安泓投資有限公司

Admiral's CIO Memos

Asia Pacific REITs outperform other asset classes and provide additional diversification benefits

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Executive Summary

Since its founding in 2001, Asia Pacific REITs have grown into a mature investment sector with over USD 250 billion in market capitalization. In this paper, we review the investment merits of Asia Pacific REITs by looking at its long term performance record and its Sharpe Ratio against Asian Equities, Global Bonds, Europe REITs, US REITs and Australian REITs. We also look at the correlation of Asia Pacific REITs with these asset classes and the diversification benefits achieved when investors add Asian Pacific REITs to an Asian Equities portfolio and a Global REIT portfolio. In addition, we discuss the investment merits of Asia-only REITs. In all the measures, Asia Pacific REITs and Asia-only REITs compare favorably with other asset classes and provide significant diversification benefits.

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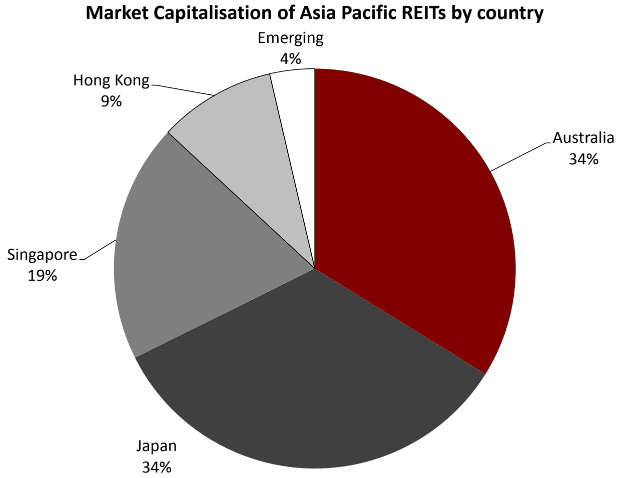
Asia Pacific REITs have matured into a standalone investment class

Asia Pacific REITs started in 2001, when Japan listed the first Asian REIT. Since then, the number of REITs have grown to 165; and the overall market capitalization of Asia Pacific REITs have risen from USD 6 billion in 2000 to USD 263 billion at the end of 2014. By market capitalization, about one third of REITs are listed in Australia, one third in Japan, and the remaining third in Singapore, Hong Kong, Taiwan, Malaysia and Thailand.



As of December 31, 2014
Source: TR/GPR/APREA Investable REIT 100 Index

Asia Pacific REITs have matured into an investment sector. In fact, Admiral's flagship program is a family of Asia Pacific REIT funds, which predominantly trades Asia Pacific REITs. Theoretically, a standalone Asia Pacific REIT fund has two goals. First, Asia Pacific is one of the fastest growing regions in the world, and its economies have consistently achieved sustainable productivity gains. This is especially relevant for the emerging markets. REITs with Chinese, Indian, or Indonesian assets are listed in Singapore and Hong Kong. Thailand and Malaysia also have their own REIT regimes. Getting exposure to Asia Pacific should create a higher return.

Second, while the world economy has been globalized, Asia Pacific's economic cycle remains differentiated from cycles in Europe and North America. Development activities remain important across Asia, which leads to supply-demand dynamics that is specific to each individual market. As a result, an Asia Pacific REIT program should provide additional economic benefits.

This leads to three relevant comparisons.

1. How does Asia Pacific REITs compare to other asset classes, such as equities and bonds?
2. How does Asia Pacific REITs compare to other forms of REIT investment?
3. Historically, did Asia Pacific REITs provide diversification benefits to various asset classes?

This article covers the investment characteristics of Asia Pacific REITs versus these other sectors. Compared to Asian Equities, Global Bonds, US REITs, European REITs and Australian REITs, Asia Pacific REITs consistently score as one of the top performers in multiple time frames. Asia Pacific REITs have also scored the highest Sharpe Ratio among these sectors. Lastly, Asia Pacific REITs show only moderate correlation with these comparisons, suggesting additional diversification benefits by investing in Asia Pacific REITs as a standalone investment class. We also ran simulated portfolios, which showed that Asia Pacific REITs can increase overall return and reduce risks when added to portfolios dominated by other asset classes.

