AMP CAPITAL

Tomorrow's winners

How to capitalise on structural changes in Australian listed real estate

June 2019

Goodman Business Park, Japan - Goodman Group

There is a fundamental shift going on in Australian listed real estate. For years retail property has been the rightful leader in the listed market providing strong returns for investors. It has become the bedrock of passive investing in listed real estate via off-the-shelf index funds.

But times a chang

Goodman Commerce Centre, USA - Goodman Group
Industrial assets are an alternative to retail

48% of a passive portfolio is retail, that is far too big.

The proliferation of online shopping has heralded a structural shift in the marketplace. With it comes challenges for investors, particularly passive investors whose portfolio returns depend, in part, on history repeating itself.

This new environment raises a number of questions for investors including:

> What are the prospects for other property options, particularly industrial real estate?

> How should investors think about property investing as this structural shift occurs?

> What are the consequences for remaining a passive investor and the billions of dollars allocated that way?

> How much of an investor's portfolio should be in retail property? Should it be the 48 per cent[1] that it is today when passively invested? (62 per cent[2] when leverage is removed)

> What role does active investing have?

The following paper considers these questions and concludes that the best opportunities for property investors lay in sectors away from areas that have worked over the past decade, and that there are lessons that can be learnt from other global markets.

We respect passive index investing is cheap, but when you lose your clients scarce capital, it is far from value.

Is history a good predictor of the future?

History is littered with examples of companies failing to adapt to new technologies, only to find themselves struggling to survive. Horse coach company Cobb & Co failed to embrace trains and automobiles and subsequently collapsed. Eastman Kodak invented the digital camera in 1975, but opted not to develop applications for it, and as a result Kodak lost its dominant position in the market. At its peak in 2007, Nokia dominated the smart phone market with more than a 50 per cent share[3]. Then Steve Jobs pulled out an iPhone and by the time Nokia's mobile phone business was sold to Microsoft in 2014, it had around three per cent market share.

In each of these cases there was a substantial structural change in the economy which each of the three companies failed to act on.

History is littered with examples of companies failing to adapt to new technologies, only to find themselves struggling to survive.

Structural change in Australian real estate

Real estate is no different to any other asset class – over decades it goes through cyclical and structural changes. Peaks and troughs in cycles tend to follow the same trajectory, often based on monetary and fiscal policy, consumer and business sentiment and/or supply in the market.

Structural changes, however, are much harder to predict.

The growing debate in the investable property markets is whether there is a structural shift underway in consumers habits that will trigger a shift in returns away from the long-favoured retail sector, towards the industrial market.

The reason: online shopping and supply chain reconfiguration.

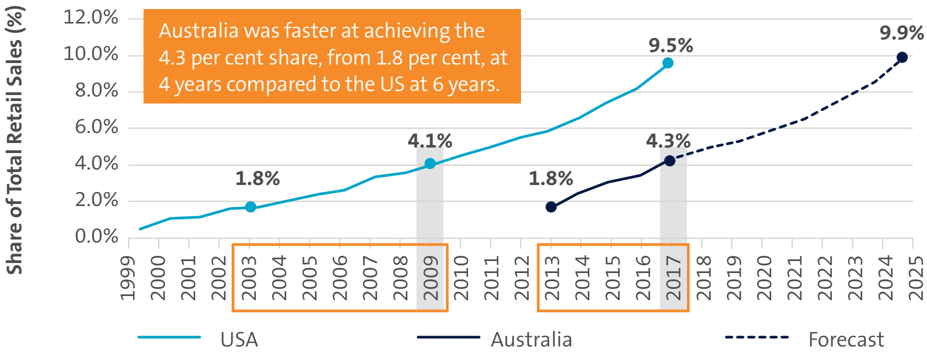
Online shopping?

Online shopping is a global mega trend. The total ecommerce goods market is expected to reach over USD $2 trillion in 2019[4]. Shoppers have come a long way in a short period of time. The iPhone was only launched in 2007 and in 2015, less than 10 per cent of Australians used a smartphone to make an online purchase.

Two years later, one in five online purchases were made from a mobile device, and online spending grew by 18.7 per cent[5]. Up until three years ago, shoppers were content with browsing on their phones but had been more reserved in making a purchase. That is starting to change, with purchases from mobile devices growing 58 per cent in 2017, a six-percentage point increase from the previous year[6].

Australia is lagging other developed nations in ecommerce and has begun the catch-up process, sitting very clearly in the 'ramp up' adoption phase. Australia is about eight years[7] behind the US in terms of online retail sales, according to Colliers International Research. Australia is playing catch up, and the runway is long.

eCommerce sales as a share of total retail sales



Source: ABS / DAE / Colliers Research

An argument against the online sales story that has dominated the US and Europe, is that Australia is too geographically challenging for an online retailer to work. Proponents point to Amazon, the world's largest online retailer, to highlight their point.

Amazon arrived in Australia in late 2017. The group has had a slow roll out of Amazon Prime, leading to longer delivery times, and fewer local products available for sale in Australia. The number of products will grow. The global Prime/delivery model will be replicated once Amazon has built out its local supply chain and distribution, which requires more industrial sheds closer to the cities. The 'Amazon effect' globally is being driven by consumer and generational trends interplaying with technology, and they are no different in Sydney than they are in London.

It is argued that cities in Australia are too far apart for online retailers to effectively service the population. However, Amazon and other online retailers are likely to focus on the three biggest cities. Their respective populations, Sydney at five million, Melbourne with almost as many and Brisbane at 2.4 million represents about 50 per cent of the Australian population (and arguably the wealthiest half) and takes approximately the same time to travel between as it does to travel between London, Paris and Madrid, the three largest cities in Western Europe.

