Real Assets Quarterly: A focus on Real Estate Investment Trusts

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The role of REITs

Are Real Estate Investment Trusts (REITs) relevant within a diversified portfolio?

The COVID-19 induced market disruptions of 2020 highlighted not only the volatility of the listed market but also the need for liquidity. For cash constrained investors, REITs provided liquidity during the height of the pandemic. In contrast, for well capitalised and nimble investors, REITs provided an opportunity to profit from the market dislocation.

There are several appealing characteristics which draw investors to the property sector. These include long-dated and often defensive cashflows, the ability to capture rising inflation, benefit from demographic growth, healthy income yield, diversification to equity market beta, and the ability to drive value through ESG enhancements.

Many Australian institutional investors have historically held a preference for accessing these traditional property characteristics via the unlisted market. Listed market volatility and short-term equity market beta have driven investors away from REITs towards unlisted investments. **However, with the experience** of 2020 in mind, Frontier believes that REITs have an important role to play within a diversified property investment portfolio.

Defensive characteristics Attractive growth **Role of** property Ability to deliver ESG **Diversification** enhancements Ability to capture inflation -ong-term cashflows

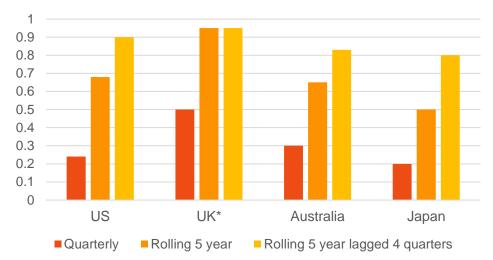
In the following presentation, we explore:

- 1. The relationship between listed and unlisted property valuations
- 2. The relationship between listed and unlisted property performance
- 3. The existence of a return premium
- 4. Benefits of REIT exposure in a property portfolio
- 5. FY2021 REIT market observations

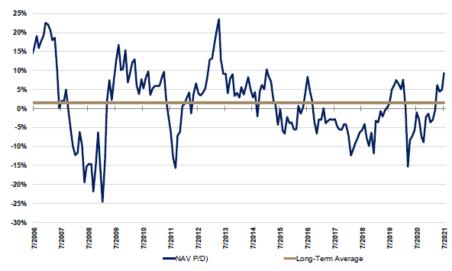


Is there a relationship between public and unlisted property?

Market analysis of REITS vs unlisted real estate



Correlations between public and unlisted property returns (2000-2020**)







* Lagged UK 5 year correlation is expressed in terms of correlation without a lag because the appraisal process in the UK is relatively frequent.

** Returns from 2000-2020, except Japan, which is since 2002.

Sources: EPRA Nareit, NCREIF (NPI), MSCI/IPD, LaSalle Investment Management

Correlation is limited in the short-term but significant over the longer term

- The correlation between REITs and unlisted property is low in the short term (where REITs exhibit a much higher equity market beta).
 - This can be attributed, at least in part, to the appraisal-based nature of unlisted property valuations which tend to lag.
- After taking these factors into consideration, over the longer term, the correlation between REITs and unlisted property is high across most markets.
- This relationship between listed and unlisted property valuations is demonstrated by the long-term relationship with NAV (listed market averaging a 1% premium).



Do unlisted and listed sectors perform similarly?

Sector analysis of US REITs and the unlisted property market



US apartment sector returns (rolling 3-year % p.a.)



US retail sector returns (rolling 3-year % p.a.)

Source: Frontier, DWS, MSCI

Source: Frontier, DWS, MSCI

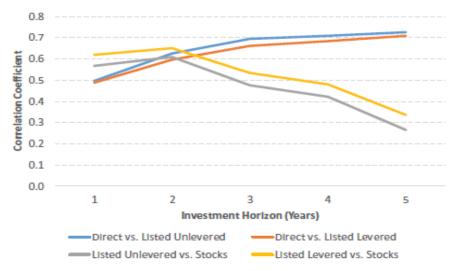
A long-term relationship between listed and unlisted markets supports the view that listed real estate can provide a proxy for unlisted property, although investors must be aware of the additional volatility.

