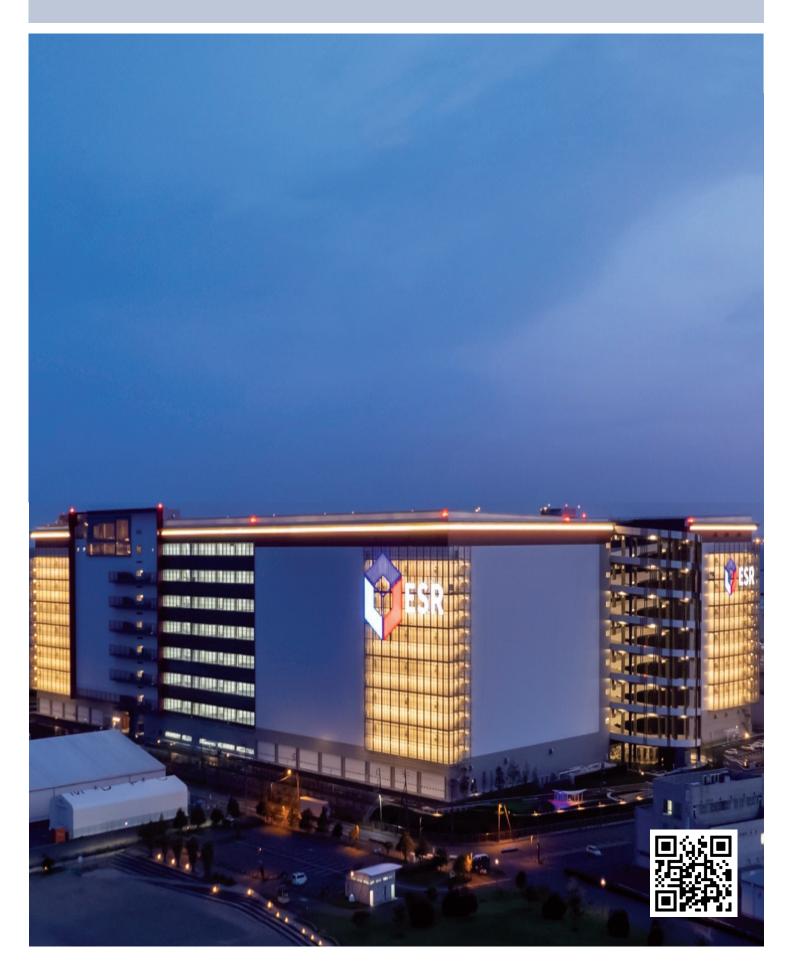


Japan Logistics





Large supply volumes likely to continue exceeding demand

Summary

- In Greater Tokyo, demand has been sound, but is being outpaced by the growing amount of new supply. As such, vacancy rates rose by 3.0 percentage points (ppts) yearon-year (YoY) to 6.2%.
- In Greater Osaka, vacancy saw a slight increase of 0.3ppts YoY, reaching 2.6%. The market exhibited a relatively tight balance between supply and demand due to the comparatively limited number of completions in 2022. This may change with the large supply forecast in 2024.
- Rents in Greater Tokyo rose marginally by 0.2% half-year-onhalf-year (HoH), but contracted by 3.4% YoY, reaching JPY4,520 per tsubo.
- · Rents in Greater Osaka experienced a contraction of 0.9% HoH and 5.4% YoY, and now stands at JPY4,180 per tsubo.
- Investment levels in 1H/2023 were larger than those of 1H/2022. Logistics facilities are currently popular among foreign investors, especially those who would aim for larger exposures to the Japanese market.
- New supply in 2023 is set to surpass 2022 levels in both the Greater Tokyo and Greater Osaka markets, with Greater Tokyo reaching record highs. The influx of new supply is expected to increase the competition for tenants, meaning that poorly located and older facilities in particular may struggle.
- The pandemic has expedited digital transformation in Japan, and both hyperscale and local data centre markets are expected to see considerable growth going forward.

