

Marketing Material \*

March 2020 / Research Report

# EMERGING LISTED REIT MARKET IN SOUTH KOREA

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# 1 / Executive Summary

- **Listed REITs in South Korea:** Among the top ten largest real estate markets in the world<sup>1</sup>, South Korea lacked sizeable listed REITs until recently, with none represented in major global listed real estate indices. The rapid growth of the South Korean real estate market was driven by non-listed investment vehicles accessible only to large institutions, and not to retail investors.<sup>2</sup> Nevertheless, deregulation as well as increasing business and investment demands has seen the tide recently change. With four successful IPOs, the size of the Korean listed REIT market jumped by over 20 times in just two years between 2018 and 2019 and is expected to grow further with multiple IPOs planned in 2020 and beyond<sup>3</sup>.
- **Comparison to Asia Pacific REITs:** Despite the current rapid growth, the total market capitalization of South Korean REITs remains relatively small, only 1% of the size of the Japan REIT market or 5% of the Hong Kong REIT market.<sup>4</sup> The market also lacks an established REIT index covering the domestic listed REITs in the country, therefore contributing to lower transparency and higher required returns, in turn depressing the valuation of the investment asset. The lower maturity in the Korean REIT market is also demonstrated by the high concentration of the office and retail sectors (98%), significantly higher than other key APAC REIT markets and therefore implying low sectoral diversification.
- **Implications to Underlying Real Estate Market:** The recent emergence of major domestic REIT listings and further growth of the listed REIT market would significantly contribute to wider availability of market data and hence lead to higher market transparency levels, given that a lack of reliable real estate data has been a stumbling block to the market development. Moreover, it would boost the expansion of the entire commercial real estate market, by creating new capital flows from retail investors and encouraging large companies to divest their non-core real estate assets to their sponsoring REITs. Finally and most importantly, these changes could potentially lead to a rise in capital values of real estate assets in the long run backed by the buying power and long-term investment horizon of listed REITs, and could open up an interesting window of investment opportunities.

<sup>1</sup> Sources: DTZ "Money into Property" DWS. As of March 2020.

<sup>2</sup> Sources: Korea REITs Information System, Korean Association of REITs, DWS. As of March 2020

<sup>3</sup> Sources: Korea REITs Information System, Korean Association of REITs, DWS. As of March 2020

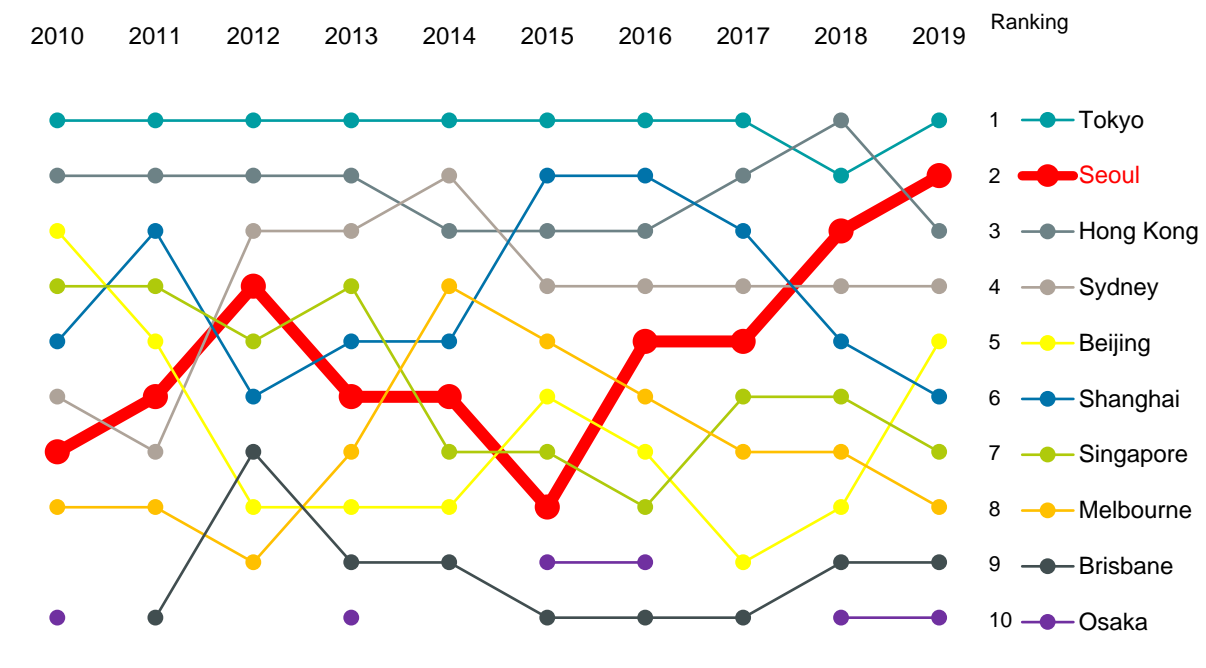
<sup>4</sup> Sources: Bloomberg, DWS. As of March 2020

Past performance is not an indicator of future results. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

## 2 / Lack of Listed REITs in South Korea

As one of the developed economies in the Asia Pacific region, South Korea has rapidly expanded its commercial real estate market in the last decade. The country's invested stock of commercial real estate is estimated to have grown to US\$ 283 billion in 2016, almost 2.6 times larger than ten years ago, placing South Korea among the top ten largest real estate markets in the world. At the city level, Seoul, the capital city of South Korea, rose to the second largest transaction market across the Asia Pacific region in 2019, beating Hong Kong for the first time. Increasingly, global investors are starting to recognize the market as an important allocation in their Asia Pacific portfolio, along with its regional peer countries.