- · When comparing the performance of US REITs vs direct US property, we observe that there is a relationship with traditional property sectors.
- The ability for the listed market to quickly re-price leads to a materially higher level of volatility.
- Volatility may also reflect the higher level of leverage (unlisted property in our data set unlevered vs. an average 30-40% leverage level in listed market).
- At times, this can result in a significant divergence in the relative performance between listed and unlisted markets.
- The high correlation between REITs and the broader equity market over the short-term limits the sector's ability to provide diversification at the total portfolio level, particularly in stressed market environments.



Does an unlisted return premium exist?

Compositional differences make it challenging to assess the return premium



Correlations between direct and listed property over time (1998-2017)

Source: Hoesli, M., & Oikarinen, E. (2021). Does listed real estate behave like direct real estate? Updated and broader evidence. *Applied Economics*,. Data from MSCI and FTSE.

Geography	Investment structure	Average (%)	Standard Deviation (%)	
	Unlisted	8.9	9.7	
Australia	Listed leveraged	5.9	23.5	
	Listed unleveraged	6.7	11.6	
US	Unlisted	6.4	16.6	
	Listed leveraged	9.8	20.0	
	Listed unleveraged	8.0	8.7	
Global (ex-Germany in brackets)	Unlisted	6.6 (7.2)	11.9 (12.9)	
	Listed leveraged	8.1 (8.4)	23.7 (21.7)	
	Listed unleveraged	7.3 (7.3)	10.5 (10.7)	

Average annual returns and de-smoothed volatility (1998-2017)

Source: Hoesli, M., & Oikarinen, E. (2021). Does listed real estate behave like direct real estate? Updated and broader evidence. *Applied Economics*. Data from MSCI and FTSE.

The observed return premium available in unlisted property assets has been the subject of numerous empirical studies, often with varying results.

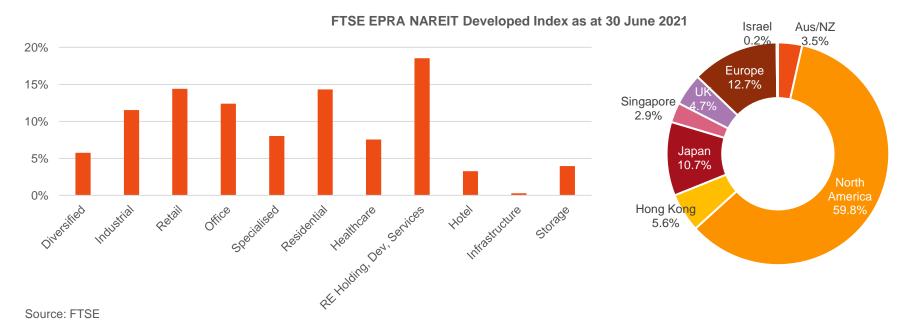
- Several key differences in the composition of listed and unlisted markets make a direct comparison of the two markets challenging.
- Recent research suggests that listed property may have slightly outperformed unlisted property at a market level, and after adjusting for leverage.
 - However, this analysis ignores non-rental income (e.g. funds management), sectoral exposure, sub-region exposure, development exposure, and quality.
 - Results differ materially by geography (e.g. Australian unlisted property meaningfully outperformed listed property over the observed period above) and the volatility of the listed market is apparent (even after 'de-smoothing returns').
- Analysis of the US market found that the median return of 375 US closed-ended funds was 10.7% p.a. vs 10.6% for US REITs for '00-14 vintages^{1.}

¹ Arnold, T. R., Ling, D. C., & Naranjo, A. (2021). Private Equity Real Estate Fund Performance: A Comparison to REITs and Open-end Core Funds. *The Journal of Portfolio Management*.



What other characteristics can REITs provide a property portfolio?

REITs can deliver several key benefits to investors



There are several appealing characteristics of REIT investment:

- REITs provide access to emerging sectors such as life sciences, medical office, and multifamily, which are not widely available in Australia.
- The listed market allows investors to **diversify into other geographies** with greater ease than the unlisted market.
- REITs can provide additional liquidity benefits.
- REITs provide greater potential to implement active investment positions and take advantage of market volatility compared to unlisted property.
- Over the long term, REITs are correlated with unlisted property.



Summary

We continue to favour direct, unlisted property, but we strongly believe REITs have a place in property portfolios

REITs demonstrate a strong relationship with unlisted property over the long-term.

