savills investment management

South Korea 101: Seoul far, so good?

September 2023

CONTENTS:

South Korea in focus: Seoul far, so good?

The South Korean real estate market has drawn significant investor attention over the last few years. In the initial phases of the pandemic, the relative merits of the Korean market were apparent, which contributed to a standout performance in returns and capital flows. As we put the pandemic behind us and move into the latter half of 2023, sentiments have shifted somewhat in response to the higher interest-rate backdrop.

INTRODUCTION: THE STRAIGHT TALK

(i) Reality check

The reality is, we are living in unusual times. Pricing is under pressure and debt is non-accretive to real estate investments in most property markets today, with South Korea being no exception. It is doubtful that we will see borrowing costs revert sharply to pre-COVID levels, although rates should normalize over time. Unlike some investment managers, we are not convinced investors can simply ‘look through’ the current conundrum and adopt a waiting game. In fact, this is the new paradigm we must grapple with globally. The gameplay has changed, and the playbook must adapt.

The increasingly oft-heard rhetoric around ‘wait and see’ might not always be the best investment strategy against this evolving backdrop. It is reasonable for global investors to look to the United Kingdom and the United States as the canaries in the coal mine, and expect property valuations in Asia Pacific to come under similar pressure, if not more. We do not disagree, but we are also convinced that a sweeping characterization of outcomes will not apply across different markets in Asia.

In Seoul, for example, the strong occupier profile has helped to stave off a dramatic pricing reset thus far. Pressure is not the same as fissure. To that end, active investors with ready capital to deploy should stay agile to tap the window of market opportunity in South Korea.

How should we be positioned in the South Korea commercial property market? Indeed, core and long-term investors would do well to extend their horizons and focus on pockets of opportunities that could arise today, positioning themselves for the long run and riding out the near-term turbulence. In this increasingly common dichotomy, high-quality real estate in South Korea should deliver resilient income performance relative to the market average.

Investors with a shorter and framed runway must be creative and diligent in extracting returns. In some cases, repriced opportunities could surface; and in other instances, the development and refurbishment of stock in undersupplied sectors and submarkets might pay off. In today's environment, asset sourcing and selection is as critical as operational finesse. In a closely held market such as South Korea, it further underlines the importance of owning extensive touchpoints towards pipeline visibility and maintaining deep expertise in asset management.

(ii) Bridging the knowledge gap

In our engagement with clients and investors, we detect a geographical gulf in the overall familiarity with the South Korean commercial property market. A particular group of investors might extrapolate existing circumstances in Europe and the US, which consequently nudge them towards an overly sombre view of prospects in Asia, including the South Korean market. On the other hand, domestic and experienced inbound investors adopt a nuanced and balanced view of the current landscape, and continue to see selective opportunities in the South Korean property sector.

Fluctuations in market conditions are often ineluctable, but investment strategies can certainly adapt if the right fundamentals are in place. We think it is useful to lay out the broad framework with which we view the structural prospects of the South Korea market. We don't seek to provide prescriptive solutions here, partly because return expectations (and hence, strategies) can vary across the risk-return spectrum for investors. However, from a top-down perspective, we believe institutional investors can start by making an informed assessment around the virtues and challenges of participating in the South Korea commercial real estate.

SOUTH KOREA: THE VIEW FROM TOP DOWN

The performance of any viable real estate market is fundamentally intertwined with the prevailing economic conditions. While it may not be the sole determinant in the investment decision-making process, possessing a holistic top-down comprehension aids in delineating the growth trajectory of the underlying South Korean real estate market.

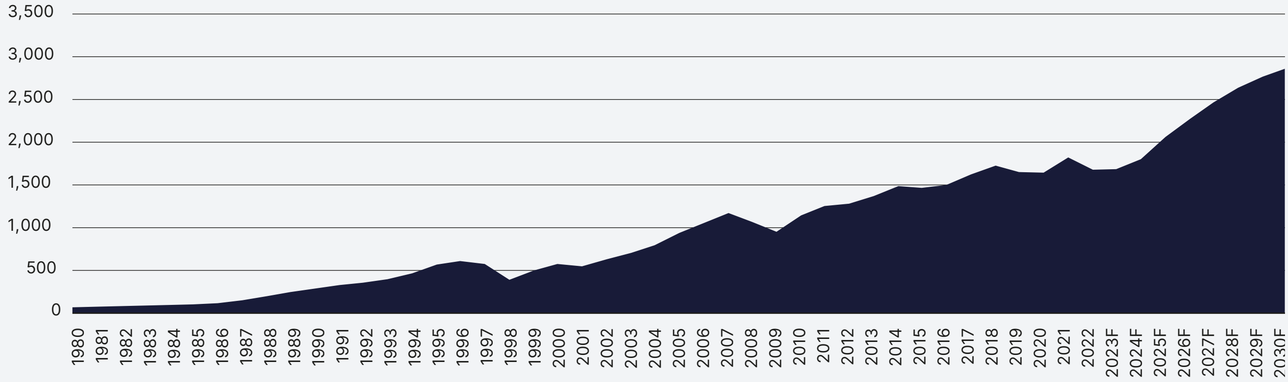
(i) Deep rooted economic dynamism

The saying "Miracle on the Han River" refers to the extraordinary economic metamorphosis witnessed by South Korea in the decades following the Korean War in the 1950s. This transformation occurred in a few decades, turning South Korea from one of the world's poorest countries into an affluent, developed economy. As a member of the OECD and the G20, South Korea boasts a high standard of living, robust infrastructure hardware, and a highly educated population.

> The saying "Miracle on the Han River" refers to the extraordinary economic metamorphosis witnessed by South Korea in the decades following the Korean War in the 1950s.

South Korea's nominal GDP more than doubled from approximately USD 700 billion in 2003 to USD 1.7 trillion in 2022. And it will continue to expand after overcoming a temporary pandemic induced blip. We expect the Korean economy to grow by more than 70% between now and 2030, reaching a heft of

FIGURE 1:
South Korea - Nominal GDP (USD billion)



Source: Statistics Korea (KoSiS), as at 1 August 2023 & Oxford Economics (as at 31 July 2023)

almost USD 2.9 trillion by the end of this decade. According to IMF estimates, in nominal terms, South Korea ranks as the 12th largest economy in the world, and the 4th largest in Asia, just behind China, Japan and India.

