ASIA PACIFIC REAL ESTATE STRATEGIC OUTLOOK

Mid-Year 2022

IN A NUTSHELL

_ Investment volumes in Asia Pacific real estate remained strong in the first few months of 2022. Nonetheless, recent heightened volatility in financial markets and surging financing costs contributed to widening bid-ask spreads in some markets, with higher risks of asset valuation repricing due to widening cap rates.

_ Japan real estate remains attractive with healthy yield spreads underpinned by loose monetary policy while a window of opportunity has emerged for foreign investors to enhance returns through currency hedging.

_ Investors should seek opportunities for price adjustments from peak valuations in markets such as Australia while considering active management themes including next-generation offices and active logistics in secondary cities or emerging locations underpinned by strong growth drivers, as well as opportunities in post-COVID hospitality and regional Japan residential.

Economic Update

Economy Conditions: In the first half of 2022, investors around the globe witnessed a change of tide in macroeconomic conditions. Earlier concerns over Omicron-related risks subsided, as economic reopenings and lifting of restrictions boosted consumer spending and international travel. In Asia Pacific, the lifting of lockdowns across many Chinese cities including Shanghai in May and June allowed factories to resume production and eased supply chain disruptions.

Meanwhile, the focus shifted towards escalating inflation driven by higher input costs including agricultural products and natural resources, a situation exacerbated by the Russia-Ukraine war. Compared to the western economies, Asia Pacific is more sheltered from the fall out effects of the war as the two countries combined account for only 1-2% of the region's overall trade volume. Nonetheless, inflationary pressures have been building up across most of the region, albeit at lower levels than those currently seen in the United States and Europe.

Economic momentum in the region is expected to slow from last year's high base effect as concerns mount over the strength of global demand. As such, our updated CIO Views[1] reflect downward revisions to global GDP growth with China and Japan projected to decelerate to 3.8% and 1.7% respectively this year. Nonetheless, the region's economic growth is expected to remain relatively robust over the next few years. Our base case scenario does not anticipate recession in Asia Pacific, though there is a high level of uncertainty over geopolitical risks, central bank policies, further COVID-19 outbreaks and inflation.

[1] DWS CIO Forecasts, June 2022

Financial Conditions: Since late 2021, monetary policies have increasingly diverged across Asia Pacific. The region's two biggest economies, China and Japan, have maintained loose monetary policies amid benign consumer inflation and lack of demand stimulus, particularly in China whose zero-COVID policy has contributed to declining retail sales since March 2022. Nonetheless, there are risks of inflationary pressures building up, with producer prices rising in China while a significantly weakened Yen has led to a recent surge in import prices, pushing core consumer prices above the Bank of Japan's targeted 2% for the first time in seven years.

Meanwhile, South Korea, Singapore and New Zealand implemented additional rounds of monetary policy tightening over the past few months to combat inflation. In May 2022, the Reserve Bank of Australia also initiated its first rate hike in over a decade, followed by consecutive increases, reversing its previously dovish monetary stance.

The implications on financial and real estate markets are significant. Based on DWS real estate's enquiries with external financing parties, all-in borrowing costs in Australia, South Korea and Singapore have surged by approximately 120-180 basis points compared to the end of last year. At the same time, divergent central bank policies between Japan and other major economies have created an interesting investment window of opportunity for cross-border investors benefiting from currency hedging gains for Japan investments. For instance, Euro-based investors could now factor in more than 150 basis points of hedging gains for their investment in Japan, a scenario last seen over a decade ago.

