

ASIA PACIFIC OUTLOOK 202

Real Estate During a Crisis

May 2020 | Investment Research

Executive Summary

The outbreak of COVID-19 has quickly translated into a severe shock for the global economy and real estate markets. Near-term indicators of performance have turned sharply downward, and the situation is fast-moving.

At the same time, the Asia Pacific region is set to lead a global recovery, and while real estate occupier and investment markets are under near-term pressure, a significant opportunity set is expected to emerge.

In the Asia Pacific region, attractive investment themes can be grouped as follows:

- **Logistics:** Structural trends supporting opportunities in logistics particularly relating to grocery supply chains are being accelerated by COVID-19.
- Japan: Residential to Offer Resilience: The Japanese residential sector offers stable cash flow in an uncertain environment and benefits from a favorable supply-demand outlook.
- Australia: Defensive Debt, Cyclical Office: Near-term uncertainty points toward debt opportunities as a source of defensive cash flow, while office markets are eventually set to record a strong recovery.
- China: Focus on Tier 1 Markets: Tier 1 cities continue to exhibit a shift toward services, driving ongoing demand for office space. The prospect of a value correction points toward an attractive entry point.
- Upswing in Trade-Dependent Economies: Hong Kong, Singapore and South Korea are volatile markets that are already recording value declines but are well-placed for a strong cyclical recovery.

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ASIA PACIFIC

Opportunities Amid Disruption?

The COVID-19 pandemic brought the Asia Pacific regional economy to a sudden stop in early 2020. Strict travel restrictions and social-distancing measures enforced by countries across the region have been highly disruptive to economic and business activity. Most Asia Pacific economies are now facing recession, and at the regional level, the International Monetary Fund expects 2020 to represent the worst output growth recorded in 60 years.

The abrupt deterioration of the economic environment has put an end to the long-lasting real estate cycle that started in Asia Pacific in 2010. Prior to the outbreak of COVID-19, the low interest rate environment and positive tenant demand had been supportive to real estate values and rental growth momentum across major markets. However, with leasing demand now evaporating and investment activity slowing markedly, real estate markets across Asia Pacific look set to suffer significant disruption in the near term.

Experience from previous downturns suggests that regional markets are less likely to move in unison, and there is no reason for it to be different this time. The timing and momentum of cycles vary across markets — for both downturns and subsequent upswings — courtesy of diverse economic and real estate fundamentals regionally.

All markets in Asia Pacific will be impacted, but severity will vary depending on property types and the pandemic situation in each country. While it is clear that there will be pain and uncertainty in the short term, significant policy responses from governments — notably in China, South Korea and Australia — have gone some way to reassure investors about the outlook.

Just as the downturn is sharp and severe, the recovery that follows will likely be strong. The challenge for investors is to assess conditions and try to identify opportunities amid all the disruption.

First In, First Out: Asia Pacific to Lead a Global Recovery

Real estate returns are closely linked to economic performance. The severe impact of COVID-19 on economic growth — in the form of a sharp recession — indicates a likely period of near-term weakness in real estate performance (exhibit AP1).

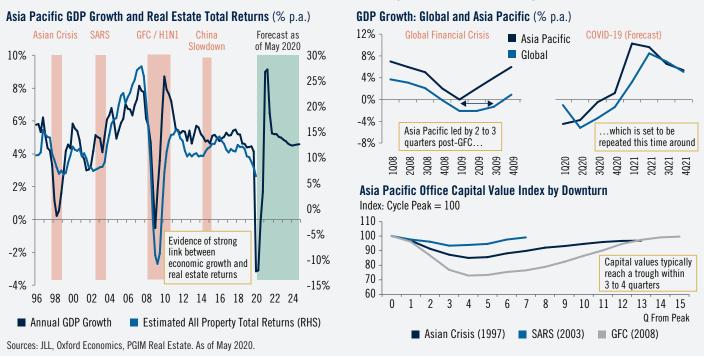


Exhibit AP1: Asia Pacific Economic and Real Estate Market Recovery in Recent Downturn Cycles

Evidence from previous downturns suggests that the Asia Pacific economies rebound swiftly following crises. During the global financial crisis, which disproportionately affected Europe and the United States, the Asia Pacific recovery was ahead of the global economy by a couple of quarters.

The trigger that ends a crisis can be different each time, but it is clear that a recovery from the current downturn will depend critically on the pandemic being brought under control. In this respect, Asia Pacific has some advantages compared with other regions. Arguably, having experienced epidemics in the past two decades, including SARS in 2003 and H1N1 (or swine flu) in 2009, nations across Asia Pacific were relatively better prepared to deal with a significant public health crisis.

