Special Report
Modern Logistics and the Hong Kong International Airport Kwo Lo Wan Site

March 2018
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“Booming demand for high quality logistics space from a reviving high-end retail segment, sustained high-value regional transshipment requirements as well as the emerging e-commerce industry helped pushed modern warehouse vacancy to below 1% in 2017, despite the completion of more than 6 million sq ft of modern warehouse space since 2011. The capability of the Hong Kong logistics sector to capture a meaningful share of growing local and regional logistics demand will depend on the provision of high quality, modern warehouse facilities in strategic locations in the years to come.”

Introduction
The ‘Trading and Logistics’ industry has traditionally been one of the four pillar industries of Hong Kong, contributing 22% to local GDP in 2015, the largest contributor of any single industry. The industry was also the largest employer in Hong Kong, providing jobs for 748,300 people, or 19.8% of the total workforce in the same year.

Hong Kong has long been a regional trading and logistics hub with its strategic location as a gateway to China, its free port status and efficient customs clearance procedures and its modern and efficient container terminal facilities all contributing to the territory’s success as the world’s busiest trading port (in terms of container throughput) in the 1980s and 1990s. This was also a time when a considerable number of modern warehouses, with direct ramp access, dedicated container trailers and tractors and state-of-the-art cargo handling facilities were built, many of them in close proximity to the Kwai Chung Container Terminals.

Nevertheless, nearby ports in mainland China also began to modernize rapidly during the 1980’s, just as the costs of shipping cargoes via Hong Kong were increasing (including terminal handling charges, haulage fees and warehouse costs), and as a result Hong Kong saw a period of relative decline, finally surrendering its number one container port status in 2005. Hong Kong was ranked the fifth busiest container port in the world by 2016, behind Shanghai, Singapore, Shenzhen and Ningbo-Zhaoshan.

While container throughput still represents the bulk of total throughputs in Hong Kong, escalating costs have pushed the industry to begin to focus more on high-value, fast moving goods, many of them shipped via HKIA for regional distribution. The growth of such high-end logistics has seen HKIA ranked as the world’s busiest cargo airport from 2010 onwards, and many newly-built modern warehouses are now concentrated in the Tsing Yi area with easy access to HKIA as a result.

Modern logistics market overview
A modern warehouse typically has a ceiling height of at least 15 feet for three-pallet storage, a minimum floor loading of 200 pounds per sq ft, a floor plate of at least 50,000 sq ft and direct vehicle access to the majority of its floors.

Stock and supply
In 2017, total warehouse stock amounted to 41.2 million sq ft in terms of internal floor area (IFA). Modern warehouse stock represented 49% of total warehouse storage stock (20.3 million sq.ft. IFA) at the end of 2017, 2% (or 1.0 million sq.ft. IFA) of which was situated at the airport.

A supply surge of modern warehouse space was noted from the 80’s to the mid-90s when around 15.7 million sq ft was completed. The largest development at the time was the

SUMMARY
- The modern logistics sector has undergone a significant transformation over the past decade, evolving from servicing local trading and mass distribution requirements to more sophisticated local and regional distribution needs, and more recently tapping the vast local and cross-border e-commerce market.
- The modern logistics sector has entered into a critical stage where future demand may remain unmet if there is inadequate high quality logistics supply over the next four to five years and we believe that Hong Kong could potentially lose out to regional competitors including mainland ports and airports as a result.
- Future demand growth is expected to be largely generated by air freight, as Hong Kong International Airport (HKIA) was again ranked as the world’s busiest airport for cargo throughput in 2017 according to Airports Council International.
- With landside logistics facilities currently near full capacity and in anticipation of sustained growth in air cargo throughput over the next few years, Hong Kong Airport Authority (HKAA) has made available a site of around 5.3 hectares in the South Cargo Precinct of the Airport Island to develop a modern air cargo logistics centre.
8.16 million sq ft ATL Logistics Centre in Kwai Chung. 1999 also saw abundant supply, with 3.98 million sq ft completed in that year alone including Kerry Cargo Centre, AFFC and Global Gateway. There were few completions until the 2010s but since 2011, 6.36 million sq ft of modern warehouse supply has been developed, 5.67 million sq ft of which is located in Tsing Yi given its convenient proximity to HKIA.