EXHIBIT 1: REAL ESTATE LENDING RATE

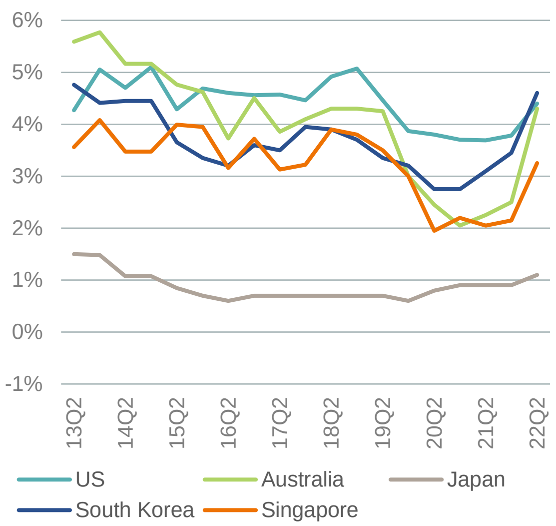
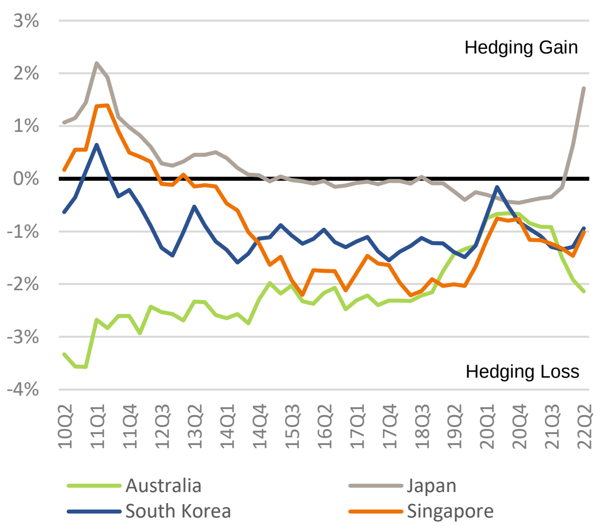


EXHIBIT 2: HEDGING COSTS FOR EURO INVESTORS



Note: Lending terms above are indicative for core stabilized commercial assets and may differ from actual terms achieved for individual assets. Hedging costs calculated from 3-year interest swap rates before associated transaction costs.
Sources: DWS, Oxford Economics, Bloomberg. As of July 2022. Past performance is not indicative of future results.

Real Estate Sector Outlook

Office: Anecdotal evidence points to recovering leasing sentiment and easing market concerns over work-from-home trends in Asia Pacific, as more workers head back to office following easing of COVID-19 restrictions. In Australia, office utilisation in most cities reached 50%-70% in May, improving markedly from the 10% average recorded earlier in January this year[2], while similar observations can be made in Singapore as limits on workplace attendance were lifted. Meanwhile office utilization levels remain higher in North Asia – China, South Korea, and to a lesser degree in Japan, where adoption of remote working remains a challenge due to entrenched cultural preferences for face-to-face interactions.

[2] Property Council of Australia, June 2022

Hybrid working arrangements feature for many corporates outside North Asia, which contributed to instances of office space consolidation and relocation from older buildings. Instead, occupiers have increasingly been observed to favour good quality developments with green credentials, high sanitation standards and building features that appeal to millennial workers.

In the first half of 2022, Seoul and Singapore were the standout performers in the region, building on the rental growth momentum observed since early 2021, on the back of improving tenant demand and low completions which contributed to declining vacancy rates. Meanwhile, vacancy and incentives in Australia has shown signs of stabilization and should see rental recovery from 2023 onwards, while rents in Japanese regional cities outside Tokyo and Osaka have showed stable growth.

Industrial: Logistics remains the standout sector, recording positive rental growth across most locations as resilient occupier demand supported take-up and occupancy levels, particularly in locations with good transport accessibility and low availability of prime assets. Industrial rents in Australia, led with record strong growth, the sector saw face rents rise by 5%-7% quarter-on-quarter in the first quarter of 2022 amid low national vacancy rates of 2.3%.

E-commerce and third-party logistics providers (3PLs) continue to account for most leasing demand for quality space, while e-commerce sales in Asia Pacific are projected to grow by 10% per annum from 2022-25F[3]. There are also signs of rising leasing activity from retailers and manufacturers along with recovering consumer demand post lockdowns. We remain positive on logistics with rental growth expectations of around 2%-3% per annum over the next three years.

Retail: The retail environment remains challenging. Lifting of COVID restrictions including border closures provided a boost, but retailers face higher input costs and e-commerce headwinds while consumer sentiment across Australia, Japan and South Korea during May and June fell significantly to their lowest levels since early 2021. We expect rental declines to slow this year though room for recovery remains limited, while necessity-based suburban malls may perform better.