What does it mean for asset prices?

The surge in online retailing, particularly through Amazon, has had profound effects in overseas property markets. The so-called 'Amazon effect' has sent US industrial price-to-earnings (PE) ratios sharply higher, and mall PE ratios sharply lower.

Rental growth has underpinned this divergence. Industrial real estate is outperforming both other property sectors and its own historical performance in the US. We believe this step-change is likely to occur in Australia and New Zealand as the Amazon effect plays out. The casualty in the real estate market is likely to be retail assets.

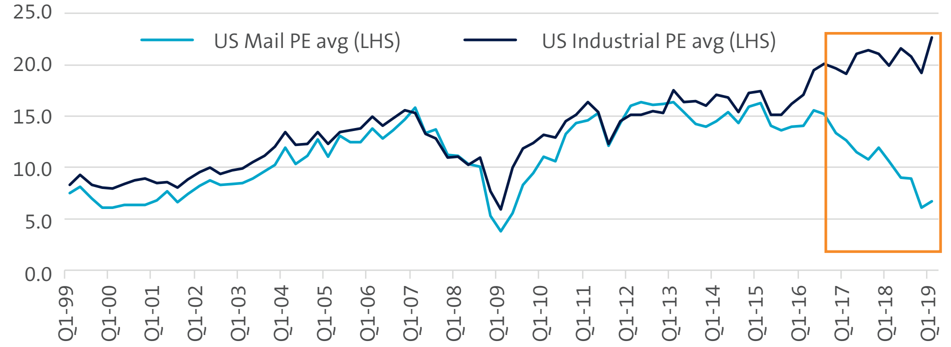
The big driver in industrial markets is the need for online retailers to be close to their customer. Transportation costs are 50 per cent of operating costs within supply chains, significantly more than rental costs (at 4.3 per cent). As customers expect quicker delivery times, retailers need to have efficient modern logistics facilities close to the wealthy urban population. Retailers will pay more for rent to drive their transportation costs lower.

There are already signs that the shift from retail to industrial is happening within pension fund portfolios. Cap rates measure net operating income over property asset values. As the value of the property asset falls, the cap rates rise. In retail sub-categories, cap rates have now stopped falling and will start reverting higher as investors capture weaker income growth profiles and higher cap expenditure requirements. Given the experience internationally, industrial cap rates are, in our opinion, likely to fall further (ie. the value of the property assets will rise) as growth surprises on the upside and institutional investors continue to re-weight their portfolios away from retail to industrial.

Equity multiples and underlying valuation cap rates are closely aligned (see chart below). If cap rates rise, you will see an equity multiple contraction (stock prices fall). The listed market typically forward prices changes in unlisted asset values.

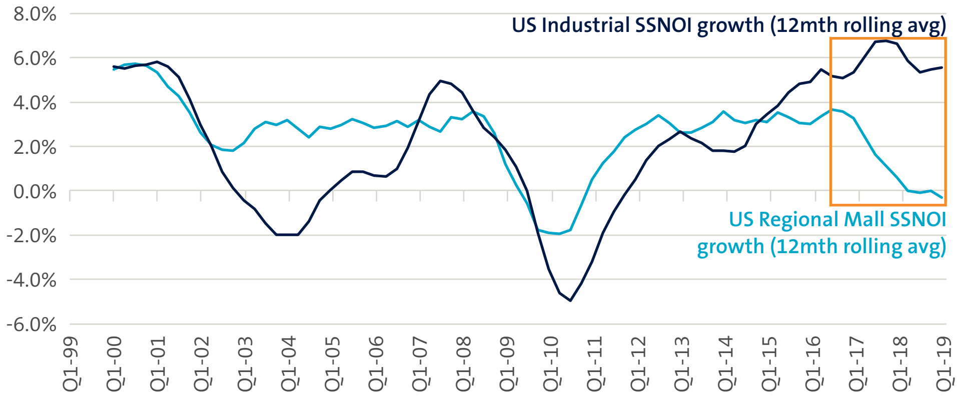
While retail property will remain a staple of balanced portfolios, the outlook for the sector is less positive than it has been for a decade or more. There is abundant supply and almost 2.5 times the normal annual asset volume projected to be for sale in coming months. Vacancy rates has never been a major issue for Australian retail assets (unlike their counterparts in the

US mall multiples versus US industrial multiples



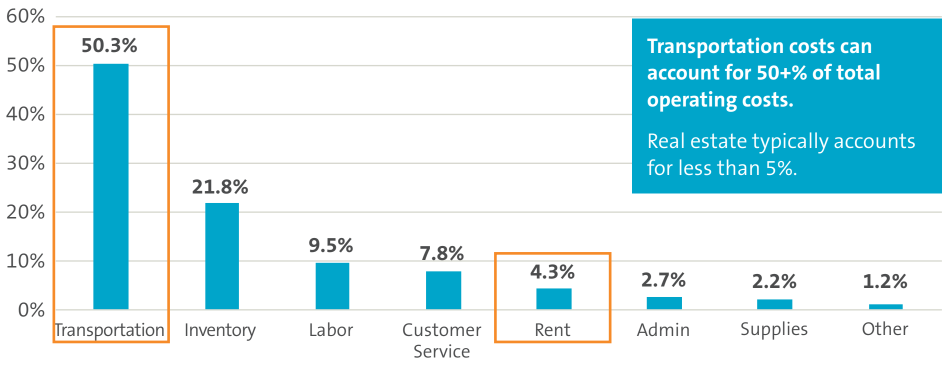
Source: Citi Research, company information, Datastream