**EXHIBIT 1: APAC CITY RANKING BY REAL ESTATE TRANSACTION VOLUME**



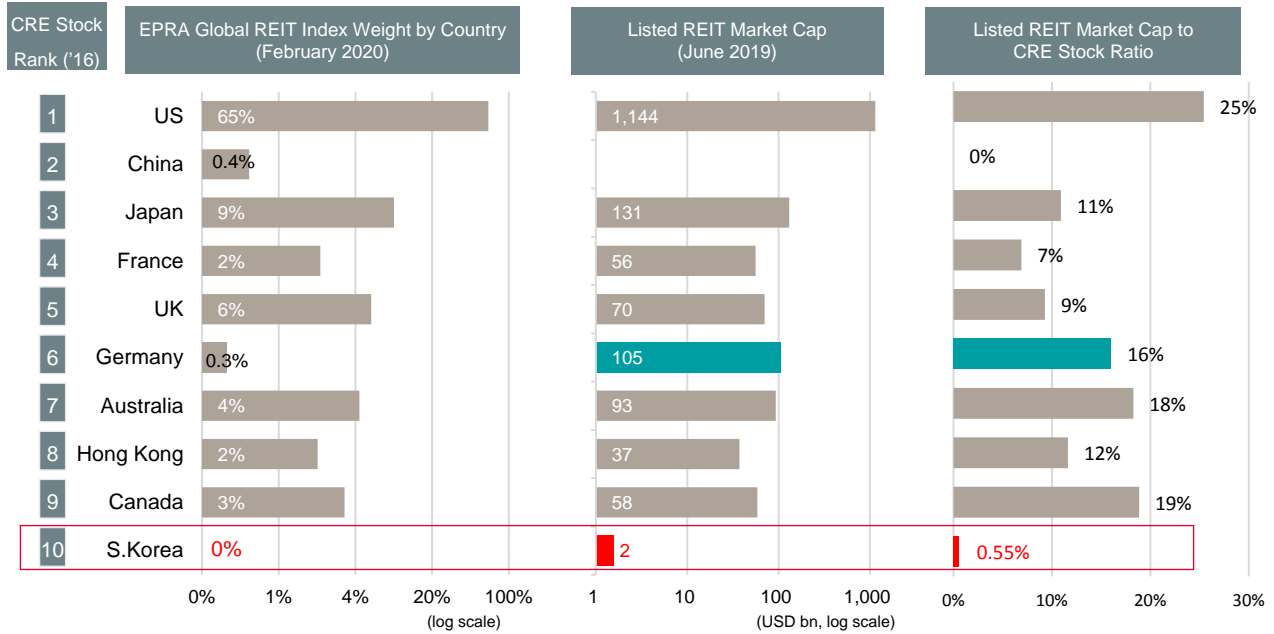
Notes: Past performance is not indicative of future results.  
Sources: Real Capital Analytics, DWS. As of March 2020.

However, the listed real estate markets paint a totally different picture for South Korea, with none of the South Korean companies or REITs included as a constituent in established global listed real estate indices such as FTSE EPRA NAREIT index.<sup>5</sup> It is a reasonably noteworthy phenomenon, considering these indices consist of constituents from more than 30 countries including smaller markets such as Thailand or Turkey whose commercial real estate market size is less than 20% of South Korea.

The main reason behind this is due to the lack of sizeable listed real estate companies or listed REITs in South Korea. Exhibit 2 shows the ratio of the domestic listed REITs' market cap relative to the level of invested stock in each of the top ten global commercial real estate markets. South Korea is the only country other than China with a negligible listed REIT market capitalization, while listed REITs in other countries accounted for 7~25% of the respective invested stock values. So far, the development of the commercial real estate market in South Korea has been driven by institutional and cross-border investors, limiting retail investors from accessing the commercial real estate market.

<sup>5</sup> FTSE EPRA NAREIT, MSCI Real Estate Index. As of March 2020

**EXHIBIT 2: CRE STOCK VS. LISTED REIT MARKET CAP**



Notes: Listed REIT Market Cap of Germany includes the equity volume of BVI real estate open-ended retail funds. Past performance is not a reliable indicator of future performance.  
 Sources: FTSE EPRA NAREIT Global REIT Index, EPRA Global REIT Survey 2019, DTZ “Money into Property” DWS. As of March 2020.

Apart from Australia, which has a long history of REITs, it is interesting to see how other key Asian REIT markets dwarf that in South Korea, despite similar establishment years in early 2000s. For example, the entire market capitalization of listed REITs in Japan and Singapore are 83 and 42 times larger than South Korea’s respectively, and the number of the listed REITs are also nine and six times larger. While Hong Kong only has 12 listed REITs, yet their market cap is 19 times larger than South Korea’s. These markets account for 2-9% weightings of the Global REIT index respectively, which is broadly proportional to the size of their domestic stock, while none of the South Korean REITs are included in major global real estate indices.

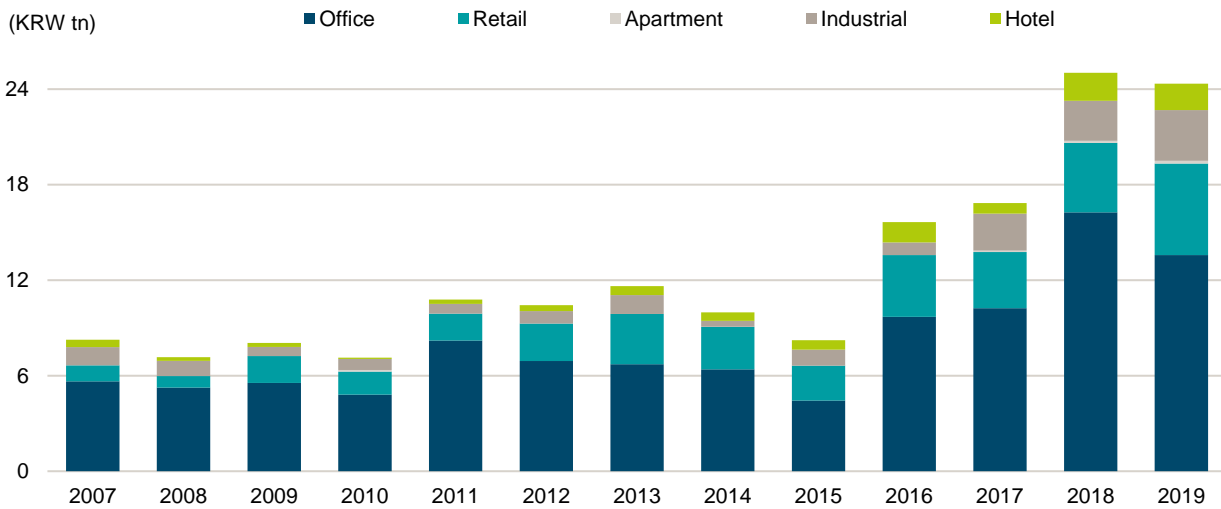
Nonetheless, amid recent significant deregulation and increasing business and investment demands, we are witnessing unprecedented changes in the market with successful IPOs and other multiple IPO candidates. 2020 is likely to be an epoch making year for South Korean listed REIT market, which potentially could provide good investment opportunities to both institutional and retail investors\*.