INTRODUCTION

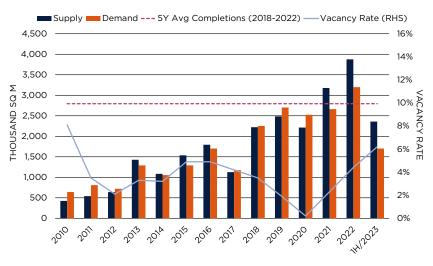
While demand remains robust, the logistics sector is witnessing a large amount of new supply in Greater Tokyo¹ and Greater Osaka2 that has affected the equilibrium between supply and demand. This influx of new logistics facilities has contributed to an increase in vacancies and contraction in rents, forcing developers to adopt different strategies to stand out among the

Greater Tokyo is defined as the region which consists of Tokyo, Kanagawa, Chiba, and Saitama
 Greater Osaka is defined as the region which consists of Osaka, Kyoto, Hyogo, and Nara

competition. While some facilities appear to struggle with securing tenants, those with advantageous attributes like prime locations and cold storage capabilities remain in high demand. As such, while some bifurcation will likely persist in the market, prime logistics facilities should perform well.

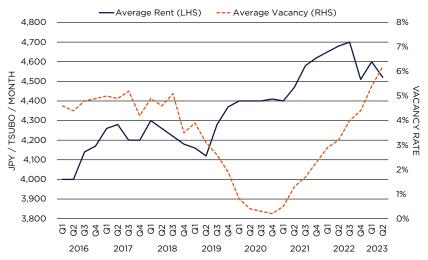
International investors have been particularly active in the Japanese logistics market in 2023, with many likely looking to capitalise on the stabilised credit market and the weak yen. Meanwhile, the data centre market is rapidly expanding in Japan,

Graph 1: Supply, Net Absorption and Vacancy in Greater Tokyo, 2010 to 1H/2023



Source Ichigo Real Estate Service, Savills Research & Consultancy Note Annual periods from February to January. Vacancy rates are as of the year end for each annual period, while the rate presented for 1H/2023 is as of July 2023.

Graph 2: Greater Tokyo Rent vs Vacancy, Q1/2016 to Q2/2023



Source Ichigo Real Estate Service, Savills Research & Consultancy Note Annual periods from February to January

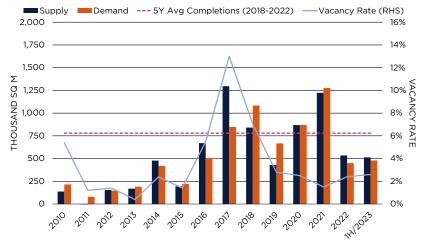
accelerated by increased digitalisation during the pandemic and a subsequent increase in investments, with both hyperscale and local data centres receiving greater attention from investors.

Overall, the sector's underlying fundamentals remain robust, and tenant demand is expected to endure, driven by the substantial growth prospects of the e-commerce industry. Consequently, the overall long-term outlook for the logistics market should remain positive moving forward, although it will likely face some adjustments for the time being.

MARKET TRENDS

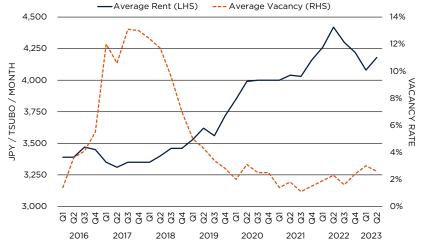
Some difficulties persist in the Greater Tokyo market, largely stemming from the notable expansion in the number of new developments; supply in Greater Tokyo was elevated in 2022 and looks to reach The resilient fundamentals and growth potential of the e-commerce industry offer a long-term positive outlook for the logistics market, which has led to the large upcoming supply. However, even sound demand is struggling to keep pace with the elevated supply in the market, and the industry also faces headwinds such as labour shortages and inflation. Although fundamentals remain strong, the market is likely to undergo a phase of adjustments for the time being.

Graph 3: Supply, Net Absorption and Vacancy in Greater Osaka, 2010 to 1H/2023



Source Ichigo Real Estate Service, Savills Research & Consultancy **Note** Annual periods from February to January. Vacancy rates are as of the year end for each annual period, while the rate presented for 1H/2023 is as of July 2023.

