Marketing Material

# CHINA REAL ESTATE: RIDING THE LOGISTICS WAVE

How investors could perceive the logistics story in China?

**IN A NUTSHELL**

_ Rising affluence, higher ecommerce adoption and ongoing government infrastructure initiatives are propelling logistics demand in China.
_ Renewal of older stock and new logistics constructions are required to address the shortage of prime modern warehouse facilities.
_ Investors seeking opportunities could focus on Tier 1 and 2 cities and neighbouring satellite cities underpinned by stronger demand-supply fundamentals.

# 1 / Introduction

In recent years, the logistics real estate sector in China has experienced a record wave of domestic and foreign capital flows. This has kick started a modernization phase similar to that happening in other parts of Asia Pacific, such as in South Korea. There is a visible shortage of newer logistics facilities equipped with higher grade specifications, with the market relatively non-institutionalized and dominated by older warehouses. At the same time, the demand case for prime logistics in China continues to build on the back of rising consumption, underpinned by a growing middle-income urban population, strong ecommerce adoption, national-level logistics infrastructural upgrades as well as emerging uses for differentiated facilities such as cold chain logistics and automated warehouses.

Notwithstanding the positive outlook for nation-wide logistics demand, market fundamentals vary widely by geographical location. Metropolitan regions such as Yangtze River Delta, Jing-Jin-Ji and Greater Bay Area, serve a deeper and more affluent consumer base, hence attracting strong competition from occupiers for a limited supply of prime warehouses. This has supported stronger rental growth and higher occupancy levels relative to other cities, particularly those in the west and northeast regions where demand growth potential is still catching up with excess speculative supply.

Over the next few years, China's logistics sector should present attractive risk-adjusted returns relative to the domestic office and retail sectors as well as other logistics markets in Asia Pacific. Investors should carefully evaluate their market selection criteria and management capabilities of potential partners to manage their risk exposure.

# 2 / Macro Drivers

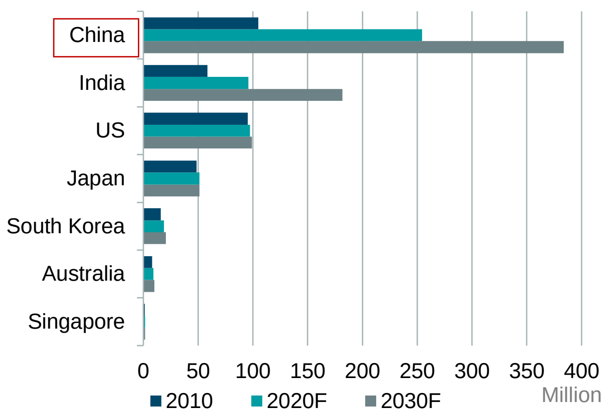
Driven by high GDP growth and surging disposable incomes, private consumption accounted for almost half of China's GDP growth from 2015 to 2019. The rise of Chinese consumerism as a global spending force in recent years has led to major shifts in retail marketing strategies, technological innovation and product accessibility catering to both bricks-and-mortar and online consumption patterns. Fuelling the rapid expansion of logistics networks across China and logistical needs from manufacturers, retailers, third party logistics providers as well as ecommerce players, we expect the following major drivers to underpin the positive logistics demand outlook in China:

### Rising Middle-Income Population

Over the past decade or so, rising urbanization and strong gains in real income have remained critical in driving the rapid growth in China's middle-income population. Going forward, China's latest five-year plan outlines a key long-term target of raising the urbanization rate from the current 60% to 75% by 2035. These same factors are expected to continue to drive the middle-income segment from an estimated 254 million households in 2020 to 383 million by 2030. This increase of 130 million households alone exceeds the entire middle-income segment in the United States.

