GREITs Landscape Review – Allocations from superfunds are expected to rise; the asset class continues to offer attractive attributes however active manager selection warrants caution based on historical evidence.

Foresight Analytics™

Summary

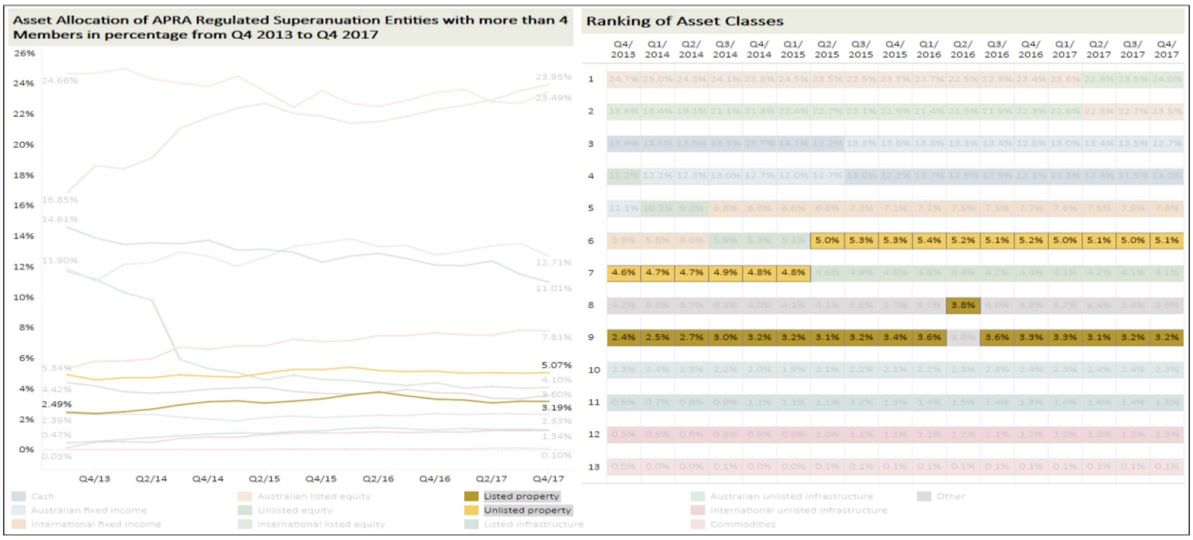
- Superannuation asset allocation towards listed and unlisted real estate has steadily increased since 2013
- Retail funds have the highest exposure to GREITs, aging demographic profiles of several non-retail funds is expected to increase the demand for listed real estate over unlisted
- GREIT managers have experienced exponential growth since GFC, active managers dominate the top 10 lists by assets
- Unhedged GREIT strategies have benefited from weak Australian dollar, adding 3.3% and 1.8% p.a to investor returns over the past 12 and 36 months, respectively
- The average correlation of manager excess returns is low however rising cost of capital and geopolitical uncertainty is likely to drive correlation higher going forward
- The data-set on GREIT manager performance suggests that investors need to be cautious when selecting active managers in this asset class
- To realise positive, net of fee alpha, investors need to select highly active, skilled managers that can deliver first quartile alpha

Modest allocations to GREITs by Australian Superfunds

The long duration asset profile of GREITs and defensive income qualities makes it highly attractive to super funds that aim to match their long-term liabilities. As a result, allocations from super funds towards real estate assets has increased substantially in recent years and is expected to grow over the next decade.

Data from Australian Prudential Regulatory Authority (APRA) shows that Australian Superannuation funds have been steadily increasing their allocations towards real estate assets with the total allocations rising from 7.0% in 2013 to 8.3% in 2017, as evident in Exhibit 1. Allocations to real estate assets collectively now represent 5th largest share of the Superannuation assets across the system. Within this trend, allocations to listed property has increased more modestly from 2.4% in 2013 to 3.2% in 2017. We expect allocations to GREITs to continue their steady increase as aging demographic profile of several superfunds is likely to create more demand for listed exposure.

