deep dive into the implications for the revenues, costs, profitability and employment of industries.

The power of Horizon is that we are able to drill down even further to provide firm level insights, where the modelled impacts are tailored to your firm's specific asset allocation, weighted average lease expiry profiles and sectoral exposure. When building understanding of sectoral exposure, it is critical to know what demand will look like across different property segments, as well as debt and leasing profiles, to get a sense of the size of the risk to your business.

In the next section, we use a scenario to consider how the outlook for a dummy REIT 'Property ABC' might change under a China stumbles scenario.

What would a real estate investment trust look like in a fictitious scenario 'What if China stumbled'?

Introducing 'Property ABC'

Our dummy Australian REIT – 'Property ABC' – has a relatively even spread of exposure across segments and across geographies. In the residential segment it is more weighted toward detached housing (charts below).

We will use our 'Property ABC' to explain the forecast impacts from a China stumbles scenario.

But remember this is not a crystal ball! There are a myriad of different ways any given scenario can play out – it depends a lot on what assumptions you make (such as government reactions).

China stumbles

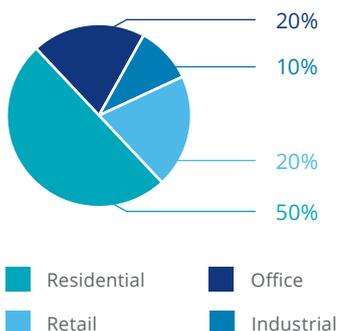
This scenario imagines China experiencing a large economic shock that halves its growth for two years and tips Australia into a short recession – the first in more than 26 years. Our defences are weaker and vulnerabilities higher than they were pre-GFC.

- Interest rates and the \$A are already low, and don't have as much room to fall
- The federal budget position would mean any fiscal response would probably be less aggressive than during the GFC
- Household debt has escalated rapidly due to an extended period of ultra-low rates, increasing the vulnerability of household to economic shocks.

Exposure to geography by revenue



Exposure to segment by revenue



Residential – developments by type



China stumbles

Why might this scenario occur?

China's economy has been transitioning to a more sustainable growth path for a number of years; one driven by consumption reflective of household incomes. But the stimulus in 2017 has again delayed this rebalancing of the economy. The IMF increased its growth forecast for China's GDP (up from 6.6% to 6.8% for 2017 and up 0.3 percentage points to 6.3% over the next three years), but warned that the latest stimulus implies an increased risk of (and size of) a sharp adjustment should the Chinese economy face a shock to its economy.

This scenario could be triggered any time between now and 2020 (a key target year with Chinese leadership targeting a doubling of the economy over the decade). But the trigger could arrive in months, as the economy and asset prices are already stretched and overcapacity remains widespread, leaving the economy exposed to external shocks. Risks range from ongoing trade tensions between China and the US, and a risk of faster than expected interest rate normalisation in the US that could result in capital flight from China.

To be clear, this scenario is lower probability than our baseline forecasts (our view of the most probable future) - Chinese authorities still have a lot of capacity to respond to a financial crisis and they appear willing to use it.

How could this affect the Australian economy?

The most direct impact would be felt by Australian miners – lower demand for Australian exports will also see us receive lower commodity prices, and inbound capital from China would stop abruptly.

Under the scenario, the RBA would swiftly drop interest rates. The Federal Government would roll out a stimulus package in the three months following the shock, which would likely go to infrastructure spending.

By 2019, our terms of trade are more than a quarter lower compared to what would otherwise be the case. Lower national income flows through to reduced business earnings and lower wages.

The RBA works to keep interest rates as low as possible for as long as possible but the large drop in the \$A sees Australia importing significant inflation growth. By 2020, the RBA is forced to raise rates to contain inflation.

Employment would be more than a quarter of a million lower – unemployment peaks just shy of 7%. Some 200,000 of the 550,000 fewer jobs in the economy would be lost in the construction sector.

Higher unemployment, lower income, the falling purchasing power of \$A, together with an increased cost of borrowing hits demand for housing hard and the difficult business environment would also affect demand for non-residential property.

But the Australian economy would gradually recover, and unemployment recovers back to baseline levels (what we would have seen if the scenario didn't occur) by 2030. With China's economy well on the way to recovery and local inflation contained, interest rates start moving down from highs in 2021.

Overall impact

This scenario is generally bad news for Property ABC's revenues. But impacts differ by segments and timing.

In 2019, cap rates and rents for retail property are most affected among the segments – and by geography WA is clearly the hardest hit in this segment.

The challenging economic climate puts downward pressure on rent across segments in every state. But rents are pretty sticky; how fast this pressure translates to a revenue impact for Property ABC depends on the trust's weighted average lease expiry profile across segments.

The residential segment quickly becomes the most affected property segment – and by 2025 Property ABC's development revenue for this segment is more than 10% lower than would have been if this scenario didn't occur. At this point, retail and industrial property become the best performing segments, owing to improved profitability for retailers, and stronger performance of the manufacturing sector seeing improved demand for industrial property.

