New Frontiers

Capital's shift into *Alternative* real estate in Australia

JLL Achieve Ambitions

The case for alternatives investment:

- ✓ The weight of capital seeking 'core' sectors will exceed core asset creation
- ✓ Long-term, capital will need new 'alternative' real estate sectors to satisfy investor demand
- ✓ Private investors squeezed out of 'core' sectors need new places to invest
- ✓ Alignment to strong long-term macroeconomic and demographic trends
- ✓ Lower cyclicality and correlation to core sectors provide portfolio diversification benefits
- ✓ Higher investment returns, particularly for early adopters

The challenges of investing in alternatives:

- ! Often need deep understanding/investment in operational side of business
- ! Lack of market data to many cases to inform investment decisions
- ! Limited investment market liquidity in early growth phase
- ! Not all sectors will institutionalise, only those that offer true scale
- ! Some smaller sectors are vulnerable to capital flows and over-building, so timing is critical
- ! Political/regulatory factors can be important in some sectors

Introduction

Following global trends, both institutional and private investors and developers in Australia have been more actively pursuing real estate opportunities outside of the traditional core sectors of office, retail and industrial over recent years. Investor and developer interest in so called 'alternative' sectors reflects the fact that capital markets have been strong, resulting in intense competition in the traditional core sectors.

This strong competition among local and offshore institutional investors has pushed many private investors and developers out of core sectors. Consequently, for smaller investors and developers, alternatives represent an opportunity to be more competitive and, by being early adopters, put themselves into a strong position to capitalise when institutional money enters some of these markets.

For institutional investors, the pressure is to find new relatively safe sectors to place money in the currently competitive environment. Many alternative sectors offer institutional investors very steady and predictable cashflows, which is a very attractive characteristic. In addition, returns in some alternative sectors benefit from being less cyclical and much less correlated to core real estate returns. For very large investors, these characteristics mean that from a portfolio construction perspective, adding them to a portfolio gives real diversification benefits. The great challenge for institutional investors is that the large amounts of capital they need to place means they need sectors where they can achieve scale and where they do not have to aggregate a large number of assets. Larger investors will also be very concerned about an exit strategy, so eventual market liquidity will be a major consideration.

Part of the recent surge in interest in alternatives is undoubtedly cyclical. Prior to the global financial crisis we saw the same surge in interest and investors 'searching for yield' as discount rates for core sectors fell. However, investors are also undoubtedly focused on capitalising on some very real longer-term secular and structural trends at play in the background that are underpinning longer-term prospects for many alternative real estate sectors. These include strong demographic, economic, social and technology-driven forces that create a strong demand backdrop for many sectors. Equally they are looking at mitigating risk of disruption to core real estate markets, particularly retail. Structural trends driving alternatives also include longer-term capital market trends and an increase in money being allocated to real estate globally by institutional investors.

As such, we expect further significant growth in alternative real estate markets longer-term, driven by these secular and structural trends. However, not all sectors will institutionalise, and some will always remain 'niche'. The ride for investors may also be a bumpy one at times. Given that most of these alternative sectors currently have a small market size, they may be prone to over building and over investment in the early stages as a herd effect takes hold. This could have a short to medium term effect on investor sentiment, which could prove disruptive. Investors looking to take advantage of these emerging sectors will need to be prepared for these periods and maintain a longer-term focus with their strategies to mitigate these risks.

What sectors make up *alternatives*?

There is no clear definition of what is included in the term 'alternatives' in real estate and we are essentially using the term as a 'catch all' to include all sectors outside the 'core' real estate sectors of office, industrial and retail. This includes some more established sectors that have long attracted private and some institutional capital (such as hotels), emerging sectors (such as student accommodation) and sectors that do not really exist at all in Australia yet but are gaining momentum and look likely to emerge (such as build to rent residential).

While perhaps not an exhaustive list, Figure 1 is a way of classifying alternative sectors by the broader end-user demand driver of the sector, including health services, housing, education services, technology services (or IT), household services and primary production. It is clear that some sectors cut across more than one category.

Figure 1: Summary of Alternative Real Estate Sectors

The *mega-trends* influencing alternative sectors

Another way of classifying alternative sectors is by the big-picture themes or secular trends that each sector is playing to (Figure 2). For many investors, these longer-term investment themes often form a very large part of the rationale for looking at these sectors. Many of these sectors are exposed to multiple themes and the level of impact of these themes on particular sectors varies greatly. However, it is still another neat way of trying to classify each sector.

Figure 2: Summary of Mega-Trends Driving Alternative Sectors

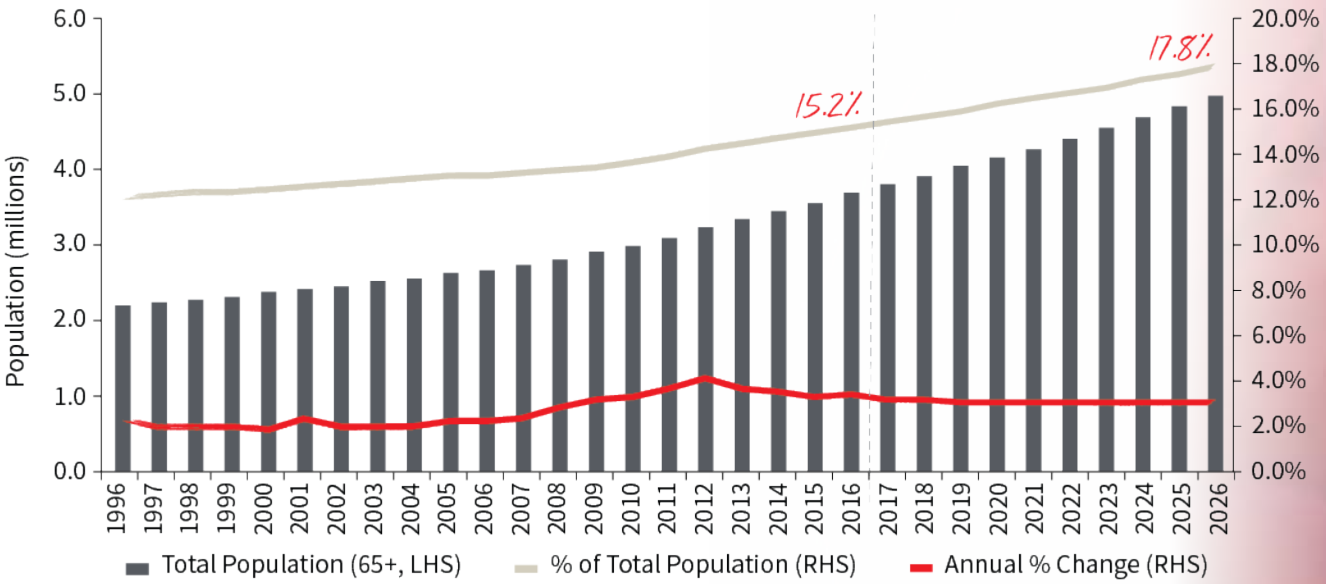
	Ageing Population	Greater Urban density / Population Growth	Housing Affordability / lower home ownership	Globalisation / Rising Asian middle class demand	Technology
Medical	✓				
Build-to-Rent Residential	✓	✓	✓		✓
Student Accommodation		✓	✓	✓	
Retirement / Aged Care	✓		✓		
Child Care		✓			
Hotels	✓			✓	
Self Storage		✓	✓		
Service Stations		✓			✓
Data Centres					✓
Agriculture				✓	✓

Mega-trend / Ageing Population

Many of the mega-trend themes are global, but some are especially relevant in an Australian context:

- **Ageing Population** – Australia has a relatively young population that is ageing at a slower pace than most advanced economies due to comparatively strong migration and natural population growth increase. Australia had a median age of 38 years at the 2016 Census, up slightly from 37 years in 2011. Nevertheless, Australia’s population is still ageing steadily. ABS data shows that Australia’s population growth over 65 years of age has already grown strongly from just under 2.2 million in 1996 to be around 3.7 million in 2016. The population over 65 is forecast to grow by a further 1.27 million (or 3.0% p.a.) over the next decade and increase from around 15.2% of the total population to 17.8% over the period (Oxford Economics, see Figure 3). This trend will most strongly influence demand for retirement and aged care accommodation (including manufactured home parks), but will also have a very strong influence on demand for medical-focused real estate. To a lesser degree, strong growth in retirees will also assist parts of the hotel and leisure sector geared to this target market, as well as potentially create a niche target market for build to rent operators to also specifically target.