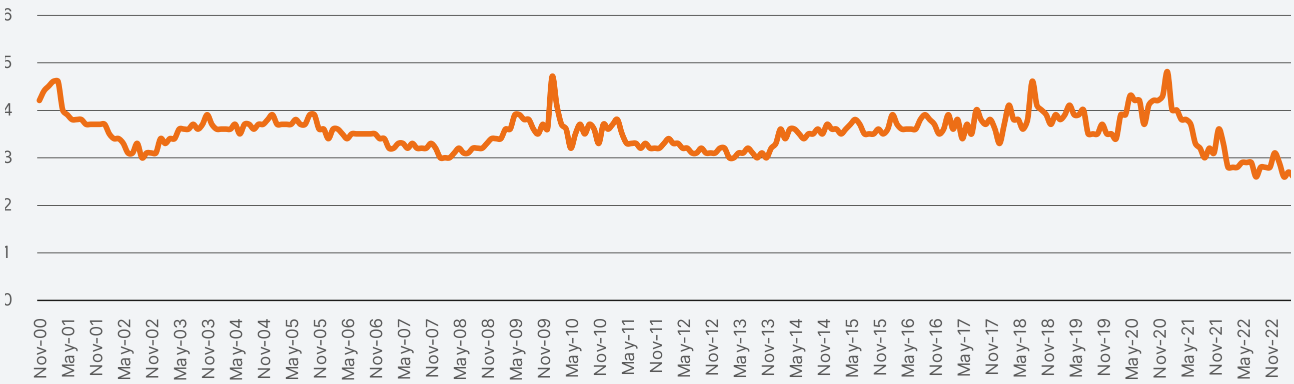
South Korea's unemployment rate tightened to a near historical low of 2.6% in June 2023, which is a barometer of its robust economic health. As at 2021, 69% of people in the 25-34 age group had a tertiary qualification, compared to 47%, on average, across OECD nations. This highly educated workforce is a structural driver of innovation and productivity, which is fueling future economic growth.

(ii) Fiscal and monetary strength

The financial stability of South Korea improved alongside the growth of the economy, which is beneficial for attracting capital, including into the commercial real estate sector. South Korea's credit rating compares favourably, if not better, than many countries. It underscores the country's strong economic fundamentals and prudent fiscal management. Case in point - In 1990, S&P assigned South Korea an A+ rating, which was then four levels below Japan's AAA. As of April 2023, South Korea's credit rating stands at AA, which is now two levels higher than Japan's A+ rating. Referencing core investors' penchant for Japan real estate, South Korea easily presents itself as another capital destination in Asia, without having to underwrite significant country risk premiums.

South Korea's debt-to-GDP ratio was 59.6% as of 2021, and is one of the lowest among OECD countries. This certainly indicates fiscal strength and resilience, which was clear to see during the

FIGURE 2:
South Korea - Unemployment Rate (%)



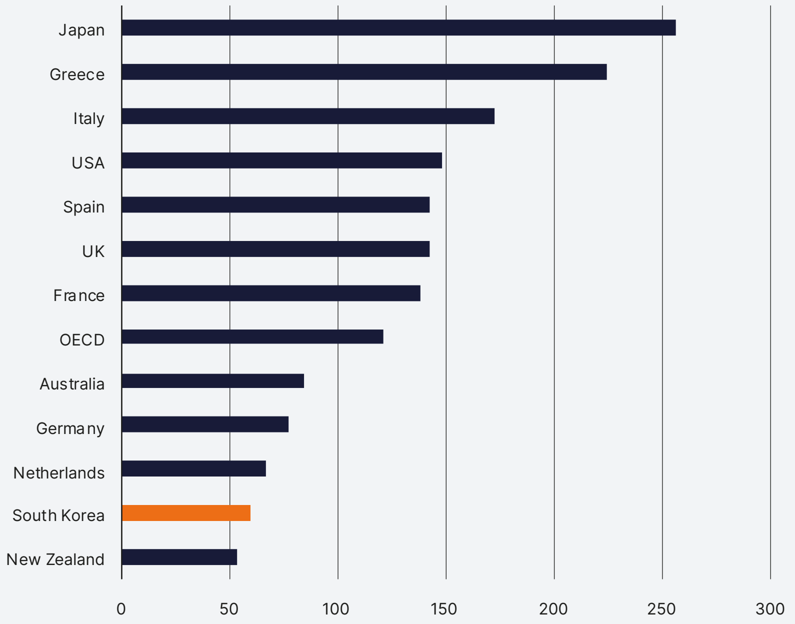
Source: Statistics Korea (KoSiS), as at 1 August 2023 & Oxford Economics (as at 31 July 2023) most recent pandemic down-cycle. For context, the OECD average debt-to-GDP ratio was 120.9% in 2021. Closer to the region, Australia's metric stood at 84.4% in the same year. From the real asset point of view, a manageable debt-to-GDP ratio provides the government with better fiscal flexibility. This can (and already has) lead to increased government spending on infrastructure projects that will enhance and protect the value of real estate in South Korea. From the financing point of view, academic research has shown that countries with low debt-to-GDP ratios typically have more stable interest rate regimes across time[1]. The latter point is particularly important for real estate investors.

(iii) Global leader in technological innovation

Positioned at the forefront of innovation, the South Korean economy is primed to capitalize on ongoing technological shifts. The country is recognized for its state-of-the-art technology, sophisticated manufacturing, and thriving digital entertainment industries.