Due to its strategic location and the strict control of land, airport landside warehouse supply has been rare over the past two decades, with only two projects (AFFC and Tradeport) completed in 1999 and 2002 respectively, amounting to a total of 1.76 million sq ft. With availability at the two airport warehouses remaining tight, many air freight forwarders and 3PLs have been forced to take space in the Kwai Tsing / Tsuen Wan area for consolidation and other value-added services before delivery to the three Cargo Terminal Operators.

Source:

### Demand

Modern warehouses generally report lower vacancies and higher rents than their more generic counterparts, offering a higher build quality and more convenient location, better-managed facilities and therefore appeal to larger, multinational logistics operators who can often afford to pay higher rents.

The lacklustre performance of both the retail and trading sectors over the past two years has inevitably been reflected in the logistics market. While the business of most large-scale logistics operators has remained relatively stable, a small number have experienced the impact of the recent headwinds and have needed to downsize, leading to an increase in the vacancy rate from 0% in Q4/2013 to 3.0% in Q4/2016.

With many modern warehouse landlords taking proactive measures to retain their key tenants over the past two quarters, occupancy rates have stabilized, and coupled with the gradual take-up of the new Mapletree project in Tsing Yi, overall market vacancy as well as modern warehouse vacancy fell to 1.7% and 0.8% in Q4/2017 as a result.

Q4/2017 saw a pick-up in activity in the leasing market with demand

### MAP 1

**Modern warehouse distribution, Q1/2018**

<table>
<thead>
<tr>
<th>No</th>
<th>Buildings</th>
<th>Total gross floor area (BPR) (sq ft)</th>
<th>Year of completion</th>
<th>Key tenant type</th>
<th>Developer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China Merchants Logistics Centre</td>
<td>1,743,203</td>
<td>2017</td>
<td>N/A</td>
<td>China Merchants</td>
</tr>
<tr>
<td>2</td>
<td>Mapletree Logistics Hub Tsing Yi</td>
<td>1,297,590</td>
<td>2016</td>
<td>DC / E-commerce / cold store</td>
<td>Mapletree</td>
</tr>
<tr>
<td>3</td>
<td>Asia Logistics Hub – SF Centre</td>
<td>1,102,603</td>
<td>2014</td>
<td>3PL / Express</td>
<td>SF Express</td>
</tr>
<tr>
<td>4</td>
<td>Goodman Interlink</td>
<td>1,525,058</td>
<td>2012</td>
<td>3PL / Express / E-commerce / cold store</td>
<td>Goodman</td>
</tr>
<tr>
<td>5</td>
<td>NWS Kwai Chung Logistics Centre</td>
<td>694,265</td>
<td>2011</td>
<td>Sea freight / 3PL</td>
<td>China Resources</td>
</tr>
<tr>
<td>6</td>
<td>Tradeport</td>
<td>337,358</td>
<td>2002</td>
<td>Air freight</td>
<td>CNAC, Fraport AG, HongkongLand, Schiphol Group</td>
</tr>
<tr>
<td>7</td>
<td>Kerry Cargo Centre</td>
<td>1,700,000</td>
<td>1999</td>
<td>3PL</td>
<td>Kerry</td>
</tr>
<tr>
<td>8</td>
<td>Global Gateway</td>
<td>853,050</td>
<td>1999</td>
<td>Air freight / Express</td>
<td>Goodman</td>
</tr>
<tr>
<td>9</td>
<td>AFFC</td>
<td>1,419,096</td>
<td>1999</td>
<td>Air freight</td>
<td>Sun Hung Kai</td>
</tr>
<tr>
<td>10</td>
<td>Grandtech Centre</td>
<td>988,967</td>
<td>1996</td>
<td>3PL</td>
<td>Mapletree</td>
</tr>
<tr>
<td>11</td>
<td>Ever Gain Centre</td>
<td>642,266</td>
<td>1993</td>
<td>3PL</td>
<td>Mapletree</td>
</tr>
<tr>
<td>12</td>
<td>Hutchinson Logistics Centre (HLC)</td>
<td>5,454,568</td>
<td>1990</td>
<td>Sea freight / DC / 3PL</td>
<td>Hutchinson</td>
</tr>
<tr>
<td>13</td>
<td>ATL Logistics Centre</td>
<td>8,156,684</td>
<td>1988 and 1994</td>
<td>Sea freight / DC / 3PL</td>
<td>Goodman / DP World</td>
</tr>
<tr>
<td>14</td>
<td>Sunshine Kowloon Bay Cargo Centre</td>
<td>757,973</td>
<td>1983</td>
<td>3PL</td>
<td>Strata-titled</td>
</tr>
</tbody>
</table>

