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Asia Pacific

EMERGING TRENDS IN REAL ESTATE®



Emerging Trends in Real Estate® Asia Pacific 2023

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Emerging Trends in Real Estate®

Asia Pacific 2023

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Executive Summary

Although 2022 saw most Asia Pacific markets—with the exception of China—begin to shake off the effects of regional COVID restrictions, as investors look to 2023 they find themselves confronted with a different, but no less dangerous, set of threats: high inflation, rising interest rates, unsustainable levels of public- and private-sector debt, and an impending global recession.

This stagflationary combination creates an environment for which there is no modern-day playbook, and led many real estate investors in the second half of 2022 to step away from the market and wait for events to play out. As a result, third-quarter Asia Pacific transactions fell 38 percent year-on-year to a 10-year low, according to analysts MSCI.

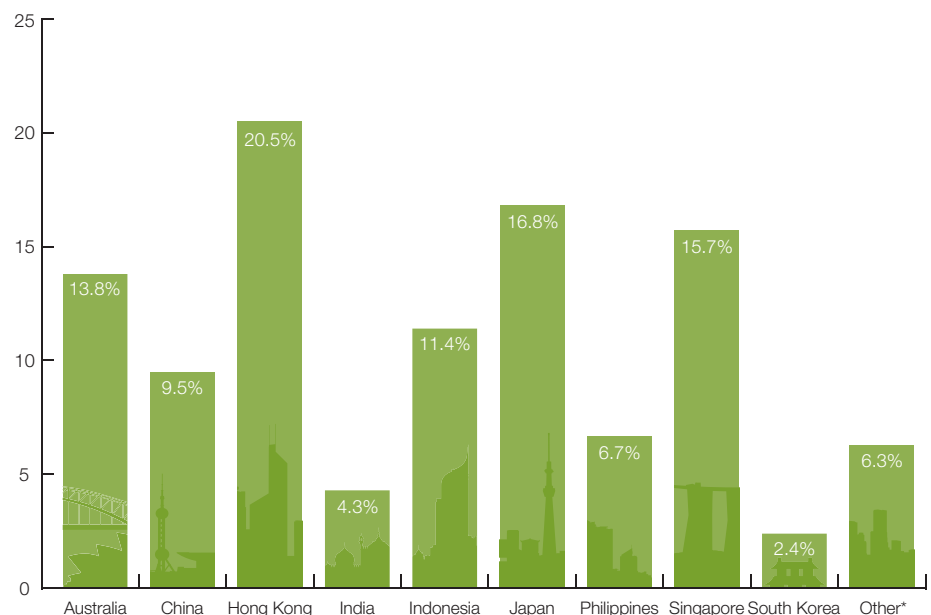
In the end, though, investors will have to adapt to a new market reality that brings with it a number of fundamental changes:

- **Cap rates will move out.** Years of cheap and easy liquidity have had a predictable effect on real estate, causing asset prices to soar and yields to compress. But as rising interest rates now begin to revert to mean, property yields must rise with them in order to maintain a spread over the cost of debt. This process has so far been slow to occur in Asia Pacific

markets, although both Australia and South Korea are beginning to see a degree of cap rate expansion. In the end, though, many interviewees expect regional cap rates will rise an average of 100 to 150 basis points in 2023. One exception may be Japan, which is expected to maintain its ultra-low interest rate environment—Japanese cap rates should therefore remain relatively stable, making Tokyo a magnet for foreign investment funds.

- **Investors seek defensive havens.** Investors have begun realigning strategies in favour of more defensive property types, focusing in particular on features such as rent indexation, shorter lease terms that can be revised upwards more easily, and reliable recurrent income. The “bed space”—including subtypes such as multifamily, hotels, senior living, and student housing—is one such sector. Logistics, where structural undersupply will continue to underpin demand, and where rent typically is a relatively smaller part of the overall cost of business, is another. Specialist asset classes such as data centres, cold storage, and life sciences, meanwhile, have “sticky” qualities as well as long index-linked leases and generally high rents.

Survey Responses by Country/Territory



Source: *Emerging Trends in Real Estate Asia Pacific 2023* survey.

*Includes Cambodia, Malaysia, Myanmar, Nepal, New Zealand, Taiwan, Thailand, the United States and Vietnam.

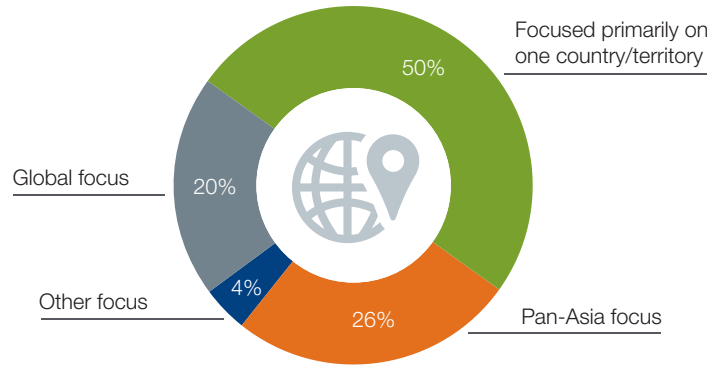
- **Rising risk hits development projects.** Build-to-core strategies became popular in recent years as a way to manufacture new product in an environment with an overall shortage of high-quality building stock. But with construction costs and interest rates rising and a weak outlook for occupier demand, many new projects have been put on hold.

- **Mainstream assets become less popular.** Offices have always been the biggest recipients of regional investment capital, but questions over occupier demand, especially as remote-working practices continue, have eroded their popularity. Demand continues to be strong, however, for modern, high-quality buildings that are in demand by occupiers looking to lure staff back to the office. Investors are also rotating out of the retail sector and into new-economy themes such as logistics, although retail yields and values have related to such an extent that a growing number of investors are looking at prime, well-located retail assets as contrarian plays.

As years of COVID restrictions continued to undermine cash flows, many real estate investors had anticipated a surge in distress sales from insolvent businesses. So far, however, surprisingly little distress has surfaced, and with economies now normalising, investor expectations have moderated. That said, some markets and asset classes have many assets in need of refinancing or repositioning. Hotels—especially in Japan—offer good scope, even as regional travel picks up. In addition, the longtime liquidity squeeze affecting Chinese developers has led to widespread stress and distress in the local market, although bid/ask spreads remain too wide to lure many foreign buyers. South Korea, meanwhile, is another prospective venue for distress, with fast-rising interest rates and high construction costs trapping some recent buyers in uneconomic deals.

Achieving net zero carbon status has become an essential part of many regional investment strategies. The theme

What is the geographic focus of your business's activities?



Source: *Emerging Trends in Real Estate Asia Pacific 2023 survey.*

is driven partly by governments' adoption of Paris Accord targets, partly by demands of incoming tenants, and partly by the realisation that owners may be left with stranded assets should buildings fail to meet investor mandates, either now or in the future. As a result, compliance with international reporting standards, in particular the European Union's 2021 Sustainable Finance Disclosure Regulation (SFDR), is increasingly important.

Still, on a regional basis, real estate carbon efficiency standards remain low. Markets like Australia and Singapore lead the pack by a wide margin. Otherwise, compliance tends to be the domain of international funds buying at the top end of the market, with relatively little attention devoted to retrofitting Asia's large number of older, carbon-intensive buildings. However, the concept has recently begun to gain traction in some jurisdictions, in particular Japan and China. Compliance will continue to accelerate as 2030 deadlines approach.

In terms of this year's relatively weak capital flows, gateway cities once again stand out, with large global funds continuing to place capital proactively, and less activity seen from domestic buyers. Overseas investment rose by double-digit figures in Singapore, which has received capital that in other years might have been directed to China and Hong Kong, and also in Japan.

Singapore and Tokyo therefore placed first and second, respectively, in this year's investment prospect rankings. Southeast Asian emerging markets such as Indonesia, the Philippines, and (especially) Vietnam also migrated upwards, as investors chase high rates of economic growth, emerging consumer classes, and (for Vietnam) ongoing flows of foreign direct investment into new manufacturing facilities.

Cheap and easy debt helped deliver some 14 years of outperformance for real estate investors, but as interest rates normalise globally, bank lending is now pricier, harder to get, and subject to more restrictive terms. In practice, though, debt availability varies widely according to market. In China, interest rates are falling and access to debt is more accommodative as the government eases monetary policy. In Japan, government determination to hold down bond yields means that bank finance remains available at sub-1 percent. But borrowing costs in other markets (around 4 percent in Australia) are today significantly higher as interest rates follow the trajectory of Western markets. While loans are still widely available for creditworthy borrowers, terms and tenures are tighter, creating a catalyst for development of regional nonbank lending markets.

Individual asset classes, meanwhile, are still in the process of often profound change.

Office: Over the long term, offices will continue to be the go-to asset class, although their star has dimmed for the time being as investors come to grips with the dynamics of new-normal demand—how much space is needed, where should it be located (CBD or suburbs?), and what types of fitout are required by occupiers in the evolving universe of hybrid workspaces?

Logistics: Ongoing structural shortages of logistics space across the Asia Pacific show no sign of ending, especially as online retailing continues to grow exponentially. But rapid cap rate compression seen in recent years has left many investors wondering if the industry has come too far too fast, especially with interest rates rising to a point where margins are now almost nonexistent. Still, with new capacity backlogged, demand for space will continue to be relentless,

while strong rental growth should soon reestablish yield spreads without undermining capital values.

Retail: Transaction volumes dropped off in 2022, reflecting diminishing interest among mainstream investors for conventional retail assets, although nondiscretionary subtypes continue to find favour. Over the long term, however, well-performing assets in good locations will continue to be successful, and margins should begin to improve once landlords and tenants are able to find a successful formula to reimagine assets in ways that work to their mutual benefit.

Residential: Multifamily build-to-rent development has mushroomed in Asia Pacific markets recently as global institutional investors target the sector for its long-term, reliable income streams and short-term rentals that

can be easily reset to accommodate inflationary pressures. Japan has long been the only institutionalised market in the region, but foreign investors are now also looking to Australia and China to host new multifamily markets. Doubts persist in some quarters, however, due to questionable demand and aggressive underwriting that has created ultra-compressed cap rates—a strategy that could backfire if rising interest rates continue to erode margins.

Hotels: Rebounding travel markets are finally offering relief to the long-suffering hospitality sector, although Asia Pacific tourist arrivals still lag significantly behind those in Western markets. While cash flows are now rebounding, however, debt levels remain high, and many regional hotel assets are still likely to trade at discounted levels. Investors are targeting Japan as a likely market for deals in 2023.

Notice to Readers

Emerging Trends in Real Estate® Asia Pacific is a trends and forecast publication now in its 17th edition, and is one of the most highly regarded and widely read forecast reports in the real estate industry. *Emerging Trends in Real Estate® Asia Pacific 2023*, undertaken jointly by PwC and the Urban Land Institute, provides an outlook on real estate investment and development trends, real estate finance and capital markets, property sectors, metropolitan areas, and other real estate issues throughout the Asia Pacific region.

Please note that in the text “China” refers to “Mainland China,” and “Hong Kong” refers to “Hong Kong SAR”.

Emerging Trends in Real Estate® Asia Pacific 2023 reflects the views of individuals who completed surveys or were interviewed as a part of the research process for this report. The views expressed herein, including all comments appearing in quotes, are obtained exclusively from these surveys and interviews and do not express the opinions of either PwC or ULI. Interviewees and survey participants represent a wide range of industry experts, including investors, fund managers, developers, property companies, lenders, brokers, advisers, and consultants. ULI and PwC researchers personally interviewed 101 individuals and survey responses were received from 233 individuals, whose company affiliations are broken down below.

Private property owner or developer	24%
Real estate services firm (e.g., consulting, financial, legal, or property advisory)	27%
Fund/investment manager	25%
Homebuilder or residential developer	8 %
Institutional equity investor	8 %
Bank lender or securitised lender	1 %
Other entities	8 %

Throughout the publication, the views of interviewees and/or survey respondents have been presented as direct quotations from the participant without attribution to any particular participant. A list of the interview participants in this year’s study who chose to be identified appears at the end of this report, but it should be noted that all interviewees are given the option to remain anonymous regarding their participation. In several cases, quotes contained herein were obtained from interviewees who are not listed. Readers are cautioned not to attempt to attribute any quote to a specific individual or company.

To all who helped, the Urban Land Institute and PwC extend sincere thanks for sharing valuable time and expertise. Without the involvement of these many individuals, this report would not have been possible.

Chapter 1: Uncharted Waters

“It is these confusing times, when there’s no consensus in terms of how to make money, when one can make the best investments.”

Almost three years since the appearance of COVID-19, the winding down of lockdowns and other restrictions across most of the Asia Pacific has at last restored some semblance of normality to the region. But as one storm has faded, another has arrived. Markets awash in liquidity engineered from 14 years of central bank easing are now left to deal with the economic consequences—rapidly rising inflation, elevated asset prices, and a looming wall of unpaid debt.

The problem, of course, is not simply that higher interest rates lead to a higher cost of capital. In addition,

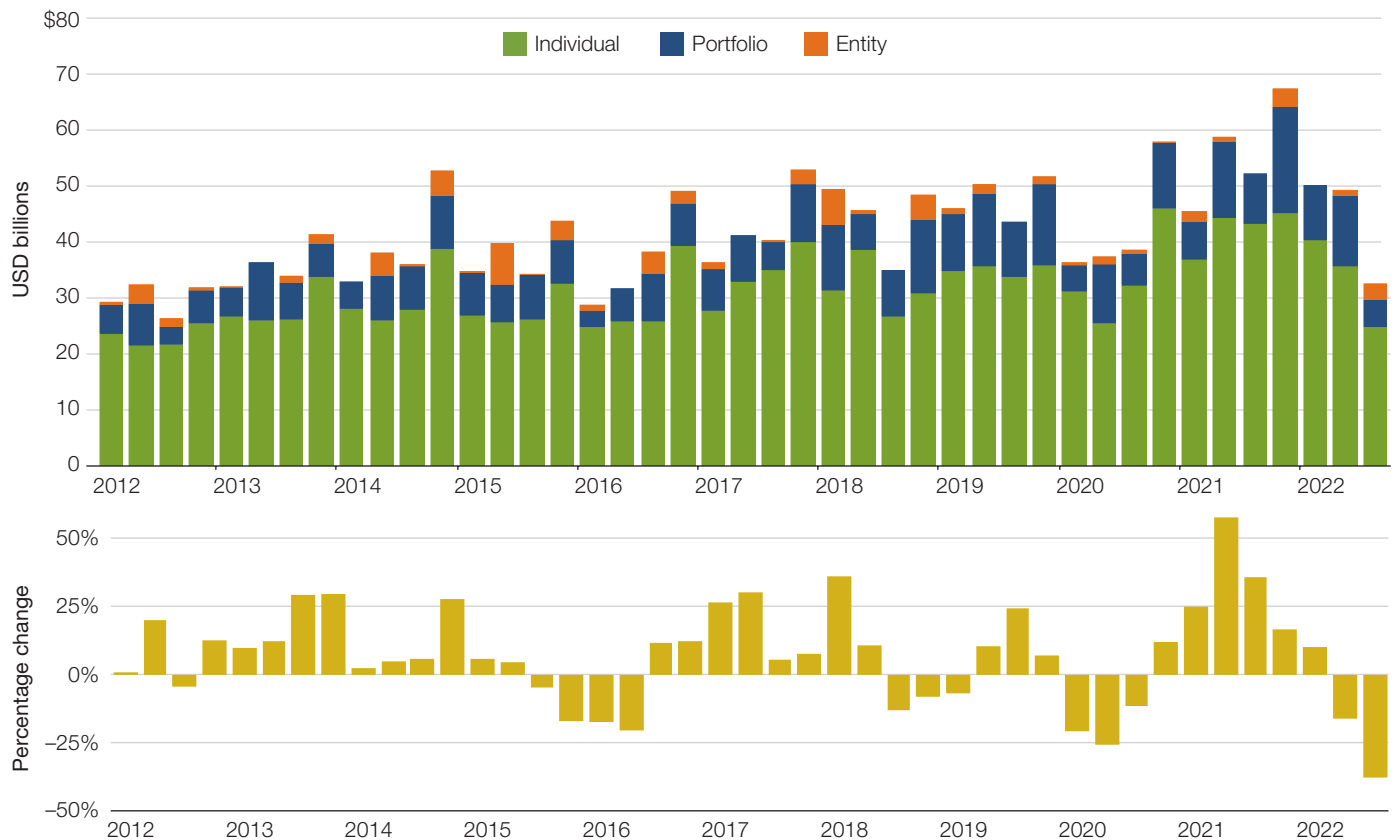
quick-fire hikes initiated by the Federal Reserve are bringing with them a host of unintended consequences that in turn have roiled the world’s stock, bond, and currency markets. The nosedive in the Japanese yen, a blowout in European credit yields, and an abrupt escalation of U.S. mortgage rates from 3 percent to 7 percent—these are just a few byproducts of reflexive hiking into an overhang of global debt that has grown to more than three times the size of the global economy.

The scope of the resulting dislocation to financial markets speaks to a profound level of systemic stress, as well as to a

fear that something, somewhere within the depths of the global economy is about to break as a result. This sense of impending peril is amplified by the fact that regional economies have so far remained relatively sheltered from exposure to the high inflation and energy shortages seen recently in the West. What it means, though, for real estate assets in particular, is not easy to project—investors can see that risks are now higher, but have little clarity as to what they are.

For now, though, investor reaction to the accelerating volatility has been to down tools, wait for the dust to settle,

Exhibit 1-1 Asia Real Estate Transaction Volumes by Source of Capital, and Year-on-Year Percentage Change



Source: MSCI Real Capital Analytics.

Note: Apartment, hotel, industrial, office, retail, and senior housing transactions included. Entity-level deals included. Development sites excluded.

and assess as best they can how market dynamics are changing. According to one Australia-based fund manager: “There is a great pause—no one is taking significant action, no one is leaving the market, no one is desperate to sell or desperate to buy. Everything has just slowed down while everyone tries to work it all out.”

Transactions Fall

This plunge in activity is apparent in regional transaction volumes, with third-quarter purchasing falling a remarkable 38 percent year-on-year to US\$32.6 billion, according to analysts MSCI—the lowest third-quarter total in the Asia Pacific for a decade. Both deal count and buyer numbers also fell significantly, and with the value of terminated deals during the quarter totaling almost 20 percent of completed transactions, the current supply pipeline offers little hope of an early turnaround.

The biggest decline (23 percent year-on-year) was in China, where COVID restrictions and an ongoing liquidity squeeze have led to a risk-off mentality and a sharp drop in volume. Japan, where interest rates remain ultra low, was one of the few markets where activity has remained relatively resilient, although the sharp decline in the yen has amplified the decline in U.S. dollar terms. Singapore, meanwhile, was the sole major market to buck the downward trend, with investment volumes soaring 47 percent year-on-year to US\$9.1 billion.

In terms of investor sentiment, survey results suggest a relatively positive mind-set. Although projected profitability is down from last year’s level, it remains higher than in both 2021, during the depths of the pandemic, and 2009, during the Global Financial Crisis. This on-the-fence mentality probably reflects the fact that the cost-of-living crisis now unfolding in Western markets has yet to be felt to any degree in the Asia Pacific. It may also indicate a sense of uncertainty—if not complacency—as to whether the strong institutional demand for regional assets seen for at least the

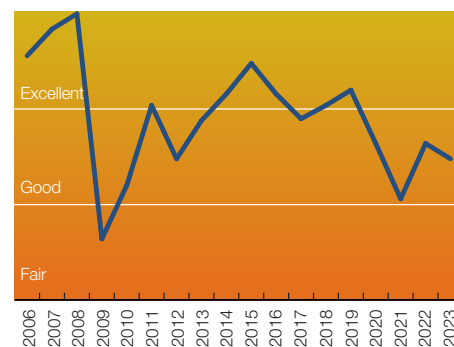
last eight years will continue to prop up the market going forward.

In the words of a fund manager in Shanghai: “Risk is commensurate with uncertainty, and we’re now operating in a world of greater uncertainty, where your distribution of expected outcomes is much wider. That drives you to think more cautiously around your underwriting and have more of a buffer, which at the moment means we’ve shifted that point of caution a little further down the spectrum.”

As for which issues investors consider most problematic (see exhibit 1-3), the number-one answer—predictably—was interest rates, which are making deal financing increasingly difficult at current pricing levels. The fact that the same issue ranked only third from bottom in last year’s survey illustrates

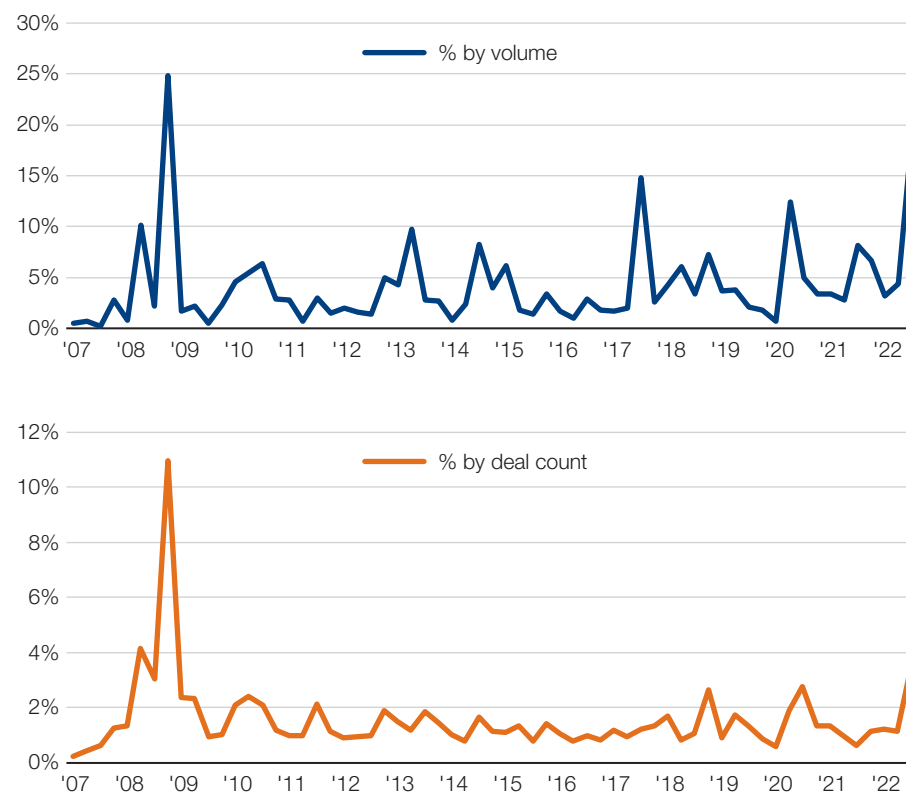
not only how quickly rate hike concerns have escalated, but perhaps more importantly how their ascent has blindsided the market. Given this, more than a few investors are now revisiting

Exhibit 1-2 **Real Estate Firm Profitability Trends**



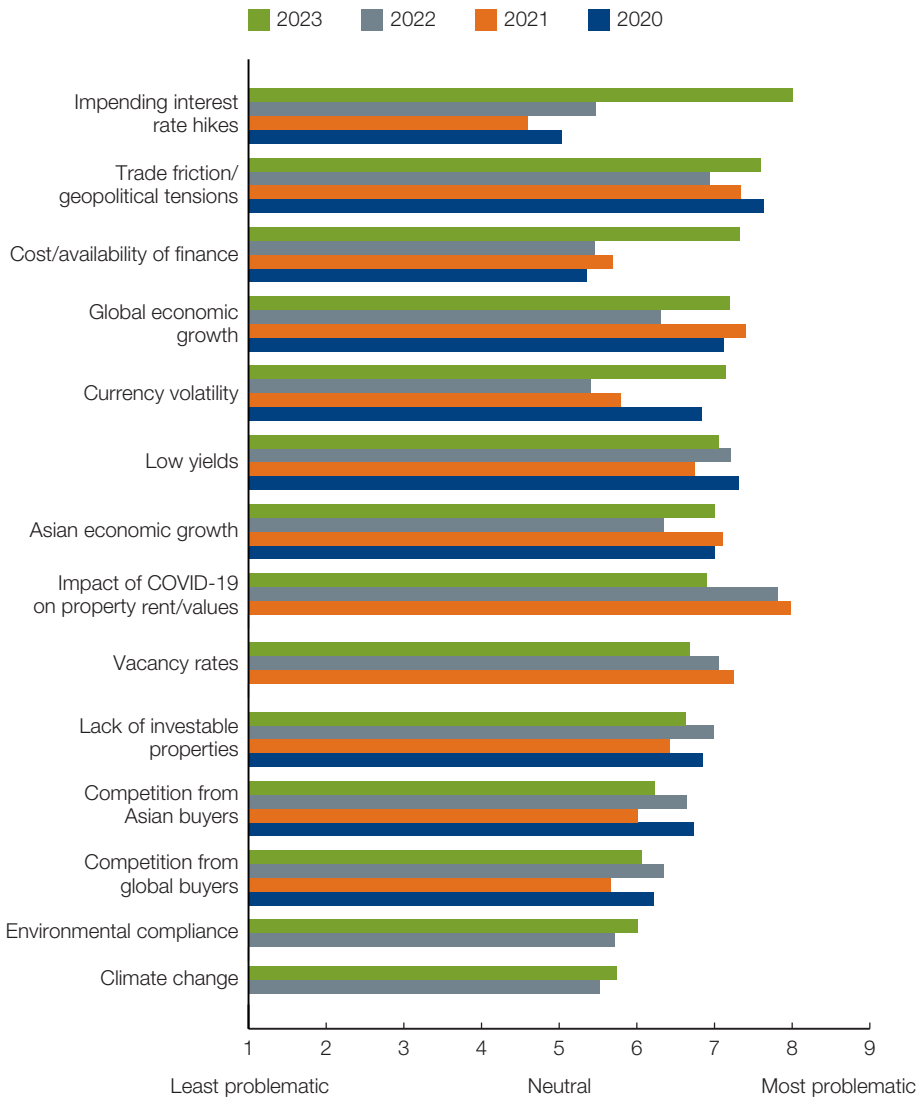
Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 1-3 **Terminated Deals by Percentage of Total Volume and Deal Count**



Source: MSCI Real Capital Analytics.

Exhibit 1-4 Most Problematic Issues for Real Estate Investors



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

deal underwriting to see if numbers still add up in a fast-changing investment landscape.

Cap Rates in Limbo

After more than a decade of strong liquidity and ultra-low interest rates, cap rates in the Asia Pacific have compressed to levels more commonly found in markets in the West. But with base rates around the globe now rising

sharply, yields for many recently closed Asia Pacific deals have fallen to a point where they are below the cost of capital. Logically, then, cap rates must move out if buyers are to maintain a meaningful spread over the cost of debt.

That expansion is already well underway in the United States and Europe. However, in the Asia Pacific, cap rates have so far moved only slightly in some markets and asset classes:

Exhibit 1-5 Asia Pacific Grade A Office Indicative Cap Rates

	Mar 22	Sep 22
1 Sydney	4.00–5.00	4.50–5.75
2 Melbourne	4.00–5.00	4.50–5.75
3 Auckland	4.50–6.00	5.00–6.25
4 Beijing	3.50–4.75	3.75–4.75
5 Shanghai	3.50–4.75	3.75–5.00
6 Guangzhou	4.00–5.00	4.00–5.25
7 Shenzhen	4.00–5.00	4.00–5.25
8 Hong Kong	2.30–3.50	2.30–4.00
9 Taipei	2.00–2.60	2.00–2.70
10 Tokyo	2.50–3.50	2.50–3.50
11 Osaka	3.20–4.00	3.20–4.00
12 Seoul	3.20–4.00	3.50–4.50
13 Singapore	3.10–3.50	3.10–3.75
14 Gurgaon	6.50–8.00	6.50–8.00
15 Mumbai	8.00–8.50	8.00–8.50
16 Bangalore	7.50–8.50	8.00–8.50

Source: CBRE Research.
Note: Survey conducted September 26 to October 12.

- In **Australia**, interest rates rose rapidly during 2022, with the cash rate at the Reserve Bank of Australia (RBA) reaching 2.85 percent in November, the highest in more than nine years. Against this backdrop, investor sentiment has shifted perceptibly downwards, but cap rate movements have been slow to follow suit (see exhibit 1-5), especially given poor price discovery amid a slump in transactions. According to one fund manager: “We expected cap rates to move, but we haven’t seen it [yet]. There’ve been a few transactions at the core end of the market, particularly in Melbourne, but they haven’t reflected too much repricing, which you would have expected. So, we haven’t been underwriting a lot of office deals—we’ve put that into the too-hard basket for the moment.”
- In **China**, a closed capital account means there is no direct linkage to base rates elsewhere in the world, and the government anyway never deployed quantitative easing as a response to COVID in the same way as in the West.

As a result, authorities now have room to stimulate China's struggling economy by cutting rates, and with weak demand also suppressing inflation, the pressure on cap rates is if anything more downward than upward. Nonetheless, asset yields have still moved out, largely due to declining occupancy caused by the combined impact of an office supply glut and the ongoing economic slowdown. One investor commented: "Office yields haven't quite [moved out] to levels investors were expecting. You are getting positive spreads, but then how firm are the rents? And with further downward pressure [on the economy], it's going to be a while longer before people want to step in for long-term income purposes."

