Independent Market Research

Singapore by Jones Lang LaSalle

SINGAPORE MACROECONOMIC OVERVIEW

Singapore's Gross Domestic Product ("GDP") contracted by 5.4% year-on-year ("y-o-y") in 2020, recording its worst economic recession since independence. The manufacturing sector, which saw output expanding by 7.3% y-o-y, was the only sector that reported growth in 2020, reversing 2019's 1.5% y-o-y contraction. In contrast, construction output plunged by 35.9% y-o-y, after rising 1.6% y-o-y in 2019. The services producing industries also reported a 6.9% y-o-y fall in output in 2020, after expanding by 2.0% y-o-y in 2019.

Advance estimates released by the Ministry of Trade and Industry ("MTI") on 14 April 2021 showed the Singapore economy is on the mend after GDP posted a marginal uptick of 0.2% y-o-y in 1Q21, ending three consecutive quarters of contractions. The manufacturing sector which grew 7.5% y-o-y remained the primary growth driver, while both the construction and services producing industries recorded smaller y-o-y output declines in 1Q21.

In its April 2021 monetary policy statement, the Monetary Authority of Singapore expects Singapore's 2021 GDP to exceed the upper end of MTI's forecast of between 4.0% and 6.0%. 2021's GDP growth is foreseen to be gradual and uneven due to downside risks such as the trajectory of the global economic recovery and the course that the COVID-19 pandemic will take.

RECENT GOVERNMENT POLICIES AND MEASURES AFFECTING THE INDUSTRIAL PROPERTY MARKET

COVID-19 Support Measures

In 2020, the Government of Singapore announced support packages with a total worth of approximately SGD 105 billion to help Singapore's businesses and individuals cope with the adverse impact of the COVID-19 pandemic.

The key COVID-19 support measures applicable to the industrial property sector, which have, to some extent, helped mitigate the impact of COVID-19 on the industrial property market in 2020 are summarised in the table below. (See Table 1)

Initiatives to Drive Transformation and Future Growth

Although Singapore started its industry transformation strategy in 2016 through the launch of 23 Industry Transformation Maps ("ITMs") to increase productivity, develop skills, drive innovation, and promote internationalisation, COVID-19 has accentuated the need to accelerate these efforts.

Table 1

Key COVID-19 Support Measures for the Industrial Property Market

Support Measure	Details
Rental Waivers/ Reliefs	→ The intention of the rental relief framework is to help as many businesses as possible weather the COVID-19-related economic fallout through rental waivers borne by the government and landlords. Tenants continue to pay maintenance fees and service charges. → Eligible industrial tenants in government-owned/managed facilities received a total of two months of rental waiver. → Eligible small and medium-sized enterprise ("SME") tenants in private industrial properties received one month of rent relief (supported by the government) for April 2020. This was made up of a 30% property tax rebate (equivalent to about 0.36 month of rent) and cash grant (about 0.64 month of rent). SME tenants who further qualified for the Additional Rental Relief received another month of rent relief for May 2020, borne by landlords.
COVID-19 (Temporary Measures) Act 2020	→ On 7 April 2020, the Ministry of Law ("MinLaw") passed the COVID-19 (Temporary Measures) Act 2020 to offer temporary relief to businesses and individuals affected by the COVID-19 pandemic. The Act took effect on the same day and has since been amended thrice in June, September and November 2020. → The Act allows businesses and individuals to defer certain contractual obligations, such as paying rent, repaying loans or completing work, for a specified period. It also ensures that property owners pass on property tax rebates in full to tenants. → On 12 October 2020, MinLaw announced the extension of the relief period under Part 2 of the Act, which enables parties in prescribed categories of contracts to obtain temporary relief from legal and enforcement actions for inability to perform contractual obligations due to COVID-19 by one to five months, depending on the contract category. The relief periods for selected contracts were extended further by MinLaw on 16 November 2020. → Specifically, relief covering leases and licences of industrial properties ended on 19 November 2020, while the specified period for construction contracts or supply contracts was extended from 19 October 2020 to 31 March 2021. → For Options to Purchase and Sale and Purchase Agreements between developers and purchasers of industrial properties, the prescribed relief period has been extended to 31 March 2021 to help industrial property buyers who require more time to make payments. It will also allow developers and purchasers to seek temporary protection from being sued during the relief period, if they are unable to perform any contractual obligations due to COVID-19.
Jobs Support Scheme ("JSS")	→ The JSS was introduced to help save Singapore citizens' and permanent residents' jobs by providing wage support to employers during the period of economic uncertainty. The length and extent of support varies for different industries and depends on the severity of the impact from COVID-19.

Source: MTI, MinLaw, JLL Research (as of 16 February 2021)

To prepare for the post-COVID-19 economy, an Emerging Stronger Taskforce ("EST") was set up in May 2020 to provide recommendations to the Future Economy Council ("FEC"). The EST will work with the six FEC Clusters (Manufacturing, Built Environment, Trade & Connectivity, Essential Domestic Services, Modern Services and Lifestyle) on their industry transformation strategies, considering the changes that COVID-19 will have on the global economy and on Singapore.[1]

In line with this, there are plans to promote Singapore's status as a regional and global Ecommerce hub. Besides introducing two nationwide 5G networks by 2025 to enable infrastructure capacity to deal with large online sales orders internationally, other key initiatives include working with businesses to build strong supply-chain capabilities, including developing value-added and specialised capabilities in areas such as cold-chain management, retail and pharmaceutical logistics. The government will support local businesses in gaining Ecommerce capabilities and maximising their growth opportunities from the digital economy.[2]

These initiatives could transform business-operating models, generate new business ideas and yield new industrial space requirements within the manufacturing cluster, as well as industries like wholesale trade and logistics.

JTC Policy Changes for Replacement Anchor Tenants
JTC revised its policy on the replacement of anchor tenants for third-party facility providers (e.g., REITs) to better meet the changing needs of industries and help streamline the application process. With effect from 1 April 2020, the three-year minimum occupation period ("MOP") requirement for replacement anchor tenants was removed and reassessment of existing replacement anchor tenants will only be required when there is more than a 20% change in the gross floor area ("GFA") taken up and/or a change in use. Details of the policy changes are provided in the table below. (See Table 2)

ISLANDWIDE LOGISTICS/ WAREHOUSE MARKET OVERVIEW

Existing Supply, Demand and Occupancy
As of 1Q21, Singapore had 119.9 million sq ft of logistics/warehouse space, of which 97.6% was held by the private sector and 2.4% by the public sector.

Due to COVID-19-related project delays, total net new supply was less than envisaged, amounting to only about 1.0 million sq ft in 2020, or less than a third of 2019's total net new supply of 3.2 million sq ft.

On the other hand, demand for logistics/warehouse space was healthy, underpinned by renewals and increased activity involving short-term leases to accommodate medical and food supplies, as well as consumer items (e.g., from e-retailers) following a spike in Ecommerce activities and increased stockpiling requirements. For example, Ecommerce players such as RedMart, Shopee Express and J&T Express took up more warehouse space in 2020, while Zuellig Pharma Singapore expanded its existing office and warehouse space to cater to the growing healthcare needs of the local market.

This contributed to the near tripling in net space absorption from 1.1 million sq ft in 2019 to 3.1 million sq ft in 2020, albeit still less than the ten-year (2010 to 2019) average of 3.7 million sq ft per annum. As total net space absorption exceeded total net space additions in 2020, the islandwide average logistics/ warehouse occupancy rate was lifted from 88.0% as of 4Q19, to 89.9% as of 4Q20 – its highest level in five years.

Demand remained healthy in 1Q21, underpinned by requirements from firms in Ecommerce, medical-related and food storage/logistics businesses. With net space absorption of 0.6 million sq ft almost on par with net space additions of 0.7 million sq ft, the islandwide occupancy rate held relatively steady at 89.8% as of 1Q21. (See Exhibit 1)

Table 2

JTC Policy Change for Replacement Anchor Tenants (effective 1 April 2020)

Indicator	Policy before 1 Apr 2020	Revised Policy from 1 Apr 2020
MOP Requirement for Replacement Anchor Tenants	Imposition of a 3-year MOP for all approved replacement anchor tenants.	The MOP requirement was removed, and replacement anchor tenants can apply for any duration of stay for both new and renewal applications.
Reassessment of Existing Replacement Anchor Tenants	Replacement anchor tenants will be reassessed for any change in the GFA take-up and/or change in use.	Replacement anchor tenants will only be reassessed when the change in the GFA take-up is more than 20% and/or a change in use.

Source: JTC, JLL Research

[1] Source: Future Economy Council's media release published on 6 May 2020.
[2] Source: The Straits Times, "Singapore outlines plan to be hub for Ecommerce", published on 29 Jan 2021.

Independent Market Research

Singapore by Jones Lang LaSalle

Potential Supply

An estimated 7.9 million sq ft[3] (net floor area) of new logistics/warehouse space is expected to be completed from 2Q 2021 to 2024, based on JTC's latest list of projects in the pipeline as of 1Q21 and JLL's research. Of this, JLL estimates that around 45.6% are single-user premises intended mostly for self-use, and 54.4% are multiple-user spaces. Without considering stock withdrawals and change of use, this will raise the islandwide stock as of 1Q21 by 6.6%, to around 128 million sq ft by end-2024.

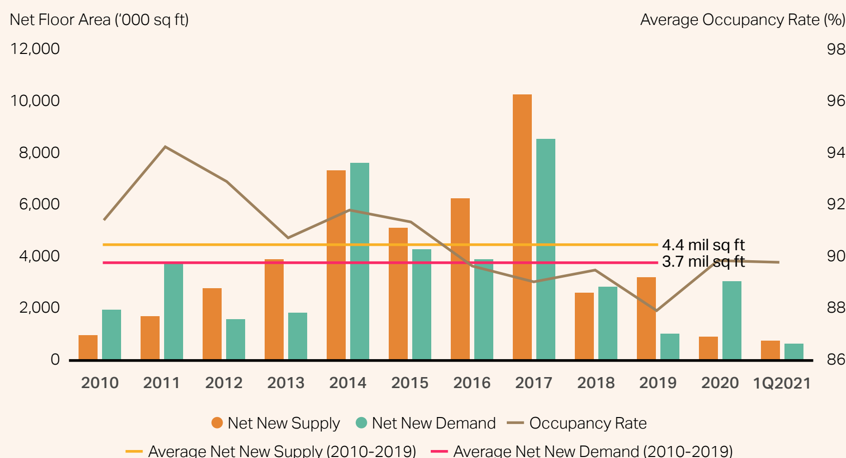
By expected year of completion, new supply is projected to surge to a peak of about 4.6 million sq ft in 2021 (inclusive of net additions in 1Q21) as COVID-19-related construction disruptions pushed back the completion of projects from 2020. Thereafter, new supply is foreseen to taper to 1.7 million sq ft and 1.1 million sq ft in 2022 and 2023, respectively, and to rise to 1.3 million sq ft in 2024.

On average, the annual projected new supply of about 2.2 million sq ft from 2021 (full year) to 2024 is around half the average annual net new supply of 4.3 million sq ft witnessed in the four years from 2017 to 2020.

(See Exhibit 2 and Table 3)

Exhibit 1

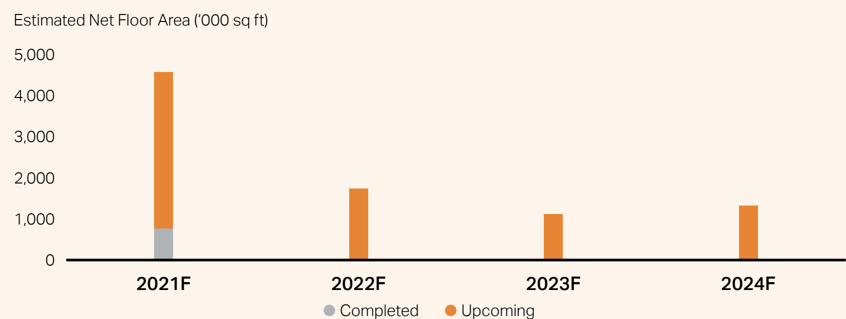
Net New Supply, Net New Demand and Average Occupancy of Logistics/Warehouse Space



Source: JTC, JLL Research

Exhibit 2

Potential Supply of Islandwide Logistics/Warehouse Space (2021 to 2024)



Source: JTC, JLL Research

Table 3

Examples of Major* Upcoming Logistics/Warehouse Developments in 2021

Name of Development	Location	Planning Region	Name of Developer	Approximate Gross Floor Area (sq ft)
JTC Logistics Hub @ Gul	1 Gul Circle	West	JTC Corporation	1,518,465
LOGOS eCommerce Hub (Phase 1)	4 Pandan Crescent	West	Pandan Crescent Pte Ltd (LOGOS Group)	429,767
LOGOS Tuas Logistics Hub (Warehouse 1)	20 Tuas South Avenue 14	West	Tuas South Avenue Pte Ltd	862,512
LOGOS Tuas Logistics Hub (Warehouse 2)	20 Tuas South Avenue 14	West	Tuas South Avenue Pte Ltd	222,813
LOGOS Penjuru Logistics Centre	2 Tanjong Penjuru Crescent	West	2TPC Pte Ltd (LOGOS & CSC Holdings)	364,466
Cogent Jurong Island Logistics Hub (Phase 1B & 1C)**	15 Tembusu Crescent	West	SH Cogent Logistics Pte Ltd	925,158
Tee Yih Jia Food Hub (warehouse component)	Senoko Drive/Senoko Road	North	Tee Yih Jia Food Manufacturing Pte Ltd	219,799

* Refers to developments with approximate gross floor area of at least 150,000 sq ft.
** Phase 1B was completed in 1Q21.
Source: JTC, JLL Research

[3] Potential supply includes space under construction and planned. However, the actual level of new supply could change due to amendments to the estimated gross floor area, as well as the status of planned projects.

Rents

Despite the improvement in the average islandwide logistics/ warehouse occupancy rate, JTC's warehouse rental index, which is based on private warehouse transactions, fell for the seventh consecutive year in 2020. While the 1.3% y-o-y fall in the rental index was steeper than the 0.9% and 0.2% declines in 2018 and 2019, respectively, it was milder than the 1.6% to 6.4% declines from 2014 to 2017. This was even though 2020 saw Singapore experiencing its worst economic recession since independence, indicating the resilience in rent. In line with the improving economy and sustained healthy demand, JTC's warehouse rental index rose by 0.5% from 4Q20 to 1Q21.

According to data from J-Space, the islandwide 25th percentile, median and 75th percentile warehouse rents of leasing transactions in 1Q21 stood at SGD 1.40, SGD 1.80 and SGD 2.45 per sq ft per month, respectively. (See Exhibit 3)

Prices

JTC has not published the warehouse price index since 4Q14 due to the limitations posed by minimal transaction activity.

Based on data obtained from JTC's J-Space on 30 April 2021, the strata-titled warehouse sales market held steady in 2020 with 64 caveats, unchanged from 2019. However, the median price (based on strata area) of strata-titled warehouse transactions stood at SGD 540 per sq ft in 4Q20, 8.2% lower than the median price of SGD 588 per sq ft for strata-titled warehouse transactions in 4Q19. As of 1Q21, the median price stood at SGD 479 per sq ft. The limitations of median prices derived from a small number of transactional records in a non-homogeneous market for trend analysis should be noted. (See Exhibit 4)

Major Investment Sales

Based on information collated by JLL Research as of 19 April 2021, an estimated SGD 0.26 billion worth of warehouses (excluding development sites)[4] changed hands in 2020 for at least SGD 5 million apiece. This was lower than the SGD 0.54 billion amassed in 2019. Notable deals in 2020 include the sale of 7 Bulim Street, a four-storey ramp-up logistics facility with ancillary office space on each level, by Titan (Wenya) Pte Ltd to AIMS APAC REIT for SGD 129.63 million and PGIM's purchase of Luxasia Building at 12 Tai Seng Street for SGD 66.09 million.

Another SGD 0.19 billion worth of warehouses were transacted in 1Q21 on the back of higher investor interest given the sector's resilient performance and strong demand in the face of the COVID-19 pandemic. Notable deals include the sale of 10, 12 and 16 Changi North Way by Boustead Projects for a combined SGD 88.90 million to the Boustead Industrial Fund as part of the fund's initial property portfolio, and 5 Clementi Loop which was transacted for SGD 46.00 million. Separately, a private fund managed by LOGOS SE Asia entered a put and call option agreement to purchase 28 Quality Road from Pteris Global for SGD 49.68 million.

Examples of major logistics/warehouse investment sales in 2020 and 1Q21 (based on available market information/ transaction records) are shown in the table on the following page. (See Table 4)

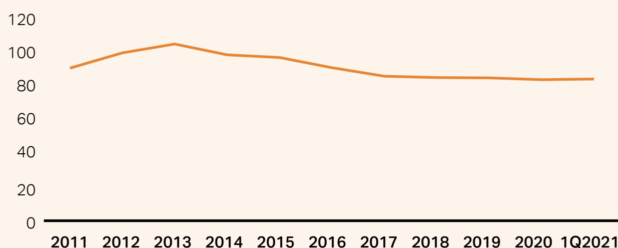
Market Outlook

Stockpiling and Ecommerce needs, as well as food and vaccine storage/ logistics requirements, are foreseen to be key logistics/warehouse demand drivers in the near-term, amid expectations of a protracted fight against COVID-19.

Singapore's continued progression towards higher value-adding and value-creating manufacturing activities, such as R&D, specialty chemicals and additive manufacturing (e.g., 3D printing), is expected to underpin end-user demand for higher-specification and specialised logistics/warehouse facilities, like chemical warehouses and cold rooms.

Exhibit 3

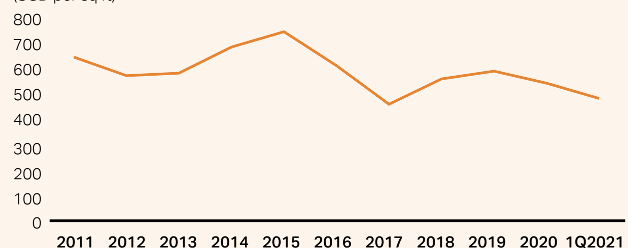
JTC Rental Index for Warehouse Space (2011 to to 1Q 2021)



* JTC is rental indices are based on transactions of private warehouse developments.
Source: JTC, JLL Research

Exhibit 4

Median Price* of Warehouse Space (2011 to 1Q 2021)



* Based on strata area
Source: JTC, JLL Research

[4] This excludes the sale of a 26% stake in a portfolio of 14 industrial properties comprising six industrial properties, one business park facility, four high-specification industrial properties and three logistics properties held by Boustead Industrial Fund (BIF) to Metro Holdings, estimated to be worth about SGD 122 million.

Independent Market Research

Singapore by Jones Lang LaSalle

Meanwhile, the transformation of the logistics industry is expected to gather momentum as more firms embrace Industry 4.0 practices and adopt automation and the Internet of Things ("IoT") in preparation for the eventual post-COVID-19 rebound. This, coupled with COVID-19-related adjustments to global supply chains, could alter business needs and yield new logistics/warehousing requirements. For example, firms that switched from a "Just-In-Time" to a "Just-In-Case" supply-chain model could require new storage space to hold inventory. However, there is potential that stockpiling requirements will taper off when the COVID-19 situation stabilises or is contained. More efficient operations from automated warehouses could also lower the need to expand physical real estate footprints to cater to business expansion.

Considering the above and the foreseen economic recovery in 2021, we expect Singapore's quantum of occupied logistics/warehouse stock to continue rising in 2021. However, the surge in new logistics/warehouse supply in 2021 could weigh down the islandwide average occupancy rate and cap rent growth in 2021. For the medium-term, we expect the projected economic and manufacturing sector growth to lend support to logistics/warehouse demand. As new supply is expected to be low, this should underpin rent growth.

March 2021

Table 4

Examples of Major* Logistics/Warehouse Transactions in 2020 to 1Q2021

Period Sold	Name of Development	Location	Sale Price (SGD mil)	Approximate Land Area (sq ft)	Tenure
1Q20	N.A.	25 Changi South Street 1	$20.30	N.A.	30 Yrs From 01/10/1997
2Q20	Luxasia Building	12 Tai Seng Street	$66.09	85,573	30+30 Yrs From 26/06/2007
3Q20	N.A.	7 Bulim Street	$129.63	366,996	30 Yrs From 01/09/2012
1Q21	N.A.	28 Quality Road	$49.68	269,088	30+30 Yrs From 01/06/2007
1Q21	N.A.	10 Changi North Way	$27.00	80,855	24.33+30 Yrs From 16/09/2010
1Q21	N.A.	12 Changi North Way	$38.40	178,871	30+30 Yrs From 16/01/2005
1Q21	N.A.	16 Changi North Way	$23.50	75,720	27.38+30 Yrs From 01/09/2007
1Q21	Clementi West LogisPark	5 Clementi Loop	$46.00	200,216	30+30 Yrs From 01/11/1994

* Refers to transactions worth at least SGD 20 million each.
N.A. denotes "Not Available".
Source: JTC, REALIS, RCA, JLL Research (as of 19 April 2021)

Limiting Conditions

This market report ("Report") contains forward-looking statements that are provided as JLL's beliefs, expectations, forecasts or predictions for the future. All such statements relating to future matters are based on the information known to JLL at the date of preparing this document. We stress that such statements should be treated as an indicative estimation of possibilities rather than absolute certainties. The forecast process involves assumptions about a substantial number of variables, which are highly responsive to changing conditions. Variations of any one of the variables may significantly affect outcomes and JLL draws your attention to this. Therefore, JLL cannot assure that the forecasts outlined in this Report will be achieved or that such forward-looking statements outlined in this Report will prove to be correct. Interested parties must be cautioned not to place undue reliance on such statements.

Where as a result of new available information, future events or otherwise, JLL undertakes no obligation to publicly update or revise any forward-looking statements contained in this Report, except as required by law.

JLL has relied upon external third-party information in producing this Report, including the forward-looking statements. We want to draw your attention that there is no independent verification of any of the external party documents or information referred to herein. This Report is limited to the matters stated in it and no opinion is implied or may be inferred beyond the matters expressly stated herein. The information in the Report should be regarded solely as a general guide. Whilst care has been taken in its preparation, no representation is made or responsibility is accepted for the accuracy of the whole or any part.

JLL has prepared this Report to be used in the 2020/2021 Mapletree Logistics Trust Annual Report ("Annual Report"). The opinions expressed in this Report are subject to changes and therefore does not constitute, nor constitute part of, an advice, offer or a contract.

Disclaimer

1. Save for liability which cannot be excluded by law, JLL and its respective businesses, directors, officers, employees, consultants, lenders, agents or advisors do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained in the Report or the Annual Report (collectively referred to as "Information"), and do not accept:
   (a) any responsibility arising in any way for any errors in or omissions from the Information, or for any lack of truth, accuracy, completeness, currency or reliability of the Information;
   (b) any responsibility for any interpretation that the recipient of the Information or any other person may place on the Information, or for any opinion or conclusion that the recipient of the Information or any other person may form as a result of examining the Information; and
   (c) any liability (whether direct or indirect or consequential) for any loss, damage, cost, expense, outgoing, interest, loss of profits or loss of any kind ("Losses") suffered or incurred by any person (whether foreseeable or not) as a result of or by reason of or in connection with the provision or use of the Information, or you, your representatives or advisers acting on or relying on any Information, whether the Losses arise in connection with any negligence, default or lack of care on the part of JLL or any other cause.
2. The Information is not based on any actual or implied knowledge or consideration of the investment objectives, financial situation, legal or taxation position or any other needs or requirements of the recipient of the Information and should not be construed in any way as an investment advice.
3. Any forecasts included in the Information or any other written or oral forecasts of JLL made available to you or your representative are not to be taken to be representations as to future matters. These forecasts are based on a large number of assumptions and are subject to significant uncertainties, vagaries and contingencies, some, if not all, of which are outside of the control of JLL.
4. No representation is made that any forecast will be achieved. Actual future events may vary significantly from forecasts. You should make and must rely on your own business judgment, enquiries and investigations regarding the assumptions, uncertainties and contingencies included in the Information.
5. For the avoidance of doubt, the information in the Report is based on data reasonably available to JLL as at 17 November 2020 unless otherwise specified.
6. JLL is not providing investment advisory services and makes no representation or recommendation to a prospective investor in relation to any investment opportunities.
7. No part of this report may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, including by way of email, photocopying, recording, or otherwise, without the prior written permission of JLL.
8. Acceptance or use of the Information will be taken to be acceptance by you that you will be relying on your own independent judgment, enquiries, investigations and advice.