Graph 4: Greater Osaka Rent vs Vacancy, Q1/2016 to Q2/2023



Source Ichigo Real Estate Service, Savills Research & Consultancy **Note** Annual periods from February to January.

even greater levels in 2023. The market appears to be struggling somewhat with fully absorbing this new supply, and the gap between supply and demand has widened further. Consequently, vacancy loosened for the tenth consecutive quarter, increasing 3.0 percentage points (ppts) year-on-year (YoY), to 6.2% in 1H/2023. Meanwhile, asking rents experienced a moderate contraction at 3.4% YoY, to JPY4,520, although they increased by 0.2% HoH.

In the Greater Tokyo area, prospects depend largely on the location. Looking at vacancy by prefecture, Ibaraki exceeds 20%, and Kanagawa also demonstrates relatively high levels of vacancy at 8%. Meanwhile, Saitama appears to have only moderate levels of vacancy at 5%, while both Chiba and Tokyo are performing comparatively well at slightly over 3%. The extension of the Ken-O expressway has expanded the number of areas with potential for developing logistics facilities in Ibaraki, and a development boom appears to have contributed to destabilising the balance between supply and demand. Meanwhile, in Saitama and Kanagawa, new logistics developments have largely concentrated around the Ken-O expressway, which has also led to some softening in these markets. It is highly likely that some bifurcation will continue depending on the area as the rental markets continue on a lukewarm trend.

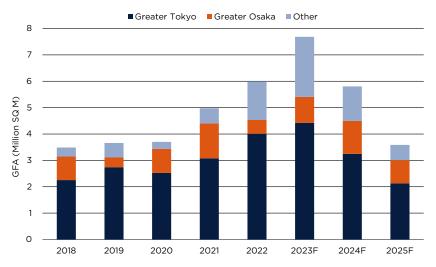
The market for general-purpose, multitenant logistics facilities appears to have slowed down due to the large amount of supply that makes it more difficult for such properties to stand out amongst the competition. As a result, rental increments have paused, and some facilities appear to have had more challenges in securing tenants. At the same time, logistics facilities that are in good locations and that have advantageous features such as cold storage capabilities have continued to perform well, suggesting that some bifurcation will persist in the market. Indeed, despite the mild contraction in rents overall, prime logistics facilities have continued to enjoy rental growth, supporting this statement.

The relatively stable performance of

the Greater Osaka market has continued in 2023. Indeed, demand among tenants remains firm, and new completions were somewhat limited in recent years. As such, vacancy rates only saw a slight increase of 0.3ppts YoY, to 2.6%. Indeed, most new developments have been uneventfully absorbed by the market, demonstrating the relatively tight balance between supply and demand.

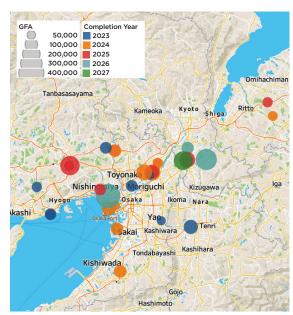
Average asking rents in Greater Osaka contracted by 5.4% YoY to JPY4,180 per

Graph 5: Annual New Supply* in Japan by Region, 2018 to 2025F



Source Ichigo Real Estate Service, Savills Research & Consultancy
* Projects in 2023 and beyond tend to be added later once details are ready to be announced.
Only facilities with GFAs > 10,000 sq m and as of 1 August 2023.

Map 1: Upcoming Completions in Greater Osaka with GFA greater than 50,000 sq m, 2023 to 2027*



Source Ichigo Real Estate Service, Savills Research & Consultancy
* Projects where GFA and/or completion date are unavailable are omitted from the dataset.

New supply data is as of 1 August 2023.

tsubo, although rents remain comfortably higher than two years ago. A significant uptick in supply is forecast over the coming years, which may result in some further loosening of vacancy rates, and some downward pressure on rents going forward. For instance, the expansion of the Shin-Meishin Expressway between Otsu and Takatsuki, which is slated for completion in 2024, will create access to more areas for developing logistics facilities, which could exacerbate competition for tenants and cause some fluctuations in the Greater Osaka market.