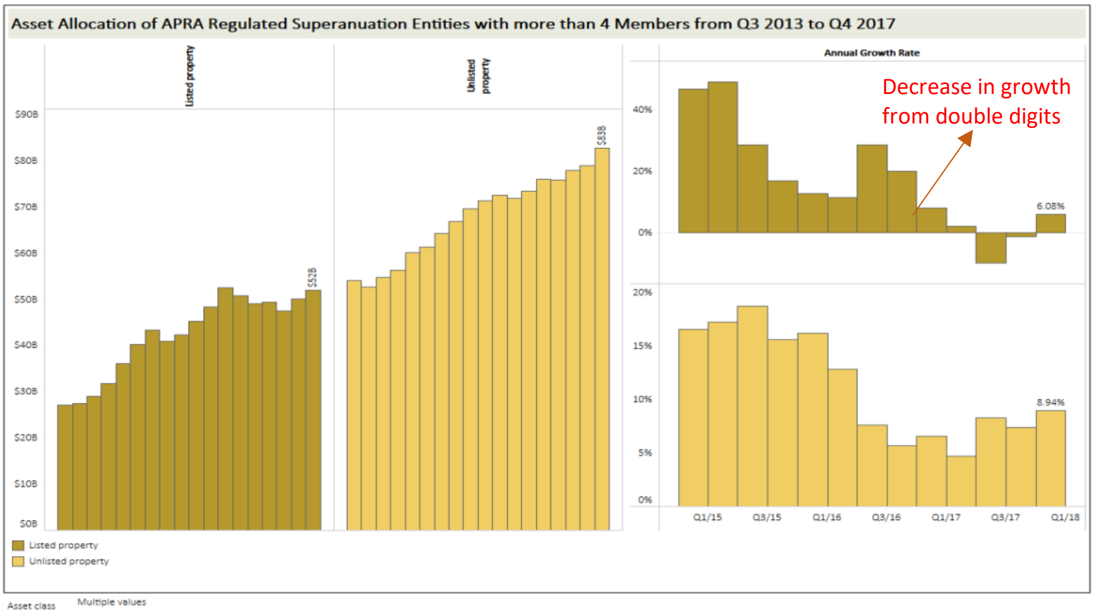
Exhibit 1: Asset allocation towards listed and unlisted real estate has steadily increased since 2013, collectively real estate asset now 5th largest allocation for superannuation funds in Australia.



Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Exhibit 2 shows the growth of cumulative dollar value in listed property and unlisted property. The data shows that super funds have higher allocations to unlisted property and while the growth rate of REITs has slowed in recent times, we believe those funds with ageing membership have greater propensity to allocate towards GREITs due to its liquidity benefits.

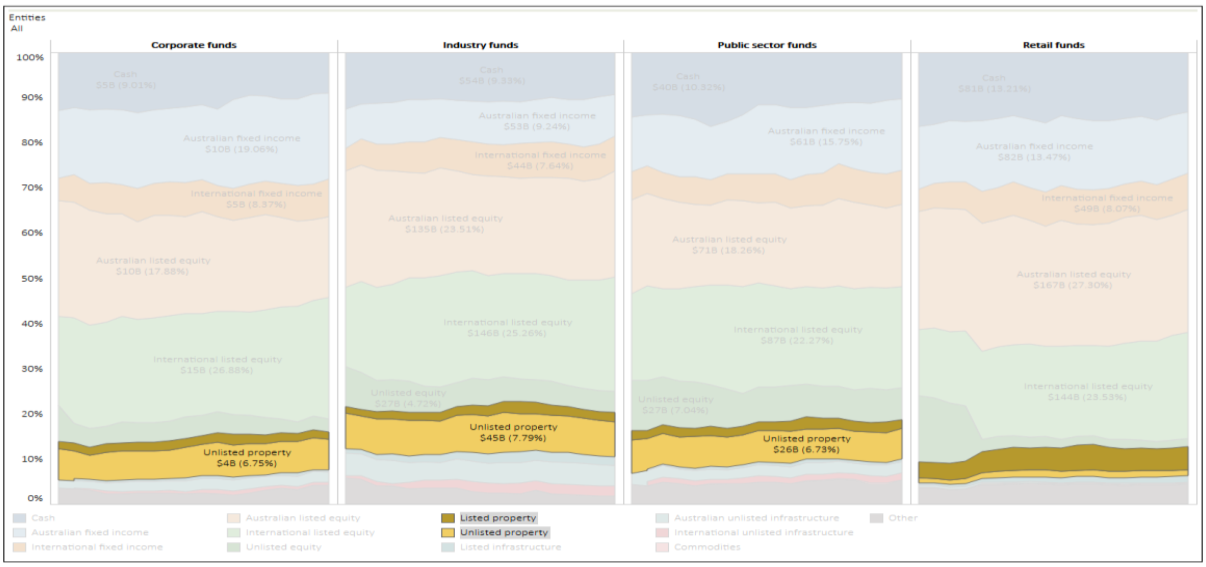
Exhibit 2: Asset Allocation to listed property has increased in dollar value, recent stalling in growth rate is expected to reverse as investors seek more liquid exposure to real assets



Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Our analysis of asset allocation by superannuation fund segments (Exhibit 3) reveals notable differences, particularly across retails funds and corporate, industry and public sector funds. Historically, retail funds have allocated more significant component of their real estate exposure towards GREITs while the later groups have favoured unlisted assets. We believe this mix is likely to shift going forward. We expect non-retail funds to allocate more capital towards GREITs due to their ageing demographics profile and regulatory led liquidity preferences.

Exhibit 3: Retail funds have the highest exposure to GREITs, changing demographic profiles of some funds expected to increase the demand for listed real estate over unlisted



Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Exponential growth in assets for GREIT managers, Active managers dominate top 10 list

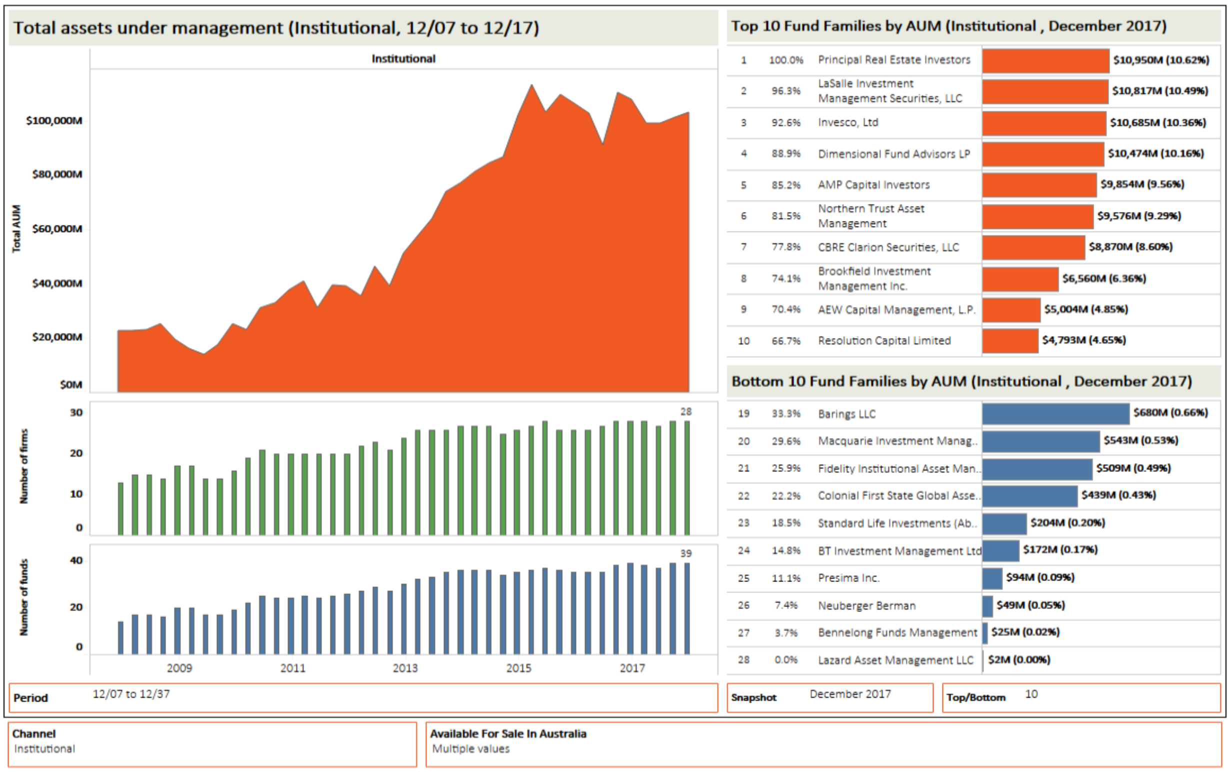
Global REIT managers experienced significant growth in their institutional assets since GFC. Exhibit 4 shows the exponential rise in assets from 2009 to 2015. However, since 2015 the asset growth rate stalled reflecting investor caution towards the possibility for central banks to gradually reverse expansionary monetary policies across the world.