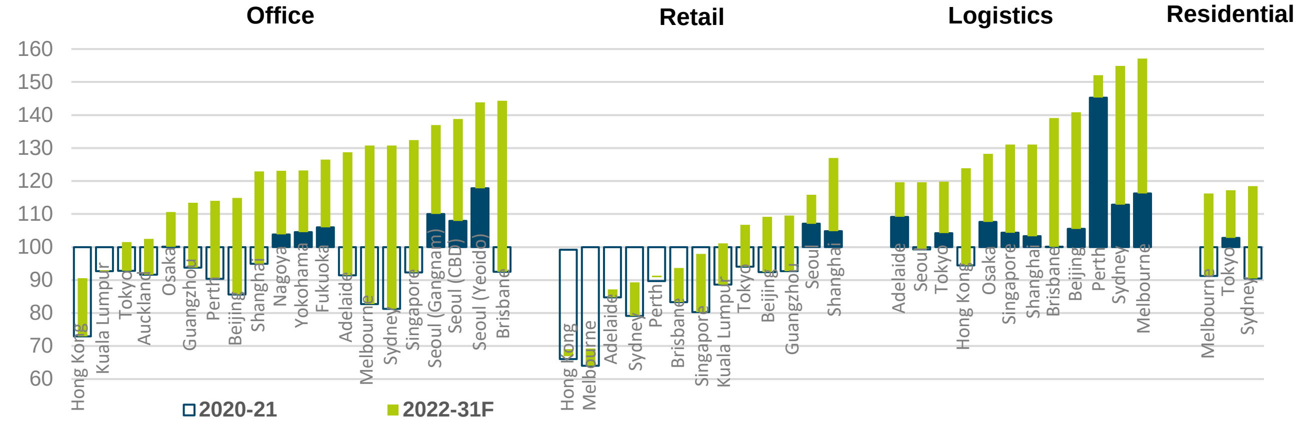
Residential: While institutionalization of the residential sector is steadily underway in Australia and South Korea, Japan remains the only established residential market in Asia Pacific in terms of market depth and liquidity. During the pandemic, Japan residential showed resilience as rents of standard residential units in Tokyo central nine wards grew 1-2% per annum, while upper-class residential rents in central location saw adjustments with subdued corporate tenant demand. Along with rising construction costs and low pipeline supply, for-sale condominium prices in Tokyo are expected to remain at record-high levels in the foreseeable future, driving first-time buyers towards the affordable rental housing sector, which can underpin healthy rental growth.

Sector Outlook: Combining our long-term houseview sector forecasts, we believe that that regional rental growth over the next ten years (2022-31F) will be led by the logistics and office sectors, followed by the residential sector. We retain a cautious view on retail rents in general on expectations that rental recovery would likely be muted in lieu of structural challenges.

[3] Data from eMarketer, May 2022

EXHIBIT 3: PRIME RENTAL GROWTH FORECASTS, P.A. (2022-2031F)

(2019 = 100)



F = forecast. Rents are on net effective basis after deducting incentives. There is no guarantee the forecasts shown will materialize.
Source: DWS. As of July 2022. Past performance is not a reliable indicator of future returns.