Source: Buildings Department, Savills Research & Consultancy
from multiple sources taking up space in both traditional and modern warehouses. New demand was noted from new industries such as e-commerce and online gaming, while we also saw some more unusual demand from traditional industries such as banking. The world leading gaming appliance producer Razer leased 120,000 sq ft in ATL as their regional distribution centre for Asia, while Suning, which already occupies 100,000 sq ft in ATL, was reported to be keen to expand their online business by taking up more warehouse space within the same property. Meanwhile Standard Chartered Bank was reported to have leased a floor in Kerry Cargo Centre for 10 years to serve as one of its vaults, an unusual move given that most bank vaults in Hong Kong are bespoke stand-alone buildings. Wilson Logistics, which handles the storage and shipment of Gilman’s electric appliances, relocated from a warehouse in the New Territories to take up 150,000 sq ft in HLC.

Rental trends
Modern warehouse rents rose by 52% from their trough in 2003 to stand at HK$8.7 per sq ft per month in Q3/2008, commanding a 47% premium over the overall market. Warehouse rents then fell by 17% from Q3/2008 to Q3/2009 on the back of weakening demand during the Global Financial Crisis period. The strong rebound in the global economy and a booming retail sector helped push rents up by 100% from Q3/2009 to Q4/2014 while the subsequent slowdown in retail sales slowed warehouse rental growth substantially with rents rising by 4% over 2015. In order to reduce vacancy, rents in overall and modern warehouses dropped by 0.5% and 4.9% respectively during 2016 and 2017.

New logistics demand emerging
We have recently noted new logistics demand coming to the fore, most related to air cargo:
- Regional transshipment of high-valued goods
- Cross border and local e-commerce logistics
- Temperature-controlled products
- Re-exported air freight, which accounted for 43.9% of total air freight in 2016, may require landside consolidation and other value added services and thus constitutes an important demand source for airport landside logistics facilities.

Since 2004, China has been Hong Kong’s most important trading partner in terms of air cargo with mainland China representing 23.6% of the trade value of re-exports via air cargo in 2016, followed by the US (14.7%) and India (7.6%). In the first 11 months of 2017, the air cargo trade value of re-exports to China increased by 8.9%.

Cross border and local e-commerce logistics
In Hong Kong, internet retailing has been growing despite the fact that retail sales have struggled.
to the Hong Kong Trade Development Council (HKTDC), the sales value of internet retailing in Hong Kong reached HK$13.7 billion in 2016, recording a brisk CAGR of 15% per annum from 2011 to 2016.

Meanwhile, the CAGR of Hong Kong’s retail sales value stood at only 1.5% per annum over the same period. It is forecast by HKTDC that the CAGR of internet retailing in Hong Kong will reach 13% per annum over the period from 2016 to 2021, which means that internet retail sales may grow to HK$25.2 billion by 2021, further boosting e-commerce related demand for logistics facilities locally.