In addition, prices of the increasing numbers of stressed or distressed assets in China have yet to meet foreign investor expectations, although there are signs this may be changing.

- In **Japan**, meanwhile, authorities remain solidly in easing territory, with little sign of a change in conviction. Cap rates in Tokyo are therefore firm and in some instances have even continued to compress.

These three market snapshots show not only that base rate and cap rate dynamics vary widely by location, but also that asset owners are as yet in no hurry to accept writedowns, leaving buyers and sellers at something of an impasse.

There are various reasons for this, apart from those already identified. First, investors are sitting pat as they digest what current events mean for pricing. Second, the weight of unallocated institutional capital looking for a home in Asia Pacific markets reinforces the impression that a seller's market is still in place.

Finally, many owners whose underwriting is based on unrealistically low exit cap rate or rental growth assumptions are reluctant to take losses. Recent low cap

rate deals involving Australian logistics and Tokyo multifamily assets were cited by interviewees as examples. In particular, investors who ramped up their leverage to boost returns on tightly priced deals may be facing problems, especially if assumed rental increases fail to materialise.

Another issue was identified by a fund manager in Japan: "A number of larger investors come from countries that are raising interest rates," he said, "and so at a certain point there will be a disconnect between a levered-risk play [in Asia] and what you could do unlevered, risk-free, in your own currency. I think that point may be approaching, as central banks raise interest rates by three-quarters and full percentage points. But it hasn't hit yet."

How long the current period of inactivity will last is hard to predict. According to one Australia-based investor: "I'm hoping that after Christmas there might be a different sentiment, though it may not happen that quickly. There needs to be more certainty before sentiment comes back. Inflation needs to go down, unemployment to go up, property prices to come down, and banks starting to say, 'OK, we're prepared to lend on that opportunity.'"

Interviewees identified Australia and South Korea, which saw the highest levels of cap rate compression regionally in recent years, and are now also seeing significant interest rate hikes, as the markets most exposed to the inevitable round of cap rate decompression.

Defensive Havens

With the writing now on the wall, investors are beginning to realign strategies in favour of defensive properties more resilient to the unusual combination of rising inflation, higher interest rates, and an oncoming global recession.

What that means in practice is a migration towards assets with a particular combination of features. These include rent indexation, shorter lease terms (i.e., so that rents can be easily revised

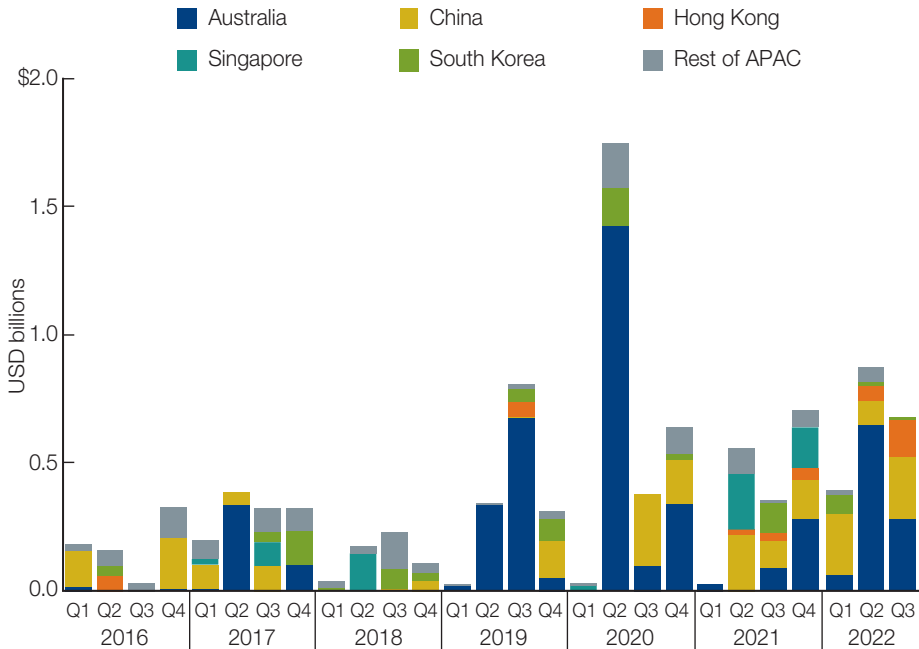
upwards), and reliable recurrent income. There is also a preference for asset classes where rent typically forms a relatively smaller part of the overall cost of business.

The "bed space" is one such group. It includes the following subtypes:

- **Multifamily.** Although multifamily cap rates in the Asia Pacific are often uncomfortably low, build-to-rent projects offer a diversified occupier base (thereby lowering risk from tenant nonrenewal), together with short lease terms (i.e., two to three years) that allow scope for regular rent increases. They are also likely to be increasingly popular among occupiers priced out of home purchases as interest rates rise. Japan has historically been the only major multifamily market in the Asia Pacific, but this is changing as investors rotate to untapped alternatives, in particular Australia and China (see exhibit 1-5). According to a developer in Singapore: "I think [multifamily] cap rates will expand, but not as much as in retail or office. Firstly, that's because there's demand but not much supply. But it also gives you a hedge against inflation, and when people are looking to invest in an asset class that's an inflation hedge, the living asset class is the one that stands out."
- **Hotels.** Hotel rooms have the shortest leases of all (i.e., they operate on a "daily rental" basis), which again makes them suited to inflation-driven price hikes. Investors are currently focused on facilities in the two- and three-star range rather than those at the upper end of the market, which may be subject to inflationary pressure on high input costs, as well as from the uncertain future of the business travel market.

In addition, the hotel sector is beginning to see a critical mass of stressed facilities finally come to market. According to one fund manager, "I think people are looking at hotels and seeing a lot of owners

Exhibit 1-6 Multifamily Investment Volumes for APAC Markets, Excluding Japan



Source: MSCI Real Capital Analytics.

and operators who have had a phenomenally tough time and that are just tapped out. They can't just keep bleeding so they get rid of the asset, and we're now seeing quite good assets quietly for sale." Japan was consistently earmarked as a probable venue for such deals.

Also, as tourism returns, demand for rooms is beginning to rise sharply, just as many stressed or distressed hotels look to the market for capital. Some investors are now looking at conversion plays, turning underperforming hotels into residential facilities.

- **Senior living.** Although Japan has historically been the only true institutionalised market for senior living in the Asia Pacific, investments in Australia have recently gained momentum, making it today the biggest regional player in the senior living space, according to MSCI. The US\$2 billion worth of Asia Pacific deals struck during the first nine months of 2022, including in markets as diverse as New Zealand, China, Hong Kong,

Singapore, and South Korea, is the highest ever seen in the first nine months of a year, suggesting that a sector long regarded as too difficult may finally be gaining traction. In part, this is a reflection of new operating models. Land lease communities—where homeowners own the home but rent the land from the community operator—are becoming increasingly popular in Australia, while an evolving model emerging in Southeast Asia is combining early-retirement facilities with a medical care component, providing both operational revenues and long-term leaseholds on the real estate side.

- **Student housing.** With university enrollment relatively resilient to economic cycles, and students something of a captive audience, student housing is seen as another safe-haven asset class. At this point, Australia remains the only institutionalised market in the Asia Pacific. Although the sector was badly hit by COVID travel restrictions in 2021 (affecting especially some 200,000

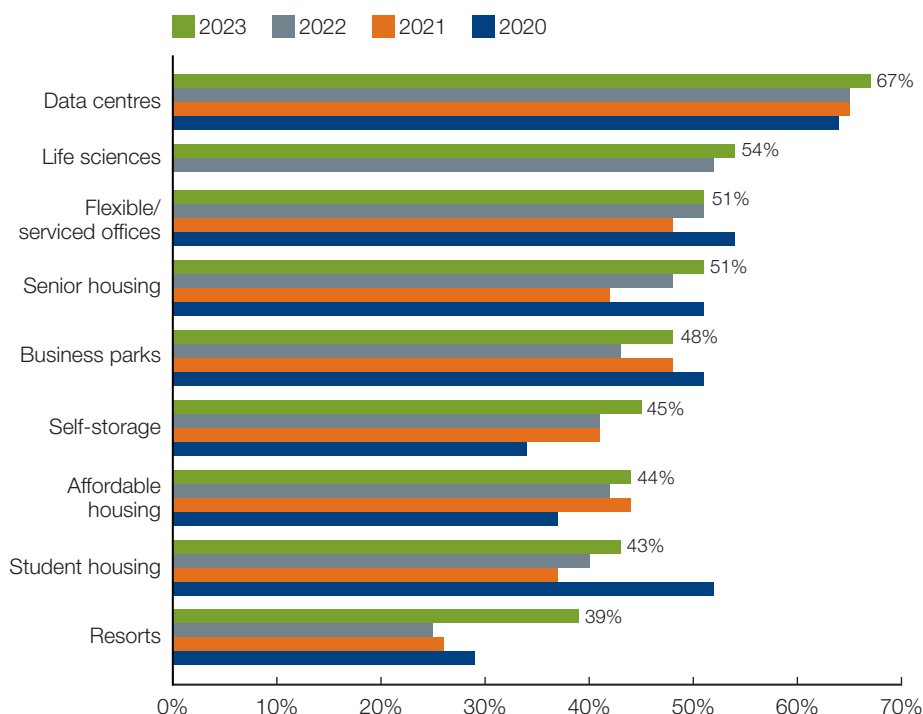
Mainland Chinese students attending local institutions), the reopening of universities has resulted in some significant transactions in the student housing space, with transaction volumes in the first half of 2022 higher than during the whole of the previous year, according to MSCI. Still, the market in Australia is by now fairly mature, and with opportunities elsewhere in the region restricted by a lack of scale, the potential for major regional expansion in the sector may be limited, according to one investor with experience in the sector.

Logistics assets also are seen as recession resistant. Ongoing structural undersupply in an environment of rapidly rising demand tends to ensure high occupancy, at least for well-positioned facilities. As one fund manager said: "Pricing has gotten hot, so finding value has gotten hard, but the good news is that you are still able to underwrite the operating fundamentals, which in some sectors is hard to do. So, while you might be concerned about cap rates, you're less concerned about income." In addition, most logistics leases have annual indexation uplifts allowing them to capture inflation within their cash flows.

Another factor generating confidence is that logistics rents usually represent only a small proportion (usually between 2 and 5 percent) of tenants' total costs. With transport making up around 50 percent, occupiers looking to cut corners are therefore more likely to find them on the transport side rather than from warehouses.

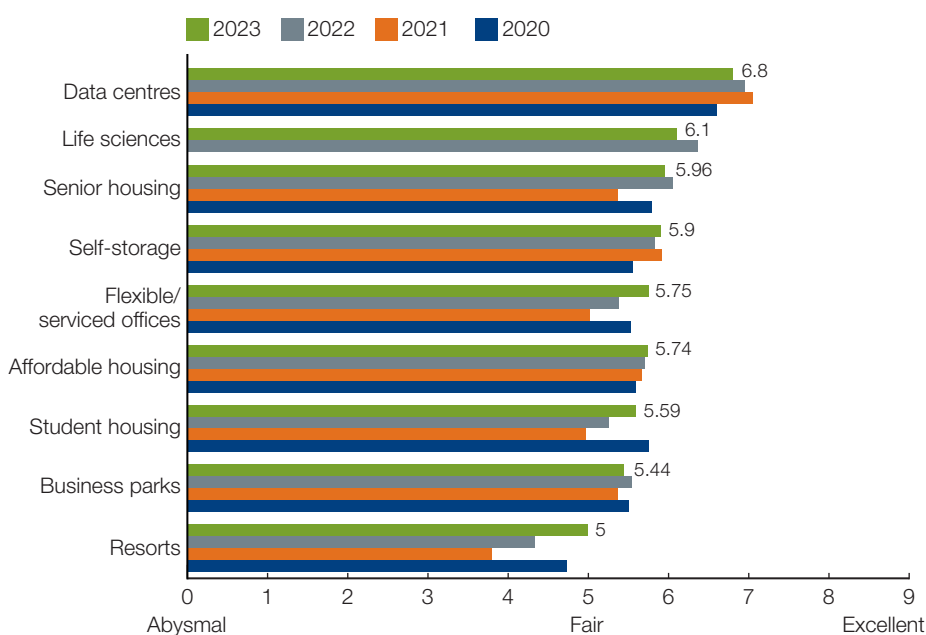
Build-to-suit logistics projects are also regarded as defensive due to their stickiness. Because tenants mandate specifications, landlords will agree to a deal only if the tenant is locked in for a minimum period—probably at least 10 years—creating a dependable, annuity-like product. Additional stickiness can be generated by adding automation. According to one logistics investor, automation should be installed at tenant cost wherever possible as part of fitout. It can consist of anything from temperature

Exhibit 1-7 **Niche Sectors in Which Investors Are Active or Plan to Be Active**



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 1-8 **Prospects for Niche Property Types**



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

control to specific features that may not be readily available elsewhere on a turnkey basis. As the investor observed: “If the tenant pays, it immediately becomes more sticky because they have to amortise their own fitout. So automation, temperature controls, and so on all make for sticky premises.”

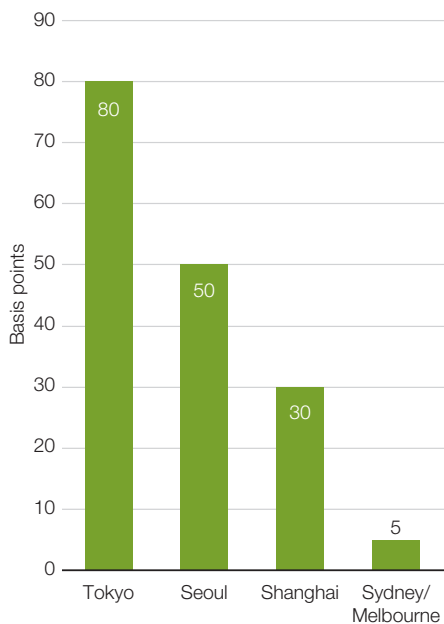
That said, opinions have recently become polarised because rapidly rising demand has caused logistics cap rates to compress to a point—at sub-3.5 percent in Australia—where higher interest rates threaten to turn yield spreads negative just as values are at a cyclical peak. Others have countered that strong rental growth in a market with extremely tight supply offsets this risk considerably (see chapter 3 for more).

One way to avoid the cap rate squeeze on logistics assets, according to an Australia-based fund manager, is to avoid the ultra-competitive prime end and instead buy midmarket assets with yields of around 5 to 6 percent. The wide cap rate differential usually outweighs the additional risk, creates a more material spread to the cost of debt, and retains the same rent growth story offered by more expensive facilities. As a result, he observed: “We still see compelling opportunities there, albeit they’re not at the very pointy end of the market.”

A cluster of related new-economy subsectors are also seen as defensive plays, due mainly to rapidly rising demand driven by disruptive social trends:

- **Data centres.** The sector faces some headwinds due to its high carbon footprint and the impact of inflation on development costs. But demand for new capacity is enormous as data use proliferates on the back of a variety of secular trends that range from the popularity of remote working to growing 5G takeup. Payback periods are short, and given their capital intensity, data centres tend to be sticky, making tenant turnover low and again providing reliable, annuity-like income streams.

Exhibit 1-9 **Yield Spread of Cold Storage and General Warehouse Stock, Asia Pacific, Q4 2021**



Source: JLL.

- Cold storage.** Current cold storage infrastructure in Asia Pacific markets continues to fall well short of demand from e-commerce buyers. In addition, the goods held in cold storage facilities—mainly nondiscretionary grocery and pharmaceutical products—are resilient to economic cycles, while long weighted average lease expiries (WALEs), low vacancies, and common use of rent escalation clauses all contribute to creation of an ultra-defensive asset class.
- Life sciences.** Seen as something of the golden child of today's real estate markets (just as data centres were a few years ago), life-sciences facilities have caught the tailwinds of a heightened focus on medical issues caused by both the pandemic and rapidly aging regional demographics. Whether the sector will have the same staying power as data centres is open to question, though. According to one investor: "I think it's more a cyclical opportunity than permanent. I also think it's only so scalable."

Other challenges include a high bar for operational expertise, as well as various barriers to entry, including a limited number of prospective tenants, a shortage of suitable locations, and often-strict design requirements depending on the nature of work conducted. That said, once up and running, life-sciences rents are high and facilities again tend to be sticky, especially if constructed on a build-to-suit basis.

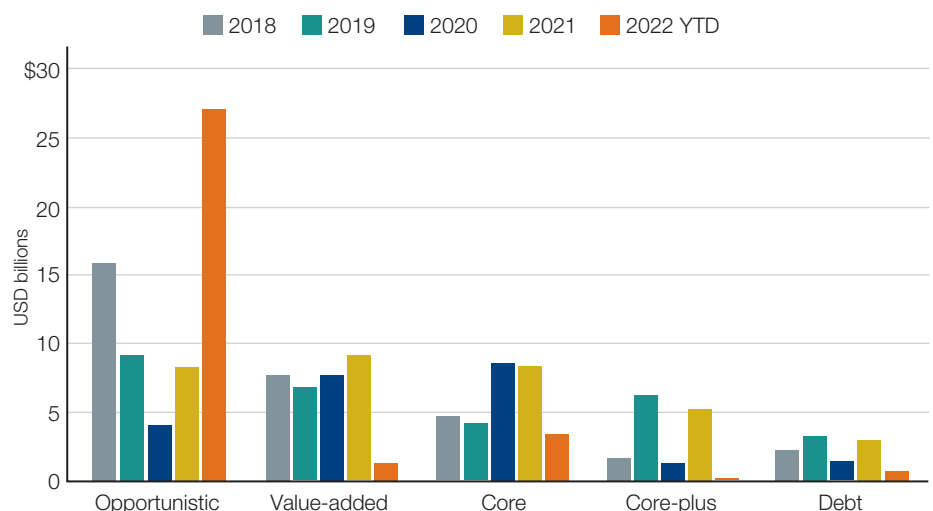
One investor noted that recent regulatory changes have prohibited (or at least complicated) U.S. Food and Drug Administration recognition of work performed in Chinese labs. This is likely to lead projects with an international focus to migrate instead to India, where they will conduct work outsourced by multinational pharmaceutical companies in much the same way as the country's business process outsourcing (BPO) industry caters to the global technology sector. Currently, a number of huge facilities are under construction in India, whose cost advantages will probably divert a large amount of basic research work from more expensive labs in the West.

A final challenge, according to one investor active in the sector, is that other regional clusters of life-sciences facilities, such as those in South Korea, Japan, and Singapore, receive direct support from local governments by way of subsidised land and facilities. Opportunities for private-equity participation are therefore substantially reduced.

- Self-storage.** This is another sector where rents can easily reset to suit inflationary trends. End-user demand is set to pick up due to home downsizing, and global players are known to be active in the region as they look to replicate successes in the United States and Europe.

The extent of this migration into new-economy themes can be seen in recent data for newly raised capital. In the year to October 2022, according to analysts Preqin, regional investment funds raised a total of some US\$16 billion for use in Asia Pacific opportunistic strategies—more than three times the total raised for the whole of 2021, and dwarfing the 2022 amounts raised by all other asset classes combined (see exhibit 1-9).

Exhibit 1-10 **APAC Fundraising, by Strategy, 2018 to 2022 YTD**



Source: Preqin as of September 2022.

Australia: Key Themes

Australia's appeal as a go-to market for global investors has ensured that commercial real estate volumes remained strong throughout 2022. Although local interest rate hikes beginning in April led to a decline in transactions (deal flow fell 7 percent year-on-year in the first nine months of 2022), overall volumes remained on a par with historical levels. Although cap rates and values have begun to soften, Australia has so far proved relatively resilient to interest rate pressure.

One explanation for this is that the weight of capital looking to buy core assets in Australia is today dominated more than ever by offshore, rather than domestic players. There are various reasons for this:

- Despite the emergence of a risk-off mentality in parallel with rising interest rates, the high levels of dry powder held by global funds means buyers remain willing to pay a premium for high-quality core assets.
- Weaker pricing in Australia's public markets has created a denominator effect that depresses domestic funds' investment in private assets.
- A roughly 12 percent decline in the Australian dollar in the year to November 2022 has made local assets cheaper for U.S. dollar-denominated buyers.
- Cap rates remain at levels too low to satisfy underwriting standards of domestic players, partly because local cost of capital is higher, and partly because rising interest rates mandate that yields should move out.

According to one Sydney-based fund manager: "Conversations I've had with [local] investors over the last few weeks were saying they're going to cool their jets for the next few months. Their investment committees currently have plenty going on across other asset classes, but from an offshore perspective

that's not the case—if they have an allocation for the Asia Pacific, it's not going to China, meaning Australia is still pretty much top of the list. So capital transactions will be dominated for at least the next six months by offshore groups, where they can see relative value."

Another reason for the current cap rate resilience, especially for offices, is an underlying confidence that work-from-home policies are not significantly eroding CBD occupier demand, at any rate for prime assets. Recent statistics published by the Property Council of Australia may indicate low occupancy rates of 52 and 41 percent for offices in Sydney and Melbourne respectively, but those estimates fail to account for a variety of factors, including the fact that most offices were never fully occupied even in pre-COVID days, according to an executive of one locally based developer. Nor do they reflect recent design changes and facility upgrades that have generated a flight to quality into better-appointed and more sustainably focused assets and away from older or less well-appointed buildings.

Another factor that may help support office sector fundamentals, according to a large domestic developer, is that tenants are now taking more space on renewal. "The rule of thumb used to be 10 metres per person," said the developer. "[Occupiers] now want this to be bigger, with more space per person."

In addition, and unlike in other Asia Pacific cities, the trend towards decentralisation of office space into city suburbs appears to be weaker in Australia than it is elsewhere. While some CBD fringe districts, such as Sydney's Pyrmont, South Eveleigh, and Surrey Hills, have emerged, these areas offer a complementary cultural dynamic that involves adaptive use of heritage buildings, rather than the establishment of true hub-and-spoke facilities that aim to serve commuter-belt workers.

As in other markets, the standout asset class in Australia over recent years has been the logistics sector, driven by chronic undersupply of modern warehousing and rapid e-commerce demand. Today, even as that demand peaks, the market is set to remain structurally undersupplied, with the ratio of under-construction space relative to existing stock currently at just 2 percent, according to CBRE.

Some investors have turned bearish on the space because recent deals at sub-3.5 percent cap rates appear unsustainable in a higher interest rate environment. The spread for logistics yields relative to Australia's risk-free rate fell to less than 100 bps by mid-2022, according to MSCI, down from almost 400 bps 12 months previously. As buyers and sellers faced off, transactions fell substantially on a year-on-year basis, and yields have started moving out for some assets.

At the same time, others see a natural offset to this trend in the shape of rising rents (as well as capital values) resulting from tight vacancies. According to one fund manager: "Rents will probably grow by 25 percent this year, so if you're worried about cap rate expansion, consider that every 7 percent increase in rent will yield you 25 basis points of protection in terms of expansion of cap rates. So you have already an embedded 75 basis points of protection with current levels of rent growth, and you also have zero vacancies in the market."

This divergence of views has created a buyer/seller mismatch. On the buyer side, current valuations are not accretive for Australian REITs, and even private-equity buyers nervous about low cap rates are not convinced rent growth projections will pan out as advertised, given the high level of incentives (not to mention the cost of fitouts and cash contributions) needed to attract high-quality tenants.

For owners, meanwhile, there is little incentive to sell, especially if they have reliable end users tied to the asset with long leases. According to an investor in a significant logistics portfolio in Australia: “The game in the market right now is to just buy these guys [i.e., good-quality tenants], move them in, sign them up for long leases, and then adjust back to market over a period of three to five years. In that case, in the fifth year you have that really high rental that’s adjusted back up. And then you sell it.”

Niche asset classes have seen significant activity in 2022. Australia has the region’s only institutionalised student housing sector, which was badly affected by university shut downs and the absence of Australia’s army of foreign university students in 2021. However, one large deal, involving the sale of a share of a portfolio of student apartment towers across multiple cities to a Singaporean sovereign wealth entity, was completed in mid-2022. Although the numbers of returning international students are still 70 percent below 2019 levels, the long-term fundamentals of the industry are considered strong. Two other deals were

closed in Melbourne and Perth during the year. Senior housing assets have also been actively traded, as mentioned elsewhere in this report.

Finally, residential real estate in Australia has not proved as resilient as its commercial sector counterparts, despite the recommencement of immigration flows that can only boost long-term demand for housing space. Home prices rose strongly in 2021, and had been expected at least to retain their value going forward. As recently as April 2022, estimates from National Australia Bank projected a 0.4 percent full-year increase in capital city home prices. By October, however, the bank had revised its estimate to a roughly 20 percent decline by the end of 2023 from an April 2022 peak.

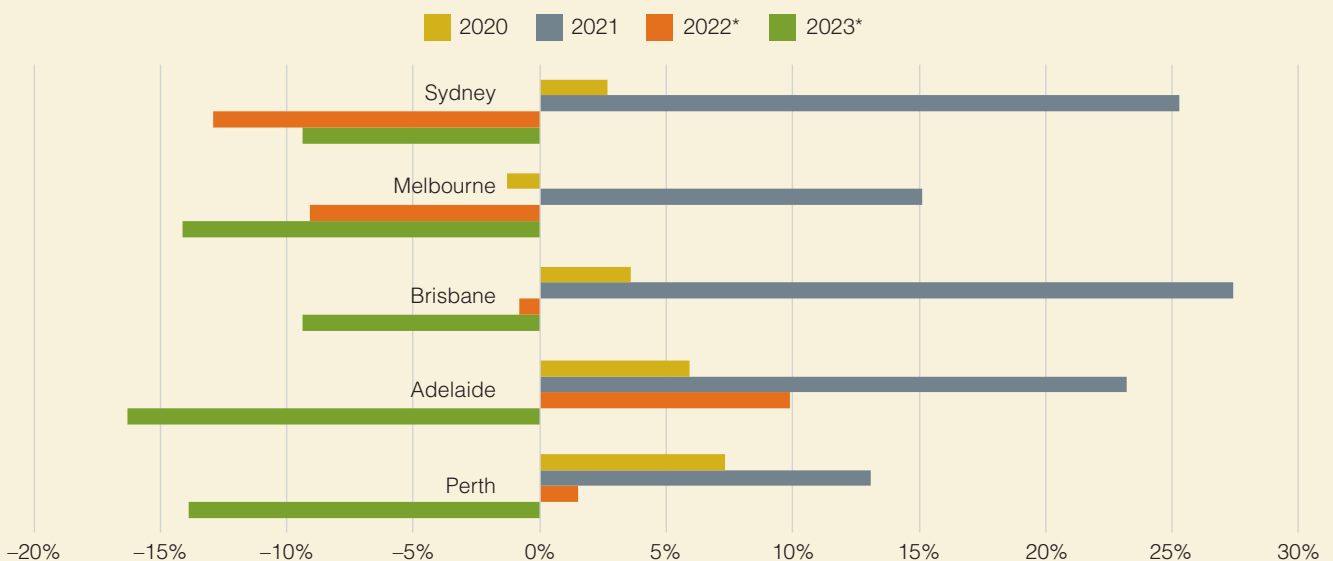
This abrupt about-face in home valuations has come almost entirely at the hands of a reversal in domestic monetary policy, as the Reserve Bank of Australia initiated an unanticipated tightening cycle that saw the nation’s cash rate increase from 0.1 percent in April to 2.85 percent by the beginning of November.

For a country especially sensitive to rising rates—Australia has the world’s second-largest ratio of household debt to GDP, according to the Bank for International Settlements, as well as a high proportion of variable-rate mortgages—the extra burden has weighed heavily on housing demand.

At the same time, while a 20 percent fall in home prices may seem unprecedented, the decline comes from a high base given rapid increases in home prices seen in 2021. In addition, the extent of the reversal varies significantly by city and district, with less well-located suburbs feeling the brunt of the falloff.

Development of an Australian multifamily asset class is another trend that is gaining traction, with a significant number of new projects underway, mostly backed directly or indirectly by foreign capital. However, opinions remain divided as to whether a build-to-rent asset class is feasible either economically or culturally in Australia (see chapter 3 for further discussion).

Forecast Change in Australia Capital City Home Values



Sources: CoreLogic, NAB Economics.
* Forecast.

Inflation Boosts Development Risk

Although build-to-core strategies became popular in recent years as a way to manufacture new product in an environment of too little investable stock and too much investment capital, risks associated with development have now risen substantially. Inflationary pressure on construction costs was cited in interviews as the main cause, a view confirmed by survey responses (see exhibit 1-11).

In part, this is because prices of raw materials are denominated in U.S. dollars and become more expensive as local currencies depreciate.

In Australia, one interviewee said that steel and timber had risen around 15

percent in the year to October 2022, but that the impact varied widely according to sector: “Steel is about 4 percent of construction costs in an office building,” he noted. “But in a [logistics] shed, it’s around 50 percent, so there are different risks for different asset classes.”

In Singapore, an increase in construction costs of “easily 15 percent” was noted during 2022 by one local developer, mainly attributable to materials.

In South Korea, one private-equity manager involved in different build-to-core projects cited “a huge increase in [construction] costs, to a level where projects are no longer viable.” Apart from general inflationary pressures, Korean cost increases have also been driven by changes to labour laws and health and safety regulations.