How do Asia Pacific REITs differ from other REITs?

Two characteristics separate Asia real estate from real estate in the rest of the world. These characteristics increase volatility in performance, but, at the same time, they provide additional profit opportunities. As seen in the following sections, Asian REITs are capable of outperforming multiple investment classes consistently through medium term.

Leases in Asia are typically shorter than those in the US or Australia. Traditional Japanese leases are two years long, and many leases in Hong Kong and Singapore are less than three years. Shorter leases typically mean that in-place rents are closer to market rents, as leases are renewed more frequently. The exception, however, is Japan, where tenant friendly leases typically lead to slower rent increases.

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Development activities remain significant across Asia. Asian REITs, however, are limited in how much they can invest in development projects. Outside of Australian and New Zealand REITs, only Singapore and Hong Kong REITs are legally permitted to develop. As of the end of 2014, Singaporean REITs may invest up to 25% of their asset value in development projects. For Hong Kong REITs, the limit is 10%. REITs listed in Japan, Malaysia, and Thailand cannot develop as of the end of 2014. These limits, especially those in Singapore and Hong Kong, allow REITs to benefit from the region's economic development without subjecting them to heightened risks.

Asia Pacific REITs are similar to REITs in other regions in that they are core-plus vehicles for mainly rental real estate. However, the shorter lease structure and more development opportunities give them some unique growth drivers. These growth drivers, as shown below, have contributed sustained performance.

Asia Pacific REITs have one of the top performance records among alternatives

To understand the investment characteristics of Asia Pacific REITs, we tracked the long term performance record of AP REITs and other relevant asset classes. The study covers the period from September 2001 to December 2014. September 2001 was chosen because it is the starting date of the TR/GPR/APREA REIT Index. To compare the index's return to equities and bonds, we picked the MSCI All Country Pacific Index and the JPM Global Aggregate Bond Index. To compare the index returns to REITs in Europe, the US, and in Australia, we picked the EPRA Developed Europe Index, the NAREIT REIT index, and the ASX 200 A-REIT Index.

Asia Pacific REITs have consistently been a top performer among the group. Asia Pacific REITs have achieved a since inception total return of 12.35%, which was higher than all the alternatives listed above. Equities (MSCI) returned 4.41%, bonds 5.71%, Europe REITs 10.01%, US REITs 9.16% and Australian REITs 5.49%. Furthermore, Asia Pacific REITs have been the second best performer, after US REITs, in the last 5 and last 10 years. In 2014, Asia Pacific REITs have outperformed equities, bonds, and Europe REITs. The chart below shows the respective performance of the TR/GPR/APREA Investable 100 REIT Index, the MSCI Pacific Index, the JPM Global Aggregate Bond Index, the EPRA Developed Europe Index, the NAREIT REITs Index, and the ASX 200 A-REIT Index.

Annual Return Comparison: Asia Pacific REITs is a consistent top performer

	TR/GPR/APREA Investable 100 REIT	MSCI Pacific	JPM Global Aggregate Bond	EPPA Developed Europe	NAREIT REITs	ASX 200 A-REIT
Last 1 Year	14.90%	-2.02%	1.65%	9.91%	28.02%	15.89%
Last 3 Year	16.10%	10.30%	0.99%	18.40%	16.41%	12.86%
Last 5 Year	13.50%	6.30%	2.80%	9.65%	16.93%	10.03%
Last 10 Year	7.10%	4.80%	3.87%	4.22%	7.61%	2.48%
Since Inception of REIT Index	12.35%	4.41%	5.71%	10.01%	9.16%	5.49%

Since Inception in September 2001. 2001 data is annualized.
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg, Admiral Investment

Asia Pacific REITs have the highest Sharpe Ratio among the equity alternatives. Asia Pacific REITs have a Sharpe Ratio of 0.66, versus Asia equities' 0.32, Europe REITs' 0.48, US REITs' 0.55 and Australian REITs' 0.47. Although bonds have a higher Sharpe Ratio of 1.03, bonds have a much lower total return (5.85%) when compared to Asia Pacific REITs.

