



Asia Pacific Real Estate Association

October 2018

GPR/APREA AsiaPac Performance Snapshot

...your guide to listed real estate returns in AsiaPac



What is the GPR/APREA snapshot?

The **GPR/APREA AsiaPac Performance Snapshot** tracks the dynamics of listed real estate securities (including REITs) across 12 AsiaPac countries/regions and eight sectors, over multiple time horizons.

The following asset classes are covered:

- Listed real estate (including REITs): GPR/APREA Composite Index
- REITs: GPR/APREA Composite REIT Index
- Equities: MSCI Asia Pacific Equities Index
- Bonds: JPM Govt Bonds – Asia Pacific

All data in this **Snapshot** is calculated on a USD denominated basis. The GPR/APREA series is separately available in a country local currency format.

Overview – October 2018

In a volatile month, the GPR/APREA snapshot reveals these results:

All Asset Classes: AsiaPac government bonds the least worst performer

- AsiaPac government bonds were least impacted by the October market correction (-1.3% total return), followed by REITs (-3.6%).
- REITs were the top-performing asset class over a one-year, five-year and 10-year horizon.

Listed Real Estate: the Philippines and Industrial sectors outperform

- The Philippines (-1.1% total return) recorded the lowest total return correction.
- Listed industrial real estate stocks proved the most resilient (-1.7%), with the diversified sector hardest hit (-6.9%).

REITs: Japan was the top-performing country market

- Japanese REITs were the least worst performer with a total return (-0.9%), while Hong Kong recorded the sharpest decline (-7.6%).
- Industrial REITs registered a small decline for the month (-1.1%), while hotel assets (-4.5%) were the hardest hit.

Asia versus the World: Asian REITs least volatile

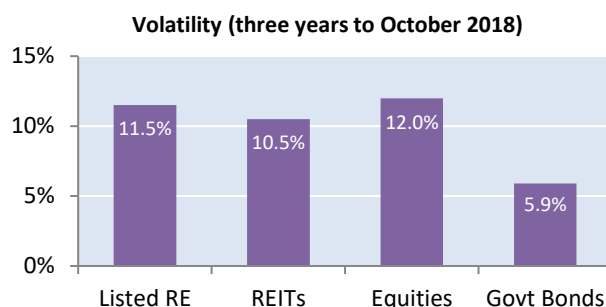
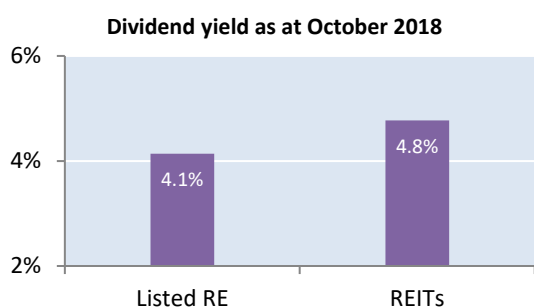
The **GPR 250 REIT Index** provides a benchmark for comparing global performance based on larger cap stocks. (Please note that this series represents a different sample of funds compared to the GPR/APREA indices and also separates Asia from Oceania)

- Asian REITs posted a total return of negative 3.4% in October, compared to negative 1.9% in the USA and negative 3.7% in Europe.
- Asia remains the least volatile region with a 36-month volatility of 7.0%, compared to the global average of 10.0%.

October 2018 Results – total returns

% Total Returns (USD)	Oct-18	1yr	3yrs*	5yrs*	10yrs*
GPR/APREA Listed Real Estate	-5.8	-6.1	5.6	2.7	10.4
GPR/APREA REITs	-3.6	5.6	8.3	5.7	12
MSCI Asia Pacific Equities	-9.6	-8.6	6.4	3.7	8.6
JPM Govt Bonds – Asia Pacific	-1.3	-2.8	2.1	0.8	4.3