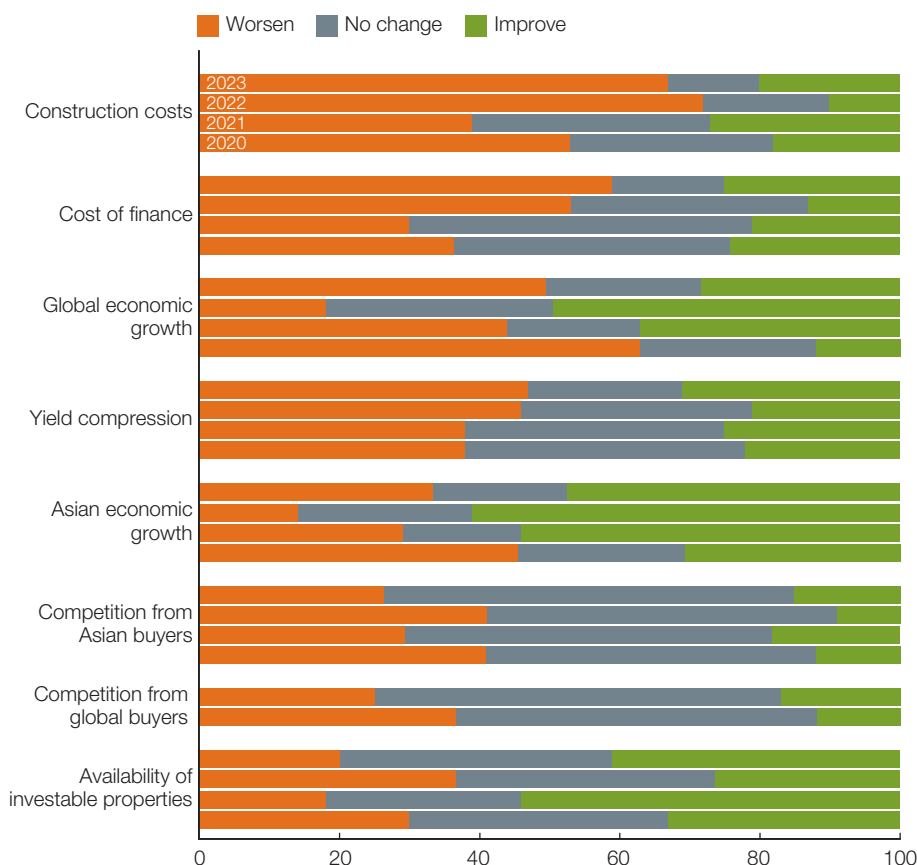
Finally, pricing pressures in China have pulled in the opposite direction, with interest rates declining and the cost of some inputs, such as steel, falling in the second half of 2022.

In addition, construction projects have suffered from a variety of other problems:

- Shortages of materials caused by supply chain delays.
- Rising construction financing costs and risk-free rates.
- Increased utilities costs (especially energy).
- In many markets, manpower shortages have led to significant construction delays and increased costs due to higher salaries. This is a secular problem caused by the unpopularity of construction work in increasingly wealthy populations. In Hong Kong and Singapore, the issue has been aggravated by tighter labour laws that prevent the importation of foreign workers. Labour shortages are now driving a shift to prefabrication, with factory-built components trucked to sites for assembly. Although some types of prefabrication techniques have been in use for years, there is now a growing trend towards modularisation, where complete building sections (e.g., bathrooms) are manufactured off site as a single unit. Fabrication usually takes place in neighbouring markets such as China or Malaysia, where labour costs are lower. The costs of modularisation are still relatively high, but are now decreasing as adoption ticks up.

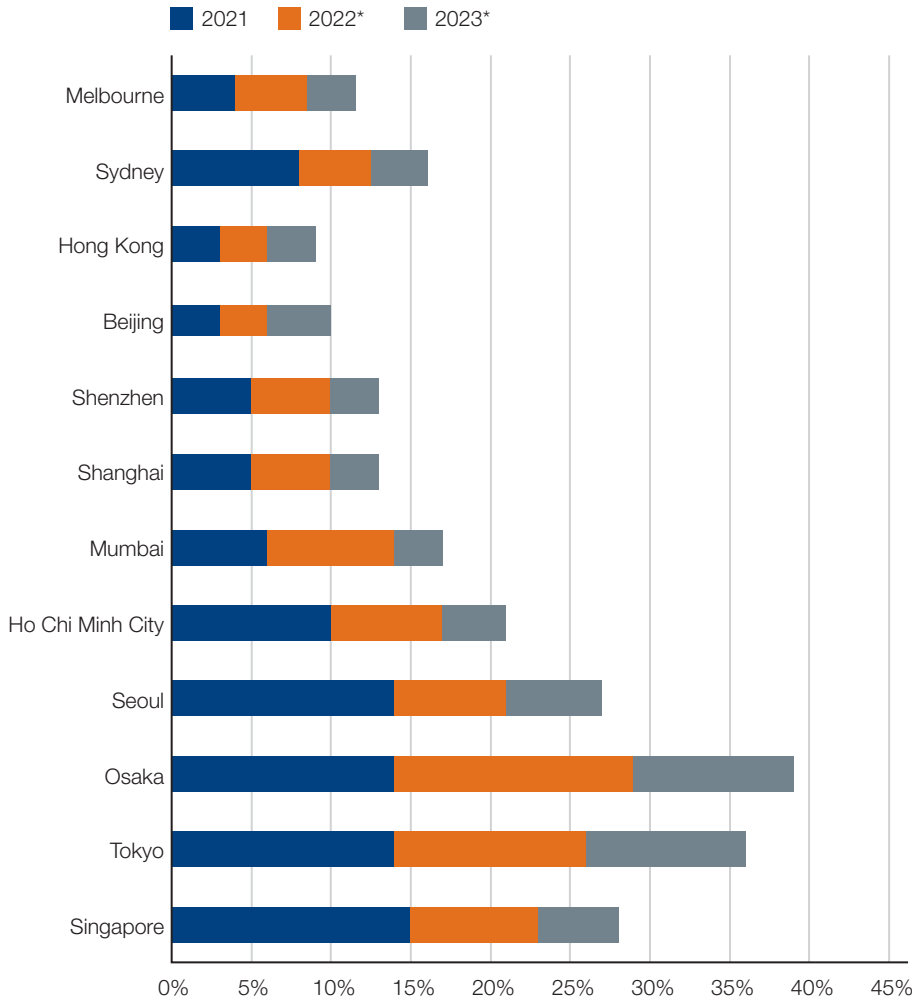
Apart from these practical problems, a lack of visibility over input costs and occupier demand is leading some investors to postpone or avoid build-to-core development altogether, especially for larger, more expensive builds. According to one investor, “If you’re building a multistorey office tower that takes three years to develop and you have to take a view on where the market and cap rates will be three years from now, I think that becomes a tougher sell.

Exhibit 1-11 **Projected Change in Economic Factors, Next Three to Five Years**



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 1-12 **Actual and Projected Construction Cost Inflation, Asia Pacific Cities**



Source: Turner & Townsend construction market survey 2022.
* Forecast.

But logistics development, which has a nine-month construction period and a 12- to 18-month development cycle, is a bit easier to wrap your head around. So, what you're seeing is that some of those longer-dated development projects are being put on hold."

At the same time, the caution now evident in this space plays into the hands of the large, vertically integrated developers with deep pockets and expertise throughout the investment/development pipeline.

Underwriting Changes

As investors adapt their underwriting to factor in higher interest rates and inflation, the most obvious change will be that provisions for exit cap rates will move higher. As one fund manager said: "That's how property works—logic says there has to be liquidity above the risk-free rate."

The question is: how much will they move? Interviewees were reluctant to be drawn on this question, probably because the range of potential outcomes

is so wide. One investor pointed out that the onus for setting pricing baselines in the Asia Pacific had long ago shifted from international to regional capital, which tended to create a valuation floor given the ever-growing size of regional institutions and a preference among local investors for longer hold periods.

As a rough guideline, however, markets in Europe, and even more so the United States, which are typically faster to adjust to changing fundamentals, have so far seen cap rate increases of around 75 to 100 basis points (bps), with moves to 150 bps projected for 2023. Although figures vary widely by market and asset type, this offers an indication of where future exit cap rates might be set in Asia Pacific markets.

Beyond that, investors are cutting use of debt where possible and creating buffers for contingencies such as higher operational costs or further interest rate and risk-free rate increases. Provisions are often made for extended hold periods. According to an investor in China: "We underwrite a three- to five-year hold, which is similar to before, but psychologically, we have to run scenarios in which exit isn't easy. So we do provide for holding another one or two years and still be able to make a decent return."

Again, the fact that some asset classes—especially those in niche areas where supply/demand dynamics are more transparent—tend to provide a clearer path forward makes them preferred options. In the words of one investor: "That's where logistics, for example, is easier to underwrite—because you can have stronger conviction on where rents are going given the supply/demand imbalance and some of those macro trends that are driving the demand equation. In other sectors, it's a lot more difficult to underwrite."

For development deals, materials are now more likely to be purchased in advance and project managers directed to employ a "value engineering" approach. Basically, this involves finding ways to find economies via more rigorous

China: Key Themes

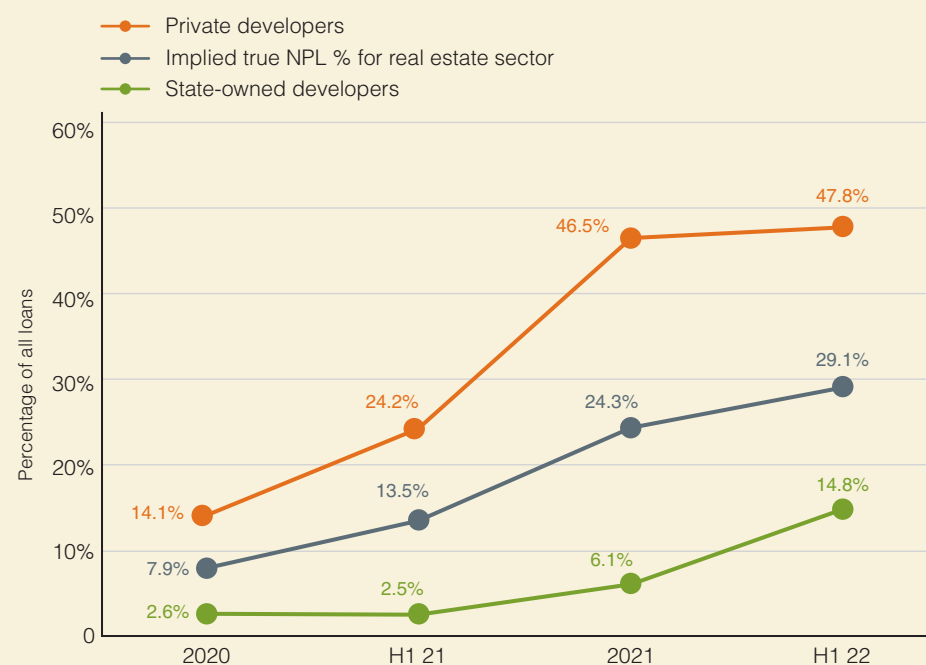
Although China's zero-tolerance approach to COVID containment served it well in the initial stages of the pandemic, widespread lockdowns and manufacturing industry closures became common in many parts of the country as increasingly contagious strains emerged. Ensuing declines in both industrial output and consumer spending have been compounded by weak exports, as international demand for Chinese products softened. China's full-year gross domestic product (GDP) growth is projected to fall to 3.2 percent in 2022, according to the International Monetary Fund (IMF), down from 8.1 percent in 2021.

China's real estate sector, which (together with associated industries) represents some 20 to 30 percent of the economy, was already feeling stress before COVID lockdowns appeared. A government-induced financing squeeze initiated in August 2020 (known as the "Three Red Lines") had already led to a number of developer defaults in 2021, which then accelerated to record levels as the economy softened in 2022.

Developer bad debt grew to 29.1 percent of total property loans in the first half of the year, according to estimates from Citigroup, up from 24.3 percent at the end of 2021. The situation is worse in offshore bond markets, where 94 percent of dollar notes from Chinese developers traded at distress levels of below 70 cents on the dollar at the beginning of November 2022, according to Bloomberg.

Although the government has now eased its clampdown and encouraged banks to increase lending to developers, the prospects for an industry-wide recovery seem unlikely in the short term. One problem is that rapid growth in China's property markets over the last three decades created a pro-cyclical wealth effect. Rising asset prices made businesses and homeowners feel richer, encouraging them to spend more.

Chinese Nonperforming Loans (NPLs), 2020 to H1 2022



Sources: Bloomberg, Citi Research estimates.

The additional spending then boosted incomes elsewhere in the economy (including those of local governments selling land), thereby reinforcing both the growth and the exuberance.

But wealth effects function in both directions. Once the balance is tipped and overvalued asset prices begin to correct, momentum accelerates to the downside. In this case, as the developer financing squeeze stretched into 2022—far longer than anticipated—home sales and pricing fell significantly and more projects ground to a halt, driving more than US\$25 billion in developer delinquencies during the first eight months of the year. Nor is the end in sight. According to Bloomberg Intelligence estimates, at least US\$736 billion owed to creditors is still at risk of restructuring or a haircut.

As the IMF commented in its October 2022 World Economic Outlook: "A further intensification of negative feedback loops between housing sales and developer stress risks a larger and more protracted

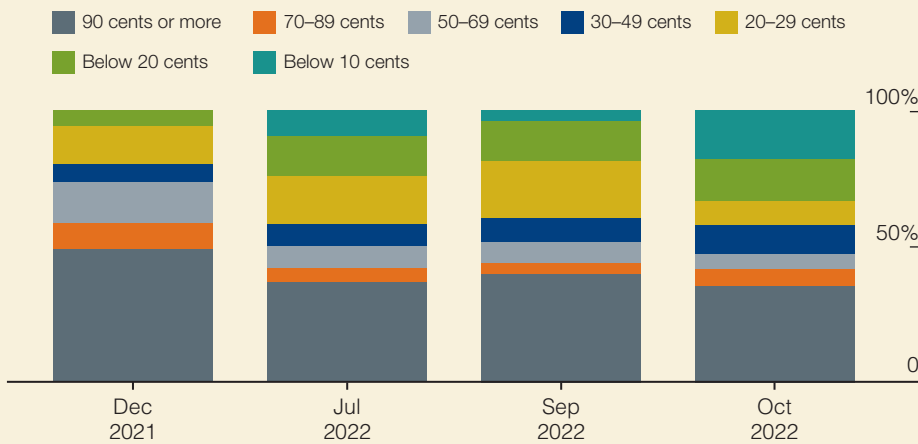
real estate adjustment. . . . Furthermore, the potential for banking sector losses may induce broader macro-financial spillovers that would weigh heavily on China's medium-term growth."

As problems mount, transaction volumes for commercial real estate have also declined, with activity falling by some 23 percent on a year-on-year basis across both Mainland China and Hong Kong in the first nine months of 2022, according to MSCI.

Although foreign funds with boots on the ground and a mandate to commit capital remain open-minded, global investors—especially from markets in the West—are largely staying away. In part, this is due to the ongoing downturn in the development sector. Even moreso, though, private-equity investors say they are holding back out of concerns over potential economic and operational downside generated by zero-COVID policies.

According to one foreign fund manager based in China: "The challenge as it

Chinese Developer High-Yield U.S. Dollar Bonds, Discounts from Par



Source: Bloomberg.

relates to zero-COVID is that there are substantial operational hurdles. If you have a newly acquired asset that is then subject to quarantine at the asset or city level, the challenge is that, rather than being able to execute on your asset enhancement initiatives or your lease-up plans, you find yourself mired in rent relief negotiations with 100 tenants.”

Another Hong Kong-based consultant said: “Quite frankly, China at the moment is ring-fenced, it’s too difficult. I don’t have a single external investor who’s looking at a project in China. They’re obviously keeping their eye on the market, but when they go to the board or their investment committee, they’re told: ‘Not now.’”

Although Western funds may have closed their books for the time being, sentiment among Middle Eastern and Asian investors is more positive, especially those in Singapore, which is currently by far the biggest source of outbound Asia Pacific capital. According to one Singapore-based investor: “I sense many institutions are not going [to China] because it’s just too difficult to convince their investment committees. But we don’t have that issue—for us it’s just a question

of making money, and there are still opportunities in China, especially given the clampdown on local developers.”

Ironically, gun-shy foreigners may be avoiding Chinese markets just as the country is brimming with prospects. Not only are interest rates heading down rather than up, but the market is flush with stressed developers looking to raise cash by paring balance sheets. In an environment of reduced competition, attractive cap rates, positive yield spreads, and a rerating of some asset classes following the establishment of a domestic REIT industry, some interviewees were targeting previously hard-to-buy assets now trading at substantial discounts to replacement cost.

These include growth sectors such as logistics (despite a macro-driven slowdown in leasing) as well as multifamily assets in tier-1 markets, described by one investor as “a great asset class, with lots of liquidity, strong demand from tenants, and proven to be quite resilient over time.”

Debt—especially mezzanine-type—has become another popular play in China, providing better security for investors

looking to exploit a need for bridging finance for incomplete projects, or to alleviate immediate cash flow deficits. Although there was a general consensus that the extent of these distressed opportunities has yet to match investor expectations, as well as concern they might be affected by potential contingent liabilities, confidence was high that assets would eventually come to market. According to one locally based fund manager: “People argue that prices are not coming down enough, but I think now is the time to start looking—if you start late, you won’t have enough time when the price really drops.”

Retail assets, meanwhile, have largely been relegated to the sidelines due to concerns over potential COVID-related shutdowns and a decline in consumer spending, while CBD offices suffer from both oversupply issues (especially in Shanghai) and questions over future occupancy rates at a time of economic weakness. A trend towards decentralisation, as new office clusters spring up in outlying districts, has added further to CBD oversupply, which is will probably take several years to absorb.

Finally, as domestic developers continue to flounder, well-placed observers report that the government remains focused on its goal of widespread industry consolidation. According to one: “Basically, they’re looking at two strategies. One is to intervene in a major way and essentially nationalise the residential market with the help of some leading state-owned enterprises [SOEs]. The other is to say to the SOEs and leaders in the market: ‘You’ve got six months to get your act together, to rationalise and sort yourselves out. We’ll facilitate, but will leave the industry to come up with the ultimate solution.’ But whether it’s government-induced or government-facilitated, I think the intervention is ultimately going to be pretty radical.”

analysis of design brief parameters, but without compromising overall project quality.

Traditionally, many building contractors—especially in Japan and South Korea, where build-to-core strategies are common—have assumed inflation risk via fixed-price (aka guaranteed maximum price [GMP]) contracts. While in principle this protects investors by locking in costs, in practice GMPs are counterproductive if contractors are left bankrupt by rising input prices. As a result, some contracts negotiated perhaps two years ago in a low-inflation environment are now being renegotiated.

Discussions for new deals, meanwhile, have become problematic, stranding some investors who may have already bought land but whose cost basis for construction has been pushed up by inflation to levels significantly higher than anticipated by their pro forma underwriting.

According to one investor: “My expectation is that the GMP contract in Korea, in which materials costs were locked in, will now go away, and I’ve heard the same thing is happening in Japan. I think you’ll still get GMP, but you’ll be subject to materials price inflation—that’s going to be a big change in both those markets for build-to-core programmes.”

Mainstream Takes a Back Seat

As can be seen from the above discussion, the current high-inflation, recession-prone environment favours assets relating to fast-growing industries, often involving niche products or services driven by themes such as digital disruption, the obsolescence of existing stock, or migration. Affordability is another theme in play, as are assets that offer a guarantee of future cash flows and that can index rents to inflation.

Generally speaking, though, few of these qualities (and sometimes none of them) describe attributes offered by mainstream asset classes. That does not mean, of

course, that mainstream is dead, though it may help explain why there has been such a dramatic slowdown in deals.

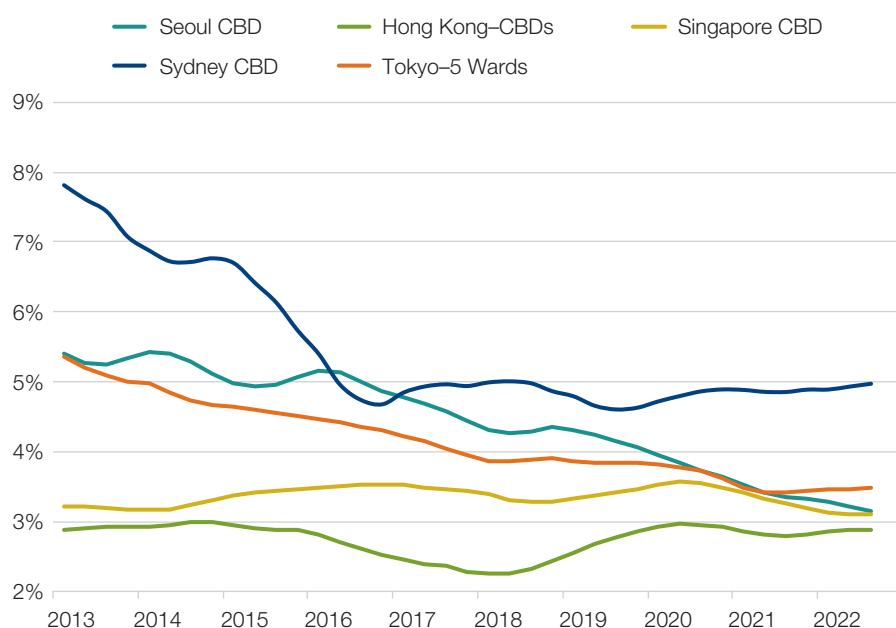
- Office, for example, remains by far the biggest asset class in the Asia Pacific region, making it impossible to ignore even as Asia Pacific transactions in the third quarter of 2022 fell by almost half year-on-year, according to MSCI. In particular, prime central business district (CBD) assets are invariably in short supply and therefore constantly the targets of regional core funds competing to place capital. Interest has increased recently as corporate occupiers migrate to higher-quality buildings in order to entice staff back from work-from-home arrangements. By contrast, interest in non-prime offices has fallen away due to difficulty in assessing current and future asset values. In particular, this has led to reduced interest in office asset enhancement projects, although in principle such plays continue to be popular.

Still, while office will always be seen as an evergreen asset class, in today’s

markets even prime assets can be subject to negative undercurrents. For a start, buyers are no longer bidding up as they did in the past. At the same time, owners are showing little inclination to sell in the absence of pressing reasons such as end-of-fund obligations. As a result, a wide pricing gap has formed. In previous years, such pricing gaps were generally resolved to the upside, but the expectation in the current environment is that a buyer’s market will quickly take shape as office cap rates expand.

Even in Singapore, which saw strong transactions for office assets in 2022 and was identified in our survey as one of only a few regional markets with potential for rent increases, prospects have dimmed. According to one local developer: “It depends on interest rates, but with the recent crazy highs, it will be hard. Banks have stopped giving out fixed loans, so there may not be enough money to buy property, [buyers] can’t control the interest rates, [their] electricity bills are going up, and rents can’t be increased easily—there’s no end to it.”

Exhibit 1-13 **Asia Pacific CBD Office Yields, Q3 2022**



Source: MSCI Real Capital Analytics.

Exhibit 1-14 Cities Most Likely to See Rental Growth in 2023

	Decline	Increase
1 Singapore		5.81
2 Tokyo		5.12
3 Sydney		5.03
4 Ho Chi Minh City	4.94	
5 Melbourne	4.80	
6 Osaka	4.58	
7 Shanghai	4.55	
8 Seoul	4.49	
9 Hong Kong	4.45	
10 Jakarta	4.40	
11 Shenzhen	4.35	
12 New Delhi	4.16	
13 Beijing	4.15	
14 Guangzhou	4.08	
15 Manila	3.98	
16 Kuala Lumpur	3.98	
17 Bangkok	3.91	
18 Mumbai	3.90	
19 Taipei	3.90	
20 Auckland	3.68	
21 China—second-tier cities	3.55	
22 Bangalore	3.40	

Source: *Emerging Trends in Real Estate Asia Pacific 2023* survey.
 Note: Data scored on a nine-point scale.

- The retail sector also is facing headwinds as sentiment sours and capital rotates elsewhere, in particular towards logistics assets. The number of retail deals that closed in the third quarter of 2022, together with the number of pipeline deals, fell by more than half compared to the same period in 2021, according to MSCI. The selloff may be overdone, though. The reasons behind the retail slump are obvious enough, but with sector rerating now largely complete, the industry is now basically de-risked, with many profitable assets available for purchase at low prices.

Several interviewees saw retail as a contrarian play for just this reason. Its promise was not necessarily as a conversion play for higher and better uses, or as a platform to add experiential features, but simply a reflection, as one fund manager put it,

that “if you look at retail cap rates, the market is mispriced. Go back 10 to 15 years, especially the big shopping malls, retail was the most trophy asset you could own. Now, it’s a dirty word and has probably been oversold relative to other sectors.”

Distress: Giving Up?

Investors waiting since 2020 for the appearance of distress in Asia Pacific markets have for the most part been left empty handed, with most now discounting the prospects for widespread pandemic-induced distress. Whether an impending recession might throw up better opportunities is a question probably dependent on the extent and duration of an elevated interest rate environment.

This decline in sentiment was reflected in our survey, which showed just 7 percent of respondents expecting “significantly higher” returns from distress strategies, compared with 10 percent surveyed last year and 17.7 percent in our 2021 report (see exhibit 1-15).

That said, economic downturns are always likely to produce distress,

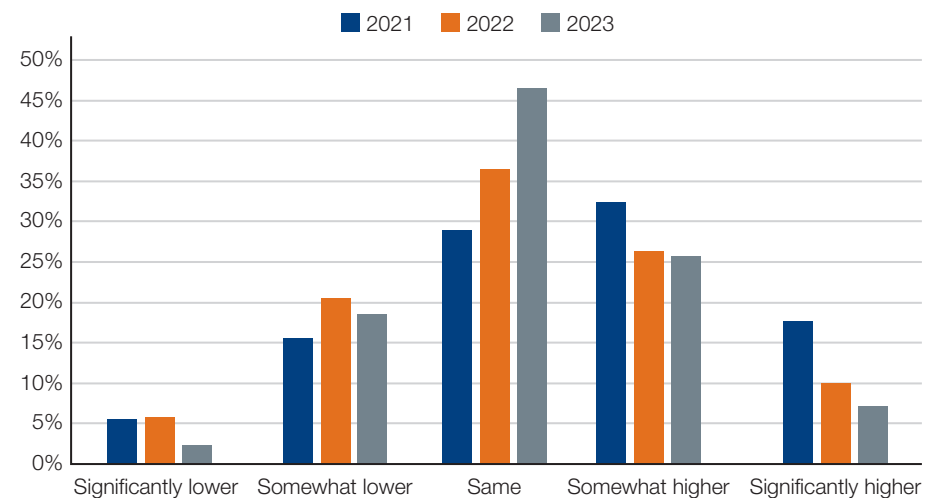
especially where deals have been underwritten on the basis of high leverage and low interest rates. Anecdotally, some of the many recent deals structured in this way are now underwater and may therefore be vulnerable to some type of involuntary disposition.

In addition, interviewees suggested that various asset classes and markets may still offer potential for distress, including the following:

- Hotels.** Despite high hopes, significant levels of hotel-sector distress have so far failed to materialise, and with travel once again picking up, prospects have receded as cash flows begin to revive. Australia, for example, identified last year as a prime source of potential hospitality-sector distress, is now a “roaring” market, according to one Australian source, as domestic and international demand rebounds. “If anything,” the investor said, “it’s impossible to get a room, particularly at a rate you’d like to pay.”

Still, even as financing conditions ease, investable opportunities are emerging. Japan, for one, was identified by several interviewees

Exhibit 1-15 Change in Targeted Returns for Distress Strategies in 2021, 2022, and 2023



Source: *Emerging Trends in Real Estate Asia Pacific 2023* survey.

Japan: Key Themes

If rising interest rates are the key reason that investment in most Asia Pacific real estate markets has slowed in 2022, the Bank of Japan's (BOJ) ongoing Yield Curve Control policy, which caps the yield of the 10-year Japanese Government Bond (JGB) at just 0.25 bps and, in turn, keeps bank borrowing rates low, is one reason Japan remains so popular among international investors.

With bank lending for commercial real estate still both cheap and freely available (at around or less are 100 bps), Japan now offers the only market in the Asia Pacific—apart from China—where foreign buyers enjoy a reliable spread over the cost of debt (i.e., around 200 to 300 bps).

According to one locally based investor: “In the last couple weeks, I’ve had numerous meetings with foreign investors looking to invest in Japan. Some looking for platforms, some looking for deals, but it’s on every institutional real estate investor’s radar—if it wasn’t before, it is now.”

Overseas investment in Japanese assets rose 11 percent in the first three quarters of 2022 to US\$8.1 billion, according to MSCI—a figure that would have reached over 30 percent if not for the weakening yen.

This rush of foreign capital to Japan has revived the common pre-pandemic problem of excessive available capital pointed at a shortage of available assets. One reason for this is that owners have no incentive to sell Japanese assets as they wait for a resolution—or at least some clarity—on both global and domestic market volatility. Another reason is that if U.S. dollar-denominated funds were to sell assets and then repatriate the proceeds, currency depreciation would work against them—an outcome they are in no hurry to realise.

However, with domestic REITs now net sellers, and with some foreign investors

also looking to offload assets as fund lives end, more stock is expected to come to market.