Since Sharpe Ratio is a measure of relative risk required to achieve the return, the Sharpe Ratio of Asia Pacific REITs suggests that the historical return of Asia Pacific REITs are sustainable.

Asia Pacific REITs have the highest Sharpe Ratio outside of bonds

	TR/GPR/APREA Investable 100 REIT	MSCI Pacific	JPM Global Aggregate Bond	EPPA Developed Europe	NAREIT REITs	ASX 200 A-REIT
Arithmetic Average Annual Return	15.48%	6.56%	5.85%	14.75%	11.19%	13.27%
Standard Deviation	0.23	0.20	0.06	0.30	0.20	0.29
Sharpe Ratio	0.66	0.32	1.03	0.48	0.55	0.47

Since Inception in September 2001. 2001 data is annualized.
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg, Admiral Investment

Asia Pacific REITs provide diversification benefits

Asia Pacific REITs have medium correlation with all alternatives in this study. The relatively high correlation (0.75) between Asia Pacific REITs and Asia equities is expected, as real estate is a major sector in many Asia Pacific countries. This is especially true in Hong Kong, where real estate and finance dominate the country index. However, Asia Pacific REITs also have a higher than

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expected correlation (0.51) with bonds, especially when compared to the correlation between bonds and REITs in other region. We believe that this is a sign that international capital has a significant presence in Asia Pacific real estate, and global liquidity is correlated with performance of Asia Pacific real estate. The correlation of bonds with other REIT markets is significantly lower. As the individual REIT markets grow, the correlation should slowly recede.

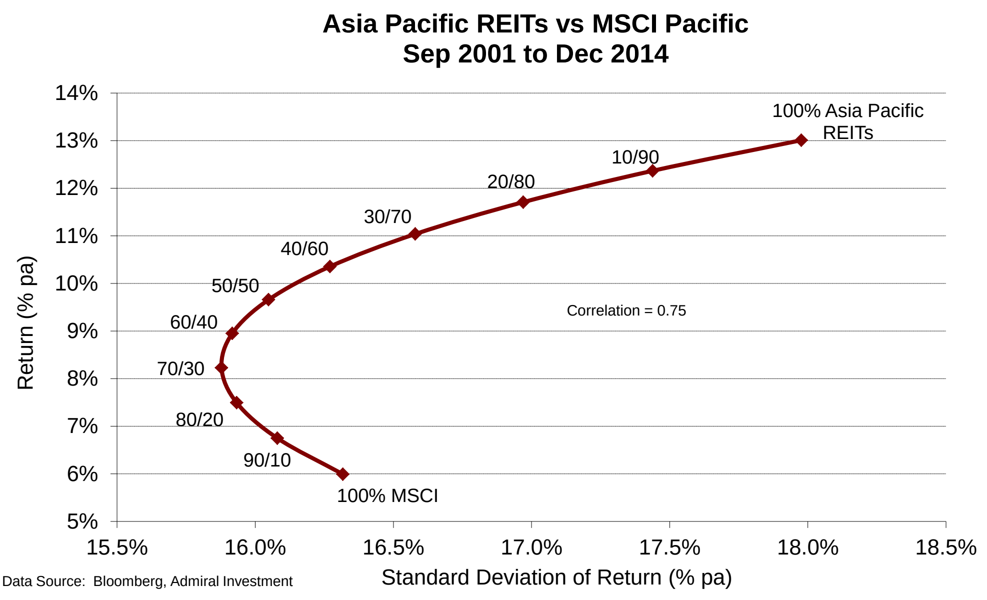
Asia Pacific REITs also demonstrate a medium correlation with REITs in other regions. Asia Pacific REITs have a correlation of 0.56 with Europe REITs, 0.64 with US REITs, and 0.71 with Australia REITs. In addition, the Asia Pacific REITs correlation with the European REITs and with the U.S. REITs is in fact lower than the correlation between European and U.S. REITs. This suggests regional REITs have diversification benefits with one another. Below, we will further analyze the correlation between Asia-only REITs and Australian REITs.