According to an HKTDC survey and industry estimates, Hong Kong e-commerce merchants recorded a total transaction value of HK$209 billion in 2016. It should be noted, however, that local e-commerce sales accounted for only around HK$14 billion of those sales, representing only 7% of the total transaction value.

Inbound trades and outbound trades accounted for HK$195 billion of sales in 2016, representing 93% of the total transaction value. Both inbound and outbound involves the use of e-commerce logistics, attributed to the city’s good air-connectivity. According to another HKTDC survey, 51% of total online orders were re-exported via Hong Kong, further emphasizing the territory’s significance in the e-commerce supply chain.

As a gateway to China, Hong Kong has also benefited greatly from the growth of e-commerce in the PRC. In both 2015 and 2016, the value of online retail sales of physical goods recorded around 30% growth per annum, totaling RMB 3,242 billion and RMB4,194 billion in 2015 and 2016 respectively.

The online retail sales of physical goods’ share of total retail sales of consumer goods also grew from 9.4% in 2014 to 12.6% in 2016. As online retail involves moving inventory from warehouses to physical stores and to end-customers directly, e-commerce growth in Hong Kong and China will provide strong future demand for warehouses.

**Temperature-controlled products**

Distribution of temperature-controlled goods, which include high value pharmaceuticals and health care products, are best dealt with at airport warehouses. According to market reports and government statistics, high-value pharmaceutical products handled by HKIA almost doubled between 2010 and 2016.

The wealthy and aging populations of Hong Kong and the PRD will create further demand for high-value healthcare products and thus accompanying regional distribution solutions, but government support may be needed for such regional healthcare distribution businesses to choose an airport site in Hong Kong over other regional competitors such as Singapore.
SECTOR OUTLOOK

Will Hong Kong miss the boat?

**Short-term prospects**

While general warehouse demand/supply dynamics are reversing, airport landside facilities are poised to attract new regional demand. Both the trading and retail sectors have softened in recent years, but are expected to pick up in the short term and prompt a revival in local logistics demand.

Landside logistics facilities are likely to see increasing demand from the following sectors:

1. Transshipment of high value goods, such as high end fashion, and time-critical commodities and parts of high value products, etc. We believe that an airport location would be ideal for the regional distribution of luxury items, in particular for those with critical lead times requiring close proximity to the airport.

2. More cross-border e-commerce, a fast-growing segment within the e-commerce space, and Mainland buyers who are becoming more aware of product quality and authenticity, will mean that online products handled by Hong Kong’s reliable and efficient logistics service providers are increasingly well regarded by PRC online purchasers.

3. Regional distribution of temperature-controlled products are also best handled at airport warehouses, including pharmaceuticals and healthcare products.

We believe that existing warehouses and logistics facilities on the landside of the airport may not currently have the capacity (full occupancy) or built-in features/services to fulfill this type of demand. It is also true that upcoming warehouse supply between 2018 and 2021 will amount to 2.2 million sq ft gross which equates to 5.3% of existing warehouse stock, and will come from three projects located in Kwai Tsing/Tsuen Wan and a project in Tuen Mun. Nevertheless, no near term supply is earmarked exclusively to serve air freight and related demand.

Air freight is forecast to be one of the significant drivers of future logistics demand, and there will therefore be a genuine need for a specialized facility to support further growth at the HKIA. In the short run, the overall warehouse market will meanwhile experience moderate growth given stable economic conditions in contrast to modern warehousing which will see more sustained demand from air freight and high value-added goods and services.

We expect to see the rental premium in the modern warehouse sector persist as more air freight and high value-added logistics operators relocate to more modern warehouses due to the problem of ageing existing stock.