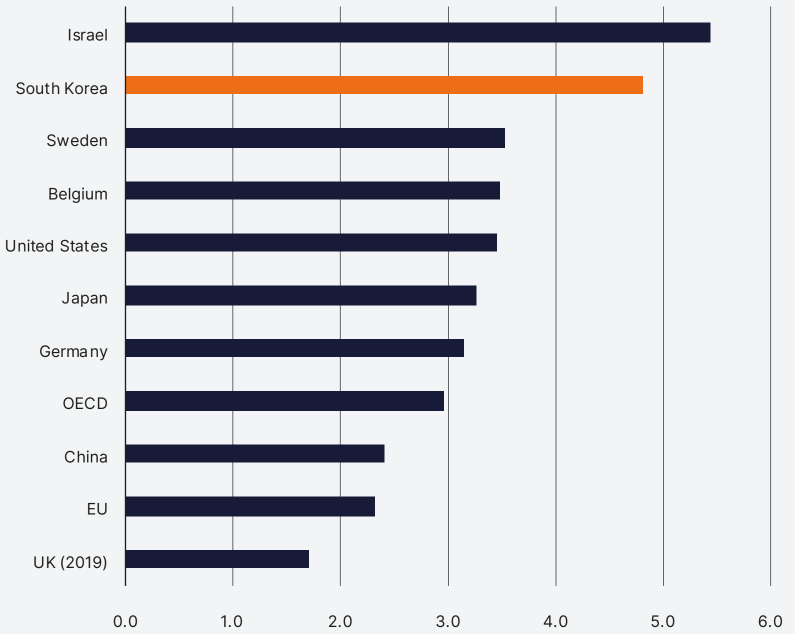
The World Bank's data indicates that in 2020, the country dedicated 4.8% of its GDP to R&D, significantly outpacing the approximate 3.0% average in the OECD. This investment in research has spawned numerous technological giants which have been instrumental in shaping South Korea's status as an economic powerhouse. High R&D has also helped to negate a demographic tax through the unyielding drive for technological productivity. South Korea launched the world's first nationwide 5G network in 2019, and it already

FIGURE 3:
2021 Debt to GDP Ratio (%)



Source: OECD, as at 20 July 2023

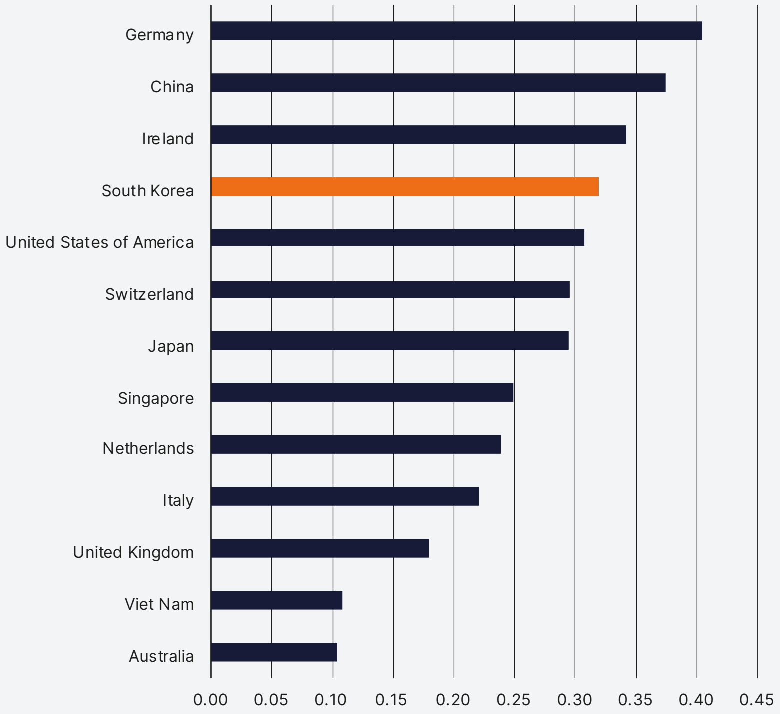
FIGURE 4:
R&D spend as % of GDP



Source: World Bank, World Development Indicators, as at 14 July 2023

1 The relationship between government debt and interest rates is not always straightforward. For instance, Japan has one of the highest debt-to-GDP ratios in the world, yet it has consistently low interest rates due to various factors such as its large domestic savings pool and an accommodative monetary policy.

FIGURE 5:
CIP Ranking



Source: United Nations Industrial Development Organization (as at 16 July 2023)

aims to invest KRW 220 billion (approximately USD 170 million) to develop and commercialize 6G technology by 2025. The 6G technology is central to the growth and evolution of key industries of the future. It is clear that South Korea strives for a pioneering position in emerging technology and is constantly setting worldwide standards to sustain its global leadership.

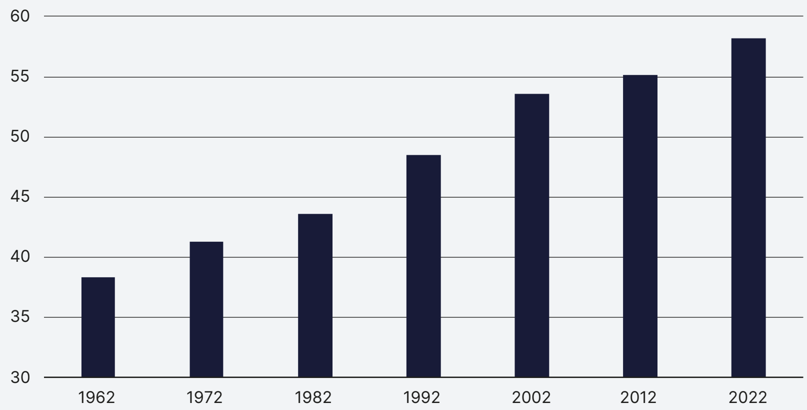
In terms of the real estate market, the presence of major corporations and a thriving technology ecosystem underpin a strong demand for high quality office spaces. Beyond conventional real estate asset types, South Korea's focus on innovation also fosters the emergence of smart buildings and cities, which are increasing important to counter obsolescence in the property sector.