*Annualised compound growth

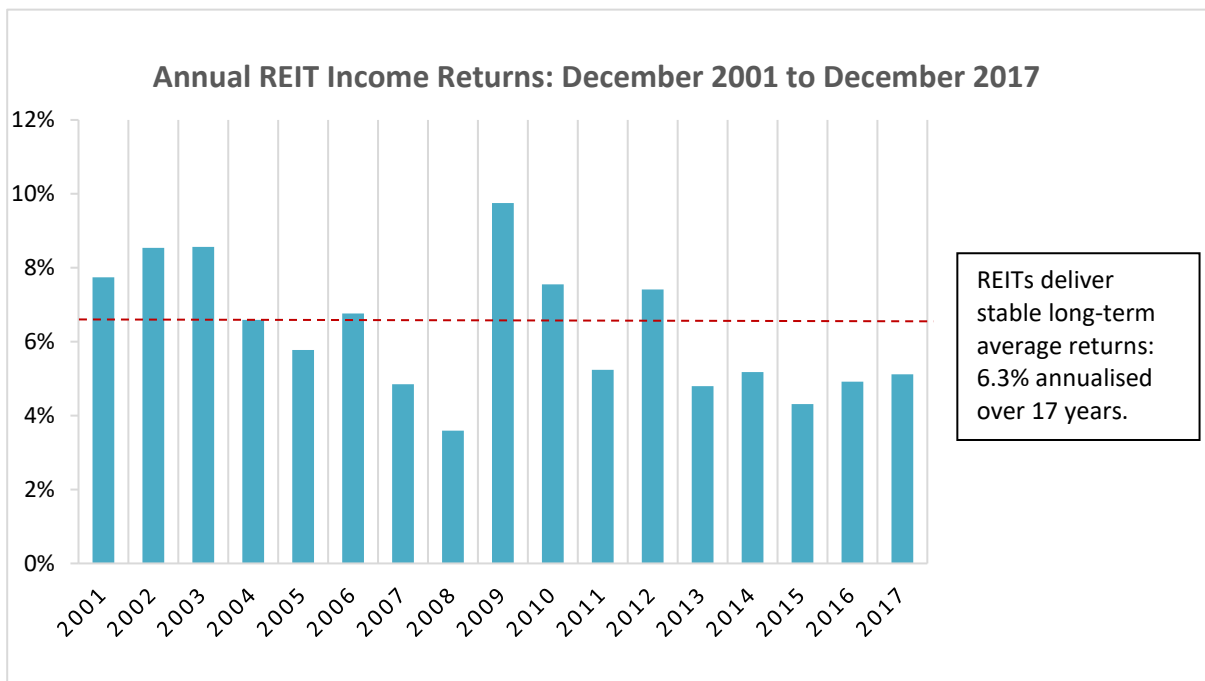
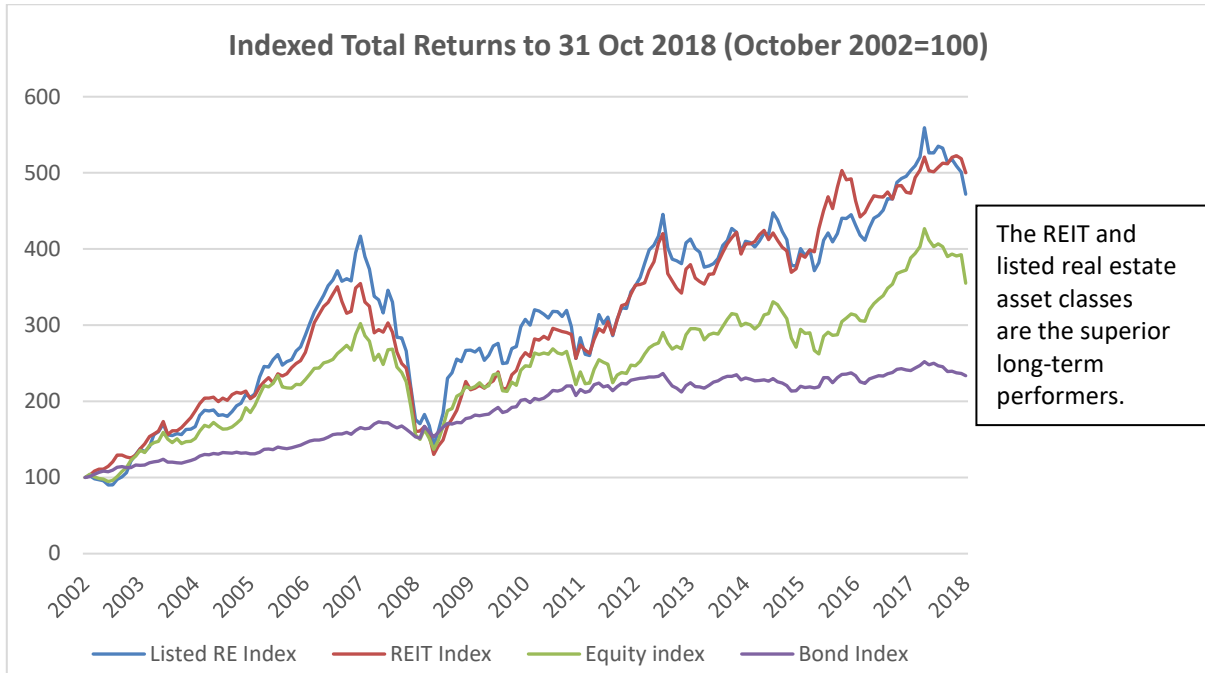


Correlation (three years to October 2018)

	Listed RE	REITs	Equities	Bonds
Listed RE	1.00			
REITs	0.84	1.00		
Equities	0.98	0.77	1.00	
Bonds	0.94	0.86	0.89	1.00

Total Returns – key results

- AsiaPac government bonds posted the least negative total return in October 2018.
- REITs were the strongest performing asset class over a one-year, five-year and 10-year horizon.
- At negative 9.6%, AsiaPac equities were hardest hit.