\*Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

# 3 / Recent Emergence of Sizeable REITs

Commercial real estate transaction volume in South Korea hit record highs for three consecutive years between 2016 and 2018, while the preliminary figure in 2019 (estimated at KRW 24.3 trillion) was just shy of the record peak of KRW 25.0 trillion achieved in 2018. Among the different sectors, office investments accounted for the largest share with circa 56%, followed by retail (24%), industrial (13%) and hotel (7%), while the residential sector comprised only a few transactions.

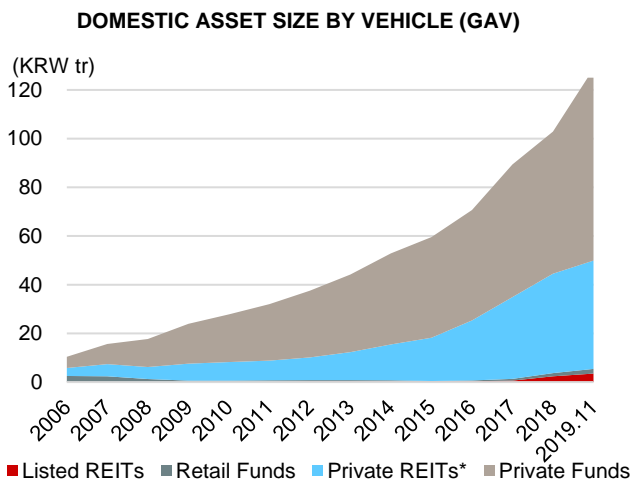
**EXHIBIT 3: REAL ESTATE TRANSACTION VOLUME BY SECTOR IN KOREA AND SHARE OF SEOUL**



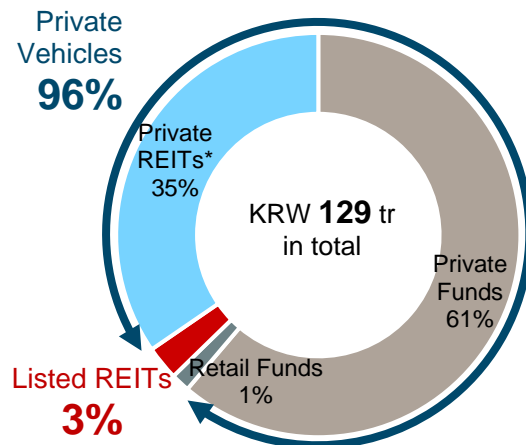
Notes: Past performance is not indicative of future results.  
Sources: Real Capital Analytics, DWS. As of March 2020.

The rapid development of the real estate securitization sector played a major role in driving the growth of the South Korean real estate market, with the vast majority of these vehicles\* accessible only to large institutions, not retail investors. Exhibit 4 shows the historical growth of the securitized real estate industry in South Korea by the type of investment vehicle. The aggregate gross asset value of securitized assets reached KRW 129 trillion as of November 2019, having more than quadrupled in the last ten years, but 96% of these are non-listed, closed-end private vehicles accessible only by institutional investors. Listed REITs account for only 3% of these assets, while retail distribution funds account for the remaining 1%.

**EXHIBIT 4: REAL ESTATE SECURITIZATION TREND IN KOREA AND SHARE OF LISTED REIT**



**% OF DOMESTIC ASSET BY VEHICLE AND INVESTOR TYPE**

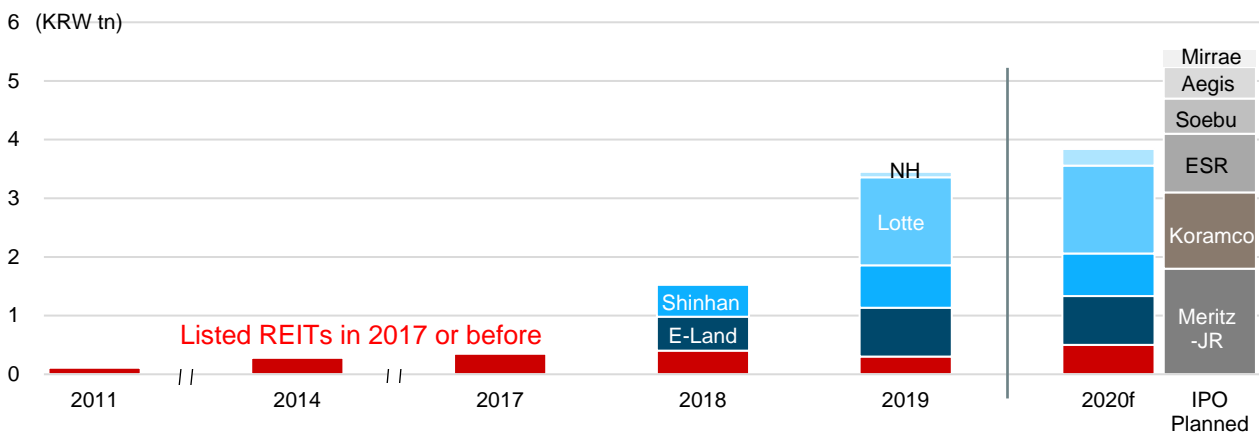


\*Private REITs accounts for unlisted closed-end private investment vehicle owned by a handful of institutional investors  
Notes: Past performance is not a reliable indicator of future performance.  
Sources: Korea Financial Investment Association, REITs Information System, DWS. As of March 2020.

Since its inception in 2002, the country's listed REIT market had been relatively muted with only a handful of small-scale REIT listings until 2017, following multiple bankruptcies and liquidations of listed REITs during the global financial crisis. Compared to other peer REIT markets in the region such as Japan, Singapore or Hong Kong, the South Korean REIT market grew mainly through its unique format of closed-ended private REIT structures typically comprising only one or two institutional investors, limiting the heavier administrative costs faced by listed REITs.

However, the tide has since changed. The government gradually began to loosen strict regulatory requirements in order to stimulate the country's listed REIT market, while at the same time demand for listed vehicles was endogenously rising among real estate owners as well as investors. Two IPOs of fairly sizeable listed REITs in 2018, namely E-KoCREF and Shinhan alpha REIT, changed the atmosphere, followed by two consecutive IPOs in 2019, i.e. Lotte REIT and NH Prime REIT. With these four IPOs, which were warmly welcomed by both retail investors and institutional investors, the size of the Korean listed REIT market jumped by over 20 times in just two years. These four REITs are all backed by retail giants or large banks as their "sponsors" who injected the seed assets and help raise their financial credibility. This trend of new IPOs is fueled by sponsors seeking to divest their bricks-and-mortar stores or to diversify their financial products, and is supported by demand from yield-seeking retail investors. At least nine REITs are planning new IPOs in 2020 and beyond including various sectors such as logistics and gas stations, while existing REITs are also trying to expand their portfolios through public offerings.