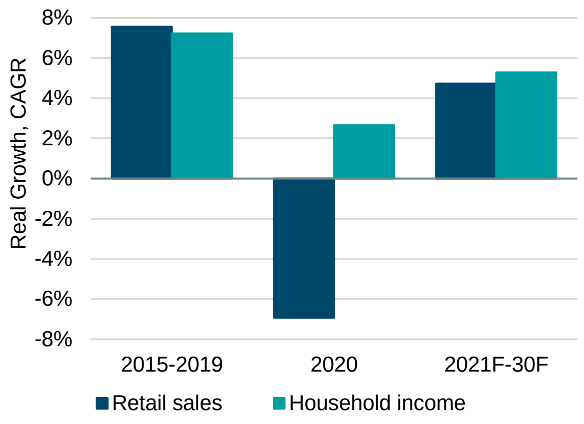
The outbreak of COVID-19 did disrupt business operations and consumer spending, however following an acute downturn in the first half of 2020, retail sales have rebounded back into positive territory since the second half of 2020. Long-term the Chinese central government remains committed in its plans to steer the economy away from the investments/exports-led growth model towards domestic consumption – which currently at 39% of total GDP remains relatively low compared to global peers. Overall, these factors are expected to underpin real retail sales growth of approximately 5% per annum over the next ten years.

NUMBER OF MIDDLE-INCOME HOUSHOLDS BY COUNTRY




Source: DWS, Oxford Economics as of March 2021

CHINA RETAIL INDICATORS




Source: Oxford Economics as of March 2021

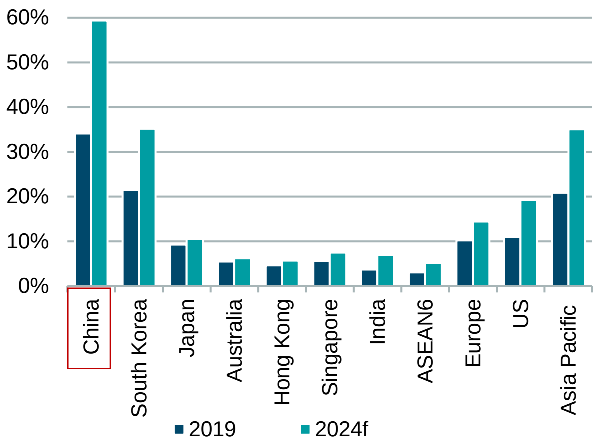
Middle-Income Households defined as those earning between US$20,000 to US$200,000 in PPP constant 2015 prices.
Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

### Ecommerce Retail

The rapid development of China's ecommerce retail market has been well observed. Based on data from eMarketer, ecommerce sales in China quadrupled between 2015 to 2020, while the addition of 300 million online consumers drove the proportion of digital buyers (internet users who purchased online at least once during the year) upwards from 35% to 65% in the same period. China currently constitutes the largest ecommerce market in the world with online sales totalling US$2.2 trillion in 2020, accounting for over half of global ecommerce sales, and is projected to continue growing at 12% per annum over the next 3-4 years. The ecommerce penetration rate in China, currently over 30%, is also one of the highest globally.

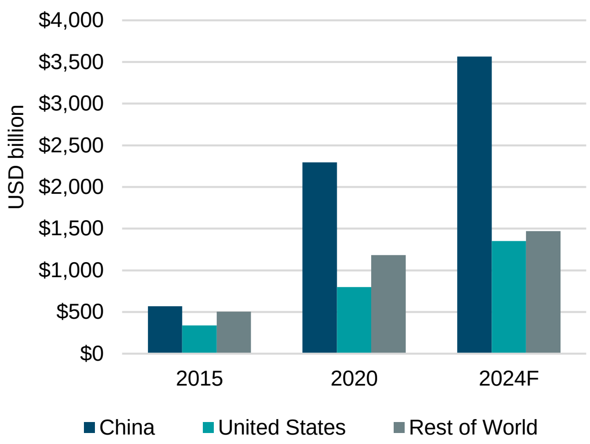
Alibaba's Singles Day sale is a testament to China's strong ecommerce appetite. The world's largest online shopping event, which already far outpaces Black Friday and Cyber Monday in the United States, saw record sales of US$74 billion in November 2020 – almost double the previous year's figure.

**ECOMMERCE PENETRATION BY COUNTRY**




Source: DWS, eMarketer as of March 2021

**ECOMMERCE RETAIL SALES BY LOCATION**




Source: DWS, eMarketer as of March 2021

Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

A multitude of drivers underpin this trend:

_ **Strong digital ecosystem**: Robust ecommerce business model pioneered by Alibaba, subsequently rivalled by its competitors including JD.com, combines online marketplace with data analytics, payments solutions and logistics capabilities which seamlessly connects local and international merchants to millions of consumers. Innovative digital payments such as Alipay and WeChat Pay offer low merchant fees, ease of accessibility and integration with online platforms, propelling China into a cashless society in recent times.