Even as office rentals decline, pricing remains predictably high, with cap rates tight at around 2.2 percent for CBD offices. “In fact,” according to one investor, “we’re seeing more cap rate compression than we are a reversal, which is again a reflection of too much capital rather than of market fundamentals.”

Among the asset classes, investment in office assets has seen a revival, with transactions up 25 percent year-on-year through mid-2022. This reflects a peak in a two-year trend of steadily rising office vacancies caused by a surprising affinity for home working among young Japanese workers apparently now liberated from the protocols of traditional working practices.

As one Tokyo-based investor observed: “The reason people are working from home is that the commutes are very long—if you’re on the move one-and-a-half hours each way every day, working from home has an appeal. So I was surprised because I thought they would want to return, but all the companies I’m speaking to are struggling to get their staff back to the office.”

Another consequence of Japan’s work-from-home trend is that some companies in central Tokyo are now starting to give back space, partly because less is needed if employees are working flexibly, and partly because more companies are leasing satellite offices in the suburbs, closer to where people live. Japanese banks, for example, are now using their distributed branch networks to host back-office workers nearer to where they live, according to one interviewee.

Hotels are another area where both foreign and domestic capital is active. Japanese hospitality assets were hard hit by the pandemic, given especially the absence of large numbers of foreign tourists, just as a wave of overbuilding in

anticipation of the Tokyo Olympic Games created a supply glut.

The recent reopening of the country to foreign tourism, together with the steep decline in the value of the yen, is creating a rush of new visitors that has finally provided relief to hotel owners. It seems also to have broken the logjam in transactions, with more than US\$1 billion in deals—especially three-star and four-star regional assets transacted—in the third quarter of 2022, often on a distressed basis.

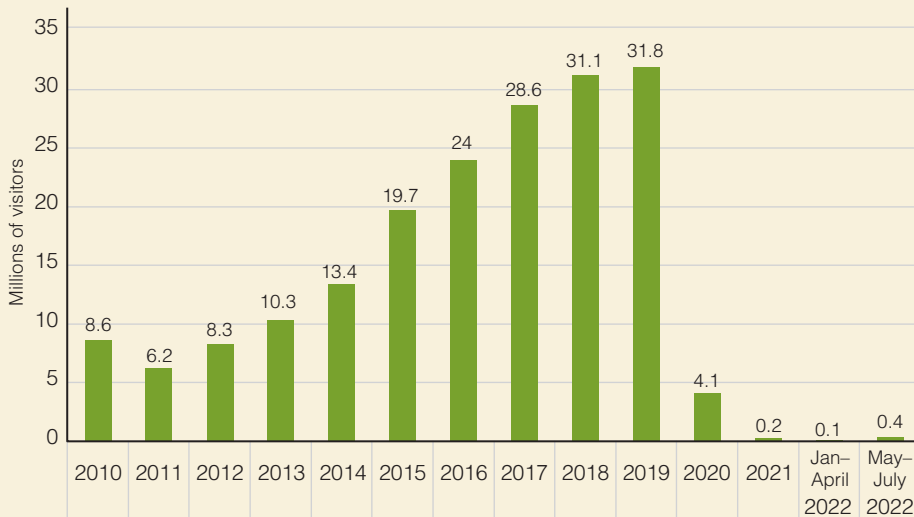
One reason for this is simple exhaustion after almost three years of hardship. Another is the extra burden created by rising interest rates, which is amplifying the extra debt load carried by underused facilities.

“Hotels are going to need to trade,” said one fund manager. “The question is at what price? At the moment, there’s still a pretty good gap on the bid/ask. A lot of guys are looking for stress or distress, and the sellers, especially as the country opens up, are thinking they’ll be running 80 percent occupancy. So that gap will have to be filled. But I still think it’s a good space if [investors] know the business and can bring an operator in, and especially if they get some economies of scale with an operating platform.”

The residential sector in Japan continues to see strong demand from foreign institutional investors, who have now largely priced out local REITs. As the only mature multifamily market in the Asia Pacific, Japan has for several years been a magnet for institutional investors willing to tolerate increasingly compressed yields by leveraging their deals and hoping that rental increases and more cap rate compression will get them over the line.

In addition, as macro risk increases, investors are drawn to multifamily as a defensive asset class. According to one institutional investor active in the space: “It has relatively short leases and is also very granular, so that if one or two tenants leave then it’s not the end of the

Japan Tourism Arrivals, 2010–July 2022



Source: Japan National Tourism Organization (JNTO).

world, whereas if you have a large office building with one or two big tenants, if one leaves it's a major impact on your cash flow."

Another factor working to the advantage of multifamily assets is that, as rising construction costs push the purchase price of for-sale properties out of reach,

the appeal of rented accommodation has increased.

Because most large multifamily portfolios were bought up long ago, finding projects big enough to satisfy the scale needed for institutional buyers has become problematic. This has resulted in opportunistic funds stepping up to

combine multiple smaller projects into a single package, or to buy assets on a forward-purchase basis via a deal with a local developer. These can then be spun off to international core funds. Large, cash-rich institutions will often offer to buy assets on a full equity basis, and then refinance the deal after closing.

Despite the enduring popularity of multifamily as an asset class, some investors are sceptical, pointing out that previously positive net migration flows into Tokyo that once ensured strong demand for residential space have, for the first time, turned net negative, most likely on the back of the above-mentioned shift to working from home by Japanese youth.

On top of that, the compressed cap rates (currently 3.00 to 3.25 percent) for Tokyo multifamily assets are regarded as somewhat precarious, especially as interest rates rise. A slight shift to underwritten assumptions could easily turn yield spreads negative, especially if deals are highly leveraged, which they often are. Risk is therefore not insignificant (see chapter 3 for more on the multifamily debate).

as a potential venue for discounted purchases, as noted in the "Japan: Key Themes" section on page 16. Over US\$2.4 billion worth of hotels were acquired for redevelopment (primarily for residential purposes) in the first half of 2022, according to MSCI, representing a quarter of all hotel investment regionally.

In addition, according to a Thailand-based hotel investor, there is renewed interest among institutions now pivoting away from areas such as logistics due to concerns over cap rates, saying, "They're looking at buying assets that would otherwise not be on the market. These are quality assets at a decent price, but it's not at a distressed pricing. They can't buy the notes either, so they're buying good assets they can

reposition, clean up, generate better return, and then sell."

- **China.** The government's "Three Red Lines" liquidity squeeze (now in its third year) has led to an acceleration of developer bond defaults, both domestic and foreign currency. Stress and distress are now widespread across the development sector.

Despite this, opportunities for foreign investors have again fallen short of expectations. "You'd think there would [be opportunity], and I guess we are seeing some of that, but I feel like there's always a bid/ask [spread] between buyers and sellers," said one fund manager. "There seem to be a lot of bullish sellers in China still, so you've probably seen less of it than

you'd expect, given what you read in the press."

Still, some notable transactions have been seen, and more are expected. Typical projects involve unfinished mass-market multifamily developments, whose prospects have been undermined by a loss of public confidence in the longstanding upward trajectory of home pricing. With home sales transactions falling for 14 consecutive months in the period preceding September 2022, the squeeze on developer cash flows is ongoing.

Another popular way to participate in distress scenarios in China is via provision of floating-rate debt, which often offers more attractive

risk-adjusted returns than equity investing. Such opportunities have spread from the residential sector to include commercial developments, where there is now “a pretty broad extend-and-pretend element at work,” according to one investor active in the market.

This is not an exercise for the faint of heart, however. With transaction volumes down, price discovery is thin, and there are many ways for the unwary to come undone. One Hong Kong-based consultant reported returns of 30 percent on provision of mezzanine debt to incomplete mixed-use development projects. “If it goes wrong, though, you inherit some assets,” he said, “and they may not be assets you particularly want to have, given issues like exit, etc. So, the 30 percent reflects that it’s a high-risk game.”

- **South Korea.** Perhaps surprisingly in light of its recent popularity among investors, South Korea may now also become a venue for distress. Deep-pocketed Korean institutions were big investors in Western markets in recent years. But pandemic-related travel restrictions, combined with a steep fall in the value of the Korean won, led them to invest at home from 2021. With so much capital to deploy, prices became frothy.

Meanwhile, aggressive hiking by the Bank of Korea forced borrowing costs to a level that now exceeds average commercial property yields of 4.2 percent. With construction costs also soaring, many investors are now discovering they have overpaid for assets and may soon be forced to divest. As one foreign fund manager with experience in South Korea said: “So much local capital was already in the market, and it got incredibly aggressive during COVID when it couldn’t invest abroad. So I think if we look across our markets, we see more stress in Korea than anywhere else.”

A Net Zero Future

The importance of environmental, social, and governance (ESG) issues has grown exponentially in the Asia Pacific region over the last few years, to the extent that any significant commercial real estate investment must consider it as part of due diligence protocols. While social issues are now front-and-centre in the United States, and governance factors are increasingly important in Europe, environmental considerations remain by far the most important ESG factor in Asia Pacific markets.

Until recently, the main emphasis among investors and owners was simply for buildings to be “green” in the overarching sense of greater sustainability, with attention directed to a range of themes including energy efficiency, health, use of materials, and water consumption.

Today, however, while these all continue to be important, the focus has condensed around the issue of net zero carbon. As the head of sustainability at one large Asia Pacific fund said: “Two years ago, it was more a theoretical exercise of what we’d have to do to get to net zero carbon by 2050, and people were just starting to get their heads around it. But in the last two years, the thing that’s really taken off is the reporting and regulatory requirements as people start to get serious.”

As with ESG requirements, the adoption of net zero reporting standards has been driven by developments outside Asia—in particular, by the European Union’s 2021 Sustainable Finance Disclosure Regulation (SFDR). For real estate purposes, this requires fund managers to disclose how they have assessed relevant sustainability risks embedded in a building (e.g., efficiency and performance characteristics) and how ultimately that assessment has been quantified in financial terms. Because the SFDR has extra-territorial affect, it means it applies to any Asia Pacific fund that has at least one European investor—which in practice means most private-equity funds operating regionally.

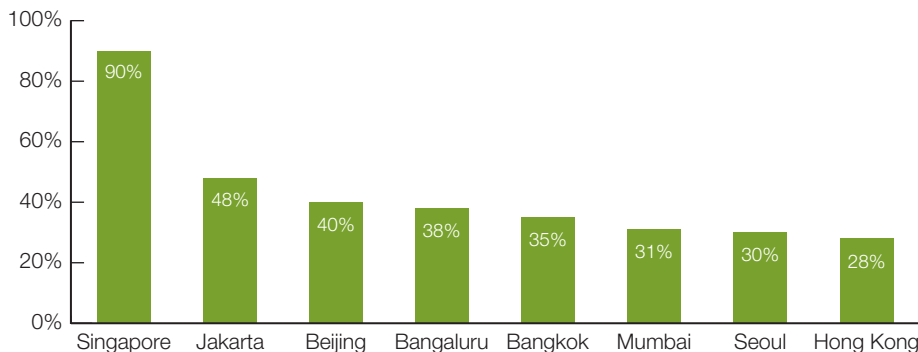
The problem with SFDR and equivalent regulations is that the system in place for assessing carbon efficiency in buildings is intimidatingly nonspecific and still very much a work in progress. According to one investor: “It’s tough, because the various regulatory standards and the things they want you to do are not aligned that well, other than generally towards the net-zero-carbon-by-2050 goal. How you get there, and what you have to report, is all over the place. So, it’s a bit of a minefield in the sense that you want to comply with these different measures, but they’re all going at different speeds.”

Local regulatory frameworks are also in place in some countries. Australia is one of the most carbon-efficient markets in the world, and rapid progress has also been made in Singapore. China, meanwhile, had until recently lagged, but is now undergoing rapid change due to its commitments to various multilateral carbon emission-reduction programmes. In 2022, it introduced pilot regulations in Shenzhen that are unprecedentedly strict, although, as with the SFDR, they have also come under fire as sometimes inflexible and arbitrary. Adapted versions of the Shenzhen rules will probably be rolled out in other Chinese cities over time.

While net zero as a concept is therefore beginning to take root, Asia has so far lagged Western—and particularly European—markets in its commitment to carbon efficiency. “They’re talking the talk but not walking the walk,” as one interviewee commented.

But while awareness may still be low, market forces are beginning to nudge owners towards compliance, at least at the top end of the market where investment funds are most active. According to one fund manager: “We think we’re way ahead of the regulators because we have to rent [buildings] on to tenants, a lot of whom are corporates with their own carbon requirements. Or else we have long-term investors who may hold for 20 or 30 years and who know that net zero carbon is not going away.”

Exhibit 1-16 Percentage of Grade A, Green-Certified Office Stock, by GFA



Source: JLL.

Unless investors make their holdings comply, therefore, by providing disclosure on issues such as the amount of capital invested for carbon efficiency purposes and how much future investment may be required, investors risk holding stranded assets. “A couple years ago, even opportunistic guys would say, “We don’t have to worry about stuff that’s happening in 2050,” the fund manager continued. “But that’s not the case anymore—if you’re selling on to a long-term holder they’re going to ask, so ignore it at your peril.”

This suggests that values of assets unable to meet the required standard will eventually be discounted by potential future buyers (i.e., the “brown discount”). Or worse, that future regulatory frameworks will prohibit owners from leasing buildings that fail to meet energy intensity targets. Such regulations are already in effect in some European jurisdictions, and although the targets set are not ambitious, they will almost certainly be tightened over time.

Exactly how such a brown discount should be measured remains a vexed question, in the same way that values of “green premiums” applying to compliant buildings are also hard to calculate given that so many Asia Pacific buyers are still willing to invest in assets whether they comply or not.

Nonetheless, even though it remains a contingent liability, the existence of the brown discount is very real, and will probably only grow over time. According

to an investor in Australia: “I think [compliance] is seen as business as usual in Australia—it’s not really regarded as asset management anymore, it’s just something any manager should be doing as opposed to something special. So I’m not sure you get a premium on the buy, but you definitely get a penalty on the sale.”

Making Net Zero Happen

Exactly how sustainability and carbon reduction goals can be accomplished is a big subject that is beyond the scope of this report. At its most basic level, however, the drive towards net zero carbon starts by creating a baseline to quantify building carbon emissions, and thereafter crafting an emissions reduction strategy whose progress can be tracked over time. Collecting accurate and comprehensive data (via utility bills, energy audits, and building management systems, for example) is therefore vital.

Across the region, many new office buildings are being constructed to a net zero standard. Australia, in particular, is the leader. In Japan, too, the government has recently raised the sustainability torch and is pushing forward aggressively with measures requiring carbon efficiency, according to one investor on the ground. The Tokyo Stock Exchange (TSE) has introduced measures that require listed companies to comply with Taskforce on Climate-related Financial Disclosures (TCFD) requirements, failing which they

will be removed from the prime section of the TSE as of April 2024.

As a result, all the country’s large developers have taken a long view and now undertake all new developments on a stand-alone net zero basis. Rental premiums paid by occupiers are generally in the range of 10 to 20 percent, according to a locally based investor, and because financing costs are so low, developers are able to absorb the extra expense without affecting returns.

However, getting Asian cities to a net zero standard on a widespread basis will be difficult, if not impossible to achieve given their overall density and energy intensity. According to one consultant, achieving even 50 percent carbon efficiency on existing buildings by way of retrofits may not be feasible in the vast majority of cases, although in principle the gap could be bridged, either partially, through purchase of green energy from electrical utilities (now possible in a growing number of cities), or in full by buying carbon offsets.

Currently, buying offsets for real estate assets is a Wild West world, with little standardisation or regulation of the quality of the credits on offer. Many potential buyers are therefore dubious about participating in the market, and for the time being are under no pressure to do so, meaning supply exceeds demand.

That will change, however, in a few years. According to the head of development at one pan-Asian fund: “As you get closer to 2030, a lot of these commitments will be starting to kick in, people will have to have 50 percent savings and all the rest. But in 2030, the price of carbon is going to be more standardised and probably higher than it is today because everybody is going to be chasing after quality carbon offset providers. So, if all of a sudden you have to start buying those offsets because regulators require it, how much would it cost you? That can be quite a scary story for a fund manager.”



Chapter 2: Real Estate Capital Flows

“No one is daring to make the call that cap rates should be moving out and that values are declining. So we are in a vicious circle: the last few months has been a stalemate.”

Compared with surveys from the previous two years, this year’s *Emerging Trends* city investment prospects rankings show an uptick in positive sentiment, with seven regional cities scoring in the “generally good” range (compared with six last year), one in the “generally poor” range (compared with three last year), and overall scores that registered somewhat higher levels than either the 2021 or 2022 reports.

While this probably reflects a more positive investor outlook resulting from an end to lockdowns and the return of a more business-as-usual vibe, it is difficult to reconcile with the potential downside implied by today’s higher cost of capital and impending recessionary outlook. It does, however, tally with our survey’s relatively positive view on profitability noted in chapter 1 (see exhibit 1-2).

In terms of individual city rankings, this year sees the usual suspects occupying the top places. The most popular destination is Singapore—a city that has featured either first or second in each of the previous three reports, with this year’s vote also registering the highest points tally for the last 10 years.

Singapore has benefitted from the redirection of investment capital that might otherwise have been placed in assets in China. It has also seen a significant number of businesses, including offshore asset management companies, opt to set up in the city rather than Hong Kong. As a result, according to one locally based developer, “headwinds on the [construction] cost side have been offset by tailwinds on the revenue side.” Full-year office rents for 2022, for example, are projected to grow some 8 percent, according to CBRE, one of the biggest increases regionally.

Singapore received more than US\$11 billion in real estate investment in the

year to October 2022, according to JLL. Although this represents an 87 percent year-on-year increase, the upside reflects more a very low base in 2021 than it does exceptional volumes in 2022. A large proportion of that deal flow was from global investors buying office assets, often at tight yields, although in the second half of the year momentum appears to have slowed, with a growing bid/ask spread developing. According to a manager at one regional fund: “We see a lot of appetite for office in Singapore, with many companies relocating, including from Hong Kong. But cost of financing is now going up—so while the market is still active, it’s probably much more selective.”

The other noteworthy aspect of the survey’s top-ranked cities is the popularity of Japan. While Japan has always been a draw for international capital due to its deep and liquid markets, it has particular appeal this year because domestic interest rates—and therefore cap rates—have remained stable even as global rates rise sharply.

The commitment of Bank of Japan (BOJ) to maintaining a near-zero interest rate environment makes assets easier to value while also preserving a positive yield spread over the cost of debt. As one analyst commented: “Talking to our clients, everyone is worried about pricing, about debt, so the one market that stands out is Japan—all the other markets are down substantially in Q3 because they don’t know what the pricing should be, or how interest rates are going to change.”

Not only that, but the commitment to low interest rates has brought with it a sharp decline in the value of the yen, meaning that domestic assets priced in U.S. dollar terms are today considerably cheaper than in previous years.

Exhibit 2-1 **City Investment Prospects, 2023**

	Generally poor	Fair	Generally good
1 Singapore			6.48
2 Tokyo			6.15
3 Sydney			6.06
4 Osaka			5.82
5 Seoul			5.82
6 Melbourne			5.79
7 Ho Chi Minh City			5.74
8 Shenzhen		5.25	
9 Jakarta		5.23	
10 Shanghai		5.23	
11 Bangkok		5.11	
12 Mumbai		5.08	
13 New Delhi		5.03	
14 Kuala Lumpur		4.96	
15 Auckland		4.86	
16 Manila		4.84	
17 Taipei		4.80	
18 Hong Kong		4.69	
19 Beijing		4.69	
20 Guangzhou		4.66	
21 Bangalore		4.66	
22 China—second-tier cities	3.94		

Source: *Emerging Trends in Real Estate Asia Pacific 2023* survey.

Another grouping that has gained ground this year includes cities in Southeast Asian emerging markets such as Vietnam, Indonesia, and the Philippines, all of which have migrated upwards in the rankings. This may seem counterintuitive given that developing markets have historically fared poorly in times of global economic stress. On the one hand, foreign investors will often retrench, withdrawing capital from local capital markets. On the other, as developing market currencies fall against the U.S. dollar, the cost of servicing U.S. dollar-denominated debt increases, as does the cost of agricultural commodities, which are also priced in dollars.

Today, however, Southeast Asian emerging markets—though not those elsewhere in the world—are less reliant on foreign currency investment, having learnt their lesson in the past and also given the abundance of local capital for them to tap. While their currencies have fallen against the dollar, therefore, the extent of foreign debt is today far lower than it was during the Global Financial Crisis.

In addition, while ticket sizes continue to be too small for global funds, emerging markets today have more appeal for foreign investment in general given their high rates of economic growth and emerging consumer classes. As one Singapore-based interviewee said: “Niche markets in Southeast Asia, especially Vietnam, Thailand, Malaysia, and particularly Indonesia, are seeing [foreign] capital go in for a wide range of purposes. You’re seeing some of the big corporates in private equity, and you’re also seeing infrastructure, which could be anything from toll roads to telecoms to electricity infrastructure. They might not be real estate investments per se, but there will be other real estate plays coming as a result of that.”

In particular, Vietnam continues to benefit from a long-term trend of the diversification of global manufacturing facilities away from China. While the Mainland continues to be vital to manufacturers due to the depth and complexity of domestic supply chains, the migration of new industrial capacity to other jurisdictions has accelerated in 2022 due to ongoing COVID-related travel and operational restrictions.

The problem, as ever in markets undergoing rapid growth, is the accumulation of overcapacity as capital rushes to satisfy new demand. Industrial parks featuring ready-built factories have recently been a focus in Vietnam, especially in second-tier provinces, after real estate in prime locations was bought up in earlier rounds of supply-chain migrations. A supply glut has emerged in 2022, in part the result of newly completed projects delayed from

2021 as a result of COVID shutdowns. According to one fund manager: “A lot of foreign investors and the prime equity funds piled in to ready-built factories for rent in Vietnam, but there’s now oversupply [caused by] a big slowdown in end users—the smaller component manufacturers who are a bit lighter on their feet. So I think those will struggle.”

Indonesian data centres are another area where rapid construction of new facilities has raised fears of overcapacity, although in that case the long-term dynamics of the industry means that surplus supply will probably be intermediated more easily.

The bottom of the table features a mix of cities, in particular from Mainland China. As already explained (see the “China: Key Themes” section on page 12), China is currently drawing less foreign capital due to concerns over the economic impact of the country’s zero-COVID policies. Hong Kong has also suffered for the same reason. To be fair, COVID restrictions in Hong Kong have now eased considerably, although its status as the most expensive commercial and residential market in the Asia Pacific has made it more vulnerable in the current high-inflation, recessionary environment.

Exhibit 2-2 Historical Investment Prospect Rankings

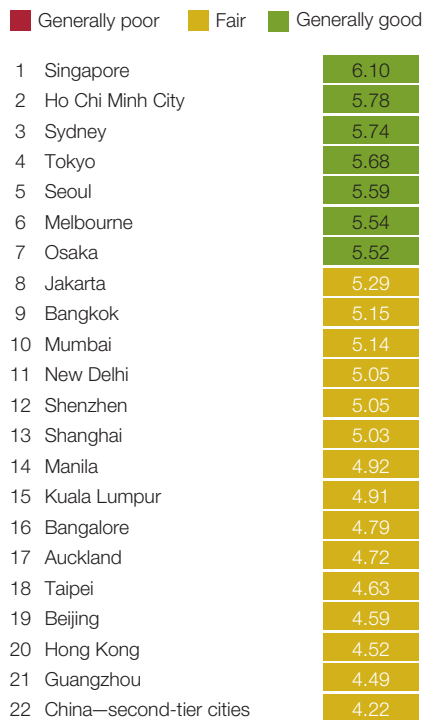
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Singapore	1	2	1	1	2	3	21	11	9	7
Tokyo	2	1	2	2	4	7	12	1	1	1
Sydney	3	3	3	4	3	1	9	2	4	5
Osaka	4	6	8	8	5	10	15	4	3	9
Seoul	5	5	4	10	9	19	17	7	7	15
Melbourne	6	4	6	5	1	2	16	3	5	13
Ho Chi Minh City	7	8	5	3	7	5	4	5	13	19
Shenzhen	8	9	9	6	8	6	5	18	19	10
Jakarta	9	18	16	18	15	14	7	6	2	3
Shanghai	10	7	7	7	6	4	6	9	6	2
Bangkok	11	16	14	11	11	16	8	19	16	11
Mumbai	12	17	15	12	13	12	2	13	11	22
New Delhi	13	19	18	15	17	20	13	16	14	21
Kuala Lumpur	14	22	20	21	22	21	19	21	12	14
Auckland	15	11	13	19	20	9	14	10	15	17
Manila	16	21	19	17	19	18	3	8	8	4
Taipei	17	13	11	14	21	22	22	17	18	16
Hong Kong	18	14	22	22	14	13	18	15	21	18
Beijing	19	12	12	13	12	11	11	14	10	8
Guangzhou	20	10	10	9	10	8	10	20	20	6
Bangalore	21	20	21	16	16	15	1	12	17	20
China—second-tier cities	22	15	17	20	18	17	20	22	22	12

Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Development Prospect Rankings

Sentiment for development projects was stronger this year, though this does not appear to tally with an overall poorer outlook expressed in interviews, where investors cited materially higher construction costs, together with uncertainty over future occupational and cap rate trends as deterrents. Many interviewees reported widespread postponement of Asia Pacific development projects as a result.

Exhibit 2-3 City Development Prospects, 2023



Source: *Emerging Trends in Real Estate Asia Pacific 2023* survey.

That said, the situation varies widely according to market and asset class. Singapore, for example, has seen demand for office space rise this year as more businesses migrate to the city. Japanese cities are also widely regarded as less at risk—even as construction costs rise significantly, investors have been drawn by an interest rate environment expected to remain ultra low for at least the medium term.

South Korea, on the other hand, which has been the focus of a wave of build-to-core projects in recent years, is now seen as problematic for development. According to one regionally focused fund manager: “Korea is the one most exposed [to global macro issues] and most similarly mirrors the inflationary trends seen elsewhere in the world—rising interest rates, reduced bank lending activity, substantially higher construction costs—all of which mean that the build-to-core trend that had been active in Korea to build higher-quality stock across the logistics and office space is really diminishing as an attractive opportunity.”

However, development in asset classes where occupier demand remains high, and that otherwise offer suitably defensive characteristics, will continue to appeal, especially given ongoing structural shortages. Build-to-core development has therefore continued in sectors such as multifamily, especially in Japan and Australia.

Logistics is another asset class seen as evergreen. Australia, for one, continues to experience a severe shortage of warehouses, with rents forecast to grow by double digits for several years.

It should be noted, though, that opinions on both the multifamily and logistics spaces are polarised, with some seeing them as increasingly risky given highly compressed cap rates that may undermine underwriting assumptions as interest rates rise. Opportunities are therefore often location-specific.

Investors have responded to greater uncertainty in build-to-core development projects by looking to offload risk, especially as more contractors resist fixed-price construction contracts. According to one fund manager: “We’ve been much more effective in transferring more of the development approval risk to the seller. So we’ll lock down the land and option it, but the condition precedent to closing the deal will be [the seller] delivering a complete set of approvals. That will reduce the risk of extended financing, because from an IRR clock

perspective, you’ve managed risk by not putting money in. So it does give us a cushion in the underwriting.”

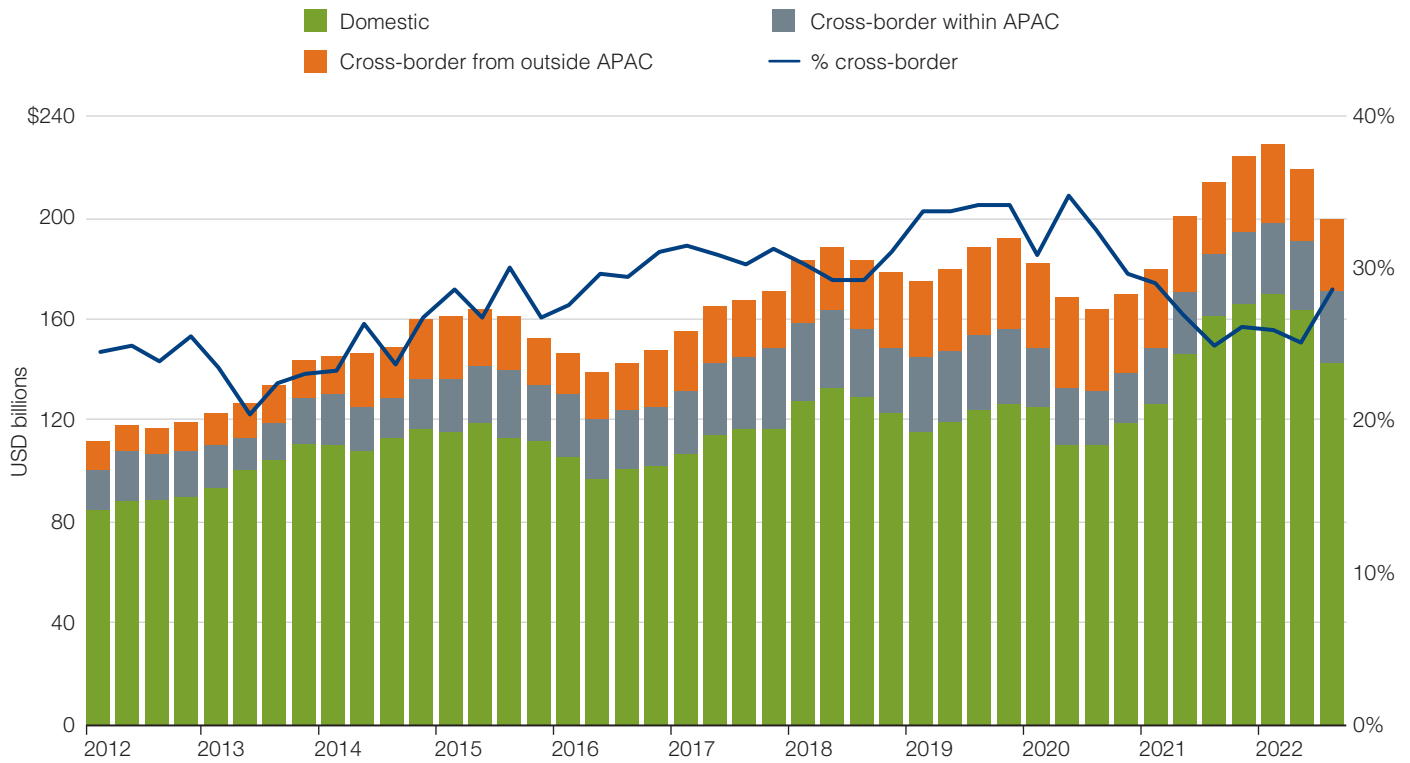
Ho Chi Minh City was highly ranked for development purposes this year, rising to second place from last year’s fifth position. Rapid GDP growth, together with the emergence of an affluent middle class, makes Vietnam an obvious destination for development capital, given the overall shortfall of most types of building stock. One Vietnam-based developer, for example, pointed out that Shanghai recently registered around 25 times more warehouse space than Hanoi, and 13 times more than Ho Chi Minh City.