Investment Trends

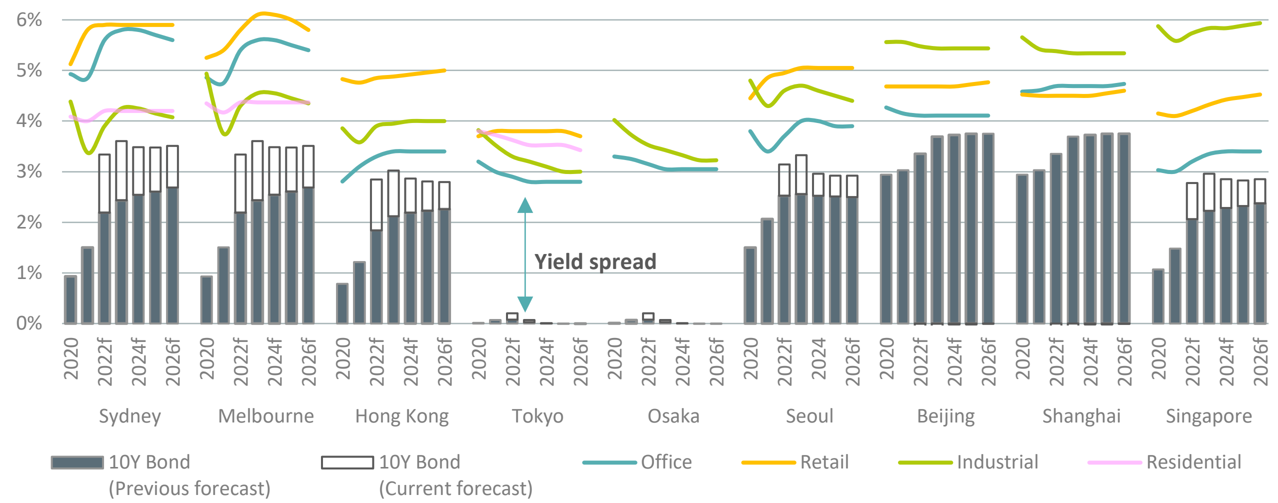
Transactions: Data from Real Capital Analytics points to a strong rebound in investor interest following a quiet period during the pandemic in 2020. The 12-month transaction volume to the first quarter of 2022 for income-producing assets in Asia Pacific rose 21% year-on-year to US$210 billion, close to the record-high volumes in the whole of 2021. While China remained the top investment destination accounting for over a quarter of volumes, South Korea emerged as the second most active market following record volumes exceeding US$41 billion in the rolling 12-month period to March 2022.

Office assets remain the most traded sector in the region though the proportionate share has declined, while investment momentum in industrial assets continued with investors seeking rental cashflow stability, accounting for 25% of total volumes. Hotel assets are also increasingly returning to favour after exceptionally low transaction volumes in 2020, with investors looking to capture the expected rebound in international tourism.

Cap Rate Trends: In recent years, the combined effect of low interest rates and strong capital allocation into commercial real estate markets contributed to falling yields across the region. However, in recent months, investors have become increasingly cautious. Sharp increases in borrowing costs have negatively impacted the underwriting capacity of investors reliant on external financing, particularly for lower-yielding assets where carry costs have turned from positive to negative. While deal pipelines generally remained strong earlier in the year, we observed that the number of bidders has declined in recent deals while bid-ask spreads have widened, signaling re-pricing trends that could take place as early as this year.

Given the current narrow spreads between cap rates and bond yields (due to significant bond re-pricing in recent months), we have materially adjusted our cap rate forecasts upwards, particularly for Australia and South Korea which have experienced significant cap rate compression over the past few years. Based on our projections, cap rates are already facing decompression, potentially increasing by as much as 40 to 90 basis points across the region by the end of 2023, although Japan and China remain shielded due to supportive monetary policies.

EXHIBIT 4: CAP RATE / YIELD SPREADS RELATIVE TO BOND YIELDS



f = forecast. There is no guarantee the forecasts shown will materialize.
Source: DWS, Colliers, Miki Shoji, Oxford Economics. As of July 2022. Past performance is not a reliable indicator of future returns.

Returns Outlook

Pricing and Returns: Exhibit 5 provides our office pricing trend forecasts over the next three years. We see a divergence in pricing trends, with downside pricing risks in Australia and South Korea during 2022-23, before recovering in 2024. Capital growth in Japan is underpinned by continued cap rate compression due to loose monetary policies, while capital values in Singapore are likely to be supported by strong rental growth and investment activity, as evidenced by continued tight yields in recent deal activities.