Figure 3: Australian Older Population – Aged 65 and over

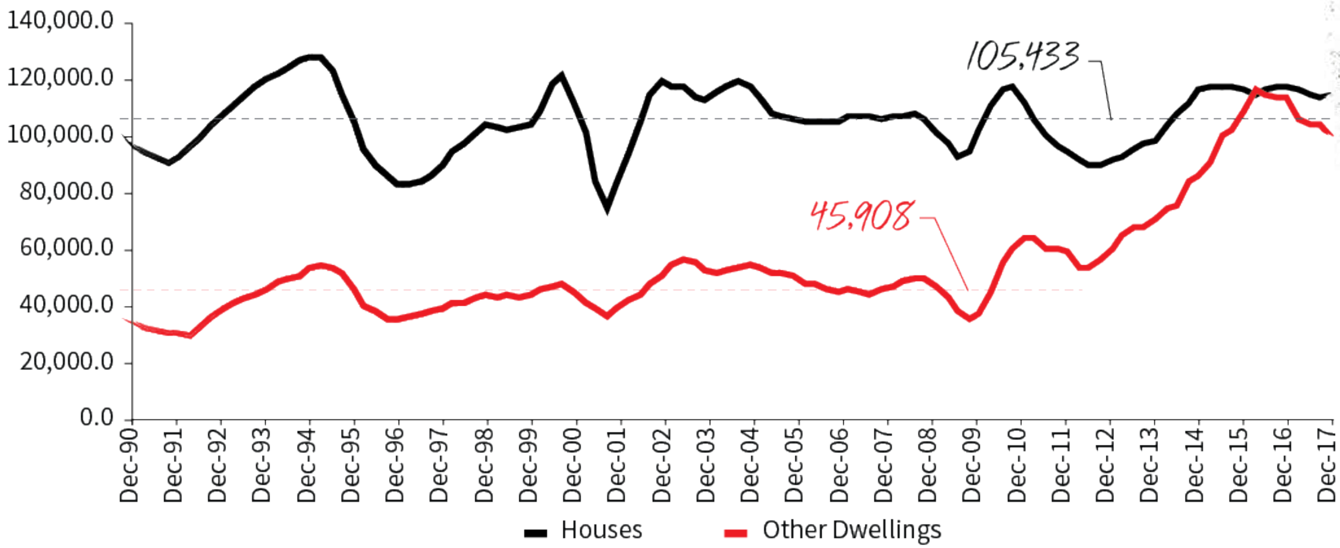


Source: ABS historical data, Oxford Economics forecasts (as at Dec 2017)

Mega-trend 2 Greater urban density and population growth

- **Greater urban density / population growth** – Among developed nations, Australia has a relatively unique population/density dynamic by having very low current urban density (among the very lowest of all major countries), but very high levels of urbanisation (89.6% of Australia's Australia population is urbanised in 2016 according the World Bank measure). These factors are against a backdrop of very strong population growth for a developed country. Australia's population has grown by around 1.6% per annum over the past five years, which compares to an average across all advanced economies of 0.5% per annum (Oxford Economics). Australia's population is expected to continue to grow by a strong 1.4% p.a. over the next decade. This means that Australia's few larger cities are, and will continue to, grow quickly and densification is now happening at a rapid rate. This is clearly evident in the fact that high and medium density construction across Australia has caught detached dwelling construction for the first time ever over recent years (Figure 4). Strong population growth will support demand for all real estate sectors. However, the rapid densification is a particularly strong factor behind current strong interest in developing a build to rent residential sector. It also flows on to student accommodation, while moving from a large suburban lifestyle to a more compact urban environment is also supporting self-storage demand. A rejuvenation and densification of inner and middle ring suburbs also supports demand for other household goods and services such as child care.

Figure 4: Building Commencements by Type of Dwelling (Rolling Annual)



Source: ABS (as at December 2017)

Mega-trend 3 Lower housing affordability and falling home ownership

- **Lower housing affordability and falling home ownership** – Like most developed countries, the rate of home ownership is falling in Australia. The proportion of the Australian population renting has risen from a low of 26% at the 2001 Census to 31% in the 2016 Census. Affordability is clearly a consideration in this trend. Measures of affordability are not as bad as they have ever been due to low interest rates, but very high capital values are making the accumulation of a deposit the challenge and keeping people in rental accommodation longer. But more than this, it is clear that the attitude of younger generations towards home ownership appears to be changing and the prospect of being a long-term renter in a desirable lifestyle location is steadily becoming more of a conscious decision for many. This trend is undoubtedly fueling much of the current interest in build to rent (BTR) residential, but it also has flow-on impacts onto the student accommodation and also to parts of the retirement/aged care sector that caters for affordability (such as manufactured home parks). The impact of affordability on the size of living spaces is also a driving factor in self-storage demand.

Mega-trend 4 Technology

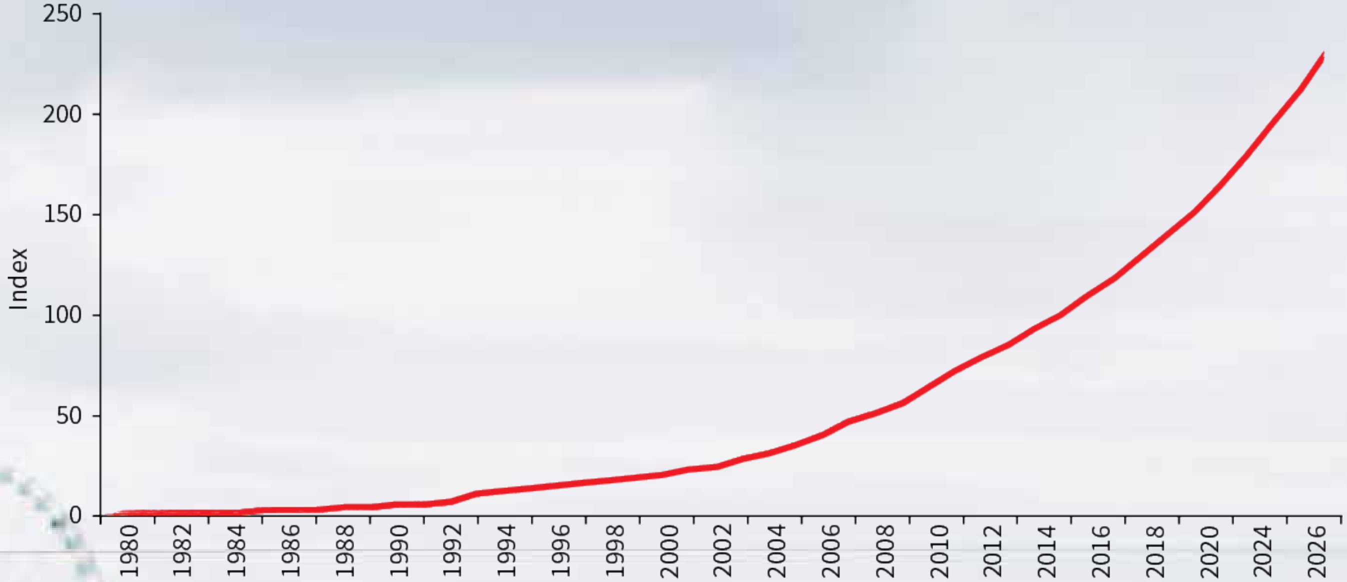
- **Technology** – rapid advances in technology have already, and threaten to further, disrupt a number of real estate sectors. Certainly the retail sector has felt the impact of online retailing, office markets are starting to see automation of process-driven jobs impact on demand growth prospects, while technology has also increased competition in areas such as hotels by enabling start-ups like AirBNB. However, technology has positive implications for some real estate sectors as well. Most clearly, the exponential growth in data storage has created very strong demand globally for data centres. For agriculture (where investors are often straddling the property and operational side of the sector) there are very large potential pay-offs from technology in increasing production yields. One less obvious technology impact for some sectors (particularly build to rent residential) is that it can allow much more sophisticated 'real time' pricing models (such as those common in the hotel sector) to be adopted and help maximise returns.

Mega-trend 5 Globalisation and Asia's rapidly growing middle class

- **Globalisation and Asia's rapidly growing middle class** – Globalisation of goods, services and the movement of people has been a major economic driver for several decades. The pace of globalisation slowed following the GFC, but Asia's continued economic development and integration into the global economy will remain a strong factor for several more decades yet. China is not the only source of this growth, but is clearly the largest source. Chinese income per capita is forecast to still grow by around 130% (or 8.7% p.a.) over the next decade after growing 193% over the last decade (Figure 5). This surge in wealth that is occurring at an unprecedented scale, has already had a large impact on Australian real estate over the last decade via the commodity boom.