Nonetheless, development in Vietnam is not straightforward given its propensity for both overbuilding and price bubbles. The domestic housing market—historically a favourite of foreign investors—is no stranger to this phenomenon and is currently subject to various types of speculative excess. In particular, land prices have soared. According to CBRE, prices for landed properties in Ho Chi Minh City rose a remarkable 48 percent in the year to August 2022. To address the problem, the government has directed banks to reduce credit for both developers and homebuyers, leaving many struggling to obtain loans. Land sale approval processes have also been tightened. While this may provide opportunities for the adventurous, risk is high.

Uptick in Cross-Border Deals

The decision by many regional real estate investors to suspend buying until the economic outlook is less opaque led to a nearly 50 percent year-on-year decline in local buyer activity across the Asia Pacific in the first nine months of 2022. By contrast, cross-border activity saw a significant rebound in the third quarter, leading to a 24 percent year-on-year increase in transactions over the same period. This boosted the share of cross-border purchasing to 29 percent, the highest level since the beginning of 2021, according to MSCI.

Exhibit 2-4 APAC Investment by Source of Capital



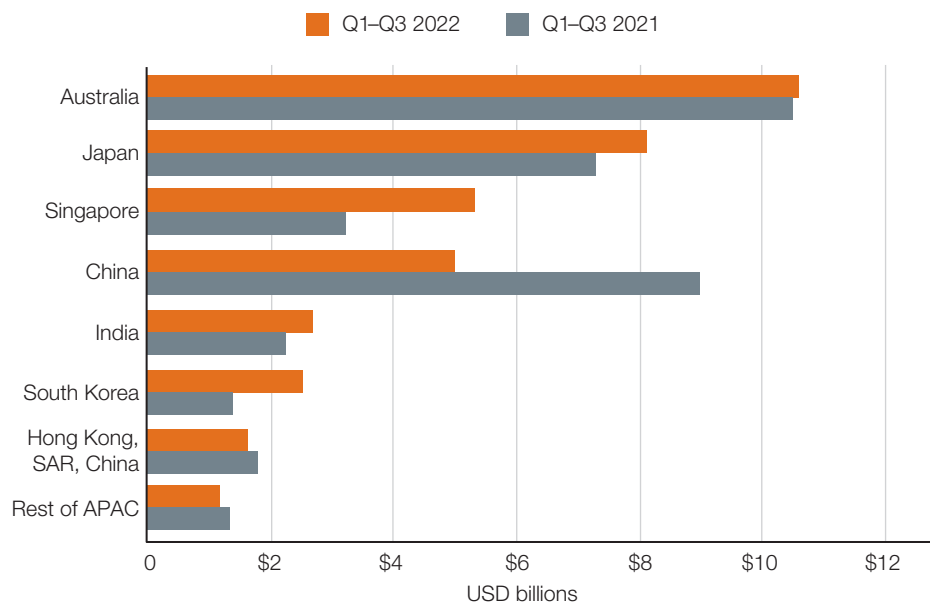
Source: MSCI Real Capital Analytics.

Overseas investment rose by double-digit figures in Japan, Singapore, India, and South Korea. It remained stable (at high levels) in Australia, and dropped significantly in China.

Most interviewees expected little disruption to the long-term trend of rising capital flows into the region from global sources given that institutional funds remain mostly underweight in Asia Pacific markets and are committed to increases in weighting over time (see also exhibit 2-6).

Still, a prolonged or deep recession in the West would probably result in a severe decline in outward flows, according to a manager at a large North American fund. Two reasons were suggested: "First, the home field advantage, where U.S. institutional investors look in their own backyards, see deep value, and allocate more capital there than abroad. Second is the portfolio allocation question, where investors' public-equity portfolios are

Exhibit 2-5 Cross-Border Investment Targets



Source: MSCI Real Capital Analytics.

marked to market substantially down, preventing them putting additional capital to work in private markets [i.e., because of portfolio allocation limits].”

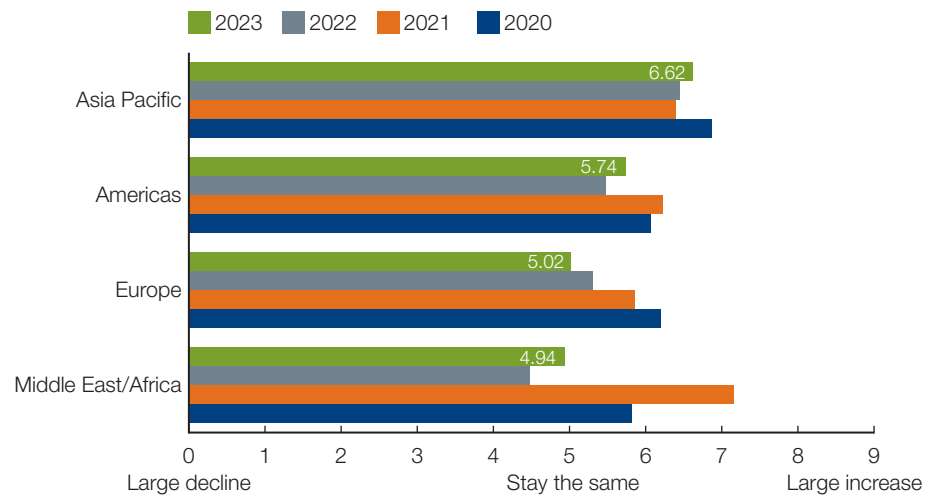
In terms of the sources of cross-border capital, investment from the United States has continued to be strong, no doubt due to the strength of the dollar, but also because it hosts many global funds with mandates to allocate on a global basis. All things being equal, flows to Australia, which was the main target of U.S. funds in the Asia Pacific in the first nine months of 2022, will continue. Japan is also expected to draw substantial amounts of external capital.

With China largely dropping off the radar as a recipient of U.S.- and Europe-based investors, some fund managers suggested that South Korea will be a focus for more foreign capital, thanks to an industrialised, export-driven economy that in many ways is similar to China’s, and despite tightening in domestic credit markets and stiff competition from domestic institutional funds. Indeed, cross-border deals nearly doubled (albeit from a low base) in the first nine months of 2022. In addition, both Incheon and Pangyo are expected to receive more foreign investment going forward as international buyers look to areas outside the capital.

Within the region, outward flows from Singapore—mainly from its integrated developers and sovereign funds (though not its REITs)—were almost as high as those from the United States, boosted by new accounts from the growing number of family offices and other regional capital sources that have recently set up in the city. Australia continues to be a big destination for Singaporean capital.

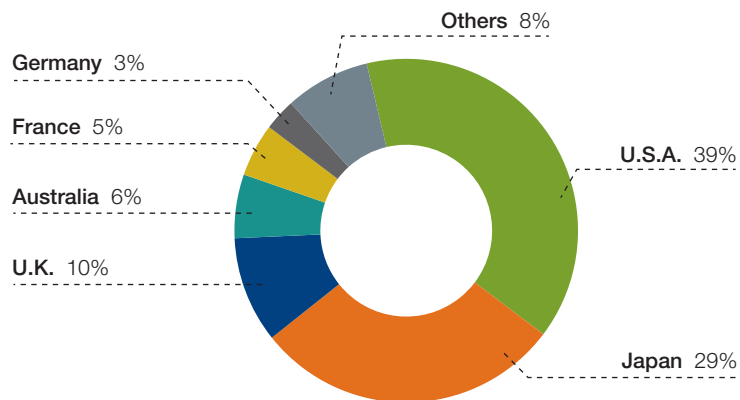
Japanese capital, meanwhile, which previously had been directed mainly towards the United States, has been increasingly channeled into Asia Pacific transactions, with a particular focus on Australia. In part, this is because Western markets were less accessible during the pandemic. But the gradual exodus of Japan’s enormous store of pension fund

Exhibit 2-6 **Expected Change in Capital Flows into Asian Markets over the Next Five Years**



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 2-7 **GPIF Real Estate Portfolio Allocation by Country**



Source: GPIF.

holdings into international markets is now increasingly apparent. The largest of these funds, the Government Pension Investment Fund (GPIF), increased its allocation to real estate by 43 percent in the year to March 2022 (i.e., from ¥544 billion to ¥773 billion), with 71 percent of this investment made outside Japan (primarily in core logistics and office assets), according to the fund’s most recent annual report.

The GPIF’s internal rate of return (IRR) on foreign real estate investments since inception in 2018 has been 10.3 percent, but that figure will have increased in 2022 due to substantial depreciation of the Japanese yen. With its allocation to alternatives still well short of targeted levels, outgoing GPIF real estate investments can be expected to rise significantly from its current U.S. dollar value of over US\$5 billion in coming years.

Currency Volatility

Currency movements have emerged as a major issue for investors in 2022 due to the unexpected rise of the U.S. dollar against most regional currencies. Nowhere is this more evident than in Japan, where U.S. dollar strength has been reinforced by corresponding yen weakness, producing a year-on-year divergence of almost 30 percent as of November 2022.

This U.S. dollar discount is one reason for Japan’s current popularity among foreign funds, despite the conventional view that currency swings should be ignored when underwriting deals. As a manager at one large global fund said: “We always hedge because it’s not part of our strategy to make money from currency. But opportunistic players often don’t hedge and so they’re quite happy to be aggressive on their pricing [in Japan] because they anticipate a significant gain on currency. If you’re a U.S. dollar–denominated fund looking to hold for three or four years, the likelihood of making money from currency is high,

so it’s been an opportunity for offshore investors to be more aggressive in Japan.”

Another issue is the price of hedging, which can vary widely depending on the currency. Yen hedging costs for many Western currencies are currently negative, thereby creating investment gains for incoming capital. Euro-denominated investors, for example, now reap more than 150 basis points (bps) in hedging gains for Japanese investments, according to asset manager DWS. Other currencies must pay positive hedging premiums that then weigh on returns—currently 200 bps for the Australian dollar, and 100 bps for capital from Singapore and South Korea.

Currency volatility can also be disruptive. The South Korean won, for example, has fallen more than 20 percent in the year to November 2022. According to one Hong Kong–based fund manager: “Koreans were huge exporters of capital over the last few years, but have slowed down in a major way. There are a few reasons—changes in terms of regulations

for some investors, as well as changes within the [domestic] credit market. But currency has also been a major factor in the slowdown of capital coming out of Korea—it’s just difficult for them to make investments stack because they have to underwrite everything back to the won.”

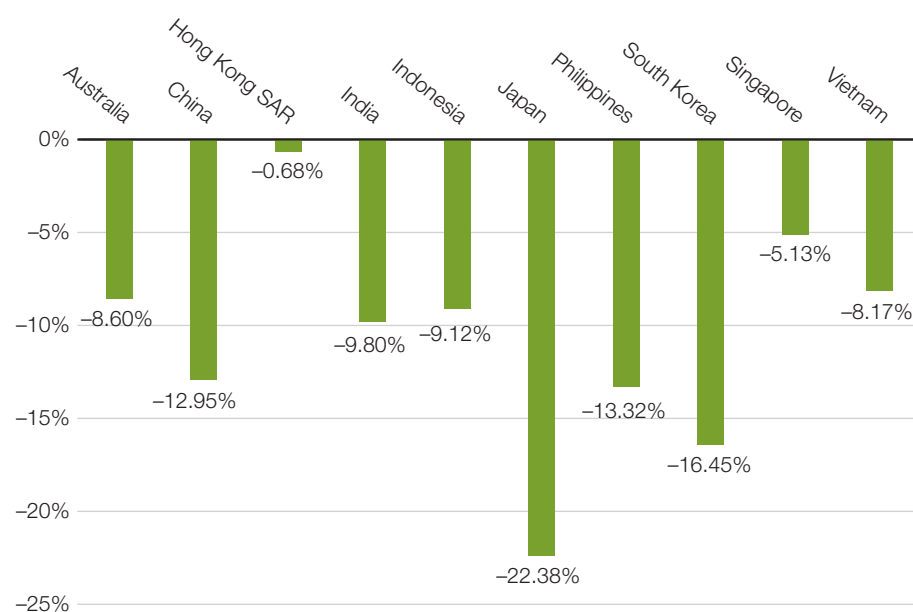
While dollar strength is often seen as a windfall for dollar-denominated investors, currency volatility may also be symptomatic of latent distortions in financial markets. In the case of Japan, current yen weakness is fundamentally the result of levels of public debt that have grown so large that interest repayment obligations would exceed government revenues if returns on Japanese government bonds (JGBs) were allowed to float.

This has left the BOJ hostage to a near-zero (or even negative) JGB interest rate policy for the last seven years, and has correspondingly been the major cause of yen weakness as global interest rates rose in 2022. The BOJ has drawn a line in the sand at ¥150 yen/dollar and is defending it via sales of U.S. dollar reserves, but given the dubious track records of currency intervention strategies generally, there is no guarantee that the yen will not continue to decline should the U.S. Federal Reserve maintain its rate hike policy.

On the other hand, should the BOJ blink and allow JGB yields to rise, the whiplash effect could be painful for investors. As one fund manager observed, “On the face of it, there is currently an attractive opportunity to place capital—but it brings with it the possibility that if the BOJ shifts strategy, the move from a 2-cap to a 3-cap is far more crushing than a move from a 6 percent to 7 percent yield in other markets.”

This is an example of how the reversion to the mean of global interest rates is causing a chain reaction of consequences, exposing imbalances previously hidden behind a wall of cheap debt. As one investor said: “Everyone’s talking themselves into the idea that nothing will change and the currency problem will go away. But this

Exhibit 2-8 Asia Pacific Currencies, 2022 YTD Change versus U.S. Dollar*



Source: AsianBondsOnline.
* Data as of 4 November 2022.

is a different scenario than we've seen before—the dollar strength is uncharted territory, especially when you look at the fundamentals. But historically, when you're in these types of situations, nothing good happens and it tends to get worse before it gets better.”

Fundraising and Dry Powder

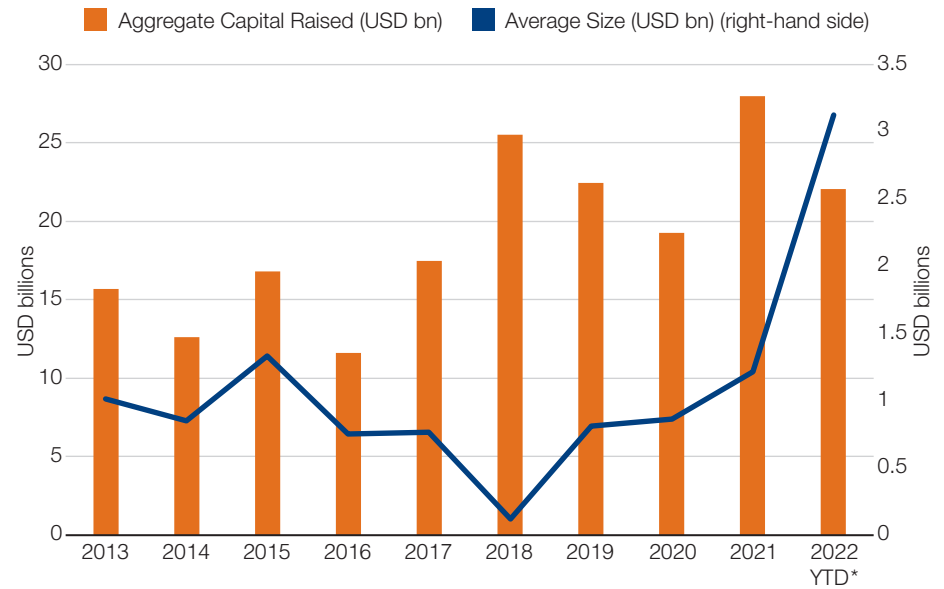
While fundraising for investments in Asia Pacific markets was relatively soft through 2022, a total of just over US\$22 billion raised in the year to November is comparable to figures from previous years (see exhibit 2-9). What is more notable, however, is that the average amount raised was significantly larger than in previous years, indicating the emergence of large global funds as the dominant force.

Other noteworthy trends are all-time-high levels of dry powder, which should provide long-term support to cap rates, as well as ballooning amounts of capital now being raised for opportunistic strategies (see exhibit 1-10), even as fundraising for other strategies falls steeply. This reflects the popularity of new-economy themes such as data centres, logistics, and living asset classes, as discussed in chapter 1.

If smaller funds are therefore less prominent in the market, those that remain are less likely either to go it alone or to provide capital to blind pool funds, instead looking to deploy it as part of clubs, joint ventures, and partnerships.

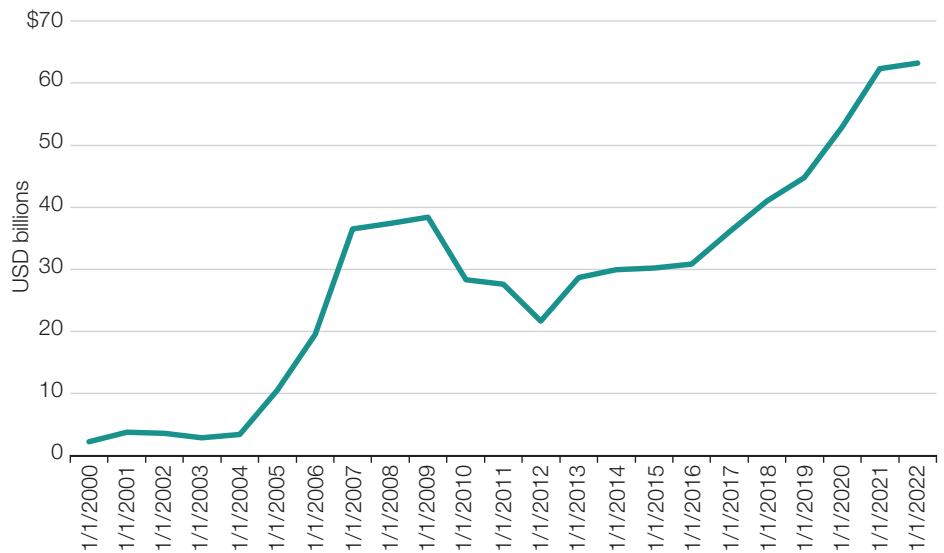
According to one Hong Kong-based fund manager: “Overall, there are a lot fewer groups interested in investing in Asia now compared to when times were good. I think it's because of geopolitics, because as people are starting to retrench they want to invest in places closer to home, and also because historically Asia has always had a risk premium compared to markets in the West. And the groups that are still actively interested are wanting to have more control over how and where their capital is invested, so you're seeing more club deals and joint ventures with the big LPs.”

Exhibit 2-9 APAC-Focused Real Estate Historical Fundraising



Source: Preqin.
* Through October 2022.

Exhibit 2-10 APAC-Focused Dry Powder, 2000 to Q1 2022



Source: Preqin.

Such structures present a certain degree of hazard due to potential non-alignment of interests among participants, but they also function to diversify risk and add flexibility. In addition, the shortened capital-raising window involved can lead to faster assembly of assets, providing first-mover advantage when buying into popular new-economy assets.

Other ways in which fund management may be affected by a changing macro environment is via investment time horizons and reduced return expectations. Some investors spoke of building longer hold periods into their underwriting, at least where fund structures allow it, to ride out a cyclical downturn.

In addition, as market conditions normalise after some 14 years of easing, it seems unlikely that the high returns of recent times will be so easy to replicate. As one experienced fund manager observed: “Everyone’s been weaned on super-good returns on the back of a low interest rate environment and cap rate compression, so they’ve been making money for the last 10 years or more. But the good old days are over. Besides, the risk is too high—if you now want low risk, you’re going to have to accept quite a substantially lower return.”

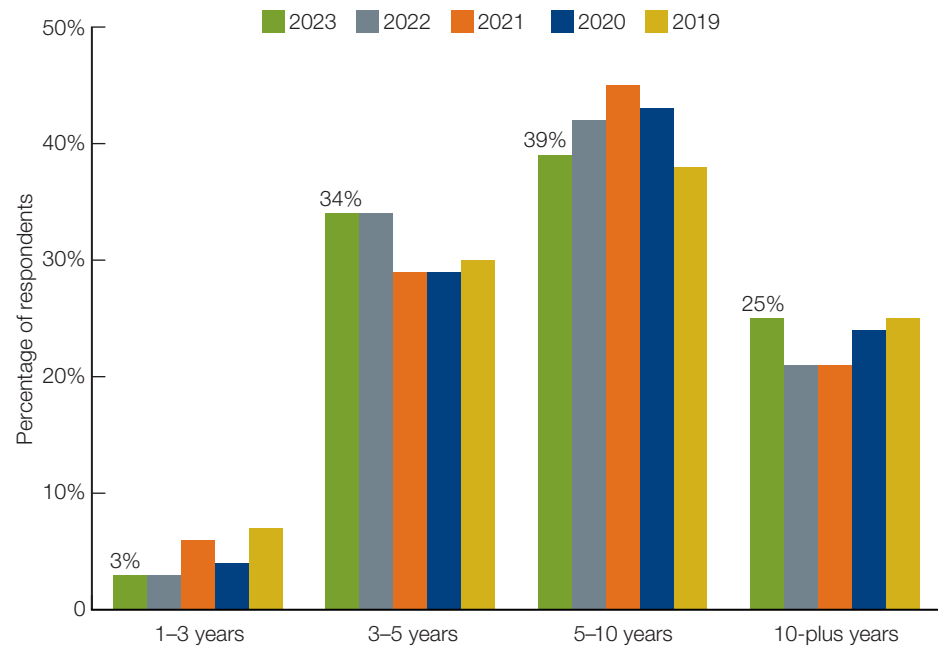
Whether this scenario is widely accepted by investors seems questionable, however. Survey responses show investment time horizons to be little changed from previous years (see exhibit 2-11), while targeted returns are at least on a par with levels from recent years. (see exhibit 2-12). Possibly, the bullish sentiment reflects an anticipated relief rally after nearly three years of COVID restrictions. Whether that is realistic in the context of higher interest rates and a potentially extended period of slow, no, or negative growth that most interviewees are expecting, is open to question.

Public Markets Sell Off

While real estate values held by private-equity owners have so far held up well in the Asia Pacific, shares of publicly listed developers and REITs have declined significantly in 2022. This should be a harbinger of cap rate declines in private-equity because the extra liquidity of listed assets means they reflect market fundamentals more directly and efficiently.

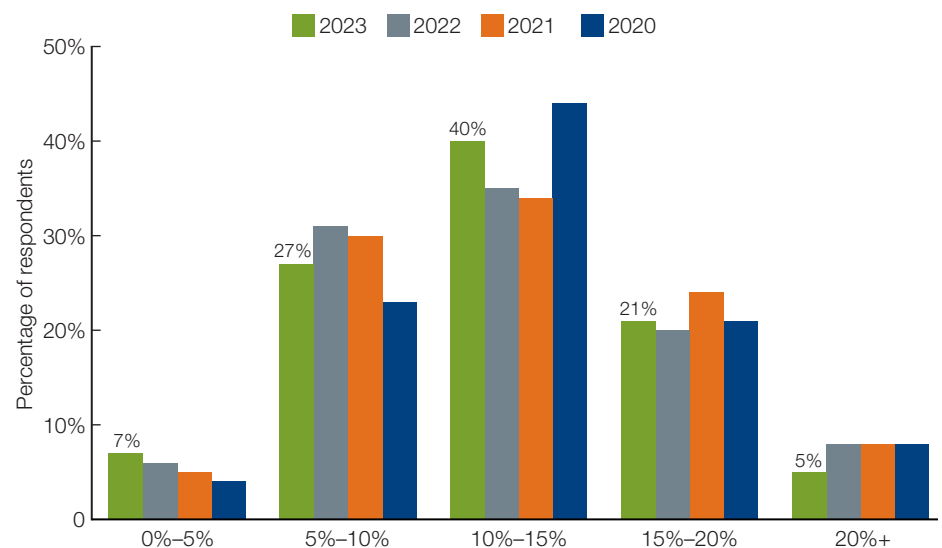
REIT values tend naturally to fall in higher interest rate environments, as interest expense eats into their net income. In addition, they have less scope to use leverage to purchase new assets, and other types of yield-driven investments become more competitive. That said, the decline in Asia Pacific REIT prices throughout 2022 has been significant, with the S&P Asia Pacific REIT Index down almost 30 percent in the year to November. Australian REITs have

Exhibit 2-11 Time Horizon for Investing



Source: Emerging Trends in Real Estate Asia Pacific surveys.

Exhibit 2-12 Investors’ Targeted Returns between Survey and End of 2023



Source: Emerging Trends in Real Estate Asia Pacific surveys.

performed the worst regionally as a result of currency depreciation and a relatively high interest rate environment.

Many REITs across the region are now trading well below net asset value (NAV). By sector, industrial REITs have seen the biggest correction, falling 35 percent in the first three quarters of 2022 and highlighting again how higher interest rates erode profitability of assets that trade at thin spreads over the cost of debt.

At current prices, though, REIT distribution yields are becoming increasingly attractive, and several interviewees suggested that buying REITs trading at current yields of 5 to 6 percent (or 4 percent in Japan) was preferable to making a bet on riskier private-equity assets.

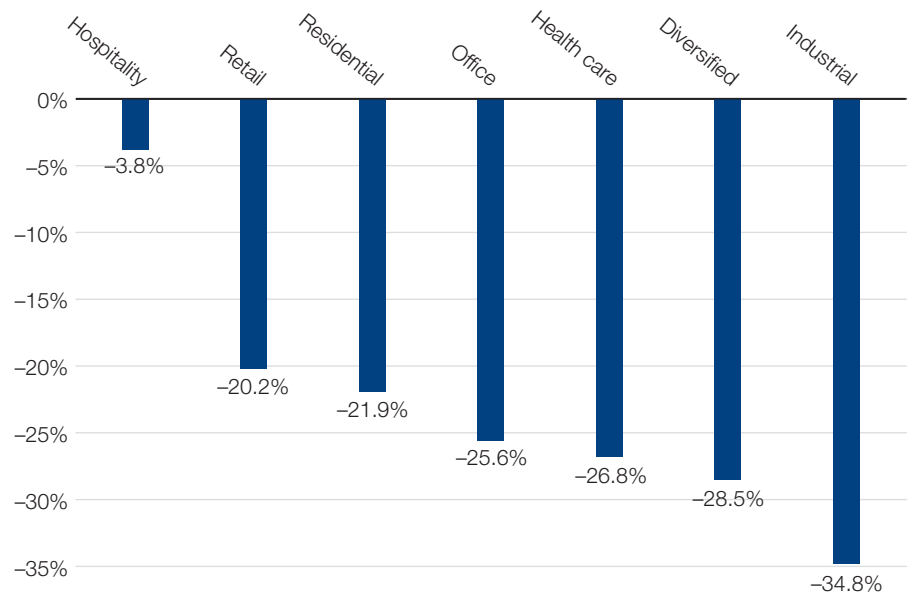
Beyond that, with so many REITs now trading below NAV, they have become targets for takeover or privatisation, especially given the region's chronic shortage of prime assets and with so much dry powder waiting on the sidelines. Notably, the first J-REIT privatisation took place in early 2022. More are currently in the pipeline.

Banks Tighten Terms

Cheap and easy debt has been the lifeblood of some 14 years of outperformance for real estate investors, but as interest rates normalise globally, bank lending is likely to be pricier, harder to get, and subject to more restrictive terms. Survey responses confirm that different types of real estate finance will not be as readily available as last year, although the quantum of anticipated reductions is not large, with only debt for development expected to register even a small decline in real terms (see exhibit 2-15).

In practice, debt availability seems to vary widely according to market and individual circumstances. In Japan, the BOJ's commitment to holding down government bond yields means that the cost of bank finance remains largely unchanged, with debt still available at sub-1 percent levels.