While initial measures have had some success in containing the spread of COVID-19, there remains an ongoing risk that the outbreak will spike again with a new wave of infections, as seen in Singapore in April. As in other parts of the world, until there is an effective vaccine or treatment for the virus, it will likely be difficult for countries in Asia Pacific to return to the way they were.

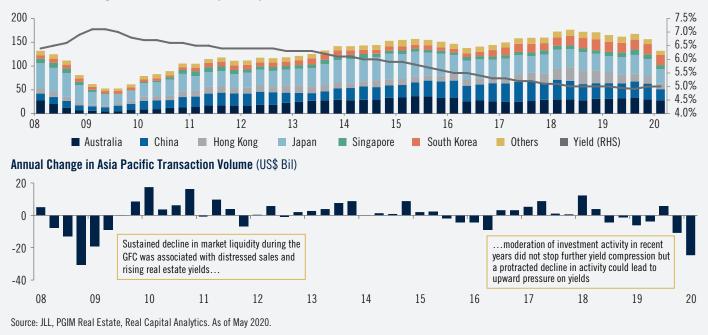
Based on evidence from previous downturns, the office sector, on average, reached a trough three to four quarters after peaking, although the pace of recovery can vary. This time, prospects for a rebound are supported by generally solid and improving occupier market fundamentals recorded prior to the pandemic.

Average office vacancy rates in major regional central business districts (CBDs) were at historical lows at the end of 2019. Forecasts for new supply growth over the next three years were already well below the 10-year average and may move lower if development projects are delayed or canceled. When leasing demand resumes growth again, these fundamentals will play critical roles in supporting rental growth as the new cycle takes shape.

Pressure on Transaction Volume

In recent years, as the market cycle grew longer, high prices and lack of investment opportunities were frequently cited as the biggest challenges in Asia Pacific real estate investment. The highly competitive environment fostered yield compression, while the slight moderation in transaction volume in 2019 was largely characterized by the lack of motivated sellers rather than the absence of interested capital (exhibit AP2).

Exhibit AP2: Assessment of the Asia Pacific Investment Market



Four-Quarter Rolling Transaction Volume by Country (US\$ Bil)

In fact, there was ample capital waiting to be deployed in Asia. Last year, the Asian Association for Investors in Non-Listed Real Estate Vehicles (ANREV) reported that real estate investment managers raised a record-breaking amount of US\$32.8 billion for vehicles focused on Asia Pacific — up 22% from US\$26.9 billion in 2018. The pandemic could prompt strategic reappraisal of capital allocation among investors, but long-term capital interested in the Asia Pacific region looks set to remain abundant.

Investment Opportunities

With a downturn under way, history demonstrates that times of crisis can also be times of opportunity — particularly for investors who can look beyond any short-term uncertainty and focus on the long-term outlook.

Trying to accurately time a market cycle is nearly impossible — especially as liquidity tends to dry up during a downturn. As the current downswing progresses, asset valuations might be adjusted accordingly, but that does not necessarily translate into available opportunities — especially if investors opt to hold their assets through the cycle rather than sell at a discount.

Opportunities arising from downturns are typically diverse depending on the extent of price correction, the presence of ongoing structural themes and the fundamental dynamics of individual markets. Examples of these come in the forms of structural growth underpinning the long-term outlook for the logistics sector, the defensiveness of the Japanese residential sector and prospects for a swift recovery in the Singapore office sector.

1. Logistics

Structural trends supporting opportunities in logistics — particularly relating to grocery supply chains — are being accelerated by COVID-19.

The structural rise of logistics is well established. In the past decade, the modern logistics sector has benefited from the rapid expansion of e-commerce. Rising capital inflows to the sector and a growing share of overall volume have driven sharp yield compression relative to other sectors such as office (exhibit AP3).