INCOMING SUPPLY

In Greater Tokyo, the pace of completions increased significantly, with nearly 3.0 million sq m of new logistics space introduced to the market in the first half of 2023. The largest completion was the 349,000 sq m multi-tenant facility, ESR Higashi Ogishima Distribution Centre 1. The 9-storey facility is now Japan's tallest logistics facility. Located in Kawasaki City's Higashi-Ogishima area, which is in close proximity to the Tokyo Bay area, the facility will gain even greater accessibility with the completion of the Kawasaki Port Rinko Road, which is slated for completion in 2028. The development, which is located next to a large public park, also features a number of on-site amenities designed to attract workers, including free children's day-care facilities, rest space for drivers, 24-hour stores, and bowling alleys.

Meanwhile, the 205,000 sq m Tokyo Ryutsu Center Distribution Bldg. A is slated for completion in August 2023. Located in Ota ward, Tokyo, the facility will have direct access to the 23W and Greater Tokyo market via the Metropolitan Expressway and Loop Road No.7, while direct public transport connections to the Tokyo rail and bus systems will ensure convenient access to the site for employees.

Looking forward, the largest upcoming development in 2024 in Greater Tokyo will be the MFLP LOGIFRONT Tokyo-Itabashi, which will reportedly have a GFA of around 256,000 sq m. The facility is located within the 23W, and will likely appeal to tenants given its proximity to the city centre and convenient public transport access, as well as to the Metropolitan Expressway. Developers will likely aim to distinguish the property with its large-scale modern cold storage capabilities and specialised zone dedicated to conducting R&D and implementing last-mile drone delivery services. Overall, the Greater Tokyo market will welcome a record 4.4 million sq m of

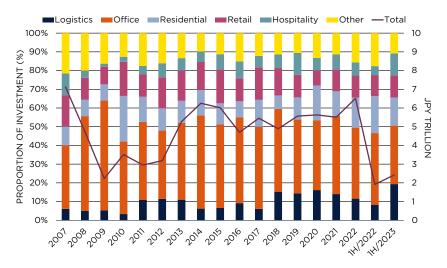
new logistics supply in 2023, which may exacerbate concerns regarding vacancy rates going forward due to heightened competition for tenants.

On the other hand, new supply in Greater Osaka is scheduled to be relatively moderate, with a total of around 520,000 sq m scheduled for completion in the first half of 2023, and there appears to be no upcoming developments with a GFA of over 100,000 sq m in 2023. The largest addition in the first half of this year was the MCUD Kobe Nishi II, which has a GFA of 63,000 sq m. The facility is located in Kobe Techno Logistics Park, and benefits from good proximity to major roads and expressways for efficient regional deliveries, as well as securing a strong

workforce. Furthermore, the developer aims to achieve net zero energy consumption by utilising solar power and motion sensor lighting. The largest completion in 2023 will be Daiwa's House DPL Hyogo Kawanishi in Hyogo, with a GFA of 89,000 sq m. The facility is located near the Kawanishi Interchange, which is close to the Shin-Meishin expressway, providing convenient access between Osaka, Kyoto and the wider west-Japan region.

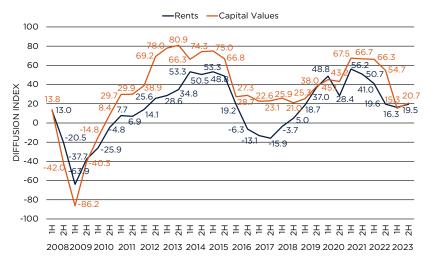
Overall, new supply is forecast to reach almost 1.0 million sq m in 2023, and a substantial increase in development activity is forecast for Greater Osaka from 2024 onwards. The CPD Nishinomiya Kita I and CPD Nishinomiya Kita II, both scheduled

Graph 6: Share of Investment Volumes by Asset Class, 2007 to 1H/2023



Source MSCI, Savills Research & Consultancy

Graph 7: Six-month-ahead Expectations for Rent and Capital Appreciation, 2008 to 2H/2023



Source Ichigo Real Estate Service, Savills Research & Consultancy

for completion in Spring 2025, will have a combined GFA of approximately 300,000 sq m. Meanwhile, GLP is developing a number of facilities across the Greater Osaka market, with the GLP ALFALINK Ibaraki 1, GLP ALFALINK Ibaraki 2, and GLP ALFALINK Ibaraki 3 set to be the largest, with a combined GFA of 324,000 sq m, and are scheduled for completion between 2024 and 2025. Looking ahead, over 1.2 million sq m of new logistics space is forecast for 2024, a significant increment from the subdued levels in previous years, which reflects the strong sentiment in the market.