(iv) Strong industrial base and diversified service sector

South Korea maintains a diversified export-oriented economy, focused on the higher end of the manufacturing value-chain. In 2022, it ranked as the world's sixth-largest exporter with a total export volume of over USD 684 billion, as estimated by the World Trade Organization. According to its Competitive Industrial Performance Index (CIP) released by the United Nations Industrial Development Organization, South Korea ranked fourth out of 152 countries in 2021. The CIP, a globally recognized benchmark, serves to evaluate the relative competitiveness of a country's industrial sectors. With one of the most competitive industrial ecosystems the world, South Korea enjoys a clear edge against many countries and that puts in in good standing for the next lap.

South Korea's service sector has been evolving and diversifying, contributing over 58.2% to the country's GDP as per World Bank data as at 2022. Growth is particularly strong in information technology, financial services, and entertainment, the latter being buoyed by the global popularity of Korean media culture, known as the 'Korean Wave'. Official data from Ministry of Culture, Sports and Tourism informs that the total export value of Korea's cultural content reached an estimated USD 12.4 billion in 2021, up by 4.4% from the previous year. Beyond

FIGURE 6:
Services share of GDP (%)



Source: World Bank (as at May 2023)

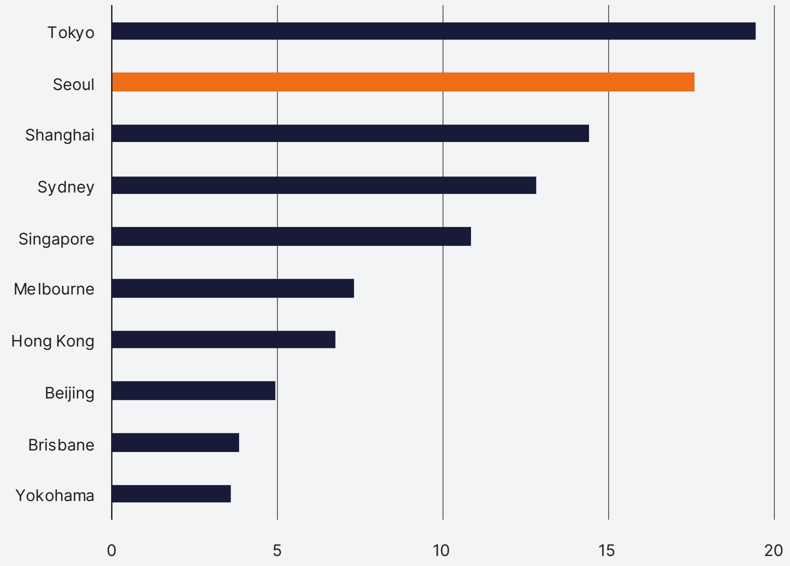
that, we see the professional and business services taking on a more prominent role, complementing the solid industrial base. The growth of the services sector has multiple implications for the property market, such as steering end-user demand for commercial real estate, supporting urbanization, and facilitating the creation of new growth precincts.

SOUTH KOREA COMMERCIAL REAL ESTATE

(i) The heart and Seoul of South Korea

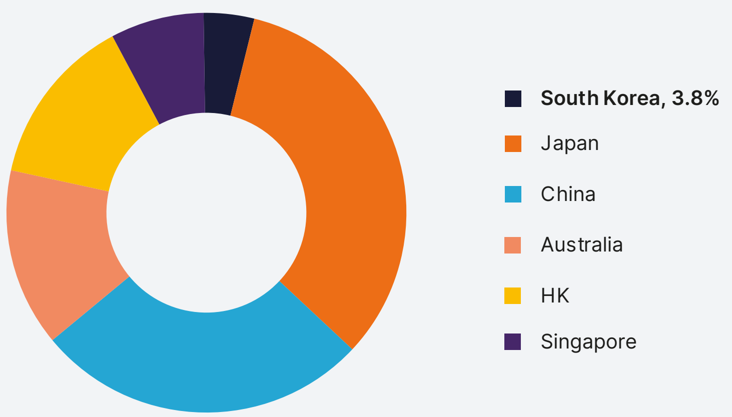
As at 2021, South Korea's population was approximately 51.7 million people, according to United Nations data. Seoul, besides being the capital city, is also the most populated, housing nearly 10 people. Yet, the significance of Seoul extends far beyond headline figures. The population of the Greater Seoul[2] metropolitan area is estimated at about 23 million, ranking it as the world's second-largest urban metropolis, just behind Tokyo. As a capital city, Seoul contributes to more than half of South Korea's annual GDP. In comparison, Tokyo makes up a third of Japan's annual GDP. Consequently, Seoul exerts substantial dominance over South Korea's economic, cultural, and political dynamics. It is also the key real estate investment market.

FIGURE 8:
Transaction volumes (2022, USD billion)



Source: MSCI RCA (as at 31 December 2022)

FIGURE 7:
Share of investable real estate in APAC (%)



Source: MSCI (latest available 2022)

According to MSCI data, South Korea constitutes around 3.8% of the investable real estate universe in Asia Pacific. However, it commands a disproportionate share of the regional investment activity. In 2022, South Korea ranked third, behind China and Japan, in terms of real estate transaction volumes (excluding development sites and private residential for sale). On a city-level perspective, Seoul edged out traditional heavyweights - such as Shanghai, Sydney and Melbourne – and saw the second highest level of transactional activity in Asia Pacific in 2022. That was certainty not a flash in the pan, because we saw very similar, if not stronger, outcomes in 2020 and 2021. As at H1 2023, Seoul has retained its position amongst the top three most active markets in APAC, based on preliminary data from MSCI RCA. And this is despite a global stalemate in investment volumes. It is fair to say that the Seoul real estate market punches above its weight, and the velocity of investment activity is a testament to its depth as an institutional investment destination.

(ii) Ongoing institutionalization of real estate market

2 Greater Seoul includes the cities of Seoul and Incheon, as well as the province Gyeonggi-do

While South Korea is a flourishing economy, it lags behind regional peers in terms of its institutional profile. We are of the view that the institutional development of the South Korean real estate market still has ample runway to benefit real estate investors.

a. Real Estate Investment Trust (REIT) market development

The experiences of other real estate markets such as Japan and Singapore have proven that an established REIT market plays a critical role in the institutionalization of the commercial real estate sector. Efficient securitization of real estate has a tangible impact on global capital allocation and the broader dynamics of the real estate sector.