- This can be observed in relationship between stock price and net asset value.
- The correlation of performance between listed and direct, unlisted property markets also highlights the relationship.

Over the shorter-term, performance can diverge materially between listed and unlisted property.

- This is partially driven by the lagged nature of unlisted valuations, whereas, listed property securities are marked to market.
- It is also observed because listed markets are susceptible to broader equity market risk and sentiment.

Differences in the composition (e.g. sector, geography) and risk (e.g. leverage and development exposure) between listed and unlisted property markets creates challenges for assessing a return premium on a like-for-like basis.

- Various studies have proved to be inconclusive on this, with results often influenced by the time-period of observation and controls implemented.
- At a minimum, listed and unlisted property markets provide similar performance over the longer-term.

A key role of property is to provide diversification to the broader portfolio.

• Frontier retains a preference for unlisted property due to the meaningfully higher volatility of the listed property market (even after de-smoothing unlisted returns).

There are several key benefits provided by exposure to listed property that drive support for a strategic allocation to REITs, including:

- Diversification into niche property sectors and other geographies.
- Liquidity.
- · Ability to quickly implement active investment decisions via funds or completion strategies.
- Access to real-time and global data.



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REIT performance observations

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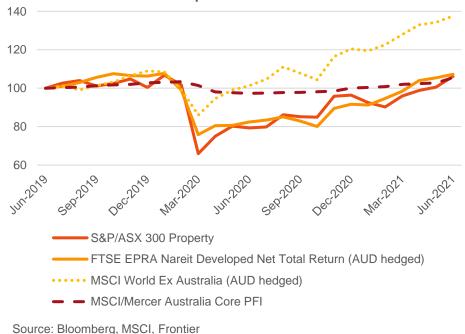
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Performance observations

After a sharp sell-off in 2020, REITs rebounded in FY21

- Listed property performance rebounded strongly in FY2021, driven largely by positive COVID-19 vaccine announcements in November 2020. However, GREITs still underperformed the broader equities market over the 12-month period as technology-related stocks drove equity markets higher.
- Over the two-year period to 30 June 2021, listed property performance largely caught up with the much less volatile unlisted core property fund indices (Australia: MSCI/Mercer Australia Core Property Fund Index and US: MSCI US ACOE Index).
- Australian REITs (AREITs) have outperformed GREITs over the medium-term. The AREIT index is highly concentrated by stock, with strong performance contribution from Goodman Group (circa 25% of the index as at 30 June 2021) and Charter Hall (circa 5%); two businesses which derive a significant percentage of income from non-rent activities.
- In contrast to unlisted property markets, retail REITs delivered high absolute returns over FY2021. However, listed retail returns remain negative over a two-year timeframe to 30 June 2021.



Cumulative performance to 30 June 2021

Index	Qtr (%)	CYTD (%)	1 year (%)	3 years (% p.a.)
FTSE EPRA Nareit Developed Net (AUD hedged)	9.0	17.0	30.2	4.9
S&P/ASX 300 Property	10.7	10.1	33.9	8.2
MSCI/Mercer Aus Core Fund Index	3.4	5.4	8.3	4.2
MSCI US Core Fund Index	3.6	5.5	6.9	4.5

Source: Bloomberg, MSCI, Frontier.

Index performance comparison as at 30 June 2021



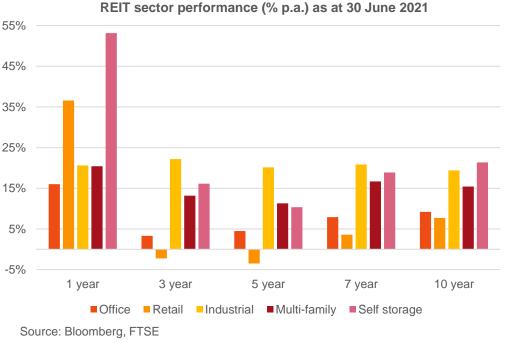
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REIT observations