EXHIBIT 5: OFFICE CAPITAL RETURNS

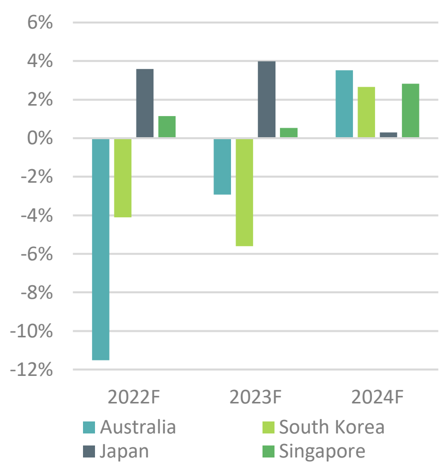
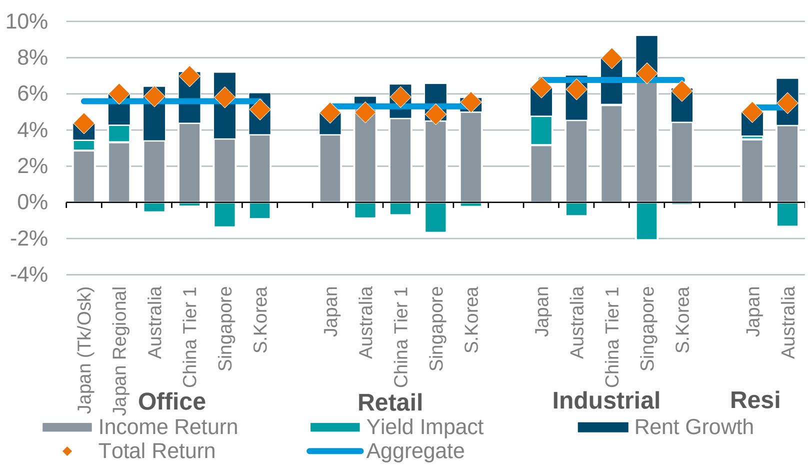


EXHIBIT 6: APAC TOTAL RETURN P.A, 2022F-2031F



Note: E = estimate, F = forecast. Projected returns are based on compounded basis. There is no guarantee the forecast returns shown will materialize. Figures shown are stock-weighted based on city level data[4]. As such, the performance and forecast shown represent hypothetical and simulated performance, which has many inherent limitations. One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading. No assurance is made that forecast returns will be achieved.
Source: DWS. As of July 2022.

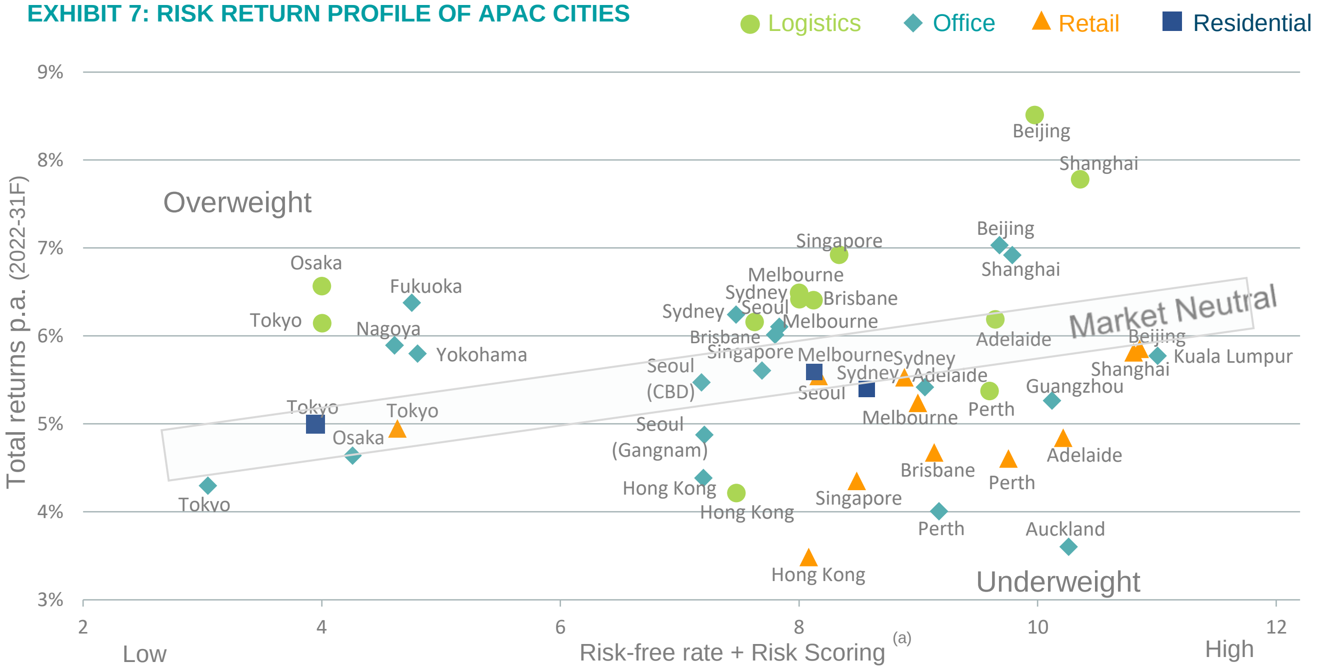
[4] Japan – Tokyo (All sectors), Osaka/Yokohama/Nagoya/Fukuoka (Office); Australia – Sydney/Melbourne/Brisbane/Perth/Adelaide; China Tier 1 – Beijing/Shanghai (All sectors), Guangzhou (Office & Retail); South Korea – Seoul.