The Korean REIT market was initially established in 2001 with the introduction of the Real Estate Investment Trust Act. The market is now characterized by a diverse range of REIT structures including public and private REITs. As at end-2022, a total of 350 REITs were active in South Korea, with 21 being listed REITs. Notably, the AUM of the REIT sector has exploded by 160 times in the last two decades, from KRW 0.5 trillion in 2002 to KRW 89.9 trillion in 2022. And we are just getting started.

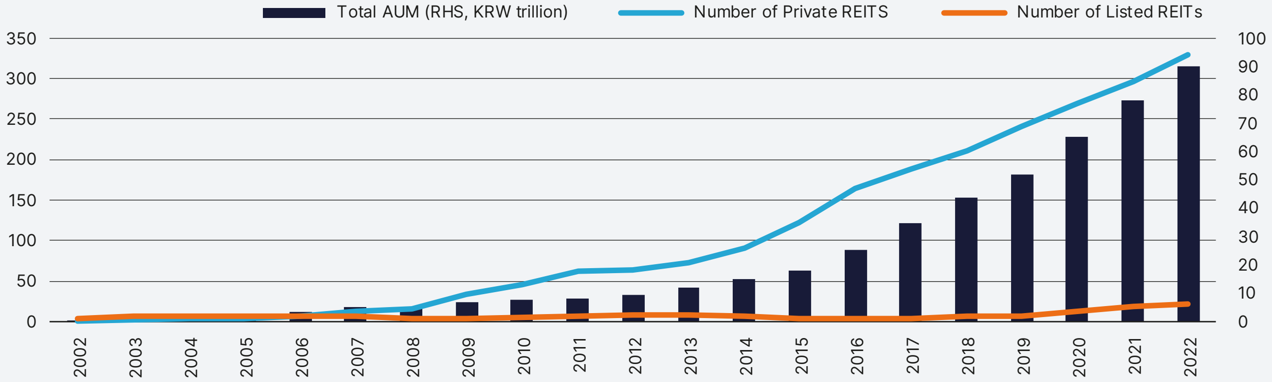
Why is the growing REIT market important for the real estate sector in Korea, especially for inbound investors?

Firstly, it presents an additional avenue to participate in the Korean real estate market, which in turn will lead to an inflow of international capital. A diversified capital pool provides additional liquidity and also contributes to market stability and resilience. With better disclosure requirements, there will be a more efficient price discovery mechanism, which improves the overall transparency in the property sector. Secondly, the increased competition and professional management of assets can drive operational efficiencies, enhance asset quality, and ultimately lead to better risk-adjusted returns for investors. Thirdly, securitization could trigger an increase in the capital values of real estate assets over time, driven by the purchasing capabilities and extended investment timeframe of REITs, in particular the listed ones. Lastly, considering the significant percentage of real estate sitting on corporate balance sheets in Korea, a thriving REIT market could incentivize major Korean corporations to sponsor REIT listings and recycle their capital. This transition would transform traditionally owner-occupied and high-quality assets into investable stock.

b. Journey continues towards MSCI Developed Market Index inclusion

South Korea's journey towards inclusion in the MSCI Developed Market Index has been a topic of consideration for over a decade. MSCI began its annual review process for South Korea's potential upgrade to Developed Market status in 2008. However, despite the country's strong economic fundamentals and significant market size, securing a status upgrade has not been forthcoming. The primary hurdle, among others, is the non-convertibility of the Korean won that is not conducive towards seamless foreign exchange operations. We do not profess to have a crystal ball view on the

FIGURE 9:
Evolution of REIT market in South Korea



Source: Korea Association of Real Estate Investment Trusts, Spring 2023 Journal timeline and probability of South Korea's upgrade to the MSCI Developed Market Index, but we can agree this eventuality, if and when it happens, will be a game-changer for the real estate market.

For one, South Korea's potential upgrade to the MSCI Developed Market Index is likely to attract a considerable amount of foreign investment. International funds tracking developed markets would be prompted to divert investments towards South Korean assets. This expected increase in liquidity could indirectly stimulate the commercial property market, leading to greater transaction volumes and possibly supporting property values. Secondly, the necessary reforms required for this upgrade - including enhanced market accessibility, increased transparency in the capital market, and the relaxation of capital controls - will make the commercial real estate sector appealing to foreign capital. As a result, this could lead to greater institutional participation in the market.

(iii) Infrastructure and urban development creating new opportunities

The early phases of South Korea's infrastructure development concentrated on hardware to foster industrial growth and urbanization. That included the construction of a comprehensive network of roads, seaports, and essential utility systems. As the country moved into the late 1990s, there was a strategic shift towards more sophisticated and modern infrastructure. This phase encompassed the creation of high-speed rail networks, notably the Korea Train eXpress (KTX), and the execution of major construction initiatives such as the Incheon International Airport. Enhanced interconnectivity has played a critical role in the expansion of core property precincts in the Greater Seoul area, and that has created new opportunities for institutional involvement.

A good example is the Gangnam Business District (GBD), which is located south of the Han River. Policies were implemented in the 1980s to encourage population dispersion from the CBD, which included the provision of infrastructure, residential and commercial land, and the expansion of transportation networks. It is noteworthy that approximately three-quarter of the office stock in the Gangnam Business District (GBD) was developed within the last thirty years. Building on the effective utilization of space and a strong local predilection for the district, the GBD commercial property market today commands relatively higher net rents within Seoul.

More recently, Pangyo Techno Valley and Bundang have gained significant interest from commercial real estate investors. Located approximately 10 kilometers from southern Seoul, these precincts have become the preferred office locations for South Korea's technology companies. Pangyo, often referred to as South Korea's Silicon Valley, has swiftly expanded to secure its position as the fourth-largest office submarket in Greater Seoul since the completion of the first office building in 2009. This was, again, mainly catalysed by improved accessibility and connectivity within Seoul.