REIT performance diverges by sector

- Somewhat similar to unlisted property markets, listed office and retail REITs have underperformed other sectors in recent years due to structural and COVID-19 • related issues, while other property sectors have benefitted from secular growth themes (such as e-commerce, ageing populations and residential housing shortage). Self storage performed strongly over the period, driven by strong occupancy, rent growth, and muted supply as a result of the pandemic. Demand for self storage space has been elevated due to people movement across the US, strength of the US housing market, and small business activity.
- Despite the broad recovery of listed property share prices in FY2021, AREITs with discretionary retail (in particular) and office exposure continued to trade at a . discount to their net tangible asset values. The chart on the left below shows select AREITs and their 12-month price performance and share price discount to NTA as at 30 June 2021.
- Merger and acquisition activity across public equity markets rose during FY2021 and REITs were no exception, highlighted by transactions such as the merger . announcement between VEREIT (a US diversified REIT) and Realty Income (predominantly US retail property), and Blackstone's take-private of QTS Realty Trust (a data centre provider across North America and Europe) for circa US\$10 billion. In Australia, Dexus acquired listed fund manager APN Property in a A\$320 million cash deal.





AREIT performance and discount to NTA as at 30 June 2021

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Performance to 30 June 2021

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Property performance

Performance to 30 June 2021

	1 year return				Total returns					Index composition		
	Income	Capital	Total	3 years % p.a.	5 years % p.a.	10 years % p.a.	15 years % p.a.	20 years % p.a.	25 years % p.a.	Assets	Value A\$m	%
All Australian property	5.0	2.7	7.8	5.8	8.1	9.4	8.8	9.8	9.9	1,333	192,490	100
Retail	5.2	-2.6	2.5	-1.4	2.8	6.3	6.7	8.9	9.1	340	60,828	32
Office	4.8	2.3	7.3	9.0	10.9	10.8	9.8	9.9	10.0	317	92,207	48
Industrial	5.1	17.2	23.2	16.0	13.9	13.1	10.6	11.4	11.8	441	27,713	14
Others	4.4	7.8	12.5	9.2	11.5	12.5	11.8	-	-	241	12,407	6
Retail - Australia												
Super regional and major regional	4.9	-2.5	2.3	-3.0	1.8	5.1	6.2	8.5	8.8	62	33,323	17
Regional	6.5	-1.9	4.5	-1.9	1.9	6.0	6.7	8.7	8.8	25	5,236	3
Sub regional	6.6	-2.4	4.0	0.1	3.5	7.3	6.9	9.4	9.7	65	8,190	4
Neighbourhood	5.9	1.6	7.6	2.3	5.2	8.4	7.4	9.4	10.3	61	2,956	2
Other	4.4	-4.4	-0.2	1.2	4.8	8.1	8.6	-	-	126	10,956	6
Office - Australia												
Premium grade CBD	4.9	1.6	6.6	8.3	9.8	10.5	9.8	9.9	9.9	64	32,591	17
Grade A CBD	4.6	2.1	6.8	8.9	11.1	10.8	9.8	9.8	9.7	115	42,043	22
Grade B CBD	4.6	1.1	5.8	8.2	12.0	11.4	10.0	10.7	10.4	22	2,236	1
Non CBD	5.3	5.2	10.7	10.8	11.8	11.5	10.0	10.1	10.6	98	14,096	7
Industrial - Australia												
Warehouse	4.9	17.8	23.6	15.9	14.0	14.1	11.5	12.0	12.1	169	8,297	4
Distribution	5.2	16.3	22.3	15.9	13.6	12.7	10.8	11.8	11.7	146	11,363	6
Industrial estate	5.3	19.5	25.7	16.6	14.8	13.0	9.8	10.7	11.8	30	2,692	1
International unlisted												
IPD UK All Property	5.9	3.2	9.2	3.4	5.2	7.6	4.6	7.0	6.0	N.A.	N.A.	N.A.
IPD Europe Ex-UK	1.7	3.6	5.4	7.8	8.2	7.1	6.6	6.7	N.A.	N.A.	N.A.	N.A.
NCREIF US Property Index	N.A.	N.A.	7.4	5.5	6.1	8.8	7.0	8.2	9.1	N.A.	N.A.	N.A.
REITs												
S&P/ASX 300 AREIT	N.A.	N.A.	33.9	8.2	6.2	12.0	4.0	6.9	8.2	N.A.	N.A.	N.A.
FTSE EPRA GREIT \$A (H)	N.A.	N.A.	30.2	4.9	4.7	8.3	5.2	N.A.	N.A.	N.A.	N.A.	N.A.