There is a clear divergence of US Industrial and US Regional Mall rental growth



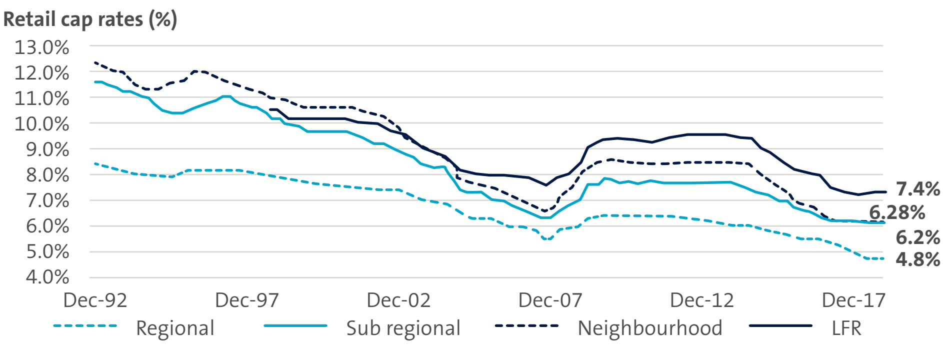
Source: Citi Research, company information, Datastream

Operating costs of distribution centres



Source: JLL, May 2018

Retail cap rates are no longer contracting, and could start rising



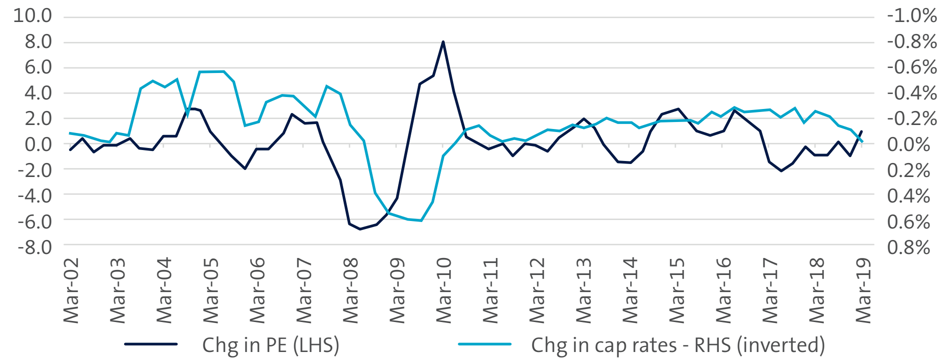
Source: Macquarie Research, company information, JLL, April 2019

US), though the trend rate is rising which will soften rental growth expectations and compress valuations.

As a case study, fashion has historically been a driver of rents in retail. It has also become the powerhouse category of online shopping in Australia, achieving double digit growth for six years running. Purchases from pure fashion retailers represent 26.5 per cent of all online orders. If we include fashion-related products from the variety stores category, the overall category share increases to 35.6 per cent[8].

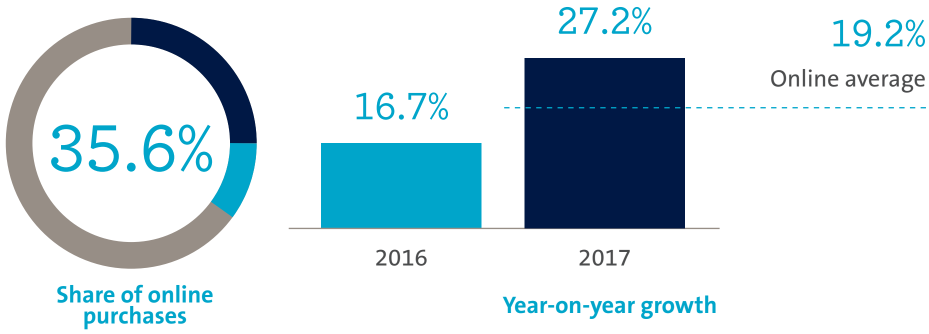
Fashion grew 27 per cent in 2017, up from 16.7 per cent the previous year and above the overall online average. These gains make a very strong argument that online is taking market share from retailer's in-store sales.

Cap rates and equity multiples have a close relationship



Source: JLL, Datastream, Citi Research

Australian fashion online sales



Source: Australia Post

Berrima Feedmill, NSW - Charter Hall

Evelyn Page Retirement Village, NZ - Ryman Healthcare

Agri-logistics, aged care, manufactured housing and healthcare are all alternatives to retail

Lifestyle Park Lake Conjola, NSW - Ingenia

North Shore Health Hub, NSW - Dexus

What does this mean for investing in real estate?

One of the biggest casualties in a structural shift in the economy is passive investing. Sticking to historical benchmarks, while sometimes cheap, doesn't produce optimal outcomes for investors if the fundamentals of a market have changed.

A passive equity benchmark is a collection of assets weighted by their historical performance and past growth initiatives. If you invest in a passive fund, the largest proportion of your portfolio is in stocks that have outperformed others historically.

In a world of equity momentum, the risk of owning yesterday's winners is not a bad thing, until it is! Take Japan in the late 1980s. If you were building a passive global equity fund in December 1989 your benchmark weight in Japan would have been 45 per cent. But the Japanese risk bubble burst, and the US took back equity leadership. Roll forward 30 years, that same benchmark weight to Japan would be around 8 per cent. It would have been a large destruction of capital if an investor had held on to a passive benchmark exposure and hadn't positioned for the future.