While details are forthcoming, the 2040 Seoul Plan (announced in 2022) will alter the outline of the cityscape. Urban planning is likely to prompt redevelopment of older neighbourhoods in Seoul, as well as encourage sustainable work-live-play models. This is a good time for investors to evaluate new pockets of emerging opportunities in Seoul, and position themselves for the long term.

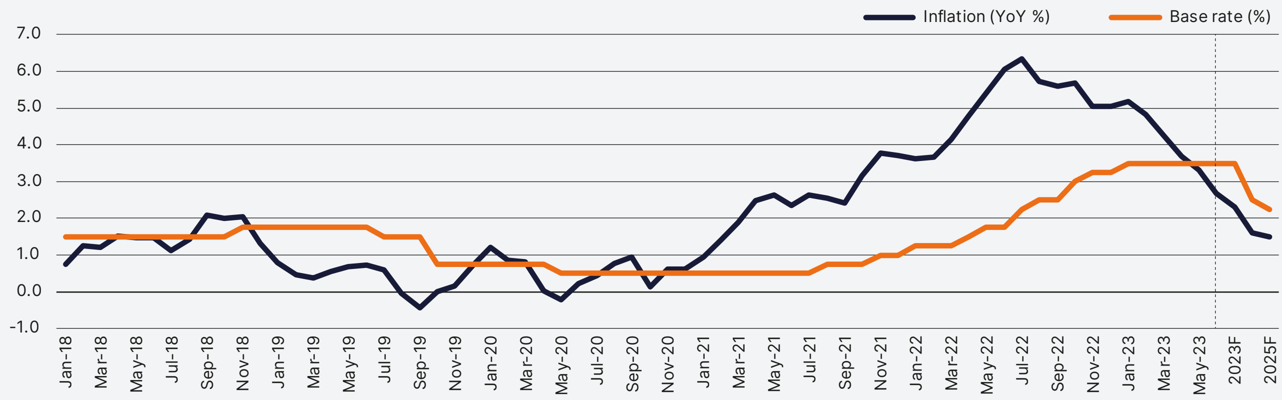
STRATEGIC DISCUSSIONS

As highlighted in the introductory section, we are living in unique times. Weaning away from a regime of low interest rates has been unsettling and precarious for many global investors, to say the least. And that is being complicated by structural changes in end-user patterns that were both exacerbated and accentuated by the pandemic. As we put forward our case for real estate in South Korea, we need no reminder that the landscape has changed. But within the market-sector spectrum of real estate investment, outcomes are never binary. There is a need to delve deeper into the dynamics, and we continue to see South Korea as a compelling market for real estate investors.

(i) Whither interest rates and pricing

South Korea was one of the earliest countries globally to kickstart the interest rate hike cycle. A pre-emptive move to combat inflation saw the Bank of Korea (BoK) lift its benchmark interest rate from 0.50% to 0.75% in August 2021. That was easily half a year before the US Federal Reserve initiated its series of interest rate adjustments. Since then, as inflationary pressures mounted globally, base rates have moved up ten times in South Korea, by a total of 300 bps. This sharp response in interest rates was not unlike what we saw in Europe, the US and in Australia. That has given rise to concerns that a major repricing in the Seoul

FIGURE 10:
Inflation and policy interest rate (%)



Source: Macrobond (15 July 2023), Oxford Economics (15 July 2023)

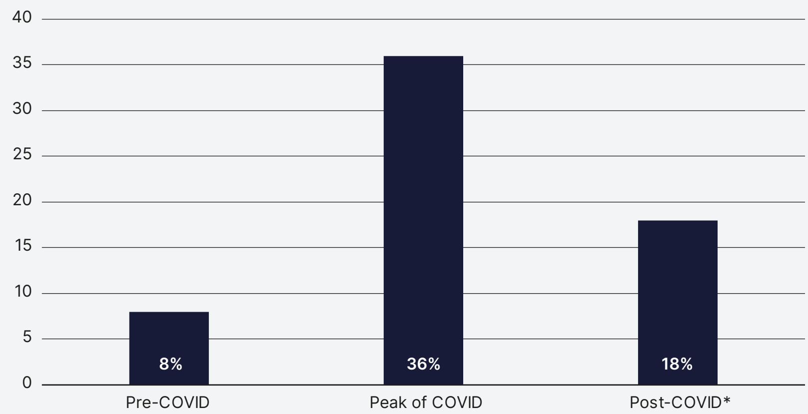
property market is looming.

At the point of writing, South Korea's headline inflation has eased to a 21-month low (2.7% YoY) in June 2023, having declined for a fifth consecutive month. Oxford Economics forecasts that annual inflation will trend down to around 1.6% by the end of 2024. Consequently, we could expect the BoK to take its foot off the accelerator slightly. It is premature to expect that rate cuts are definitely in order, because inflation continues to be at a level that is above the central bank target. However, what is clear is that the BoK has already held interest rates steady for a fourth straight meeting in July 2023, which points to a more calibrated and measured approach going forward.

(ii) Office sector snapshot: The hustle and bustle

In the office sector, despite interest rates having increased by around 300bps, we expect that cap rates will shift out by only 40 bps to 60 bps by the end of 2023. Occupier performance has been robust in the Seoul office sector, which has helped to support valuations, in part. This is largely due South Korea's effective pandemic management and a relatively low conversion to telecommuting. Before the onset of COVID-19, only 8% of companies in Seoul had some form of remote work arrangements. During the peak of the pandemic, that ratio went up to 36% which was still considered low because there was no full-fledged lockdown. Inferring from official surveys on employers' sentiments towards remote working, we estimate that less than 20% of firms in Seoul are supporting remote work. The corollary of this is a high return-to-office rate, which is supporting end-user demand office space. Particularly for investors pondering the future of the office space, the Seoul office market continues to offer a long-term opportunity given the intrinsic cultural and structural

FIGURE 11:
Seoul - Share of firm offering remote work arrangements (%)



Source: Statistics Korea (KoSIS), As at October 2022; Savills Investment Management estimates

* Footnote: Post-COVID work from home ratio is estimated from (1) Peak of COVID work from home rate, (2) Survey results of Korean companies' willingness to continue telecommute arrangements, using a prudent 50% of negative responses despite the 70% actual survey output

differences from other global offices.