The rising assets under management coincided with rising number of product launches and firms offering GREIT capabilities. While this has lead to greater choices for investors and increasing capacity provision, it has also increased the competition for quality alpha generating ideas.

The top 10 GREIT managers by assets were mainly USA based active managers offering both 'core' and concentrated strategies. The dominance of USA based managers in this asset class is not a surprise as over 50% of assets in the broad market indices is represented by USA-REITS.

At least 4 managers within the top 10 had global institutional assets more than $10 billion and while all top 10 except Resolution Capital (Sydney based) had assets more than $5 billion.

Exhibit 4: GREIT managers experienced exponential growth since GFC, Active managers dominated the Top 10 lists by AUM.

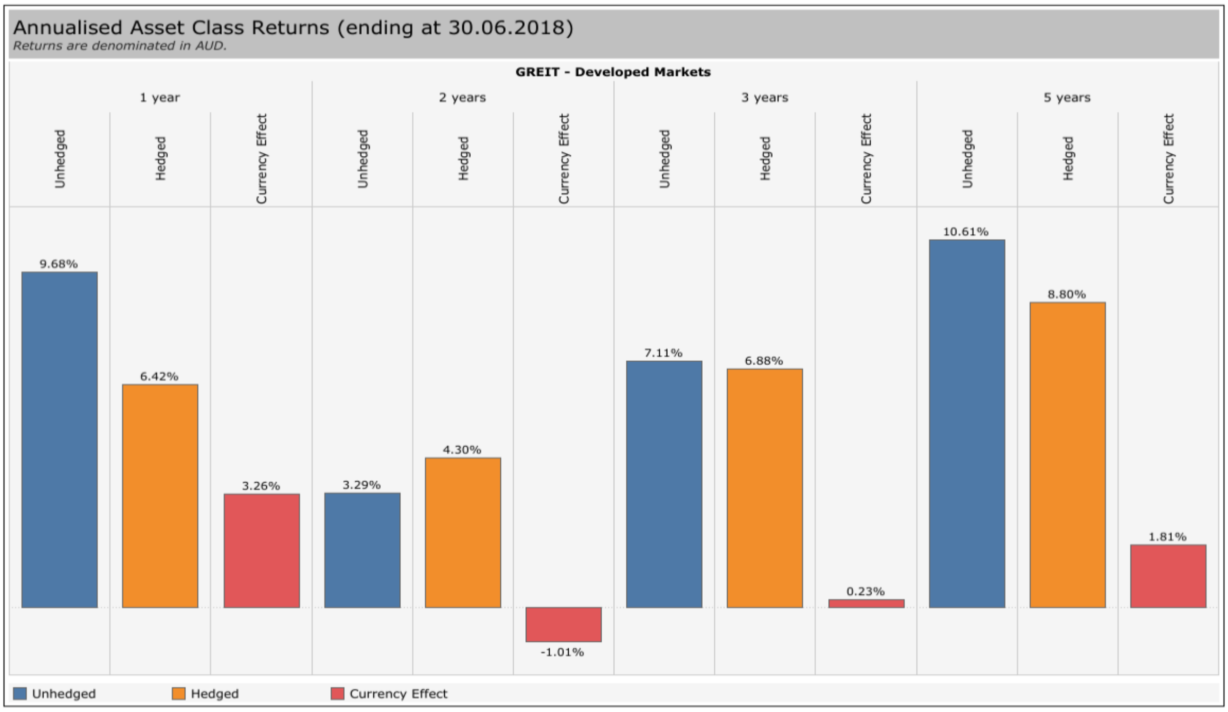


Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Return experience for unhedged GREIT investors has been very strong

The volatility of Australian dollar in recent years had notable impact on returns from offshore investments. From Exhibit 5 we can see that hedging policy (whether to hedge or not to hedge GREIT exposure) from an AUD perspective would have made a significant difference in returns, particularly over 1 and 5 years. The currency translation impact for an unhedged investor was 3.3% over the past 12 months to June 2018 and 1.8% p.a. over the past 5 years. Over the medium term of 2 years, a hedged portfolio delivered better returns than unhedged.