_ **Rising smartphone adoption**: Consumers, particularly those in lower-tier cities connect online primarily through smartphones instead of personal computers. Mobile ecommerce accounted for 82% of China's ecommerce sales in 2020, much higher than other countries such as U.S (40%), Japan (46%) and Australia (41%). A major Mcommerce driver is "'Super Apps" such as WeChat which combines messaging, social media, entertainment, payments and shopping into one single app, providing integration into consumers' lifestyles.

_ **Improving customer experience**: At the same time, the logistics operating model is changing rapidly to cater to growing Chinese consumers' expectations of higher quality online-to-offline shopping experiences and faster delivery times. Some examples include Alibaba's Freshippo, which in 2016 launched a new retail concept of fresh produce delivery within 30 minutes of online orders, while major competitor JD.com provides within 24-hours delivery for at least 90% of its orders. This spurred demand for last-mile delivery with urban logistics using smaller warehouses in downtown areas to achieve high turnover rates and improve delivery efficiencies.

## Cold Chain Logistics

Underpinned by rising incomes and higher consumer expectations towards product freshness and quality, the fresh food ecommerce market had developed rapidly at 37% CAGR from 2015 to 2019, reaching a market size of US$45 billion, yet fresh grocery ecommerce penetration remains relatively small at 5.6%. The advent of COVID-19 accelerated the growth of the industry even further, with online grocery sales in China rising by more than 130% year-on-year in the first half of 2020, while anecdotal evidence suggests that the shift in consumption patterns is likely to stay even post COVID-19 as consumers become increasingly receptive to online buying methods.

The impact of COVID-19 has also extended to the rising demand for vaccine storage in the immediate term, while higher healthcare levels and stockpiling requirements for medical supplies and pharmaceutical medicine are expected to drive demand for cold chain logistics and warehousing in the long term.

### Infrastructure Upgrades

Though the logistics transportation sector in China has developed rapidly over the past decade, it remains behind compared to global developed markets. Based on the World Bank's Logistics Performance Index (2018), China is ranked 26th in terms of overall trade logistics performance, behind Japan (5th), Singapore (7th), Hong Kong (12th), Australia (18th) and South Korea (25th) with similar rankings in delivery timeliness as well as quality of logistics services.

The Chinese government has currently prioritised the following macro-level objectives for the country: achieving a lower albeit sustainable GDP growth, focusing on growth quality, improved urbanization and bridging the urban-rural inequality gap. This is evidenced by the recently rolled-out 14th five-year plan (2021-2025), with a high-level vision of developing a national comprehensive transport network through the construction of 700,000 km of railroads, roads, airports and commute hubs, and creating a modern logistics network of 120 national logistics hubs by 2035. This is in line with the government's objective to bring down the country's logistics costs from 15% of GDP in 2019 to 12% by 2025, as well as improving the efficiency of parcel delivery timings in China (within 1 day), neighbouring countries (2 days) and major global cities (3 days).

Combined with the current deployment of 5G networks and promotion of digital technologies, these new infrastructure initiatives are expected to improve to increase both online and offline consumption, particularly in the less developed lower-tier cities in central and western China.

# 3 / Logistics Real Estate

### Major Distribution Clusters

China is a diverse country with 613 cities comprising a population of 1.4 billion people, with four main economic hubs – Yangtze River Delta (Greater Shanghai), Jing-Jin-Ji (Beijing-Tianjin), Pearl River Delta (Guangdong) and West China (Chengdu-Chongqing), collectively comprising more than half of China's total GDP. Geographically, each of these hubs comprise a Tier 1 economic centre accompanied by smaller neighbouring Tier 2 and Tier 3 cities, with each cluster containing populations of around 50 to 120 million residents.

TOP CHINESE CITIES RANKED BY GDP (2019)


Source: DWS, CEIC, as of December 2020

The satellite cities have grown rapidly driven by strong spill-over demand from the larger Tier 1 markets, benefiting from infrastructure investments and limited land availability. Beijing is an example where limited industrial land supply due to government restrictions spurred the development of distribution hubs in the outer surrounding locations such as Langfang and Wuqing, where the likes of Amazon China, Taobao and JD.com base their operations in northeast China.