However, the impact has well and truly moved to the service sector over recent years, particularly tourism and education. Inbound tourist visits to Australia have surged 7.8% p.a. over the five years to December 2017, with Chinese visitors growing 16.4% p.a. over the period (Tourism Research Australia). Similarly, international student numbers in Australia have grown 15% p.a. the past three years, with Chinese and Indian students growing 20% p.a. to now represent around 44% of all current international students. These trends will continue to be a boom for the local hotel and student accommodation sectors, but it is increasingly expected to translate into a boom for Australia's agricultural sector as Asian incomes grow and tastes/consumption preferences change.

Figure 5: Chinese Income per Capita, LCU (Indexed, 2016=100)



Source: Oxford Economics (as at December 2017)

The capital equation

Growth in real estate capital > growth in core assets

One of the fundamental reasons we believe alternatives will flourish longer-term is that there will be a shortage of asset creation in core sectors in the future that will necessitate the spread of capital into new frontiers. We believe that this shortage can be demonstrated quite clearly by just focusing on the domestic capital equation, before even considering the very strong fundamentals of global capital into real estate and the relative attractiveness of Australia.

On the domestic front, it is Australia's large, mature superannuation system that dominates capital flows into core real estate. Australia's superannuation system currently has $2.61 trillion funds under management (Australian Prudential Regulation Authority, December 2017), of which around 8% is invested into property (around 5% in unlisted property and 3% in listed property). Estimates of the future growth in superannuation system vary significantly between 6.5% p.a. to 11.1% p.a. (see Figure 6), but even at the lower end, this represents strong growth.

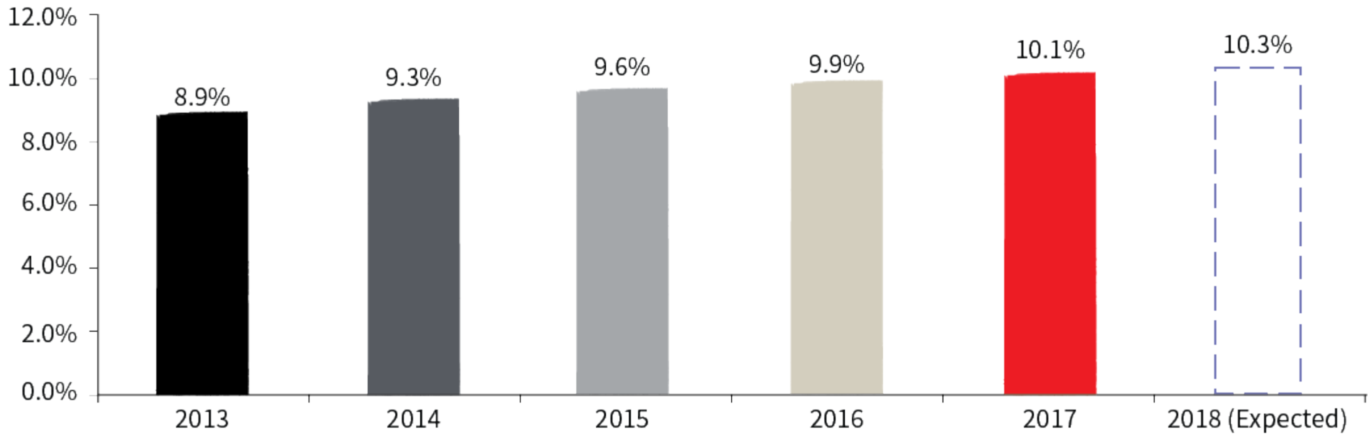
Taking a mid-point of these estimates, growth of ~7.5% p.a. in superannuation money going into real estate can be assumed under the conservative assumption that there is no further increase in the real estate allocation of funds. This is despite the fact that the allocation of Australian super funds to real estate (8%) is low compared to surveys of major global institutional investors, which show a steady rise over recent years to around 10.1% in 2017 (See Figure 7).

Figure 6: Projected Size of the Australian Superannuation System

Forecast	Base Year	Base Value ($, trillion)	End Year	End Value ($, trillion)	CAGR(% p.a.)
KPMG	2014	$1.9	2025	$3.5	11.1%
Actuaries Institute	2014	$1.8	2029	$5.4*	7.6%
Cooper Review	2009	$1.1	2035	$6.1	7.1%
Deloitte	2015	$2.0	2035	$9.5	8.1%
Rice Warner	2013	$1.6	2043	$10.6*	6.5%

* Nominal values estimated by ASFA from 'real' projections, based on 2.5% inflation per annum.
Source: ASFA

Figure 7: Investor Survey* - Weighted Average Target Real Estate Allocation



* Survey covers 244 institutional investors, domiciled in 28 countries and represent over US$11.5 trillion in total assets and approximately US$1.1 trillion of real estate assets.
Source: Cornell University Baker Program in Real Estate and Hodes Weill & Associates

Globally, there are some other major shifts in the investment landscape that will significantly increase the flow of money into real estate. One of these is the slow move of Japan’s enormous pension system into real estate assets. With a near-zero allocation to real estate historically, the pressure of negative nominal (and ‘real’) yields on long-term Japanese bonds is strongly encouraging a shift into real estate. Japan’s largest pension fund, the US$1.3 trillion GPIF, has increased its allocation to ‘alternatives’ (including real estate, infrastructure and private equity) to 5% and has been increasing its in house real estate capability, while many others have been following suit. The other major impact on global capital is likely to come from Chinese life insurance companies, which have seen >20% p.a. growth over recent years as a result of very strong inflows as wealth grows. These factors, along with the slower shift of other major investors such as sovereign wealth funds into ‘real’ assets, is likely to see further strong growth in the global pool of capital seeking real estate assets.

Australia has been a very attractive location over recent years for global capital from all regions and has seen record levels of inbound investment. This attractiveness is underpinned by the relative stability of our economy and the high transparency of our real estate markets[1]. Capital flows will be cyclical and undoubtedly will fall from recent record levels. However, the longer term drivers of global capital into real estate is strong and Australia is going to remain a very attractive location to place this capital. As such, we believe it is safe to say that the total growth of funds moving into Australian real estate will be well-above the indicative 7.5% p.a. growth of the local superannuation system.

In contrast, we believe the creation of core assets will be much lower. Over the past decade, Australian office stock has grown by around 2.1% p.a. (JLL data), while the stock of retail assets has grown by 1.7% p.a. (PCA Shopping Centre Directory). Nevertheless, in the case of retail this growth has overwhelmingly come from the expansion/redevelopment of existing assets and there is only 27 more centres than a decade ago (0.2% p.a.) and so breaking into the market for new investors has been very challenging. Further, there is no question that the current strong competition from online retailing will mean that far less new retail space per capita will be required in future relative to the past. Industrial stock numbers are not as readily available in all markets, but there has been relatively strong growth in institutional sized assets over the past decade. Nevertheless, much of the sector remains below institutional size/quality and the concentration of development/ownership will again give limited scope for new investors to break into the market.

The bottom line is that the stock of core real estate over the next decade is likely to grow by much less than 2% p.a. and if you assume historic capital growth of around 3% p.a. (MSCI IPD), then the core investment stock is likely to grow (~4-5%) by far less than investment funds seeking real estate (>7.5 p.a.). Consequently, investors will be faced with three choices (a) continue to pay more for core real estate, (b) go offshore (but capital moving out of Australia is likely to be more than offset with extra inbound interest), or (c) find new ‘alternative’ real estate sectors to invest in. The most likely outcome will probably be a combination of all three options, but we believe that there is little doubt that institutional investment will have to move into new sectors long-term. This will create opportunities for early movers (both institutional and private) to capitalise on this long-term trend, but investor need to realise it will not necessarily be a smooth ride at all times.

“The total growth of funds moving into Australian real estate will be well-above the indicative 7.5% p.a. growth of the local superannuation system.”

1. JLL recently released its 2018 Global Real Estate Transparency Index that ranked Australia as the second most transparent real estate market behind the United Kingdom. JLL have been undertaking this index for almost two decades and Australia has consistently been among the top few transparent market over the entire period.