Source: Bloomberg, NCREIF, MSCI, Frontier

Note: AU, US and UK data to 30 June 2021, EU data to 31 December 2020



Transactions

Key property transactions

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Recent Australian property transactions

Key transactions - Q1 & Q2 2021

Asset	Location	Grade/type	Sq. m.	Price	Cap rate	Buyer	Seller	
Major office transactions (\$200m+)								
39 Martin Place – South Tower	Sydney NSW	Premium	32,000	\$800m	4.6%	Investa (50%), Manulife (50%)	Macquarie	
1 Bligh Street (33%)	Sydney NSW	Premium	43,000	\$375m	4.4%	Mercatus (90%), Dexus (10%)	Cbus Property	
25 Cowlishaw St, Tuggeranong	Canberra ACT	A Grade	26,100	\$306m	5.3%	CLW, DOF	AIP	
10 Eagle Street	Brisbane QLD	A Grade	27,800	\$285m	5.5%	Marquette Properties	Dexus Office Partnership	
140 St Georges Terrace	Perth WA	A Grade	30,000	\$260m	6.6%	Primewest, BlackRock	ADPF	
913 Whitehorse Rd, Box Hill	Melbourne VIC	A Grade	19,900	\$230m	5.0%	CLW & DOF	AIP	
50 Ann Street	Brisbane QLD	A Grade	25,500	\$210m	7.6%	Hines	ESR, Goldman Sachs	
Major retail transactions (\$100m+)								
Portfolio of NSW neighbourhood malls	Various NSW	Neighbourhood retail	N/A	\$300m	6.0%	IP Generation	Paul Lederer	
Large format retail asset portfolio	Various NSW, QLD & VIC	Large format retail	82,300	\$266m	6.8%	HDN	N/A	
Rundle Place	Adelaide SA	Prime CBD retail	23,000	\$210m	5.5%	Irongate, Fortius	Blackstone	
Clifford Gardens SC	Toowoomba QLD	Neighbourhood retail	28,300	\$145m	7.9%	Elanor, Savills	Blackstone	

Source: press reports, company reports, JLL, J.P. Morgan.



Recent Australian property transactions

Key transactions - Q1 & Q2 2021

Asset	Location	Grade/type	Sq. m.	Price	Cap rate	Buyer	Seller	
Major retail transactions (\$100m+) continued								
CS Square, Caroline Springs	Melbourne VIC	Neighbourhood retail	25,300	\$137m	N/A	DeGroup	Lendlease APPF Retail	
98-116 Jonson Street	Byron Bay NSW	Neighbourhood retail	11,000	\$120m	5.0%	Mustaca & Pelligra families	Wingate (75%), Azzura (25%)	
Oasis Centre, Broadbeach (60%)	Gold Coast QLD	Mixed use	23,100	\$104m	7.3%	ABP	KKR	
Major industrial transactions (\$10	0m+)							
Milestone logistics portfolio	Australia-wide	Industrial	1,359,000	\$1,359m	4.0%	ESR	Blackstone	
Fife logistics portfolio (90%)	Australia-wide	Industrial	N/A	\$850m	4.5%	PGIM RE, Manulife	Blackstone	
PFD Food Services portfolio	Australia-wide	Industrial	82,300	\$269m	N/A	Charter Hall CPIF	N/A	
169 Princes Hwy & 28-46 Bald Hill Rd	Bairnsdale & Pakenham VIC	Industrial	46,200	\$141m	4.4%	Charter Hall DIF4	Pacific Equity Partners	
917 Boundary Rd, Truganina	Melbourne VIC	Industrial	70,000	\$137m	4.1%	GPT, QuadReal	N/A	
1 Eucalyptus PI, Eastern Creek	Sydney NSW	Industrial	35,000	\$130m	3.6%	Lendlease APPF Industrial	AMP Capital	
GlaxoSmithCline life sciences campus, Boronia	Melbourne, VIC	Industrial	33,900	\$106m	4.0%	Charter Hall CPIF	GlaxoSmithCline	

Source: press reports, company reports, JLL, J.P. Morgan.



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