Asia Pacific REITs have medium correlation with all other asset classes

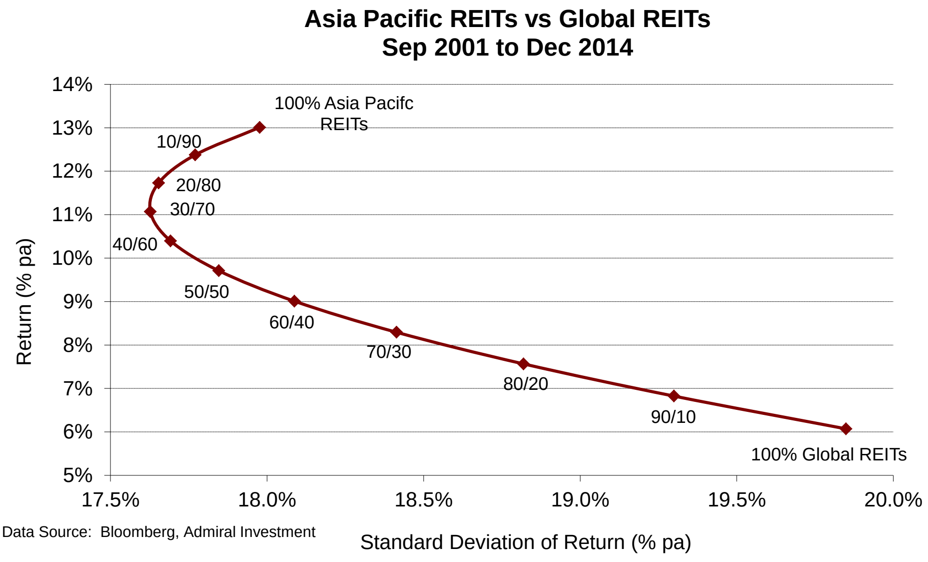
	TR/GPR/APREA Investable 100 REIT	MSCI Pacific	EPPA Developed Europe	NAREIT REITs	ASX 200 A-REIT	JPM Global Aggregate Bond
TR/GPR/APREA Investable 100 REIT	1.00	0.75	0.56	0.64	0.71*	0.51
MSCI Pacific		1.00	0.58	0.61	0.44	0.33
EPPA Developed Europe			1.00	0.70	0.56	0.12
NAREIT REITs				1.00	0.57	0.30
ASX 200 A-REIT					1.00	0.16
JPM Global Aggregate Bond						1.00

* Asia Pacific REITs are expected to highly correlate with Australia REITs because Australia is a significant portion of the index. Please see the next section for our analysis between Asia-only and Australian REITs.
Since Inception in September 2001. 2001 data is annualized
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg

To further test the diversification benefits of Asia Pacific REITs, we simulated the historical performance if Asia Pacific REITs are added to a portfolio of Asian Equities. The results are shown below. Adding Asia Pacific REITs to Asian Equities lowers the overall risks of the portfolio and adds to overall return. For example, from September 2001 to December 2014, a 100% Asian Equities portfolio had a return of 6% and a standard deviation of 16.4%. Putting 20% of the portfolio in Asia Pacific REITs, however, would have increased the overall return to 7.5% and lowered the standard deviation to 15.9%. In fact, the minimum risk point in this portfolio is 70% Asian Equities / 30% Asia REITs.



Furthermore, Asia Pacific REITs also provide diversification benefits to Global REITs. As shown below, adding Asia Pacific REITs to a Global REIT portfolio increases return while reducing risks. The minimum risk point is 30% Asia Pacific REITs / 70% Global REITs.



Data Source: Bloomberg, Admiral Investment

Conclusion: Asia Pacific REITs provide diversification benefits

Asia Pacific REITs have matured since its founding in 2001. It has grown to a sector of USD 263 billion in total market capitalization and 165 in the number of stocks. It provides a low double digit total return through time.

In this paper, we compared Asia Pacific REITs' performance to other investment alternatives. Its performance record has consistently outperformed that of equities, bonds, and REITs in other regions. It has the highest Sharpe Ratio compared to all alternatives other than Global bonds, but it has a higher total return than global bonds.