GPR/APREA Composite Listed Real Estate Index – October 2018

% Total Returns (USD)	Oct-18	1yr	3yrs*	5yrs*	10yrs*	Volatility**
Australia	-4.4	1.0	8.2	5.7	11.9	12.9
China	-8.5	-16.7	14.8	7.8	16.7	24.3
Hong Kong	-9.3	-9.9	5.5	5.1	11.8	16.8
India	-3.7	-34.1	7.8	7.0	1.0	29.1
Indonesia	-7.6	-38.4	-9.6	-8.0	10.1	19.2
Japan	-2.4	1.6	2.2	-0.7	7.4	9.5
Malaysia	-9.1	-16.7	-1.2	-6.2	7.6	14.3
New Zealand	-4.9	8.8	7.5	7.3	13.6	13.5
Philippines	-1.1	-16.5	-1.1	1.8	20.3	20.9
Singapore	-7.3	-10.2	5.8	1.8	12.5	13.8
Taiwan	-7.4	9.6	6.9	1.1	15.5	14.3
Thailand	-7.6	5.5	15.9	7.3	23.0	12.9

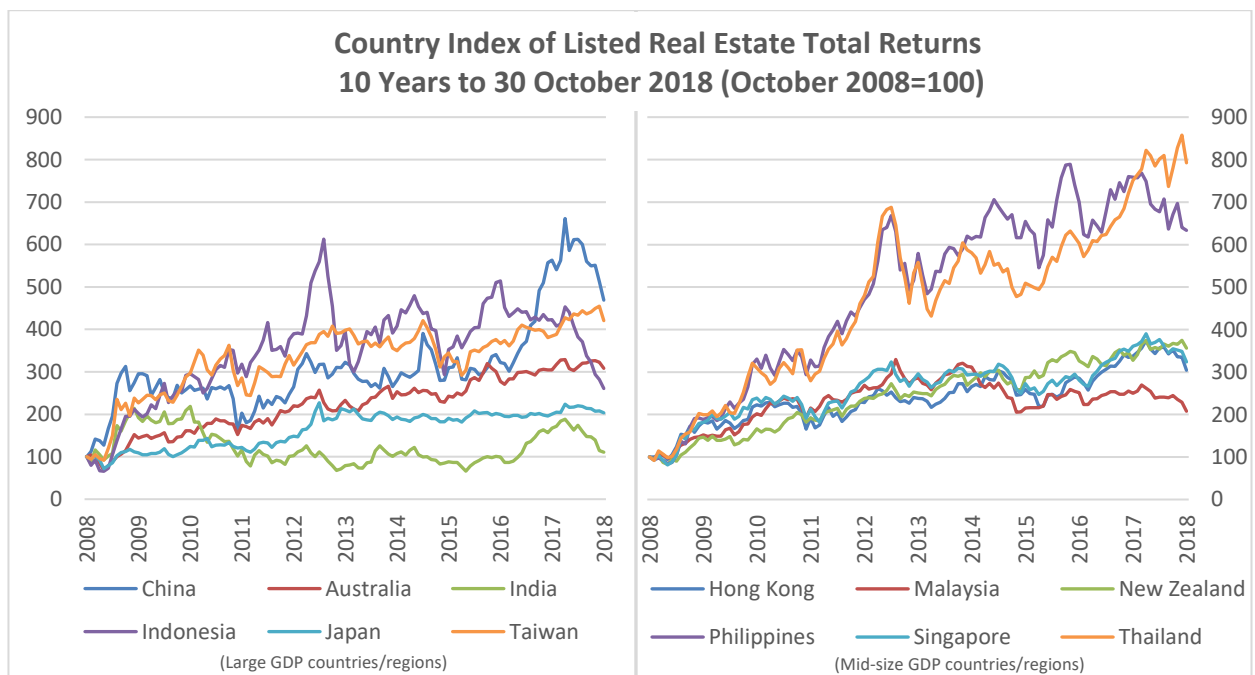
*Annualised compound growth

** Volatility is the 36-month standard deviation of total returns expressed as a percentage

Listed Real Estate – key results by country/region

- October’s pacesetter for listed real estate was the Philippines.
- The top-performing listed real estate market for the past 12 months was Taiwan.
- Thailand and China stood out on a three-year and five-year basis.
- Thailand posted the best performance over a 10-year horizon.

GPR/APREA Composite Listed Real Estate Country Index over the Long-Term



GPR/APREA Composite Listed Real Estate Sector Index – October 2018

% Total Returns (USD)	Oct-18	1yr	3yrs*	5yrs*	10yrs*	Volatility**
Diversified	-6.9	-10.4	5.8	2.8	10.3	13.0
Office	-2.2	11.9	5.7	1.2	9.7	8.9
Residential	-6.8	-12.2	7.3	4.3	11.5	16.7
Retail	-4.3	3.4	6.7	5.1	12.5	11.1
Industrial	-1.7	-0.6	7.7	2.7	13.1	11.8
Hotel	-5.4	-2.2	8.6	5.7	15.4	11.2
Healthcare	-3.1	0.8	10.7	8.8	-***	11.3
Other	-3.5	4.4	10.4	8.2	13.5	10.1