Going forward, elevated construction costs and land prices are projected to slow down future development, along with instances of investors changing their development plans or selling development land, which could potentially lead to more subdued and stable supply, allowing more room for absorption in the near term.

INVESTMENT TRENDS

According to preliminary data aggregated by MSCI, investment activity in Japan has been strong in 1H/2023, with total investments around 26% greater than those seen in 1H/2022. Over the same period, investment volumes in the logistics sector nearly tripled due to a number of big-ticket transactions. Furthermore, transaction data is preliminary and investment volumes will likely increase as more transactions are announced throughout the rest of the year.

International investors have been notably active in the logistics market in the first half of 2023. For instance, the largest transaction of 2023 was by GIC, which acquired six facilities with an aggregate GFA of around 372,000 sq m from Blackstone for US\$800 million or approximately JPY107.0 billion in April 2023, marking one of the most significant logistics transactions ever reported in Japan. Meanwhile, Mapletree Logistics Trust bought six logistics facilities that were all constructed within the past four years from CBRE Investment Management for US\$500 million or JPY66.0 billion. Another notable transaction was by Mapletree Industrial Trust, which acquired a 7F data centre with a GFA of 12,600 sq m in Osaka from SPC Suma TMK for JPY52.0 billion in July 2023. The logistics market is the most sought after, especially by international investors who are seeking a larger exposure to Japan, excluding the office market.

J-REITs also contributed a significant proportion of logistics transactions in the first half of 2023. For instance, GLP J-REIT acquired four logistics facilities in Kanagawa, Okinawa, Okayama and Fukuoka for JPY58.2

Table 1: Selected Investments, Announced March 2023 to August 2023

PROPERTY NAME	TRANSACTION VALUE (JPY BIL)	APPRAISAL DIRECT CAP RATE	BUYER	SELLER
Blackstone Portfolio (6 facilities)	107.0	-	GIC	Blackstone
CBRE Investment Management portfolio (6 facilities)	66.0	-	Mapletree Logistics Trust	CBRE Investment Management
GLP J-REIT portfolio (4 facilities)	58.2	3.6% to 4.9%	GLP J-REIT	Aries GK, SMFL Mirai Partners
Suma New Construction	52.0	-	Mapletree Industrial Trust	Suma TMK
Prologis Soka	51.4	3.6%	Nippon Prologis REIT	Jimba TMK
LRF2 Properties portfolio (3 facilities)	23.1	3.7%	LaSalle LOGIPORT REIT	LRF2 Properties GK
CRE portfolio (2 facilities)	22.5	3.9% to 4.2%	CRE Logistics REIT	CRE

Source Company Disclosures, Nikkei RE, Savills Research & Consultancy

billion, the largest deal being the acquisition of a 30% quasi co-ownership stake in the GLP Alfalink Sagamihara 5 in Kanagawa for JPY19.4 billion. Additionally, Nippon Prologis REIT acquired the 143,800 sq m Prologis Soka logistics facility in Saitama for JPY51.4 billion, while LaSalle Logiport REIT acquired three logistics facilities in Kyoto and Aichi for an aggregate total of JPY23.1 billion. Elsewhere, in May 2023, Kenedix acquired the ST Tokorozawa Logistics Center in Saitama, appraised at JPY13.0 billion, with part of the deal financed via a real estate securitised token offering (STO).

Despite concerns regarding recent interest rate increments and sharpened pricing, the demand for logistics facilities in 2023 remains robust, as the large transaction volume in 2023 indicates. Indeed, logistics assets in Japan will likely remain sought after, particularly among overseas investors, due to the large growth forecast for Japan's e-commerce industry. That said, the 32nd bi-annual market sentiment survey conducted by Ichigo Real Estate Service indicates that a majority of respondents have a somewhat neutral outlook, citing concerns regarding rising interest rates, labour shortages, and inflation, which suggests a dampened outlook of further rental growth.