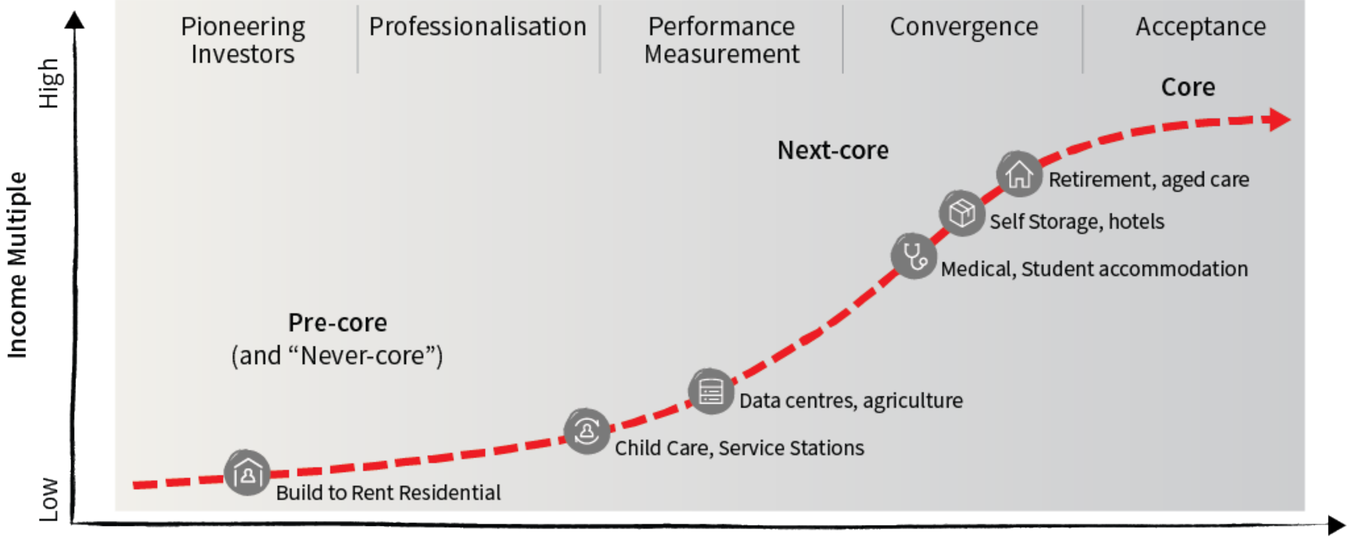
The path to maturity

Institutionalisation of niche property sectors is neither assured, nor a necessarily smooth journey. History in both Australia and other markets shows that some markets will never grow beyond niche, while the path to maturity can be a bumpy one (sectors can even move backwards on this path). With institutional investors having ever-increasingly large amounts of capital to allocate, the ability to achieve scale is a very important determinant of a sector's potential to institutionalise. Consequently, the potential to institutionalise is lower for sectors where the total size of the market is relatively small and/or individual asset size is small and fragmented ownership makes them hard to aggregate. Nevertheless, these sectors that remain niche can still provide private and smaller investors (that are increasingly being pushed out of core sectors) with a good opportunity to invest or develop more competitively.

In a recent paper[1], LaSalle Investment Management set out a framework for analysing where sectors are on the path to maturity (re-created in Figure 8). LaSalle note that markets do not necessarily move in a linear way along this curve and, indeed, can slip backwards, but it is intended as a general guide to judge where sectors are in the process. We have added our assessment of where we believe some of the main alternative real estate sectors in Australia are currently within this framework.

1. 'Going Mainstream: Niche Property Types and Their Path to Market Acceptance, 2016.

Figure 8: Alternative Sector Life-Cycle



- Investment thesis based on an unmet tenant need
- Handful of early investors
- Operating expertise developed

- Growth of specialist management companies, data sources, technology and brokers
- Rising fundamentals and transparency
- Wider press coverage

- Wider price discovery
- Enters real estate indices and benchmarks
- Early investors develop track records
- REIT reporting and transparency deepens

- Capital inflows accelerate
- Rising institutional allocations
- IRR and yield spreads decline
- Declining risk perception

- Fully priced, with little or no premium
- High share of benchmark index
- Included in core portfolios as risk diversifier

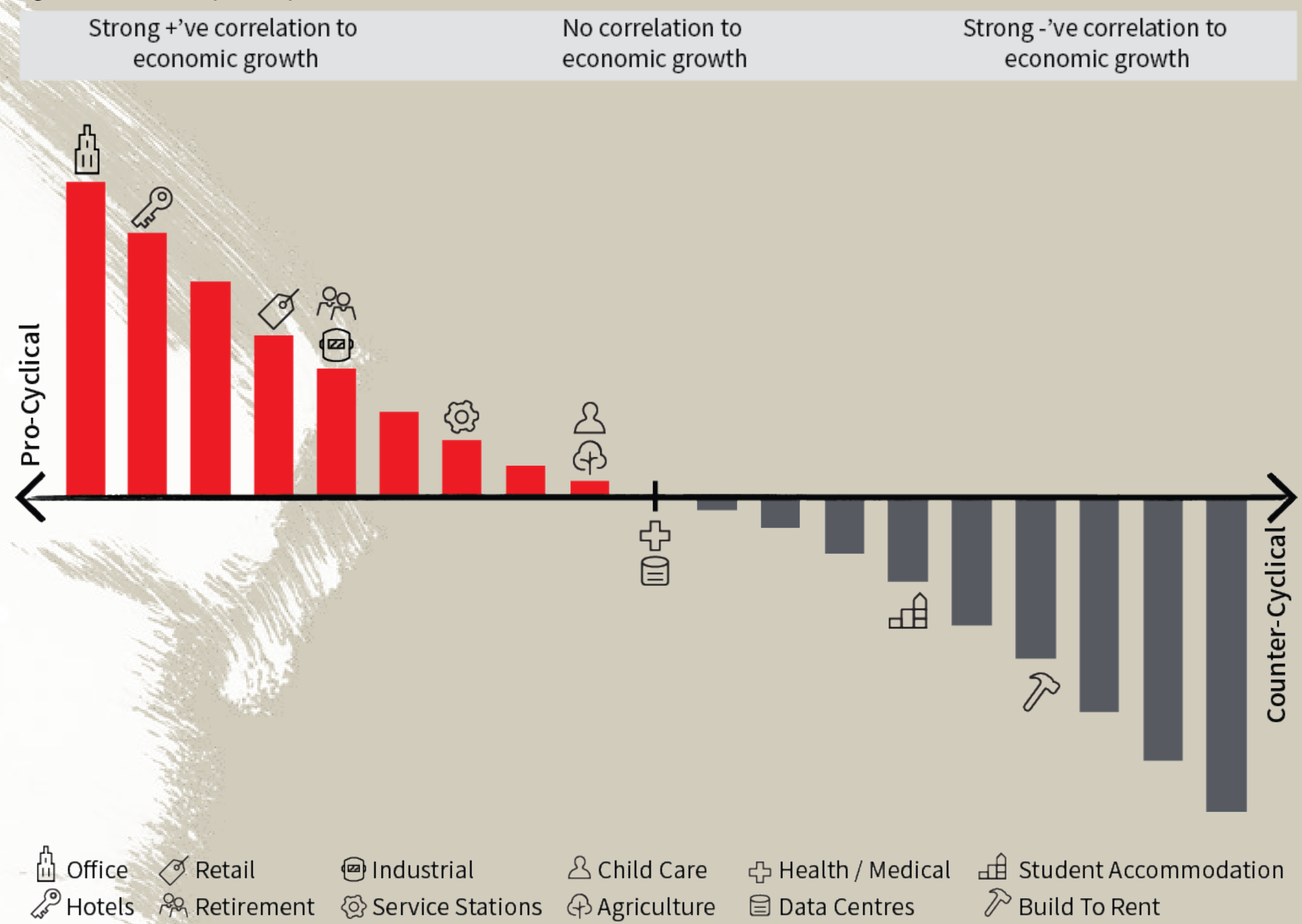
Sources: JLL Research, LaSalle Investment Management

The *portfolio* benefits of alternatives

One clear benefit for large investors of entering some alternative real estate sectors is that they can offer some genuine portfolio diversification benefits. From a portfolio construction point of view, the problem with the core sectors of office, industrial and retail is that they are all highly pro-cyclical and, consequently, returns are highly correlated with each other. Looking at high-level sector returns from MSCI/IPD data, the correlations of total returns is particular high between office and industrial (0.89 correlation co-efficient), but is also relatively high between retail and industrial (0.71) and office and retail (0.67). So in theory, if alternative sectors can be found that genuinely offer lower cyclicality, or slight counter-cyclical properties, then adding them to the portfolio can reduce overall portfolio volatility and enhance risk-adjusted returns.

We note that there will be some level of correlation between all real estate sectors because capital markets all tend to move in the same direction. That is, capitalisation rates tend to all rise together during a downturn and fall together during good economic times, only the level of change varies. This is not true of income streams. There are a number of sectors where demand is not primarily driven by economic factors at all and are not very cyclical (child care, health, data centres), so income streams stay relatively unchanged during a downturn. There are also some sectors that show slight counter-cyclical tendencies and income rises in a downturn. BTR residential for example benefits form an economic downturn, when less people can access finance to buy and consequently more people rent. Additionally, student accommodation demand rises as student numbers generally rise in an economic downturn as more people return to higher education. Figure 9 shows our indicative assessment of where different real estate sectors sit on the spectrum from highly cyclical (pro-cyclical) to highly counter-cyclical.