Hong Kong SAR by Savills Research & Consultancy

HONG KONG ECONOMY

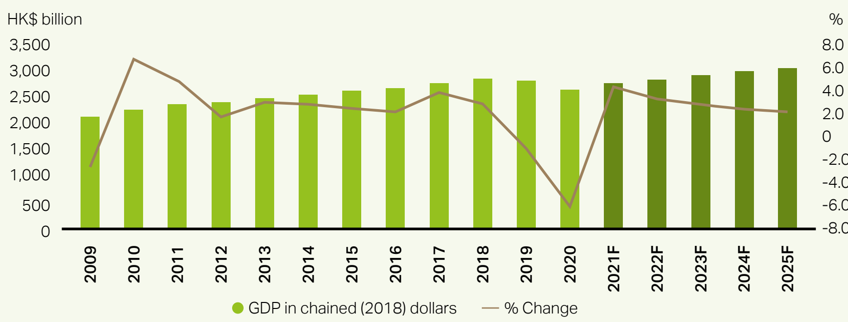
Key Economic Indicators

According to the Census and Statistics Department, the Gross Domestic Product ("GDP") of Hong Kong fell by 6.1% in real terms in 2020, compared with a slight decrease of 1.2% in 2019, mainly due to successive waves of COVID-19 infections together with subsequent border closures and social distancing measures which together had a chilling effect on local economic activity. Affected by the pandemic and global lockdowns, which in turn hindered both air and sea freight, Hong Kong's total exports of goods recorded a contraction of 2.8% year-on-year ("y-o-y") in the first eleven months of 2020, while imports of goods fell by 5.0% over the same period. As one of the four pillars of the economy, trading and logistics accounted for 21.6% of GDP in terms of basic prices in 2019. (See Exhibit 1)

Economic Forecasts

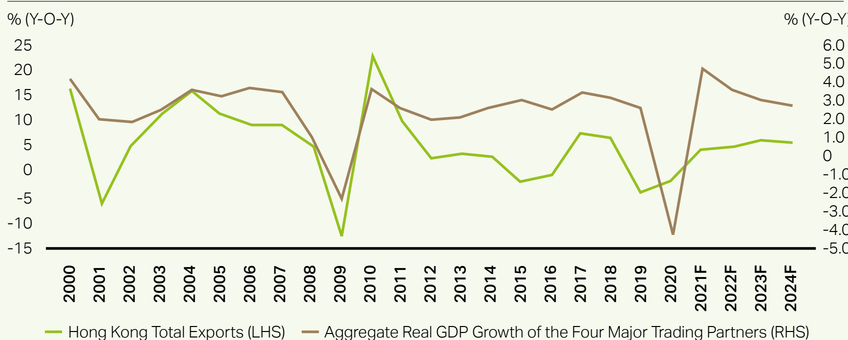
According to FocusEconomics, Hong Kong's real GDP will continue to decline by 2.5% in Q4/2020, before rebounding to positive growth from Q1/2021 onwards. With a forecast recovery of 4.6% growth in GDP in 2021, Hong Kong's real GDP is expected to grow within a range of 2.1% to 3.1% from 2022 to 2025. The more positive economic outlook for 2021 is based on a recovery in consumer demand due to gradual virus containment, as well as a more stable business environment when the border subsequently reopens later in the year. Any reversal of the virus situation or a revival of social unrest would call into question the positive outlook.

Exhibit 1



Source: Census and Statistics Department, FocusEconomics, Savills Reasearch & Consultancy

Exhibit 2



Source: Census and Statistics Department, FocusEconomics, Savills Reasearch & Consultancy

COVID-19 Impact

The outbreak of COVID-19 in early 2020 has evolved into a worldwide pandemic with a negative economic impact globally. According to the World Bank, the global economy contracted by 4.3% in 2020. The retail and hospitality sectors in Hong Kong were hardest hit, with retail sales plummeting by 25.3% over the first eleven months of 2020, while visitor arrivals plunged by 93.2% over the same period due to border closures, leading to a 60% decline in RevPAR across all hotels in Hong Kong.

Against this backdrop, the local logistics sector was relatively unscathed with a moderate decline of 1.5% and 3.3% respectively in both total exports and imports reported in 2020.

The various social distancing measures implemented as well as the emerging work-from-home ("WFH") trend have accelerated ecommerce demand locally, with ecommerce revenue up by 32% in 2020 compared to a moderate growth rate of 22% in 2019, according to Statista. With surgical masks in high demand in the first half of 2020 and the dine-in prohibition after 6pm in place for most of the year, it came as no surprise that Food & Personal Care was the fastest growing category in 2020, registering a 43% y-o-y increase. The rise in ecommerce has benefited 3PLs handling online goods, thus increasing warehouse demand for ecommerce logistics.

Exports and imports are both expected to register moderate growth ranging from 4.6% to 6.1% per annum from 2021 to 2024. The figures are slightly higher than the average growth of 3.2% in real GDP forecast for Hong Kong's four major trading partners; China, the United States, Japan and the European Union over the same period, but lean more towards the 6.2% average GDP growth of China, reflecting its increasing importance to the local trading and logistics industry. (See Exhibit 2)

Independent Market Research

Hong Kong SAR by Savills Research & Consultancy

WAREHOUSE MARKET OVERVIEW

Warehouse Stock[1] by Category and Distribution

Hong Kong's warehouse stock has grown at a relatively low compound annual growth rate ("CAGR") of 0.5% per annum over the past 20 years. This is largely due to severe land constraints, resulting in a limited supply of sites for warehouse use.

Modern warehouse stock accounted for 50% of total warehouse stock (40.5 million sq ft IFA) at the end of 2019, 2% (or 1.0 million sq ft IFA) of which is situated at Hong Kong's International Airport ("HKIA") at Chek Lap Kok. Modern warehouses have been developed over recent years and are managed by a few experienced developers and investors, including Goodman, Hutchison, Mapletree, China Merchants and Kerry, with a modern warehouse market share[2] of 24%, 20%, 11%, 6% and 6% respectively. (See Exhibit 3)

There are 15 modern warehouses in Hong Kong with a total gross floor area of around 27.4 million sq ft gross, with the largest cluster in the Kwai Tsing / Tsuen Wan area close to both the cargo terminals and HKIA. The overall stock distribution of warehouses shows a clear shift of warehouse facilities towards the northwest New Territories over the past two decades. Compared with 1994, Hong Kong Island and Kwun Tong warehouse stock declined by 26% and 25% respectively to 1.8 and 2.8 million sq ft IFA in 2019. However, stock in Tuen Mun / Yuen Long rose sharply from 1.4 million sq ft IFA in 1994 to 2.9 million sq ft IFA in 2019, a 104% increment. This shift was driven by the development of new infrastructure such as Container Terminal 9, HKIA, the River Trade Terminal, the Hong Kong-Shenzhen Western Corridor and the Hong Kong-Zhuhai-Macao Bridge, being completed over the period. (See Table 1)

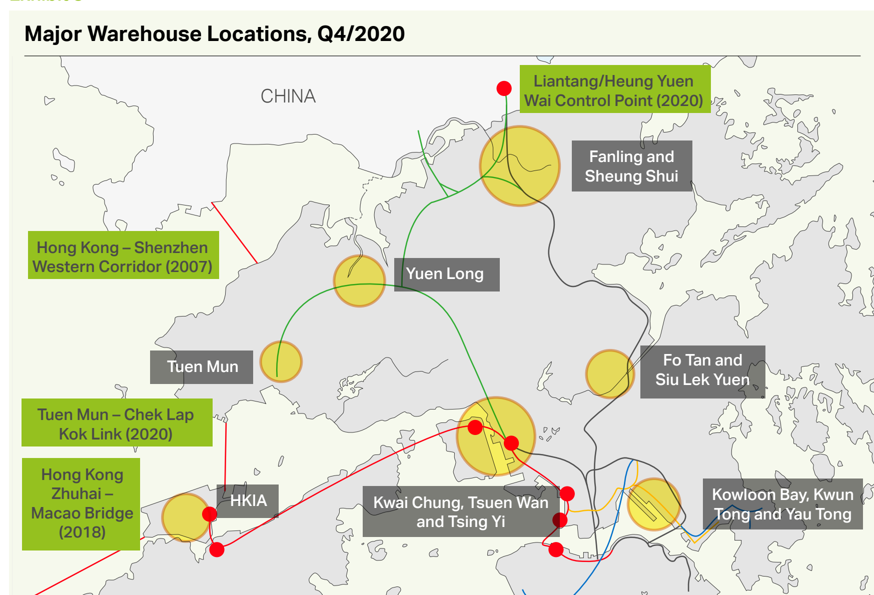
Warehouse Supply, Take-up and Vacancy

Looking at the overall warehouse market, new supply of warehouse space has rebounded over the past decade. While average annual supply over the period from 2006 to 2010 was 69,000 sq ft IFA, from 2011 to 2019, average annual supply increased to 521,000 sq ft IFA. 2019 saw no new supply being completed. From 2011 to 2019, eight warehouse projects were completed in Kwai Tsing, Yuen Long and Fanling, five of which (China Merchants Logistics Centre, China Resources International Logistics Centre, Goodman Interlink, SF Centre and Mapletree Logistics Hub Tsing Yi in Kwai Tsing) are built to modern warehouse standards.

The confluence of several adverse developments in recent years, emanating from both external and domestic sources, had negatively impacted logistics demand. Over the past decade, vacancy increased from 3.8% in 2011 to 6.4% in 2019. In particular, the US / China trade tensions, as well as local social unrest had derailed logistics demand in 2019, leading to a negative take-up of 622,000 sq ft IFA in the year. (See Exhibit 4)

Exhibit 3

Major Warehouse Locations, Q4/2020



Source: Savills Research & Consultancy

Table 1

Hong Kong Warehouse Market Key Metrics by District

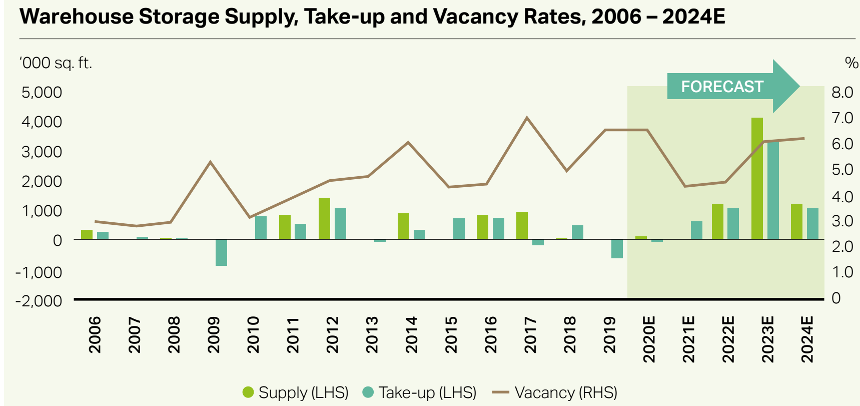
District	Total stock at the end of 2020* (million sq ft IFA)	Q1/2021 average rent (HK$ per sq ft effective)
Hong Kong Island	1.8	**10.0**
Kwun Tong	2.8	**9.8**
Sham Shui Po	1.5	**8.8**
Kwai Tsing / Tsuen Wan	23.1	**11.8**
Tuen Mun / Yuen Long	2.9	**8.7**
North	1.4	**9.9**
Shatin	4.8	**10.7**
Others	2.2	**N/A**
Total	40.5	**10.9**

Source: Rating and Valuation Department, Savills Research & Consultancy
* Savills' estimate

[1] All floor areas in this section is measured in Internal Floor Area ("IFA") as defined by the Rating and Valuation Department, which is different from gross floor area (GFA) used in other sections of the report, and is defined as the area of all enclosed space of a unit measured to the internal face of enclosing external and/or party walls, unless otherwise stated.
[2] In terms of Buildings Department's approved GFA

Exhibit 4

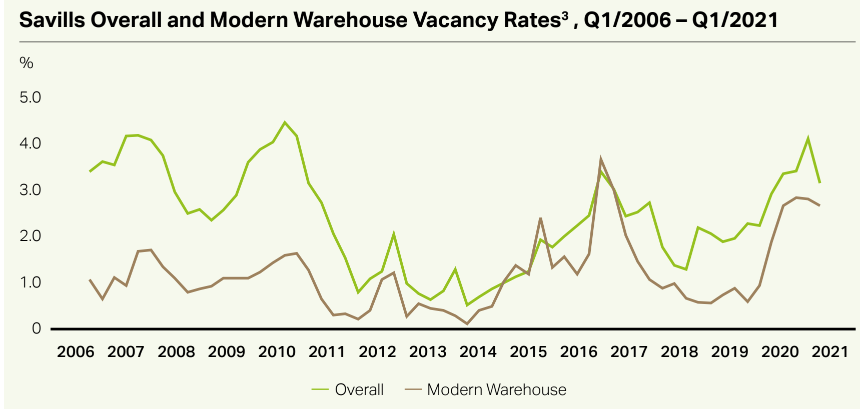
Warehouse Storage Supply, Take-up and Vacancy Rates, 2006 – 2024E



Source: Rating and Valuation Department, Savills Reasearch & Consultancy

Exhibit 5

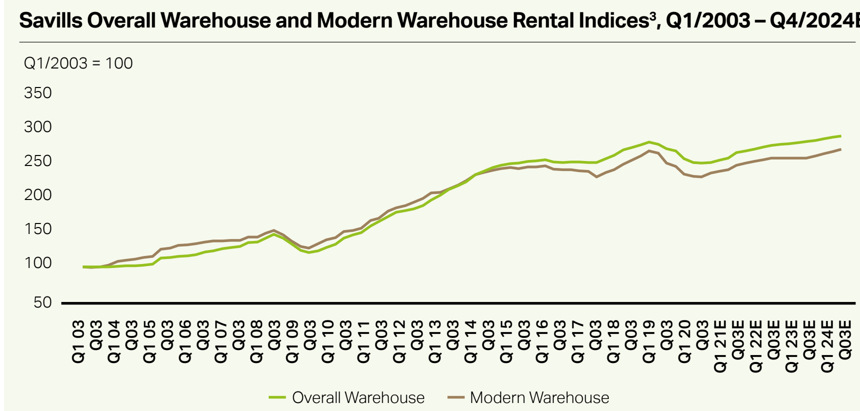
Savills Overall and Modern Warehouse Vacancy Rates[3], Q1/2006 – Q1/2021



Source: Savills Research & Consultancy

Exhibit 6

Savills Overall Warehouse and Modern Warehouse Rental Indices[3], Q1/2003 – Q4/2024E



Source: Savills Research & Consultancy

Overall vacancy increased to 2.2% in Q4/2019 from a recent low of 1.2% in Q2/2018 due mainly to the recent US / China trade tensions which derailed the trading economy, as well as the social unrest which has affected inbound tourism from China with negative consequences for the local retail market and its associated logistics demand. Following the COVID-19 outbreak since the start of 2020, global supply chain has been disrupted with increasing difficulty to move cargoes around, thereby affecting the freight forwarding and cross-border distribution functions of logistics operators. As visitor arrivals dwindle due to border closure and with more social distancing measures implemented, the retail market suffered. The 3PLs serving the retail market were faced with slowing businesses, leading to shrinking warehouse space demand which pushed overall warehouse vacancy up to 4.1% in Q4/2020, before falling heavily back to 3.1% in Q1/2021 due to improving macros and major leasing deals being recorded. Against this backdrop, modern warehouse vacancy rose to 2.8% in Q4/2020 from 0.9% in Q4/2019, but declined slightly to 2.7% in Q1/2021 following an increasing number of renewals driven by proactive landlords reducing rents. (See Exhibit 5)

The traditional logistics demand from bulk import / export segments as well as the retail sector will likely rebound in 2021 alongside the global economic recovery. In particular, there has been a recent pick-up in logistics demand from air cargo transport, related to regional transshipment of high-value goods, cross border and local ecommerce logistics, as well as temperature-controlled products. These emerging demand drivers are best served by modern warehouses with higher specifications which offer better operational efficiency to handle these often time-critical cargoes.

Warehouse Rental Trends

The weak performances of both the trading and retail sales segments which were impacted by the trade war followed by the social unrest and

[3] Based on Savills in-house research on a selected basket of better quality, mostly single-owned warehouses, which represent around 80% of total warehouse stock of Hong Kong.

Independent Market Research

Hong Kong SAR by Savills Research & Consultancy

subsequently the pandemic, have led to declining logistics demand, dampening modern warehouse rental growth in both 2019 and 2020.

Renewals were more common in modern warehouses, as these corporate landlords, who are experienced at managing large portfolios, have been more proactive in reducing rents since the second half of last year due to the increasingly difficult operating environment. At the end of Q1/2021, average modern warehouse rents stood at HK$13.0 per sq ft gross, a 12.1% downward adjustment from Q2/2019.

General warehouses, which are mainly owned by local individual landlords / industrialists, were slower in terms of marking their asking rents to market. At the end of Q1/2021, average overall warehouse rents stood at HK$10.9 per sq ft gross, a 10.5% decline from Q2/2019. (See Exhibit 6)

Warehouse Market Forecast

Upcoming warehouse supply between 2021 and 2024 will amount to 6.86 million sq ft gross, an addition of 12.7% to existing warehouse stock. New warehouse supply comprises one project in Tuen Mun and one mega project on the Airport Island. (See Table 2)

Looking into 2021 and beyond, while the virus situation remains unpredictable, forecasted revival in global logistics; a potential rebound in the local retail market; rising ecommerce demand; and newly completed infrastructure should all contribute to brighter prospects for the local logistics market. This could lead to a potential rental rebound from Q2 onwards, following a stabilisation in the warehouse market in Q1.

Modern warehouses are expected to benefit most as their specifications are more suitable to ecommerce operators and multinational 3PLs. We expect modern warehouse rents to rebound by 5% to 10% in 2021, while overall warehouses may see slower growth with higher vacancy. Areas benefiting from newly completed infrastructure, such as Liantang / Heung Yuen Wai Border Control Point in the North-eastern New Territories, as well as Tuen Mun-Chek Lap Kok Link linking up Tuen Mun South and Hong Kong International Airport, should also see improving demand prospects.

Modern warehouses, which continued to record a 30% premium over overall rents in Q4/2020, have a brighter outlook in light of growth from cross-border ecommerce and the structural shift towards air freight and high value-added goods. As operational efficiencies and modern facilities are increasingly more crucial in the logistics sector, rents for modern warehouses are expected to post a relatively stronger performance compared to the overall market during the next four years. Variations in supply, though, will limit rental growth for modern warehouses in 2023 to 0%, will only be temporary. (See Table 3)

In the medium- to long-term, the key demand drivers of modern warehouses include value-added transshipment, fast-moving local distribution, emerging ecommerce distribution (both local and regional) as well as cold storage needs. Most of these demand groups require large floor plates, high ceiling heights and extra floor loadings, which can only be found in modern warehouses located in strategic locations either close to the airport, container terminals, the border, or a combination of all. As these operators are often handling higher value goods in large volumes, they are willing to pay premium rents to acquire warehouses which suit their needs, thereby reaffirming the rental premiums of modern warehouses over their general counterparts.

March 2021

Table 2

Warehouse Supply, 2021 - 2024

Project	District	Developer	Total GFA (sq ft)	Expected completion
Goodman Westlink	Tuen Mun	Goodman	1,500,000	2022
Cingleot Premium Logistics Centre	Airport Island	Cainiao Network	5,358,516	2023

Source: Savills Research & Consultancy, Buildings Department

Table 3

Modern Warehouse Rental Forecast, 2021 - 2024

	Overall warehouse	Modern warehouse
2021	+6.0%	+7.5%
2022	+4.0%	+4.0%
2023	+2.0%	0.0%
2024	+3.0%	+5.0%

Source: Savills Research & Consultancy

Disclaimer

This report contains forward-looking statements which state Savills (Hong Kong) Limited's (the Consultant) beliefs, expectations, forecasts or predictions for the future. The Consultant stresses that all such forecasts and statements, other than statements of historical fact, outlined in this report should be regarded as an indicative assessment of possibilities rather than absolute certainties. The process of making forecasts involves assumptions about a considerable number of variables which are very sensitive to changing conditions. Variations of any one may significantly affect outcomes and the Consultant draws your attention to this.

The Consultant therefore can give no assurance that the forecasts outlined in this report will be achieved or that such forecasts and forward-looking statements will prove to have been correct and you are cautioned not to place undue reliance on such statements. The Consultant undertakes no obligation to publicly update or revise any forward-looking statements contained in this report, whether as a result of new information, future events or otherwise, except as required by law, and all forward-looking statements contained in this summary report are qualified by reference to this cautionary statement.

The report is prepared by the Consultant for information only. While reasonable care has been exercised in preparing the report, it is subject to change and these particulars do not constitute, nor constitute part of, an offer or contract. Interested parties should not rely on the statements or representations of fact but must satisfy themselves by inspection or otherwise as to the accuracy. No representation, warranty or covenant, express or implied, is given and no undertaking as to accuracy, reasonableness or completeness of the information contained in this report. In producing this report, the Consultant has relied upon external third-party information and on statistical models to generate the forward-looking statements. It should be noted, and it is expressly stated, that there is no independent verification of any of the external third-party documents or information referred to herein. This report is limited to the matters stated in it and no opinion is implied or may be inferred beyond the matters expressly stated herein.

China by Knight Frank Petty Limited

MACROECONOMIC OVERVIEW

Economic Overview

Amid the devastating COVID-19 global pandemic and the continued trade dispute with the United States of America (the "US"), The PRC remained one of the most promising emerging markets, reporting a positive economic growth against the global economic pullback in 2020. According to the National Bureau of Statistics, China's real GDP grew by 2.3% year-on-year ("YOY") in 2020 despite some volatility in the first quarter of 2020 due to the lockdown measures in face of the pandemic. With successful epidemic control alongside a series of economic stimulus measures and strong economic fundamentals, a fast recovery was seen in the second to fourth quarters. The fast rebound has allowed the country to emerge as an outlier among large economies at a time when the global economy was upended by the pandemic.

Total imports and exports grew by 1.9% YOY while trade surplus recorded an expansion of 27.1% YOY. Factories in China promptly resumed operations once the coronavirus was largely stamped out whereas manufacturing activities worldwide were disrupted as the pandemic spreads to the rest of the world. This enabled China to produce and export mass quantities of medical and work-from-home equipment, which generated keen logistics demand. Foreign direct investment ("FDI") and outbound direct investment ("ODI") of The PRC continued to expand in 2020. FDI was 8.6% higher than the ODI, indicating that foreign investments in The PRC outstripped capital outflow in spite of the US-China trade dispute and COVID-19 pandemic.

In pursuit of sustainable long-term economic growth, The PRC's economic rebalancing in recent years has led to a shift from an export-led to a domestic-driven economy. As a result, domestic consumption has become a key growth engine for the country. In 2020, domestic consumption accounted for 54.3% of The PRC's economic growth, and continues to be the major driving force of economic growth for the seventh consecutive year. Due to the COVID-19 outbreak, cities were placed under lockdown and the operation of most physical retail stores were suspended in the first quarter of 2020. As a result, it accelerated the growing trend of online shopping. Online retail sales rose by 10.9% YOY in 2020 against the backdrop of a 3.9% YOY contraction in overall retail sales. Consequently, online retail sales of physical goods as a proportion of overall retail sales increased to 24.9%, from 20.7% last year.

The resurgence of coronavirus in some places poses uncertainties to the economic recovery of The PRC; however, the economy of The PRC remains optimistic especially after its extraordinary achievement in 2020 amid challenging times. According to the International Monetary Fund, the GDP of The PRC is expected to see a noticeable growth of 8.1% in 2021, outpacing the global GDP growth of 5.5%. The economy of The PRC remains resilient ahead supported by continued urbanisation and a rising middle class. The sustainable economic development plans laid out by the government will continue to stimulate domestic consumption and expansion of the tertiary industry.

LOGISTICS MARKET OVERVIEW

Demand Drivers

Amid the US-China trade dispute and COVID-19 pandemic, demand for warehouse spaces remained robust due to the surge in disposable income and consumption expenditure as well as the rapid expansion of ecommerce and 3rd party logistics ("3PLs").

Surging Disposable Income and Consumption Expenditure

The urban consumption expenditure per capita of The PRC grew at a 5-year compound annual growth rate ("CAGR") of 4.8% in 2020, which is in line with the upward trend of urban disposable income per capita that grew at a 5-year CAGR of 7.0% in the same period. However, in comparison with the developed economies, the consumption expenditure per capita of The PRC, which is only about one-tenth of that of the US or one-eighth of that of Australia, still has significant room for improvement. In view of the pace of economic growth, urbanisation and rising disposable income, the consumption expenditure per capita of The PRC has a high growth potential, and will be one of the key drivers of logistics demand in the country. It is anticipated to grow at a CAGR of 7.3% between 2021 and 2024, outpacing other developed economies such as Japan, Australia, South Korea, the US and Hong Kong with an expected CAGR below 5.0% across the same period.