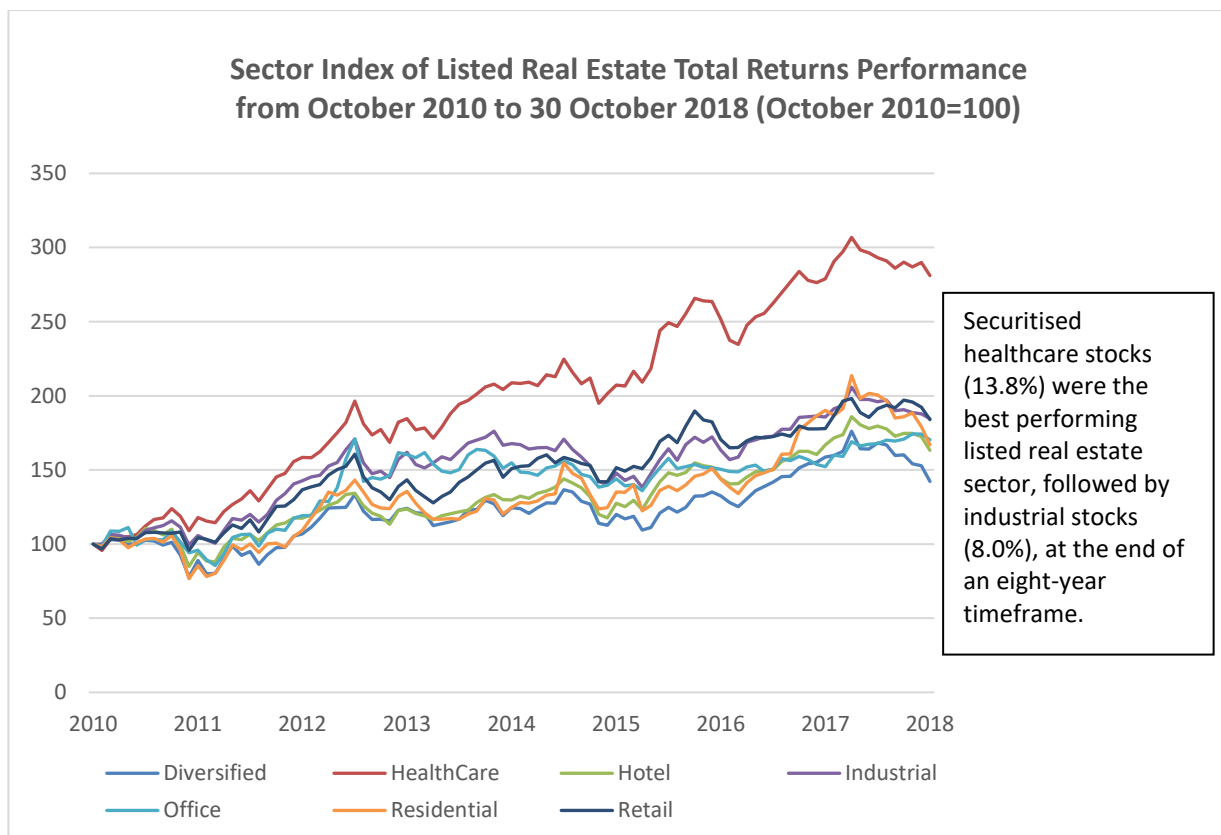
*Annualised compound growth

**Volatility is the 36-month standard deviation of total returns expressed as a percentage

***Note: As the minimum threshold of five constituent stocks was not met between October 2008 and November 2009, there will be no 10 years return metric until December 2019.

Listed Real Estate – key results by sector

- The industrial sector recorded the least negative return in October.
- The office sector was the top performer during the past 12 months.
- Healthcare stood out on a three-year and five-year basis.
- The hotel sector posted the best performance over a 10-year horizon.



GPR/APREA Composite REIT Index – October 2018

% Total Returns (USD)	Oct-18	1yr	3yrs*	5yrs*	10yrs*	Volatility**
Australia	-4.4	0.9	7.9	5.6	11.5	12.9
China***	-1.7	6.5	8.2	-	-	9.0
Hong Kong	-7.6	-2.6	11.9	13.5	23.4	11.6
Japan	-0.9	12.6	6.8	4.3	10.3	13.4
Malaysia	-2.5	-1.1	7.3	1.2	11.0	13.8
Singapore	-5.5	-1.5	9.0	4.5	15.5	12.5
Taiwan	-2.7	12.4	3.3	-0.3	10.2	8.1

*Annualised compound growth

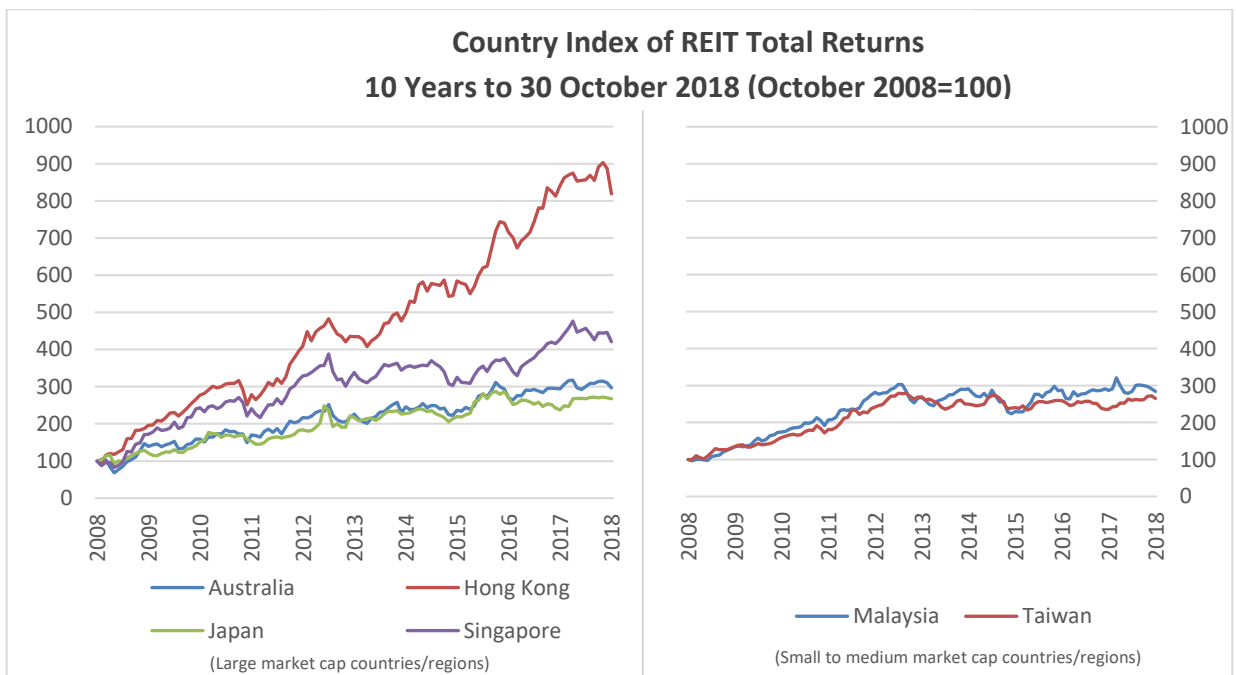
**Volatility is the 36-month standard deviation of total returns expressed as a percentage