Exhibit 2-13 **2022 YTD Performance of APAC REITs by Sector (as of October 2022)**



Source: S&P Capital IQ, S&P Asia Pacific REIT Index USD total return.

Exhibit 2-14 **Asia Pacific Policy Interest Rates**

Market	Rate	As of 1 November 2022 (%)	YTD change
Singapore	3M SORA	3.89	369 bps
Vietnam	Discount Rate	6.00	350 bps
Hong Kong	3M HIBOR	3.50	324 bps
Australia	Cash Rate	2.85	275 bps
New Zealand	Cash Rate	3.50	275 bps
Philippines	Reverse Repo Rate	4.25	225 bps
South Korea	Base Rate	3.00	200 bps
India	Policy Repo Rate	5.90	190 bps
Indonesia	7-Day Repo Rate	4.75	125 bps
Taiwan	Discount Rate	1.63	50.5 bps
Thailand	1-Day Repo Rate	1.00	50 bps
Japan	Key Policy Rate	-0.10	Stable
Mainland China	Loan Prime Rate	3.65	-15 bps

Source: Trading Economics.

At the same time, lending terms have generally tightened. Seventy percent leverage is no longer widely obtainable, especially for borrowers with higher credit risk or for deals deemed to be riskier.

One fund manager reported securing only 40 percent leverage for a recent hospitality deal, for example. According to another: “A number of the big Japanese lenders are nervous about the residential sector, because they don’t see the rent growth. And a lot of them have been very bullish on logistics, but now as rents start to soften a bit, vacancies start to increase a tad, or the leasing period is taking longer on some of these new facilities, [banks] are going to get more conservative on lending, especially for development.”

The other side of the coin is that, with corporate debt also harder to secure, small and midsized Japanese companies that in the current environment are having problems securing the same access to bank lending are increasingly willing to divest noncore assets, thereby boosting the market for sale-and-leaseback deals that have been fashionable in Japan for several years.

Interest rates in China have also bucked the rising trend, with the government

currently looking to ease rather than tighten. Bank loans are therefore both cheaper (by about 150 bps, according to one fund manager) and more accessible. The government has recently also handed domestic banks minimum lending quotas, partly as a way to kick-start development and partly to drive consolidation in the market, with only larger and stronger players—mostly, though not exclusively, domestic—having preferential access.

An important difference introduced by this policy, according to one private-equity investor, is that whereas in the past banks preferred to lend (at rates of between 5 and 6 percent) to residential developers because loans would be repaid immediately once the properties were sold, today priority is given to commercial properties that repay loans over time via cash flow from rents or strata title sales.

In Hong Kong, according to a locally based consultant, developers are able to borrow 50 percent of the land value and perhaps 50 percent of construction costs (at around 4 percent), whereas previously “you could probably get the bulk of your land value, and certainly the whole of the construction costs.”

Finally, bank lending in Australia remains freely available to bigger and creditworthy borrowers, although borrowing costs are significantly higher (i.e., at around 4 percent, according to a local fund manager) given the rise in the local cash rate from almost zero at the start of 2022 to 2.85 percent by November. The big four Australian banks are “quite selective, though, with a strong focus on track record and the quality or potential of the building.” For those who don’t make the grade, for borrowing on construction projects, or where loan tenure extends beyond five years, banks tend to be reluctant.

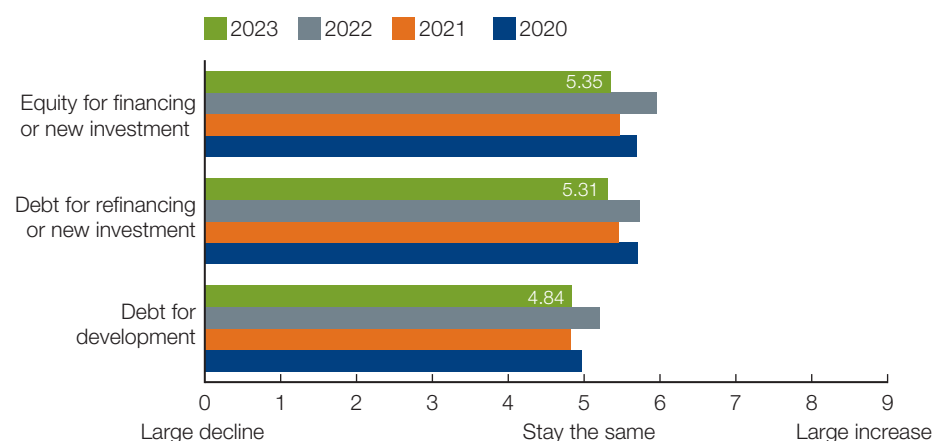
Nonbank Debt Thrives

The rapid tightening of bank lending terms in 2022 has served as a catalyst for the development of a nonbank lending market, which until recently had been relegated to niche status—apart from in Australia—due to the easy liquidity provided by regional banks. With banks now in retreat, private-equity investors are looking increasingly at the prospect of providing real estate debt instead.

According to one investor active in the space: “If you look at where investor appetite and market opportunity is, I think credit is certainly a key focus. People have shifted some of their fixed-income portfolios over to real estate or real assets over the years and I think a portion of real estate portfolios can also then be invested in credit-specific strategies—especially in a market like we’re in today.”

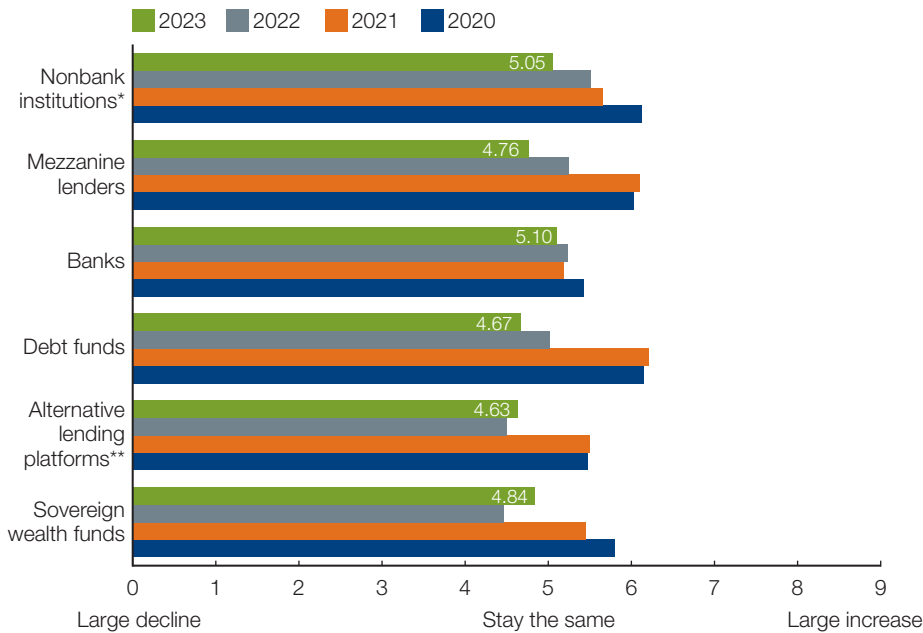
While the cost of nonbank borrowing will almost always be higher than that charged by banks, it is still both competitive and available across the capital stack. As the investor continued: “Access to traditional credit has dried up pretty significantly, so that presents an opportunity for some of these nonbank private credit strategies to come into play. So it’s something you’re seeing around the world, whether it’s stretch senior strategies, mezz opportunities, or construction-style lending—it depends on the market and there’s probably space for all of them as long as there’s a good

Exhibit 2-15 Expected Change in Availability of Debt and Equity Finance



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 2-16 **Availability of Debt by Type of Lender**



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

* Insurers or pension funds.

** Examples include peer-to-peer lending and crowdfunding.

risk/return balance.”

Thin Margins for Green Debt

As real estate fund managers and owners are compelled by regulators, their LPs, and their occupiers to make buildings comply with ever-stricter environmental, social, and governance (ESG) mandates, there is an increasing focus on the use of green finance to complete asset purchases, to upgrade properties, or otherwise to pursue an ESG agenda.

The green bond market in the Asia Pacific accelerated in 2021, with a record US\$129.5 billion in green debt issued during the year, according to the Climate Bonds Initiative (CBI), a figure equivalent to about one-third of all green bonds issued in the region in previous years. Governments are issuing green debt to drive clean energy and sustainable infrastructure investments, while commercial banks and institutional investors are investing in decarbonisation projects in a number of sectors, including

increasingly in sustainable real estate projects. In addition, a smaller market (roughly US\$10.5 billion in the Asia Pacific) exists for green loans.

Around 25 percent of Asia Pacific green bond proceeds were devoted to development of green building projects in 2021, according to CBI, including for building upgrade purposes such as energy efficiency improvements, building systems electrification, and on-site renewable energy generation.

However, while green debt has broadly taken off in Asia, some real estate investors are questioning whether the marginal benefit received in the form of lower interest rates are worth the perceived reporting costs associated with green debt issuance.

In the past, the steps borrowers were required to take to verify compliance with their green borrowing were often rudimentary and not closely monitored. As a result, many such loans didn't achieve all of their sustainability

objectives, especially in markets where verification was difficult. Today, though, as reporting requirements become stricter, borrowers must report performance indicators and building metrics, often at significant time and expense.

The discount offered by green finance is not large. According to a 2021 study by Citi, for example, green bonds offered a cost benefit in Asia averaging 11 bps. But not all fund managers are receiving even this, and with no pressure from LPs to require funds in which they invest to use green finance, they see little incentive to sign up. As one fund manager observed: “In our world right now, having green financing is not a big deal, so we'll start to sign up for it once I get a bit of a discount to comply with all this stuff they're asking for. In the U.S. and in Europe, you are getting a bit of savings on the interest rate, but in Asia so far, not really.”

That said, the situation varies by market. In Japan, for example, one fund manager reported banks were offering discounted green finance terms to local REITs at costs of 20 to 30 bps all-in for 10 to 12 years, compared to normal REIT financing costs of 60 to 80 bps. He added: “We haven't done a green financing yet, but we're seeing there's enough of a discount to make it work. And not just in the spreads, but in the fact that you can get term on it of up to 20 years. So for us, doing longer-term sale and leaseback, we could put this in place and it would be co-terminus on fixed-rate green bonds, which would be a great coupon clipper for institutions to do it with”.

One area where green finance might offer greater benefits to a borrower would be where a bank has a quota for green lending that, while not significantly cheaper than conventional lending, offers other benefits in kind. This might include provision for higher leverage, better terms, or simply the fact that it is available at all if the bank has no headroom as a sponsor in its other loan portfolios.



Chapter 3: Property Type Outlook

“If you’re looking at what’s driving all the sectors, it’s either densification of wealth in cities, it’s digital disruption, it’s the obsolescence of existing stock, and then it’s that build-to-core piece: everyone wants yield at the back end.”

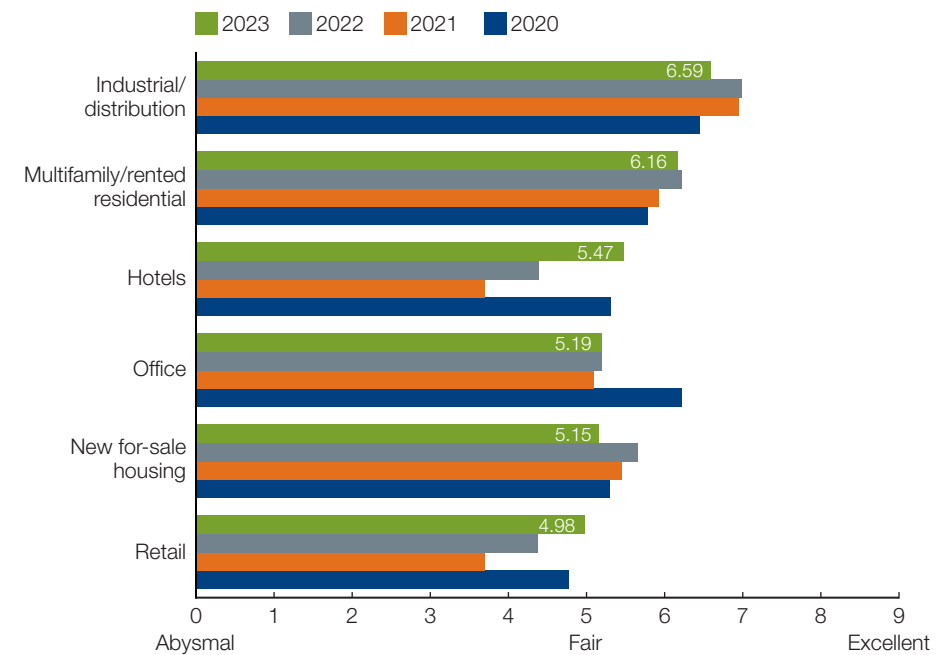
While the Asia Pacific remained relatively isolated from the economic turmoil that swept global markets in 2022, concern over ongoing rate hikes, together with potential fallout from impending recessions, is prompting investors to protect themselves in two main ways. First, by stepping away from the plate and holding off on new asset purchases. Second, by pivoting away from conventional asset classes and rotating instead to new-economy and defensive themes that offer better protection during a period of economic retrenchment.

The inertia referenced in the first theme is readily apparent from the data—the third quarter of 2022 saw regional transaction volumes drop an eye-catching 38 percent year-on-year, according to MSCI, as discussed in chapter 2. The second theme is evident from more granular data relating to individual asset classes. Asia Pacific office transactions, therefore, long the staple source of deals for core and value-add investors, fell year-on-year by almost half in the third quarter of 2022 (see exhibit 3-3), with big declines also recorded in other go-to types of commercial properties.

According to an investor in China: “In the traditional sectors, office is no good, especially in Shanghai because of oversupply. And retail is also struggling because of the pandemic and e-commerce, so a lot of people are looking at logistics—it’s been a major investment theme in the past, but yields are coming down to a level where they may not be sustainable. That means the major field for China is the new economy.”

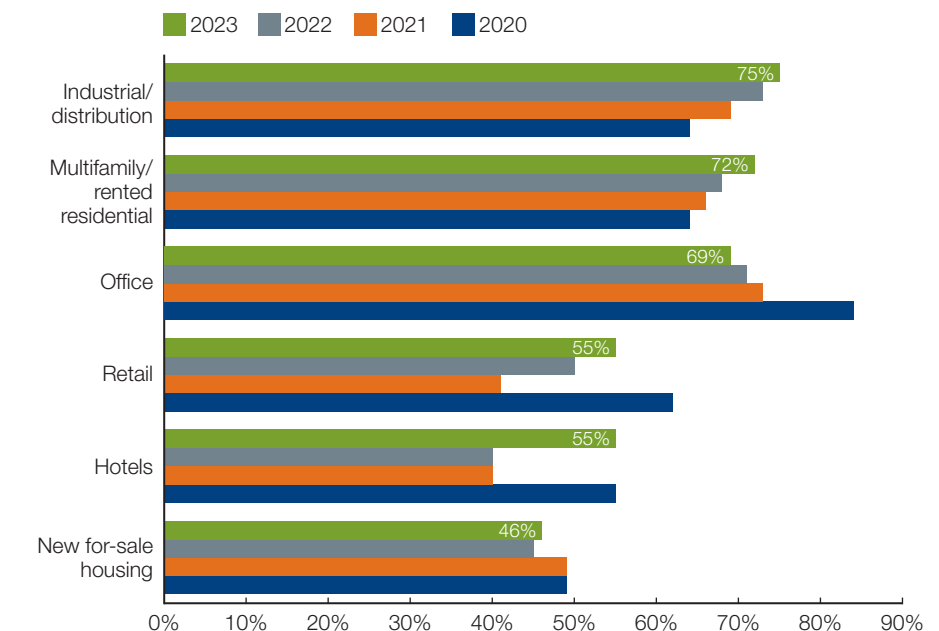
These new-economy themes include industries driven directly or indirectly by digital disruption or changing social habits, and include, as discussed in chapter 1, areas such as logistics, data centres, cold storage, life sciences,

Exhibit 3-1 Prospects for Commercial Property Types



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 3-2 Sectors in Which Investors Are Active or Plan to Be Active



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

and self-storage. In addition, investors are also focused on assets that tend to be resilient to rising inflation (via shorter lease terms or rent indexation, for example) or alternately, themes that offer reliable recurrent income or an element of stickiness, such as build-to-suit developments. Given the element of specialisation most or all of these asset types offer, they often come with the added benefit of higher rents than their conventional counterparts, especially if completed stock is in short supply, which is often the case.

Office

The large decline in office transactions recorded in the third quarter of 2022, as well as the decline in sentiment as reflected in survey responses (see exhibits 3-1 and 3-2), might be seen by some as marking a changing of the guard, but is probably just a one-off. Office remains by far the largest asset class in the Asia Pacific, and will no doubt remain a mainstay for the legion of regional institutions looking for core, long-term assets.

There are various reasons behind the drop. One is the impact of sometimes substantial depreciation of regional currencies on transaction data measured in U.S. dollars. Another is that generally long office leases do not easily reset to cater to rising inflation. A third is that a standoff has developed between willing buyers who need to underwrite a profitable exit cap rate and often well-heeled owners accustomed to more positive fundamentals.

Finally, offices are probably more representative of the overall economy than other asset classes, and are therefore exposed to a double whammy of uncertainty over occupier demand. On the one hand, requirements for space will likely fall as economies slow. On the other, tenants are unsure how many employees will continue to work remotely in a post-COVID environment. According to a Sydney-based fund manager: “From our perspective, we’re not able to see if longer-term demand is

Exhibit 3-3 **Asia Pacific Transaction Volume by Property Type**

	Q3 2022 Volume		Q1–Q3 2022 Volume	
	USD billions	YOY	USD billions	YOY
Office	14.9	–45%	60.0	–12%
Industrial	8.7	–24%	29.2	–30%
Retail	4.2	–54%	22.2	–27%
All commercial	27.8	–42%	111.4	–20%
Hotel	2.4	–8%	11.6	19%
Apartment	1.6	–13%	7.0	16%
Senior housing and care	0.8	241%	2.0	105%
Income properties	32.6	–38%	132.0	–16%
Development sites	174.1	2%	436.1	–2%
Grand total	206.7	–8%	568.1	–6%

Source: MSCI Real Capital Analytics.

in need of recalibration. There’s currently a dichotomy between the big corporates that are heavily influenced by their HR departments and the SMEs [small and medium enterprises], which are now back to pre-COVID attendance levels. So it makes it hard to underwrite things like rental growth going forward.”

In terms of individual markets, South Korea has seen the most significant volume drop. Cap rates in Seoul had been in steady decline for years before reaching a low of just over 3 percent in early 2022—on a par with properties in traditionally expensive markets such as Hong Kong and Singapore (see CBD Office Yields chart on page 14). But Korean cap rates are now unwinding rapidly as interest rates shoot up. With a current bid/ask gap approaching 10 percent, and buying from domestic institutions drying up in 2022, several foreign fund managers were positive on office deal prospects in Seoul, including possibly on a distressed basis.

Of the other large Asia Pacific markets, Sydney and Melbourne have seen a number of deals at the top end of the market (sponsored mainly by global funds), Tokyo has remained relatively resilient (although bid/ask spreads are widening), and activity in China—

specifically Shanghai—remains slow due to oversupply issues as well as ongoing questions over the impact of zero-COVID policies on the economy.

Remote Work Drives Change

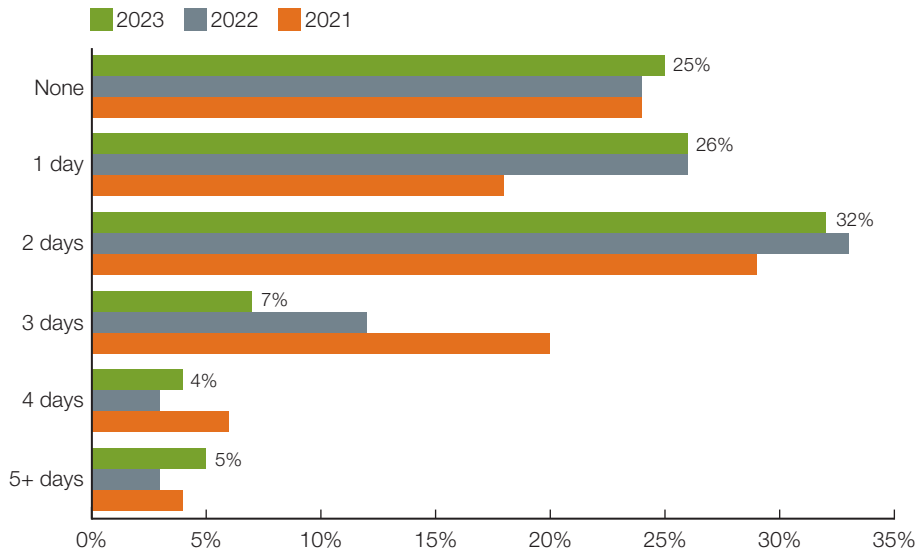
Still, while office as an asset class remains very much in play, uncertainty remains as to how, and also how much, employees will physically use office buildings in the future. Changing employee work habits mean that building-use patterns are undergoing profound change, with long-term implications for asset values of both offices and associated real estate.

The main reason for this is that remote working has become firmly entrenched as a component of the workplace.

This is illustrated by survey responses (see exhibits 3-4 and 3-5), which show significant numbers of employees spending between one and three days per week working remotely, as well as some 44 percent of businesses embracing a long-term commitment to hybrid working practices.

Experience differs widely by country, though, and results are sometimes

Exhibit 3-4 Average Days per Week Spent Working from Home after the Pandemic



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

surprising. Usually independent-minded Australians, for example, seem to have a relatively high “return-to-office” commitment, while Japan—despite an historically office-oriented culture—has seen younger employees opt for greater self-determination in choice of workspace. In general, though, and despite a preference among employers for office-centric working, the staying power of remote work has been unexpectedly resilient in cities where homes are often regarded as being too small for workers to be productive.

In part, the ongoing commitment to remote working is a reflection of tight labour markets that currently give employees the stronger hand. That may change if the initiative passes to employers as economies deteriorate, but for now it means that companies are looking to structure real estate portfolios with an eye to employment retention among remote workers.

There are a number of consequences to this. First, it is helping drive a tenant migration to modern, high-quality buildings that offer a range of attributes, be they gyms, quiet rooms, or green

building credentials. According to one office developer: “Our research shows that as COVID started to take off, the last buildings to drop off with utilisation were the premium buildings—and after it did drop off, the first ones to get leased [again] were [also] the premium buildings.”

In addition, the current occupier focus on the higher end of the market is in turn attracting attention from buyers. This has added to preexisting demand among investors for the same buildings as “port-in-a-storm” assets where they can ride out an economic downturn, and also from buyers seeking ESG-compliant buildings for the purposes of LP mandates or SFDR disclosure requirements (see chapter 1).

Another factor contributing to higher demand for modern buildings is that, with fewer staff in the office at any given time, many larger companies are beginning to increase the ratio of total staff to floor space. This has been a slow process because, with the exception of a few high-profile early movers, many companies have opted to retain space that is now clearly surplus to requirements as they wait for clarity on the direction of office-use preferences.

According to an executive at a prominent Australian developer: “While we aren’t seeing companies come into the market with a lower footprint requirement, we are seeing that when they leave older stock, instead of creating new offices for those people, they are combining them with offices they are already in.”

In other words, companies that previously rented 100,000 square metres of space for 10,000 people are now using the same space for perhaps 14,000 to 15,000 people, giving up their older buildings in the process, and upgrading or reinventing retained space out of associated cost savings. “What that means,” the developer continued, “is a flight to quality, to technologically advanced buildings, to sustainable buildings particularly, and either locations or buildings that can offer great customer experience. These are the three areas we are focused on, because we can see that if you get those right, you’ll get tenants.”

The Evolving Workspace

Another way in which workspaces are evolving to adapt to flexible workforces is by changing offices’ purpose and functionality. There are various aspects to this, and once again, markets in Australia are probably more advanced than elsewhere in the region:

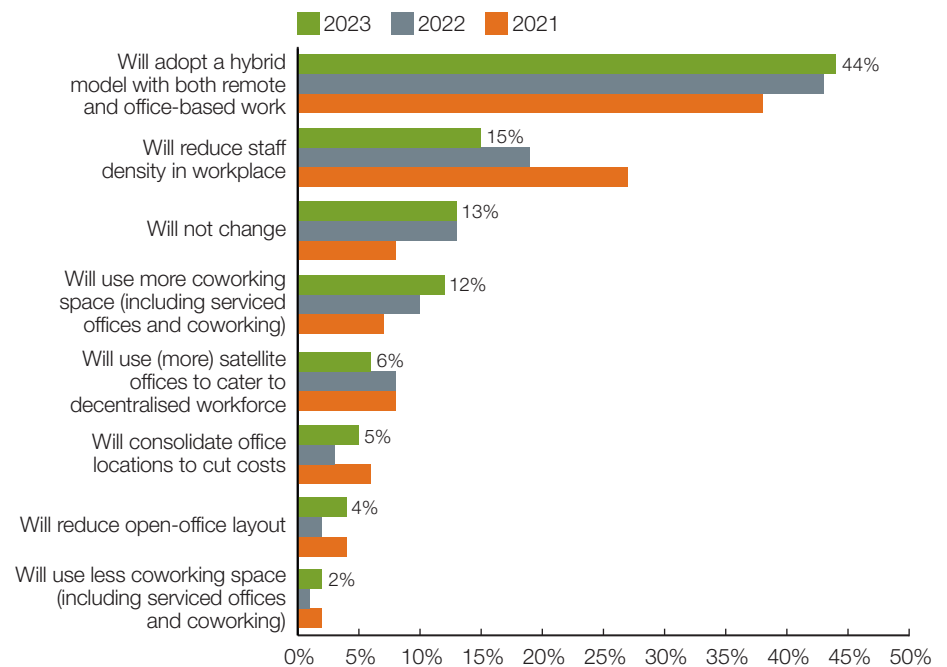
- Upgraded layouts. One part of this is reduced staff density. This may seem counterintuitive given that employers are also increasing the ratio of total staff to floor space, but with fewer staff attending the office at any given time, they can do both simultaneously. Reduced staff density is provided partly for well-being purposes and partly to ensure that more staff can be accommodated on busy days (although our survey also suggests this issue is less a priority today than it was a couple of years ago [see exhibit 3-5]).

In addition, companies are now prioritising office time and space so that it puts more emphasis on social

and business connectivity than for performing “focus” work. As a result, desk space is shrinking dramatically. Similarly, because workers now interact more on a remote basis, offices now offer facilities better adapted for holding online meetings. Otherwise, how the design of post-COVID offices will evolve is subject to widespread experimentation and remains an open question, other than that it will require a new geometry of space to optimise both hybrid working and the types of work that employees are commuting into CBDs to perform.

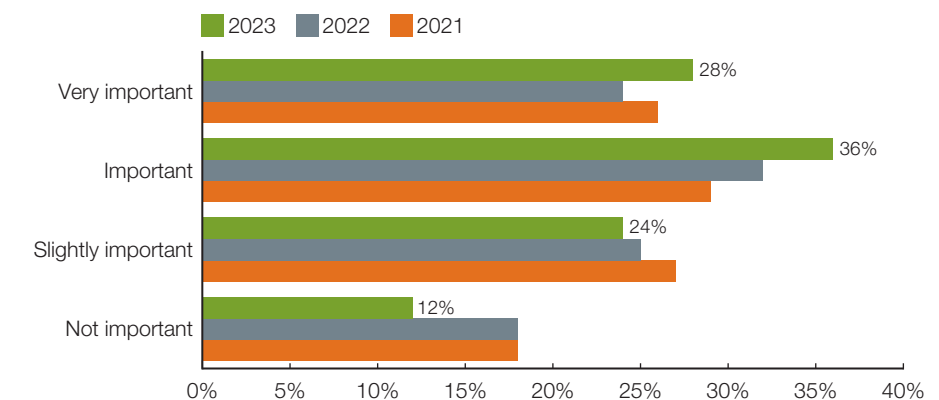
- The rise of what one developer called the “portfolio as a platform,” in which all buildings owned by a single landlord across a variety of locations are made available for use by its tenants: “Over time, we may start to see workspaces in our shopping centres, for example, and when you combine that with our office and build-to-rent [residential] space all having opportunity for people to work from, they can then use tech to say: ‘Today I’ll be at the build-to-rent, tomorrow in the city HQ, and next week I’ll be in Melbourne.’ And they are all linked—a unified platform to work from.” Aligned with this concept is the creation of shared space. This includes traditional coworking facilities, but the concept of sharing has also morphed to include other types of shared environments, such as library-type focus spaces or collaborative, tech-enabled spaces where teams can gather for meetings or workshops.
- Perhaps unsurprisingly, a greater emphasis on well-being, both physical and psychological. This would include not only the type of touchless access now becoming standard in high-end buildings, but also requirements for open and outdoor spaces (such as rooftops), and for activities to activate those spaces in support of well-being—perhaps yoga or mental health services.
- As millennials and gen-Zers assume numerical superiority over boomers, office users will be defined by a cohort

Exhibit 3-5 How will your organisation’s workplace model change as a result of COVID-19?



Source: *Emerging Trends in Real Estate Asia Pacific surveys.*

Exhibit 3-6 How important currently is flexible workspace for accommodating employees of your organisation?