According to Savills Research, the office vacancy rate in Seoul was 1.8% in Q2 2023, and aggregate rents growth was 7.1% y/y in the same period. These numbers put the Seoul office sector as one of the best performing markets globally. Effective rents in the prime office sector have increased by around 12% in 2022 alone, and we are forecasting a further blended growth of approximately 10% to 12% in the next two years. At the current level of yields, the expected rent growth will partially offset the impact of cap rate expansion on capital values. It is unlikely that investors waiting for a capital value reset will see much action, especially for core assets with strong income profiles.

(iii) Logistics sector snapshot: A tale of two segments

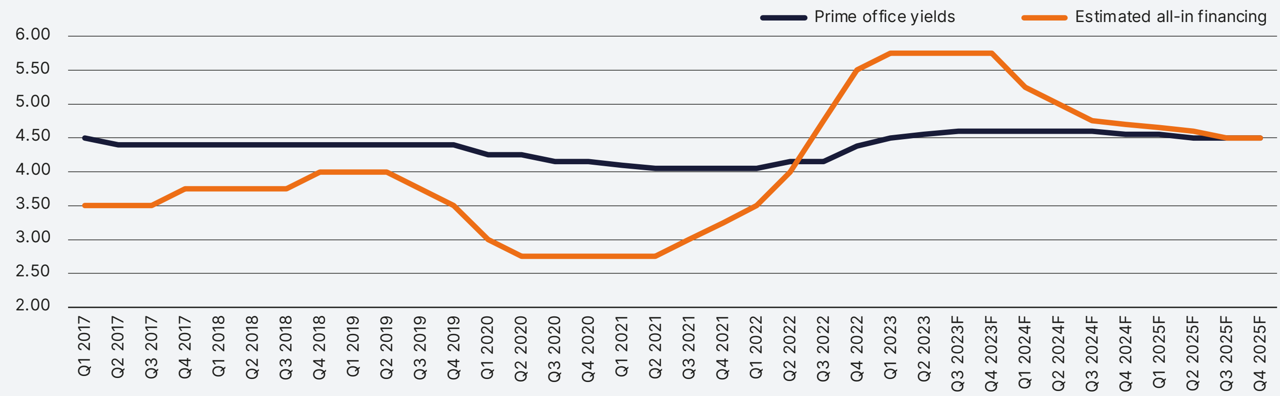
Not unlike other logistics markets, we see strong fundamental drivers for the Greater Seoul logistics market. Even though South Korea's e-commerce penetration rate is relatively high, the per capita provision of high-quality logistics stock is considered low. Preferences among investors for logistics properties will become more dichotomous, influenced by geographic location and specific facility features. Rising costs related to financing, raw materials, and labour have drove up construction expenses, causing delays in the delivery of new facilities. Despite these postponements in completions, the spectre of oversupply continues to haunt specific districts, such as Incheon, perpetuating an atmosphere of uncertainty within the leasing market.

Considering the robust leasing and investment appetite for dry storage facilities, the majority of developments in this segment are likely to progress as planned, with rather strong leasing demand in the Southeast and Southwest regions with access to Busan and Seoul. On the other hand, cold and frozen storage facilities are currently grappling with challenging market conditions characterized by oversupply and lacklustre investor interest. Effective rents for cold storage facilities saw a contraction of 5% in 2022, and this downward trend is predicted to persist, with a further dip of 5-10% already expected in 2023, and extending into 2024. In contrast, the rental rates for dry storage facilities are set for an uptick, projected to witness a 5% growth in 2023, a trajectory that transactional prices are likely to emulate.

(iv) Tactical views: How now?

It is not hard to appreciate the long-term appeal of the Seoul real estate market, both from the economic and institutionalization angles. The logical question, is, given the non-accretive nature of financing now, what is the tactical approach that investors can take? Even as interest rates are flattening, we are not seeing a rapid narrowing of the financing spread because property yields have not moved out. In the Seoul market, there are anecdotes about investors underwriting acquisitions

FIGURE 12:
Prime office yields and financing costs (%)



Source: Savills Investment Management estimates (15 July 2023), Oxford Economics (15 July 2023), Macrobond (15 July 2023)

* Footnote: All-in financing is assumed by adding a gross credit margin to the base lending rate, excluding arrangement fees.

using full equity. As far as we understand, this is not common, and is more applicable for owner-occupiers.

While counterintuitive, we think investors can still seek out short-term debt financing. If the view is that the financing spread will narrow within the next two years, refinancing down the road may well allow the limited equity to work harder across investments. Indeed, cash-on-cash yields will suffer in the first two years, but overall returns will catch up because of the inherent rent growth and leasing strength in Seoul, particularly in the office market. For assets that are well leased-up, lenders are still inclined to extend rather favourable terms and covenants, which means the overall financing costs might be lower than expected.

The investment rationale for acquiring mispriced assets is evergreen, but the actual execution is often harder than it seems on paper. Ultimately, it all comes down to pricing. While some distressed opportunities could be available on the market – because of soaring construction costs, or refinancing woes - we are not huge advocates of buying distressed assets, especially development projects, unless the repricing is substantial. In the next two years, lenders will be more averse towards underwriting loans for assets with limited income visibility, and those might well turn out to be hot potatoes for the acquirer. For example, the conversion of cold storage facilities to dry storage might seem to be a timely strategy, given the demand gap between the two. However, investors would come to realize that getting access to development financing would be difficult unless there is a high level of pre-commitment, or if the asset is in a submarket with very strong tenant demand. This adds on to the near-term complexities of navigating the Seoul property market, especially for investors with no local partners or boots on the ground.