#### EXHIBIT 5: EMERGENCE OF SIZEABLE REITS. GAV (GROSS ASSET VALUE) OF LISTED REITS IN SOUTH KOREA



Sources: Korea REITs Information System, Korean Association of REITs, DWS. As of March 2020.

#### EXHIBIT 6: NEW IPOs OF REITS IN 2018 AND 2019

	Sponsor	IPO Date	Sector	Market Cap (KRW bn)	GAV (KRW bn)	Appraisal NOI Yield	Remark
E-KoCREF	E-Land Retail	Jun-2018	Retail	432	833	4.9%	75% of equity owned by the sponsor*
Shinhan Alpha REIT	Shinhan Financial Group	Aug-2018	Office	460	724	6.0%	-
Lotte REIT	Lotte Shopping	Oct-2019	Retail	1,071	1,488	5.0%	50% of equity owned by the sponsor
NH Prime REIT	NH Financial Group	Oct-2018	Office	69	-	-	10% hold of each underlying asset

#### EXHIBIT 7: IPOs PLANNED

(KRW bn)	Sponsor	Target Date	Sector	Est. Equity (KRW bn)	Est. GAV (KRW bn)	Seed Asset
Mirae-JR REIT	JR AMC /Meritz Sec.	May 2020	Overseas Office	780	1,980	1 office in Belgium
Koramco Energy Plus REIT	Koramco	late 2020	Gas Station	370	1,300	193 gas stations nationwide
Kendall Square (ESR) REIT	ESR	2020	Logistics	est. 500	est. 1,000	More than 6 logistics assets nationwide
Shinhan Seobu T&D REIT	Seobu T&D	July 2020	Retail. Hotel	-	600	1 shopping mall and 1 hotel (20%) in Greater Seoul
Aegis Value Plus REIT+Twin City	Aegis Asset Management	2020	Officel	est. 200	536	2 offices in Seoul
Mirae Asset REIT	Mirae Asset	June 2020	Retail	100	280	1 shopping mall in Greater Seoul

\* It is allowed for E-KoCREF to let a single shareholder have over 50% of equity as the REIT, as it is created for the corporation restructuring of the sponsor company. Past performance is not indicative of future results.

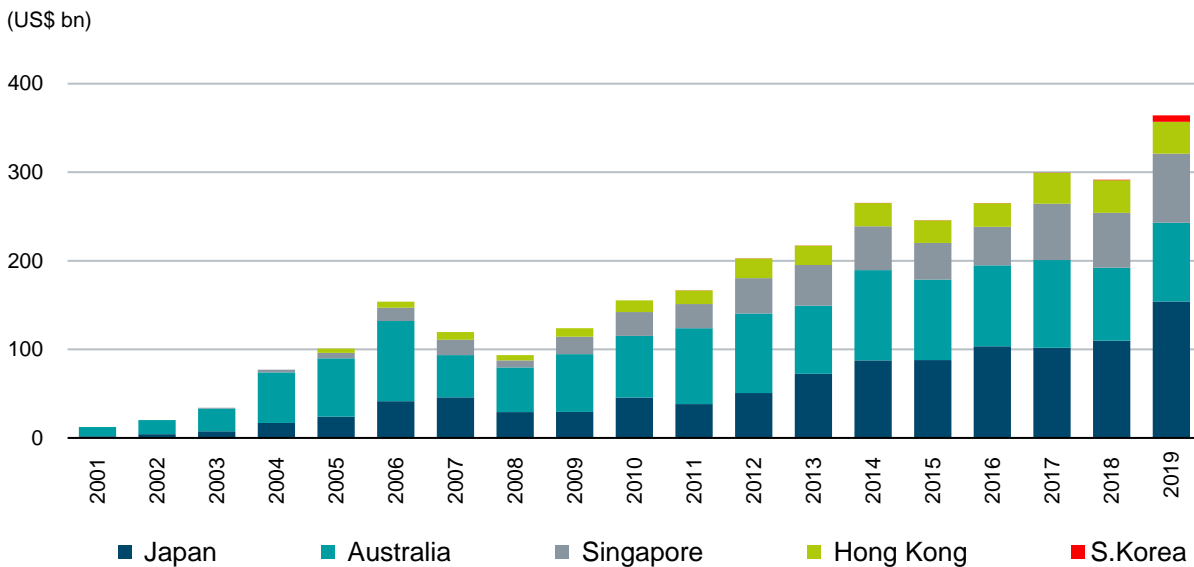
Note: This table is prepared solely for information purposes and not intended to recommend or endorse any specific company's shares or other products. Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such. Sources: Korea REITs Information System, Korean Association of REITs, DWS. As of March 2020.

## 4 / Comparison across APAC region

Major APAC markets had their first REIT listings between the years of 2000 to 2003, but only the South Korean market remained significantly underdeveloped compared to the others in both quantitative and qualitative aspects. Exhibit 8 shows the historical market capitalization volume of key listed REIT markets in the APAC region. The total market capitalization of South Korean REITs remains relatively small at US\$ 1.6 billion, only 1% of the size of the Japan REIT market despite expanding by almost 20 times in the last two years.

At the individual REIT level, it is also hard to say South Korea has a globally competitive REIT market as even its largest REITs lag behind the average-sized Japan REITs or Singapore REITs in terms of market capitalization. The size of the REITs is necessary to not only maintain the market sustainability and stimulate the investment demands from a global perspective; to meet minimum market capitalization requirements for global index listings<sup>6</sup>. South Korean REITs have to accelerate their growth expansion in order to catch up with their regional peers and attract capital inflows from global investors.