Independent Market Research

China by Knight Frank Petty Limited

Rapid Expansion of Ecommerce

Fuelled by the COVID-19 pandemic, the growth of the stay-at-home economy has further accelerated ecommerce adoption and growth in 3PLs which led to derived demand for warehouses. Consumption patterns have been changing in the past few years due to economic development, Internet penetration and technology advancements. In 2020, The PRC continued to be the largest ecommerce market in the world with total ecommerce sales of RMB11,760 billion. Despite the size of the ecommerce market, ecommerce sales per capita in The PRC still has a high growth potential, due to a comparatively lower Internet penetration rate of 70% as of 2020. (See Exhibit 1)

During the COVID-19 outbreak, cities were placed under lockdown and the operation of most physical retail stores were suspended. As a result, consumers had no choice but to shift their consumption from offline to online. From daily necessities to high-end commodity goods, almost everything can be purchased online and this accelerated the growing trend of online shopping. While physical stores gradually began to resume normal operations following the containment of the COVID-19 virus, it is expected that a relatively strong growth in ecommerce will still continue amid increasing emphasis on social distancing. As online shopping becomes the trend, it also implies a sustainable demand for warehouses from the ecommerce sector.

Rise of 3PLs

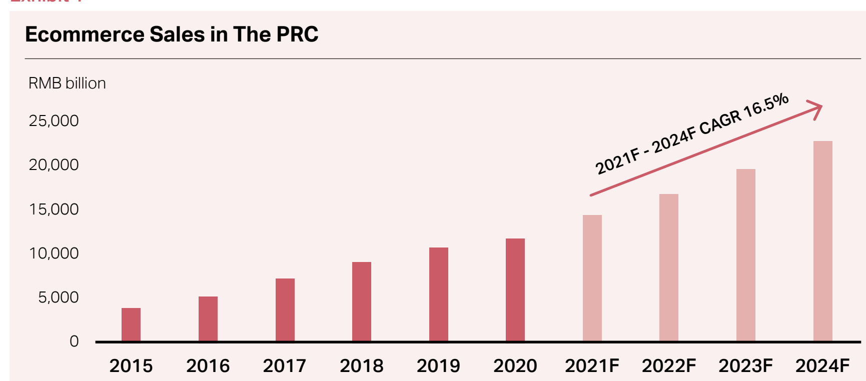
While some ecommerce companies have their own logistics arms, most, if not all, still tend to outsource their logistics operations to 3PL service providers as it is more cost-effective. Revenue growth of 3PL service providers is evident from an increasing proportion of budget attributable to 3PL services by ecommerce retailers, which has risen from 66.0% in 2015 to 73.0% in 2020. Moreover, according to the State Post Bureau of The PRC, the annual volume of express delivery has risen to over 83 billion pieces in 2020, up by 31.2% YOY. 3PL firms definitely benefitted from a surge in demand for online shopping and medical goods, and witnessed a boost in revenues during this period. For instance, SF Express, one of the major 3PL providers in The PRC recorded revenue growth of about 35% YOY in 2020 amid the COVID-19 outbreak. With 3PL firms being a major warehouse space occupier, leasing demand for Grade A warehouses is expected to benefit from their growth.

Supply Situation

The Grade A warehouse market has expanded rapidly since 2000 with a double-digit growth in supply annually. In 2020, the total stock of Grade A warehouses in The PRC stood at approximately 70.2 million square metres ("sqm"), translating to a 5-year CAGR of 28.9%. Among the four key logistics hubs, majority of the Grade A warehouses are in East China, accounting for approximately 41.0% of the total stock in The PRC, followed by Midwest China with 24.0%, North China with 22.0% and South China with 13.0%.

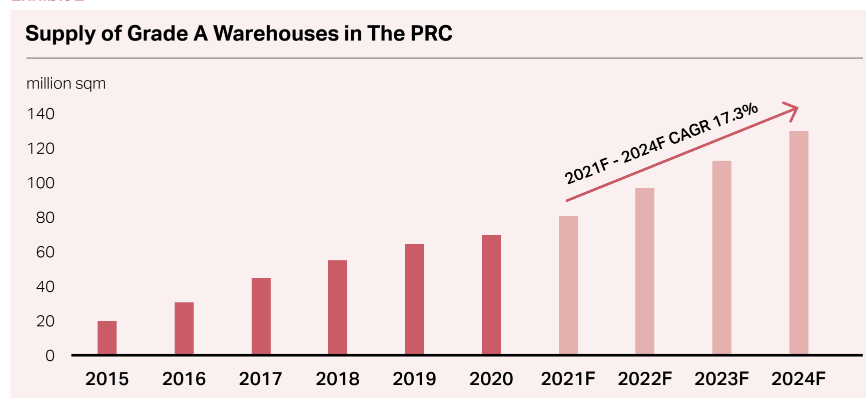
It is expected that an additional 11.2 million sqm of Grade A warehouses will be entering the market in 2021, bringing total Grade A warehouse space to approximately 81.4 million sqm. Looking ahead, an average new supply of approximately 16.7 million sqm per year is expected from 2021 to 2024 with a CAGR of 17.3% over the period. The new supply is expected to be quickly absorbed on the back of existing strong demand. (See Exhibit 2)

Exhibit 1



Source: China E-business Research Centre

Exhibit 2



Source: Knight Frank

Leasing Performance

The logistics sector was resilient amid the COVID-19 pandemic and demand for Grade A warehouses in The PRC was further boosted by the abovementioned drivers, supporting a strong net absorption. In 2020, net absorption of Grade A warehouses in The PRC was recorded at approximately 5.3 million sqm, which further pushed up the occupancy rate to 89.0% in 2020. The average rent rose by 1.8% YOY in 2020.

The improving economic environment and the development of 3PL and ecommerce are the fundamental drivers of logistics demand in The PRC. The outlook for the development of the logistics market is optimistic on the back of government planning, supportive policies and infrastructure projects. A strong net absorption as well as a gradual increase in occupancy rate and average rent of Grade A warehouses in The PRC are expected in 2021. (See Exhibit 3 & 4)

KEY LOGISTICS HUBS

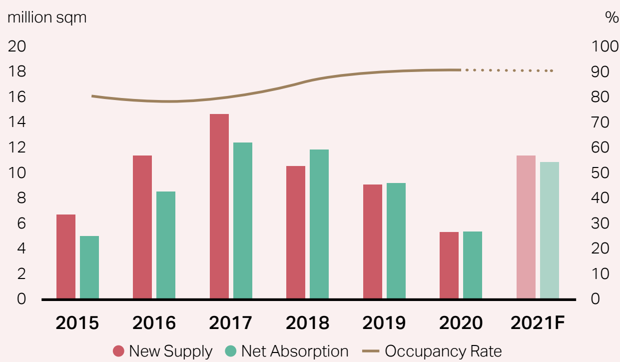
Logistics Property Market

Among the 20 selected cities in The PRC where Mapletree Logistics Trust has a presence in, Shanghai remained the largest Grade A warehouse market with over 6.5 million sqm of existing stock in 2020, followed by Tianjin and Chengdu with about 4.5 million sqm of Grade A warehouse in each city. A total of approximately 6.5 million sqm of new Grade A warehouses is forecasted to be completed in 2021 across the 20 selected cities. The new supply will be predominately concentrated in cities in East China such as Shanghai, Jiaxing and Ningbo, as well as cities in Midwest China, for example, Wuhan, Chengdu and Xi'an, accounting for over three-fourths of the total. (See Exhibit 5)

Despite the substantial amount of new supply entering the market in recent years, the occupancy rate of Grade A warehouses in most of the selected

Exhibit 3

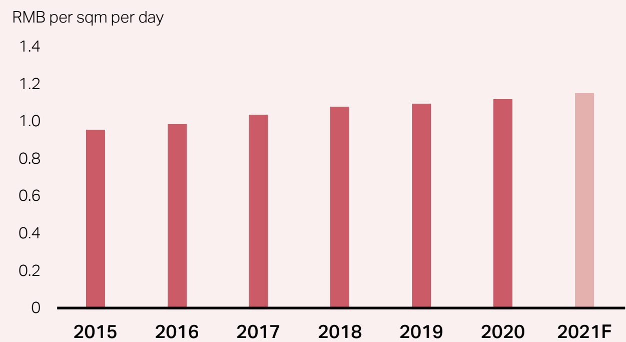
New Supply, Net Absorption and Occupancy Rate of Grade A Warehouses in The PRC



Source: Knight Frank

Exhibit 4

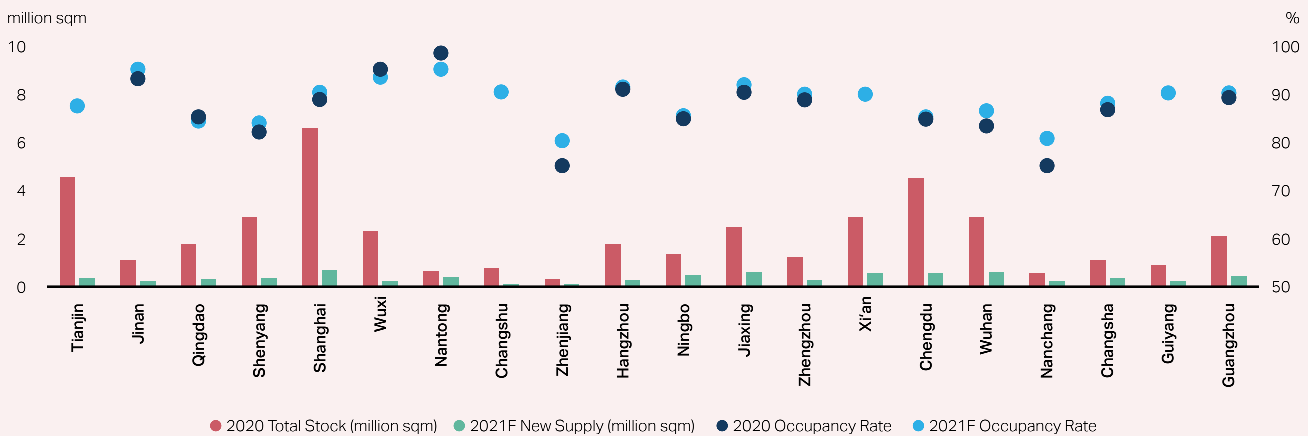
Rental Level of Grade A Warehouses in The PRC



Source: Knight Frank

Exhibit 5

Supply and Occupancy Rate of Grade A Warehouses in 20 Selected Cities in 2020 and 2021F



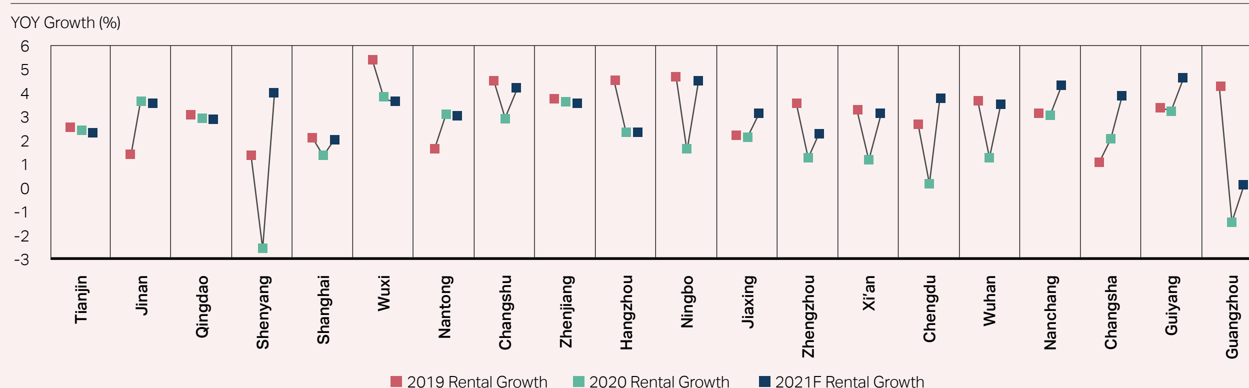
Source: Knight Frank

Independent Market Research

China by Knight Frank Petty Limited

Exhibit 6

Average Rental Growth of Grade A Warehouses in 20 Selected Cities from 2019 to 2021F



Source: Knight Frank

cities generally stood at a healthy level of over 80% in 2020, except Zhenjiang and Nanchang where the respective Grade A warehouse markets are still in their early stages of development. Positive growth in rental levels were also witnessed in most cities in 2020, particularly cities in East China such as Wuxi, Zhenjiang and Nantong, with East China being the top region by revenue for 3PLs and the headquarters of renowned ecommerce companies including Alibaba and Suning. The average rent in Shenyang and Guangzhou exhibited a mild downward trend in 2020 as leasing incentives were offered by landlords to attract tenants in view of a considerable amount of new supply entering the market. (See Exhibit 6)

The surge in ecommerce and 3PLs businesses will continue to be the key drivers of logistics demand in the selected cities. Net absorption is expected to remain in line with the new supply, supporting the occupancy rate at above 80% in 2021. A steady rental growth is anticipated in most cities in view of keen logistics demand.

Upcoming Infrastructure and Policies

In the third annual session of the 13th National People's Congress held in May 2020, Premier Li Keqiang reported that The PRC intends to establish more free trade zones and bonded areas in central and western regions, and will continue to push for the Belt and Road Initiative. Also, under the National Logistics Hub Distribution and Construction Plan advocated by the government, infrastructure improvement projects will continue to be rolled out to facilitate the development of Beijing-Tianjin-Hebei Area, Yangtze River Delta Area and the Greater Bay Area into regional logistics hubs. Amid increasing cross-city and cross-border economic activities, logistics demand in the regions is expected to be strong.

OUTLOOK

The PRC announced a "dual circulation" strategy to reduce dependence on overseas markets and technology in 2020. With an aim to foster self-sufficiency and resilience, the strategy is expected to become a key priority in the government's 14th Five-Year Plan (2021-2025). The PRC will rely mainly on "internal circulation" for its development, which is the domestic cycle of production, distribution and consumption supported by innovation and upgrades in the economy. The authorities endeavour to boost tech innovation, push Chinese firms up the global value chain, boost household incomes, and in turn, further stimulate domestic consumption.

Growth of the primary drivers of warehouse space in The PRC, ecommerce and 3PLs, did not slow but instead accelerated in 2020 because of the stay-at-home economy amid the COVID-19 pandemic. The shift in

consumer pattern is not expected to be reversed, which supports further expansion of ecommerce and 3PL companies.

Travel restrictions in the battle against the COVID-19 pandemic had also led to severe disruptions to the supply chains in the beginning of 2020. Since then, many companies worldwide have started to revisit their inventory management strategies. In order to minimise disruption risk from geographical uncertainties, companies are considering a switch from the traditional just-in-time strategy, which strives to keep as little inventory as possible, to the just-in-case strategy, which relies on having surplus inventory. For instance, Parkson Retail Group Limited, which manages a network of department stores and retail operations across 27 cities in The PRC, recorded an inventory growth of 16% YOY in the first half of 2020 during the COVID-19 pandemic. The inventory of retailers is anticipated to grow by 10%-15% serving as a buffer in case of disruptions to the supply chain. The warehouse market is expected to benefit from the increasing demand for storage space driven by this trend.

With regard to the aforesaid drivers, the Grade A warehouse market in The PRC shall continue to grow in the future years and is considered to be relatively resilient amid the COVID-19 global pandemic.

March 2021

Disclaimer
Knight Frank has prepared this report based on its in-house database, independent third-party reports and publicly available data from what it considers to be reputable industry organisations. Knight Frank has assumed that the information and data which it has relied on are complete and accurate. The information contained herein has been obtained from sources expected by Knight Frank to be reliable, but there can be no assurance as to the accuracy or completeness of any such information.

To the extent that this report includes any statement relating to future matters, that statement is provided as an estimate or an opinion based on the information known to Knight Frank as at the date of this report. The process of making forecasts involves assumptions about a considerable number of variables, which are very sensitive to changing conditions. Variations of any one may significantly affect outcomes. Knight Frank therefore can give no assurance that the forecasts outlined in this report will be achieved or that such forecasts and forward-looking statements will prove to have been correct and you are cautioned not to place undue reliance on them. Knight Frank undertakes no obligation to publicly update or revise any forward-looking statements contained in this report, whether as a result of new information, future events or otherwise, except as required by law and all forward-looking statements contained in this report are qualified by reference to this cautionary statement.

Whilst every care has been taken in preparing the report, Knight Frank give no warranty, express or implied, as to the completeness or accuracy of the information contained herein especially those as provided by the instructing party. Statements or representations of the fact contained in the report shall not be relied on but ones must satisfy themselves by inspection or otherwise as to the accuracy. No representation, warranty or covenant, expressed or implied, is given and no undertaking as to the accuracy, reasonableness of the information is contained in this report. Knight Frank will not be liable for negligence, or for any direct or indirect consequential losses or damages arising from the use of the information.

Independent Market Research

Japan by Japan Logistics Field Institute, Inc.

STATE OF THE MARKET

Japan's economic environment
Japan's economy posted a strong recovery in the second half of 2020, with a year-on-year growth of 22.9% and 11.7% registered for the third and fourth quarter respectively, driven by a rebound in domestic consumption and exports. However, this was insufficient to offset weakness in the first half of the year when the Covid-19 pandemic impacted the global economy. Consequently, Japan's economy shrank 4.0% over the full year, its first contraction since 2009.

Logistics real estate market
Market Overview
In Japan, developers of large-scale leased logistics facilities supplied a cumulative total of approximately 32,760,000 m² in gross floor area ("GFA") as at the end of December 2020.

Despite COVID-19 bringing almost all economic activity to a standstill in the first half of 2020, demand for warehouse continued to outpace annual supply. Annual supply nationwide was approximately 3,820,000 m², while demand was approximately 4,110,000 m². The pre-commitment rate for the following year's supply as at end 2020 was 57%[1], a sharp increase as compared to 43% a year ago. (See Exhibit 1)

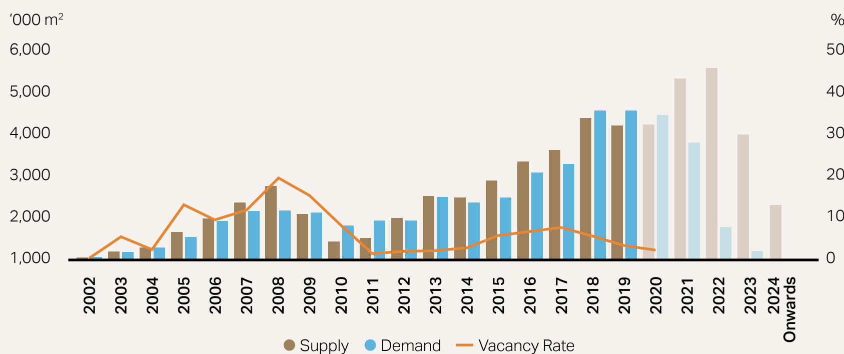
While the logistics industry enjoyed a boom in 2018 and 2019 which led to a strong demand for logistics real estate, the industry was negatively impacted by COVID-19 in 2020. However, the impact was mitigated by a pick-up in demand from Ecommerce. Consequently, in all four major areas of Greater Tokyo, Greater Osaka, Greater Nagoya and Fukuoka, vacancy rates of large-scale leased logistics facilities remain low, while rents continued to trend up.

- **Reasons behind vigorous demand**
Demand is driven by advance leasing from Ecommerce-related companies and leasing from manufacturer shippers who are consolidating premises, as well as continued leasing demand from 3PL providers. Ecommerce is the most significand demand driver, with Ecommerce-related demand expected to account for about 30% of total demand in 2020 and 2021, up from around 10% in 2019.

- **Reasons behind increase in supply**
Nationwide, approximately 4,000,000 m² of supply came onto the market between 2018 and 2020. Looking ahead, annual supply is estimated to be about 5,000,000 m² in 2021 and 2022[2]. One likely reason for the increase in new supply is the rise in the number of developers for logistics real estate. Covid-19 has led to greater investor interest in logistics real estate and as a result, the industry has attracted new players such as traditional residential developers into the market. (See Exhibit 2)

Exhibit 1

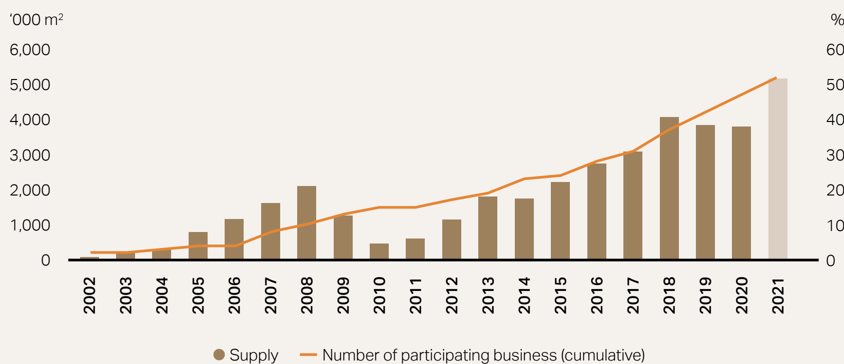
Trend in Supply-Demand Balance for Large-Scale Rental Logistics Facilities (Nationwide)



Notes:
1. Created from our database of large-scale rental logistics facilities constructed by major developers
2. Supply and demand from 2021 onward are for total developed properties and total pre-committed area that are already known.
3. As of the end of December 2020

Exhibit 2

Trend in Number of Developers Entering Logistics Real Estate Market



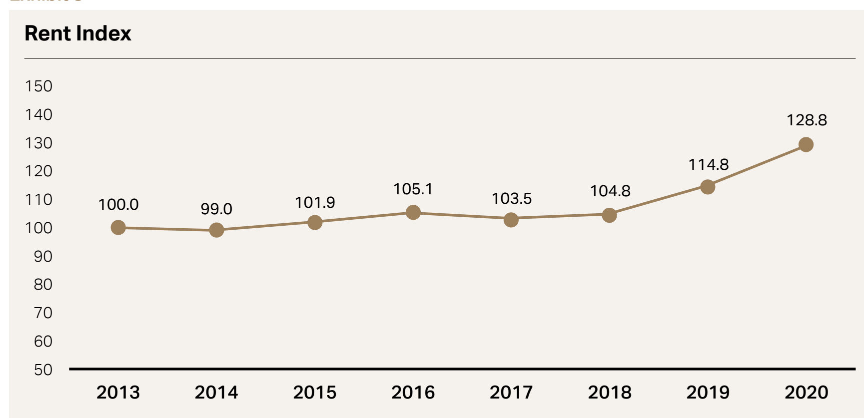
Note: The completion date of the first developed property is used as the entry date.

[1] Demand as of the end of 2020 for expected supply in 2021
[2] Based on total development projects already known about through public announcements.

- **Impact of Covid-19**
  Most tenants of large-scale rental logistics facilities are Ecommerce-related companies and 3PL providers who handle consumer products. Demand from these tenants was resilient during 2020; these tenants did not surrender space or seek reductions in rent. In fact, occupancy rates at logistics facilities that handle food and beverage products were high.

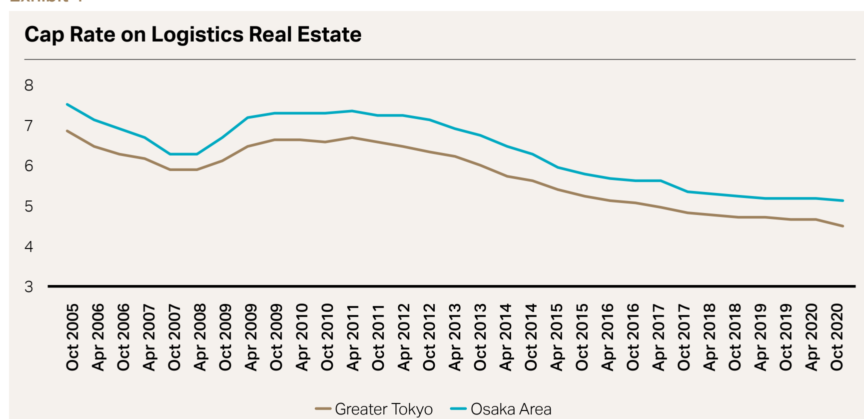
Trend in rents
Supported by firm demand, vacancy rate in all four major areas fell during 2020 while rent levels continued to trend up. Assuming a base year of 2013 with a rent level of 100, rental levels in Greater Tokyo and Osaka have trended upwards to 104.8 in 2018, 114.8 in 2019, and 128.8 in 2020. Rents showed a significant rise in 2019 and 2020. Notably, several new rental facilities in prime locations with high rents (approximately JPY 6,000 or more monthly per tsubo) were completed during 2020, and all of them are now fully leased. (See Exhibit 3)

Exhibit 3



Notes:
[1] 2013 = 100
[2] Calculated using the average rent levels in the main Greater Tokyo inland, bayside, Osaka inland and bayside areas

Exhibit 4



Notes:
[1] Expected value for multi-tenant facilities in both the Greater Tokyo and Osaka areas (average value for bayside and inland areas)
[2] Based on the Real Estate Investor Survey by the Japan Real Estate Institute

Trend in cap rates
The cap rates for logistics real estate had declined nearly every year since 2011, to levels that are significantly below those seen prior to the Global Financial Crisis. As of October 2020, the cap rate for multi-tenant facilities in the Greater Tokyo and Osaka areas was 4.4% and 4.95% respectively. Cap rates had held steady for some time but started to fall since April 2020, along with a rise in demand for logistics real estate due to the Covid-19 crisis. In many cases, cap rate has fallen below 4% on an NOI basis. In addition, it is not just the newly developed properties but existing income-generating facilities were also well-appraised and transacted at low cap rates. (See Exhibit 4)

Demand for large-scale logistics facilities
Large-scale logistics facilities development for leasing accounts for just 8.7% of overall warehouse stock. On the other hand, large-scale, modern-spec facilities are highly sought after as they support efficient operations and provide attractive amenities. This suggests ample room for growth in terms of the development of large-scale logistics facilities for leasing.