Over a long-term horizon, using our ten-year return projections, we remain most positive on the prime logistics segment where annual total returns could average around 7%, though investors can no longer rely on the high capital gains driven by cap rate compression in previous years. Instead, growth will be primarily driven by steady rental growth which remains an attraction for many investors. The office sector is also expected to deliver competitive returns in the long-term, though short-term underperformance is anticipated in lieu of pricing adjustments. Meanwhile, given the already significant revisions to retail values in some locations, Australia in particular, the worst may be over in terms of pricing trends for retail assets, nonetheless risks here are elevated and we expect a slow recovery in capital values given that investors are likely to retain a cautious view on the sector.

Risk-Return Profile: It is insufficient to compare property-level total returns on a stand-alone basis without factoring the associated risks, especially in the Asia Pacific region where a significant divergence in market maturity and transparency persists. Several factors were considered in the computation of associated risks related to each submarket such as volatility, liquidity, transparency, the effect of obsolescence and climate-related risks, on top of domestic risk-free rates. The associated risks were formulated using a combination of quantitative and qualitative modeling which have been integrated in our House View forecasts.

Exhibit 7 highlights the positioning of the various markets in reference to this framework. Our projected total returns for each market on the vertical axis are plotted against associated risks on the horizontal axis for each market. A Market Neutral zone (shaded) indicates the level of attractiveness of each market from a risk-return perspective (cities above this line are deemed more attractive and vice versa).

EXHIBIT 7: RISK RETURN PROFILE OF APAC CITIES



Note: F = forecasts. There is no guarantee the forecasts will materialize.
Risk Scoring[(a)]: A greater risk score indicates higher levels of risks associated with each market. A range of risk factors were considered including the historical volatility of returns, level of market liquidity, real estate transparency level, depreciation, capital expenditure and climate risks.
Source: DWS, Oxford Economics, Colliers, JREI, CBRE, Cushman & Wakefield, Real Capital Analytics. As of July 2022.

Investment Strategy

Overview: Given the expected divergence in performance across the region, investors should focus on immediate-term **tactical opportunities** including Japan which is a likely beneficiary of increased cross-border investment inflows, as well as **active investment themes** featuring regional or emerging locations with long-term fundamental growth drivers that offer higher risk-adjusted returns. As covered earlier, the risk of asset repricing across some major Asia Pacific markets have escalated amid significant financial markets volatility and rising financing costs. Investors could seek price-adjusted entry opportunities in some **core markets** (such as Australia and South Korea) vulnerable to downward pricing pressures in the short-term. These themes are summarized below and incorporated into our country strategies.