**EXHIBIT 8: MAJOR APAC REIT MARKET CAPITALIZATION**



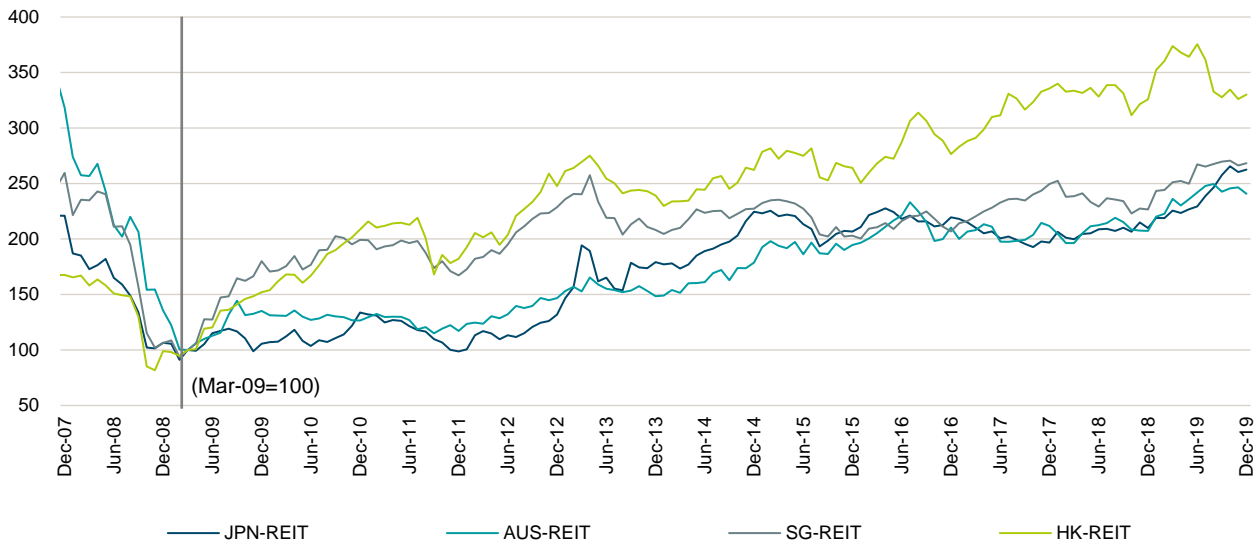
Notes: Past performance is not indicative of future results.  
Sources: Bloomberg, DWS. As of March 2020.

One of the biggest distinctions between South Korea and other markets is that South Korea lacks an established REIT index covering all the listed REITs in the country. In other markets, the indices are widely used by individual investors as well as institutions in order to benchmark their performance against other countries or other financial products. The absence of an index impedes the development of associated financial products such as mutual funds, fund of funds or ETFs specializing in REIT investments, which require appropriate benchmarks to evaluate their performance. Exhibit 9 shows the performance of major REIT indices widely referenced in Asia Pacific.

<sup>6</sup> To be eligible for index inclusion to FTSE EPRA NAREIT index, non-constituent securities in Asian developed market should have an investable market capitalization equal to or greater than 0.03% of regional index, when the APAC EPRA total market capitalization was USD 401 billion as of March 2020.



**EXHIBIT 9: COMPARISON OF APAC REIT PRICE INDICES (10-YEAR)**

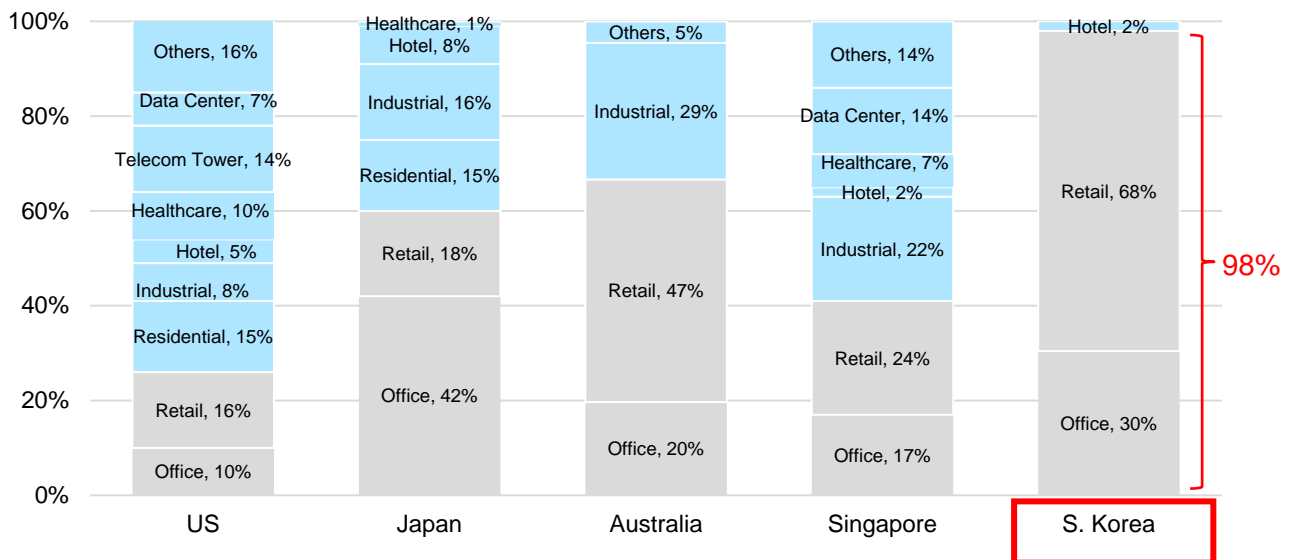


Notes: Past performance is not indicative of future results.  
Sources: Bloomberg, DWS. As of March 2020.

Sectoral diversification is another measure of the qualitative maturity of each REIT market. The share of the retail sector alone constitutes 68% of the entire asset value of South Korean REITs, and is almost 98% if office is combined. It reflects the fact that the South Korean REIT market is currently driven by big retailer sponsors with the intent of divesting some of their retail assets to the REITs where they act as sponsors.

In comparison, the share of office and retail sectors is around 26%-67% across other REIT markets. The United States possesses one of the most diversified REIT markets globally, with exposure to other sectors including health care, telecom center, hotel and even timber. Other APAC REIT markets have their own uniqueness in sectoral allocation, such as the residential sector in Japan and data centers in Singapore. Further diversification would help to spread the risk in a portfolio and increased sectoral and regional diversification of the REITs would contribute to the qualitative and quantitative growth of the REIT market, as well as the entire commercial real estate market in South Korea.

**EXHIBIT 10: SECTORAL BREAKDOWN OF REIT AUM BY COUNTRY**



\* Diversified REITs are excluded in calculation of the sectoral diversification of Australian REITs.

Notes: Past performance is not indicative of future results.

Sources: Bloomberg, DWS. As of March 2020.

Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

# 5 / Market Transparency

It is clear that the listed REIT market in South Korea has reached a turning point, or a constitutional market evolution. This also has important implications for the entire commercial real estate market, as the lack of depth in the listed REIT market has been a key reason why the South Korean real estate market is viewed as less transparent compared to other peers such as Singapore, Hong Kong and Japan, as shown in the Exhibit 11. In order to bring transparency levels closer to other mature markets, the South Korean listed REIT market is required to make a meaningful progress from various aspects, including the provision of reliable market data.