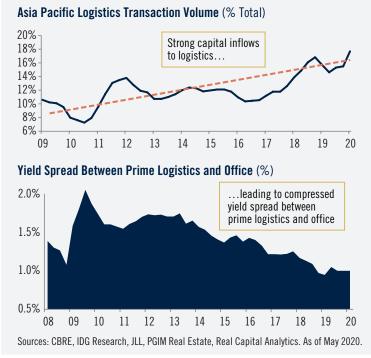


Exhibit AP3: Logistics Investment Market and Online Grocery Share

Online Grocery: Growth Forecasts and Market Share

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40%
                                         Growth forecasts in most
35%
                                         developed markets were
                  China
                                         >15% p.a., even before
30%
                                         the pandemic
             Singapore
25%
                                                       South Korea
20%
        Hong Kong
15%
                Australia
10%
                                   Taiwan
        The COVID-19 pandemic
                                                           lanan
 5%
        will accelerate the growth
        of online grocery sales
 0%
                 2%
                              4%
                                                        8%
                                                                     10%
    0%
                                           6%
                      Estimated Market Share of Online Grocery in 2019 (%)
```

Note: The forecast of online grocery growth was made before the COVID-19 pandemic.

Bubble size represents the estimated e-grocery market share in 2023.

Online Grocery Sales Growth 2019-2023 (% p.a.)

In contrast to other real estate sectors, which are set to be negatively affected by COVID-19, the logistics sector — or, more precisely, the logistics segment serving e-commerce — stands to benefit from an accelerated shift to online retail, especially if restrictive policy measures remain in place for some time. The longer such measures — which hamper access to physical retail stores — are kept in place, the more likely that the temporary jump in online retail penetration becomes permanent.

An example is the surge in online grocery sales as consumers seek to minimize social contact. Even before the pandemic, online grocery sales had been forecast to rise by approximately 15% per year in developed Asian markets over the next five years. If anything, these forecasts are likely to see upward revisions, meaning that demand for logistics space serving food and grocery online retailers, including cold-storage facilities, is set to be boosted across major markets.

While such an accelerated shift looks attractive, there are certain nuances that investors should consider — particularly in a time of heightened market uncertainty. First, logistics assets are no longer cheap, as reflected in the compressed spreads between logistics and office yields.

Second, despite the structural rise in demand, logistics rental growth remains generally subdued and often inconsistent, diverging significantly across markets and submarkets. This means that it could be easy for investors to overestimate the structural value that exposure to the sector provides. Selecting the right assets and markets remains critical to making successful investments in the logistics sector.

A deeper look into the operational side of the sector provides some additional insights. Occupiers of logistics warehouses — mostly businesses in the low-margin logistics and transportation industry — are highly cost sensitive, particularly to fixed outgoings such as rents. Warehouse tenants are therefore often resistant to upward rental pressures and actively consider trade-offs between cheaper rents and better locations, where delivery time and transportation costs are lower but typically come at higher rental costs.

Established logistics clusters where rental and transportation costs are more balanced will likely outperform emerging locations. A new asset in a secondary location might face a significant challenge to secure tenants and maintain occupancy despite offering cheaper rents. Investors seeking access to the sector via greenfield developments — often in outer locations — must consider this trade-off carefully.

With the pandemic reinforcing structural demand in the logistics sector, investors should take advantage of market dislocations and price corrections that arise — particularly in typically competitive markets such as Sydney, Tokyo and Shanghai. However, a disciplined selection of asset and submarket remains a priority.

2. Japan: Residential to Offer Resilience

The Japanese residential sector offers stable cash flow in an uncertain environment and benefits from a favorable supply-demand outlook.

Unlike other parts of the Asia Pacific region, the Japanese economy was already slowing toward the end of 2019. The postponement of Tokyo's 2020 Olympics, due to the pandemic, adds to the prospect of a sharp economic recession in 2020.