The ability to source for the right deals is a key differentiator of performance. Strong and quality assets continue to defy the gravity of interest rates, while average assets struggle to find buyers. Admittedly, that is hardly a revelation, but we are seeing it play out in the South Korean market right now. If investors take a wait and see approach, there is a chance that entry yields might end up sharper when interest rates start to normalize, which is the same time when competition for limited assets will intensify.
To that end, we are of the view that core and core-plus investors who have reasonable return targets will still find the Seoul office market appealing today, and in the longer term.

(v) The ESG reckoning

One perception about the South Korean real estate market is that sustainability is viewed loosely as an afterthought for asset owners and tenants. This creates the impression that foreign capital often struggle to find a deep pool of investable assets that are aligned with ESG guidelines. The fact that the Korean real estate market is weighted heavily towards domestic players further accentuates this notion. But that is not entirely true. Through greater corporate awareness and regulatory nudges, the South Korean property market is increasingly embracing higher ESG standards, slowly but surely.

South Korea's bold 'Green New Deal' initiative aims to achieve carbon neutrality by 2050. As is the case globally, the built environment is a key focus towards accomplishing the carbon neutrality goal. The Seoul Metropolitan Government is concentrating efforts on enhancing the energy efficiency of existing older structures, while also promoting the construction of new buildings to align with Zero Energy Buildings (ZEB) standards. From 2023 onward, the Seoul Metropolitan Government will require ZEB certification for privately-owned developments with a Gross Floor Area (GFA) exceeding 100,000 square meters. Moreover, the

FIGURE 13:
Zero Energy Building Certification Energy Independence Rate Standard

Zeb Grade	Energy Independence Rate
Grade 1	100% ≤ Energy Independence Rate
Grade 2	80% ≤ Energy Independence Rate < 100%
Grade 3	60% ≤ Energy Independence Rate < 80%
Grade 4	40% ≤ Energy Independence Rate < 60%
Grade 5	20% ≤ Energy Independence Rate < 40%

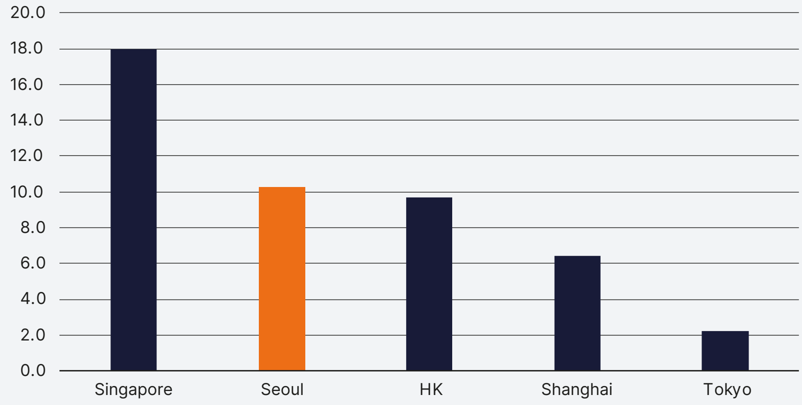
Source: Seoul Metropolitan Government

city will tighten its zero-energy construction requirements for private buildings in 2025, to include those with GFA over 1,000 square meters (currently at 10,000 sqm). Another objective of this policy is to elevate all publicly owned buildings to ZEB Grade 3 (characterized by an energy independence rate of 60% - 80%) and to transition all privately held buildings to ZEB Grade 5 status (marked by an energy independence rate of 20% - 40%) by the year 2030.

One medium term implication is that investors in the Seoul property market will have a baseline standard on green building certifications to use as a benchmark. As it is, selective asset owners and managers are already implementing global green standards such as LEED and BREEAM, but that is mostly voluntary and, importantly, non-mandatory. We think we are at an inflexion point which will herald a widespread adoption of ESG-compliant assets in the Seoul commercial real estate market. Over time, Seoul would certainly become an appealing market for core investors with a focus on sustainability.

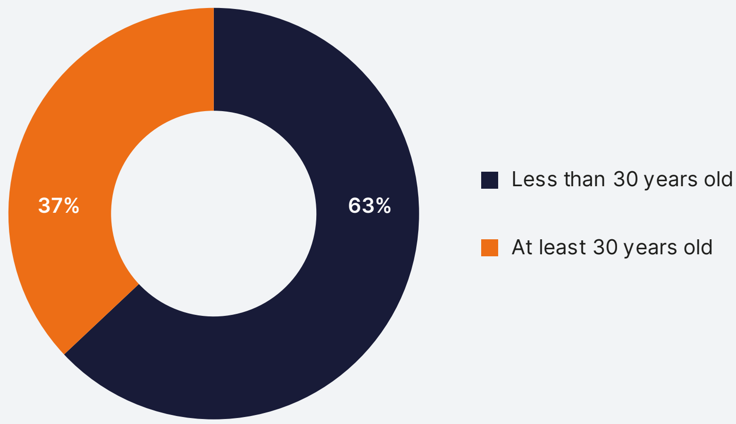
Research have shown that there is a rental premium for offices with green certification, albeit to varying degrees. In Seoul, green-labelled buildings can command some 10% rental premium over similar assets without green certifications, which is not insignificant. According to the Seoul Metropolitan Government, buildings are classified as 'old' when they are above the age of 30 years. As at November 2022, according to Savills Research, 37% of the existing office stock in Seoul are old, which further highlights the risk of widespread obsolescence, on both the functional and ESG fronts. The strategic response, on a selective basis, is for investors to embark on active asset enhancement on ageing but well-located assets. At Savills Investment Management, we are proponents of refurbishment and do not favour redevelopment, given the extensive embodied carbon footprint in the latter. Investors with a higher risk appetite can capture the rent reversion story by partaking in the upgrading of ageing assets in Seoul, particularly in submarkets where vacancies are tight.

FIGURE 14:
Rental premium of offices with green certification (Selected markets, %)



Source: Savills Research (April 2022), Savills Investment Management estimates

FIGURE 15:
Seoul office buildings breakdown by age (%)



Source: Savills Research (November 2022)

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