Exhibit 5: Unhedged GREIT strategies have benefited from which translated into higher returns over the past 12 and 36 months.



Measurement Period
Multiple values

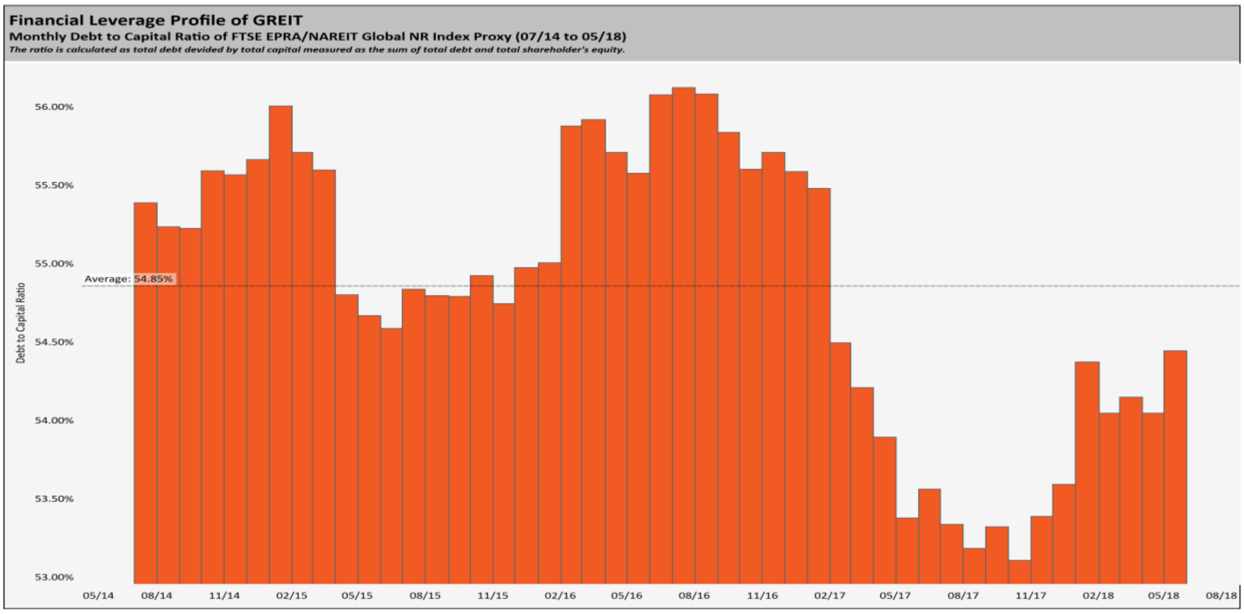
Asset Class
GREIT - Developed Markets

Source: Foresight Analytics
Data source: Morningstar

Financial leverage of the sector is not excessive

In a rising interest rate environment, the profitability and viability of highly leveraged REITs can be challenged. This was the case during the GFC of 2008 where highly leveraged REITs were forced to restructure their balance sheets and undertake expensive recapitalisations. However, our analysis of the sectors debt to capital ratio suggests GREITs are not heavily leveraged. The current debt to capital ratio for example sits at 54.4% which is broadly in line with the three-year average (Exhibit 6). A conservative level of financial gearing bodes well going forward as interest rates around the world move higher. Furthermore, many REITs have an ability to pass-through inflation and as such act as a good inflationary hedge for investors.