**EXHIBIT 11: JLL REAL ESTATE MARKET TRANSPARENCY INDEX (2018, 100 COUNTRIES IN TOTAL)**

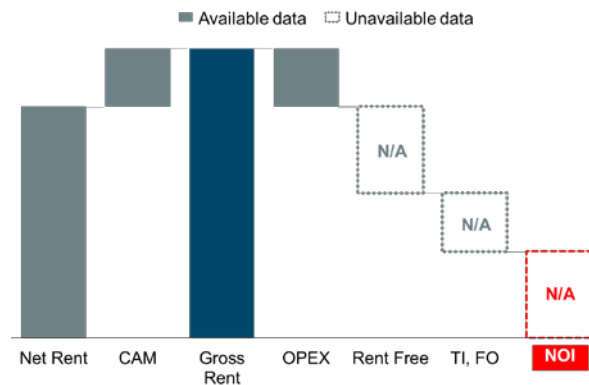
A. Highly Transparent	B. Transparent	C. Semi-Transparent
<b>Rank 1-11 including</b>	<b>Rank 12-32 including</b>	<b>Rank 33-60 including</b>
1 United Kingdom	12 Singapore	China, Thailand and India
2 Australia	13 Hong Kong	
3 United States	14 Japan	
4 France	15 Switzerland	
5 Canada	16 Belgium	
6 Netherlands	26 Taiwan	
7 New Zealand	30 Malaysia	
8 Germany	<b>31 South Korea</b>	
9 Ireland	32 Luxembourg	
		<b>D. Less Transparent</b>
		<b>Rank 61-80 including</b>
		Vietnam and Sri Lanka
		<b>E. Opaque</b>
		<b>Rank 81-100 countries including</b>
		Lebanon, Oman and Uganda

Notes: Past performance is not a reliable indicator of future performance.  
Sources: JLL, DWS. As of March 2020.

To date, the lack of formal, consistent and public real estate data has been a huge stumbling block to the further development of the real estate market in the country. Insufficient valuation-related data has been the biggest reason why South Korea is still viewed as an immature real estate market from the investor protection perspective, sometimes leaving it as a second-tier market outside the core strategy of global investment portfolios. It is symbolic that the two crucial pieces of return calculation formula, namely net operating income (NOI) and NOI yield, are still not publicly available in a complete form. The only available data for external parties are rough estimations based on partial intelligence without having industry-wide data consistency.

For example, calculation of the precise NOI value of a specific asset by using publicly available data is not possible, as the total sum of concessions is never disclosed, while asking gross rent, CAM and OPEX data might be available through dispersed channels. In a market where the average concession period presumably ranged between 2-7 months a year by submarket, it is almost impossible to precisely track the NOI change of the target asset. It is also true for NOI yield in as far as nobody knows the precise NOI other than the direct stakeholders.

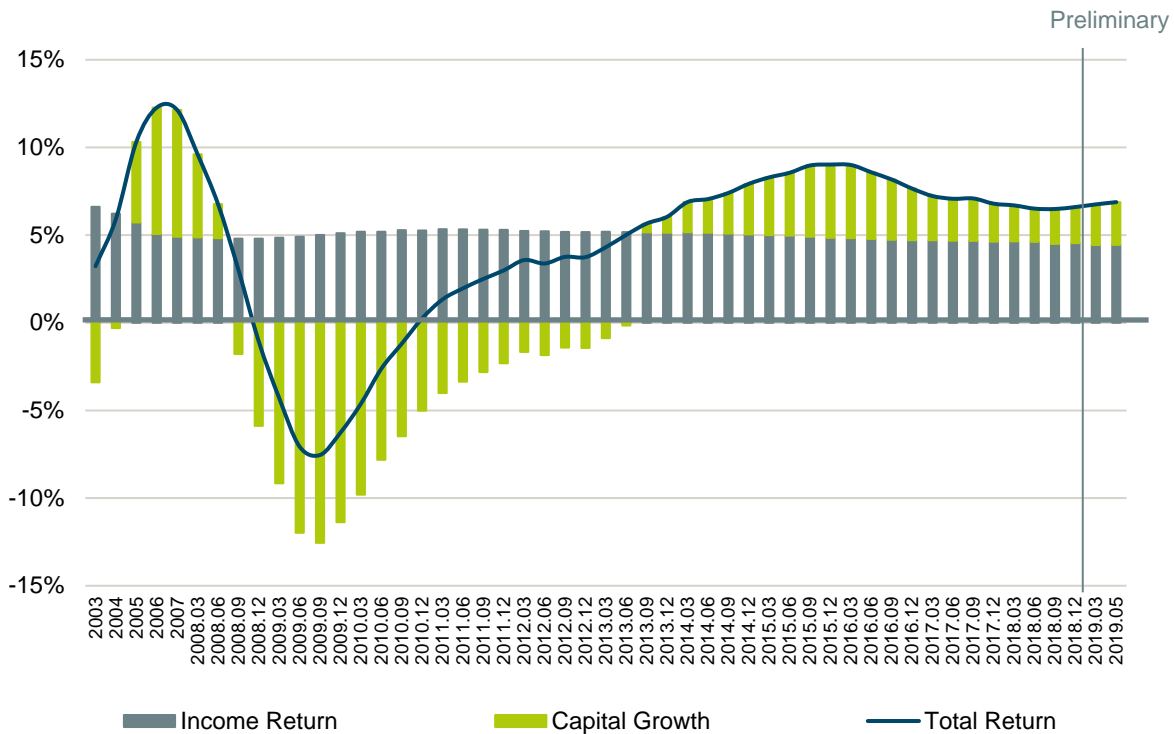
**EXHIBIT 12: RENT BREAKDOWN AND DATA AVAILABILITY IN SOUTH KOREAN REAL ESTATE MARKET**



Notes: Illustrative purpose only  
Sources: DWS. As of March 2020.

Only with reliable NOI value and NOI yield data on a periodic basis are you able to calculate the precise total return earned from a real estate investment. Exhibit 13 shows the historical total return trend by component in the Japan real estate market, as one of the benchmarks in the region. By aggregating income gain and capital return, the total return allows us to comprehensively examine the overall performance of the sector over time. In South Korea, total return of real estate investments is published only on an annual basis, which is also released with the considerable time delay. The further growth of the listed REIT market is expected to fill the information gap by unveiling the hidden market convention and restating it in line with global standards with higher transparency.