The outlook also differs by state. Activity in the WA economy is the most affected among the states because of its exposure to commodities. The NSW and Victorian economies, which are much more diversified, are more sensitive to movements in interest rates and exchange rates. QLD falls in between, being a resource state but with a relatively more diversified economy than WA.

In this scenario, Property ABC would benefit from considering reallocating its exposure across segments and states, considering its exposure to different sectors (via the mix of lessees) for its industrial property portfolio, and optimal timing around land bank investments.

Residential

Immediately following the shock in China, lower interest rates will provide some initial support to the local property market. But as the economic shock from China works its way through the economy, it becomes increasingly difficult to pre-sell new housing developments as people become concerned about the future and their job security. Demand from Chinese investors also dries up temporarily in the scenario – and will take some time to return to the Australian economy.

Unfortunately, in the medium term the rising cost of borrowing challenges affordability in the residential market, at the same time as we see reduced demand due to higher unemployment.

- There could be a wave of fire sales by investors faced with climbing borrowing costs and stagnant rental income. Reduced competitive tension in the market, with a lower presence from both local and foreign investors, could see prices fall.

- The sector would likely see a reduced development pipeline.

From 2021, property market conditions start to improve as interest rates come back, and unemployment begins to fall. The residential sector would see a period of catch up, owing to pent up underlying demand, kicking off the next property market upswing.

Commercial

With the business cycle turning down, the outlook for business investment worsens, reducing the pipeline of future office developments. There would likely be a rising incidence in downsizing, and possibly a pickup in the number of smaller businesses folding.

The outlook for white collar employment worsens under this scenario, particularly for the professional services and the financial services sectors, although the public service wouldn't do as badly.

Vacancy rates would rise putting downward pressure on rents, but we wouldn't expect them to get as high as what we saw in the early 1990s recession. (The 1990s recession was triggered by asset bubbles, and a commercial property collapse, marked by an aggressive run up in capital values and excess stock coming on to the market).

Conditions are different now with constrained supply in the Melbourne and Sydney office markets, and while Perth and Brisbane have not performed well in recent years, these markets are close to their nadir.

White collar employment, key driver of demand for commercial property by 2020

(red means worse than baseline, through to green which means better than baseline)

	Sydney	Melbourne	Brisbane	Perth
White collar employment				

Commercial property - Indicative change compared to baseline forecasts

(red means worse than baseline, through to green which means better than baseline)

	2020	2025
Rents		
Cap values		

Retail

Reduced household income, lower wealth, higher unemployment, the lower purchasing power of \$A would together see less retail spending by households, as the cost of living rises (notably through higher mortgage costs). Compared to baseline, activity would be lower across the forecast period.

Retail activity is also hit in this scenario in the short run by a fall in tourist visits to Australia – notably tourism from mainland China would slow dramatically. But over time as the \$A falls, we would likely see overseas visits pick up from other countries, as the cost of visiting Australia falls notably.

With fewer customers spending less, retail businesses will be squeezed. It would likely see lower demand for retail space as some businesses would look to rationalise the space they have. This would put upward pressure on vacancies and downward pressure on rents and capital values.

The economy recovers over time, and by 2027 the impact of interest rates coming back (compared to baseline) will support a recovery in household spending.

Drivers of retail demand - Relative to baseline

(red means worse than baseline, through to green which means better than baseline)

	Wages and household wealth	Unemployment	Interest rates	Tourism
2020	No significant change			
2025			Back to baseline rate Interest rates rose and peaked in 2020, by 2025 they are back to baseline levels	 Still lower but recovering to levels seen if this scenario didn't occur

Retail property - Indicative impacts compared to baseline forecasts

(red means worse than baseline, through to green which means better than baseline)

	2020	2025
Rents		
Cap values		

Industrial

- The outlook for the level of output for key sectors is an important driver of demand for industrial floor space – manufacturing, food, consumer discretionary, retail, IT, transport and logistics
- Local manufacturing (where there is local demand for outputs), includes food manufacturing, furniture, clothing and footwear etc). The manufacturing sector overall does better under this scenario due to a sizeable fall in the exchange rate. The fall in the \$A makes buying locally relatively cheaper compared to what would otherwise be the case, and

also improves the competitiveness of our exports. More granular analysis reveals that there is variation across the manufacturing subsectors though, with some (including metals manufacturing and machinery and equipment) being negatively affected in the short run

- The exchange rate effect is also important for small producers – and will be a positive effect for this scenario
- On the other hand, sectors reliant on transporting imports, including transport and warehousing, are relatively worse off under this scenario.

Impacts on output for key sectors for industrial land in this scenario

(red means worse than baseline, through to green which means better than baseline)

	2020	2025
Manufacturing	neutral	
Retail		
Transport and storage		
Wholesale trade		
IT		neutral

Decisions, decisions, decisions...

The rubber hits the road when this information is used to improve your strategic decisions. Essentially, the value of scenario analysis is to prepare your organisation to react faster and more effectively than your competitors to take advantage of the changing economic conditions.

If implemented successfully, scenario analysis will improve the underlying evidence on which key decisions around asset allocation, pipeline and lease management, financial structure and stakeholder management are based.

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