While market uncertainty is weighing on the retail and hospitality sectors and a large supply pipeline threatens the office outlook, the Japanese residential market is arguably one of the most resilient sectors in the region in the near term. With occupancy remaining above 95% for most of the past decade, rental income in the residential sector has been much more stable than in the office sector, for example. Since 2000, residential assets in Tokyo's central wards have recorded an average rental growth of 1.5% per annum with a volatility estimated at 2.9% (exhibit AP4).

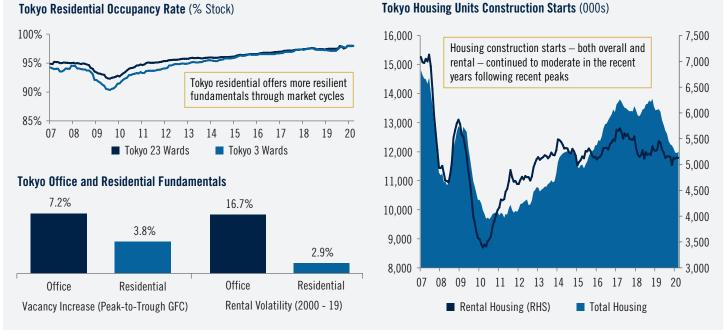


Exhibit AP4: Tokyo Residential Sector Fundamentals

Sources: Association for Real Estate Securitization; JLL; Ministry of Land, Infrastructure, Transport and Tourism of Japan; PGIM Real Estate. As of May 2020.

Part of this resilience is attributable to the fundamental structure of the economy. Population growth in Tokyo continues to be strong despite weak demographic trends nationwide. This has been driven by domestic migration as students and working-age citizens flock to major cities for education and employment opportunities. This trend is set to persist and to continue to drive demand in the sector.

The apartment outlook also remains favorable, as housing construction starts in Tokyo have fallen to multi-year lows. At the same time, the postponed Olympics is set to lower the near-term supply pipeline, as sales of residential units within the athletes villages are delayed.

Amid rising economic headwinds, the Japanese residential sector will likely remain attractive to both domestic and international investors, particularly those seeking defensive, cash-yielding real estate returns.

3. Australia: Defensive Debt, Cyclical Office

Near-term uncertainty points toward debt opportunities as a source of defensive cash flow, while office markets are eventually set to record a strong recovery.

Coming on the heels of disruptive bushfires in late 2019, the pandemic has aggravated the Australian economy at its weakest time. Australia is facing its first recession in almost three decades, bringing its real estate market cycle — which has had a strong run since the global financial crisis — to an end.

In an uncertain environment, debt investments offer a relatively defensive returns profile, and the real estate debt investment market is more established in Australia than other parts of the Asia Pacific region. 14%

12%

10%

8%

6%

4%

2%

0%

-2%

-4%

-6%

07 08 09 10 11 12 13 14 15 16 17 18 19 20

Facing tighter lending regulations since the global financial crisis, commercial banks in Australia have gradually withdrawn from real estate lending, focusing their capacity on lowrisk and stabilized commercial real estate assets (exhibit AP5). This creates opportunities for institutional private lenders to fill the void in financing higher risk real estate investment such as development projects.

Exhibit AP5: Australia Real Estate Fundamentals

Commercial Real Estate Loans

Commercial Real Estate Loan Growth - Bank Lenders (% p.a.)

After a strong upswing, a correction in 000s sam Sydney and Melbourne offices will offer 200 10% countercyclical opportunities 8% 150 6% 100 4% 50 2% 0 0% -2% -50 -4% -100 -6% -150 -8% -200 -10% 00 08 02 04 06 10 12 14 16 18 20 Net Absorption Quarterly Rental Growth (RHS)

Sydney and Melbourne CBD Office Absorption and Rental Growth



Muted bank loan growth, particularly for

opportunities for private lenders

development projects, continues to provide

Sources: Australian Prudential Regulation Authority, JLL, Oxford Economics, PGIM Real Estate. As of May 2020.

In the current market downturn, demand for private debt is set to increase because borrowers may need to seek alternative financing sources given growing pressure on traditional bank lenders. Tapping into this increased borrowing demand will allow investors to continue to deploy capital during the downturn without taking on the level of risk associated with equity investments.

Development Loans

As a cyclical economy, Australia is also likely to create some recovery-driven opportunities. Among major sectors, office is likely to experience a sharp correction in the near term especially as momentum had already turned by the end of 2019. Having enjoyed one of the strongest upswing cycles in recent years, effective office rents in Sydney and Melbourne CBDs are almost 50% higher than their pre-global financial crisis peak, putting them at high risk of rental and capital value correction as the market cycle turns.

While the short-term impact of COVID-19 is set to weaken demand across all markets, office demand in Sydney and Melbourne will likely resume as the economy rebounds after the downturn. With a trend growth of around 2.5 to 3.0% per annum, the Australian economy is among the fastest-growing economies in the developed world. The strong economic fundamentals underpin favorable rental growth prospects for the Sydney and Melbourne markets in the longer term.