Main Demand and Supply Factors

Demand Factors

- **Growing demand for last mile delivery logistics**
  The surge in demand for warehouse space from Ecommerce-related companies is not just driven by the need for storage and distribution facilities but also for home delivery bases. For example, Amazon is establishing delivery stations ("DS") all around Japan. While many of these DS are located at newly developed properties, many DS are also established in existing warehouses in city centers. Some of these warehouses in city centers are inadequate in terms of facility

Independent Market Research

Japan by Japan Logistics Field Institute, Inc.

specifications or surrounding road environment to handle the high traffic created by last mile delivery. There is an emerging trend to develop small-scale properties of about 2,000 tsubo in areas close to the city to cater to last mile delivery.

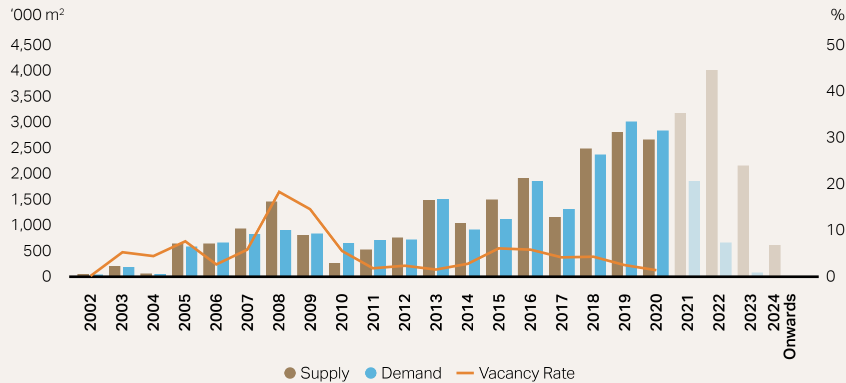
Supply Factors

- **Differentiation between developed facilities**
  In response to the rising number of developed properties, developers are proactively introducing differentiation to their properties. In addition to tangible differentiation such as the adoption of seismically isolated and damping structures, special design of exterior walls, provision of day-care facilities and other amenities for employees (such as clean restrooms), effort is now being put into intangible differentiation through services that provide solutions to issues faced by tenants, such as human resource referrals, truck standby systems, and consultancy on installation of material handling equipment within a facility. Such approaches are mainly adopted by large-scale developed properties and developed properties with multiple buildings, while small- and medium-sized stand-alone developed properties focus on provision of modern-spec functionalities.

- **Expansion of radius for potential development sites**
  A rate of JPY 3,500 to 3,800 per tsubo per month is the rent level that 3PL providers consider as reasonable. Rising rents in the Greater Tokyo and Osaka areas are making it more difficult to secure rental space within this range, especially in areas close to the city center. In response to the needs of 3PL providers, developers are expanding the radius for potential development sites further into the suburbs, mainly along expressways.

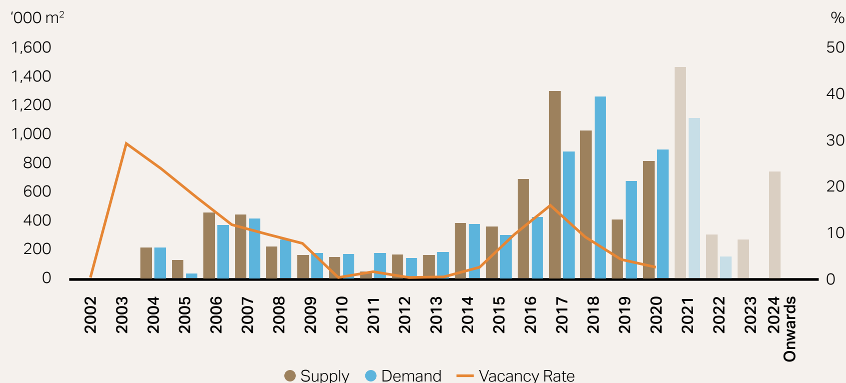
Exhibit 5

Greater Tokyo Area: Trend in the Supply-Demand Balance (4 Main Metropolitan Areas)

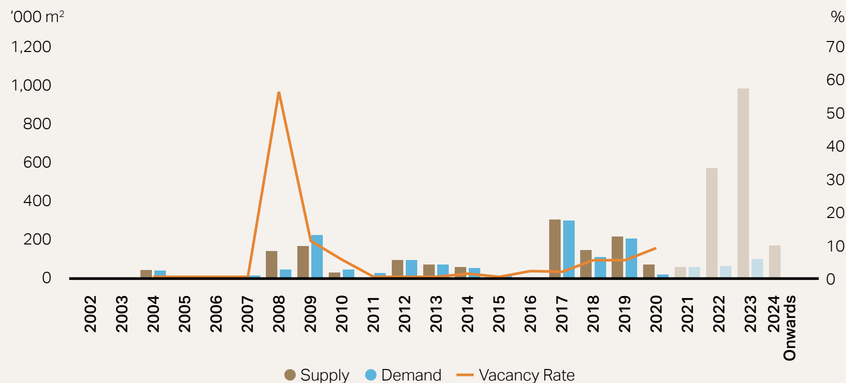


Note: Same conditions as nationally (the same is true of the following economic zones)

Osaka Area: Trend in the Supply-Demand Balance (4 Main Metropolitan Areas)



Nagoya Area: Trend in the Supply-Demand Balance (4 Main Metropolitan Areas)



OUTLOOK

Outlook for Supply
Nationwide supply in 2021 is expected to be the largest ever. Supply is also projected to be the largest ever in the Greater Tokyo and Osaka areas. In 2020, bids were sought for sites eligible for development all around the Greater Tokyo and Osaka areas and developers made the most of their individual networks to acquire sites. Given this situation, supply is likely to continue to be high at about 5,000,000 m^2 or more for some time.

Outlook for Demand
Supported by demand from Ecommerce related businesses, demand for logistics real estate is expected to remain firm and likely to keep pace with the high level of supply. The pre-commitment rate[3] for 2021 as at the end of 2020 was about 57% on a nationwide basis, with high rates of 52% in the Greater Tokyo area and 72% in the Osaka area. In addition, the vacancy rate as at the end of 2020 was low.

- **Ecommerce-related demand**
  Japan's Ecommerce penetration rate is 6.76% (2019). Viewed by product type, food and beverage products have a low penetration rate of 2.89%, while household furniture, books, sundry household goods, office supplies, etc. have higher penetration rates of 20% to 40%.

Outlook for Supply-Demand Balance (See Exhibit 5)

- **Outlook for 2021**
  With a high pre-commitment rate and the expected growth in Ecommerce-related demand, there is unlikely to be an extreme deterioration in the supply-demand balance, even if macroeconomic weakness continues to impact the logistics industry. Overall rental rates are expected to hold steady or firm up, especially for the prime locations.

- **2022 and Beyond**
  In the short term, Ecommerce related demand is expected to grow and sustain demand for logistics facilities. However, there remains uncertainties over the pace of economic recovery from the COVID-19 pandemic. In the longer term, it is likely to arise relocation demands due to aging of the existing warehouses.

Trends in the Logistics Real Estate Market in the Main Economic Zones

Greater Tokyo area
The vacancy rate continued its downward trend since 2015, falling to approximately 1.3% by the end of 2020. The supply-demand balance is tight, and pre-commitment on developed properties prior to their completion is growing as the shortage of vacant space intensifies.

In 2020, supply of approximately 2,660,000 m^2 was met with demand of approximately 2,830,000 m^2, as demand continues to strengthen further. In areas where large-scale development is taking place, such as Sagamihara and Nagareyama districts, and even for properties with high rents, leasing was buoyant. In the bayside area and inland areas around Atsugi, Kashiwa and Tokyo, vacancy rates have remained low while rents have risen dramatically over 2020.

Looking ahead, supply in 2021 is projected to exceed that for 2020 and may be the largest ever. Despite the large volume of supply and the potential economic weakness weighing on the logistics sector, the vacancy rate in 2021 is likely to remain low, supported by strong demand from Ecommerce. It is likely that rents will continue to rise firmly in many districts. On the other hand, new development properties which try to capture demands from other regions or properties which set higher rent than market, leasing activities are likely to be very competitive, in result more properties may offer a generous range of incentives.

Osaka area
A limited supply in 2018 through 2020 coupled with strong demand led to a decline in vacancy rate to 3.9% by the end of 2020. In the inland area where demand is strong, the vacancy rate is 0%. While supply is expected to be the largest ever in 2021, pre-commitment rate has reached 72%.

In the inland area, vacancy rates hovered at nearly 0% from 2018 through 2020. Against this background, rents have remained firm. With road improvements such as the Shin-Meishin Expressway and Second Keihan Highway, there is a rapid expansion of the radius within which logistics facilities are being developed. In the bayside area, there are signs of demand returning due to the widening difference in rent compared with the inland area and the shortage of vacant space in the inland area.

The supply-demand balance in Osaka, which was for a time seen as a high-risk area due to oversupply, has tightened in recent years. Although supply in 2021 is projected to be the largest ever, the pre-commitment rate is quite high, so there is limited likelihood that the supply-demand balance will deteriorate markedly.

Nagoya area
The vacancy rate at the end of 2020 was up slightly to 8.7%, due to newly completed properties which are still being leased up. The scale of demand in the Nagoya metropolitan area is about 1/10 to 1/13 that of demand in the Greater Tokyo area, thus vacancy

[3] Pre-committed area/scheduled supply area

Independent Market Research

Japan by Japan Logistics Field Institute, Inc.

rates tend to rise if several multi-tenant facilities are completed at around the same time. Although there is unrealised potential in Ecommerce-related demand, demand conditions are slightly different from those in the Greater Tokyo and Osaka areas. The vacancy rate is likely to fall by the end of 2021 due to the limited supply throughout the year. However, the increase in supply projected for 2022 and beyond may lead to a deterioration in the supply-demand balance. Rents may plateau or, in the medium term, even soften.

Other areas

- **Sendai metropolitan area**
  The scale of demand in the Sendai metropolitan area is relatively small, at about 1/20 that of the Greater Tokyo area. Ongoing demand for warehouse is driven by the reconstruction of the region following the Great East Japan Earthquake in 2011. The development of facilities continued in inland areas such as Izumi, Tomiya and Medeshimadai in Natori City. This was followed by a resurgent increase in developments in seaside areas. Built-to-suit (BTS) developments are numerous in this area, but there are also multi-tenant facilities. However, reconstruction demand has weakened recently, while rents are also plateauing.

- **Sapporo metropolitan area**
  Within the Sapporo metropolitan area, Sapporo City and surrounding districts are promising areas for logistics facilities. Development was previously limited to only built-to-suit in this area, but development of multi-tenant facilities in Higashikariki and Wattsu industrial park is gathering pace. As demand is likely to keep pace with supply, overall rent level is expected to be stable.

- **Hiroshima metropolitan area**
  In the Hiroshima metropolitan area, the existing multi-tenant facilities are located in Itsukaichi and Nishi-ku, Demand for logistics space around Nishi-ku (the area adjacent to Shoko Center) is high, even as rents are on the high side (about JPY 4,000 per tsubo), leading to low vacancy. Therefore, prospective tenants are increasingly choosing sites inland, and new logistics facilities are being developed in areas such as the Seifushinto and Shiwa districts.

March 2021

Disclaimer
Only customers of the Institute may use this report, and users bear the obligation to treat all information contained in this report as confidential and not to disclose it to any unauthorised person or place it in a situation that permits disclosure. All figures are as indicated at the close of business on the day on which the figures were published or at the time at which they were given. In addition, the said figures are provided only as reference information and only for use by users. Prices and values indicate neither (1) actual conditions when new business is conducted, nor (2) actual conditions when existing business is settled or canceled. Furthermore, the Institute does not warrant the completeness or accuracy of the given figures. The provided information has been edited from our company's viewpoint based on a rational evaluation of the generally recognised logistics market, economic principles, and the future state of relevant markets. Evaluation using other information sources or different assumptions may give rise to different results. The Institute hereby expressly states that it bears no responsibility for (1) the accuracy of the assumptions used to derive the evaluations, (2) errors or omissions in calculating or distributing the evaluations, or (3) results that rely on or use the evaluations. Please note that assumptions regarding the future state of the markets may need to be made in relation to some information. In such cases, the Institute performs calculations using what the Institute regards as the most rational assumptions regarding the future state of relevant markets based on internal policies and modeling.

Terms of use
The Institute hereby grants users a license to use this market report (referred to below as the Report) only for personal or in-house use for receiving reports and other services provided by the Institute or for doing business with the Institute. This license cannot be transferred. It is a non-exclusive license. Users agree not to loan, transfer, forward, copy, translate or alter the Report for any purpose. Users agree not to disclose to a third party or allow a third party to copy or use the Report or the data defined below. "Data" refers to information contained in the Report, information relating to the Report, and all information that is derived for or from the Report. Users acknowledge that the data sent by the Institute in the Report includes certain confidential information (including information about users). Users acknowledge that the Report and data belong to the Institute and the Institute holds full copyright of the Report and data. The Report and data are provided as they appear at the time of publication. The Institute makes no assertion or warranty of any sort regarding the Report or the data, including implied warranty of merchantability or suitability for the user's specific purpose and warranty relating to results obtained from using the Report or data. The Institute does not warrant that the information contained in the data is continuous, up to date, accurate or complete. The data may be changed or deleted without notice. This section does not purport to limit or diminish the rights and obligations that the Institute bears towards customers under laws and ordinances. Users exempt the Institute from liability for all loss and responsibility arising from these terms except in cases arising due to willful misconduct or negligence on the part of the Institute.

South Korea by Colliers

MARKET ANALYSIS

Resilient Domestic Growth Despite Global Challenges

In times of pandemic crisis and the global downturn in 2020, South Korea's economy withstood relatively well compared to other developed nations. The economy recorded a marginal negative growth of 1.0% YOY in 2020, outperforming the majority of the Organisation for Economic Co-operation and Development ("OECD") countries, as its large manufacturing industry, well-established online shopping base, and pandemic-response measures buoyed its economy. Modest quarter-on-quarter("QOQ") declines of -1.3% and -3.2% in the first two quarters of 2020 were subsequently followed by two strong quarters of recovery at 2.1% and 1.2% QOQ growth. As of year-end 2020, South Korea has ranked the top tenth largest economy across the globe in terms of gross domestic product, surpassing Brazil, Italy, and Russia. The relatively positive outlook of South Korea's economy has attracted foreign investors looking for investment opportunities in a resilient market.

Amid the economic downturn, government spending has risen significantly in an attempt to keep the economy afloat. In 2020, the government increased its budgeted spending by KRW66.8 trillion (USD59.9 billion) through four rounds of supplementary budgets. This is the first time in nearly 60 years that the government initiated four rounds of supplementary budgets in a single year. The government has allocated a total budget of KRW277 trillion in financial stimulus packages to boost the virus-hit economy.

The government's fiscal support is expected to continue through 2021. In December 2020, the National Assembly approved the 2021 budget of KRW558 trillion, a 9% increase on the 2020 original budget (KRW512 trillion). The government plans to spend 72.4% of the budget within the first half of 2021 in order to serve the most urgent needs resulting from prolonged pandemic.

Going forward, the country's economy is expected to pick up with a real GDP growth forecast of 3.3% in 2021 and 3.1% in 2022 according to the OECD Economic Outlook March 2021. These projections are in line with the average forecast of 5.6% and 4.0% in 2021 and 2022, respectively, for the OECD countries, considering the impact of the underlying base effect on the rebound of other countries.

Ecommerce and Grade A Logistics Facilities Benefit During Pandemic

The demand for modern logistics properties continues to be strong, mainly driven by the robust growth of the Ecommerce sector. Total Ecommerce volume reached KRW159 trillion in 2020, an increase of approximately 16.7% year-on-year ("YOY"), and accounting for about one-third of total retail sales volume. This comes after the Ecommerce market surged at an annual growth rate of 20% or higher during 2016 and 2019. Of particular note, mobile sales have expanded dramatically at a compound annual growth rate ("CAGR") of 49% from 2013 to 2020.

The prolonged pandemic and social distancing measures have changed the market as well. Annual contactless deliveries of fresh foods and services and home appliances saw 53% and 44% YOY growth in 2020, respectively. This demands faster delivery times and therefore leads to quicker turnover of goods and higher utilisation rate of logistics facilities. In order to cater to the growing online demand, major retailers are restructuring their business models. Naver, one of the two major internet platform providers in South Korea, partnered with CJ Logistics to expand its online sales within the platform; while Amazon also entered the market partnering with SK Telecom. Major offline retail service providers such as Lotte and Shinsegae are also tapping into online sales platforms.

As Ecommerce operators provide same-day or next-day services for high volumes of deliveries and often for fresh goods, mega-scale modern facilities with automation processes, cold chain facilities and fulfilment centres in strategic locations benefitted from a heightened leasing demand. Aged, low-profile and non-core location warehouses are losing their competitive edge, requiring refurbishment or even redevelopment.

Existing Stock and Future Pipeline in the Seoul Metropolitan Area (SMA)

In recent years, there have been more developments of sizeable and high-quality logistics facilities to meet the needs of occupiers (logistics service providers and retailers). According to the Building Registry of Korea and Colliers research, 25 new logistics warehouses were added in the SMA during 2020, amounting to about 1.7 million sq m. As at the end of 2020, logistics centres located in the SMA provided about 21.3 million sq m of gross floor area, representing about 8% CAGR over the past ten years. Total stock in the SMA is expected to grow by another 1.7 million sq m and 2.4 million sq m in 2021 and 2022, respectively. However, the number of expected developments has decreased from previous years, indicating a smaller number of developments but with a larger scale.

As location becomes increasingly more important to enable faster deliveries, traditional logistics hub cities located in Southeast Gyeonggi-do near major highways continue to be the top priority for developers, accounting for nearly 37% of the total stock in the SMA. The latest additions to the Southeast submarket are Yangji Arenas Logistics Centre and Kendall Square Namsa. Nonetheless, high land prices and intensified government restrictions on new supply has shifted developers' eyes to Incheon and Southwest submarket.

Independent Market Research

South Korea by Colliers

More developments in 2020 focused on cities close to these traditional logistics hubs, such as Yeoju, Anseong and Pyeongtaek, with enhanced connections to Gangwon and Chungcheong provinces. Focus will shift further to the Northwest submarket, especially to Incheon. Both redevelopment of aged facilities, such as Hang-dong Shinyou Logis, and development of modern sizable and high-quality logistics facilities, such as Hang-dong TJ Logistics and Arenas Yeongjong Air Cargo Logistics, are active. (See Exhibit 1 and Table 1)

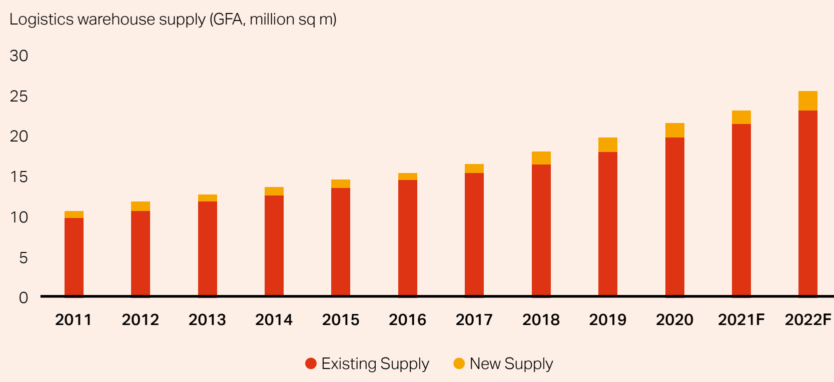
SMA Logistics Market Leasing Performance

In line with the high demand, and despite the recent surge in logistics supply, the average vacancy rate in logistics assets in the SMA was estimated to be 4.3% as at Q4 2020, remaining tight and below 5% as per the last five years. Supported by strong demand for modern facilities, certain Grade A developments completed in 2020 were also able to either secure tenants for 100% of space during the pre-leasing stage prior to completion or keep absorption period to within one quarter upon its completion. Despite the massive inflow of logistics supply built between 2018 and 2020, which represents in total around 23% of total stock as at the end of 2020, market sentiment remains strong supported by low vacancy rates and ample demand in the market. While more completion of logistics facilities is scheduled in Incheon and Southwestern cities in the coming two years, we expect the vacancy rate to remain at 5% level or below on the back of continuous growth in Ecommerce and shifting consumer behaviour from offline to online purchases. (See Exhibit 2)

Overall average rent in the SMA grew at 0.7% YOY in 2020 to around KRW8,954 per sq m, supported by the solid demand of 3PL and Ecommerce firms during Covid-19. Rental growth was spurred by newly completed prime grade A logistics centres. Looking

Exhibit 1

Total Stock of Sizeable Logistics Centres in SMA



* Remark: Includes only logistics warehouses with GFA of at least 1,000 sq m
Source: Ministry of Land, Infrastructure and Transport; Colliers

Table 1

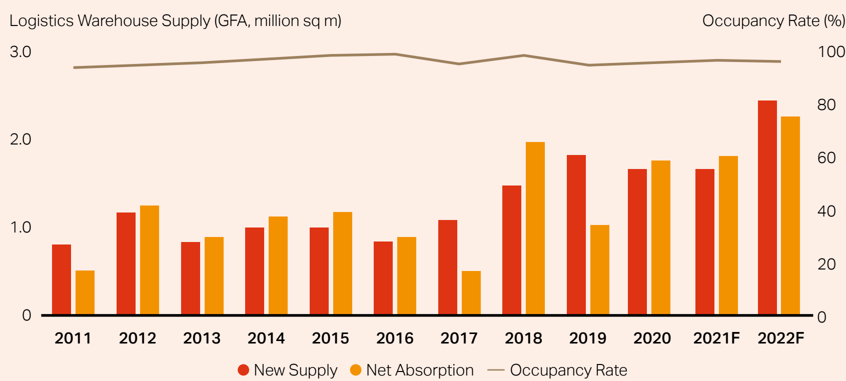
New Supply in the 2021 Pipeline

City	Name	GFA (sq m)	Landlord
Yongin	Kendall Square Namsa	513,230	Kendall Square
Yongin	Kclavis Namsa	280,910	Kclavis
Incheon	Hang-dong Shinyou Logis	243,194	Shinyou Logis
Incheon	Arenas Yeongjong Air Cargo Logistics	186,023	IGIS
Siheung	Jeongwang-dong Logistics	158,472	Invesco
Incheon	HDC Logistics	148,112	HDC
Hwaseong	Dongtan Logistics Complex Block D	128,562	Halla GLS
Incheon	Hang-dong TJ Logistics	87,127	Koramco

Source: Colliers

Exhibit 2

Net Absorption and Occupancy Rates of Logistics Facilities in the SMA



*Remark: For logistics warehouses with GFA of 1,000 sq m or over only
Source: Colliers

beyond 2021, rental growth will be limited in the short term at around 1% and is expected to increase gradually thereafter, considering increased competition in the market. Incheon has a substantial new supply of grade A facilities in the pipeline which may result in rent stagnating in the Northwest submarket in the short term before occupancy level stabilises. Nonetheless, cold chain storage rent will continue to show a strong performance along with post-Covid-19 demand for fresh food deliveries while supply remains tight. Typical rent-free periods range between 1-3 months for lease terms of up to 5 years. (See Exhibit 3)

Strong Capital Value Growth and Yield Compression

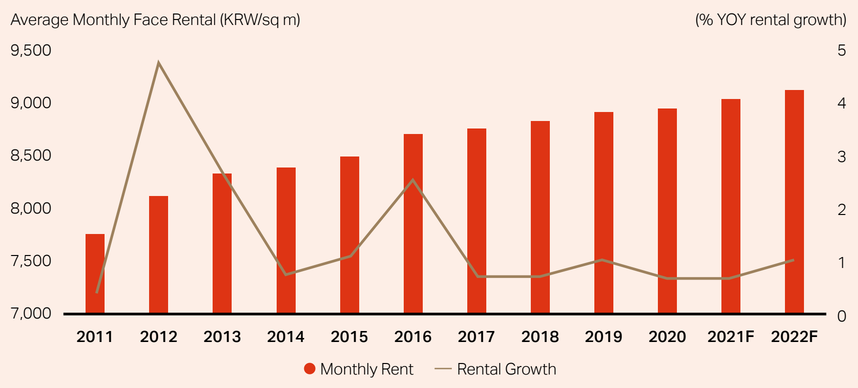
The resilience of, or even improvement in, the logistics sector during Covid-19 has further established logistics real estate as one of the most attractive alternative investment asset classes. The average cap rate for logistics facilities has continued to compress since 2014, and as market maturity hastened in the past three years, the spread between the SMA Logistics assets and the Seoul Office has narrowed to 110 basis point as at the end of 2020. The total transaction volume of logistics facilities rose to a record high of about KRW2.6 trillion, as investors gained confidence in the underlying fundamentals as well as potential strong investment returns of the logistics asset class. The gap in cap rates for grade A logistics centres in key locations and non-core logistics assets in secondary locations has widened further. Recently completed modern warehouses with credible tenants in Yongin and Icheon indicated about 80 to 100 basis point compression compared to the previous year. For instance, BRIC Logistics, Doji Logistics and Dancheon-ri Logistics were sold with record low cap rates of 4.5% to 4.8%. Non-core assets were transacted at the high 5% to high 6% range and were only 20 to 30 basis point down from the previous year. (See Exhibit 4)

As the market matures at a faster pace, further yield compression for modern logistics centres in core locations is expected in the short to medium term. The number of private equity funds ("PEFs") and real estate investment trusts ("REITs") are also rising at a fast pace. Kendall Square, a major investor with the largest logistics asset portfolio among institutional investors, successfully raised approximately USD650 million in 2020 through an IPO with overwhelming demand from both international and domestic investors. On the back of promising investment returns, institutional investors are increasingly considering acquisition options with vacant possession prior to completion.