**EXHIBIT 13: REAL ESTATE TOTAL RETURN IN JAPAN (UNLEVERED)**



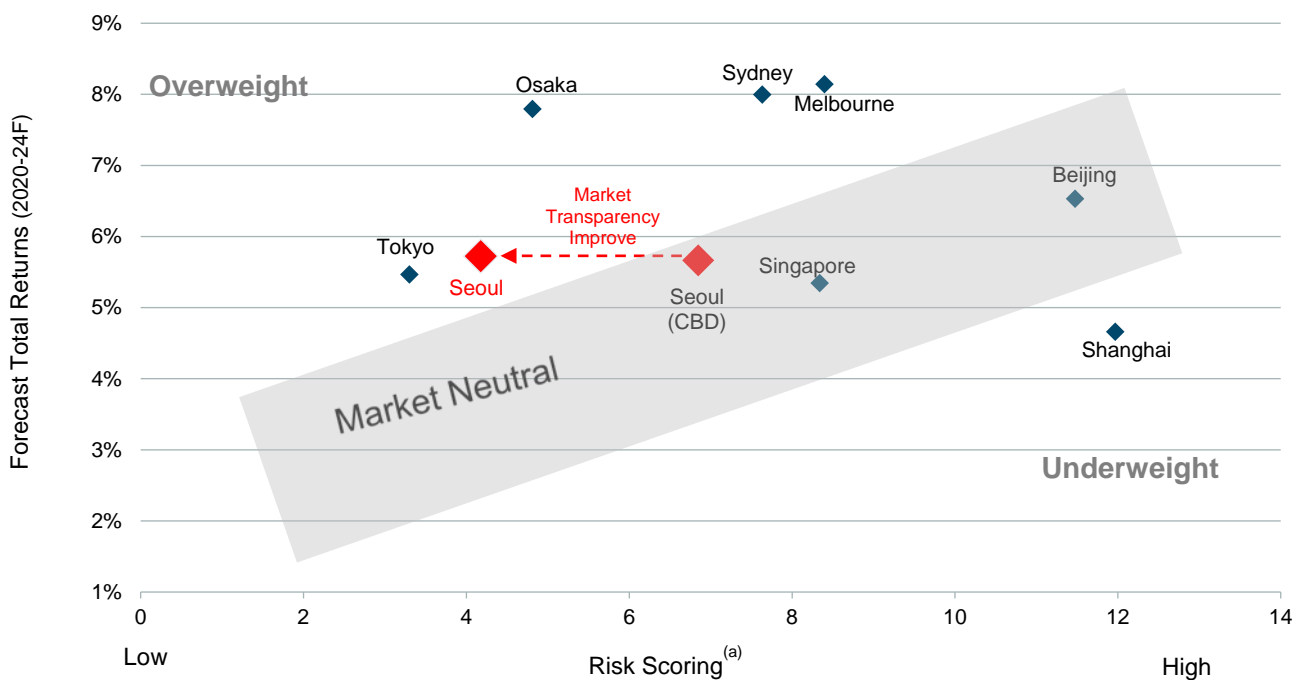
Notes: Japan Real Estate = ARES AJPI Total Return, Japan Stock = TOPIX Total Return, Japan Bond = Nikko Japan Bonds Aggregate Total Return. Past performance is not indicative of future results.  
 Sources: ARES, Bloomberg DWS. As of March 2020.  
 Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

## 6 / Implications

South Korea has grown to become one of the region’s key real estate markets with the tenth largest invested stock in the world. Yet the market remains overwhelmingly dominated by institutional investors with limited access to retail investors, while its market transparency levels remain relatively low with a lack of reliable data sources compared to other regional peer markets.

Under these circumstances, the current rapid growth of listed REITs have several implications to the commercial real estate market in the country. First of all, we believe it would significantly contribute to wider availability of market data and hence to higher market transparency levels. Theoretically this would lower the required return, thus increasing the attractiveness of South Korean’s real estate market from a risk-adjusted return perspective as illustrated in Exhibit 14.

**EXHIBIT 14: RISK RETURN PROFILE OF APAC OFFICE MARKET**

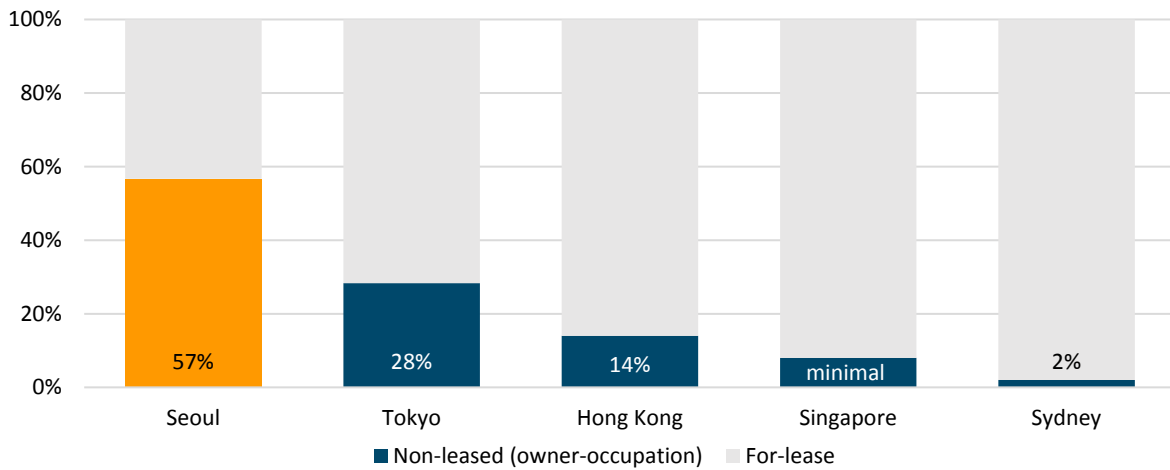


Source: DWS, Oxford Economics, Colliers, Jones Lang LaSalle Research, JREI, CBRE, Cushman & Wakefield, Real Capital Analytics. As of March 2020.  
 Note: F = forecasts. There is no guarantee the forecasts will materialize.

Risk Scoring<sup>(a)</sup>: A greater risk score indicates higher levels of risks associated with each market. A range of risk factors were considered including the local risk-free rate, historical volatility of returns, level of market liquidity, real estate transparency level and capital expenditure requirements.

Second, further growth of listed REITs would boost the expansion of the entire commercial real estate market, mainly by creating additional capital inflows from domestic retail investors through various channels such as REIT mutual funds or REIT ETFs. This could potentially stimulate cross-border investment demand too from global REIT investors, in the event that South Korean REITs become included in major global REIT indices. Moreover, given the country’s high proportion of owner-occupied office stock (Exhibit 15), the active REIT market could encourage large corporates to sponsor REIT listings which could act as a viable avenue to divest their non-core real estate assets. This would convert traditional owner-occupied stock into institutional stock, hence optimizing the efficiency of business resources for local companies and accelerating further securitization of the real estate market.