EXHIBIT 8: KEY INVESTMENT THEMES

Tactical Calls

Divergence in Asia Pacific conditions lead to near-term pricing differences

- Japan: Only major market still with healthy yield spreads. Move quickly to capture Euro hedging gain opportunity (150-200 bps)
- Australia: Surge in borrowing cost pressures on cap rates. Opportunities after price correction.
- South Korea: Expected re-pricing with cap rate widening. Hedging losses for cross border investors.

Active Investment Themes

Emerging investment themes with favourable risk-reward factors

- Forward funding, Leasing up, Repositioning, Conversion, Service-type office
- Active Logistics / Regional Logistics (Busan, Fukuoka, Nagoya, Daegu)
- Next Generation Office in Emerging Locations (e.g. Pangyo in Seoul)
- Hospitality (Japan Metros)

Core Strategy

Overweight core assets with positive long-term outlook

- Core logistics in key APAC hubs
- CBD offices in Sydney, Melbourne, Brisbane and Japan Regional (Nagoya, Yokohama, Fukuoka)
- Factor in projected cap rate widening by 40-90bps by end-2023 in Australia and Seoul, in lieu of rising borrowing costs

Source: DWS. As of July 2022.

Country Strategy: Japan

Overview: Japan is currently the only major APAC market benefiting from healthy yield spreads between transaction cap rates and borrowing costs, at around 150-200 basis points, while the Bank of Japan's continued loose monetary policies presents an immediate window of opportunity for cross-border investors to lock in significant currency hedging gains on top of stable real estate returns.

Post-COVID Hospitality: Hotel performances in Japan has lagged significantly behind the United States and Europe in the first half of 2022, due to stricter social regulations and border controls. Given Japan's top ranking in terms of travel and tourism development[5] and high tourism popularity in the world, major Japan cities including Tokyo, Osaka, Kyoto, Fukuoka, and Sapporo, are best positioned to capture the anticipated recovery driven by domestic tourists in the short-term and the rebound in overseas tourist arrivals from neighboring Asian countries in the long-term once the border fully reopens.

Regional Office: Despite the market disruptions during the pandemic period, office leasing demand in Japanese regional office markets remained relatively robust. This was due to the limited impact from working from home arrangements and low supply of new buildings in the regional markets. Even though office vacancy rates in certain markets like Osaka could stay elevated due to large prime office supply in the next five years, good-quality mid-sized office buildings in Nagoya, Fukuoka, and Sapporo are expected to benefit from rental growth over the next few years.

[5] World Economic Forum, The Travel and Tourism Development Index 2021

Regional City Residential: Underpinned by ongoing urbanization, both population and household figures in major Japan city centres have been rising. At the same time, rising record-high prices of for-sale condominiums are driving first-time home buyers towards rental houses, a significant long-term demand base for the rental housing sector across Japan. Notably, the recent macro trend towards convenient and larger residential space is expected to underpin healthy rental growth for the family-type residential units in the midterm.

Active Logistics: Structural shifts from offline to online shopping have accelerated in the last two years, driving logistics demand while Japan's low e-Commerce penetration rate below 10% (lowest among developed countries) indicates room for further growth in warehousing needs. However, logistics yields in Greater Tokyo has tightened to similar levels as prime residential properties in central Tokyo, driving yield-seeking investors towards the regional logistics markets serving millions of residents. Modern logistics space per capita is still smaller in Nagoya and Fukuoka, compared to bigger cities like Tokyo and Osaka, and these regional cities present attractive investment opportunities including active asset management such as development, forward funding, and forward purchase.

Country Strategy: South Korea

Overview: Along with rapidly rising interest rates since the start of this year, the negative spread between transaction cap rates and borrowing costs reached 50-150 basis points in South Korea within months. Even though capital values were relatively flat in the first half of 2022 with local investors dominating transaction flows, in time the persistent yield inversion is likely to weaken investment demand even among owner occupiers or non-leveraged investors and lead to incremental price depreciation. Hence, we see a window of opportunity for investors to optimize their investment portfolio by selling assets with limited future upside and adopt an opportunity driven approach with strong downside protection.

Active Logistics: Leasing market fundamentals remain healthy for ambient logistics, together with potential rental upside from the impact of rising construction costs and delays in future logistics supply. In particular, regional logistics markets in Busan and Daegu are undergoing rapid market modernization and instituitonalization, presenting attractive investment opportunities via partnerships with local developers or construction companies.