Exhibit 6: The financial leverage of GREITs is not excessive

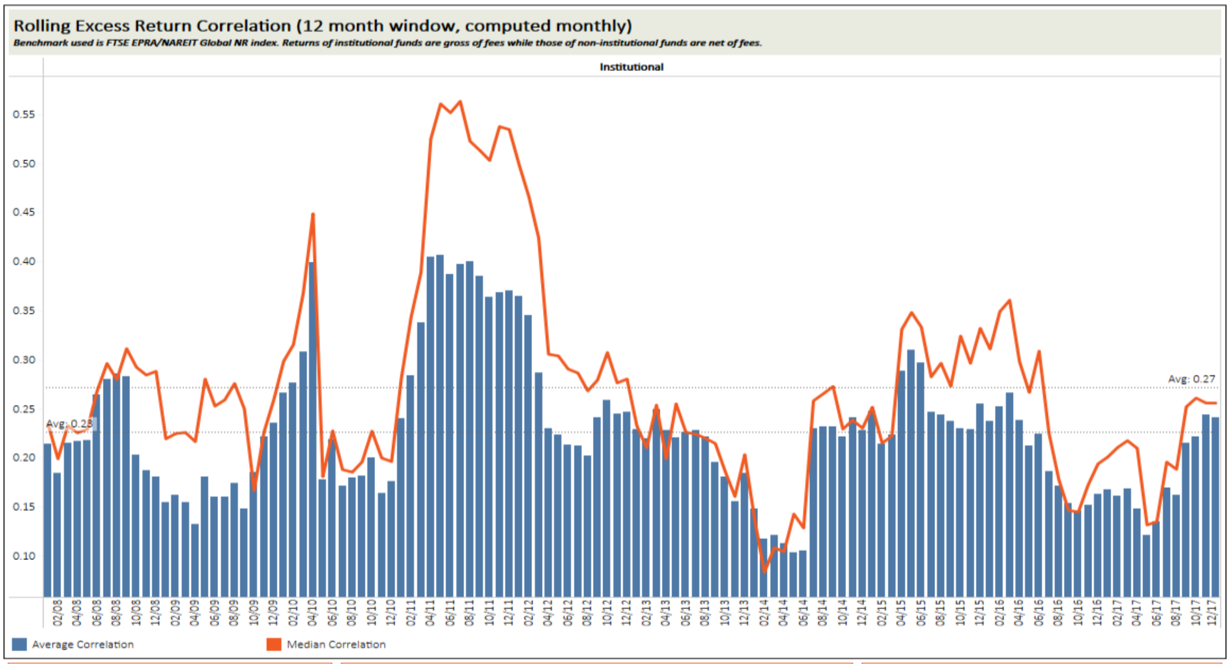


Source: Foresight Digital
Data source: Foresight Analytics,Morningstar and Style Analytics

Correlation of alpha between managers is low compared to other asset classes, offering good diversification benefit at the implementation level

Rolling excess return correlation of active managers has been volatile over the time series presented in Exhibit 7 with average and median correlation peaking in 2011 at 0.4 and 0.6, respectively. Since then, the correlation of excess returns have dropped to below long term average however we expect correlations to rise as volatility comes back to the market on the back of rising inflation and interest rates, geopolitical uncertainty and maturing market cycle.

Exhibit 7: Average correlation of Alpha is low between managers, rising cost of capital and geopolitical uncertainty is likely to drive correlation higher



Channel	Available For Sale In Australia	Period
Institutional	Multiple values	01/08 to 12/17