**EXHIBIT 15: SHARE OF NON-LEASED (OWNER-OCCUPIED) STOCK IN CORE OFFICE DISTRICTS BY COUNTRY**

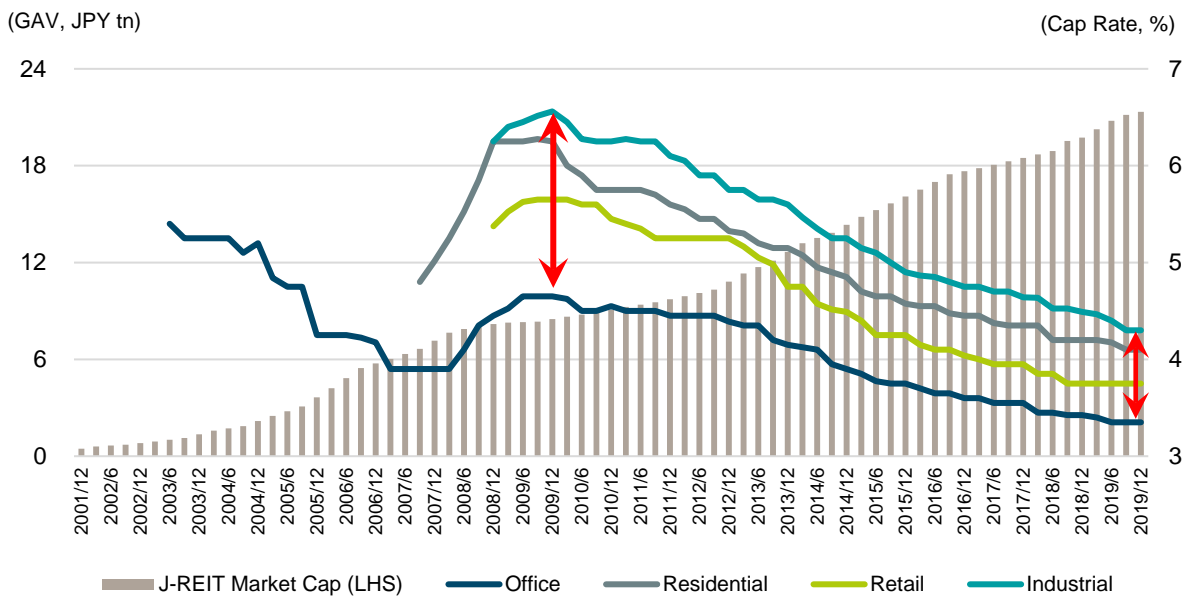


Notes: Past performance is not indicative of future results.

Source: Genstar, Acretree, Mikishoji, Tokyo Metropolitan Government, JLL, DWS. As of March 2020.

Third and most important, we believe these changes could lead to a rise in capital values of real estate assets as the increasing buying power and long-term investment horizon of listed REITs should contribute to yield compression. Moreover, this would likely lead to higher market transparency and therefore rising demand for underappreciated sectors, in turn compressing the yield spreads among real estate sectors, as shown in the Japan case of the Exhibit 16. We believe this could open up an interesting window of new investment opportunities in various sectors in South Korea.

**EXHIBIT 16: J-REIT GROSS ASSET VALUE AND MARKET CAP RATES BY SECTOR IN JAPAN**



Notes: Past performance is not indicative of future results.

Source: ARES, CBRE, DWS. As of March 2020.

# Research & Strategy—Alternatives

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## OFFICE LOCATIONS:

### Chicago

222 South Riverside Plaza  
34<sup>th</sup> Floor  
Chicago  
IL 60606-1901  
United States  
Tel: +1 312 537 7000

### Frankfurt

Taunusanlage 12  
60325 Frankfurt am Main  
Germany  
Tel: +49 69 71909 0

### London

Winchester House  
1 Great Winchester Street  
London EC2N 2DB  
United Kingdom  
Tel: +44 20 754 58000

### New York

875 Third Avenue  
26<sup>th</sup> Floor  
New York  
NY 10022-6225  
United States  
Tel: +1 212 454 3414

### San Francisco

101 California Street  
24<sup>th</sup> Floor  
San Francisco  
CA 94111  
United States  
Tel: +1 415 781 3300

### Singapore

One Raffles Quay  
South Tower  
20<sup>th</sup> Floor  
Singapore 048583  
Tel: +65 6538 7011

### Tokyo

Sanno Park Tower  
2-11-1 Nagata-cho  
Chiyoda-Ku  
18<sup>th</sup> Floor  
Tokyo  
Japan  
Tel: +81 3 5156 6000

## TEAM:

### Global

#### Kevin White, CFA

Co-Head of Research & Strategy  
kevin.white@dws.com

#### Simon Wallace

Co-Head of Research & Strategy  
simon.wallace@dws.com

#### Gianluca Minella

Head of Infrastructure Research  
gianluca.minella@dws.com

#### Yasmine Kamaruddin

Global Strategy  
yasmine.kamaruddin@dws.com

---

### Americas

#### Brooks Wells

Head of Research, Americas  
brooks.wells@dws.com

#### Liliana Diaconu, CFA

Office Research  
liliana.diaconu@dws.com

#### Ross Adams

Industrial Research  
ross.adams@dws.com

#### Ryan DeFeo

Property Market Research  
ryan-c.defeo@dws.com

#### Ana Leon

Retail Research  
ana.leon@dws.com

#### Joseph Pecora, CFA

Apartment Research  
joseph.pecora@dws.com

---

### Europe

#### Tom Francis

Property Market Research  
tom.francis@dws.com

#### Martin Lippmann

Property Market Research  
martin.lippmann@dws.com

#### Farhaz Miah

Property Market Research  
farhaz.miah@dws.com

#### Aizhan Meldebek

Infrastructure Research  
aizhan.meldebek@dws.com

#### Siena Golan

Property Market Research  
siena.golan@dws.com

---

### Asia Pacific

#### Koichiro Obu

Head of Research & Strategy, Asia Pacific  
koichiro-a.obu@dws.com

#### Natasha Lee

Property Market Research  
natasha-j.lee@dws.com

#### Seng-Hong Teng

Property Market Research  
seng-hong.teng@dws.com

#### Hyunwoo Kim

Property Market Research  
hyunwoo.kim@dws.com

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