Given the varying stages of economic maturity of each city, it is not surprising to note the divergence in logistics performance within China. The more developed Jing-Jin-Ji, Yangtze River Delta and Pearl River Delta clusters have benefited from higher levels of infrastructural developments such as extensive highways and railroads, as well as higher leasing demand from logistics occupiers targeting the more populated and densely packed consumer bases in these areas.

### Limited Prime Stock

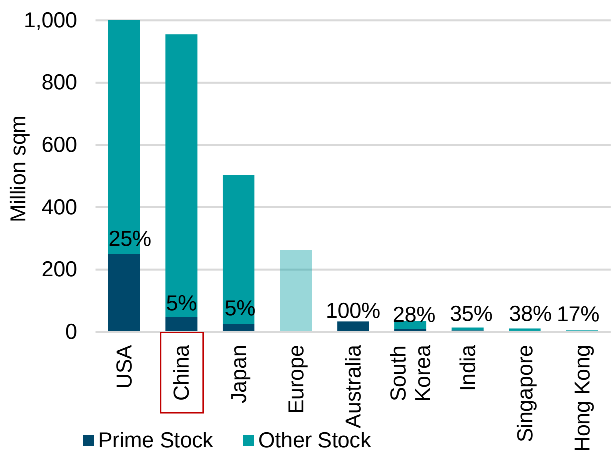
Notwithstanding the positive demand outlook, the lack of availability of prime modern warehouses has posed challenges for logistics operators and manufacturers. One major reason is the low supply of logistics land and construction permits, often constrained by local district authorities who favour commercial or residential developments offering higher sales and tax proceeds vis-a-vis logistics land.

In recent years, several local governments including Shanghai and Beijing have shortened the industrial land tenure from the standard 50 years to 20 years, and reduced industrial land allocations to discourage logistics developments near prime centres. Hence, access to industrial land is challenging which limits the supply of new logistics facilities, and developers often have to rely on local networks and negotiations with individual owners to secure land parcels piecemeal via secondary market sales.

Until recently, the logistics real estate sector in China could be categorised as low maturity with limited institutional participation; with the majority of logistics stock of lower specification and non-institutional grade quality, in the ownership of many smaller developers and private individuals.

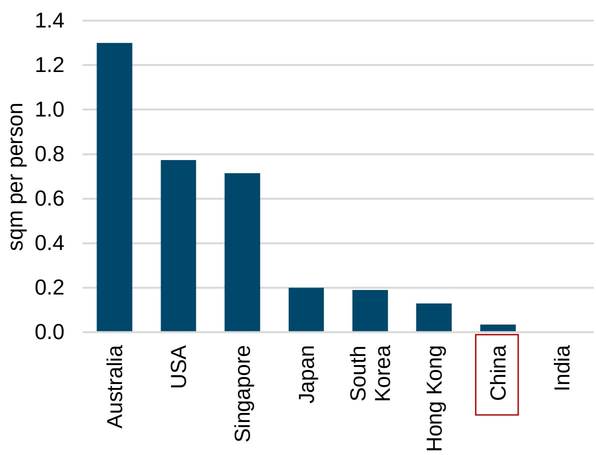
Only about 5% (albeit rising) of the approximately 1 billion square meters of logistics stock can be considered Grade A quality. Comparing across the advanced Western and Asian economies this suggests a significant undersupply of logistics facilities in China. Per capita, the level of prime logistics stock in the United States is estimated to be over 20 times higher than that in China, and similarly so for Japan and South Korea (approximately 5 to 6 times higher).

**BREAKDOWN OF LOGISTICS STOCK BY COUNTRY (2019)**




Note: Figures for Europe represent a mix of prime and other stock
Source: DWS, JLL, CBRE, as of December 2020

**PRIME LOGISTICS STOCK PER CAPITA (2019)**




Source: DWS, JLL, CBRE, as of December 2020

According to a JLL research survey,[1] 80% of investors and 3PL tenants surveyed expect growing requirements of either upgrading shift or lease expansion towards Grade A logistics over the next two to five years. To overcome the shortage of modern facilities, major ecommerce operators such as Alibaba and JD.com have turned to developing their own built-to-suit warehouses, typically ramp-up facilities comprising at least two-storeys equipped with Grade A specifications including large floor plates exceeding 15,000 square meters, high clear ceiling height and loading capabilities as well as compliance-approved safety standards.