Post-COVID Hospitality: Like Japan, South Korea ranks highly in terms of tourism travel competitiveness and is well positioned to benefit from favourable long-term travel demand from developing Asian countries. However, investment opportunities with proper structuring and size are relatively limited for cross-border investors. Investors could adopt an opportunity-driven approach targeting tourist-focused hospitality locations in Seoul, Busan and Jeju.

Country Strategy: Australia

Overview: Australia continued to experience a resilient labour market with leading indicators such as job advertisements pointing to a strong growth in employment ahead. In the industrial markets, tenant demand remained buoyant while the availability of modern and efficient warehouse space was limited as labour shortages and supply chain issues delayed new construction. Despite the healthy occupier fundamentals, investment activities have slowed as buyers and sellers adjust pricing expectations amid surging borrowing cost.

Emerging Office: The emergence of business clusters centered around technology or life sciences and supported by improving infrastructure have transformed these locations into a work-live-play precinct. These new office areas also offer a full range of next generation requirements with ESG credentials which could command a performance premium over the wider market. We recommend locations that could benefit from structural change in office occupancy including North Sydney and Macquarie Park in Sydney, city fringe in Melbourne and Fortitude Valley in Brisbane. However, as much of this space is still to be built, the strategy will likely require taking on some form of development risk – both ground-up development and the refurbishment of older stock.

Active Logistics: The industrial sector is still benefitting from the structural e-commerce tailwinds and with new supply remaining modest, we expect average prime rent growth of 3.5% per annum over the next ten years. However, given that current yield levels are already stretched while the borrowing costs have increased rapidly, meeting cash return targets has become increasingly challenging. Possible re-pricing of prime stocks in the key gateway cities may open these markets to core investors while we also continue to see strong merits in the development of modern stock in well-connected urban locations.

Core: While there is relatively little evidence of a value correction to date, re-pricing is required in view of the higher interest rate environment. We anticipate a yield led pricing adjustment of 10% to 15% in 2022-2023 to create cyclical opportunities particularly for the office and logistics sector in key gateway cities such as Sydney, Melbourne, and Brisbane. These markets are projected to lead the region's rental cycle underpinned by favourable demand-supply conditions.

Country Strategy: Singapore

Overview: Singapore's accelerated re-opening efforts and rebounding tourism since the beginning of this year should support GDP growth in between the government's 3-5% forecast in 2022. A tighter monetary policy bias with an appreciating Singaporean dollar should help combat rising inflation, while base borrowing costs have surged in recent months. Meanwhile commercial investment volumes have surged in the first half of 2022, which alone could exceed the whole of 2021.

Emerging Office / Business Parks: CBD office vacancy tightened to below 7% in June 2022, driven by limited new supply and increased leasing demand led by the technology and emerging financial sectors. Office rents bottomed out in 2021 and are projected to grow at 4%-5% per annum over the next five years, in line with previous office multi-year rental cycles. While CBD office yields remain tight and could widen slightly in lieu of higher borrowing costs, emerging office / business park locations outside the CBD present an investment opportunity. The government is pushing for decentralization with improved infrastructure accessibility narrowing the gap with CBD, while lower occupancy costs appeal to tenants, and with a yield premium of 70-100 basis points for decentralized offices and as much as 200 basis point for business parks (shorter land leases) this could support above average returns. Investor preferences are also tilting towards green buildings with live-work-play concepts which appeal to younger millennials.

Active Logistics: Logistics benefited from strong rental growth in recent quarters, driven by healthy demand from technology, biomedical, manufacturing and ecommerce/3PL logistics. Prime vacancy is extremely low while new completions remain below historical averages. We expect logistics rents to grow 2.2% per annum over the next five years.

Investors should focus on quality ramp-up developments with lease-up potential to capitalize on strengthening rents. Assets with land lease terms of 30 years and below, provide high income yields in excess of 6%, while transactional evidence indicates sufficient liquidity even for industrial assets with shorter lease terms.

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