Figure 9: Indicative cyclicality of Real Estate Income Streams



Sources: JLL

The challenges and risks of *alternatives*

While there are clearly some great long-term opportunities in alternative real estate sectors, there are also some fundamental differences to core sectors that investors need to understand, as well as some clear risks that investors need to manage. Some of these challenges include:

1. **Understanding/Investing in the operational side of the business**

Institutional investors have become very used to and comfortable with understanding and managing the risks associated with the underlying business that underpins demand in the office, industrial and retail sectors. In contrast, alternative sectors can be very specialised. Not only do investors have to invest the time in understanding the drivers of new sectors when looking at alternative sectors, but in many cases investment in the operating business is highly entwined in investing in the property assets. Indeed, an integrated ‘PropCo/OpCo’ investment strategy, where a position is taken in both property assets and the operating business, is quite common across many alternative sectors. In some cases this has been born out of necessity in new sectors where there has been a lack of investors and operators with a long track record and organisations have adopted an integrated approach to get scale and improve the efficiency in an emerging market. However, with the additional return gained from investing in the operating component of the business comes the increased inherent risk with the investment.

Agriculture is a good example of a sector where the drivers of the underlying business are quite complicated and specific. This takes a lot of time for investors to fully understand and property returns alone can be relatively low without any operating risks, so it makes sense to leverage this information base and invest in the operating business as well to achieve enhanced returns. For this sector, the big long-term opportunity is also on the operating side to utilise technology to significantly improve production yields. Consequently, investing in just the property on simple lease structures to operators does not fully allow investors to capitalise on this opportunity.

Figure 10: Alternatives – Investment Style and Hypothetical Total Return Profile

Sources: JLL

2. Political and regulatory factors can be very important

For investors in core real estate, political and regulatory risks are generally relatively low. However, for many alternative sectors, including health, retirement, aged care, agriculture and child care, these risks can be significant. For child care, underlying demand is strong due to strong population growth (including strong 'natural increase' relative to other developed countries), but in the short-term end-user demand can be sensitive to changes in the Federal Government funding model. In the medical sector, much of end-user demand is reliant on public funding and changes in governments can lead to quite significant disruption to the sector.

For retirement living, the structure of the transactions in the traditional retirement village sector is governed by state legislation and can end up being quite complicated and result in very large complex contracts for residents. This complexity has recently become a negative focus point in the media, which is leading to both market-led simplification of contracts, as well as reviews of legislation around the country to simplify the basic retirement housing model. Aged care is further regulated by Federal Government legislation (Aged Care Act 1997) and again is very much exposed to political risk as changes in government alter general policy direction.

While these risks take some time to fully understand and can impact finance availability in some cases, once understood there are some measures that can be taken to mitigate these risks. Political/regulatory risks also need to be off-set against the benefits that these sectors are far less cyclical than core real estate cashflows and, as such, offer portfolio diversification benefits to investors.

3. Not all sectors will institutionalise, but niche is still an opportunity!

Investors should not just assume that all alternative sectors will institutionalise over time and provide a value uplift from this process. Some sectors will undoubtedly stay niche or specialised, as they simply do not offer the size and scale that institutional investors require to make investment viable. This is true on an individual sector size basis (although some sectors like data centres still have the opportunity to institutionalise on a regional basis even though the size in Australia may be insufficient of itself) and on an individual asset size. In terms of asset size, sectors like child care would be difficult to justify for institutional investors – even if they could obtain a portfolio deal to help in the aggregation of many small assets, it would still be less than ideal from an operational efficiency perspective to be overseeing the asset management of such a large number of single assets. Nevertheless, these sectors are likely to remain a very important space for private investors and syndicates to invest and develop, as many of these groups are being squeezed out of the core real estate sectors. As such, these sectors can still continue to develop and grow increasingly sophisticated over coming decades, but they are just unlikely to attract large scale institutional investment.

For some sectors, the level of specialisation will be a constraint on institutionalisation more than size. This is perhaps the case for hotels, which is a very long-established real estate sector, but the very particular nature of the sector has seen it continue to remain a largely privately held investment class. Agriculture too is highly specialised. Agriculture is potentially very large in terms of total market size, but in reality it is really numerous smaller sectors with 'cottage industry' characteristics and very different demand drivers. The sector has already attracted some institutional investment, and we do expect this to continue, but perhaps its complexity will constrain the rate and ultimate level of institutionalisation of Agriculture.

The sector with possibly the greatest potential for institutionalisation is actually the least developed at present, build to rent residential. While there are clear hurdles to the sector's development that need to be overcome, what BTR residential does offer investors is a very large potential market size, sizable individual assets and relatively simple fundamental demand drivers and a business model that makes it easy for large global investors to invest in multiple jurisdictions. The sector is also highly institutionalised in other countries and Australian superannuation funds also now have extensive experience with investing in it in other countries, particularly the US[2].

Health/medical real estate has already seen some institutional investment and also has a large potential for further institutionalisation. The market size is large, average asset size is large and it offers much lower correlation to broader economic trends and core real estate sectors. Assets are also generally underpinned by good long-term and secure covenants.

2. For more information on the build to rent sector, please see JLL's paper Build to Rent Residential: Australia's Missing Sector, September 2017.

4. Liquidity risks need to be managed

The challenge for investors with any new sectors is judging the depth of future investment demand to facilitate an appropriate exit strategy for investments at all points in the economic cycle. In theory, investors should be adequately compensated for this liquidity risk and it should form a large rationale for a yield 'risk premium' for alternatives over core property yields. It is the shrinking of this yield premium over time that should provide early investors in new sectors with above-average long-term returns.

Nevertheless, the tricky part in reality is that we are now in a strong, mature phase of the real estate cycle and it can be difficult to judge how much investor interest will remain in some sectors through the cycle and exactly what an appropriate risk premium may be.

BTR is a particularly challenging prospect, given that the sector does not actually exist at this point in Australia, but there seems very strong latent investment demand for the sector. This combined with the fact that returns are already tight to make the sector work at current residential pricing, means that investors may ultimately be forced to except a lower 'liquidity premium' than they otherwise would for new sector.

In some cases liquidity premiums will be skinnier than investors ideally would like, but this can be partly offset if there is an alternative exit strategy in place from the outset. These could potentially include changes of use or the break-up and ultimate sell-down of an asset.

5. Small sectors are exposed to volatility

The other factor investors should incorporate into a risk premium for alternatives is the fact that smaller new sectors will be subject to more volatility than large mature sectors. This is largely to do with liquidity - a small new sector can be subject to swings in sentiment among investors that can more significantly impact the total market buyer pool than in a large mature market. However, the other big factor driving greater volatility is that it is much easier to over-supply a small emerging market than a large mature market. As such, investors do need to monitor supply pipelines very closely. This is particularly challenging when markets are new and market information is relatively difficult to obtain, but we believe well worth the effort of undertaking or commissioning some primary research into supply levels ahead of investment.

Retirement living

SWOT analysis

Strengths

- Underpinned by strong demographic trend
- Current low penetration rate
- Relatively mature alternative market
- Ability to achieve scale
- Stable cash-flow once established

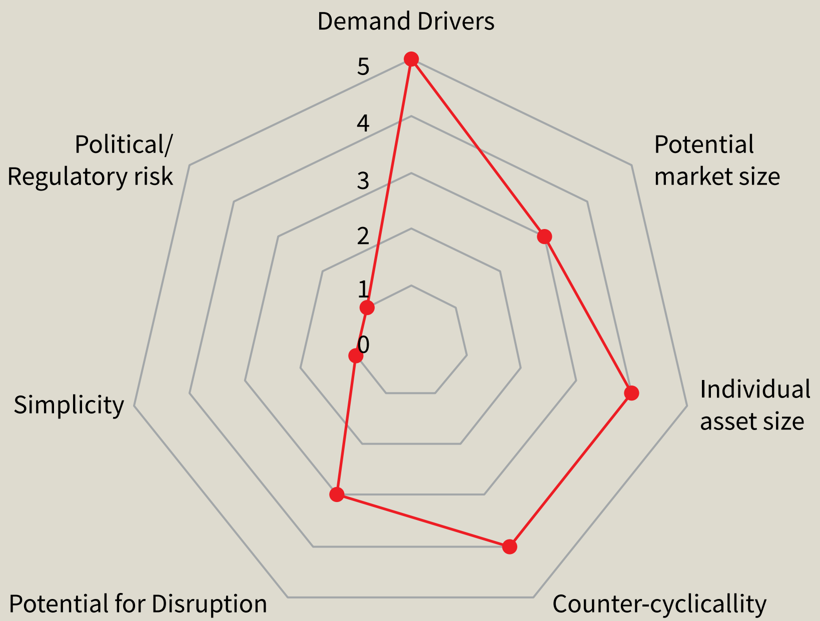
Opportunities

- To introduce more consumer choice and more flexibility in contracts
- To simplify existing paperwork and make it easier for the consumer to interpret
- Continued consolidation across the sector