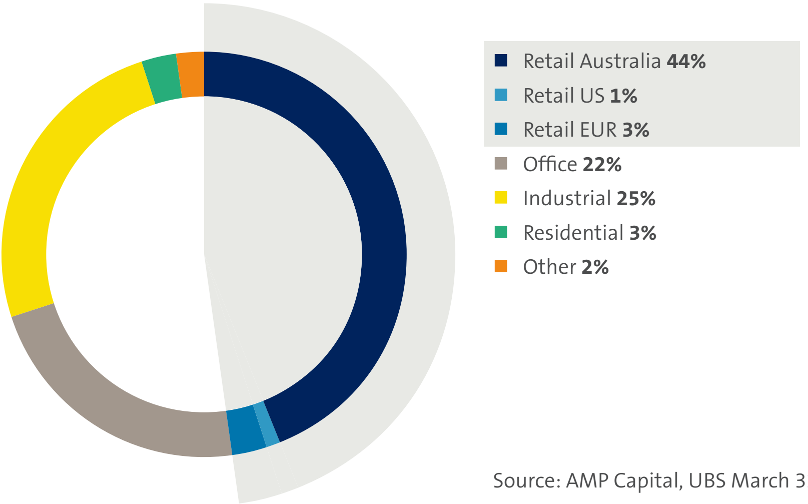
In the Australian Real Estate Investment Trust market (AREITs) we believe we are in the early phase of a significant structural transition, as the challenges of retail ownership and sheer scale of its benchmark weight become a key focus for investors. Retail is not the Japan bubble of the late 1980s, but there is significant risk for investors who believe the historical status quo will remain and are buying 'cheap' passive index exposure and not pricing that risk.

Retail has been the best risk-adjusted real estate sector and market leader for a very long time, decades in fact, but this is changing. The UK and US are realising it in valuation and cap rates and Australia has just started to feel it.

Retail today accounts for around 48 per cent of the AREIT benchmark (on a look through basis). That's much higher than in other geographies, meaning the risk of being overweight retail property is much greater here.

On top of that, there is now negative momentum in the sector, and it is likely to be a structural, long-term change as ecommerce gains market share and the balance of power moves from landlord to tenant.

Sector allocation of the S&P/ASX Property 200 Index (look-through)



Source: AMP Capital, UBS March 31, 2019.

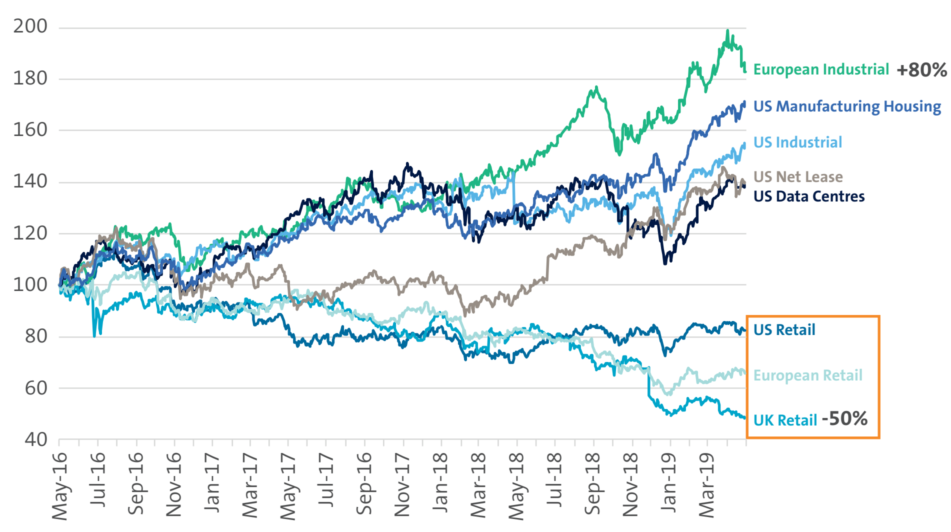
As mobile penetration surges and adoption of ecommerce becomes the norm (as it has in other global markets), those investors with a heavy weighting to retail will suffer. The high exposure to retail and under-representation to industrial will both act in concert to depress overall index returns, obviously damaging to index funds or active funds positioned on the wrong side of retail and industrial.

The issue is far more important in Australia as retail is significantly larger in the Australian index than in the US or UK. Valuations in retail have peaked and we are starting to see valuers finally get realistic with softening income profile assumptions and capital expenditure requirements.

Investors should embrace the future and diversify through the multitude of institutional grade real estate opportunities in Australia and New Zealand. The options are plentiful, and include industrial, high barrier CBD office, low barrier CBD office, suburban office, business parks, hotels/pubs, net lease, storage, manufactured housing, tourism, homebuilders, childcare, data centres, aged care, healthcare and agriculture. Australia should be viewed as a mini-US market in terms of the investment opportunity.

Consider the offshore experience. The chart below maps the performance of the UK, US and European listed companies versus some of the alternate sectors that have taken market leadership of the past few years. The relative performance has been stark, and it has further to play out.

Sector performance of US, UK and European Retail versus new leadership sectors



Source: AMP Capital, Bloomberg, April 2019

Why allocating to industrial real estate is prudent

There has been a structural shift in the property market. Retail, which has been a great performer for decades, has lost momentum and industrial real estate appears set to take its place. Why?

Industrial land close to the consumer in major cities has been repurposed for higher and different use over the last 30 years, triggering a significant shortage of well-located, strategic industrial product at a point in time where demand is spiking. When there's greater demand than supply, rents push higher.

Institutional investors are proactively trying to re-shape their real estate portfolios to position for the future, which means a considerable shift to industrial should occur. This will push asset values higher.

And it's not only about Amazon and online retailers. Traditional players are adapting their supply chain management to become more competitive and driving more capital into their ecommerce offerings which drives demand for modern logistic facilities even higher. Woolworths and Coles are driving some of the largest expenditure in this space.

Globally ecommerce sales are expected to grow at three times those of traditional sales, increasing by more than 60 per cent during the next three years to reach US$3.9 trillion by 2020[9]. Australia has lagged but will catch up.