**Medium to long term prospects**

Future infrastructure initiatives are expected to enhance Hong Kong’s integration with China, the Pearl River Delta and the Greater Bay Area in the longer term:

- Hong Kong’s container terminals will continue lose their relative importance as a regional transshipment hub serving China as more sea freight is expected to be shipped to various Chinese ports directly.

**Future infrastructure development**

Source: Savills Research & Consultancy
SECTOR OUTLOOK

Will Hong Kong miss the boat?

- The medium term prospects for the local logistics sector will be focused more on high value goods shipped through the airport into China, in particular southern China. Hong Kong’s and HKIA’s reliability in handling such high value goods in an efficient manner are still highly regarded by Mainland purchasers.

- Free port status, a growing e-commerce handling capability, security and reliability are key elements for Hong Kong to be a key transshipment location for e-commerce and high value products, such as the pharmaceutical products and medical devices demanded by China.

- The gradual completion of logistics related infrastructure from 2018 to 2023 will further encourage more cross-border transshipment of high value goods and commodities.

Given the completion of logistics related infrastructure and government’s long-term development plans, we expect to see moderate long-term rental growth in the sector. The gradual completion of logistics related infrastructure, such as Hong Kong-Zhuhai-Macau Bridge and the Third Runway System, will boost logistics flows between Hong Kong and southern China. Other long-term development plans such as the Hung Shui Kiu New Development Area and the Western Economic Corridor will also drive regional demand.

Supply up to speed?
There will only be three new logistics facilities coming on stream over the next five years with none of them specifically tailored for the emerging new logistics demand. The Hung Shui Kiu New Development Area in the north west New Territories will provide over 46 million sq ft of industrial / warehouse space in the long-term but most will be in the form of multi-storey industrial and warehouse buildings catering for more basic logistics operations currently occupying warehouses on brownfield sites elsewhere in the New Territories. There are concerns that Hong Kong could lack suitable logistics facilities to match future demand for low volume, high-value air cargo growth.

The new airport site a possible solution
Given the anticipated new logistics demand, HKAA has made available a site of around 5.3 hectares at the South Cargo Precinct of the Airport Island to develop a modern air cargo logistics centre, with an expected gross floor area of approximately 4 million sq ft, making it the third largest modern warehouse in Hong Kong. The project will boost the supply of premium warehouse space in the city by 15% to 20% when it begins operation in 2023.

In order to meet the requirements of potential new logistics demand from the regional distribution of high-value goods, cross-border e-commerce and high-end temperature-controlled products, HKAA expects the premium warehouse on the site to be built to a high specification, which requires ramp access to most floors, a ceiling height of at least 6.5 meters, and a floor loading of at least 350 pounds per sq ft to enable the use of large-scale robotics and automation.

Together with comprehensive infrastructure programmes on and around the Airport Island, the launch of this premium logistics site at the HKIA should attract keen interest from both local and international logistics developers and operators who want to be invested in the long-term prospects of the airport logistics sector.
New Premium Warehouse Set to Boost Hong Kong Air Cargo Growth and Facilitate E-commerce

The New KLW warehouse will facilitate the blooming cross-border e-commerce and related businesses.

The tight supply of warehouse space and the e-commerce boom have created strong demand for premium warehouses in Hong Kong. A new facility located at Kwo Lo Wan (KLW) in Hong Kong International Airport’s (HKIA) South Cargo Precinct will boost the supply of premium warehouse space in the city by 15% to 20% when it commences operation in 2023.

Reinforcing Hong Kong’s air cargo leadership
Airport Authority Hong Kong (AIAHK) recently invited tenders for the development and operation of the KLW premium warehouse with the objectives of reinforcing Hong Kong’s air cargo leadership, promoting trade and stimulating additional air cargo flow. “Ever since 2010, HKIA has been the world’s busiest cargo airport. With a strong year-on-year growth of 9.2%, HKIA handled 4.94 million tonnes of cargo in 2017. Counting the amount of airmail handled together, the total cargo throughput of HKIA has exceeded 5 million tonnes in 2017 - the first airport in the world to reach this milestone,” explains Cissy Chan, Executive Director, Commercial, AIAHK.