Similarly, demand for refrigerated warehousing has gone up as fresh grocery consumption is becoming more popular, yet this is hampered by a shortage of cold chain logistics facilities (currently accounting for only 2% of the total logistics warehouse market). The cold warehousing industry remains in early development and is highly fragmented – the top ten cold chain operators hold only an estimated 17% of nationwide capacity while the majority share is owned by many small storage firms, suggesting development opportunities in this sector.

[1] JLL Research, Order delivered: China Logistics Property in the Decade Ahead, as of May 2020.

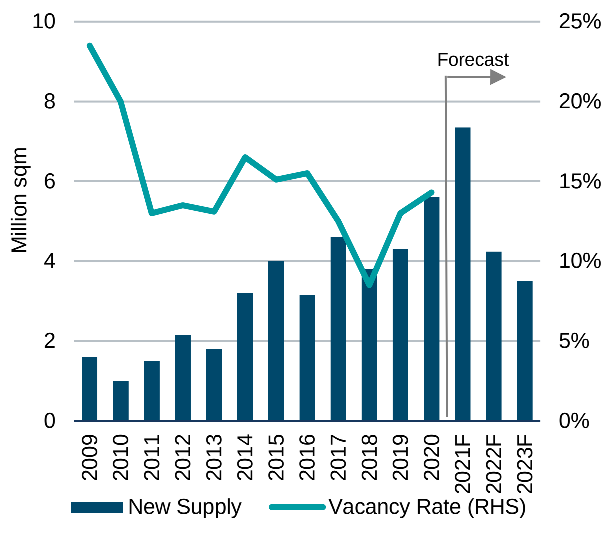
Another area of development opportunity lies in automated warehouses featuring technology-enabled storage and retrieval systems critical for meeting the higher ecommerce delivery loads and shorter delivery times to end consumers. China remains behind compared to the United States and Europe in the trend of smart warehousing, but the ecommerce giants are now making significant investments into this space. For instance JD.com currently operates 30 "Asia No. 1" automated logistics parks serving as large-scale fulfilment centres. According to the company these facilities are up to ten times more efficient than traditional warehouses. With ecommerce logistics likely to grow faster than traditional logistics, more automated warehouses would be required to meet the rising demand.

## Market Fundamentals

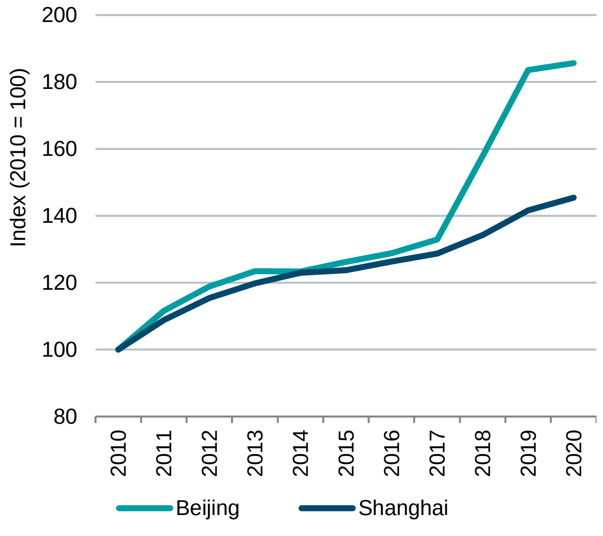
Recent years have seen a wave of new construction supply which were mostly met by rising market demand. The nation-wide prime logistics vacancy rate is currently around 15%, but this varies widely across the different cities – Tier 1 locations generally face lower vacancy levels, such as Beijing and Shenzhen (3%), Shanghai (8%) and Guangzhou (13%), while vacancy rates are the highest in northeast China including Dalian (46%), Shenyang (27%) and West China including Chongqing (33%).[2]

The Tier 1 cities of Beijing and Shanghai have benefited from strong logistics rental performance with annual growth of 6.4% and 3.8% over the past decade, driven by retail activities and leasing demand for prime warehouses. This is particularly the case in Beijing, where rents shot up over a short period during 2018-2019 due to a structurally undersupplied market with tight vacancy, though rental growth has since eased in 2020 due to disruptions relating to COVID-19. In contrast, logistics rental growth in northeast and west China has been flat or even negative in recent years, as occupier demand is growing but yet to catch up with the surge in new construction following recent years of over-building in these areas.