Amazon already offered one-day and two-hour deliveries on certain products outside of Australia, and in April 2019 announced they will move to free one-day shipping as the default for Prime members. This is lifting the bar and squeezing competitors further. Australia will adopt this in due course.

Goodman ATL Logistics Centre, Hong Kong - Goodman Group
Industrial assets are an alternative to retail

Conclusion

We are at a crossroads of leadership in the AREIT index driven by long-term structural trends that are global in nature. Embracing this fact, rather than fighting it, will allow investors to experience improved risk-adjusted returns compared to a passive index investment.

This can be achieved by:

> Being very active at the stock and sector level (whilst maintaining a benchmark); or

> By truly thinking differently and exploring a benchmark-unaware strategy that focuses on the unfolding dynamic through significant diversification and stock selection.

We see the merits in both approaches. Every investor is ultimately looking for something individual from their listed real estate allocation for their own investment goals. We do, however, believe that many investors are currently embedded in index fund allocations, under the belief it offers a better allocation of risk and capital. This should be challenged, and now is the time to act.

The AMP Capital solution: don't follow the crowd

At AMP Capital we have a global capability that allows us to see long-term structural global trends unfolding. This allows us to position a portfolio with conviction to benefit clients from important secular trends.

In our benchmark-aware strategies, through our investment process and due diligence we have the confidence to take large active positions at both the stock and sector levels, which we believe is important to deliver as an active manager.

Our conviction in future retail valuations allows the investment team to explore opportunities to spend the risk budget in other sectors or outside of the benchmark to deliver a well-diversified offering across stocks and sectors.

AMP Capital Listed Property Trusts Fund vs Benchmark

	1 Yr	2 yrs (p.a.)	3 yrs (p.a.)	4 yrs (p.a.)	Since inception (p.a.)
AMP Capital Listed Property Trusts Fund Returns	32.18%	14.52%	12.09%	11.76%	9.00%
S&P/ASX 200 A-REIT Accumulation Index Returns	26.17%	11.89%	9.90%	10.24%	8.26%
Excess Return	**6.01%**	**2.63%**	**2.19%**	**1.53%**	**0.74%**
AMP Capital Listed Property Trusts Fund Volatility	9.75%	10.28%	12.02%	11.66%	14.28%
S&P/ASX 200 A-REIT Accumulation Index Volatility	9.94%	10.28%	12.18%	11.98%	14.77%
Excess Volatility	**-0.18%**	**0.00%**	**-0.16%**	**-0.33%**	**-0.50%**

Source: AMP Capital March 2019
Past performance is not a reliable indicator of future performance.
Note: Data shown is gross of fees and expressed in AUD as at 31 March 2019.
Inception date for AMP Capital Listed Property Trusts Fund is 9 December 1996.
Returns assume that dividends are reinvested and are annualised for periods greater than one year.
For net of fees returns please see the latest performance report available at https://www.ampcapital.com/content/dam/capital/03-funds-files-only/aus-funds/performance-reports/ffs-wlp_a.pdf

Benchmark Unaware

For close to five years AMP Capital has run a benchmark-unaware strategy as a separately managed account for a client. Given our concerns over the benchmark composition this allowed the team to explore absolute flexibility in portfolio construction to build the best absolute risk-adjusted and diversified portfolio. This strategy has been very successful, as seen below, delivering outsized alpha and significantly less volatility than the benchmark. The opportunity to think differently is, in our opinion, still there.

AMP Capital Wholesale Australian Property Fund (AREIT) vs Benchmark

	1 Yr	2 yrs (p.a.)	3 yrs (p.a.)	4 yrs (p.a.)	Since inception (p.a.)
AMP Capital Wholesale Australian Property Fund (AREIT) Returns	31.12%	15.58%	14.13%	13.40%	14.42%
S&P/ASX 200 A-REIT Accumulation Index Returns	26.17%	11.89%	9.90%	10.24%	13.70%
Excess Return	**4.95%**	**3.69%**	**4.23%**	**3.16%**	**0.72%**
AMP Capital Wholesale Australian Property Fund (AREIT) Volatility	8.43%	9.15%	10.40%	10.33%	10.71%
S&P/ASX 200 A-REIT Accumulation Index Volatility	9.94%	10.28%	12.18%	11.98%	12.49%
Excess Volatility	**-1.51%**	**-1.13%**	**-1.78%**	**-1.65%**	**-1.78%**

Source: AMP Capital March 2019
Past performance is not a reliable indicator of future performance.
Note: Data shown is gross of fees and expressed in AUD as at 31 March 2019.
Inception date for AMP Capital Wholesale Australian Property Fund (AREIT) is 16 July 2014.
Returns assume that dividends are reinvested and are annualised for periods greater than one year.
For net of fee returns please see the latest performance report available at https://www.ampcapital.com/content/dam/capital/03-funds-files-only/aus-funds/performance-reports/ffs-auwap_m.pdf

At AMP Capital we have a global capability that allows us to see long term structural global trends unfolding.

How does AMP Capital compare vs the competition?

Our long-term thinking in portfolio construction is delivering exceptional risk-adjusted performance for our clients relative to our peers, as both passive and active managers. Given our conviction in these long-term structural trends and the benchmark composition, we believe there is significant alpha opportunity to be delivered looking forward, as there has been historically, as the index leadership evolves.