Stage in Cycle: Convergence

Estimated Market Size*: $23 billion - $28 billion

Major Operators: Lendlease, Aveo, Stockland, Retire Australia, Not for Profits



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Weaknesses

- Initially very capital intensive
- Low initial cash-flow makes funding difficult
- Complexity of contracts (perception problem)
- Subject to regulatory intervention
- Current tax regimes not supportive of retirees selling out of existing household

Threats

- Industry reputational risk
- Changing regulatory environment
- Collapse in general housing market reducing equity available to retirees
- Financial market collapse slowing retirement

Aged Care

SWOT analysis

Strengths

Underpinned by strong demographic trend that is growing

Demand is typically exceeding supply

Cashflows underpinned by Government

Relatively future proofed as aged care is a 'need' as opposed to a 'want'

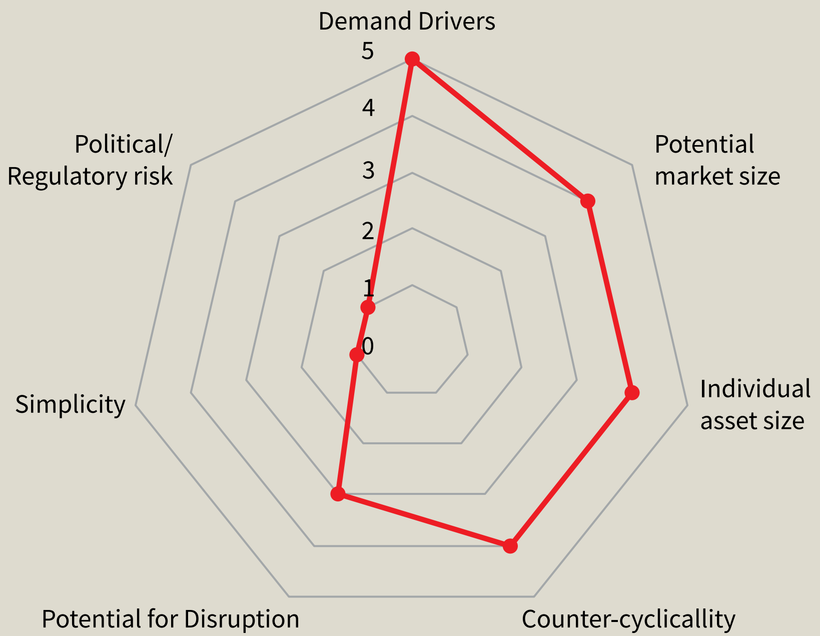
Opportunities

Consolidation will be an ongoing opportunity due to fragmentation of ownership across the sector

Stage in Cycle: Convergence

Estimated Market Size*: $37 billion - $42 billion

Major Investors/ Operators: Regis Healthcare, Japara, BUPA, Allity, Estia Healthcare, Arcare, Opal, Not for Profits



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Weaknesses

Growth of sector controlled by Government and issuing of licenses

Relatively high cost to build

Competition from other land uses to secure sites

Threats

Changes to the regulatory environment

Changes to the funding model

Investor concerns around reputational risks

Private Hospitals

SWOT analysis

Strengths

Underpinned by ageing population

Typically long term lease covenants

Government contributions supporting cashflows

Strong levels of private health insurance

Opportunities

Collaboration with Government on public/ private developments

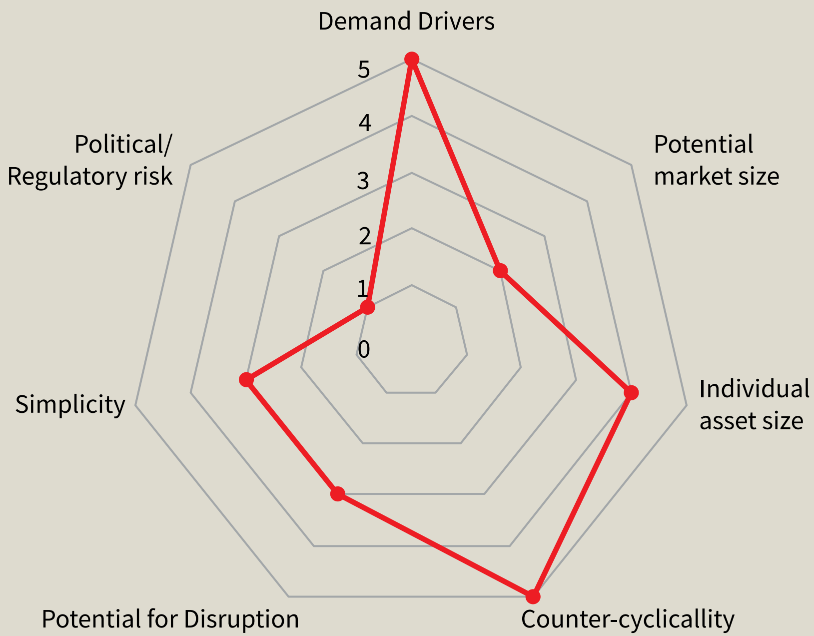
Continued consolidation of operators/ owners

Ingoing brownfield extensions of existing hospitals.

Stage in Cycle: Convergence

Estimated Market Size*: $10 billion - $15 billion

Major Investors/ Operators: Australian Unity, Ramsay Healthcare, Healthscope, NorthWest Healthcare, Barwon, Not for Profits



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Weaknesses

Accessing land in the right locations for further development

Access to workforce to support further development.

Threats

Changes to the regulatory environment

Changes to the funding model

Continued increases in Health Insurance premiums

Continued pressure on wage costs across the medical sector

Child Care

SWOT analysis

Strengths

- Relatively strong Australian birth rate
- Government initiatives subsidise children attending day care
- Non-cyclical cash-flow sector

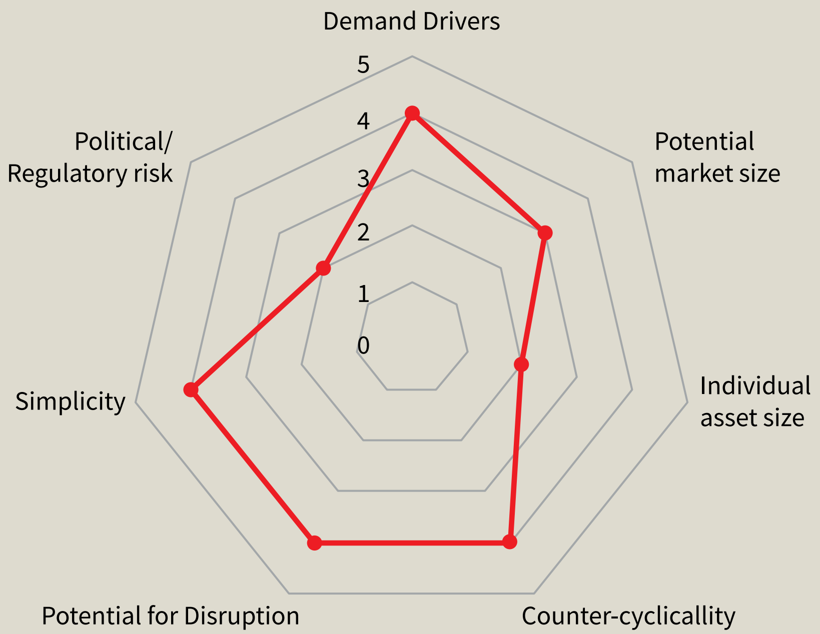
Opportunities

- Further JVs with operators
- Industry consolidation may create more portfolio opportunities

Stage in Cycle: Professionalisation

Estimated Market Size*: $20 billion - $25 billion

Major Investors/ Operators: Folkestone, Arena, G8 Education, Goodstart Early Learning, Affinity Education



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Weaknesses

- Open to political / regulatory risks
- Small individual asset size
- Operators still relatively small and fragmented

Threats

- Regulatory risk
- Potential supply issues in some locations
- Increased pressure on wages which could impact profitability