**CHINA PRIME LOGISTICS SUPPLY AND VACANCY RATE**




**PRIME LOGISTICS RENTAL INDEX BY CITY**




Source: DWS, CBRE, as of January 2021

Source: DWS, JLL, as of January 2021

Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

We expect the strong leasing momentum for prime warehouses in core locations. However the pace of rental growth in some locations is likely to be below historical trends, as the incoming wave of new supply including the ongoing relocation of big ecommerce players (Alibaba, JD.com) to built-to-suit facilities alleviates some of the pressure on rents. Overall, the positive demand outlook for prime warehousing is forecast to drive annual rental growth of 2.5% - 3% in Tier 1 locations.

[2] CBRE Research, January 2021

# 4 / Capital Market Trends

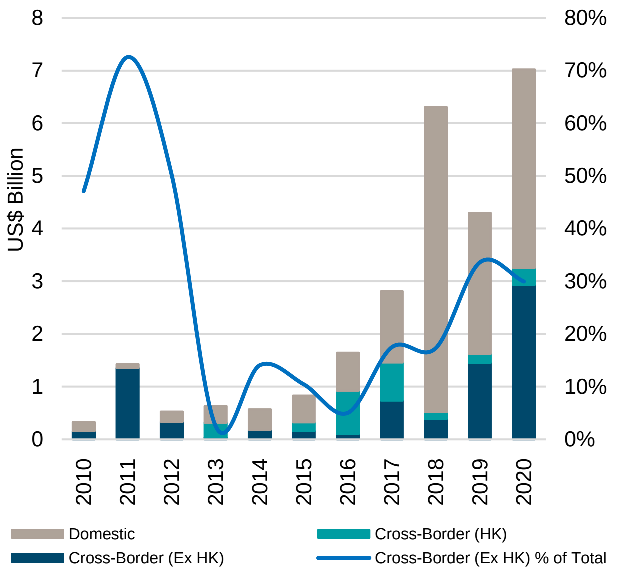
Investment demand for warehouses in China has picked up significantly in recent years, as evidenced by the record high logistics transaction volume totalling US$7 billion in 2020. While domestic investors continue to dominate deal volumes, there has been a noticeable upswing in participation from cross-border investors including asset managers, private equity funds, sovereign wealth funds as well as foreign REITs.

Despite the recent pick-up in logistics transaction volumes, deal availability of modern high quality warehouses remains limited given the low investable stock available and most owners' preference for holding long term. Investors are often limited to private off-market opportunities from forced sales or owners pursuing asset light strategies through sales-and-lease back transactions.

As such, often foreign investors have to adopt build-to-core strategies through partnerships and joint ventures with experienced developers to gain access to investment grade stock. Meanwhile, keen interest from both domestic and foreign institutional investors has seen a wave of capital commitments into China-focused logistics funds in recent times.

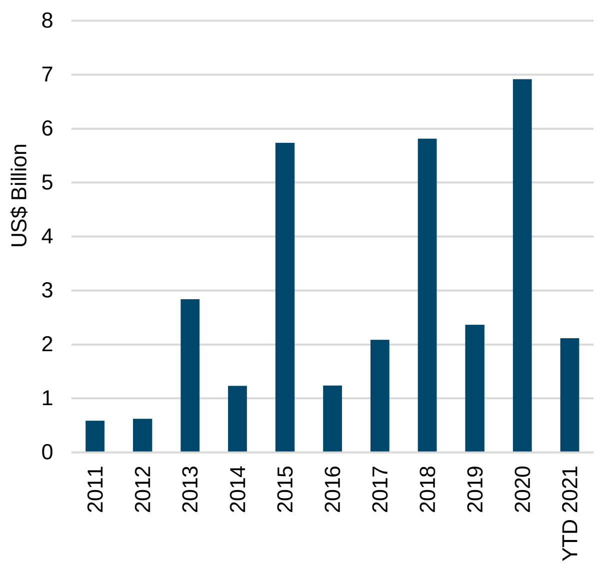
Notwithstanding the challenges in deal accessibility, there has been a marked shift in fund investment styles from opportunistic or value-add funds towards core plus funds targeting existing or near completion logistics facilities, with the risk profile gravitating from development risks towards leasing capabilities, an indication of rising market maturity.