Mercer Survey

AMP Capital AREIT fund & AREIT Benchmark Unaware v Peers

Name	1 yr*		2 yrs		3 yrs		4 yrs		
	(%pa)	Rank	(%pa)	Rank	(%pa)	Rank	(%pa)	Rank	
Peer 1	33.63	1	15.44	2	na		na		
AMP Capital Listed Property Trusts Fund	**32.17**	**2**	**14.52**	**3**	**12.08**	**4**	**11.75**	**5**	
AMP Capital Wholesale Australian Property Fund (AREIT portfolio) - Benchmark unaware	**31.12**	**3**	**15.58**	**1**	**14.13**	**1**	**13.40**	**1**	
Peer 2	30.83	4	14.21	5	12.84	2	12.40	2	Q1
Peer 3	28.79	5	13.41	6	11.60	6	11.27	10	
Peer 4	27.08	6	14.43	4	11.87	5	11.90	4	
Peer 5	26.31	7	12.01	16	10.57	11	10.76	13	
Peer 6	26.27	8	12.48	9	11.14	9	11.28	9	
Peer 7	26.12	10	11.86	19	10.03	19	10.38	19	
Peer 8	26.07	11	12.10	14	10.54	14	10.76	13	
Peer 9	25.96	12	12.26	11	10.38	16	10.67	16	
Peer 10	25.79	14	12.10	14	10.15	18	10.50	17	Q2
Peer 11	25.74	15	11.97	17	9.79	22	10.25	21	
Peer 12	24.66	16	12.05	15	10.54	14	10.79	11	
Peer 13	24.49	17	13.01	7	11.23	8	11.39	8	
Peer 14	24.47	18	na		na		na		
Peer 15	23.71	19	12.68	8	11.58	7	11.57	7	
Peer 16	23.45	20	11.13	20	9.96	20	10.32	20	
Peer 17	22.68	21	12.44	10	12.18	3	12.21	3	
Peer 18	22.55	22	11.12	21	10.50	15	10.70	14	Q3
Peer 19	22.43	23	11.03	22	10.55	12	10.69	15	
Peer 20	22.38	24	10.34	24	9.12	23	na		
Peer 21	19.37	25	11.02	23	11.13	10	11.64	6	
Peer 22	18.97	26	9.05	25	8.25	24	9.87	23	
Peer 23	18.69	27	9.01	26	8.18	25	9.77	24	
Peer 24	18.63	28	8.23	28	7.45	27	9.08	25	
Peer 25	17.09	29	8.36	27	7.47	26	8.28	26	
Peer 26	11.82	30	5.97	29	6.96	29	7.61	27	Q4
Peer 27	11.56	31	5.39	31	5.85	32	6.80	31	
Peer 28	11.31	32	5.73	30	7.03	28	7.36	29	
Peer 29	11.09	33	5.34	32	6.48	31	7.34	30	
Peer 30	10.90	34	5.25	33	6.79	30	7.51	28	

Name	1 yr		2 yrs		3 yrs		4 yrs	
Benchmarks								
S&P/ASX 300 A-REIT	25.92	13	12.17	12	10.19	17	10.49	18
S&P/ASX 200 A-REIT	26.17	9	11.89	18	9.90	21	10.24	22
Group Statistics								
Upper Quartile	26		12.48		11.1625		11.335	
Median	24.48		11.97		10.29		10.67	
Lower Quartile	19.07		9.05		8.2325		9.82	
Number	34		33		32		31	

Source: Mercer Survey March 2019, AMP Capital March 2019.
Past performance is not a reliable indicator of future performance.
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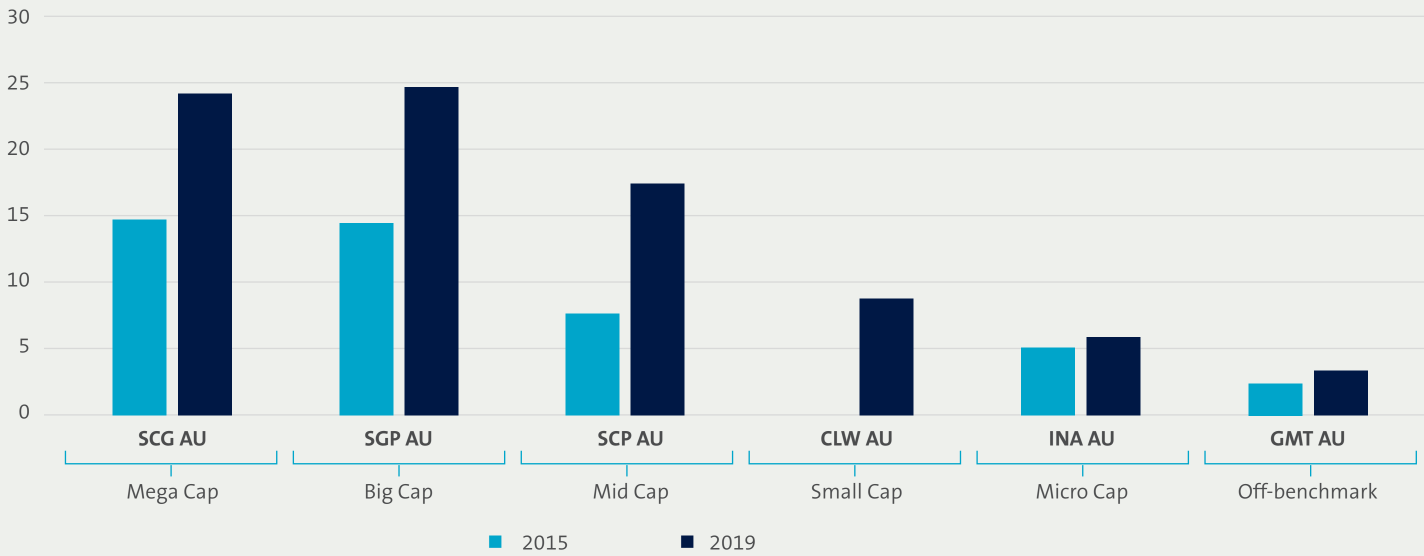
Returns assume that dividends are reinvested and are annualised for periods greater than one year
AMP Capital Wholesale Australian Property Fund (AREIT portfolio) - Benchmark unaware, is not part of the Mercer survey. This has been added for a reference only
*Quartiles are based off 1 year returns

Appendix 1:

Inherent Risks in Passive Investing

In the chart below, a selection of Australia and New Zealand real estate stocks are shown, ranging from a mega cap through to micro-cap and even an off benchmark/off-country. The larger the benchmark size the greater the concentration of index fund ownership, where valuation, analysis and forecasting the future is not applied.