Source: *Emerging Trends in Real Estate Asia Pacific surveys.*

of digital natives who will demand and be literate in the language of technology. Buildings will therefore need both to embody technology and offer it on a simplified and frictionless basis. An example of this would be what one building owner called a “dynamic people-management

system” that uses AI to help employees plan their time efficiently vis-à-vis colleagues’ workloads and schedules, or “flow-to-work” operating models that create pools of (usually human) resources that can be deployed flexibly and as required. So far, tenants and building owners have

been slow to pursue this theme, but demand is such that uptake is likely to become increasingly common over the medium term.

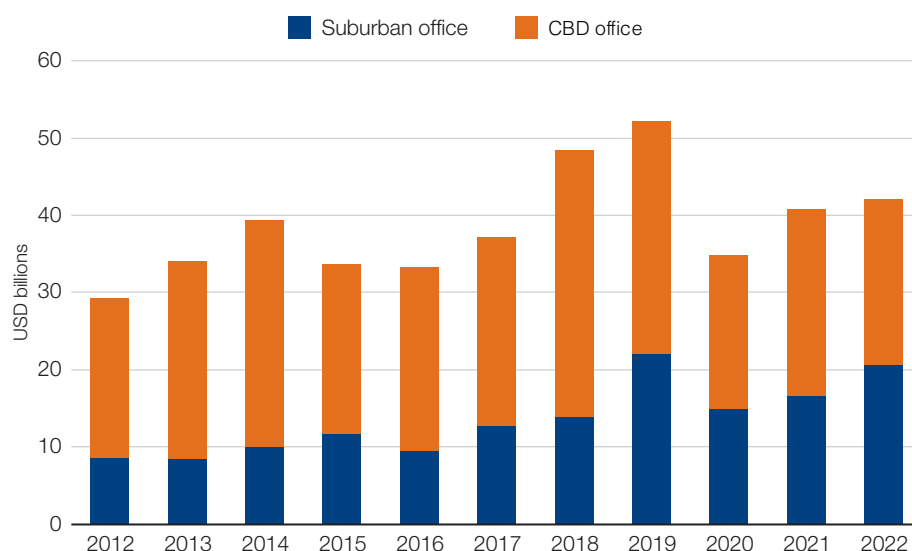
- Sustainability—and especially carbon efficiency—will become key. There are multiple components to this, many of which have already been discussed. Tenants will require it because current or future employees demand it of them. Investors want sustainable buildings because of the (albeit unquantifiable) green premium they receive when they sell. And owners need to make their buildings sustainable, either because the pool of potential buyers will otherwise shrink, or because shifting regulatory requirements will compel upgrades anyway. In the words of an investor in Japan: “They are either ESG compliant, in which case they will trade, or otherwise, those where stuff can’t be done, you’re going to have a lot of institutions that won’t buy them—they just won’t be a tradable asset at some point in time.”

Decentralisation Picks Up

Tenant migration away from older, second-tier buildings is having a wider impact than simply boosting demand for more modern offices in the CBD. One is that decentralised working habits are driving demand for buildings located outside city centres, in city fringe or suburban areas. By moving outward, companies are not only seeking to bring the office closer to where critical masses of employees live, but also to pay lower rent for good-quality office stock in outlying locations. Growth of these suburban-oriented trends is confirmed by the data, with outlying offices attracting almost half of all office investment regionally in the first half of 2022, according to MSCI (see exhibit 3-7).

However, the process and extent of CBD decentralisation varies city by city. In Australia, the idea has been slow to gain traction, as noted previously. According to one Sydney-based fund manager: “During the pandemic, there was a theory

Exhibit 3-7 Office Investment Volumes by Subtype



Source: MSCI Real Capital Analytics.

that decentralisation would be a thing in Australia and the corporates would look to have city or suburban metropolitan satellites. But what we’re actually seeing is just the opposite—a consolidation into quality office space in a single location. So the more prominent core assets are seeing a fair bit of leasing happening.”

In Hong Kong, secondary CBDs have evolved in Kowloon East and Quarry Bay that draw back-office departments and, increasingly, professional service firms fleeing the city’s notoriously high rents. In Shanghai, large peripheral clusters have also opened in multiple locations, but notably around the Railway Station, North Bund, and Qiantan areas. As often happens in China, growth has been so rapid that oversupply problems have arisen, though these should be digested in a period of two to three years, according to an investor in Shanghai.

In Japan, secondary office locations are also thriving. One Tokyo-based fund manager, identifying it as a preferred investment strategy, said: “Ideally, I’d look at large floor plate B-class office in noncentral locations with good transportation that’s large enough to put in ESG and do energy retrofits.

Shinagawa is a perfect example, with a lot of residences nearby and good transportation.”

Repurposing the Old

A second issue arising from the depopulation of second-tier buildings is that it produces a significant body of underused and unwanted stock (perhaps 10 percent of the overall market) that now needs to be redeveloped or repurposed.

But while this creates an obvious and unique opportunity to reimagine such large amounts of city centre space, the available options for repurposing older stock (mostly built on tight budgets in times when regional economies were less developed) may be limited. In principle, a value-add approach would be ideal, given the embodied carbon (i.e., greenhouse gas emissions associated with the manufacturing and transportation of key building materials and the greenhouse gas impacts of construction) contained in the original structures. But while upgrading older offices has been a lucrative option for many investment funds in recent years, demand for new office space is now questionable given

the rise of remote working. Beyond that, conversion plays may anyway be hard to finance in an environment where interest rates might remain at elevated levels for a prolonged period of time.

One suggested option was to repurpose such stock as “general-purpose space” that can be used flexibly as the market requires. Such an approach may be feasible economically because many older buildings are owned by deep-pocketed local developers (or individual owners) and are therefore not subject to bank loans. According to a Hong Kong-based consultant working with developers in the city: “There seems to be a shift in trying to second-guess and dictate what the market wants and what it should be provided. So there will be a building envelope that is gutted, made generally suitable, and fitted out in terms of escape [facilities] and utilities. But what happens within the envelope will be dictated by the market. It might be a mixture of retail and office, it might be a mixture of residential as well, and it might be mixed use within the same building—all in all, a much more spontaneous approach to occupation.”

In principle, bringing more people to live in CBD areas would certainly be conducive to creating a greater sense of community and vibrancy. According to a consultant in Singapore: “We describe them as central activity districts, the concept being that it’s not just about work, you should be trying to build something that is mixed. Raffles City, where I am, is dead on a weekend, even though it’s right on the bay, and the URA here in Singapore is very aware of that and is looking for ways to inject more residential into the CBD to try to create more 24/7 vibrancy. So you’d have fewer workers, but some of that land use might evolve to be residential, or more hotels, which could ultimately have a positive effect for retail, too.”

In practice, however, repurposing might prove tricky to execute given that the inefficiency of older, small floor plate buildings commonly found in Asian cities makes them generally unsuited for the

type of ESG upgrades quickly becoming the norm in private-equity deals. This means that repurposed assets may be left stranded when current owners look to sell in the future.

According to a Tokyo-based investor: “The big problem for some of these small buildings, where at the end of the day [ESG upgrades] can’t be done because it’s not economically feasible, is that no one will want to occupy them. They can’t be in them and so you’ll have to tear them down and rebuild something—but if they have a really small footprint, what are you going to do?”

One answer to that is to make redevelopment an aggregation play that joins adjacent land sites to achieve a larger footprint. That solution comes with other problems, though. Banks are usually hesitant to call in loans for even poorly performing buildings (although if distress becomes commonplace, that may change). Aggregating sites on a synchronised basis is unlikely to become common, therefore, in the absence of some kind of regulatory intervention compelling it.

That option remains a possibility, however, as governments across the region become increasingly proactive in pushing environmental agendas. The Japanese government, for example, “appears to be pretty aggressive in terms of how they’re trying to push this forward,” one investor commented. “So it could easily push these smaller guys into doing something sooner than later—the banks will just pull the financing and say, ‘The government won’t let us continue, so you have to do something.’”

Logistics

Seemingly bottomless Asia Pacific demand for logistics facilities, driven mainly by the e-commerce and technology sectors, as well as by the rotation of institutional investment away from conventional retail assets, has proved resilient even as consumption and industrial output have stalled.

The dynamic in regional logistics sectors differs from that in the West because structural undersupply of modern facilities is so pervasive. As one investor observed: “A lot of the demand for modern logistics isn’t necessarily net new absorption, it’s upgrade demand from a company that was previously in an open-sided facility with a tin roof that is now looking to introduce automation—or at least cold storage—so the ice cream doesn’t melt before it gets to the grocery store.”

So while net new absorption may soften, demand tends to be resilient because it offers a cost-effective way to improve efficiency. “In the case of Japan, it’s been that way for 20 years,” continued the investor. “So the idea that China or Korea or markets that are further behind in the development curve from a logistics fulfilment perspective wouldn’t be able to follow that same trend doesn’t hold water for me.”

In terms of individual markets, e-commerce penetration rates in South Korea (50 percent) and China (43 percent) are some of the highest in the world, creating enormous ongoing demand for fulfilment capacity over and above that required by their traditionally export-oriented economies.

Australia also has a deep supply/demand mismatch stemming from historically low e-commerce penetration that has been rapidly catching up to global norms. Warehouse vacancies in Australia are some of the lowest in the world, standing at 0.8 percent in the third quarter of 2022, according to CBRE. And with relatively little new space under construction (equivalent to just 2 percent of existing stock), rental growth is correspondingly high, registering an increase of 13 percent in the year to June 2022, with even higher rent hikes in the pipeline. This explains why Australian logistics assets have been some of the most prized targets of global institutional investors for the last several years.

A further shift in the regional logistics sector landscape is caused by

an overarching trend of industrial diversification away from China. As economic problems from China's ongoing zero-COVID policies mount, inbound foreign investment is increasingly heading to other markets, with one in three respondents to an October 2022 poll by China's American Chamber of Commerce saying that investments planned for China had been directed elsewhere during the past year.

This deficit in terms of new Chinese industrial capacity becomes a surplus for other markets, adding to a preexisting slow bleed of outgoing factory capacity from companies pursuing a "China Plus One" diversification policy. Although the outflow accounts for only a minute percentage of total factory space in Mainland China, it still represents very significant inflows for recipient Southeast Asian countries such as Cambodia, Thailand, Indonesia, and in particular Vietnam.

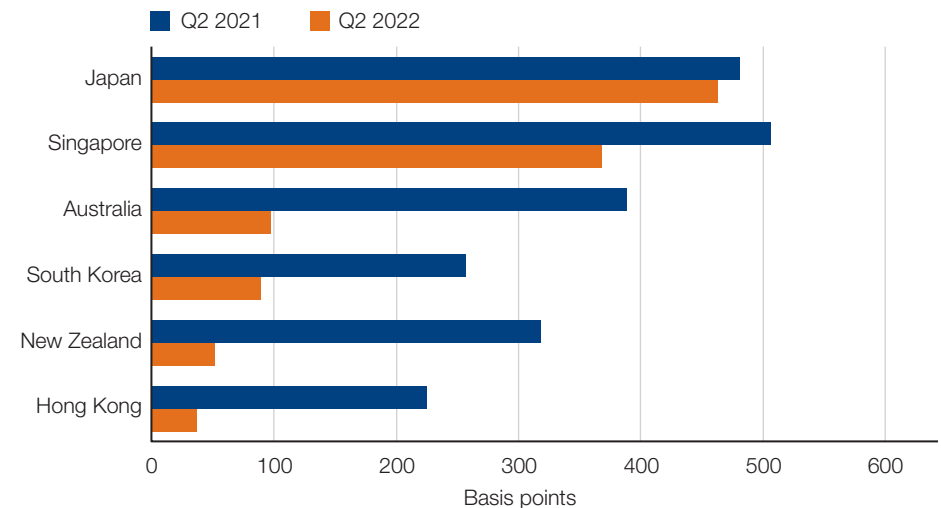
Yield Compression Bites

However, while the overarching structural shortfall across the Asia Pacific shows no sign of ending, transactions of regional logistics assets fell sharply in 2022. After record volumes in 2021, deal flow dropped 25 percent year-on-year in the third quarter, according to MSCI. Although the 2021 base was admittedly high, the 2022 figure was propped up by a single large deal in China, without which the total would have been the lowest in five years.

The reason for this is that the popularity of the logistics theme has driven cap rates to levels (sub-3.5 percent in Australia, for example) that some find hard to justify. "If you compare office, retail, and logistics, they're trading almost at the same [cap rate] level," said an investor in Japan. "I don't think that makes sense if you look at the value of the land and other real estate parameters of the deal."

As interest and bond rates rise, logistics yields have been squeezed below 100 bps in several major markets (see exhibit

Exhibit 3-8 Industrial Yield Spreads to 10-Year Government Bond Yields



Source: MSCI Real Capital Analytics.

3-8), although those in Japan and China, where interest rate movements have been flat or negative, remain close to historical norms.

Despite these issues, however, there is a significant body of opinion to the effect that the fundamentals of the industry still justify currently compressed cap rates because shortages of warehouse stock will continue for years to come, with the region's projected incoming supply (i.e., of 20 million square metres per year) falling short of new demand (i.e., at 23 million square metres) for the logistics sector alone, according to CBRE. This is driving a trend of long-term rental growth that will increase profitability and effectively push out cap rates without affecting asset valuations.

While this argument is plausible, it may not be as appealing as it seems given that creditworthy tenants are commonly offered incentives in the form of long-term rent rebates that run as high as 15 to 20 percent of the sticker price, according to one Singapore-based investor. "You have to buy these guys to get them to come in. So they say there's a rent rise, but you have to effectively bring it back and understand exactly what is the net net these guys are getting?" he said.

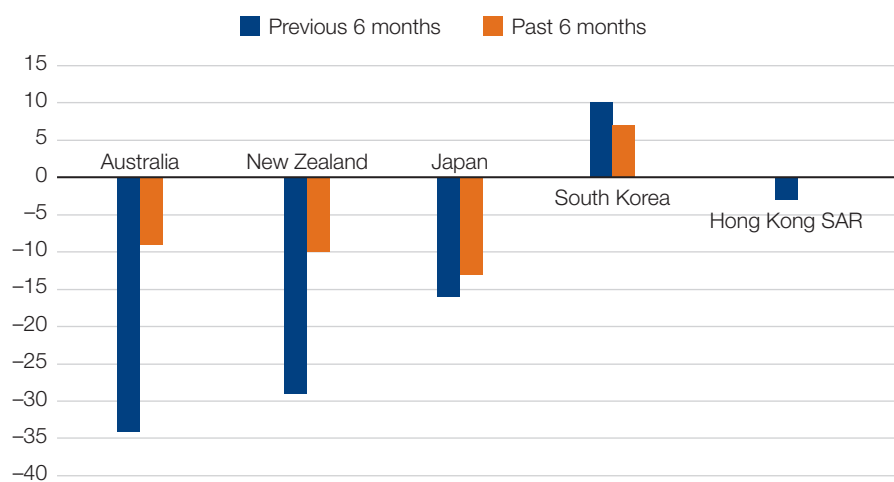
"And it's not nearly as much that they're saying, certainly to get the best-quality tenants."

In addition, even though the long-term trend is upwards, the cyclicity of demand for logistics space can swing significantly, bringing with it cash-flow disruptions. During COVID, many e-commerce operators opted to over-inventory products (partly out of concern over supply chain disruptions) and sell them off over time.

But as COVID disruptions fade, demand growth for online retailing has slackened with it. "This is a cycle," said the Singapore investor, "so when that comes back off, you'll find there's a lot of [vacant] space because people aren't going to have need for all the inventory. You have to keenly understand the needs of the clients—the 3PLs and the e-commerce operators—and what the implications are for demand for warehouse space. Because how much they'll take will be very cyclical, and it's a question of riding it out."

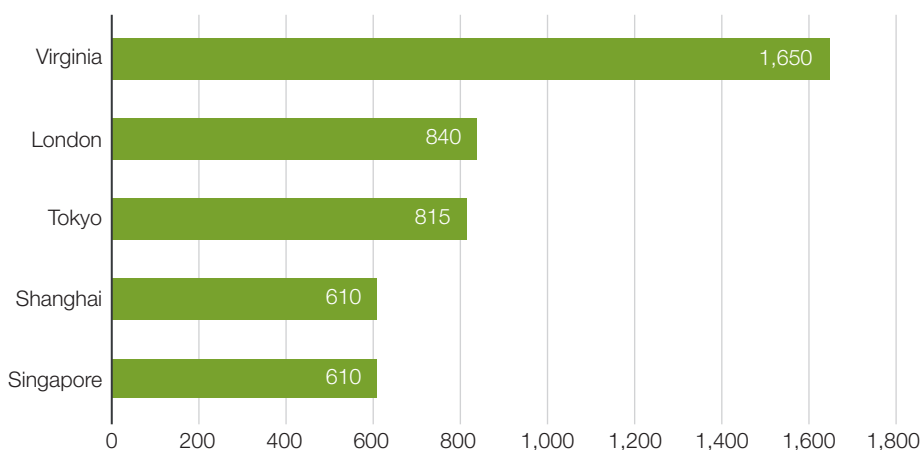
In any event, cap rate compression across the region appears now to have ended and is showing signs of outward movement, especially in markets where

Exhibit 3-9 **Industrial Sector Yield Changes for Select Markets, Q3 2022**



Source: MSCI Real Capital Analytics.

Exhibit 3-10 **Data Centre Market Size, 2021 (megawatts)**



Source: Cushman & Wakefield.

yield spreads have shrunk the most (see exhibit 3-9). In South Korea, where rising construction costs, a growing supply pipeline, and falling institutional buying have combined to erode sentiment, yields moved almost 20 bps over the year through September 2022. Anecdotal, October transactions in Australia are also showing signs of cap rate expansion.

Data Centres

Demand for new networking capacity across Asia Pacific markets appears to

be bottomless, with huge amounts of capital now being directed at the sector. Not only is the data consumption in the region growing from a lower installed base of infrastructure than in the West, but penetration of e-commerce retailing and high-speed 5G connectivity is generally higher—and often much higher—than anywhere in the world. On top of that, governments across the Asia Pacific are increasingly requiring mandatory storage and control of data relating to their domestic economies to be held within sovereign borders,

further driving demand for new capacity. Around US\$5.2 billion in stabilised data centre transactions took place in 2021, according to JLL (excluding development projects), up some 61 percent from 2019 levels. Of this, trades of assets in China reached more than US\$3.7 billion, more than double the 2020 total and five times that in 2017.

Despite these secular tailwinds, however, the scale of new demand for data centre capacity is causing a variety of problems, even as existing infrastructure is struggling to keep up with growing network traffic. As a result, transaction volumes have slowed in 2022, with fewer assets trading and development projects also facing delays.

Problems Mount

One reason for slowing activity is that most new data centre capacity is created on greenfield sites that (for latency reasons) need to be located near city centres. These days, such sites are increasingly scarce. In addition, development is a capital-intensive exercise that in the current environment banks are less inclined to finance, even for such a sticky, relatively recession-proof sector.

Not only that, but the economics of build-to-core projects generally are becoming fragile. In part, this is due to higher financing costs, but it also reflects problems in the construction process itself. According to one Japan-based analyst: “Typically, contractors would be able to give you a fixed price, but today they are less eager to do that, and might only do it for their longest-standing clients—there are just a lot of projects undergoing that same phase, looking in the same pool of contractors. As a result, prices have gone up—in Korea, construction costs have risen 30 to 40 percent; in Japan, it’s 40 to 50 percent.”

Another, more important problem is that data centres use so much energy that obtaining a reliable supply source from local utilities can be problematic. In China, the sector is expected to consume

782 billion kilowatt-hours of electricity by 2035, or 5 to 7 percent of national power consumption, according to a report by Greenpeace published in April 2022. This compares to 2.7 percent in 2020.

With power shortages in some parts of China common since at least 2021, ensuring reliable supply—or sometimes any supply—is becoming difficult. Data centres must now apply for energy quotas that in theory guarantee them adequate energy, but even with quotas in hand, investors reported delays in obtaining power connections for newly completed projects during the summer of 2022, when the country was affected by another bout of energy scarcity.

Even in more developed markets, power delivery is complicated. According to one investor: “Especially around metros like Seoul’s and Tokyo’s CBD, it does seem to be a challenge—not necessarily that there’s a shortage of supply, but the ability to connect it to large amounts of supply for a long period.”

Cutting the Carbon

An additional issue inherent to operating facilities that are as energy-intensive as data centres is that governments have zeroed in on the high carbon emissions they generate. Under pressure from regulators (as well as from their own tenants and investors), operators are scrambling to reduce operational footprints, which are still well behind standards set in the United States and Europe. As they do so, they are having to reconsider whether prospective investments measure up to the new standards. Very often they do not, or else the risk is too high, leaving many projects that would have passed muster a year or two ago unable to meet the higher bar.

Indeed, energy efficiency has today become the most prominent issue for data centre feasibility. Power usage effectiveness (PUE) is the applicable efficiency standard, measuring the relationship between the total amount of power a facility uses and the amount used by the compute environment.

Average annual PUE for large data centres globally stands at around 1.57, but regulatory limits in the Asia Pacific region are pushing this figure downwards.

China, in particular, has introduced exacting thresholds. Although local and central governments historically tried to incentivise data centre construction, authorities are now tightening regulations for both existing and new projects. According to one data centre investor in China, new projects in Shanghai must reach a PUE of 1.3, while in northern China levels have been set as low as 1.2, and in south China (where the climate is hotter) the level is 1.35. Existing facilities will be shut down if the PUE exceeds 1.7, and all data centres are now subject to real-time monitoring and snap inspections. “So basically, the requirement is high,” he said. “It’s still doable, but requires at the design stage to have the best team to help with design, and the MEP [mechanical, electrical, and plumbing] also has to be very energy efficient.”

Another environmental factor now in play is water usage effectiveness (WUE), and a third is renewable energy use. Increasingly, data centres are seeking to cut energy consumption by using rechargeable batteries and installing rooftop solar panels, according to an executive at one major data centre operator. Others are turning to innovative solutions, with one Japanese data centre using snow piled outside the facility to cool piped antifreeze.

In Singapore, meanwhile, where data centres were responsible for fully 7 percent of the city’s electricity consumption in 2020, the government introduced a moratorium on new construction in 2019 as a direct result of concerns over power consumption and sustainability issues. Although the moratorium was lifted in 2022, new project bids are now subject to strict evaluation requirements.

These include provisions that appear to favour interconnected retail operators

with global footprints rather than hyperscalers and smaller operators. In addition, specifications focus on PUE (set at a maximum of 1.3) as well as innovation in energy use that may have significant impact on future design and operation of facilities throughout the region. Current proposals include use of “cold energy” from Singapore’s LNG gasification terminal, as well as construction of a floating data centre using seawater for cooling.

Retail

The consensus view towards brick-and-mortar retail continues to be pervasively negative in most markets and subtypes—an obvious result of years of cannibalisation from e-commerce platforms, even before COVID diverted yet more discretionary customers to online stores. As a result, asset prices remain at or near a bottom, while transaction volumes also have softened. The retail sector experienced the biggest contraction in transactions of all asset classes in the third quarter of 2022, according to MSCI, with the volume of both closed and pipeline deals falling by more than half compared with the same period in 2021. Australia was the only market where volumes held firm.

At the same time, the extent of selling in retail assets over the last few years provides appeal to bottom-fishers who now see it as oversold, especially as in-store buying in many markets has rebounded to a point, according to an industry consultant, that is “not far off pre-COVID levels.” Not only that, but with rerating in the sector essentially complete, cap rates probably have less room to fall than in other asset classes where yields have now sunk to near or even under the cost of capital.

According to one fund manager: “We still think retail is a needed asset class and has been oversold, so there’s opportunity there. A lot of investors or market participants think retail’s a dirty word—for us, I’d say you have to understand the specifics.”

Nor are such investors necessarily looking to reinvent assets, taking the view that properly positioned properties have enduring quality and can be profitable more or less as they are, given reduced prices and cap rates.

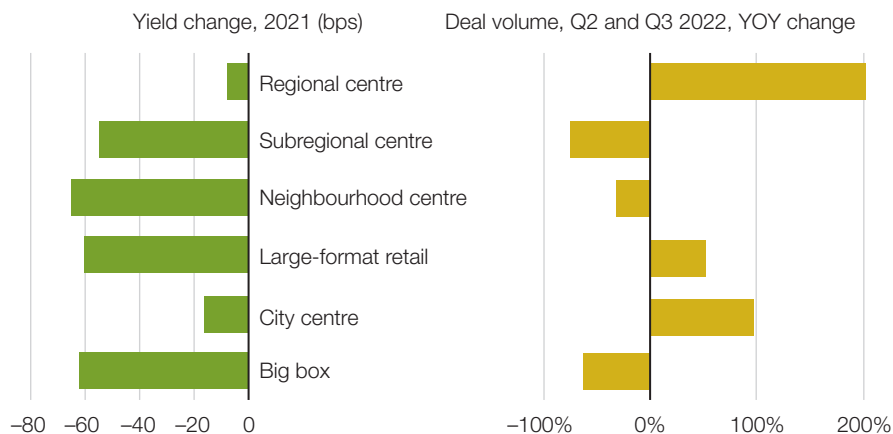
This contrarian perspective is probably the reason behind the recent rise in interest in discretionary retail assets in Australia. Last year, nondiscretionary subtypes were the focus, with cap rates compressing significantly in neighbourhood, subregional, large-format, and big-box categories, while discretionary-type assets languished. That made sense, because people always need places to buy groceries and other essentials. But just as discretionary became oversold, nondiscretionary subtypes now seem priced to perfection. As a result, as shoppers begin returning to their old haunts, interest in city centre malls and other discretionary venues has revived, with transaction volumes in 2022 rising substantially above 2021 levels (see exhibit 3-11).

Still, calling a bottom in retail is currently a precarious strategy because discretionary retail will be one of the first to falter if economic growth turns negative or slows steeply. China provides an example. As one Shanghai-based fund manager, commenting on the local retail environment after city lockdowns ended in early 2022, said: “The rebound has certainly come in, and from traffic and sales perspectives we are largely back. But it’s harder to sustain given that the velocity of growth has come down compared to where we would have expected in 2019, for example. And what that means is that over the next six to 12 months we will see returns continue to be OK, but at a greater expenditure of work and effort. Beyond that, it becomes a macro question of how the economy looks in terms of employment, wage growth, and consumption.”

Reinventing the Wheel

Ultimately, many discretionary facilities will have to be reinvented as e-commerce

Exhibit 3-11 **Australian Retail Subtypes: Change in Yields and Deal Volume**



Source: MSCI Real Capital Analytics.

continues to cannibalise consumer spending. The question is: how should “conventional” retail evolve? For Asia in particular, that question becomes more complicated because malls have been developed as products of very localised social and urban contexts. So what may be feasible for stores in the United States or Australia may not be directly applicable in, say, Singapore.

Pursuing the experiential theme, which has been the default strategy of most malls, will no doubt continue, but owners are still trying to figure out how to make this work in what has become a cutthroat operating environment. Only so much experience is digestible, after all. According to a developer in Jakarta: “Before, everyone could just copy everyone else and everyone got a cut of the pie—now, it’s the difference between winners and losers. The challenge [for existing malls] is: how do you repurpose space that’s basically dead? Where does the 20,000-square-metre [department store] go? What happens to the anchor tenants? And for new malls, you can only push food so far. If you have a Starbucks of 200 to 300 square metres, then a [department store] will be 20,000 square metres. Can you really replace one store with 200 Starbucks?”

Striking a balance will not be possible in many cases. As a result, according to one retail investor, “you have to be selective about the operator you partner with, and the asset, and where it’s located—because the good ones really work and the bad ones really don’t.”

Another way for conventional retail to come to terms with digital commerce is to position itself at the intersection between offline sales, online sales, and logistics fulfilment. Omnichannel strategies have been a long time in the making, but are now gaining critical mass. Under this model, a retail chain may have an online presence, a small number of large stores, and a large number of widely distributed small stores that function also as fulfilment centres, delivering to walk-in customers from stock sent to them from their larger counterparts.

As a consultant based in Singapore said: “Their logistics system is their store system, and that increasingly becomes the way it will work. So every retailer that’s a chain has to be thinking: ‘How do I set up an online system and a delivery system that’s part of my physical retail chain?’ And that’s what we mean when we say, ‘The future is omni’—in time, a big proportion of retail will operate in that way.”

Sharing the Retail Pie

The development of this model requires tenants and landlords to revisit the intractable question of how to differentiate what part of an online transaction is attributable to the digital space, and how much is attributable to the store. This distinction matters more than ever today because, as a result of the pandemic, many stores are paying a more significant portion of rent on a turnover basis instead of a baseline norm of perhaps 95 percent base rent and 5 percent turnover rent. “It’s a tricky model,” conceded the consultant, “but I think that will increasingly become the way that it works—particularly for online retailers who move into a physical space, that’s where we’ve seen some success.”

Another potential model that has yet to be deployed, but that may be adopted in the future, focuses less on sales and more on footfall, which today can be measured with a high degree of accuracy. On that basis, rents would be charged according to how many people walk past a store. This may be workable, according to the consultant, “because the value for some of these stores is often in the branding, so trying to link eyeballs to rent might be another way of capturing that value.” A further element of value is that it incentivises landlords to perform by driving footfall into the mall, thereby creating a symbiotic relationship with its tenants.