Asia Pacific REITs also have medium correlation with all asset classes, including REITs in other regions, and this suggest that Asia Pacific REITs provide diversification benefits as a standalone asset class. In simulated portfolios, Asia Pacific REITs increase returns and reduce volatility in portfolios of Asian Equities and of Global REITs.

For individual investors, Asia Pacific REIT program typically provides the ability to diversify against home bias in their real estate portfolio. For institutional investors, a standalone Asia Pacific REIT allocation helps further diversify the investors' portfolio. Since economic growth in Asia is expected to continue to outpace that in the US and Europe, a standalone Asia Pacific REIT allocation also allows investors more flexibility in choosing their allocation in different markets.

Additional analysis: Asia real estate versus Australian real estate

Admiral's flagship Asia Pacific REIT program includes Australia. However, some investors, including but not limited to Australian institutional investors, are interested in Asia-only REITs. This is understandable as many of these investors may already have a home basis towards Australian assets. Alternatively, some investors prefer Asian-only programs for more concentrated exposure to Asia itself. This section reviews the investment characteristics of such an Asia only portfolio.

The Asian REIT universe is half Japan, 30% Singapore, and 15% Hong Kong, and 6% Emerging Asia. There are about 100 Asian REITs, and the overall market cap is about USD 150 billion. While smaller than the Asia Pacific REIT universe, the Asian REIT universe is still large enough to sustain a standalone product. This is especially true if investors consider the fact that, over the last decade, there have been REIT listings in Asia every year. Thus, the universe is expected to grow through time.

To quantify the performance behavior of Asian REITs, we have used the TR/GPR/APREA Investable 100 REIT (ex-Australia, ex-New Zealand) Index, which has data tracing back to March 2003. We replicated the studies we did in this paper and reviewed the long term performance, the Sharpe Ratio, the performance correlation and the portfolio construction of Asian REITs.

The overall investment performance of Asian REITs has been quite similar to Asia Pacific REITs, as shown below. In 2014, Asia REITs returned 13.68%, versus Asia Pacific REITs' return of 14.90%. Asia REITs, however, outperformed Asia Pacific REITs in the 3-year, 5-year, and 10-year time scale. Similar to the story of Asia Pacific REITs, Asian REITS have outperformed Asian Equities and Global Bonds in all time scale. It also outperformed Europe REITs in the 1-yar, 5-year, and 10-year time scale and Australian REITs in the 3-year, 5-year and 10-year time scales. Asian REITs, similar to Asia Pacific REITs, have been performing on-par with US REITs.

Annual Return Comparison: Asia Pacific REITs is a consistent top performer

	TR/GPR/APREA Investable 100 REIT	TR/GPR/APREA Investable 100 REIT (ex-Australia)	MSCI Pacific	JPM Global Aggregate Bond	EPPA Developed Europe	NAREIT REITs	ASX 200 A-REIT
Last 1 Year	14.90%	13.68%	-2.02%	1.65%	9.91%	28.02%	15.89%
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Since Inception in March 2003. 2003 data is annualized.
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg, Admiral Investment

Asia REITs have a Sharpe Ratio of 0.58, which is lower than that of Asia Pacific REITs (0.66). However, this Sharpe Ratio compares favorable against all other asset class except bonds. Asian REITs has a much higher return compared to Global bonds. This suggests that similar to Asia Pacific REITs, Asian REITs have shown sustainable returns through the time period.