Logistics Market Regional Comparison

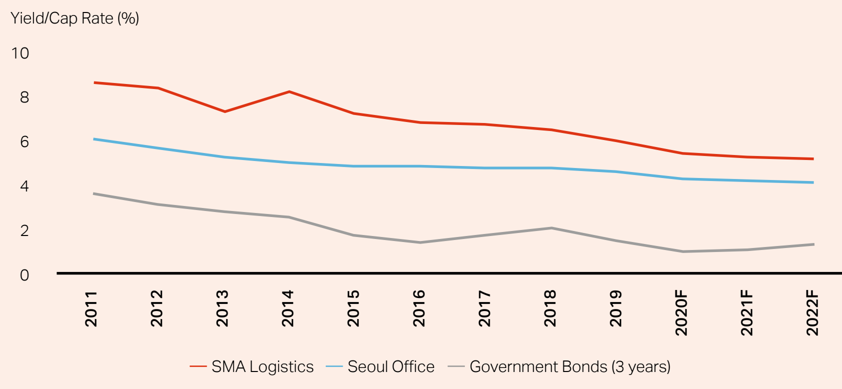
Traditional logistics hubs in Southeast core cities, such as Yongin, Icheon and Yeoju, continue to be the most preferred locations due to their excellent connectivity to Seoul amid higher demand for accelerated delivery. Despite reinforced prohibitive development restrictions, there continues to be an influx of mega-scale developments, with average YOY rental

Exhibit 3



* Remark: Monthly rental for 1F dry storage facilities only on GFA basis
Source: Colliers

Exhibit 4



Source: Bank of Korea, National Assembly Budget Office; Colliers

Independent Market Research

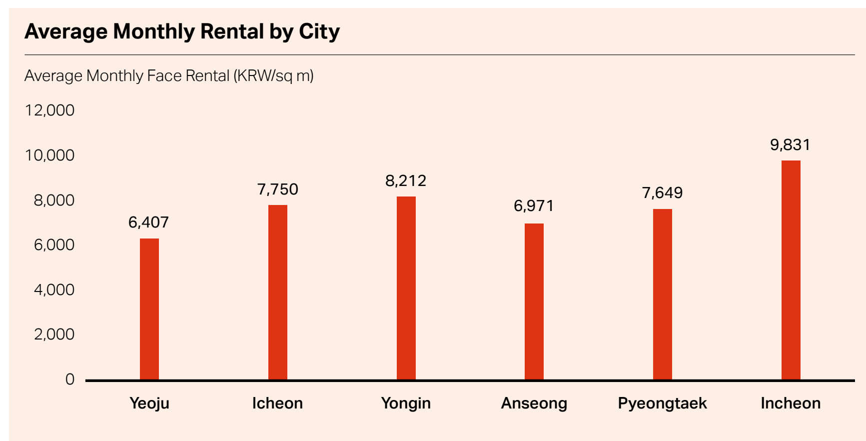
South Korea by Colliers

growth of recently completed modern logistics assets ranging at around 3%-5%.

As the traditional logistics hub cities become more saturated, investors are increasingly looking for options in alternative cities, especially in Incheon. Looking into 2021, Incheon will see a growing number of large-scale developments at port sites as well as redevelopment projects for a large number of aged factories. Further infrastructure improvements promoted by the Incheon Port Authority and the new Seoul Beltway Phase 2, scheduled to open in 2024, will fuel investors' appetite for quality logistics developments in Incheon. Anseong, Hwaseong, Pyeongtaek and Ansan in South and Southwest submarkets are also considered viable alternatives to the saturated traditional logistics hub. As these cities are currently seeing a large number of developments within a short time frame of 2-3 years, rental growth rates and occupancy rates in these cities in the near term will likely be dampened as new supply gets absorbed. (See Exhibit 5)

March 2021

Exhibit 5



*Remark: Monthly rental for 1F dry storage facilities only on GFA basis
Source: Colliers

Disclaimer
There is currently a lack of transparency in South Korea's real estate market and we therefore rely to a considerable extent on information from various sources. While we undertake to verify the information by, among other things, cross checking data from more than one source, we are not obliged to do so and we are unable to warrant the veracity or accuracy of the information. All statements of fact which are used as the basis of our analyses, opinions and conclusions will be true and accurate to the best of our knowledge and belief.

Market data used in this report will be as per the latest quarter or date for which information was available as at the date the compilation of the report commenced, and any subsequent market data, should it differ sufficiently to the effect that advice would differ from that given in this report, may be subject to a new or amended engagement, at a fee to be mutually agreed between Colliers International (Hong Kong) Limited and Mapletree.

Market evidence is, by its very nature, subject to a time lag, and an element of projection is necessary in providing advice on outlook. Any market projections incorporated within this report are projections only and may only be viewed as indicative of potential as opposed to certainty.

We do not make any representation or warranty as to the completeness of the information or the assumed state of affairs in the relevant market.

This report is for the sole use of the Client and for the purposes for which it was commissioned only and Colliers International (Hong Kong) Limited can accept no liability to any third party. The report must not be published or referred to in any way, either in whole or in part, without the prior written consent of Colliers International (Hong Kong) Limited.

Australia by JLL Research

MACRO-ECONOMIC OVERVIEW AND OUTLOOK

Prior to the COVID-19 pandemic in 2020, Australia experienced long-term economic growth – recording 29 consecutive years of positive economic activity. Australia's economic growth had been fostered by low interest rates and the depreciation of the exchange rate since 2013, therefore driving higher export volumes.

The COVID-19 containment measures led to a sharp drop in Australia's GDP over 2Q20 (-7.0%), leading to Australia's first recession since 1991, following a 0.3% decline in 1Q20. However, the economy rebounded strongly in second half of the year on the back of the government's unprecedented monetary and fiscal stimulus programmes.

Income support policies (such as the JobKeeper program – extended to March 2021, and JobSeeker) have supported consumption expenditure, particularly within the non-discretionary retail sector and online retail platform. Australia's fiscal policy response to COVID-19 has been one of the highest in the world (11.5% of GDP).

The 2020-21 Federal Budget further provides economic stimulus, mainly in the form of personal income tax cuts and business investment incentives including wage subsidies.

The proactive approach to managing the health crisis, led to most parts of the Australian economy reopening ahead of expectations. Australia exited technical recession with quarterly GDP growth of 3.4% recorded in 3Q20 and 3.1% in 4Q20, translating to a full year economic contraction of 1.1% for 2020.

GDP of Australia's major trading partners is forecast to grow by around 6% in 2021 and 4% in 2022.

As a result of the various policy support measures and the successful management of the health crisis, Australia's GDP growth projection is expected to rebound in 2021.

According to the Reserve Bank of Australia ("RBA") in its November 2020 release:

- GDP growth is forecast to increase to 6% by June 2021 then slightly fall to 5% by the end of 2021.
- Unemployment rate is forecast to marginally decline to 7.5% in mid-2021 and trend downwards to 6.5% by the end of 2021.
- Underlying inflation is expected to increase from -0.3% in June 2020 to 2.25% in June 2021.

Over the long-term, two of the most relevant economic variables that global real estate investors refer to for benchmarking Australia to other global economies are: GDP and population growth.

The longer-term economic and population growth outlook is favourable for Australia relative to other mature economies. Oxford Economics projects Australia's GDP growth will average 2.8% per annum between 2020 and 2030 – well above the economic growth rate for most other mature economies. In the short-term, Australia's population growth will be negatively impacted by international border closures. However, the Federal Government has retained a commitment to a high migration program which will support population growth over the medium to long-term. Over the period from 2020 to 2030, Oxford Economics project Australia's population will increase by 1.3% per annum.

INDUSTRIAL AND LOGISTICS SECTOR PERFORMANCE AND TREND

The Australian industrial and logistics sector, albeit impacted by the COVID-19 pandemic, is supported by very strong property fundamentals including low vacancies, limited speculative development activity, relatively strong occupier demand, and growing investor appetite. These fundamentals will continue to drive the resilient performance of industrial and logistics assets. Pricing for core assets with strong covenants and long WALEs is expected to remain firm, while demand for secondary grade assets with leasing vulnerabilities is comparatively lower.

The sector has been the most resilient of the mainstream commercial property sectors amid COVID-19. The resilience of the industrial & logistics sector is largely explained by high quality covenants in institutional grade assets and confidence in the ability to collect income. Industrial & logistics rent collection rates have remained high across most mature economies. The industrial & logistics sector has shown low volatility of returns through the cycle (rolling five-year average). In the COVID-19 economic downturn, return volatility remained low and has not experienced the same upward movement as the retail and, to a lesser extent, office sectors. (See Exhibit 1)

The sector is exposed to a diverse range of growth drivers. A number of these factors were evident and having a positive influence even prior to COVID-19. COVID-19 has accelerated some of these existing growth trends for the industrial and logistics sector in 2020. Growth sectors backed by strong fundamentals include transport and logistics, eCommerce, food logistics and manufacturing, and pharmaceuticals.

The structural eCommerce tailwind is relatively immature in Australia and is expected to further fuel the trajectory of growth. The share of online retail trade to total retail trade currently stands at 13.2% (as at February 2021, according to NAB), which is a significant jump from 9.3% in January 2020. Accelerated eCommerce adoption will require greater supply chain investments, especially for sectors with low internet penetration such as the grocery sector. (See Exhibit 2)

Independent Market Research

Australia by JLL Research

To gear for anticipated sustained growth in their online sales platform, investment in fulfilment centres is likely and subsequent demand for third partly logistics and cold storage facilities is expected to continue rising.

The growth in the food and beverage industry, as well as associated manufacturing and distribution operations, are led by both domestic and global demand factors. These industries, which fall under the non-discretionary retail trade sector, underpin the long run stability of the industrial and logistics sector and, by extension, the cold storage sector.

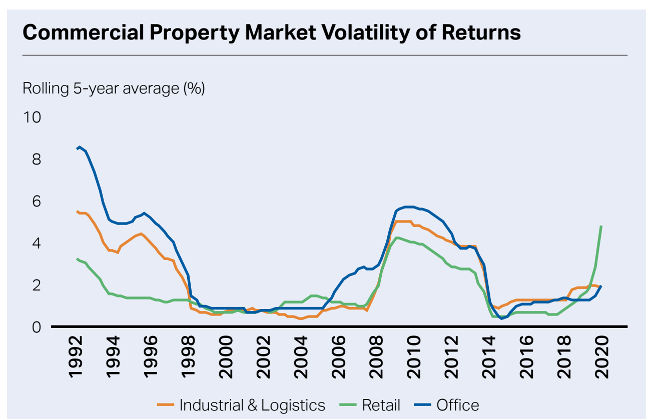
In global advanced economies, there is currently approximately 0.47 cubic meters of refrigerated space per resident. Australia has seen an uptick in capacity growth between 2018 and 2020 in comparison to historic benchmarks. However, Australia's cold store capacity per urban resident has been unable to keep up with population growth. As at 2020, to reach the average for a mature economy, Australia would have to build an additional 1.9 million cubic metres of refrigerated warehousing space –equivalent to an additional 23% of current stock levels.

According to the Australian Bureau of Statistics (ABS), non-discretionary retail trade in Australia has been increasing, recording an average year-on-year growth rate of 3.3% over the past few years. Since the COVID-19 pandemic, the growth rate has stepped up, and continues to climb, currently at an all-time high of 12.6% (as at February 2021, ABS). (See Exhibit 3)

Output from the transport and storage sectors grew by 1.6% during 2019 and is projected to increase at an annual average rate of 2.0% between 2020 and 2025 (Source: Deloitte Access Economics), driven by solid growth in the demand for goods, on the back of strong projected population growth.

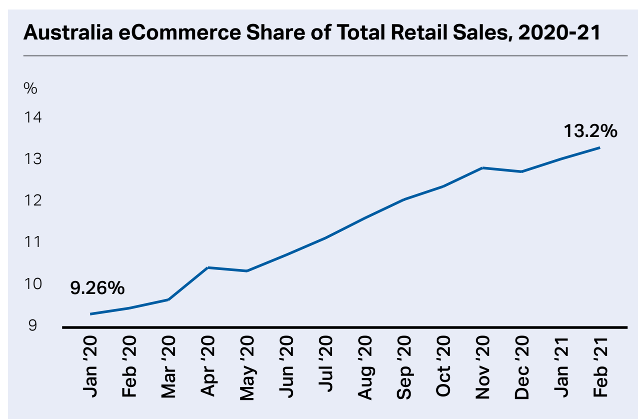
Since 2015, Australia's gross annual industrial floorspace take-up has remained consistently above the 10-year annual average of 2.2 million sqm. Occupier take-up activity peaked in 2020, equating to 2.86 million sqm – the highest JLL has ever recorded. This trend has continued in 2021, with Q1 gross take-up reaching a new benchmark of 1.1 million as per JLL Research data. (See Exhibit 4)

Exhibit 1



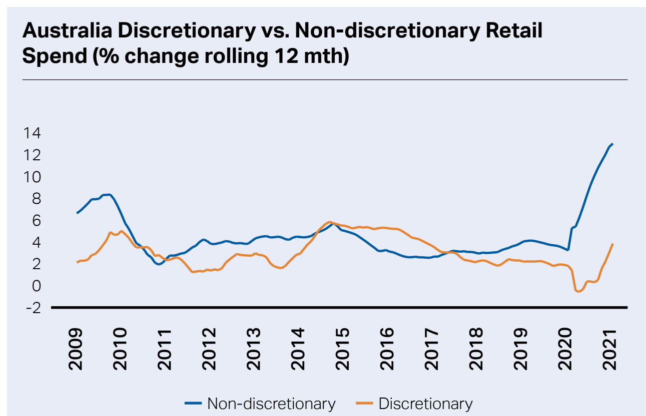
Source: MSCI, JLL Research

Exhibit 2



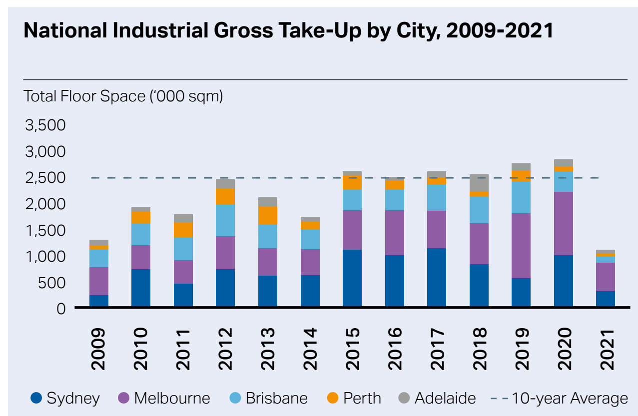
Source: NAB, ABS, JLL Research

Exhibit 3



Source: ABS, JLL Research (As at November 2020)

Exhibit 4



Source: JLL Research

As eCommerce increasingly contributes to greater space requirement, the Retail Trade sector was, for the first time, the major contributor to floorspace demand in 2020 (contributing 34%), followed by Transport, postal and warehousing (30%), and Manufacturing (18%). (See Exhibit 5)

A record high level of infrastructure investment is underway in Australia. This is supported by the 2020-21 Federal Budget, which announced a record $110 billion in transport infrastructure investment/spending in roads, rail and airports over the coming decade. New transport infrastructure will continue to support the logistics sector and in turn, demand for industrial space. (See Exhibit 6)

The pandemic will have long term implications on how supply chains are structured, as they will need to develop to mitigate external risk and become more resilient. There are three trends that may arise from this, all of which result in the demand for space:

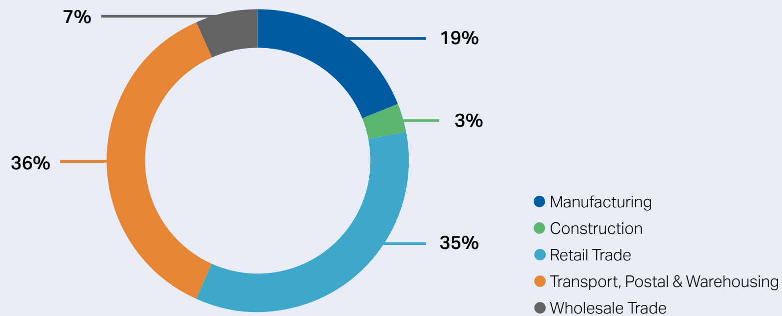
- Reshoring / near sourcing of manufacturing – particularly for higher value-add manufacturing activity, such as those related to the healthcare sector.
- Increased inventory levels to manage potential future disruptions in the supply chain
- Accelerated trend toward the integration of technology into warehousing, and the wider use of automation and robotics.

JLL Research are forecasting an average of 1.2 million sqm of industrial space per annum to come online between 2020 and 2024. This is below the ten-year historic annual average of 1.4 million sqm, indicating that quality assets will be in short supply. (See Exhibit 7)

The Australian Industrial & Logistics sector is valued for its stability of income with contractual escalations in the leases typically fixed at between

Exhibit 5

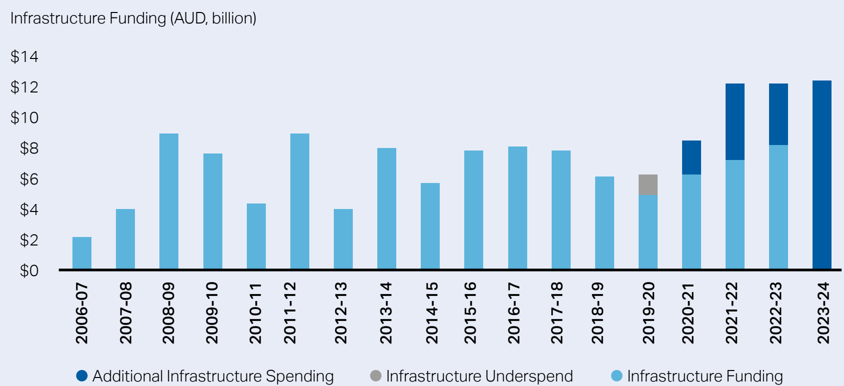
Take-up by Industry 2Q20-1Q21



Source: JLL Research

Exhibit 6

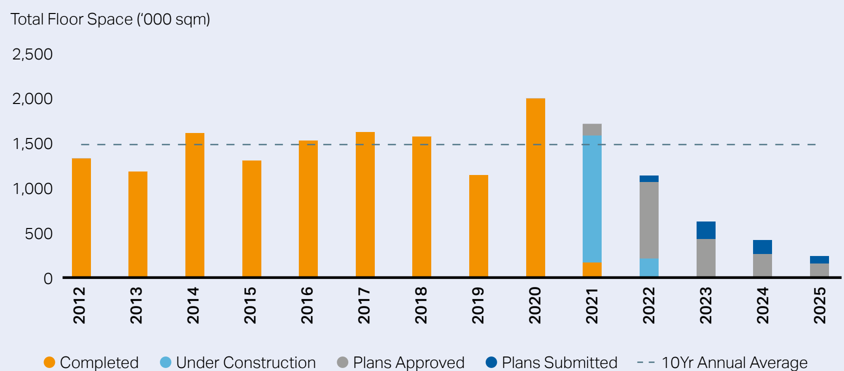
Federal Government infrastructure spending



Source: Infrastructure Partnership Australia, JLL Research

Exhibit 7

National industrial development supply pipeline, 2012-2025F



Source: JLL Research

Independent Market Research

Australia by JLL Research

2.5% and 3.0%. JLL projects the national Gross State Product-weighted Industrial & Logistics rent index will increase by 3.4% per annum from 2022 to 2029. It is important to put this rate of growth in the context of a low inflation environment. Deloitte Access Economics forecasts Australia's underlying CPI will be 2.3% between 2020 and 2029. **(See Exhibit 8)**

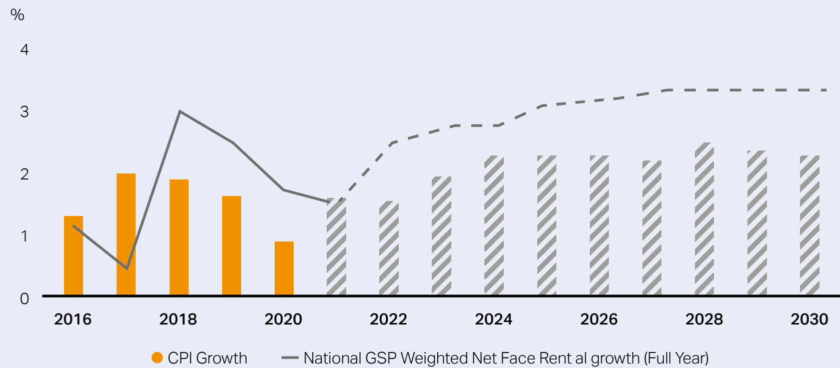
The risks to the inflation outlook are to the downside as CPI has only averaged 1.5% per annum over the past four years (2017 to 2020). Therefore, the Australian Industrial & Logistics sector has the potential to deliver real (inflation-adjusted) rental growth of between 100 and 150 basis points over the next 10 years.

Industrial property has emerged as a mature, institutional grade investment sector, and plays a vital role in a diversified portfolio. The Australian industrial sector remains one of the most sought-after sectors, by both domestic, regional and global capital sources, as it is underpinned by stable long-term factors. In 2020, approximately AUD 4.4 billion in investment sales occurred nationally (for sales AUD 10 million and over), illustrating the resilience of the sector during the pandemic period.
(See Exhibit 9)

Strong demand, coupled with the limited supply of stock have led to the appreciation in land, rent and capital values, and downward pressure on transaction yields. National average prime (5.32%) and secondary (6.52%) yields have compressed by 57bps and 67bps, respectively, over the 12 months leading up to 1Q21.
(See Exhibit 10)

Exhibit 8

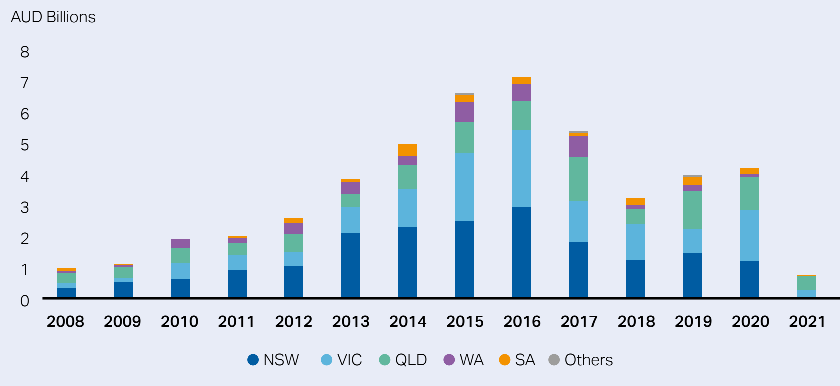
National Historic and Forecasted Markets Rental Growth vs Inflation (yoy %)



Source: Deloitte Access Economics, JLL Research as at 1Q21.