That said, persuading landlords to accept such forward-thinking concepts is a tall order. Although landlords in China are more willing to adopt more adventurous rental models, markets such as Singapore have a very conservative approach, not least because most malls are owned by REITs, whose focus is to maximise day-to-day cash flow with as little change as possible, and are therefore generally resistant to adopting high-risk, high-return models.

Residential

Over the last 14 years, residential markets across the Asia Pacific were

major beneficiaries of a sustained period of low interest rates, together with the ongoing megatrends of urbanisation, immigration, and home supply shortages. Asset prices have risen strongly since 2010, far outpacing equivalent increases in residential rents.

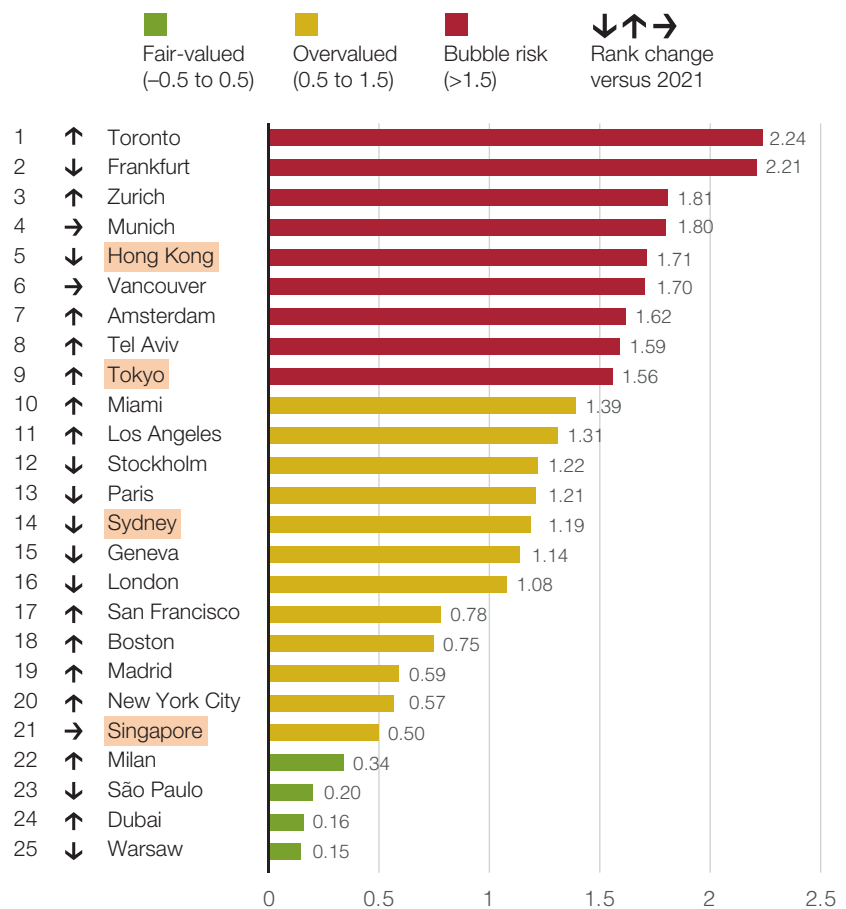
Today, however, with interest rates rapidly moving up in many markets (apart from China and Japan), mortgage-servicing issues are surfacing. Transactions have stalled across most markets, and home values are beginning to correct downwards. In Sydney, home prices fell 9 percent in October since their January 2022 peak, while Hong Kong home values declined 8 percent in the year to October 2022, according to Goldman Sachs. In China, they have also

reversed, falling 1.5 percent year-on-year in October, according to official figures.

Only Japan, where interest rates remain at rock-bottom levels, and Singapore, where private home prices rose 7.8 percent in the year to October, have so far managed to buck the trend.

One of the consequences of higher mortgage rates is that existing-home purchase prices move out of reach of more people. In addition, there is less incentive for buyers to enter the market given that housing prices have clearly peaked. A further factor at play in regional housing markets is demographics. Millennials generally favour more flexibility in terms of migration and lifestyle, ideas that were

Exhibit 3-12 UBS Global Real Estate Bubble Index, 2022



Source: UBS.

alien to a previous generation of Asian workers more focused on financial stability, and for whom homeownership was often a prerequisite to marriage.

Circumstances have therefore combined to jump-start a new cycle, with growing numbers of people opting to rent their homes rather than buy them. Although Japan is so far the only country in the Asia Pacific with a truly institutionalised market for multifamily assets, these positive dynamics happen to coincide with the arrival of a growing number of investors focused on developing new multifamily projects across the region.

A Global Wave

To a great extent, this initiative has been led by global institutional investors who covet long-term, reliable income streams. They often already own large multifamily portfolios in the West, and are expanding into the region to meet global allocation targets. As such, their hurdle rates are generally more aggressive than those of regionally based REITs and investment funds.

Japan has had a mature multifamily sector for at least a couple of decades and continues to be the main focus of this body of foreign capital, which collectively represented more than 25 percent of US\$12 billion in total foreign investment in Tokyo real estate in the first three quarters of 2022, according to MSCI.

Broadly speaking, there are two types of participants in the market. First, the large global institutions willing to pay a premium for scale and diversification, who are looking to buy well-located portfolios in the US\$200 million to US\$400 million range or more. Given the level of historical buying, however, appropriate assets have become scarce. With demand continuing to outpace supply, a second group of value-add or opportunistic players now work to package portfolios of smaller assets, or to manufacture them through forward-purchase deals with local developers. These are then sold to the larger players.

According to a locally based fund manager: “These intermediary-type investors are now getting aggressive to get that final step function of scale to be able to exit. Being a dyed-in-the-wool value investor, I keep waiting for the market to slow down and see if there are good opportunities there, but so far the market’s continued apace, it hasn’t really slowed down.”

Japan is no longer the only market playing the game, however. Over the last two years, there have been significant flows into multifamily projects elsewhere in the region, almost all on a build-to-rent basis. These include, in particular, projects in Shanghai, Sydney, and Melbourne. Although in the first nine months of 2022 none of them represented much more than 10 percent of total multifamily capital committed in Tokyo, they collectively signal a major commitment to the creation of new markets in other Asia Pacific locations (see exhibit 1-6 in chapter 1).

While investors usually target mid- to high-end housing stock, some are also focused on affordable homes. In Australia, for example, a large European institution is developing a build-to-rent project in association with an affordable association that targets workers such as nurses, firefighters, and police officers—a group that often struggles to find affordable housing in good locations in Sydney.

To that extent, projects resonate with the “social” (or “S” part) of funds’ ESG criteria. In addition, such strategies play to a groundswell of support within Australia for local governments to allocate some of their large holdings of inner-city land to address a growing shortage of affordable housing stock for use by critical public-sector workers.

In China, foreign funds have in the past targeted the upper end of the housing spectrum, but in recent years the government has earmarked creation of a deep rental market as an important policy goal. As a result, rental housing projects accounted for 15 percent of new

real estate development in China during the second quarter of 2022, according to JLL, up from 7.6 percent in the same period of 2021.

With discounted land packages now available for Chinese build-to-rent development, finances are more likely to stack up for projects catering to demand further down the housing ladder—usually in the form of local white-collar and young professional workers. Although, in general, projects in China are probably higher risk, the impending launch of affordable rental housing REITs has recently served to reduce risk through provision of a viable exit strategy.

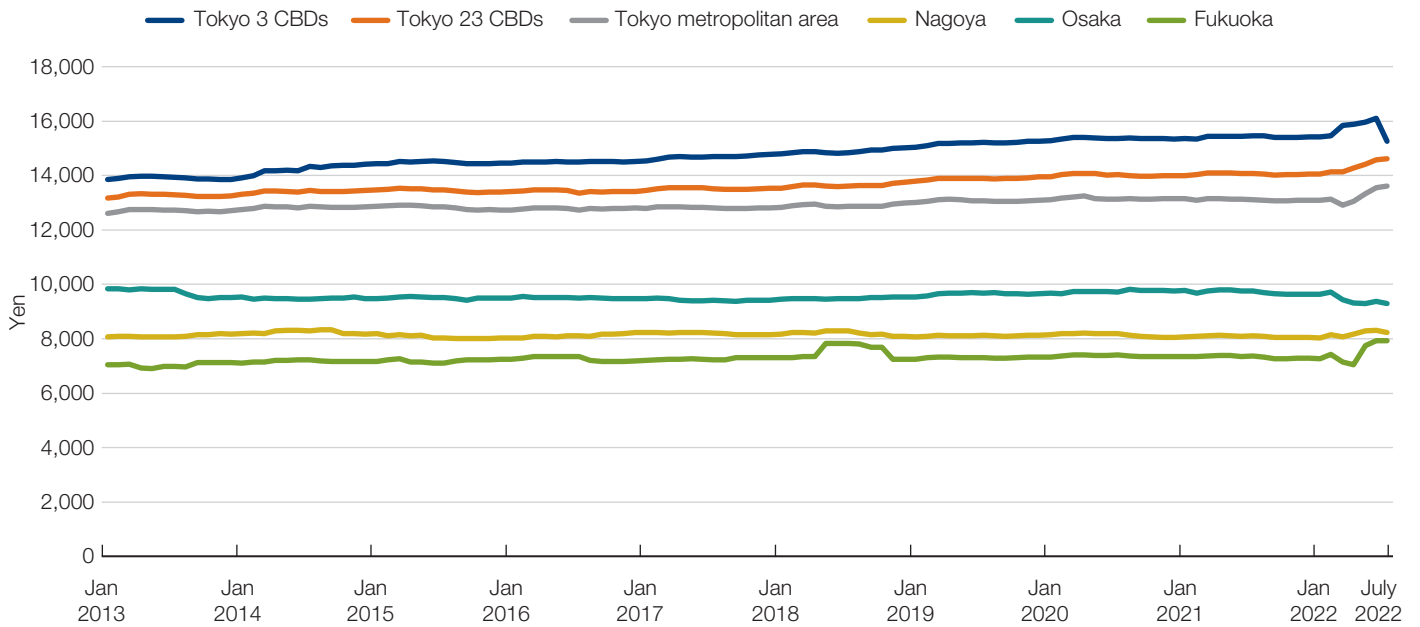
According to a Shanghai-based fund manager: “The yield has traditionally been based on the cost of a residential apartment [i.e., one that’s very low], whereas given some of the policy changes, we can now base it on affordable, purposely zoned land that doesn’t compete with the residential developers because it can’t be used for individual sale. So the yield-on-cost is very attractive on a risk-adjusted basis relative to other asset classes.”

In addition, with many local developers now short on cash, opportunities exist—and will probably increase—to pick up either stressed residential developments or repurposed commercial projects at much lower cost than in the past. At least one such deal in Shanghai was closed by a large global institutional player in the second half of 2022.

Do the Numbers Stack?

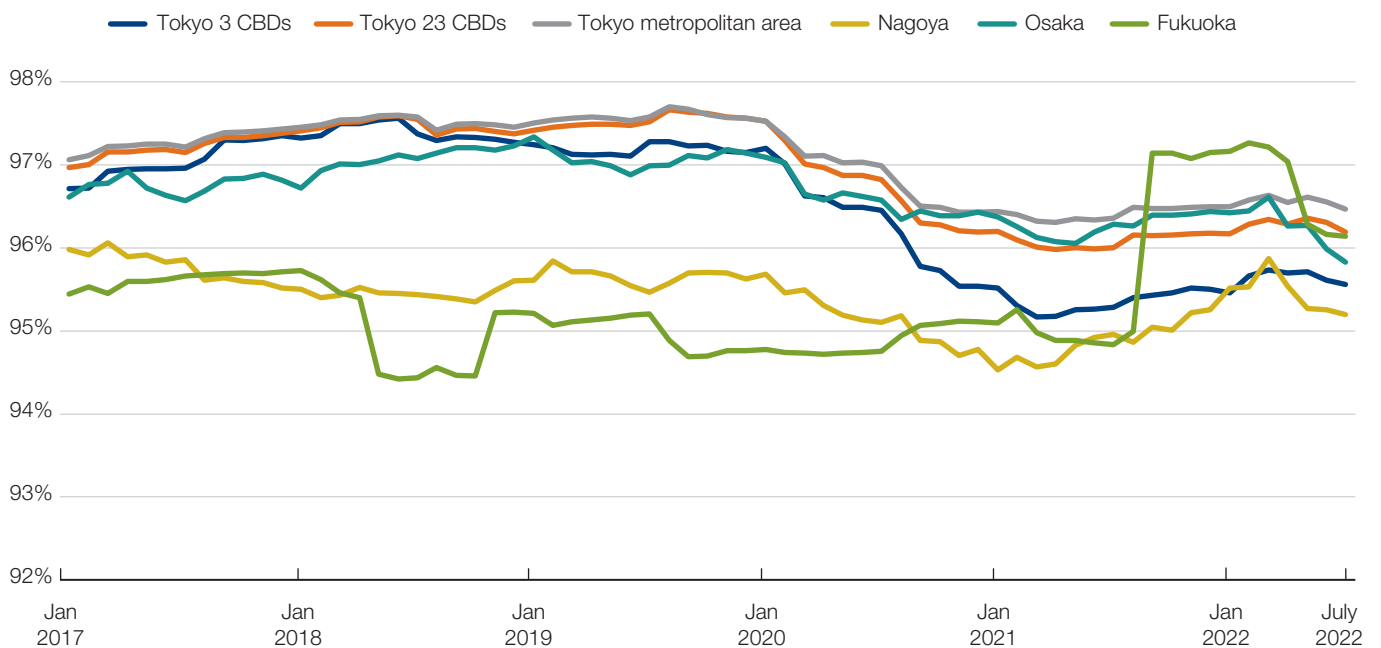
Certainly, the rationale for multifamily investment in the Asia Pacific is plausible. It ticks the boxes for the type of assets that institutional funds seek, providing scale, term, reliable current cash flow, short leases, and a granular tenant base. It also taps an emerging long-term secular trend in favour of home rentals across the region. At the same time, the premise is not without weakness, and interviewees at times questioned whether Asia Pacific investments will

Exhibit 3-13 **Average Japanese Multifamily Rents, 2013–2022**



Source: ARES, as of August 2022.

Exhibit 3-14 **Japanese Multifamily Occupancy, 2017–2022**



Source: ARES, as of August 2022.

prove as successful as they have been in the United States and some European countries.

The biggest issue is around yield. Multifamily assets in Asia Pacific markets trade at such low cap rates (in Japan, 3.00 to 3.25 percent) that investors are living dangerously should underwriting assumptions depart from script.

One of those assumptions concerns interest rates and their potential impact on exit cap rates. Although Japan in particular seems committed to keeping rates low, as pointed out elsewhere in this report, systemic issues exist in the Japanese economy that pose dangers one way or another. Those issues have already led to large downward movements in the value of the yen, pushing investments that are unhedged (as many are) underwater in U.S. dollar terms. Although, equally, this makes new purchases by incoming capital cheaper, it is a clear warning flag of market hazard.

Another assumption touches on rental growth, which some investors have underwritten given the high prices they are paying for assets. Historically, however, Japanese residential rent growth has been slim to nonexistent, and many long-term investors in Japan see little chance of that changing, especially given the lack of wage growth and rising inflationary pressures that are pushing up the prices of food and other essentials.

In fact, if anything, the pressure on rents is to the downside. According to a Tokyo-based fund manager: “Residential rents have clearly flattened and started to trend down. As an example, we’re hearing that on a two-year residential lease, some managers are giving away five months’ leasing commission and three months’ free rent to get a tenant in on a 24-month lease. So clearly while they may want to keep face rents up, effective rents are going down.”

Assumptions for ongoing positive net migration into Tokyo are also questionable, given a growing preference for work-from-home lifestyles among

younger demographics that is now pushing them to move to larger and cheaper accommodation in non-CBD areas.

And, finally, there are questions about turnover, which is more common than assumed and generates re-leasing and restoration costs. According to the same fund manager: “If you have a lot of turnover, your net cash flow [NCF] numbers come down dramatically, and that assumes rents stay flat. Let’s say you are 80 to 85 percent leveraged and you paid a 3-cap for the deal. Then, your rents are down by 10 percent and you start to get more turnover. It doesn’t take much before your NCF numbers start to look red and you may have trouble servicing your debt.”

In Australia, meanwhile, the restart of immigration flows should serve to stimulate the housing market. But questions have been raised about long-term demand for multifamily rental homes given a cultural preference for homeownership and the fact that most build-to-rent development is aimed at the premium end of the market.

According to one locally based fund manager: “If I own an apartment in a

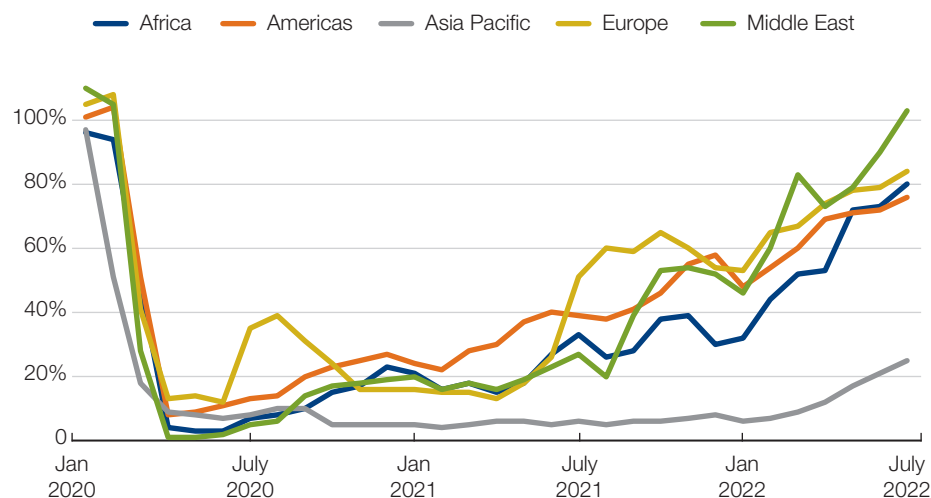
building block and I’m leasing it out at \$500 per week, these build-to-rent providers are looking to lease at \$600 per week because they say people will pay a premium for a concierge, free bikes to borrow, and all the rest. But will they? If I’m in my late 20s I’m probably going to take the cheaper rent and sort out the rest myself.”

In addition, yields are again thin. As the fund manager pointed out: “You’re not getting rewarded for being a first mover anymore because—even though none of those assets have traded yet—to get them to work now, you’re looking at 4 to 4.5 [percent] exit cap rates. But that hasn’t been tested, so it’s not like you’re getting an attractive total return upfront and getting rewarded for taking the plunge—that spread isn’t there anymore.”

Hospitality

Of all the asset classes, the hospitality sector was hardest hit by COVID travel restrictions. Although many Asia Pacific markets rebounded significantly in 2022 as tourist and business travel resumed, tourist arrivals in the region significantly lag those elsewhere in the world, given the absence of some 126 million tourists

Exhibit 3-15 **International Tourist Arrivals as a Percentage of 2019 Totals***



Source: United Nations World Tourism Organization.
* Percentage compared to same month in 2019.

from China still unable to travel abroad (see exhibit 3-15 [note: chart data are valid only up to July 2022]). As a result, according to hotel analysts STR, while occupancy and room rates in the United States and Europe exceeded pre-pandemic levels in September 2022, those in Asia were still down (by 18.2 percent and 9.4 percent, respectively).

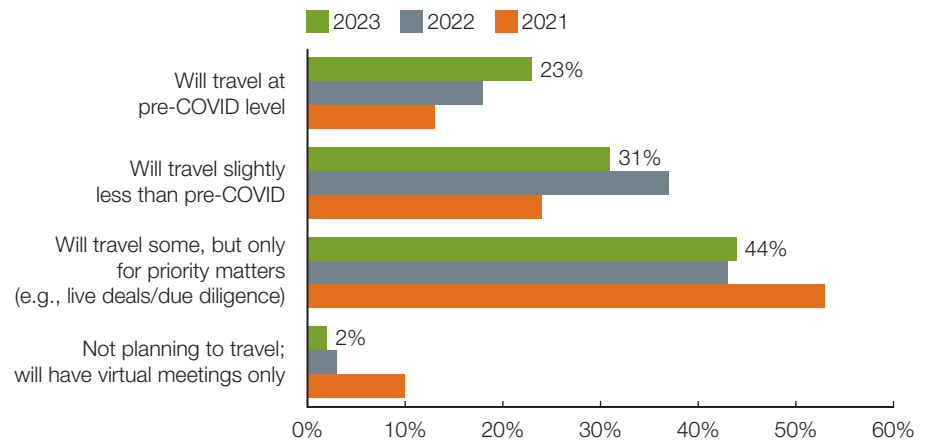
The pandemic's disastrous impact on hotel sector finances has attracted opportunistic investors on the hunt for regional opportunities to buy assets at distressed (or at least discounted) prices. Closed-end funds targeting hotels in the Asia Pacific have raised US\$5.2 billion in capital since 2020, a 72 percent increase over the pre-COVID period, according to JLL. In addition, rising positive sentiment for hotel deals is reflected in our survey (see above, exhibits 3-1 and 3-2).

The anticipated wave of distress has been slow to materialise, however, partly because hotel owners displayed unexpected staying power in the hope of a travel boom once restrictions were lifted, and partly because banks (prompted also by governments) were reluctant to call in loans and be left holding large portfolios of unused and unsupported assets.

In the first half of 2022, however, sentiment finally turned as owners began selling. A total of US\$9 billion in hotel assets traded in the first half of the year, the second-highest total ever, according to MSCI, with Australia, Singapore, and South Korea all seeing record-high levels of investment. Of this, more than US\$2.4 billion was dedicated to redevelopment projects, mainly for residential conversions.

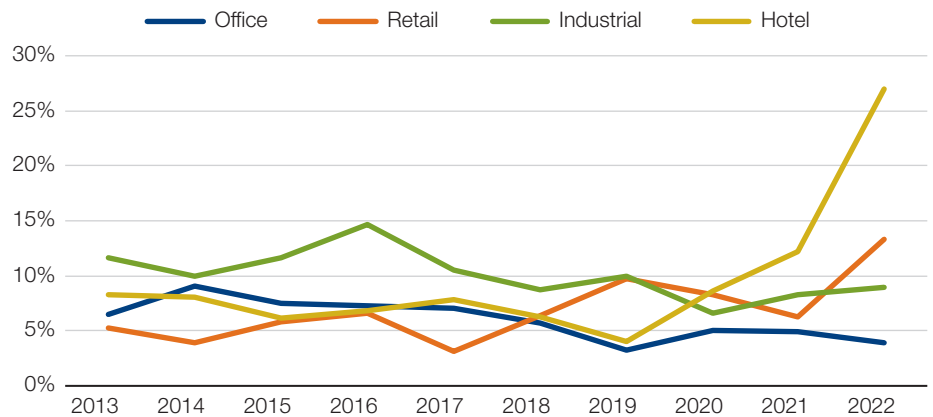
According to a specialist hotel investor: "There haven't been many actually distressed transactions, so they're looking probably at buying assets that would otherwise not be on the market. [There are] quality assets at a decent price, but they're not getting distressed pricing and they can't buy the notes either."

Exhibit 3-16 What are your business travel plans once regional travel restrictions are lifted?



Source: *Emerging Trends in Real Estate Asia Pacific* surveys.

Exhibit 3-17 Share of Investment Involving Redevelopment in Asia Pacific Markets



Source: MSCI Real Capital Analytics.

One reason for the lack of distress is that banks are still reluctant to act. An investor holding a portfolio including several underperforming hotels reported that their bank "just isn't saying anything" after being informed of operational and cash flow difficulties. Another investor based in Thailand commented: "A lot of these hotels are way behind on their interest and principal repayments and the banks have been very patient. They're kicking the can down the road, but the can's now pretty much an oil drum, so we're not quite sure what's going to happen."

As already mentioned, South Korea is one favoured destination for hotel plays, usually with residential conversion projects in mind. "In Korea, we're looking at buying three-star hotels," the investor continued. "And if a three-star hotel is worth, say, \$3,000 per square metre, if we're then able to convert it to resi [residential] it's worth \$6,000 per square metre. So, we're beginning to look in Korea in particular because the resi has such a premium."

In addition, in each of the last two years Japan has been a magnet for hotel investors hunting for smaller three- and four-star regional city or suburban facilities. Until recently, their efforts were mostly fruitless. In the third quarter of 2022, however, more than US\$1 billion in hotel properties traded in Japan, according to MSCI. Part of this is down to the declining value of the yen, which has made Japan cheaper for both hotel buyers and for foreign tourists who fill the rooms. Another reason is that Japan had been seeing exceptional growth in incoming tourist arrivals before the rise was abruptly cut short by COVID

restrictions. Many expect the numbers to bounce back quickly. Today, estimates from Goldman Sachs project spending by foreign travellers may rise by over a third from pre-pandemic levels to some ¥6.6 trillion (US\$45.3 billion) annually.

For that reason, the strategy in Japan is not for conversion plays, and not necessarily for distressed assets. According to a locally based investor: “Hotels are going to need to trade; the question is at what price. At the moment, there’s still a pretty good gap on the bid/ask. A lot of guys are looking for stress or distress, and the sellers, especially as the

country opens up, are thinking it’ll be back to normal that, they’ll be running at 80 percent occupancy. So sellers will have to get realistic and/or the buyers will have to pay more to buy these assets, not just on a purely distressed basis.”

The challenge, of course, will be how to fill the gap left by travellers from China until they can again travel abroad. In the meantime, though, investors are gambling there will be plenty of demand from the rest of the region, be it Hong Kong, Taiwan, Singapore, or Southeast Asia.

Interviewees

Actis Brian Chinappi	ESCA International Jean de Castro	Lendlease Andrew Gauci David Hutton Ng Hsueh Ling Penny Ransom
ARCH Capital Management Winson Chow Eric Manuel	ESR-LOGOS REIT Adrian Chui	M3 Capital Partners Danny Krefman
Arthaland Sheryll Verano	Forum Partners Andrew Faulk	Mirvac Paul Edwards Campbell Hanan
AXA IM Real Assets Laurent Jacquemin	Frasers Property Chia Khong Shoong	Mitsubishi UFJ Trust and Banking Corporation Hiroyuki Seki
BentallGreenOak Dan Klebes	Gallant Equity Ventures Katrina Gaw	Moelis Ben Boyd
Blackstone Mark Harrison Nina James	GPT Group Callum Bramah Anastasia Clarke Mark Fookes Bob Johnston	NEO Charlie Rufino Raymond Rufino
Brookfield Asset Management Alok Aggarwal Stuart Mercier	Highbury Partners Ben Roberts	Ooedo Onsen Reit Investment Corporation Fuminori Imanishi
CBRE Henry Chin Christopher Johnston Takashi Tsuji	Hulic Yoshito Nishikawa	PAG Investment Management Naoya Nakata
Cistri Jack Backen	Invesco Global Real Estate Asia Pacific Ryuichi Nakata	Professional Property Services Nicholas Brooke
City Developments Frank Khoo	Investa Property Group Pete Menegazzo	Radisson Hotels Christine Angela Sevilla
Colliers International Paul Chua	Japan Hotel REIT Advisors Shigeo Nakazato	RF Corval Tim Nation
CRE REIT Advisers Tsuyoshi Ito	Japan Post Bank Hiroyuki Tanaka	Santos Knight Frank Rick Santos
Cushman & Wakefield Claro Cordero	JLL Jacob Swan Andrew Quillfeldt	Schroder Pamfleet Andrew Haskins Andrew Moore
D.M. Wenceslao & Associates Julius Guevara	JPMorgan Asset Management Tetsuya Karasawa	Starr International Investment Advisors Alison Cooke
Daiwa House Industry Tetsuo Suzuki	KaiLong Group Hei Ming Chan	Strategic Asset Solutions Ken Fridley
Destination Capital James Kaplan	KENEDIX Takahiro Uchida	Xander Investment Management Arpit Singh
DevinQi Advisors Dan Cerf	KJR Management Naoki Suzuki	
DEXUS Keir Barnes	LaSalle Investment Management Tom Miller Ryota Morioka	
Diamond Realty Management Inc. Ryuta Takeuchi	Leechiu Property Consultants Alvin Magat	

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Global Real Estate Leadership Team

Thomas Veith

Global Real Estate Leader
Germany

Jeroen Elink Schuurman

Global Real Estate Tax Leader
The Netherlands

Stuart Porter

Asia Pacific Real Estate Tax Leader
Tokyo, Japan

Paul Walters

Asia Pacific Real Estate Assurance
Leader
Hong Kong SAR, China

Jim Chen

Mainland China Real Estate Leader
China

Michael Ma

Mainland China Real Estate Tax Partner
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Kanus Yue

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Estate Risk Assurance Leader
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Raphael Chu

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Leader
Hong Kong SAR, China

Joe Sheeran

Australia Real Estate Leader
Sydney, Australia

Brian Arnold

Indonesia Real Estate Leader
Jakarta, Indonesia

Jennifer Chang

Malaysia Real Estate Leader
Kuala Lumpur, Malaysia

Mitsuaki Kukita

Japan Real Estate Leader
Tokyo, Japan

Taejin Park

Korea Real Estate Leader
Seoul, South Korea

Chee Keong Yeow

Singapore Real Estate and Hospitality
Leader
Singapore

Nguyen Thanh Trung

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Jason Liu

Taiwan Real Estate Leader
Taipei, Taiwan

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