**CHINA LOGISTICS TRANSACTIONS BY INVESTOR TYPE**




Source: DWS, Real Capital Analytics, as of March 2021

**FUNDRAISING BY CHINA-FOCUSED LOGISTICS FUNDS**




Source: DWS, Company News, as of April 2021

Investors should also look out for the recent developments in the C-REIT market, which have been a decade in the making. The latest development in August 2020 was the government issuance of guidelines for the creation of pilot Infrastructure REITs, which includes logistics and warehouse facilities. The pilot program excludes residential and commercial real estate, focusing on infrastructure projects which are considered strategic priorities of the central government. Critically, the scheme can be differentiated from the existing 'quasi-REIT' structure which functions more similarly to asset-backed debt securitization vehicles rather than equity REIT structures typically seen in most international markets.

While the initial guidelines appear stringent (e.g. loan-to-value ratios below 20%; mandatory holding periods of up to five years for originators), this marks a major step towards the issuance of publicly-traded REITs, and importantly enhance transparency and liquidity in the sector.

# 5 / Investment Profile

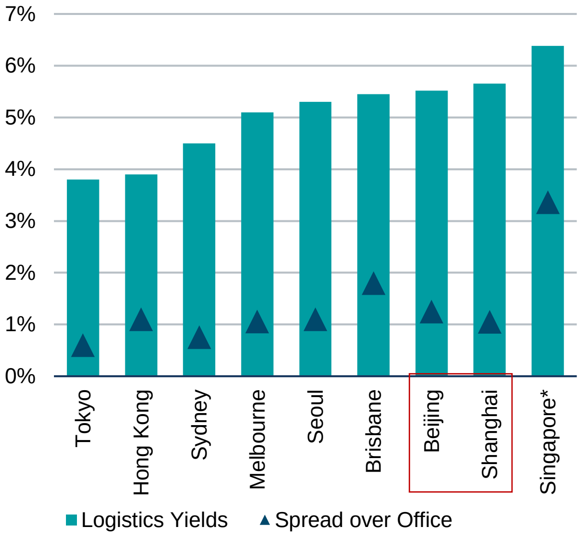
Core stabilized logistics assets in Chinese Tier 1 cities currently offer yields of around 5.5% to 6%, comparing favourably to other developed cities in Asia Pacific. Rising institutional interest in the logistics space globally including Asia Pacific has seen the yield premium between office and logistics assets narrow in recent years, though to a lesser extent in China as both domestic and cross-border investors continue to actively pursue office acquisitions to gain exposure to China's economic growth.

Despite the ongoing logistics yield compression seen across the region in recent years, China logistics continues to offer a notable spread of 100-130 basis points over domestic office assets, higher than other gateway cities such as Tokyo (60 basis points) and Sydney (80 basis points).

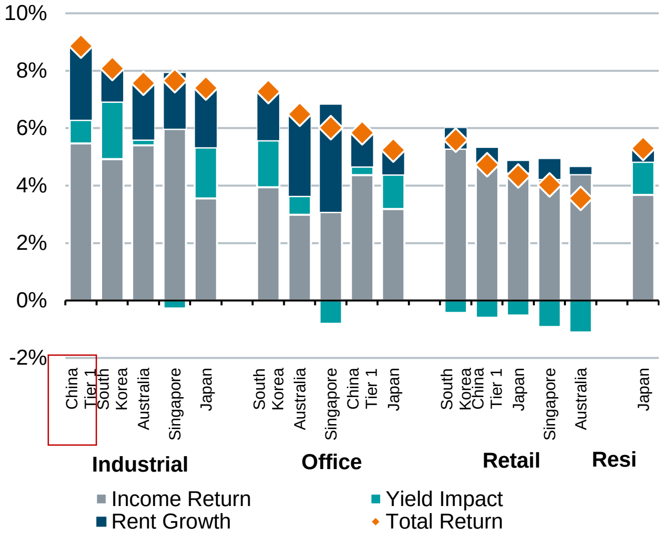
From a returns perspective, based on limited data availability (due to the sector's relative infancy), we estimate that logistics assets in Tier 1 Chinese cities (Beijing, Shanghai) have yielded strong total returns of around 15%-16% per annum over the past decade, outperforming domestic office and retail returns (7%-13%) as well as the broader Asia Pacific logistics market (11%-12%). While such performance – driven by rapid first-mover rental increases and capital appreciation – is expected to ease, the logistics sector remains a beneficiary of rising domestic consumption, growing ecommerce logistics requirements as well as cap rate compression arising from continued institutional capital inflows.