Exhibit 9

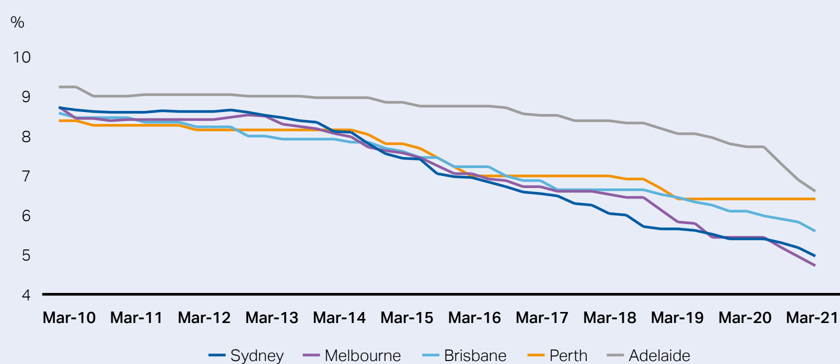
Australian Industrial Investment Sale Volumes by State, 2010 to YTD2021



To note: Reflects investment sales AUD 10 million and greater.
Source: JLL Research. As at 1Q21.

Exhibit 10

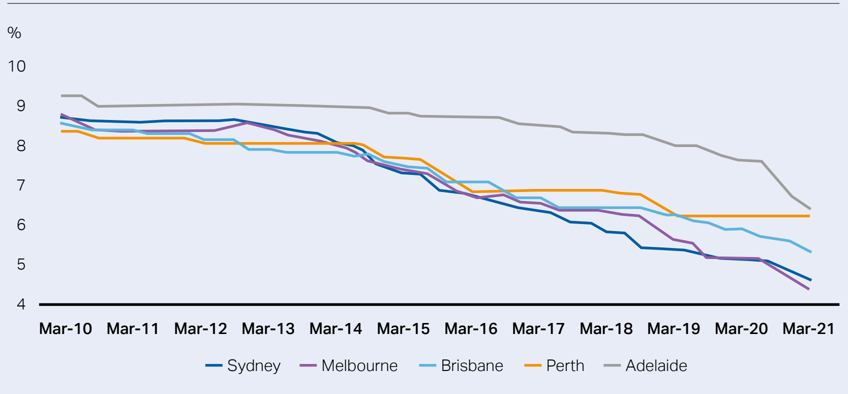
Prime Industrial Midpoint Yields by City, 2010 to 2021



Source: JLL Research. As at 1Q21.

Exhibit 10

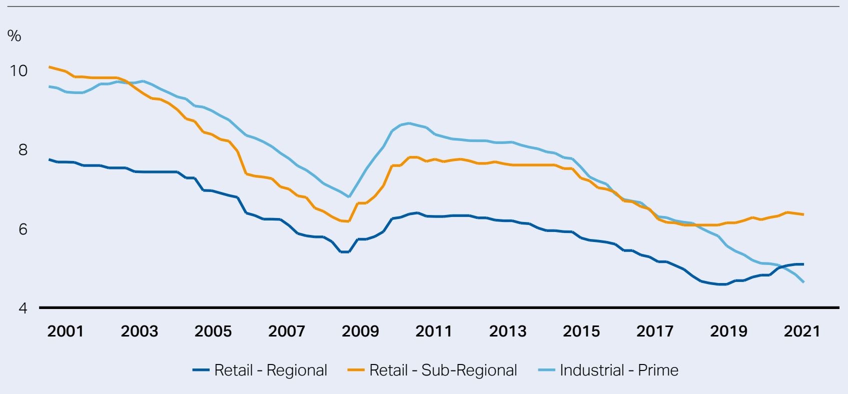
Secondary industrial midpoint Yields by City, 2010 to 2021



Source: JLL Research. As at 1Q21.

Exhibit 10

Australian Average Sector Yields (Industrial vs. Retail)



Source: JLL Research. As at 1Q21.

INDUSTRIAL AND LOGISTICS MARKET OVERVIEWS

Sydney

The Sydney industrial market is the largest in Australia, with a total of 17.8 million sqm of stock in 2020.

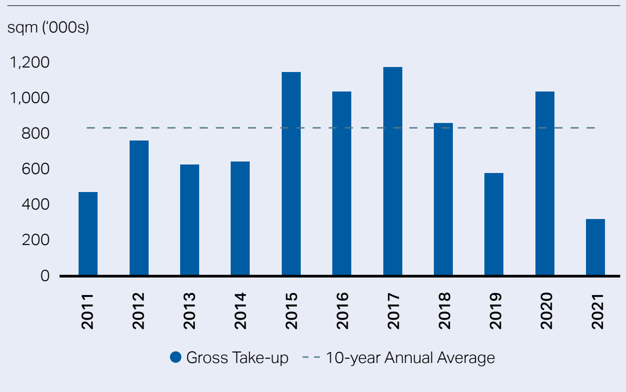
Demand

Occupier demand was strong in 2020, totaling 1.01 million sqm of gross take-up for the year – comparable to three of the strongest annual take-ups on record (2015 to 2017). Take-up in 2020 was supported by several large pre-lease deals being struck by retailers including Woolworths (75,300 sqm across two facilities), Coles (29,652 sqm) and H&M (27,336 sqm). The acceleration of online retail and the positive impact of a health crisis on certain sectors such as pharmaceuticals also led to increased take-up activity. Marley Spoon (14,000 sqm) and TMS Online (12,000 sqm) both increased their operational footprint, while Australian Pharmaceutical Industries (32,506 sqm) pre-leased a new facility in Marsden Park.

The Retail Trade sector has dominated industrial demand in the Sydney market accounting for 45% of gross take-up over 2020. This has been the result of particularly strong take-up from consumer staple companies (e.g. supermarkets) and businesses with a strong eCommerce presence.
(See Exhibit 11)

Exhibit 11

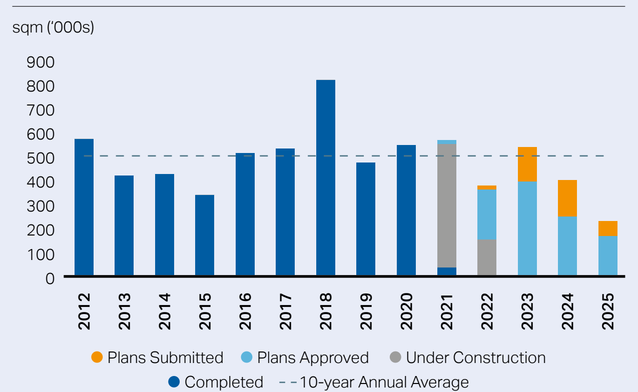
Sydney Gross Take-up



Source: JLL Research. As at 1Q21.

Exhibit 12

Sydney Industrial Supply Pipeline



Source: JLL Research. As at 1Q21.

Independent Market Research

Australia by JLL Research

Occupier activity has accelerated into 2021, with 313,110 sqm of gross take-up recorded in 1Q21. This is 54% higher than the 10-year quarterly total and the fourth highest single-quarter total that JLL has recorded for this market. Again, the Retail Trade (128,820 sqm) and Transport, Postal & Warehousing (101,530 sqm) sectors dominated the demand landscape, accounting for 74% of gross take-up in 1Q21.

The largest recorded occupier move in 1Q21 was from logistics provider DHL Supply Chain, which pre-committed to a 36,171 sqm purpose-built cold storage facility in Bringelly (Outer South West).

Supply

A total of 549,800 sqm of industrial floorspace was delivered in 2020, above the 10-year average of 478,400 sqm. New development activity was demand-led with approximately 65% of the space having secured pre-commitment upon completion. Development completion trended down at the start of 2021, with this quarter's total (31,750 sqm), the lowest single-quarter total that JLL Research has recorded in this market.

In addition, 1Q21 marked the first time since 1Q18 that stock delivered to market was 100% pre-committed. These two points are emblematic of a broader theme that played out in Sydney through the middle of 2020, which saw almost no speculative development commence construction.

The supply pipeline is expected to accelerate, with around 539,330 sqm of stock either under construction or with approved plans, and due to complete over the balance of the year. As at 1Q21, approximately 90% of the 2021 pipeline is pre-committed.
(See Exhibit 12)

Prime Rents

Sydney rents average AUD 158 psm p.a. for prime assets and AUD 143 psm p.a. for secondary assets, as at 1Q21. Rental growth across the Sydney industrial & logistics sector was positive in 2020, increasing by 2.8% for prime grade and 0.8% for secondary grade facilities. This has continued in 2021, with the prime average increasing by 0.3% in 1Q21, while secondary rates have increased by <0.1%. The South Sydney market recorded a minor reversion in average rates. However, this was reflective of a change in the JLL Research basket, rather than any reversion in actual rents.

The outperformance of the prime market is representative of the robust underlying demand for better quality assets and low vacancy.

There has been consistent strong positive rental growth in the prime Sydney industrial market over the last three years. This is expected to continue as demand is projected to remain strong over the medium term, coupled with constrained future supply due to declining land supply.

Yield Observations

The average prime yield midpoint declined 24 bps to 4.80% over 2020, and secondary midpoint yield declined by 32 bps to 5.47%.This has continued in 2021, with the average prime midpoint declining by 23 bps to 4.57%, and secondary midpoint yields by 24 bps to 5.23%.

There is still scope for further yield compression, albeit at a slower rate than recent years, as investors continue to seek stable income-producing assets. This will be aided by the underlying strength of the Sydney market, in terms of both occupier demand outlook and rental growth relative to the inflation rate, for the foreseeable future.
(See Table 1)

Melbourne

Melbourne is Australia's second largest industrial market, totalling 16.0 million sqm in 2020, and is home to Australia's most active container port.

Demand

Melbourne has led the nation in leasing activity over the last three years, accounting for 40% of gross take-up during the period. In 2020, take-up remained elevated and well above the 10-year annual average of 698,000 sqm, totalling 1.2 million sqm.

The West has been the epicentre for industrial demand in Melbourne over the last decade, accounting for 50% of all gross take-up over the period 2011

Table 1

Sydney Financial Indicators Summary

	Prime Existing Net Rents (AUD psm p.a.)			Capital Value Indicator			Prime Market Midpoint Yield		
	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change (bps)	Y-o-Y Change (bps)
Inner West	$147	0.8%	0.8%	N/A	N/A	N/A	4.75%	▼	▼
North	$224	0.8%	4.4%	4,646	2.6%	6.8%	5.00%	▼	▼
Outer Central West	$130	1.6%	3.5%	3,032	5.9%	13.7%	4.44%	▼	▼
Outer North West	$127	1.2%	0.9%	N/A	N/A	N/A	4.50%	▼	▼
Outer South West	$116	1.0%	3.1%	N/A	N/A	N/A	4.50%	▼	▼
South Sydney	$205	-2.1%	-1.3%	4,400	2.3%	4.8%	4.25%	▼	▼

Source: JLL Research. As at 1Q21.

to 2020. Meanwhile, the South East has continued to record consistently strong take-up despite declining availability of land. The North precinct has become more active with its share of gross take-up increasing to 28.0% in 2020, which was well above the five-year average of 16.7%. (See Exhibit 13)

Major deals recorded from these sectors over 2020 include: CSL Group (Manufacturing), which pre-committed to a 118,000 sqm high tech facility in the North for the production of vaccines, underscoring the growing importance of the healthcare sector on the demand for industrial & logistics floorspace. Uniqlo (Retail Trade) pre-leased a new 46,000 sqm facility in the West and Linfox (Transport, Postal and Warehousing) leased a 34,000 sqm cold storage facility in response to the surging demand from online grocery.

In 2021, occupier activity in Melbourne reached a new benchmark, totalling 546,940 sqm; the highest that JLL Research has ever recorded for the market. This accounted for 49% of national gross take-up for the quarter and was driven by the Transport, Postal & Warehousing (29%), Retail Trade (20%) and Manufacturing (18%) sectors.

Supply

A total of 794,300 sqm of industrial floorspace was delivered in 2020, the highest level recorded over the past decade. The development pipeline was under-written by a healthy level of pre-commitment. Approximately 80% of the Melbourne development pipeline was pre-leased upon practical completion.

Asset completions trended down in 1Q21 but remained above average, with 125,660 sqm of stock delivered to the market. The decline in completions in comparison to recent quarters demonstrates the impact that the COVID-19 pandemic had on developer confidence throughout 2020.

Given the significant economic uncertainty in the market during much of last year, most developers were unwilling or unable to commence any non-committed projects. The dynamic has now created a short-term lag in new asset delivery, which will be remedied throughout 2021 in line with the re-commencing of new projects towards the end of last year.

The development pipeline in the Melbourne industrial & logistics market is expected to continue to deliver above-average volumes of stock. We are currently tracking 696,570 sqm of new stock, which is either under construction or has approved plans and due to complete over the balance of 2021. Assuming these projects all reach completion at their currently scheduled times, 2021 will mark the highest volume of completions in the Melbourne market that JLL research has recorded. (See Exhibit 14)

Prime Rents

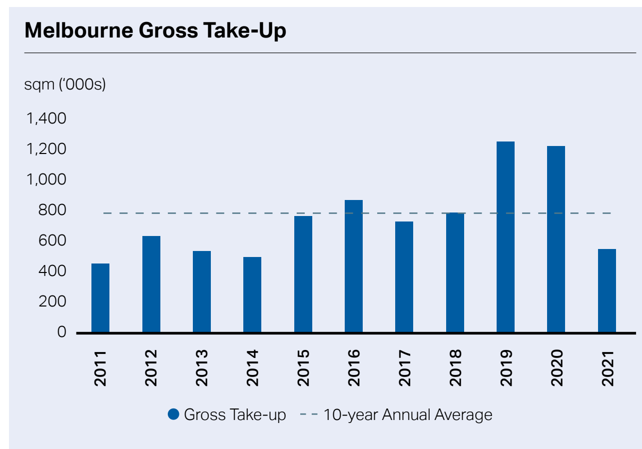
Melbourne is one of the most affordable industrial & logistics markets in Australia. Average prime rents are at AUD 94 psm p.a., unchanged over 2020, while secondary net rents were AUD 74 psm p.a. Record levels of occupier activity has started to place upward pressure on rental values in the Melbourne market, with average rates increasing by 0.9% (prime) and 0.4% (secondary) in 1Q21.

Melbourne's long-term prospects for strong population growth will continue to be a fundamental driver of growth for the industrial and logistics sector.

As such, we have upgraded our rental growth forecasts for 2021 for Melbourne, with expectations of full-year growth of between 1-3%. Beyond 2021, we are forecasting growth to rebound to 2.0%-3.0% per annum over the medium term, underpinned by Melbourne's strong fundamentals.

Exhibit 13

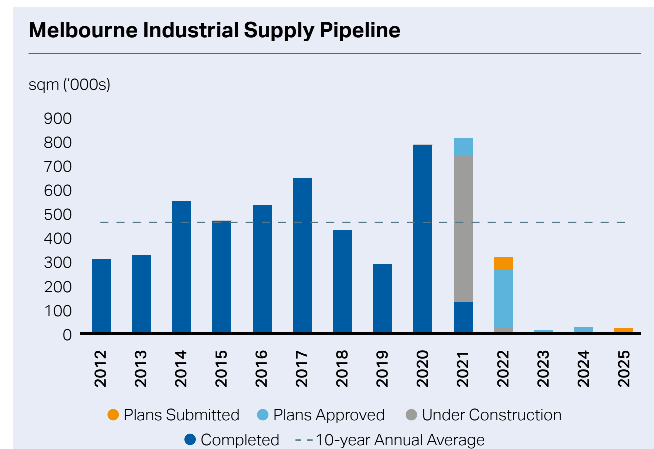
Melbourne Gross Take-Up



Source: JLL Research. As at 1Q21.

Exhibit 14

Melbourne Industrial Supply Pipeline



Source: JLL Research. As at 1Q21.

Independent Market Research

Australia by JLL Research

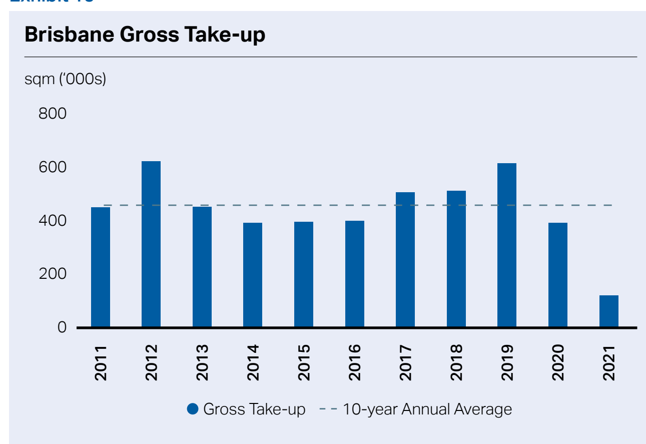
Table 2

Melbourne financial indicators summary

	Prime Existing Net Rents (AUD psm p.a.)			Capital Value Indicator			Prime Market Midpoint Yield		
	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change (bps)	Y-o-Y Change (bps)
North	$82	1.6%	1.6%	N/A	N/A	N/A	4.50%	▼	▼
West	$79	0.0%	0.0%	1,816	5.9%	17.7%	4.25%	▼	▼
South East	$95	2.2%	2.7%	2,292	8.1%	20.8%	4.25%	▼	▼

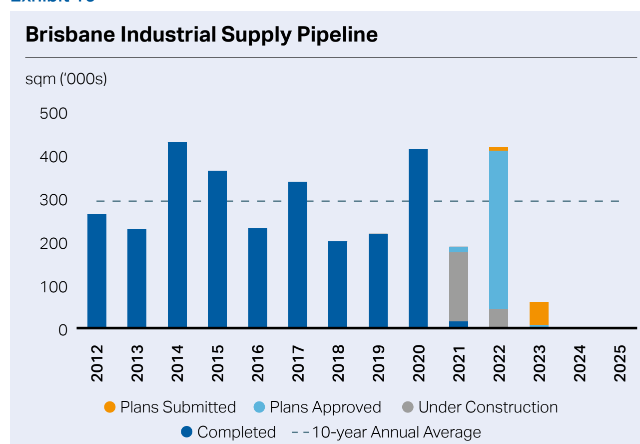
Source: JLL Research. As at 1Q21.

Exhibit 15



Source: JLL Research. As at 1Q21.

Exhibit 16



Source: JLL Research. As at 1Q21.

However, this outcome will be highly dependent on how well the state's economy recovers from the pandemic.

Yield Observations

The long-term confidence of investors in the Melbourne market is evidenced by the further compression of yields in both the prime and secondary space. The average prime yield midpoint sharpened by 77 bps to a record low of 4.31% - 279 bps below the previous cyclical low – while the average secondary yield midpoint fell by 108 bps to 5.13%, also a record low. (See Table 2)

Brisbane

Brisbane is the third largest industrial market in Australia (11.2 million sqm) across three precincts –Southern, Northern, and Trade Coast. The Southern precinct is the largest (5.7 million sqm), incorporating the city fringe and the land-rich area south of Brisbane. The precinct has become better serviced by road and rail infrastructure over the last 10 years, resulting in a higher share of demand-led development activity.

Demand

Gross annual take-up in 2020 totalled 384,200 sqm, which is below the 10-year annual average of 448,600 sqm. Despite this, the number of leasing transactions remained in line with the 10-year average, with 52 deals recorded in 2020. This reflects that demand activity was led by smaller occupiers. (See Exhibit 15)

Leasing activity in 2020 was supported by the Retail Trade (37%) and Transport, Postal & Warehousing (20%) sectors, largely attributed to the expansion of major grocery retailers with Woolworths pre-leasing a new facility at 22 & 30 Seeana Place (42,000 sqm) and strong activity from 3PL providers. Manufacturing remains

a key component of the demand trend in Brisbane, having accounted for almost 20% of gross take-up over 2020.

Early signs in 2021 suggest that the occupier market in Brisbane is beginning to recover, with first quarter totals in line with long-term averages for the first time in 12 months. Given that leasing volumes in the market are typically lower in the first quarter of the year, 1Q21 results are 18% above the 10-year first quarter average.

Supply

A total of 416,600 sqm of industrial floorspace was delivered in 2020, well above the 10-year annual average of 274,700 sqm. While 2020 was a significant year for new supply, the bulk of development activity was demand-led with over 75% pre-leased prior to practical completion.

Like other markets, Brisbane recorded a record-low volume of completions in 1Q21. Only two projects, totaling 12,800 sqm of floorspace delivered in the first three months of 2021.

Supply this year is expected to be below average, while 2022 is likely to be well above average. There are currently 11 projects under construction, totaling 205,450 sqm (73% pre-committed). The reduced level of supply for 2021 is the by-product of decision-making being delayed amid the economic uncertainty induced by the pandemic last year. (See Exhibit 16)

Prime Rents

Average rents across the Brisbane market are the second highest among the Australian markets across both prime and secondary assets. As at 1Q21, prime net rents average AUD 116 psm p.a., having recorded 1.8% growth since the start of 2020, while secondary rates average AUD 88 psm p.a., and have grown by 3.5% over the past five quarters.

Yield Observations

Market confidence and strong fundamentals have continued to place pressure on pricing, which has seen the average prime yield midpoint compress by 54bps since 1Q20, to 5.25%, and the average secondary yield midpoint compress by 71bps to 6.88%. Notably, despite strong compression in 2020/21, the spread between Brisbane and Sydney/ Melbourne has remained stable or widened throughout the year, which will underpin continued investment activity from value-seeking players. (See Table 3)

March 2021

Table 3
Brisbane Financial Indicators Summary

	Prime Existing Net Rents (AUD psm p.a.)			Capital Value Indicator			Prime Market Yield		
	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change	Y-o-Y Change	1Q21	Q-o-Q Change (bps)	Y-o-Y Change (bps)
Northern	$116	0.4%	0.4%	N/A	N/A	N/A	5.25%	▼	▼
Southern	$111	1.1%	1.1%	2,064	5.9%	9.5%	5.25%	▼	▼
Trade Coast	$120	0.0%	0.0%	N/A	N/A	N/A	5.25%	▼	▼

Source: JLL Research. As at 1Q21.

Disclaimer

The material contained in this report is confidential and was provided by JLL to the party to whom it is addressed strictly for the specific purpose to which it refers and no responsibility is accepted to any third party.

Neither JLL nor any of its associates have any other interests (whether pecuniary or not and whether direct or indirect) or any association or relationships with any of its associates that might reasonably be expected to be or have been capable of influencing JLL in providing this report.

Whilst the material contained in the report has been prepared in good faith and with due care by JLL, no representations or warranties are made (express or implied) as to the accuracy of the whole or any part of the report.

JLL, its officers, employees, subcontractors and agents shall not be liable (except to the extent that liability under statute or by operation of law cannot be excluded) for any loss, liability, damages or expense suffered by any party resulting from their use of this report.

If a projection has been made in respect of future demand, business trends, property prices, rentals and projected take up rates, such a projection is an estimate only and represents only one possible result therefore should at best be regarded as an indicative assessment of possibilities rather than absolute certainties. The process of making forward projections of such key elements involves assumptions about a considerable number of variables that are acutely sensitive to changing conditions and variations, and any one of which may significantly affect the resulting projections. This must be kept in mind whenever such projections are considered.

JLL is not operating under an Australian Financial Services Licence. The financial analysis and conclusions contained within this report do not purport to represent a valuation in the conventional sense. It is an exercise involving only relatively few variables, such as zoning information and a general knowledge of background market conditions; whereas, a valuation involves a detailed investigation of the property including, where appropriate, the nature of the locality, surrounding properties, full inspection, site peculiarities, the nature, quality and condition of improvements, comparable sales, market trends, yields, competition, design and layout and so on. The market value could be greatly affected by such factors, and by encumbrances, restrictions, or other impediments on Title which have not been considered in this report. Accordingly, the financial analysis contained herein is indicative only and not authoritative. It is merely a precursor to a formal valuation and should not be taken as a substitute for it.

Independent Market Research

Malaysia by Knight Frank Malaysia

MACRO ECONOMY OVERVIEW

Gross Domestic Product and Inflation Rate

The prolonged nationwide movement control order (MCO), implemented since 18 March 2020, and the subsequent phases of MCO coupled with the recent reinforced MCO 2.0 to contain the spread of the novel coronavirus had dealt a severe impact on the country's economic performance. Measures such as travel restrictions, enforced business closures and restricted social activities curbed domestic activities, while businesses also had to contend with a sharp slowdown in external demand.