Asia Pacific REITs have the highest Sharpe Ratio outside of bonds

	TR/GPR/APREA Investable 100 REIT	TR/GPR/APREA Investable 100 REIT (ex-Australia)	MSCI Pacific	JPM Global Aggregate Bond	EPPA Developed Europe	NAREIT REITs	ASX 200 A-REIT
Arithmetic Average Annual Return	15.48%	12.54%	6.56%	5.85%	14.75%	11.19%	13.27%
Standard Deviation	0.23	0.22	0.20	0.06	0.30	0.20	0.29
Sharpe Ratio	0.66	0.58	0.32	1.03	0.48	0.55	0.47

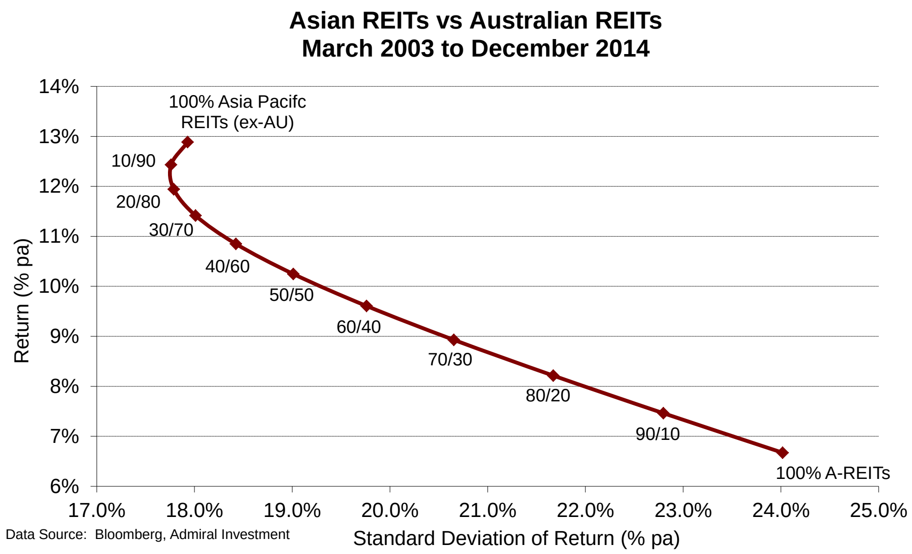
Since Inception in March 2003. 2003 data is annualized.
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg, Admiral Investment

The correlation between Asian REITs and Australian REITs is 0.46, versus a correlation of 0.71 between Asia Pacific REITs and Australian REITs. In addition, the correlation between Asian REITs and Europe REITs is 0.46, versus 0.56 between Asia Pacific REITs and Europe REITs; the correlation between Asian and US REITs is 0.52, versus 0.64 between Asia Pacific REITs and US REITs. The lower correlation suggests that Asian REITs is potentially a stronger diversifier when compared to Asia Pacific REITs.

	TR/GPR/APREA Investable 100 REIT (ex-AU)	MSCI Pacific	EPPA Developed Europe (EUR)	NAREIT REITs	ASX 200 A-REIT (AUD)	JPM Global Aggregate Bond
TR/GPR/APREA Investable 100 REIT (ex-AU)	1.00	0.72	0.46	0.53	0.46	0.46
MXPC (USD)		1.00	0.58	0.61	0.44	0.33
EPRA (EUR)			1.00	0.70	0.56	0.12
NAREIT (USD)				1.00	0.57	0.30
ASX (AUD)					1.00	0.16
Bond (USD)						1.00

Since Inception in March 2003. 2003 data is annualized.
Source: TR/GPR/APREA Investable REIT 100 Index, MSCI Pacific Index, EPRA Developed Europe Index, NAREIT REITs Index, ASX 200 A-REIT Index, JPM Global Aggregate Bond Index, Bloomberg, Global Property Research

Lastly, Asia REITs also provides diversification benefits to a portfolio of Australian REITs. Adding Asian REITs to a portfolio of Australian REITs have consistently increase return and reduce standard deviation. In fact, the minimum risk point is about 80% Asian REITs and 20% Australian REITs, which is effectively a regular Asia Pacific REIT portfolio with an underweight in Australia.



For investors with an existing bias to Australian assets, an Asian REIT portfolio is desirable. Its overall return has consistently been higher than Australian REITs; its Sharpe Ratio is higher than most other asset classes we reviews; and Asian REITs provide diversification benefits to Australian REITs.

Appendix A: Admiral's investment view for 2015

Admiral expects Asia Pacific REITs to continue its performance in 2015 and beyond. In 2014, the full year return of Asia Pacific REITs has been 14%. We believe that the following are significant trends to watch for 2015.