Index Funds Per Cent Ownership in ANZ Real Estate



Source: AMP Capital, Bloomberg, March 2019
Note: Three largest passive owners only, therefore not the full passive ownership.

The magnitude of the ownership and the growth is less understood, as is the positive opportunity in smaller names/sectors. Unfortunately, index buying leads to a disproportionate allocation of capital into areas of the stock market that are not necessarily the most efficient location for that capital, especially when analysis forecasts structural change is on the horizon.

If an investor is willing to diversify across multiple stocks, sectors and subsectors, the impact of these index funds is far less. Being an active investor and investing in the likes of manufactured housing, net lease or even New Zealand industrial, opens the door to a multitude of diversified opportunities, where capital is being allocated proportionately.

Passive AREIT index issues – bringing them to life

Buying a passive exchange-traded fund (ETF) may be cheap, but there are several areas of concern, not limited to the retail weighting, including composition, stock concentration, sub-sector concentration, pre-set asset allocation, lack of choice in big/mid-caps and arbitrary S&P rulings all of which impair portfolio construction. Therefore, it is no surprise the inefficient index costs investors return, and investors bear unnecessary, excessive risks that negatively impacts their capital growth. Let's address a few of them.

Retail is 48 per cent of a passive portfolio or benchmark

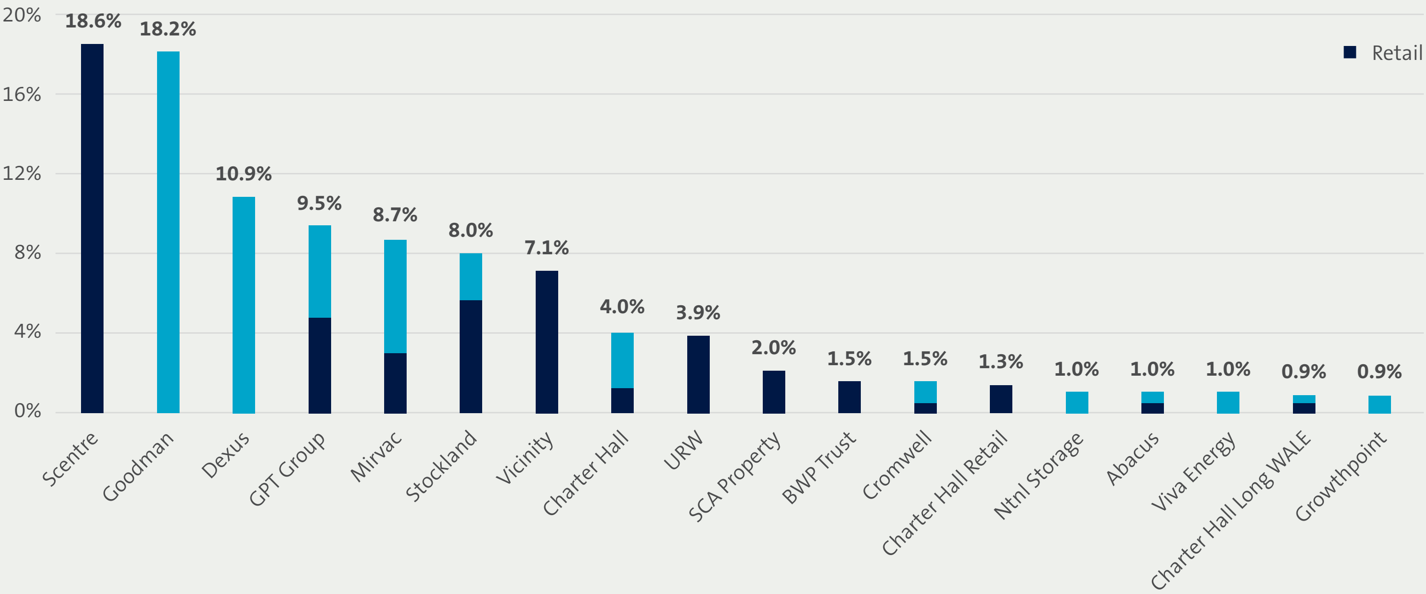
As we have highlighted already, we believe this is an illogical allocation of capital today for several reasons. If you use a passive AREIT benchmark (or use a manager that is significantly overweight retail), we would recommend marrying this against your unlisted real estate exposure, as most investors have a disproportionate investment to retail through that unlisted channel already. Given listed and unlisted real estate have a high correlation over the long term, there is little diversification in this positioning from a whole of portfolio consideration.

If an investor is willing to diversify across multiple stocks, sectors and subsectors, the impact of these index funds is far less.

Stock Concentration: Seven stocks = 81 per cent of an index portfolio. WOW !

Stock concentration in the AREIT index has plagued the sector for years and many have reached erroneous conclusions – including abandoning the sector, which we challenge, as would the strong historical returns. As at 31 March 2019, stock concentration of the index for the top five stocks was 66 per cent. Using the top seven stocks it is an astounding 81 per cent. AREITs are, in our view, a fantastic tax-efficient investment, but choosing the right composition is key.