The fresh wave of COVID-19 pandemic since September 2020 led to a sharp economic contraction in the fourth quarter with gross domestic product (GDP) shrinking by 3.4% in the fourth quarter, compared to -2.6% in the third quarter. Malaysia's economy contracted by 5.6% for all of 2020, its worst performance since the Asian financial crisis and below the government's earlier projection of -3.5% to -5.5%.

For 2021, the economy is expected to rebound between 6.0% and 7.5%, supported mainly by the recovery of economic and trade activities globally and domestically. As the rollout of COVID-19 vaccines gets underway, more business activities and services sector are allowed to reopen during the current phase of MCO 2.0 subject to conditions and standard operating procedures (SOPs) set by the relevant authorities. (See Exhibit 1)

Malaysia registered a deflation (-1.2%) in 2020, the first time in five decades, primarily due to lower global oil and commodity prices coupled with tiered electricity tariff rebate since April 2020 and suppressed domestic demand amongst other factors. Bank Negara Malaysia (BNM) has projected that headline inflation will average higher to 2.5% in 2021, mainly due to improved global oil prices.

The central bank cut the overnight policy rate (OPR) by 25 basis points to 1.75% on 7 July 2020, its fourth revision in 2020 to provide a more accommodative monetary environment to support the country's economy.

The Malaysia's Industrial Production Index (IPI), which nosedived to 76.5 points in April following the implementation of the nationwide MCO on 18 March, rebounded strongly to 114.8 points in June with the easing of restrictions. For the entire 2020, the IPI read at 109.8 points, lower by 4.2% y-o-y (2019: 114.6 points).

Foreign Direct Investment

Malaysia's Foreign Direct Investment (FDI) dipped 22.6% on the year, from RM82.9 billion in 2019 to RM64.2 billion in 2020, impacted by cascading effects of the COVID-19 pandemic.

In the manufacturing sector, despite the overall decline in FDI, some RM56.6 billion of FDI from 1,049 projects were approved in 2020, circa 3.9% higher compared to 2019.

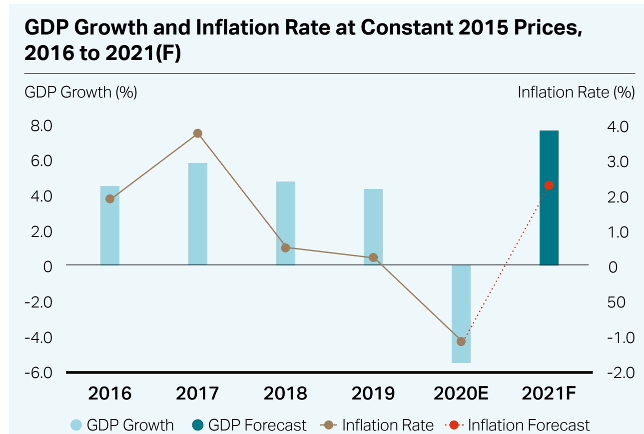
About 65% of the approved foreign investment were for new projects. The stellar performance of the manufacturing sector was attributed to the zero tax incentive rolled out under the short term economic recovery plan (PENJANA). Investments from China topped with RM15.3 billion, followed by Singapore (RM8.8 billion), Netherlands (RM6.5 billion), British Virgin Islands (RM5.5 billion) and the United States (RM3.7 billion). (See Exhibit 2)

Logistics Market Trends and Performance

Riding on the ecommerce wave, the fragmented logistics market is expected to transform with vertical and horizontal consolidation as logistics and ecommerce players try to gain scale and expand their network.

Exhibit 1

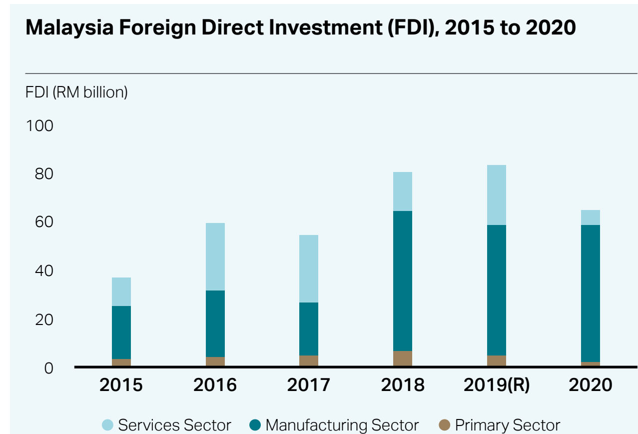
GDP Growth and Inflation Rate at Constant 2015 Prices, 2016 to 2021(F)



Sources: Department of Statistics Malaysia (DOSM) / Bank Negara Malaysia (BNM)
Note: (E) = Estimates; (F) = Forecast

Exhibit 2

Malaysia Foreign Direct Investment (FDI), 2015 to 2020



Sources: Malaysian Investment Development Authority (MIDA) / Knight Frank Research
Note: (R) = Revised

The unprecedented COVID-19 pandemic has severely disrupted global supply chain. In pursuit of building more stability and resilience into their supply chain, manufacturers are re-evaluating their processes with many considering reshoring and nearshoring.

In 2020, the transportation and storage sub-sector together with the information and communication segment contributed circa RM131.4 billion or 9.8% share to the country's GDP (RM1,421.5 billion). The contribution from these sub-sectors is, however, 4.8% lower when compared to 2019 at RM138.1 billion.

Moving forward, the logistics market will see new cutting-edge logistics and multi-storey facilities driven by robotics and automation.

Ecommerce

The COVID-19 pandemic has led to changes in consumer shopping behaviour, some of which are permanent and this continues to affect the retail sector as well as growth in the ecommerce industry. Many business-to-consumer (B2C) firms were forced to quickly adapt to offer online retailing services due to lockdowns and movement restrictions in many markets.

The growth in the adoption of online retailing was evident in key markets across Asia-Pacific, averaging at circa 14% in 2020 compared to the previous year.

Malaysia's online retail sales grew by 17% in 2020, the third-fastest among the countries reviewed. Moving forward, there is much potential for higher growth as the country's overall online penetration stands at only 5%. Higher ecommerce penetration rate will increase demand for warehousing space to meet the growth in last-mile delivery amid the structural shift towards omnichannel retailing. (See Table 1)

Cargo and Containers

Cargo and container throughput by ports mainly support the cross-border export and import of goods. There are nine ports in Peninsular and 13 ports in East Malaysia. In Klang Valley the main port is Port Klang (inclusive of Northport and Westport). Meanwhile in Johor, there are two ports, namely Port of Tanjung Pelepas and Johor Port.

In 2020, cargo and container throughput (including trans-shipment) via Malaysia ports were 595.8 million tonnes and 26.7 million TEUs respectively. When compared with 2019's performance, the cargo handled were 5% lower on the year although the container throughput was marginally higher by 1.0%.

It is estimated that some 39.4% and 49.6% of the cargo and container throughput via ports in Malaysia are handled by Port Klang (Northport and Westport), accounting for circa 223.0 million tonnes and 13.7 million TEUs respectively.

Meanwhile, Port of Tanjung Pelepas handled 144.6 million tonnes of cargo and 9.8 million TEUs of containers in 2020, representing 25.6% and 36.9% of Malaysia's market share respectively. It is worth noting that despite the pandemic outbreak, Port of Tanjung Pelepas saw an annual increase of 8.5% of container handled (2019: 9.0 million TEUs). (See Exhibits 3 & 4)

Malaysia External Trade

In 2020, total value of exports declined 1.4% to record at RM980.8 billion (2019: RM995.1 billion) while total value of imports was also lower by 0.8% at RM769.2 billion (2019: RM849.4 billion).

In contrast, trade balance increased by 26.9% to register at RM184.8 billion in 2020 (2019: RM145.7 billion). The double-digit healthy trade balance augurs well for the industrial market as it indicates that the country has more export-oriented economic activities.

Malaysia's external trade posted healthy CAGRs of 4.8% for export, 3.0% for import and 15.1% for trade balance for the period under review from 2015 to 2020. (See Exhibit 5)

Table 1

Selected Markets – Online Retail Penetration / Annual Growth, 2020E

Market	Estimated Online Retail Penetration, end 2020	Estimated Annual Online Retail Growth (%)
Chinese Mainland	33%	12%
South Korea	30%	20%
Australia	15%	13%
Japan	12%	20%
Singapore	10%	11%
Vietnam	8%	8%
Indonesia	6%	13%
India	5%	8%
Malaysia	5%	17%
Thailand	4%	11%
Philippines	2%	17%
Average		14%

Source: Knight Frank Research
Note: (E) = Estimates

OVERVIEW: LOGISTICS MARKET IN KLANG VALLEY AND JOHOR BAHRU

Supply

Existing Supply

The COVID-19 outbreak has accelerated ecommerce adoption and with higher inventory levels as buffer stock to mitigate future disruptions

Independent Market Research

Malaysia by Knight Frank Malaysia

in the supply chain, demand for warehousing space has stayed robust during the pandemic and is expected to continue growing.

As of 2020, the warehousing space in Klang Valley is estimated at 48.9 million sq ft, 7.5% higher than 45.5 million sq ft in 2019. Meanwhile, in Johor, the warehousing space remained unchanged at circa 15.8 million sq ft.

During the review period between 2015 and 2020, the warehousing space in Klang Valley and Johor recorded CAGR of 5.2% and 8.3% respectively.

In Klang Valley, Grade A warehouse space made up circa 6.7 million sq ft or 13.7% of the total estimated stock while in Johor, similar grade warehouse space accounts for circa 27.0% share or 4.3 million sq ft of the state's existing cumulative supply. (See Exhibit 6)

The review period witnessed the completion of a few notable facilities in Klang Valley, namely the Cainiao-KLIA Aeropolis Digital Free Trade Zone (DFTZ), Hap Seng Industrial Hub @ Shah Alam, D Project Malaysia I in Shah Alam and Ikea Distribution Centre in Pulau Indah.

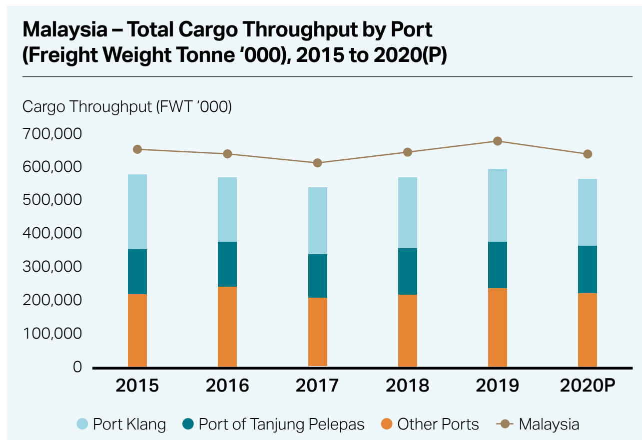
Mature and established industrial areas such as Shah Alam, Klang and Petaling Jaya in Selangor as well as Port of Tanjung Pelepas, Senai and Pasir Gudang in Johor continue to garner interest of potential investors due to their good connectivity and accessibility to seaports and airports.

Future Supply

In 2021, circa three million sq ft of incoming stock are scheduled for completion in Klang Valley, representing an increase of circa 6.2%.

Exhibit 3

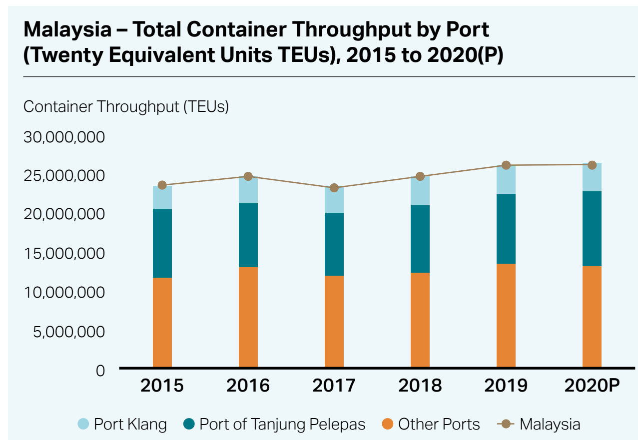
Malaysia – Total Cargo Throughput by Port (Freight Weight Tonne '000), 2015 to 2020(P)



Sources: Ministry of Transport / Knight Frank Research
Note: (P) = Preliminary Data

Exhibit 4

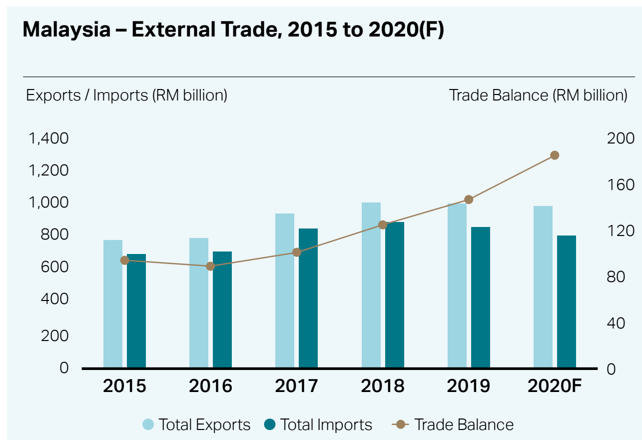
Malaysia – Total Container Throughput by Port (Twenty Equivalent Units TEUs), 2015 to 2020(P)



Sources: Ministry of Transport / Knight Frank Research
Note: (P) = Preliminary Data

Exhibit 5

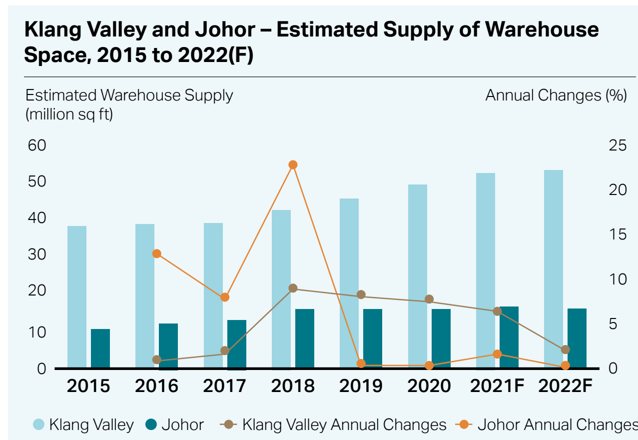
Malaysia – External Trade, 2015 to 2020(F)



Sources: Department of Statistics Malaysia (DOSM) / Knight Frank Research
Note: (F) = Forecast

Exhibit 6

Klang Valley and Johor – Estimated Supply of Warehouse Space, 2015 to 2022(F)



Source: Knight Frank Research
Note: (F) = Forecast

Notable newly completed and upcoming warehouses / distribution centres in Klang Valley include One Eastern Hub (The Glacier) in Klang, Senheng Electric Distribution Centre and Leshaco Logistics Facilities - both in Bukit Raja, Tri-Mode Warehouse in Pulau Indah and Xin Hua Holdings Warehouse in Shah Alam.

Meanwhile, in Johor Bahru, there is no notable new warehouse scheduled for completion in 2021. However, there are some existing warehouses under-going extension/ renovation.

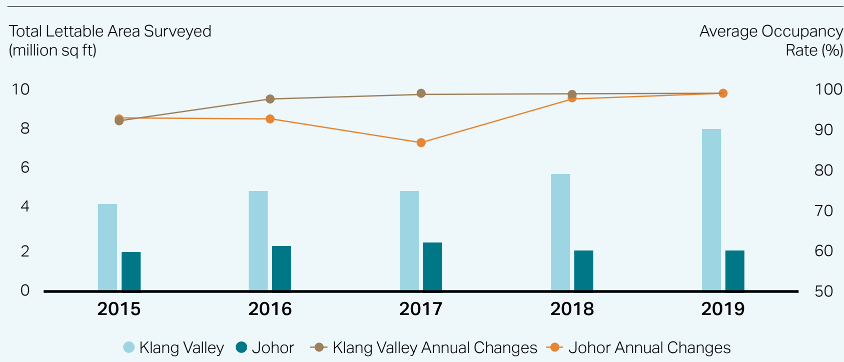
Demand and Occupancy Rate
We have selected a sampling of facilities / premises to gauge demand for warehousing space in Klang Valley and Johor Bahru. (See Exhibit 7)

Despite the significant increase in Klang Valley's warehouse space with lettable area growing from 4.3 million sq ft to 8.0 million sq ft over the 2015 to 2019 period and amidst the adverse economic environment due to the pandemic, the average occupancy rate remained encouraging and hovered between 93% and 100%. There is strong demand for warehousing space in Klang Valley, particularly in the localities of Shah Alam and Klang.

Meanwhile, in Johor Bahru, the average occupancy rate of the 2.0 million sq ft of space surveyed, generally ranged between 94% and 100% for the corresponding period.

Exhibit 7

Klang Valley and Johor Bahru – Weighted Average Occupancy Rates of Selected Warehouses / Distribution Centres Surveyed, 2015 to 2019



Source: Knight Frank Research
Note: KV = Klang Valley, JB = Johor Bahru

Table 2

Selected Prime Industrial Areas in Klang Valley and Johor Bahru – Asking Rental Rates, 2019 and 2020

Region / Locality	Asking Gross Rental (RM per sq ft / month)	
	2019	2020
Klang Valley		
Petaling Jaya (Sections 13, 19 and 51A)	2.00 – 2.80	2.00 – 3.00
Subang Hi-Tech	1.60 – 2.10	1.60 – 2.10
Bukit Raja	1.60 – 1.80	1.60 – 2.40
Port Klang	1.20 – 2.00	1.40 – 2.20
Shah Alam	1.60 – 2.00	1.60 – 2.20
Glenmarie	1.10 – 2.00	1.50 – 2.00
Johor Bahru		
Port of Tanjung Pelepas	1.20 – 1.60	1.50 – 1.80
Pasir Gudang	1.00 – 1.40	1.30 – 1.60
Senai	1.00 – 1.50	1.15 – 1.50

Source: Knight Frank Research
Note: The above quoted rental values vary according to location / scheme, type and quality of premises, size and other value factors.

Rental Analysis
The asking gross rentals of industrial properties in selected prime industrial areas within Klang Valley range from RM1.40 per sq ft to RM3.00 per sq ft per month in 2020, marginally higher compared to 2019.

Detached industrial premises / facilities located in Port Klang, Glenmarie, Shah Alam and Bukit Raja have asking rental rates ranging from RM1.40 per sq ft to RM2.40 per sq ft per month while in other selected established industrial areas such as Petaling Jaya and Subang Jaya, the rental rates are on the higher band and range from RM1.60 per sq ft to RM3.00 per sq ft per month.

In Johor Bahru, the asking rental rates are also higher in 2020 when compared to the preceding year. Asking rents of Industrial properties in the localities of Port of Tanjung Pelepas, Pasir Gudang and Senai, hover between RM1.00 per sq ft and RM1.80 per sq ft per month. (See Table 2)

Summary & Market Outlook
The government has unveiled the country's 10-year Digital Economy Blueprint (2021 to 2030) which will be implemented in three phases. The 10-year road map aims to transform Malaysia into a digitally-driven, high-income nation and a regional leader in the digital economy.

The digital economy bodes well with the growing trend of ecommerce / online retailing. Higher ecommerce penetration rate will result in additional warehousing space requirements to meet the surge in last-mile delivery

Independent Market Research

Malaysia by Knight Frank Malaysia

as well as the structural shift towards omnichannel retailing.

The COVID-19 outbreak, which led to the implementation of various stages of MCO with stringent SOPs such as physical (social) distancing, temperature screenings and hygiene guidelines amongst others, have accelerated the sales of consumer goods through online channels with many late adopters of ecommerce trying out online shopping. Subsequently, retailers have also jumped onto the ecommerce bandwagon, increasing their online presence and reducing the presence of physical stores.

Evidently, F&N has launched its own ecommerce site as well as smartphone application allowing its consumers to purchase its products at bulk and at competitive prices online. Ecommerce reconfigure the supply chain flows allowing goods to be distributed to the end-users directly from the warehouses / distribution centres, bypassing the physical stores.

Meanwhile, Mastercard has signed a memorandum of understanding (MoU) with MDEC on 2 September 2020 in a collaborative effort to enable ecommerce for micro, small-and-medium enterprises (MSMEs), on top of fostering financial inclusion in rural communities. Under the collaboration, Mastercard will work together with MDEC to support industry partners and facilitate the rollout of Mastercard payments and business technologies giving MSMEs the ready-made infrastructure they need, to kick-start in ecommerce.

The exponential growth of ecommerce increases the demand for warehousing in more locations including non-central locations to serve the rural communities. The emerging trends also encourage logistics players to increase efficiency by digitalizing their operations and this has led to higher demand for smart warehousing and e-fulfilment centres.

Presently, the logistics industry in Malaysia is fragmented with a large number of players across the value chain. Moving forward, we expect to see more vertical and horizontal consolidation among the logistics and ecommerce players as they try to gain scale and expand their network. In tandem with rising trade, the industry is expected to grow by capitalising on the ecommerce wave.

Another issue the COVID-19 pandemic has brought to the forefront is the concern surrounding supply chain security given how the supply of goods, material and labour were disrupted when the Chinese borders closed, severely hindering manufacturing output across the Asia-Pacific region.

These concerns are not new as larger firms have started adopting a China-Plus-One model in recent years, where manufacturing operations are diversified out of the Chinese Mainland into more cost-effective markets such as Malaysia. Many smaller and medium sized enterprises, however, were caught off-guard when the pandemic hit. However, over the coming years, manufacturing reliance is set to shift away from the Chinese Mainland, and regions such as Southeast Asia and its industrial sector are set to be net beneficiaries.

March 2021

Disclaimer:
This report is published for general information only. Although high standards have been used in the preparation of the information, analysis, views, and projections presented in this report, no legal responsibility can be accepted by Knight Frank Research or Knight Frank for any loss or damage resultant from the contents of this document. As a general report, this material does not necessarily represent the view of Knight Frank in relation to particular properties or projects. The whole of the report, or any part or reference thereto must not be published in any document, statement, circular, or in any communication with third parties, without prior written consent of the form and context in which it will appear.

Vietnam by Cushman & Wakefield Vietnam Co., Ltd.

Vietnam is the only ASEAN economy among the big six to register positive growth amid the pandemic, growing 2.9% in 2020 to be the fastest growing economy in the regional bloc. Effective containment of the pandemic has helped the country sustain growth, paving the way for an economic rebound in 2021. The country has targeted GDP in 2021 to grow by 6.5% while forecasts by international organizations are even higher at 6.5% as per IMF, 6.8% as per the World Bank and Asian Development Bank and 7.8% as per Oxford Economics. This positive outlook is based on the country's stable economic conditions, improving business environment, developing infrastructure, sustained foreign investment as well as growing manufacturing and export sectors. Economic integration through free trade agreements, recently with EU-Vietnam Free Trade Agreement ("EVFTA") and the upcoming Regional Comprehensive Economic Partnership ("RCEP") will benefit Vietnam's exports, create more jobs and reduce unemployment. This also helps Vietnam to become more competitive in attracting foreign investments.

Vietnam rose 3 positions on the Agility Emerging Markets Logistics Index 2021, to rank 8th out of 50 emerging logistics markets in 2021, and third in Southeast Asia. The higher placing indicates growing capabilities of the logistics sector, which is integral to support growth in other industries like import-export, retail, ecommerce, industrial & manufacturing.

VIETNAM WAREHOUSE MARKET

In recent years, Vietnam's industrial and warehouse market has benefited from the US-China trade war. The Covid-19 pandemic has also compelled companies to consider new locations to re-configure and diversify their supply chains to mitigate risks. These developments have underscored Vietnam's attractiveness to foreign investors, due to its competitive advantage in areas such as favorable demographics, enhanced economic integration, preferential incentives from supportive government policies, an improving business environment and legal framework as well as rapid infrastructure improvements. This has resulted in total registered foreign direct investment ("FDI") capital increasing by 8% p.a. on average over the past ten years. The increase in FDIs and manufacturing investments in Vietnam, together with the positive knock-on effects on domestic consumption and economic growth, have underpinned demand for logistics space. Additionally, the growth of domestic retail and ecommerce sectors have been propelling warehousing development in the past few years. To be specific, ecommerce revenue recorded an average growth of 30% p.a. from 2016 – 2019 and growth is expected to be sustained in 2020. Total retail sales of consumer goods and services also increased by 9% p.a. on average during the past 5 years. Particularly, the growing demand for convenience, such as on-demand delivery of fresh produce, has spurred the development of end-to-end cold-chain networks.

Although currently dominated by international third-party logistics service providers ("3PLs"), the Vietnam's logistics market is witnessing a growing presence of local players including notable names such as Gemadept, Nhat Tin and Vinafco. Growing demand and interest from international investors to enter into joint ventures as well as a surge in merger and acquisitions have supported the growth of local companies.