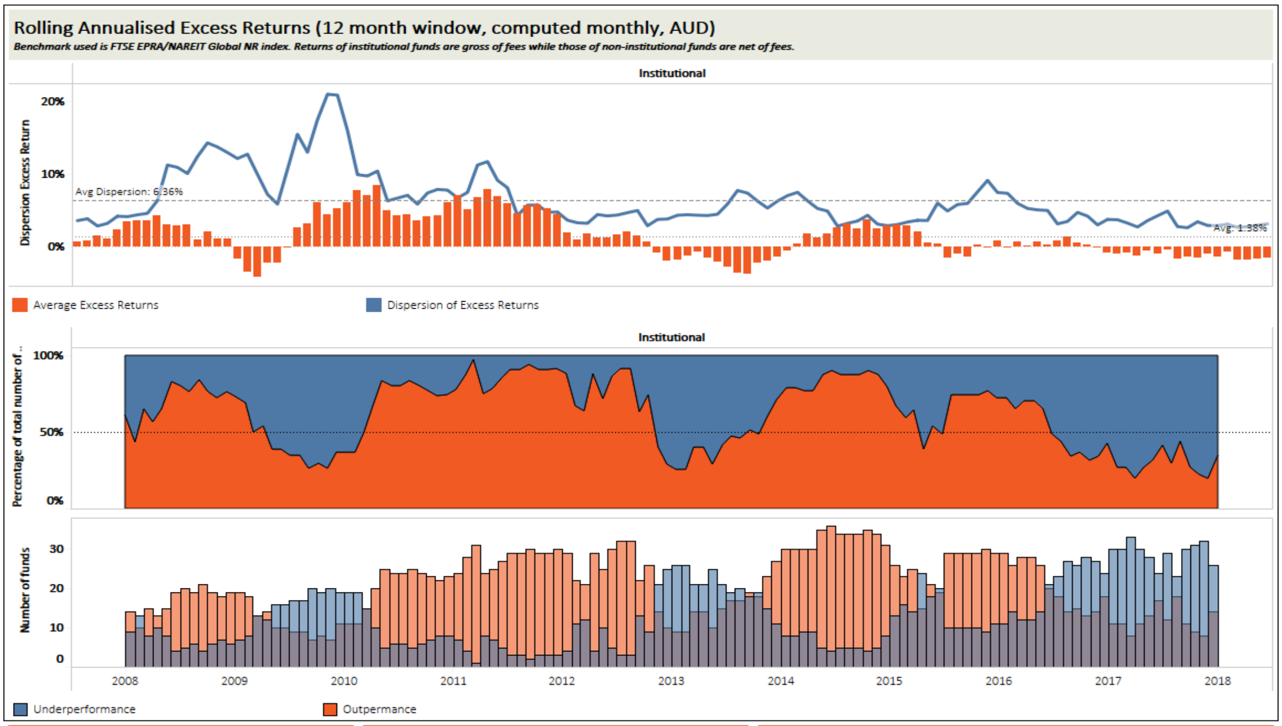
Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Manager performance has been cyclical and only first quartile managers are able to keep up with fees

Although the market has experienced a low inflation environment for several years, low global interest rates or cost of capital has contributed towards rising profitability and valuation. With all economic indicators pointing towards further normalisation of inflation and interest rates, it is likely that the asset class may face some growth and valuation headwinds going forward.

Our analysis of the GREIT manager performance (Exhibit 8) shows excess returns from GREIT strategies have been mixed. In phase 1 of the data-set (from 2008-2013), realised excess return were quite healthy except for 2009. Manager performance dispersion was also quite high in this phase. However, phase 2 (between 2013 and 2017), excess returns delivered by active strategies has been very disappointing except for 2014 period. Manager performance dispersion over this period has also been lower and the percentage of managers outperforming the index (breadth) has also been lower for phase 2.

Exhibit 8: Excess returns have been cyclical in the long term and erratic in the short term



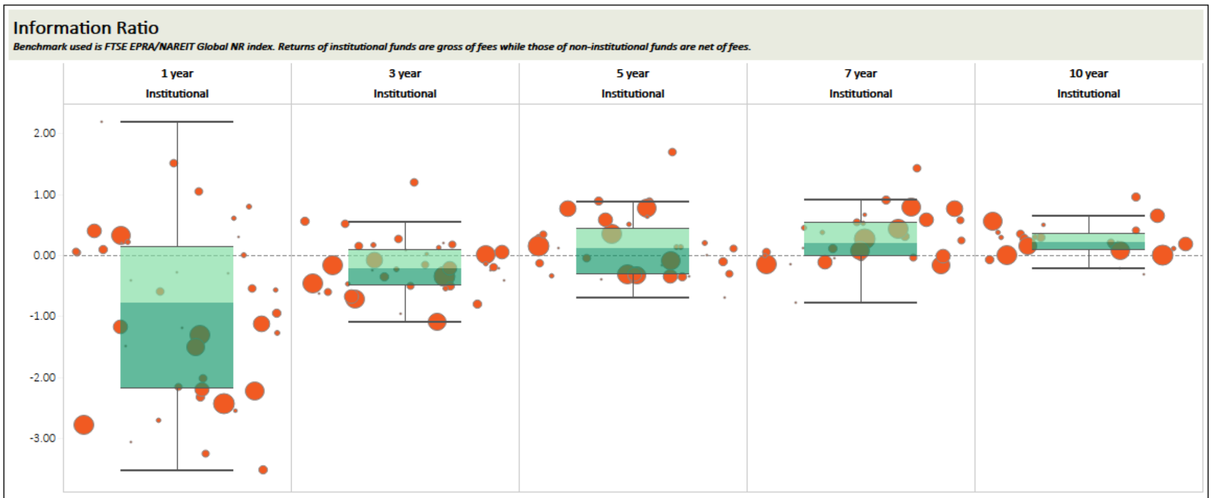
Channel	Available For Sale In Australia	Measurement period
Institutional	Multiple values	01/08 to 12/17

Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

From a risk-adjusted return perspective, the data over the entire period examined isn't that encouraging. As you can see from Exhibit 9, the median information ratio (a risk-adjusted concept that shows the unit of excess return produced per unit of active risk taken) over 5, 7 and 10 year period is quite low at 0.11, 0.20 and 0.22, respectively. Importantly, this number is before fees and costs are taken into account. Over the short to medium term, the risk-adjusted returns for the median manager do not paint a positive picture. That said, first quartile managers have been able to deliver sufficient excess returns to cover for fess and costs although picking a first quartile manager is more easily said than done.

Our analysis suggests that GREIT investors need to be cautious when selecting active managers. This evidence signifies the importance of picking first quartile managers as an average or median manager is barely keeping up with fees. It is also quite evident from the boxplots that as the time horizon has increased, the variability of excess returns have subsided as well so investors need to take a longer term perspective as well.

Exhibit 9: Risk-adjusted returns show contrasting performance in short term and long term



	1 year Institutional	3 year Institutional	5 year Institutional	7 year Institutional	10 year Institutional
Max	2.18	1.19	1.69	1.42	0.95
Average	-0.91	-0.20	0.15	0.26	0.24
Q1	0.11	0.08	0.43	0.53	0.36
Q2	-0.77	-0.21	0.11	0.20	0.21
Q3	-2.17	-0.49	-0.31	-0.02	0.09
Min	-3.52	-1.10	-0.69	-0.77	-0.32
Count	40	38	35	31	23

Assets under management (31.12.2017)
$2M $2,000M $4,000M $6,000M $8,000M $10,600M

Channel	**Available For Sale In Australia**	**Statistics**	**Period**
Institutional	Multiple values	Information Ratio	All

Source: Foresight Digital
Data source: Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA), Rainmaker, Morningstar and eVestment

Weak performance results symptomatic of low conviction strategies

Analysis of GREIT managers' active orientation (an index-relative concept that takes into account both active share and tracking error) shows that out of the 32 portfolios reviewed reviewed by Foresight:

- 5 (15.63%) were classed as *Stock Pickers: Concentrated Factor Exposures*,
- 12 (37.50%) as *Stock Pickers: Diversified Factors Exposures*,
- 14 (43.75%) as *Closet Indexers*, and
- 1 (3.13%) as *Factor Bets*

Evidently most strategies were classified as *Closet Indexers* meaning their active orientation is not materially differentiated from the index and therefore the propensity for them to disappoint after fees are taken out is very high. Investors need to be careful when researching and picking these group of managers. Firstly, they deserve to pay lower fees and important they need to pick managers that exhibit enduring active and competitive advantages.

We believe, to deliver strong outperformance after fees, investors need to move away from passive or closet indexers and focus on high active share managers.

Exhibit 10: Investors need to adopt high active share strategies to improve their odds of outperforming after fees

Stock Pickers: Concentrated Factor Exposures	Stock Pickers: Diversified Factor Exposures	Closet Indexers	Factor Bets	Grand Total
5 15.63%	12 37.50%	14 43.75%	1 3.13%	32 100.00%

Source: Foresight Digital
Data source: Morningstar and eVestment

What next?

Global real estate investment represents a good source of income and growth for superannuation funds in Australia. While the recent growth in allocations to the listed sector has subsided, the long-term allocation trend remains positive. Member demographic shifts and the desire to seek exposure to liquid assets by Industry superfunds is likely see increased allocations to GREITs. The financial health of the asset class remains solid with average financial leverage of the index sitting at around 54%. Analysis of active manager performance suggests that rising correlation between manager returns is expected going forward as economic and political uncertainty takes hold. While active management makes enormous sense during periods of uncertainty, historical analysis of manager alpha after fees suggests a cautious stance is warranted. We believe first quartile returns are likely to be delivered by skilled managers that have higher active share and offer strong downside protection.

Foresight Analytics™

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