***The China REIT index is an experimental addition to the series. It tracks seven REITs that hold income-generating assets that are entirely located in China – four of which are listed in Hong Kong and three in Singapore. The total free float market capitalisation of these seven REITs is USD 4.06 billion. At present, no entities listed on Mainland China bourses are included in the China REIT series as there is no mandated REIT code in the People’s Republic.

REITs – key results by country/region

- Japanese REITs posted the least negative return in October and were the top-performing REIT market during the past 12 months.
- Hong Kong REITs topped performance rankings on a three-year, five-year and 10-year basis.

GPR/APREA Composite REIT Country Index over the Long-term



GPR/APREA Composite REIT Sector Index – October 2018

% Total Returns (USD)	Oct-18	1yr	3yrs*	5yrs*	10yrs*	Volatility**
Diversified	-4.3	3.1	8.9	4.9	13.3	11.0
Office	-2.2	11.9	10.8	5.7	10.4	10.6
Residential	-3.5	10.3	8.8	6.5	17.1	12.7
Retail	-3.7	5.2	6.8	6.2	13.5	11.2
Industrial	-1.1	2.0	7.8	4.6	15.1	11.8
Hotel	-4.5	0.3	6.1	5.0	-	11.4
Healthcare	-3.1	0.8	10.7	8.8	-***	11.3
Other	-3.7	7.4	-	-	-	-