1. Currency. Both the Japanese Yen and the Australian Dollar weakened significantly in 2014. Japanese Yen is now trading below its long term average value, while the Australian Dollar is close to its long term average value. We expect any further weakening to be gradual and mainly driven by interest rate movements. Any interest rate cut, especially in Australia, will likely compress cap rates and balance out the resulting currency weakening. In fact, we have seen this dynamic playing out in January 2015. We expect the Hong Kong Dollar and the Singapore Dollar to be relatively stable.

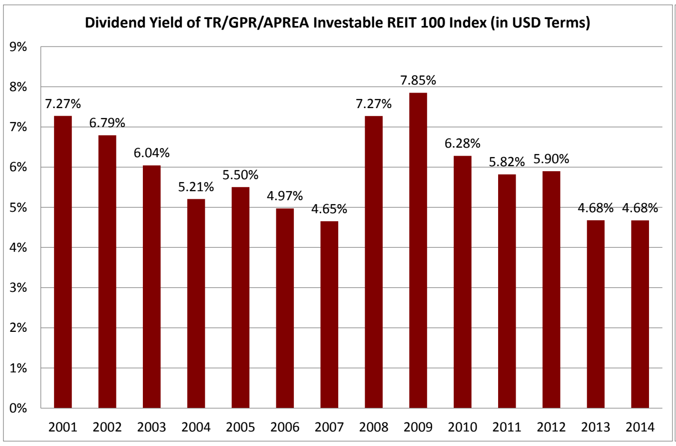
2. The US is expected to raise its interest rates in the second half of the year, which will likely lead to rate increases in Hong Kong and Singapore. However, inflationary pressure has receded from the fall of oil price, and as a result, the US has more room to delay rate increases. Any delay in interest rate increases will be positive to Hong Kong and Singapore.

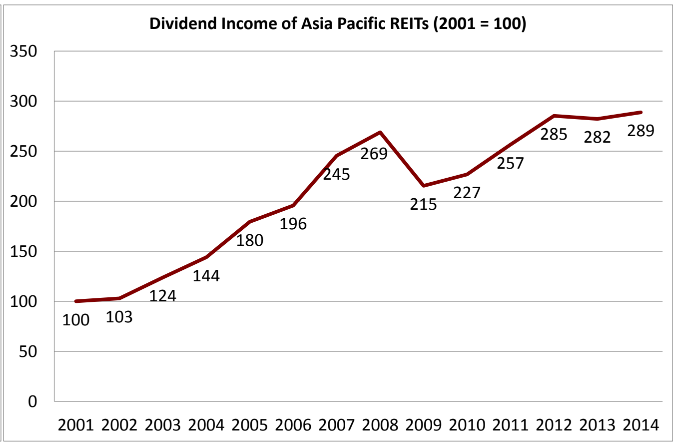
3. Management actions will be the key differentiator of REITs in 2015. We have commented that, on average and through time, REITs generate half of its growth via management actions such as merger and acquisitions, asset development and enhancement, and asset acquisition and disposal. China's slowdown may become material this year, and as a result, REITs listed in Hong Kong and Singapore may see significant acquisition opportunities.

4. The key political events this year will be China and Japan. The Chinese government will need to engineer a soft landing after two years of slower economic growth, albeit still at enviable levels by global standards. Japan's Shinzo Abe has just won a second election for a renewed mandate to push through reforms. The Japan economy and the stock market expect Mr. Abe to fulfil his election pledge and implement economic liberalization. For both China and Japan, the political risk is if either government does not deliver, the market will react negatively.

Appendix B: Asia Pacific REITs' performance data

Admiral has previously published the performance statistics of Asia Pacific REITs. In the long run, Asia Pacific REITs provide a 6-9-12 return profile. Dividend yield is between 5 to 6% per year, dividend growth rate is 9%, and the total return is about 12% per year. As part of this paper, we have updated our data with end of 2014 data. The following are the performance statistics.





Source: Admiral Investment, TR/GPR/APREA Investable REIT 100 Index

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