THE DATA CENTRE MARKET

The pandemic has expedited demand for digital infrastructure in Japan, which has served as a catalyst for economic growth and investment, with foreign direct investment into communications having seen significant increments over the past few years to

more than JPY300 billion in 2022. With the notable recent growth of Japan's e-commerce sector, the government's increasing focus on domestic semiconductor manufacturing, and the heightened need for digital security, a paradigm shift is occurring, which has brought data centres into the spotlight as a base for digital infrastructure going forward. As a result, their presence has expanded notably in recent years, and, in physical terms, the number of server racks is expected to double from around 138,000 in 2023 to 272,000 in 2027. Although historically dominated by domestic IT companies, the market is seeing many international investors making significant progress which appears to be the source of most upcoming growth. For a more in-depth overview, please refer to our "Japan Data Centres 1H/2023" report.

Hyperscale data centres are typically owned and run by major operators, and often have more than 5,000 servers with capacities upward of 20MW. Many such facilities are located on the outskirts of major urban areas and are situated in clusters due to the large amount of land and energy required. Meanwhile, smaller local data centres tend to be located in closer proximity to central business districts, and many older facilities are housing outdated, company-tailored IT systems that have become more difficult to maintain. In recent years, many companies appear to be migrating to cloud-based solutions that hyperscale data centres provide.

That said, local data centres situated closer to central areas remain in demand. Firstly, some companies like to maintain

their IT systems in a hybrid fashion, using both cloud services, as well as some form of in-house storage, which could be either in-office or colocation space. Colocation data centres close to central areas have an advantage as they can provide relatively easier physical access compared to those situated further afield. As such, local data centres near business districts have gained some traction among investors.

The conversion of office buildings to local colocation data centres where possible appears to also be a viable strategy, considering that leases for data centres will be longer and can generally generate greater net operating income than a similar office building would, due to the specialised nature and scarcity of such properties. A notable example of this approach would be the Gotenyama building located in Shinagawa, Tokyo, which Sekisui House REIT decided to sell to TIS for JPY70.0 billion in March 2023 at an appraised direct cap rate of 3.3%. While it is officially designated as an office building, the buyer TIS has used the building as a data centre during its tenancy.

Overall, the data centre market in Japan is growing rapidly and is expected to see considerable growth in the coming years, with many large hyperscale developments in the pipeline, particularly in the Greater Tokyo and Greater Osaka areas. That said, there are multiple constraints that will likely hinder this, including the scarcity of suitable land for data centre development, and the time taken to attain the requisite power supply. While more investors are likely paying closer attention to the local data centre market,

Japan Logistics

which is comparatively easier to break into, both the hyperscale and local data centre markets are expected to see considerable growth going forward.

OUTLOOK

Transitioning into the post-pandemic era, the fundamentals of the logistics sector remain strong, driven by growing demand from various industries such as e-commerce, retail, wholesale, and consumer goods manufacturing. The sector remains popular with investors, and many significant transactions were recorded, especially among foreign investors, in particular those who are seeking a large exposure to Japan outside the office sector. However, large new supply has outpaced strong demand over recent quarters, which caused a noticeable increase in vacancy

rates, and contributed to supressed rental growth in both Greater Tokyo and Greater Osaka in 2023.

Looking ahead, suppressed rental levels may linger for some time due to multiple external factors. Known as the "2024 problem", upcoming government regulations effective from April 2024 will restrict delivery drivers' annual overtime to 960 hours, exacerbating the existing labour shortage. As such, delivery costs will likely increase, and potential cargo backlogs might materialise across Japan due to this bottleneck. Furthermore, the widened gap between supply and demand will likely increase competition for tenants. Given these industry-wide challenges that will supress operators' bottom lines, a phase of adjustments will likely persist for the time being.

Overall, the logistics sector is forecast to

continue its robust performance due to the persistent demand from logistics operators, bolstered by the growth of the e-commerce sector in Japan. That said, it will take some time for the excess supply to be absorbed. Modern facilities located in prime locations, along with ESG features remain in demand and are attractive to both investors and tenants. On the other hand, sub-optimal facilities might face challenges in securing tenants and might be forced to consider reducing rents, indicating that some bifurcation will persist in the market. While the longterm outlook remains positive, the short-term outlook is more uncertain with many upcoming challenges. As such, the logistics sector may face a period of adaptation to these new circumstances for the meantime.



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