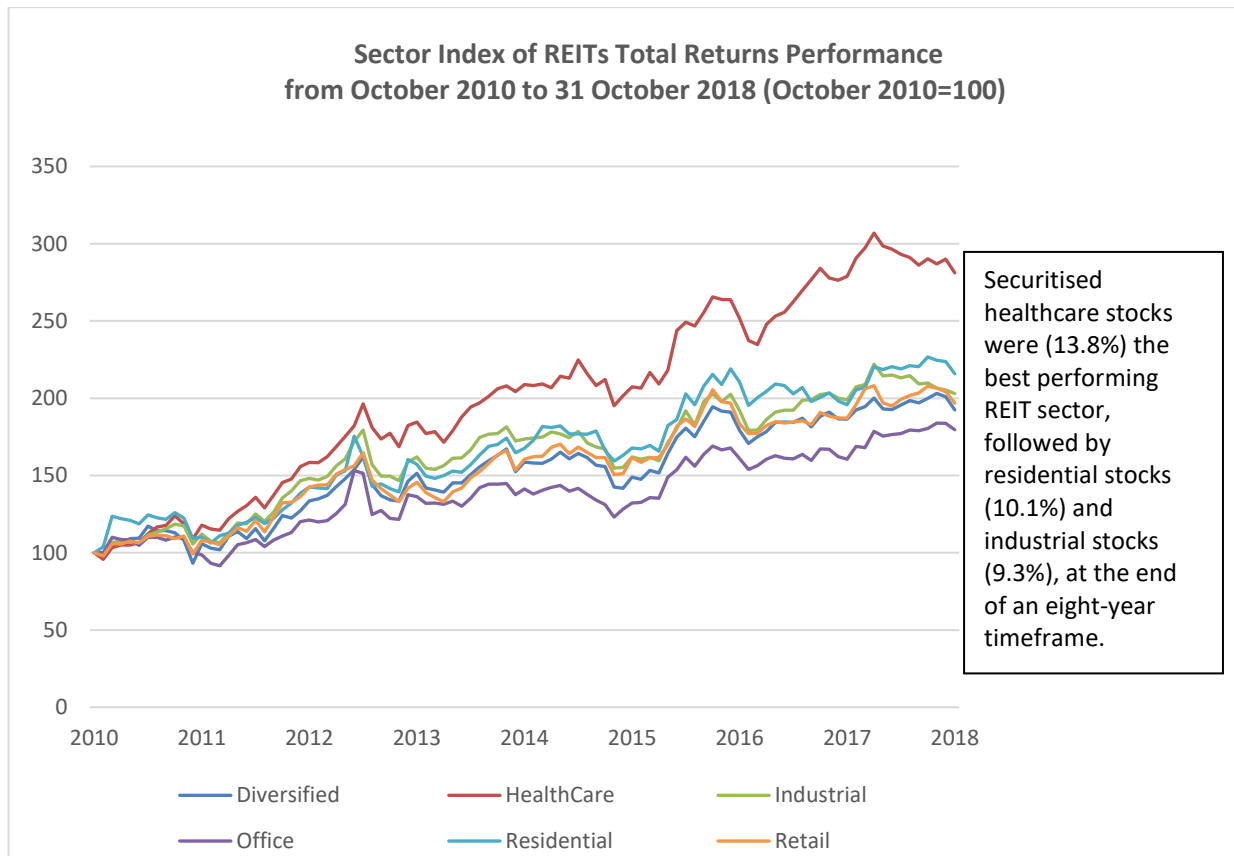
*Annualised compound growth

**Volatility is the 36-month standard deviation of total returns expressed as a percentage

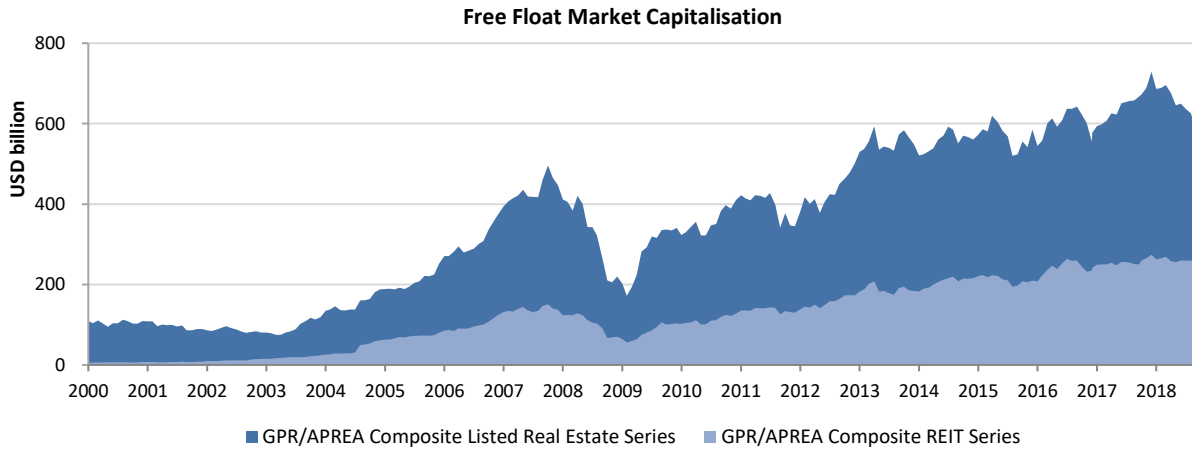
***Note: As the minimum threshold of five constituent stocks was not met between October 2008 and November 2009, there will be no 10 years return metric until December 2019.

REIT – key results by sector

- Industrial REITs recorded the least negative return in October.
- Office REITs recorded the highest total return during the past 12 months and over three years.
- Healthcare was the top performer on a five-year basis.
- Residential stood out over ten years.