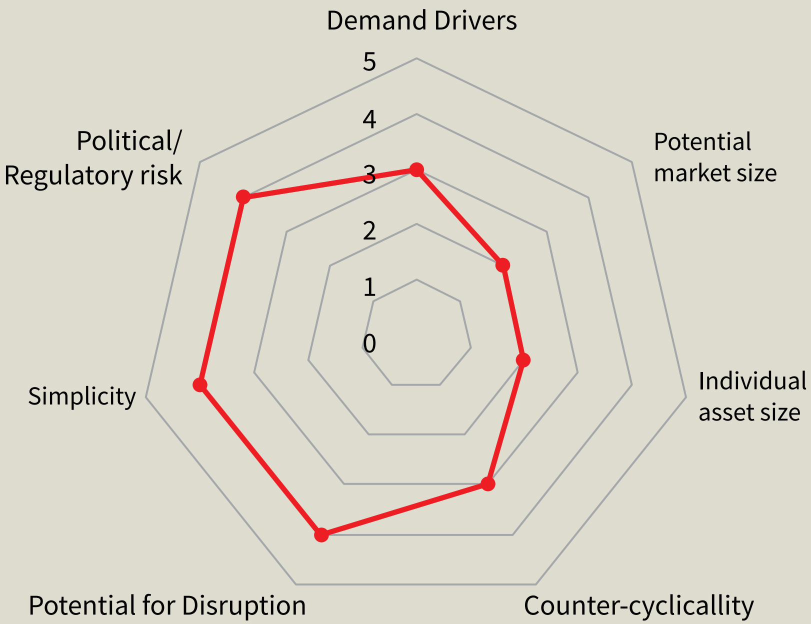
Self Storage

SWOT analysis

Stage in Cycle: Convergence

Estimated Market Size*: $12 billion - $17 billion

Major Investors: National Storage, Kennards, Abacus



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Strengths

- Stable income characteristics with low volatility
- Low correlation with core real estate and equities
- Underlying land value in inner city locations can provide potential development upside
- Demand supported by shrinking living sizes with apartment boom and affordability pressures

Weaknesses

- Potentially long initial let up time
- Strong operating component
- Asset size is relatively small
- Limited large scale portfolios
- Difficulty in finding appropriate sites due to other land uses

Opportunities

- Long-term development upside on some assets
- Operational efficiencies with scale
- Strategic alliances with existing operators

Threats

- Increasing levels of competition leading to aggressive pricing
- Long-term driverless cars may free up garage space in suburban homes

Student Accommodation (Purpose-built)

SWOT analysis

Strengths

Growth of foreign students in Australia

Low-cyclicality/low correlation to core returns

Established operators such as UniLodge, Scape, Atira (Bluesky), StudentOne and Iglu

PBSA is a strong investment market in Europe and the US – level of investment to date in the Australian market indicates that it can follow this trend

Opportunities

Increase the very low domestic student penetration rates

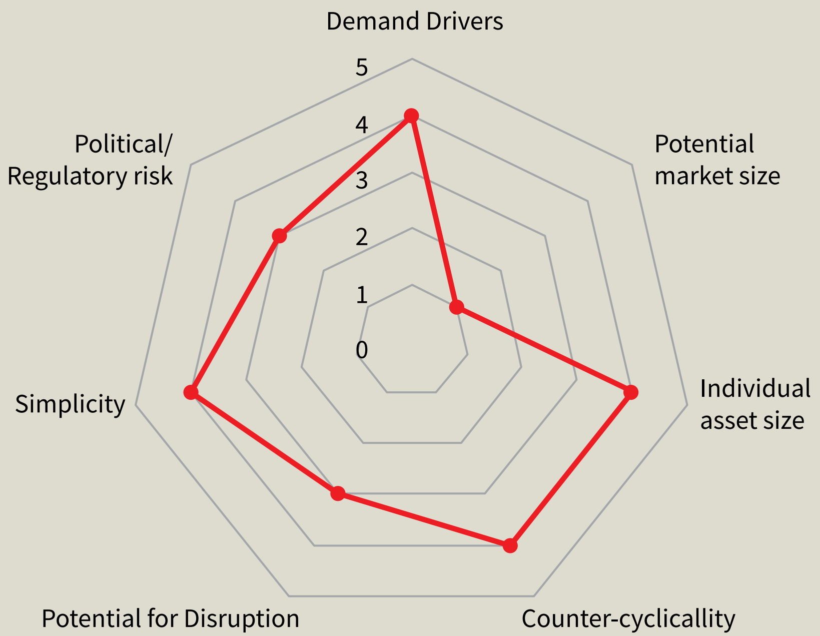
Integrate with a BTR residential model as an entry point

Sell security benefits to foreign student market

Stage in Cycle: Convergence

Estimated Market Size*: $6 billion - $8 billion

Major Owner/Operators: Scape, BlueSky/Atira, Iglu, Urbanest, Unilodge



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value

Weaknesses

Reliance on foreign students / AUD

Management intensive / management fees

Value of land with competing land uses

Affordability for students in some locations

Threats

Supply pipeline is large in some markets

Deregulation of tertiary education fees and higher living costs could deter foreign students

Emergence of BTR residential in Australia

Agriculture

SWOT analysis

Strengths

Strong demographic drivers from the rising middle class in Asia

Australia has a strong reputation for clean and green high quality produce which commonly leads international price premiums

Despite recent FIRB rules tightening, Australia has a relatively low level of regulation around land acquisition and ownership

Opportunities

Pairing with an established operator

Ability to institutionalise a very traditional sector

Large potential efficiency gains

Changing diets of other emerging nations

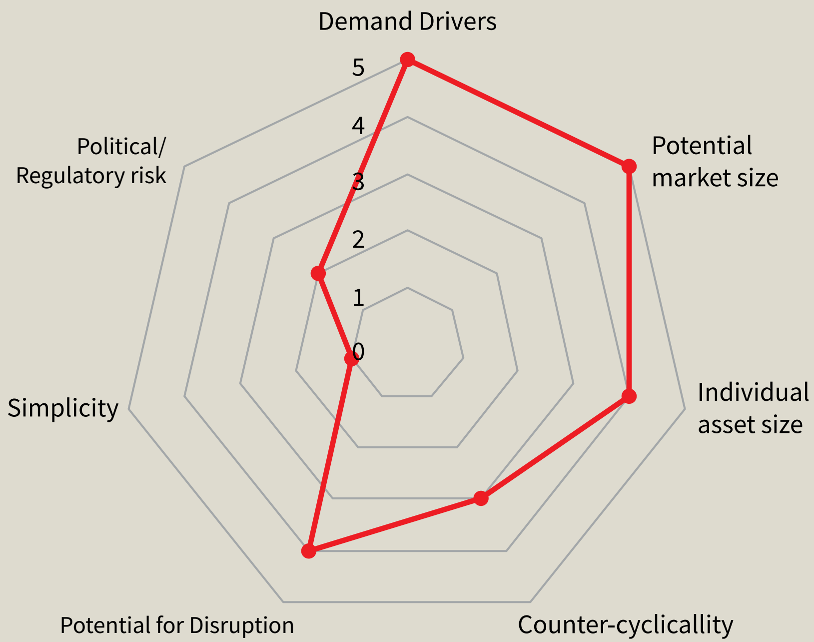
The westernisation of diets in large economies such as China and India provides large growing markets for Australian produce

Inbound capital - guiding international investors to the right agricultural investments

Stage in Cycle: Performance Measurement

Estimated Market Size*: $330 billion

Major Owner/Operators: Rural Funds Management, CL Life Sciences, Macquarie, Rifa Salutary



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on estimated value of farm assets, of which only a very small portion are held by institutional investors, See Driving Super Fund Investment in Australia, Industry Super Australia, June 2017

Weaknesses

High levels of operating risks

Large number of sub-sectors (e.g. cropping, grazing, horticulture, viticulture and poultry)

High CAPEX costs

Not an asset class that performs well with high levels of debt

Threats

The sector is highly susceptible to individual weather events as well as longer term climate change

Finding quality on-ground management can be a challenge to corporate investors

High capital costs and long production lead times in some sectors may be a deterrent to some corporate investors

Many of our broad hectare agriculture sectors produce non-specialised commodities which are difficult to differentiate and subject to global price trends

Data Centres

SWOT analysis

Strengths

- Economic stability of Australia
- Limited natural disasters relative to other countries
- Supportive government
- Submarine connectivity to Asia and US
- Strong demand for increase capacity
- Long term deployment of capital and returns

Opportunities

- Changing technology and adoption
- Strong interest from investors both local and global
- Hyperscale facilities to be developed
- Merger and consolidation of participants
- Reduced latency to create 'Edge' data centres
- Bundle with Renewables for power purchase agreements