4. China: Focus on Tier 1 Markets

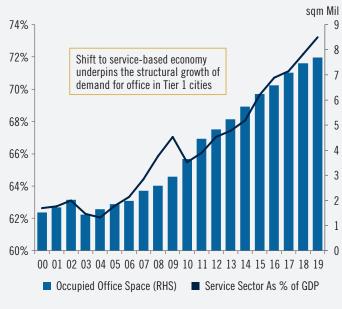
Tier 1 cities continue to exhibit a shift toward services, driving ongoing demand for office space. The prospect of a value correction points toward an attractive entry point.

As the first country to be impacted by the COVID-19 outbreak, China and its economy were hit hard by lockdowns in major cities, reporting a quarterly contraction of 6.8% in the first quarter. Since March, when China started lifting lockdowns and relaxing domestic travel restrictions, the economy has gradually resumed activity, although a return to previous norms remains a distance away.

While the short-term economic growth outlook is deteriorating, China remains an important driver of global growth and an attractive proposition for investors. The main concern for the Chinese economy over the long term is the impact of a shifting global supply chain — an effect exacerbated by the pandemic. As one of the biggest beneficiaries of international trade in the past few decades, China is now facing significant challenges as global manufacturers diversify their production and supply chains away from the mainland.

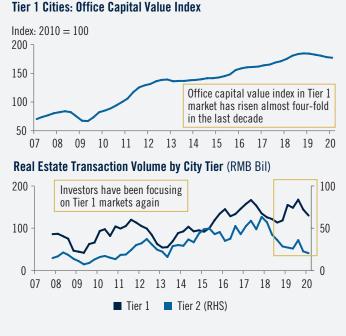
The overall economy will be impacted, but the effects are set be more significant in cities that rely on manufacturing and exports. Most of these are Tier 2 cities or lower. Benefiting from the country's rebalancing shift toward services and domestic consumption in the past decade, the economies of Tier 1 cities such as Beijing, Shanghai, Shenzhen and Guangzhou have shifted to a much greater service sector weighting (exhibit AP6).

Exhibit AP6: Office Performance and Transaction Volume in Tier 1 Cities



Tier 1 Cities: Service Sector Growth and Occupied Office Space





Source: JLL, Oxford Economics, Real Capital Analytics, PGIM Real Estate. As of May 2020.

Reflecting a rising service sector share, demand for premium office space in Tier 1 markets such as Beijing and Shanghai has risen twofold in the past 10 years. Capital inflows have also shifted to focus more on Tier 1 markets in recent years, while investment activity in Tier 2 markets has declined by two-thirds from its peak.

In Tier 1 cities, the office sector is set to offer selective opportunities based on the balance of supply and demand, which is currently favoring Beijing over Shanghai. Softening investment sentiment — and the prospect of a value correction in the near term — point toward an attractive entry point.

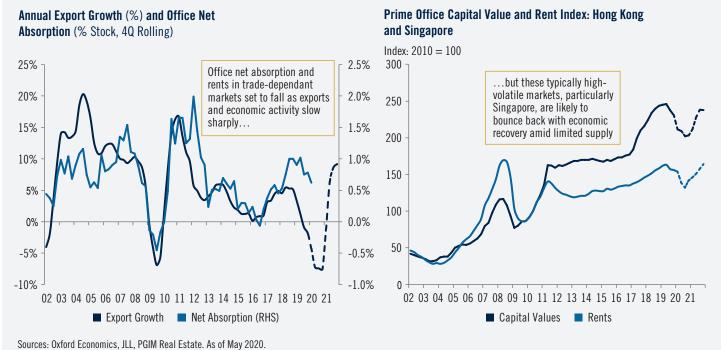
5. Upswing in Trade-Dependent Economies

Hong Kong, Singapore and South Korea are volatile markets that are already recording value declines but are well-placed for a strong cyclical recovery.

The trade-dependent economies of Hong Kong, Singapore and South Korea have a heavy reliance on exports, which means they are relatively sensitive to global economic conditions. As such, the prospect of a global demand slump linked to COVID-19 points toward these economies facing a deep recession.

Real estate performance is similarly linked to trade conditions. Office absorption in Singapore and Hong Kong shows a very high correlation with export growth over time (exhibit AP7). If this past relationship holds, there will be significant pressure on office demand in these city-states until global economic growth stabilizes.

Exhibit AP7: Exports, Office Absorption, Rental and Capital Value Growth



In the office sector, rents and capital values are already declining. The impact is most pronounced in Hong Kong, where demand was already easing as a result of social unrest at the end of last year, while Singapore's office cycle saw rental growth momentum decline for the first time since early 2017.

While the volatility inherent in these markets points to a sharp decline during a downturn, it is typically followed by a significant upswing in a recovery. During the global financial crisis, prime office rents in Singapore and Hong Kong grew by almost 40% in the first 12 months after reaching a trough. The increase in capital value momentum was even more striking as yields compressed in anticipation of a swift rental recovery.

Among these markets, Singapore looks best-placed to enjoy a strong cyclical recovery, as Hong Kong remains hampered by political concerns. Uncertainty around the sustainability of demand for flexible office space — a key driver of leasing activity in all three markets in recent years — is set to weigh on recovery momentum.



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