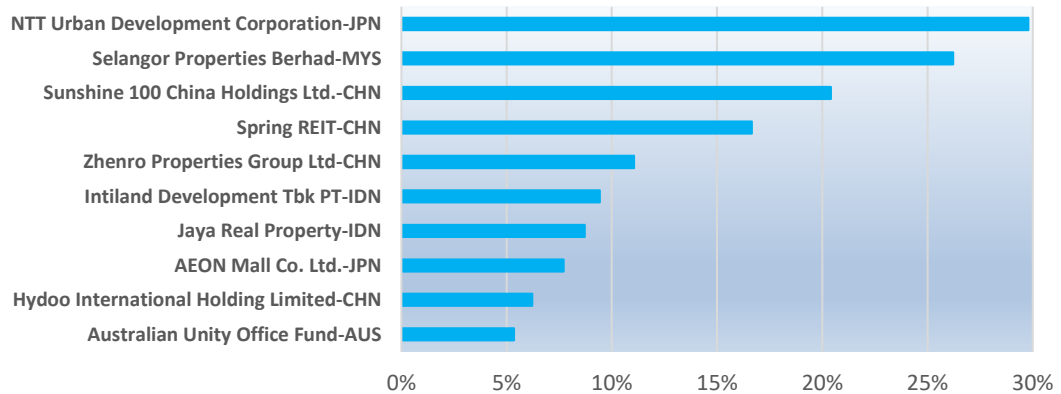
What's covered by the GPR/APREA Index



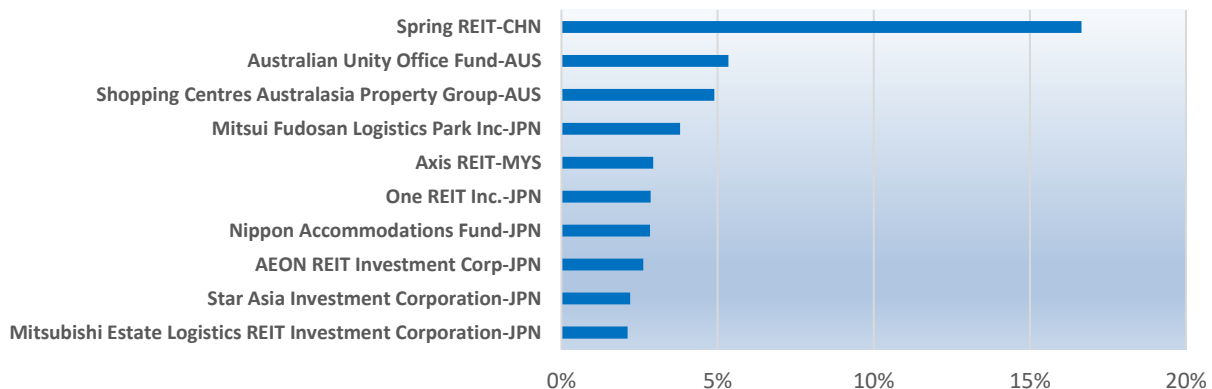
Market Cap in Numbers	Constituents	Free float in USD billion	Free float change (m-o-m)	Free float change (y-o-y)
Listed real estate index	425	590	-5.8%	-11.5%
REIT index	164	251	-3.5%	0.4%

Top performers in October 2018 – listed property companies and REITs

10 Top Performing Listed Property Companies (USD - October 2018)



10 Top performing REITs (USD- October 2018)



Methodology Q&A

Q. What sources of information underpin this report?

A. There are multiple sources, including GPR, APREA Research and Bloomberg.

Q. Which geographical markets are covered?

A. Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, Taiwan and Thailand. Allocations are based on country of operation.

Q. Which sectors are covered and what comprises “other”?

A. Diversified, office, residential, retail, industrial, hotel, healthcare and other. Other can include, data centres, storage etc.

Q. What sort of companies are included in the listed composite index and why are REITs part of the series?

A. The listed composite index is representative of the AsiaPac property stock market and includes developers, landlords and REITs listed on one or more of the regional stock exchanges. REITs are included in the composite index as they comprise around 40% of the listed real estate landscape. The basic inclusion rules for stocks are:

- \$50mn minimum free float market capitalisation for two consecutive months
- 15% minimum free float factor
- at least 60% of operational turnover derived from investment activities and/or development activities

Q. What does the REIT index cover and what is a REIT for the purposes of this index?

A. The REIT index includes companies that comply with REIT legislation in their country of primary listing. Singapore business trusts are included in the REIT index only if they comply with both the following criteria:

1. the business trust derives at least 90% of operational turnover from investment activities; and
2. the business trust must formally commit to distribute at least 90% of income as dividends.

Q. How is a “total return” defined in this index?

A. Total return includes both the total of dividends received and the change in unit price over a period. This figure is expressed as a percentage over the beginning period price.

Q. What is the difference between “free float” and “value” or market capitalisation”?

A. Free-float market capitalisation is calculated by taking an equity’s price and multiplying it by the number of shares available in the market. Instead of using the total of active and inactive shares, as with the full-market capitalisation method, the free-float method excludes locked-in shares such as those held by insiders, promoters and governments.

Q. Are the indices weighted? How?

A. Yes, the property stocks included in all indices are assigned a base weighting derived from their free float market capitalisation on a quarterly date of periodic adjustment. The country weights are the sum of weighting factors of eligible individual constituents in each country.

Q. How often are the weightings and selection of the component countries and property stocks adjusted?

A. The adjustments to the base weightings and selection of stocks and countries in the listed composite index occur quarterly in March, June, September and December.

Q. From where is the information on individual company performance sourced?

A. Bloomberg

Q. Why were the MSCI Asia Pacific Equities Index series and JPM Govt Bonds-Asia Pacific series chosen to represent equity and bond performance?

A. The two series are considered representative of regional equity and bond performance.

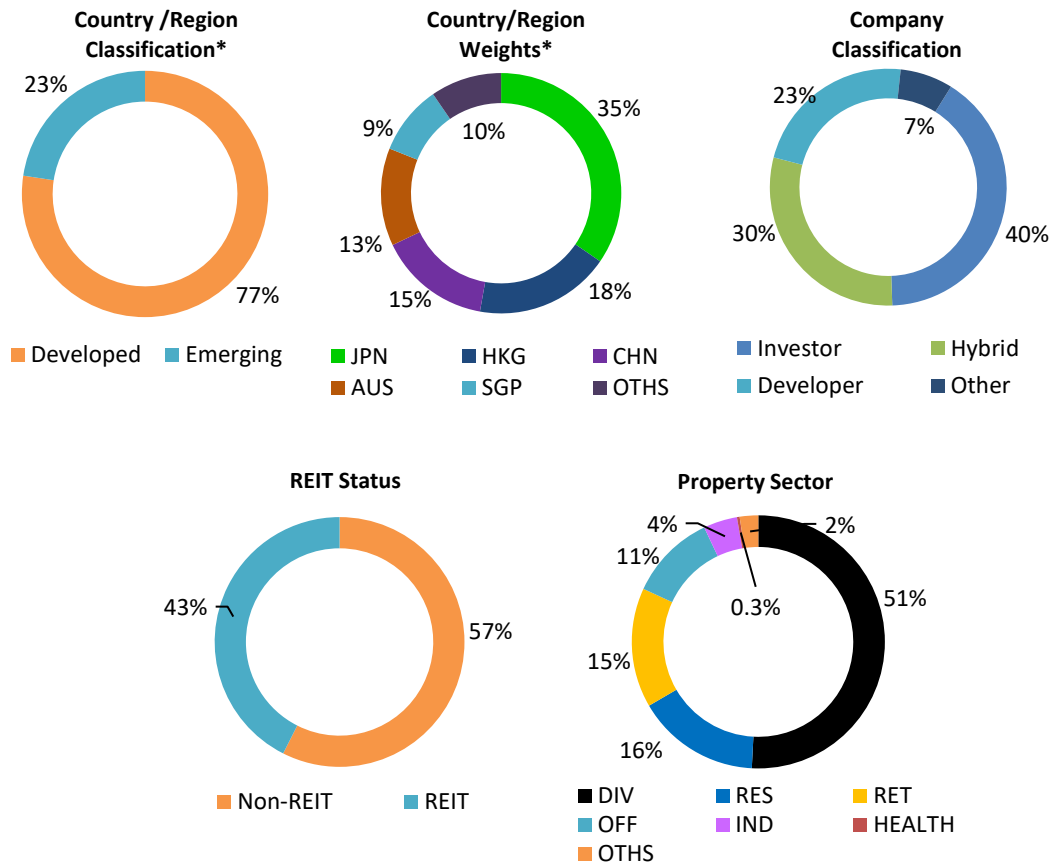
Q. What is GPR?