Composition of the S&P/ASX Property 200 Index



Source: AMP Capital, Bloomberg, March 2019
Note: All market capitalisation figures refer to 31 March 2019

Tilting around benchmark

Now let's assume you thought the largest stock was good value and as an active AREIT fund manager wanted to take a four per cent overweight position. This would mean you would have 22.6 per cent in this stock in your overall portfolio - this is taking on massive single stock risk once you assess your portfolio in the absolute risk space. A manager taking a four per cent overweight to both the two largest stocks would tie up 45 per cent of their portfolio thus severely curtailing diversification benefits. This highlights that to truly deliver a better risk-adjusted return, investors need to think differently around portfolio construction. Investors who are passive have unintended risks in their portfolio, especially when married with their illiquid unlisted exposure which is likely tilted towards a large position to retail.

P1 Data Centre, WA - NextDC
Data Centres are an alternative to retail

At least you'll get diversification in other sectors. Or not?

We have highlighted the high index weight to retail. It is at 48 per cent[10] (62 per cent on an unlevered asset basis[11]). The much in-demand industrial asset class is only half that at 25 per cent with one sole representative (15 per cent on an unlevered basis). The office sector is 22 per cent (19 per cent on an unlevered basis) and again dominated by one AREIT. Other, extremely exciting sectors make up a mere five per cent (four per cent on an unlevered basis), but we believe this will change over time if we replicate the US experience.

S&P Index rulings

S&P index rulings have not been without controversy, particularly in the determination of index weight factors (the free float percentage). At times it seems somewhat arbitrary how S&P exclude large shareholdings from the free float of a REIT and often there is no association or connection between the REIT and the major shareholder. If one sovereign fund shareholding is excluded from the free float of a stock should all sovereign fund holdings in all stocks be excluded?

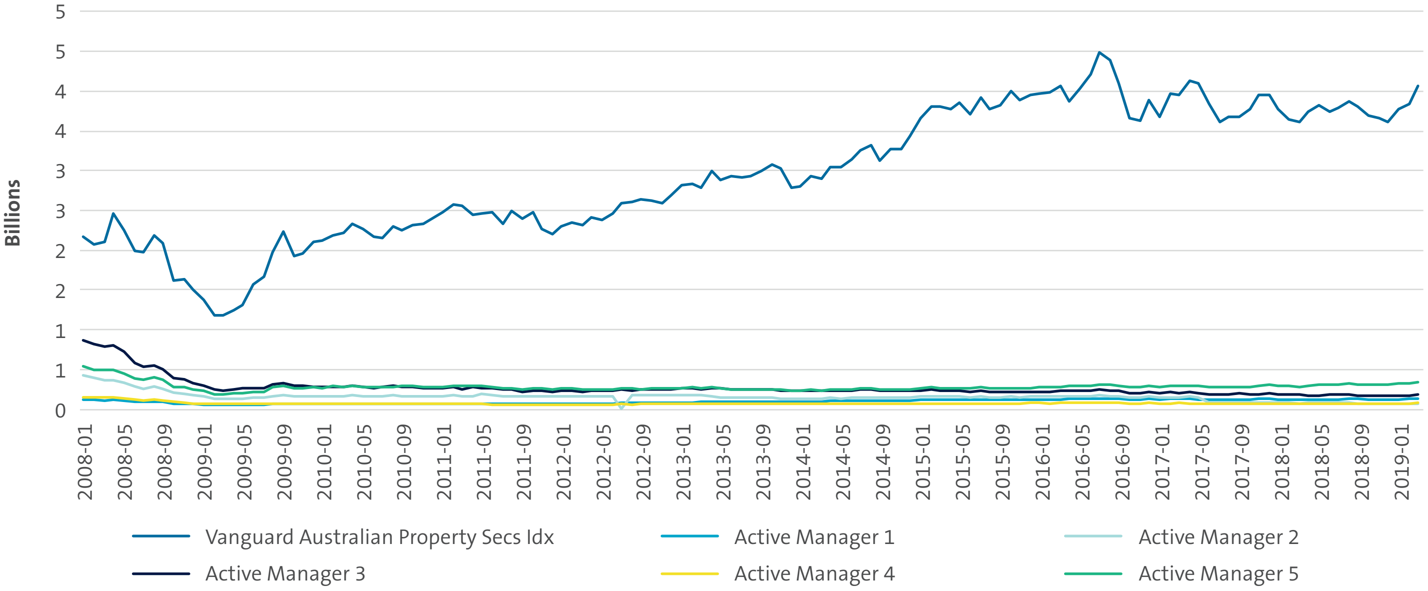
All the above index issues highlight the many constraints and the high level of absolute risks active managers take on by benchmarking and hugging a highly inefficient index. These index inefficiencies set the background, and the accelerants of structural changes in retail and industrial will inflict higher costs for unwary investors holding onto AREIT relative products in the form of future lower returns and higher risks.

Hawthorn Childcare Centre, VIC - Charter Hall Education Trust
Childcare assets are an alternative to retail

How much money has found its way into ETF's in the AREIT market?

In short, billions of dollars. If you simply take the largest ETF flagship AREIT index (Vanguard) and map the historical assets under management back to 2008 you will see a significant shift into ETFs at the cost of active management, many of whom (mostly globally experienced) have been increasingly concerned with retail assets dominating the index at peak asset level valuations (trough cap rates and peak rents) and peak equity multiples as valuations have come under pressure in other global markets. The chart below is only one passive ETF example, there are many more.

AREIT: Vanguard Assets Under Management (AUD) Vs Active Management



Source: AMP Capital, Morningstar, March 2019

National Storage Bundall Facility, QLD - National Storage
Storage assets are an alternative to retail

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