In the South, logistics facilities are concentrated in Ho Chi Minh City ("HCMC"), Long An, Dong Nai and Binh Duong. These are expected to mainly cater to the ecommerce, express, pharma, retail and manufacturing sectors. Upcoming infrastructure developments such as road networks between Hiep Phuoc, Cat Lai and Cai Mep ports, Long Thanh International Airport, will also contribute to improvements in connectivity and logistics efficiency.

Binh Duong continues to be a leading logistics hub due to its large supply and sustained demand. Meanwhile, HCMC, Long An and Dong Nai have also emerged as alternative locations for logistics facilities with greater demand from distribution, ecommerce, pharma and chemical warehousing. Warehouses in most of these locations are expected to gradually start construction this year and operate in early 2022. Close to the new airport, the government has planned over 6,000 ha of industrial park ("IP") including plans for a freight hub near ICD Long Binh. Long An has a strong pipeline of new IPs as well as logistics parks planned to target more ecommerce, retail and omnichannel occupiers. The South, especially Long An and Dong Nai has huge potential for investment in intermodal or multi-modal transportation terminals, especially utilizing lower cost modes such as barges to link bulk supply chains competitively to manufacturing processing and distribution processes from and to Ba Ria - Vung Tau, up Tay Ninh border gate and down to Can Tho.

In the North, significant investments from Multinational Corporations ("MNCs") like SEA LogisticPartners, an industrial and logistic facility development and operation platform backed by GLP, Logos and GAW_NP have catalysed demand for logistics facilities, particularly in Bac Ninh, Thai Nguyen and Hai Phong. Other locations, such as Bac Giang, Vinh Phuc and Hung Yen Provinces have also seen increased demand. Hung Yen boasts of several advantages such as proximity to Hanoi, accessibility to key manufacturing clusters and developed infrastructure, such as National Road 5B which links Hanoi to Hai Phong, as well as available land and lower costs.

While the Northern warehousing market is several times smaller than those in the South, the surge

Independent Market Research

Vietnam by Cushman & Wakefield Vietnam Co., Ltd.

in manufacturing supported by developed infrastructure is expected to accelerate market growth. Key intersections along routes and the border gates with China will become key logistics nodes once the tier-1 areas mature. There are plans to develop two large Inland Container Depots ("ICDs") in the west of Hanoi in Duc Thuong District (Hanoi) and in Son Loi District (Vinh Phuc Province), along the Hanoi-Lao Cai Border Gate highway. The current shortage of available warehouse space still presents ample opportunities for logistics development at more attractive rental rates, thereby attracting more investments to the north.

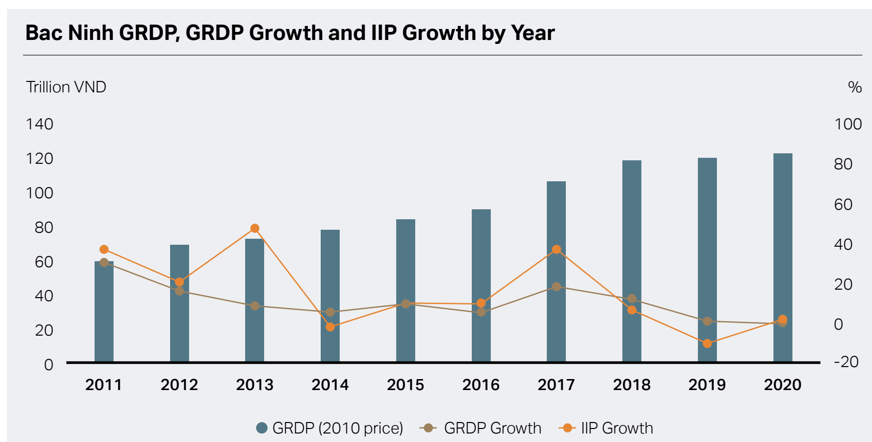
This report describes the respective warehouse markets in Bac Ninh and Binh Duong.

BAC NINH

Economy

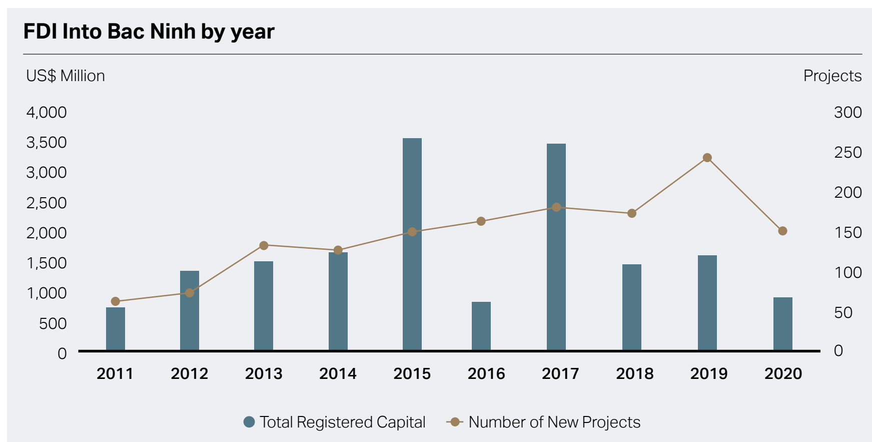
Bac Ninh's economy expanded rapidly during 2015 – 2018 driven by investments from large manufacturing companies. However, it experienced a considerable decline in gross regional domestic product ("GRDP") growth in 2019 to only 1.1% due to weak phone and accessories production, particularly from Samsung Electronics and Samsung Display. In 2020, with the onset of the Covid-19 pandemic, the province continued to post modest growth of only 1.4%, although the industrial sector has shown signs of recovery with the Index of Industrial Production ("IIP") expanding 2.9%.
(See Exhibit 1)

Exhibit 1



Source: Bac Ninh Statistics Office

Exhibit 2



Source: Bac Ninh Statistics Office, MPI

Despite sluggish growth in recent years, Bac Ninh remains one of the largest industrial hubs of Vietnam and among the leading investment destinations in the North. Due to sustained inflows of FDI, development of domestic enterprises, improvement of business environment as well as rising labor productivity, the outlook for the provincial economy is expected to remain positive.

FDI is considered the main driver of economic development in Bac Ninh. A favorable geographical position, abundant labor force, good infrastructure for production (15 industrial parks in the province) and support from government policies have made the province an attractive investment destination for foreign investors. In 2020, the province attracted total registered capital of US$901.2 million, down 43% year-on-year ("YoY") mainly due to the impact from the pandemic and ranked 8th nationwide. As of December 2020, Bac Ninh's total FDI capital of effective projects to date is ranked 7th amongst 63 provinces/ cities nationwide.
(See Exhibit 2)

Bac Ninh is one of the most attractive provinces for investment, ranked 4th in the Provincial Competitiveness Index ("PCI") 2019 with a total score of 70.79/100 with notable improvements in land access, transparency, time requirement, informal costs, fair competition, business support services and legal procedures.

Warehouse market

With the presence of established developers, competitive rents, favorable incentives, developed infrastructure, strategic location, strong inflow of FDI and manufacturing growth, Bac Ninh has established a flourishing industrial market that is

home to many MNCs like Samsung, Canon, Foxconn, LG and most recently, Goertek. Nearly 96% of the province's cumulative registered FDI capital as of 2020 came from manufacturing, which drives demand for industrial and warehouse space.

Consequently, Bac Ninh has seen a growing presence of big 3PLs such as LogisValley, DB Schenker, DHL, Linfox, FM Logistics, ALS and Maersk. Many Korean and Japanese 3PLs have also followed MNCs like Samsung, Canon and Foxconn to set up operations in the province.

Currently, warehouse supply in Bac Ninh has exceeded 570,000 sq.m, accounting for more than half of the nearly one million sq.m warehouse space in the northern key region. There was hardly any growth in new supply during 2020 as projects scheduled for completion in 2020-2021 were delayed due to the pandemic. Only FM Logistics moved to their own distribution centre ("DC") phase 1 of 23,000 sq.m. The most popular districts for logistics are Tu Son for distribution, Yen Phong for consolidation and more recently Thuan Thanh along National Road 17, which is close to Hanoi, Hung Yen and Hai Duong and offers more competitive land costs.

The asking gross rent of available newly built Grade A warehouse in Bac Ninh is on average US$4.00/sq.m/month or within a range of US$3.50/sq.m/month to US$6.00/sq.m/month. The maximum rent of US$6.00/sq.m/month, is similar to the rent being charged in Long Bien and Dong Anh as well as Nam Tu Liem Districts in Hanoi. In terms of rental rates, Bac Ninh could be divided into two tiers. The first tier comprise Tu Son and Yen Phong Districts, which have the highest average rents at around US$4.50/sq.m/month and are expected to rise further in 2021, while the other tier – Que Vo and Thuan Thanh Districts – offer lower rents at US$3.50 – US$3.80/sq.m/month. With more stock from reputable developers such as Mapletree, LogisValley, BWID, etc., the market average rent in Bac Ninh is expected to continue rising in the next 3 years with an average growth at 4% p.a. (See Exhibit 3)

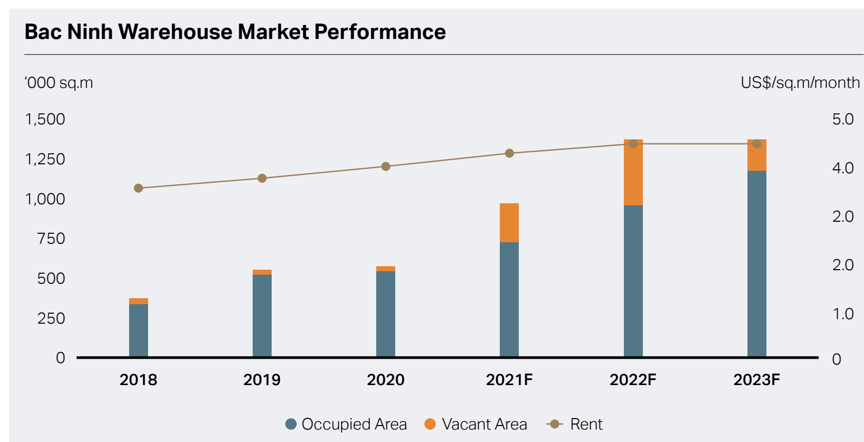
The warehouse market in Bac Ninh has a fair number of reputable developers such as Mapletree, BWID, SLP, FM Logistics, Linfox, Bac Ky and Logos which offer Grade A properties close to Hanoi and major highways, thus commanding higher rentals. The average occupancy rate remained at around 95% as Bac Ninh is a highly sought-after location. Overall occupancy rates in 2021 – 2022 are projected to be lower at 70% - 75% due to the influx of new stock coming online.

Outlook

In the next three years, the market is expected to see the completion of several new developments from both existing and new players. These include projects by Logos (48,000 sq.m) and SLP (95,000 sq.m) in Q4 2021. In 2022, projects by several new developers like BWID, Emergent and Logos will add over 400,000 sq.m in VSIP II, Yen Phong 2 and Thuan Thanh 3 expansion. In addition, 20,000 sq.m of FM Logistics phase 2 with air-conditioned chambers is expected to be completed in Q1 2022. (See Table 1)

Exhibit 3

Bac Ninh Warehouse Market Performance



Source: Cushman & Wakefield Vietnam

Table 1

Significant Future Projects

No.	Future supply	NLA (sq.m)	Expected launch
1	SLP Thuan Thanh 2	95,000	2021
2	LogisValley Phase 3	115,000	2021
3	Mapletree Phase 4	56,755	2021
4	Logos VSIP I Phase 1	47,500	2021
5	BWID Que Vo 3	20,000	2021
6	Mapletree Phase 5	71,150	2021
7	BWID VSIP II	200,000	2022
8	Yen Phong 2A	>100,000	2022
9	Thuan Thanh III expansion	100,000	2021-2022

Source: Cushman & Wakefield Vietnam

Independent Market Research

Vietnam by Cushman & Wakefield Vietnam Co., Ltd.

Demand for warehouse in Bac Ninh is expected to continue growing amid rising consumption and the expansion of retailers and FMCG. In addition, the fast-growing ecommerce and manufacturing industries will also drive warehouse demand in this province. Large investments in infrastructure and the development of industrial parks are expected to improve the province's business environment. High-tech, environmentally friendly, high value-added industries i.e. electronics, information and communication, new materials production, automation equipment and biotechnology, will become key industries thanks to the province's investment incentives.

Therefore, warehouse demand in Bac Ninh is expected to keep pace with supply despite the considerable pipeline of new supply. For example, LogisValley Phase 1 & 2 (completed in 2018) have achieved full occupancy while Phase 3 (expected to complete in 2022) is estimated to be 20% pre-committed. On average, quality warehouses are able to achieve full occupancy within 3 to 6 months after completion. Occupancy rates are expected to remain healthy while rentals are expected to increase steadily due to the increasing presence of reputable developers and sustained demand.

BINH DUONG

Economy

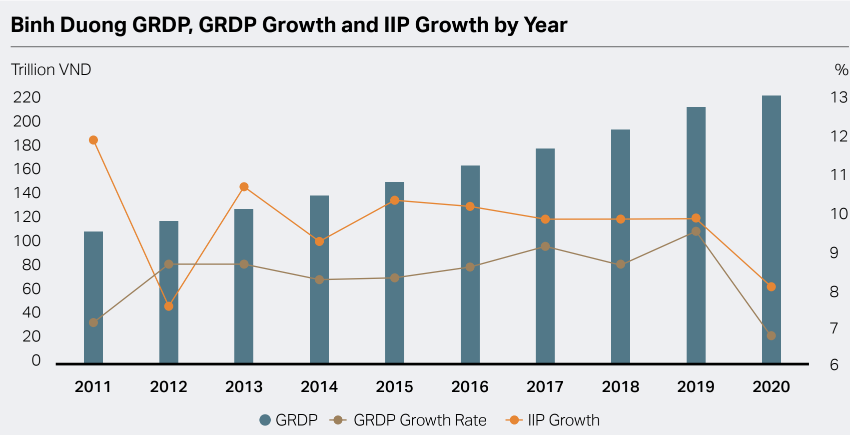
Over the last decade, Binh Duong Province, one of the largest industrial hubs in the country, has become a tour de force of the Southern Key Economic Region. Despite the onset of the Covid-19 pandemic, Binh Duong managed to sustain relatively stable economic growth in 2020, outperforming most other cities/ provinces due to strong industrial development.

Binh Duong's GRDP grew by 6.8% in 2020, lower than the 7.0% - 9.5% achieved from 2011 – 2019 due to the Covid-19 pandemic. Industrial and construction continued to be the leading sectors accounting for approximately 66% of total GRDP with IIP growing by 8.0% in 2020. (See Exhibit 4)

FDI is a significant driver of socio-economic development in the region. Despite disruptions caused by the pandemic in 2020, the province attracted total registered capital of US$1.9 billion with 133 newly FDI projects, down 45% YoY mainly due to the Covid-19 pandemic but still among the top 5 destinations in attracting foreign investments. As of 2020, the province ranked 3rd nationwide with 3,932 effective projects with a total investment capital of US$35.5 billion, after Hanoi and HCMC. (See Exhibit 5)

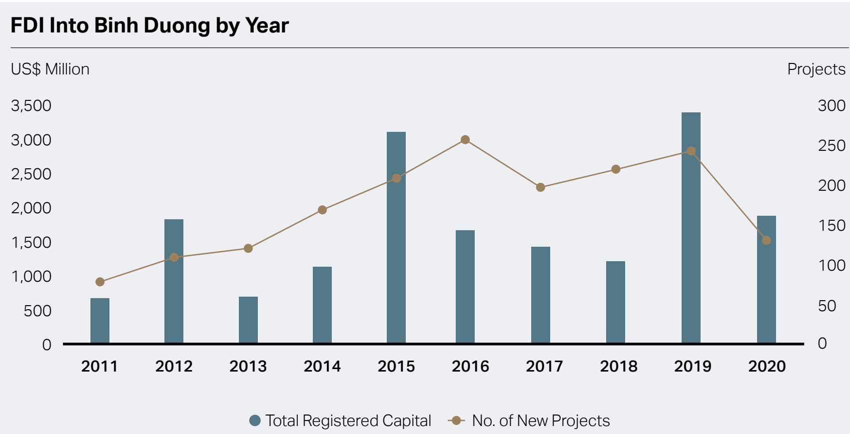
Furthermore, the province is transforming its economy by focusing more on service industries, high-tech production and sustainable urbanisation to capitalise on the Industrial Revolution 4.0 wave. This will boost global economic cooperation and attract more investments into the province.

Exhibit 4



Source: Binh Duong Statistics Office

Exhibit 5



Source: Binh Duong Statistics Office, MPI

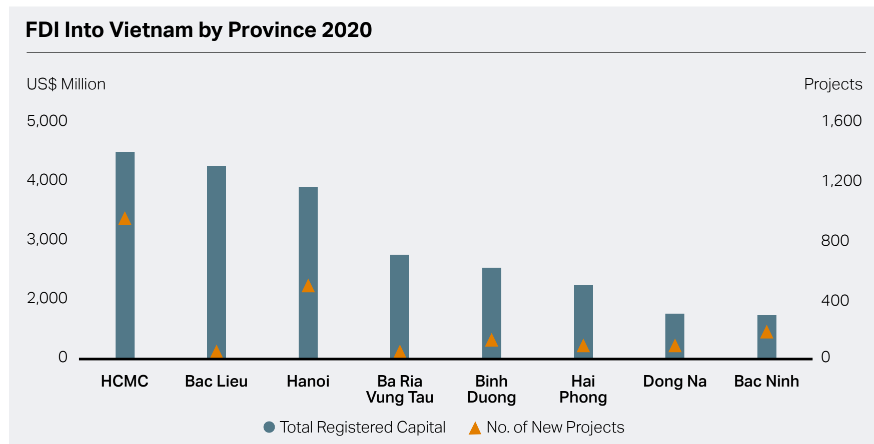
In 2019, Binh Duong ranked 13th nationwide on the PCI with a score of 67.38/100, ranking 1st in the Southeast Region. The province is scored high in terms of land access, labor training, time cost and market entry. (See Exhibit 6)

Warehouse market

Accounting for about half of the total supply in the South, Binh Duong is the largest warehouse market with a total of over 2,080,000 sq.m and is expected to gain an incremental 400,000 sq.m more in the next 12-24 months. Over the last 10 years, warehouse supply has increased by 7% per annum on average and from now to 2022, it is expected to reach 10% per annum due to its established infrastructure and strategic location.

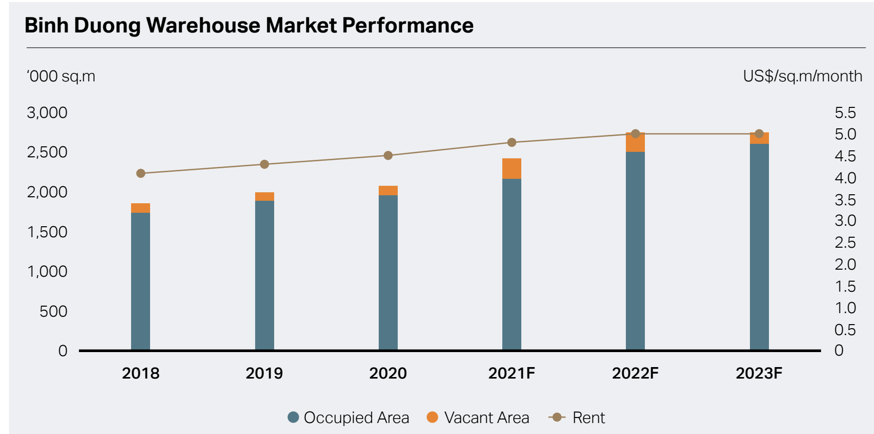
With its proximity to HCMC, there is a strong demand for warehouse space to support ecommerce and foreign/local retailers. Despite disruptions caused by the pandemic in 2020, export growth is expected to be positive in 2021, which provides further impetus for warehousing to serve inbound/outbound goods and consolidation for manufacturing. Most manufacturing sites are now fully occupied and earmarked for expansion while warehousing requirements are outsourced.

Exhibit 6



Source: MPI

Exhibit 7



Source: Cushman & Wakefield Vietnam

Despite a large addition of supply in the last three years, the overall occupancy rate of warehouses in Binh Duong has remained at a healthy level of 94%, indicating sustained market demand in this region. However, huge potential supply in the next 3 years is expected to weigh on overall occupancy slightly but expected to still remain healthy at above 90%. (See Exhibit 7)

In terms of rent, the northern submarket including Thu Dau Mot City, Ben Cat and Tan Uyen Towns offers average rent of US$3.80 – US$3.90/sq.m/month. Rents in this area are relatively lower, catering to clients that are more concerned about price points than specifications. Meanwhile, the southern submarket in Di An and Thuan An Cities offers higher average rent of US$5.00 -US$5.50/sq.m/month as they are the most sought-after areas, being close to HCMC, as well as the current and future international airport and seaport. There are also a number of ICDs in these areas which support and improve the efficiency of goods flowing to and from the ports. Overall, the market average rent in Binh Duong has appreciated by around 5% p.a. in the past 3 years and is expected to continue rising by around 4% p.a. in the next 3 years upon completion of new stock from reputable developers.

Large warehouse providers like Transimex, Gemadept, Kerry and TBS bundle 3PL services with warehousing and do not quote for only leasing of warehouse space. This has contributed to a scarcity of warehouse space and rising rentals. Likewise, there is a scarcity of cold storage facilities. These facilities are all operating as at full capacity due to a strong demand from various sectors.

Outlook

In 2021, a total supply of nearly 340,000 sq.m is expected to be introduced to the market. Following these developments, the logistics market could see more brownfield developments in Song Than, Di An and Thuan An areas. As logistic clusters are

Independent Market Research

Vietnam by Cushman & Wakefield Vietnam Co., Ltd.

moving farther out from the city, 3PL players like FM Logistics could start to build its distribution centres ("DCs") in VSIP II-A and even VSIP III, once land is ready to be handed over by 2022. This is due to more demand for logistics services, which will be driven by the expected expansion of the manufacturing industry in late 2022 to middle of 2023. While still unconfirmed, TTC Group has announced plans for 100,000 sq.m of space. (See Table 2)

More consolidation of fulfilment and DCs will be seen around VSIP II and VSIP III in Binh Duong, which are linked to My Phuoc Tan Van transportation corridor - the highway that runs through many IPs and offers direct access to National Road 1A as well as Dong Nai Port. To diversify from high demand areas that comes with high rents and land costs, occupiers and developers are increasingly showing interest in areas such as Nha Be in HCMC, Ben Luc and Can Giuoc in Long An, Nhon Trach and Long Thanh in Dong Nai.

Growing private consumption as a result of the expanding middle class and the accompanying increase in imports of consumption goods will continue to boost demand for warehouse space. In addition, ecommerce, which registered estimated growth rate of 30% YoY in revenue in 2020, remains a key demand driver. Binh Duong is the second biggest catchment market after HCMC for Tiki, Shopee and Lazada. Consolidation is going to be a trend as 3PL players such as Schenker and FM Logistics are building their own DCs. While Covid has been disruptive, business confidence is expected to return in 2022. This may result in more built-to-suit projects in the future, as compared to the current market preference for ready-built facilities.

In the next two years, the market outlook remains positive with low vacancy and high rentals expected. However, rent growth is expected to moderate due to the consolidation of scattered warehousing portfolios, in addition to the significant addition of supply from new players like Logos, JD Property, NP/ Gaw, Cainiao Alibaba and developers like Unidepot. Cross docking and built-to-suit will be the trend for the coming years. With Vietnam's strategy to develop more value added and high-tech manufacturing, the quality and ability to provide just-in-time logistics services will become increasingly critical in the future. To cope with such evolving demands from clients, local 3PL landlords could look for value added partners.

March 2021

Table 2

Significant Future Projects

No.	Future supply	NLA (sq.m)	Expected launch
1	Mapletree Phase 4 or 6	60,000	Q4 2021
2	BWID VSIP II-A	40,000	Q2 2021
3	An Binh Thu Dau	15,000 - 30,000	2021
4	BWID My Phuoc 4	160,000	Q3 2021
5	GAW NP Song Than 3	19,800	2021
6	BWID Tan Dong Hiep	58,000	2021
7	Emergent Tan Dong Hiep	30,000- 60,000	2022
8	BWID Suppliers City	158,000	2022
9	Frasers Phu Tan	~100,000	2022
10	Frasers My Phuoc 3	20,000	2022

Source: Cushman & Wakefield Vietnam

Disclaimer
The information contained within this report is gathered from multiple sources believed to be reliable. The information may contain errors or omissions and is presented without any warranty or representations as to its accuracy