A. Global Property Research (GPR) provides services for leading financial institutions with top of-the-line benchmarks. All index products are based on an extensive and unique proprietary database of global listed property and infrastructure companies. GPR has a proven track record since 1995. For more on GPR, please contact Jeroen Vreeker at j.vreeker@gpr.nl or Floris van Dorp at f.van.dorp@gpr.nl

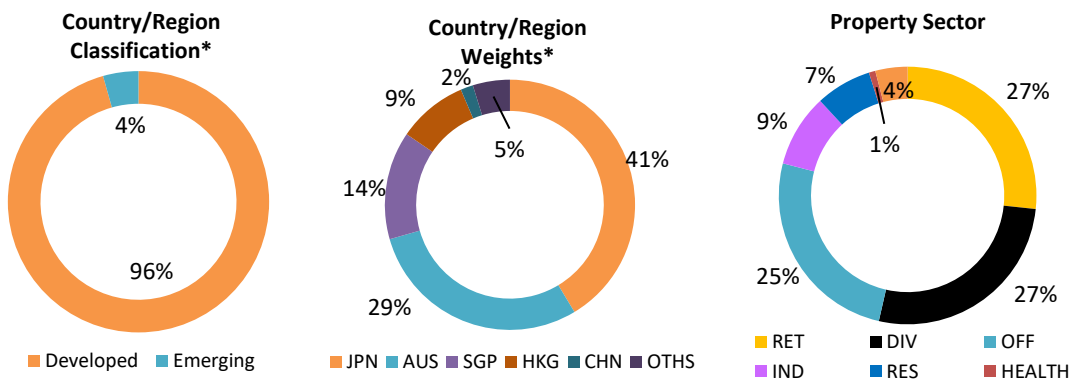
Q. How can I learn more about this index or APREA?

A. Please contact **Allan Zhang** at allan.zhang@aprea.asia, or visit APREA’s website www.aprea.asia


Listed Real Estate - index constituents and profile (by free float market cap)




REITs - index constituents and profile (by free float market cap)




*Based on country of operations




APREA is your passport to AsiaPac real estate
www.aprea.asia










**YOUR
ADVOCATE**



**NEW
BUSINESS
OPPORTUNITIES**



**SMART
BUSINESS
TOOLS**

<p>APREA works with government to open up new real estate markets and improve editing ground rules for doing business.</p>		<p>MARQUEE MEMBERSHIP</p>
<p>APREA helps you connect to business opportunities and partners via marquee events, trade missions and study tours.</p>		<p>POLICY ADVOCATE</p>
<p>APREA offers access to smart business tools and a leading practice resource centre.</p>		<p>BUSINESS CONNECTOR</p>
<p>Boost expertise and skills via a world class real estate education platform.</p>		<p>INVESTOR INTERFACE</p>
<p>APREA is portal to critical market intelligence and performance indicator.</p>		<p>INNOVATIVE PRACTICES</p>
<p>APREA helps you stay ahead of the pack with the latest insights into market trends.</p>		<p>RESEARCH HUB</p>
<p>APREA offers opportunities for making markets between investors and the real estate community</p>		<p>PROFESSIONAL DEVELOPMENT</p>

Please read this important DISCLAIMER

APREA believes the information in this report to be reliable, but we make absolutely no representation or warranty nor accept any responsibility or liability as to its accuracy, completeness or correctness. Any expressions of opinion contained herein are those of Asia Pacific Real Estate Association Limited only and are subject to change without notice. Nothing in this document should be taken as a recommendation or be deemed to take account of investment objectives, financial situations or the needs of any reader. This document is no substitute for the exercise of judgment. Reader should obtain their own expert advice on all matters. This document is not and should not be construed as an offer or a solicitation of an offer to purchase or subscribe or sell any securities. The Asia Pacific Real Estate Association Limited and its affiliates, directors, officers and/or employees may own or have positions in securities mentioned herein or securities related thereto and may from time to time add to or dispose of any such securities. All rights reserved.