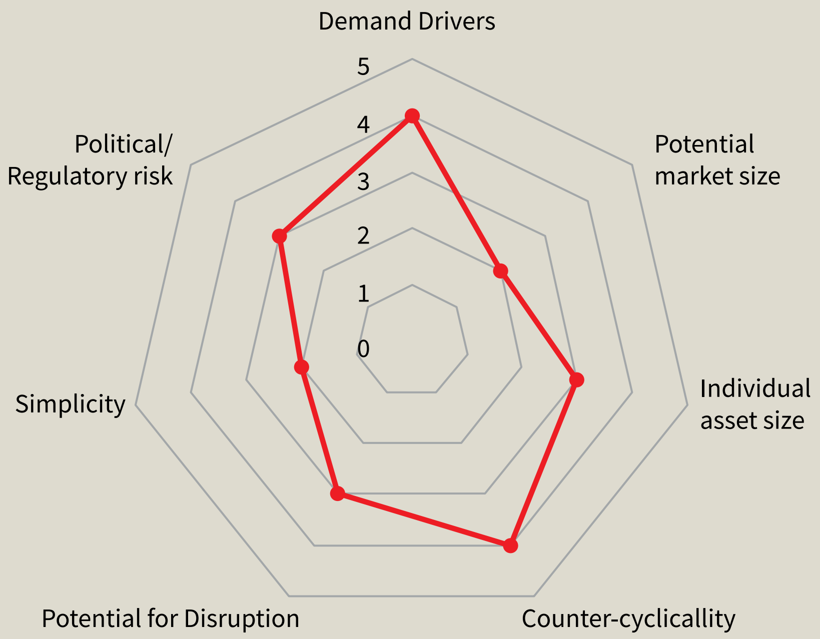
Stage in Cycle: Performance Measurement

Current size: $7 billion (200MW)

Potential size: $20 billion (500MW)

Major players: Equinix, Next DC, Fujitsu, Global Switch, Airtrunk, Digital Realty

Value of listed assets: est $2+ billion (some operators function as REITs)



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value and MW capacity

Weaknesses

- Capital intensive
- Availability of suitable land becoming limited and subject to competing interests
- Power capacity availability and costs increasing
- Distance from Asia and remoteness from global activity
- Demand is generated from the local market as oppose to a regional reach

Threats

- Over governance of data sovereignty
- Larger operators acquiring smaller operators to monopolise markets
- Hyperscale activities reducing margins for operators to compete
- Redundancy of facilities ahead of useful life

Build to Rent Residential

SWOT analysis

Strengths

- Strong demographic drivers
- Affordability driving increased rental demand
- Stable cash flow
- Counter-cyclical nature of rental income
- Potentially large market/asset size
- Simple business model

Opportunities

- Differentiated product from existing rental stock
- Multiple cash flows from extra services on offer
- Operating efficiencies associated with scale
- First mover advantage
- Government heavily incentivising affordable and social housing schemes

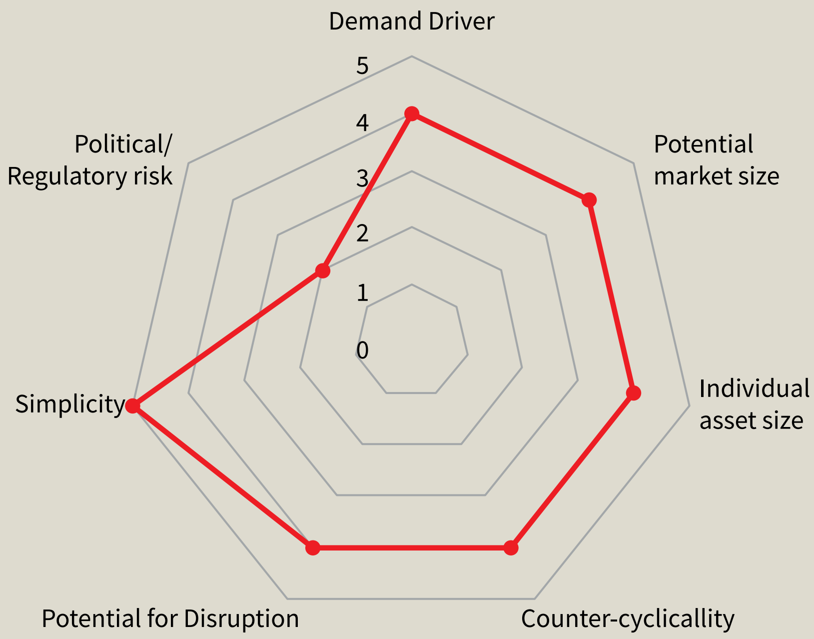
Stage in Cycle: Pioneering Investors

Current size: Non-existent

Potential size: >$40 billion*

Potential Major players: Mirvac, Grocon/UBS, Greystar

Value of listed assets: Nil



Key: 1 = Sector Weakness 5 = Sector Strength

* The indicative potential market size is in current dollars and based on if BTR grew to 10% of institutional real estate investment (this is around 25% in the US and almost 50% in some European countries). This would still only be 0.6% of the total value of Australia's residential market, which suggests the market could even be much larger than that.

Weaknesses

- Low rental yields due to existing private investment model
- Tax incentives promote private ownership
- Tax structures do not support institutional ownership (MIT Structure)
- Long-term financing not readily available yet

Threats

- Increased supply levels from existing and future strata construction
- Lack of Government support to remove hurdles such as GST treatment and MIT treatment

Renewables

SWOT analysis

Strengths

- Supportive Government through various renewable energy policies and subsidy schemes
- Growing sector
- Rising wholesale electricity prices
- Low operational cost and ongoing capital requirement
- Cheap cost of power once establishedImproving technology
- Cheap land costs due to rural location

Opportunities

- Changing technology and adoption resulting in better efficiencies and cheaper implementation
- Improvement in storage capabilities
- Strong interest from developers/investors both local and global
- Global focus on clean and renewable energy
- Increase in corporate appetite for Power Purchase Agreements

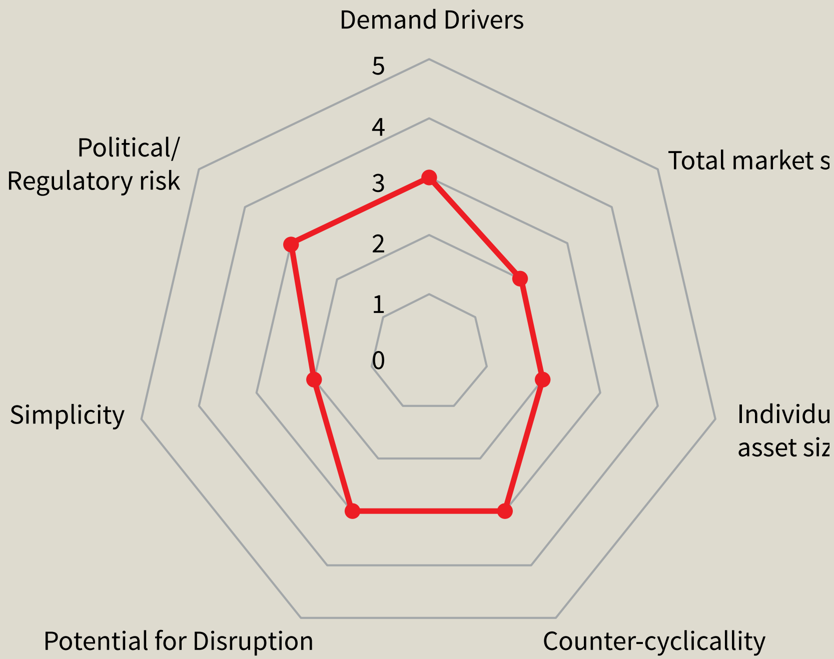
Stage in Cycle: Growing

Estimated Market Size: 20% of NEM (2018)

Potential size: 33.3% of NEM (2020), 39.1-85.2% of NEM (2030)

2017 Renewables Investment: $12 billion

Major players: AGL Energy, WIRSOL, FRV, Blackrock Government, Infigen Energy & Tilt Renewables



Key: 1 = Sector Weakness 5 = Sector Strength
* Market size calculated on real estate value and MW capacity

Weaknesses

- Capital intensive for construction
- High level of revenue volatility. Spikes and troughs depending on wholesale electricity prices.
- Heavily regulated and high barriers to entry
- Wind and Solar output is intermittent
- Location of sites and access to the main grid
- Electricity is only produced, traded and sold domestically (no international trade)

Threats

- Falling electricity prices (revenue volatility)
- Over governance and regulation of the energy market
- Larger operators acquiring smaller operators to monopolise renewable energy markets
- Redundancy of facilities ahead of useful life due to improved technology
- High competition between providers

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