“HKIA contributes significantly to the Hong Kong economy as it supports the territory’s four pillar industries, which account for 57% of GDP,” continues Chan. “Even though air cargo accounts for less than 2% of Hong Kong’s total cargo throughput by volume, it made up more than 40% of total external trade by value in 2016. The HSGRAR Government places a great deal of importance on air cargo development, which was highlighted in the 2017 Policy Address.”

One of the largest premium warehouses in Hong Kong
Hong Kong currently offers 40 million sq ft of warehouse space, with half serving the premium category. But with occupancy averaging 90%, this supply – especially in the premium category – is very tight.

The new KLW premium warehouse will occupy a site of 5.3 hectares and have an expected gross floor area of approximately 4 million sq ft, making it the third-largest warehouse in Hong Kong.

“Our specifications for this facility are very high,” says Chan. “We want to future-proof it against long-term logistics demands. As such, we require ramp access to most floors, a ceiling height of at least 6.5 metres, and floor loading of at least 350 pounds per square foot to enable the use of large-scale robotics and automation. We believe this is a welcome move for the logistics industry.”

Facilitating the growth of e-commerce
E-commerce retail sales have grown exponentially in the past few years, and this momentum is expected to continue. In particular, the boom of cross-border e-commerce in China has created enormous opportunities for express and small parcel air freight delivery. According to a study conducted by Seabury Consulting, cross-border e-commerce in China generated an estimated 1.28 million tonnes of air cargo in 2016.

“We aim to capture more cross-border e-commerce and its related businesses with the opening of this new premium warehouse,” says Chan. “Online shopping is all about instant gratification, so delivery time is of the essence. Hong Kong is strategically located in the centre of Asia, with half of the world’s population within a five-hour flight. We are a major transportation hub offering an excellent flight network serving 220 destinations. Our proximity to the Pearl River Delta and Greater Bay Area, especially with the imminent opening of the Hong Kong-Zhuhai-Macao Bridge located adjacent to the KLW warehouse site, makes for even speedier delivery. Adding to that competitive edge is our efficient 24-hour customs clearance service that expedites the entire process.”

Ensuring temperature-controlled shipment of high-value air freight
In July 2017, the Cathay Pacific Group, three cargo terminal operators and three ramp handling operators achieved prestigious IATA CEIV Pharma accreditation, a globally recognised and standardised certification for pharma air freight shipments. HKIA has been recognised as an IATA CEIV Pharma Partner Airport.

“We are one of the few airports to achieve this accreditation airport-wide,” says Chan. “This means we have the expertise to handle the entire pharmaceutical transportation process end to end, putting us in position to capture a larger share of this rapidly growing market where efficiency and high standards are paramount. In addition to pharmaceuticals, the new premium warehouse will also attract other temperature-controlled air freight goods such as fresh produce.”

International players invited to tender
Hong Kong’s strategic geographic location, efficient customs clearance and free-port status make it advantageous for companies to set up their regional distribution centres with value-added services at the KLW warehouse. “Hong Kong is an important international gateway to China and a springboard to regional markets,” says Chan. “Our connectivity will further increase with the commencement of the Three-runway System in 2024. We also believe HKIA will play a significant role in Hong Kong’s contribution to the national Belt and Road initiative.”

“We invite Hong Kong and international developers with relevant experience and strong track records to tender for the development and operation of the KLW premium warehouse,” Chan continues. “Tenders will be judged on multiple factors rather than bid price alone. We expect bidders to have a vision for the future of the air cargo and logistics industry, and a plan to realise their vision with tailored design for the warehouse and its facilities. This is a strategic development to increase air cargo tonnage at HKIA and further consolidate our leading position in the global air cargo industry. Therefore, we will place great emphasis on the development proposals,” concludes Chan.