In our view, over the next few years, China's logistics sector present attractive risk-adjusted returns relative to the domestic office and retail sectors as well as other logistics markets in Asia Pacific.

**ASIA PACIFIC LOGISTICS YIELDS (AS OF 2020)**




**ASIA PACIFIC PROJECTED TOTAL RETURNS, 2021F-2025F, P.A.**




* Higher yields for Singapore due to land leasehold terms
Spreads based on effective yield basis after factoring incentives
Source: DWS, JLL, Colliers, Miki Shoji, as of December 2020

F = forecast
Source: DWS, as of January 2021

Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.

As highlighted earlier, the outlook for China logistics real estate is driven by a huge growing domestic consumption base, which translates to a massive logistics demand potential unmet by the shortfall of prime modern facilities. Meanwhile, the sector is starting to experience rising institutionalization, while healthy logistics yields together with expected strong rental growth trends should drive prime logistics returns to outperform the average APAC returns over the next few years.

Nonetheless, investors need to be mindful of the limited maturity and transparency risks of the sector, evident in the divergence among local market conditions where supply risks persist in some cities. To limit opportunistic risks, core investors should focus on the Tier 1 and Tier 2 locations (including Beijing, Shanghai, Guangzhou and Shenzhen), supported by a mature economic and manufacturing profile, significant consumer base and limited land availability, as well as neighbouring satellite cities benefiting from strong spillover logistics demand. Investments in western / central China and other smaller Chinese cities should be approached more selectively taking into account the growth potential as well as higher vacancy and supply risks.

As importantly, cross-border investors should also seek the support of experienced domestic partners with a strong investment track record and operational capability, including joint venture developments or forward funding opportunities, to avoid unnecessary pitfalls and achieve a favourable investment outcome.

# Research & Strategy—Alternatives


**OFFICE LOCATIONS:**

**Chicago**
222 South Riverside Plaza
34th Floor
Chicago
IL 60606-1901
United States
Tel: +1 312 537 7000

**Frankfurt**
Mainzer Landstrasse 11-17
60329 Frankfurt am Main
Germany
Tel: +49 69 71909 0

**London**
Winchester House
1 Great Winchester Street
London EC2N 2DB
United Kingdom
Tel: +44 20 754 58000

**New York**
875 Third Avenue
26th Floor
New York
NY 10022-6225
United States
Tel: +1 212 454 3414

**San Francisco**
101 California Street
24th Floor
San Francisco
CA 94111
United States
Tel: +1 415 781 3300

**Singapore**
One Raffles Quay
South Tower
20th Floor
Singapore 048583
Tel: +65 6538 7011

**Tokyo**
Sanno Park Tower
2-11-1 Nagata-cho
Chiyoda-Ku
18th Floor
Tokyo
Japan
Tel: +81 3 5156 6000

**TEAM:**

Global

**Kevin White, CFA**
Co-Head of Real Estate Research & Strategy
kevin.white@dws.com

**Simon Wallace**
Co-Head of Real Estate Research & Strategy
simon.wallace@dws.com

**Gianluca Minella**
Head of Infrastructure Research
gianluca.minella@dws.com

Americas

**Brooks Wells**
Head of Research, Americas
brooks.wells@dws.com

**Liliana Diaconu, CFA**
Office Research
liliana.diaconu@dws.com

**Ross Adams**
Industrial Research
ross.adams@dws.com

**Ryan DeFeo**
Property Market Research
ryan-c.defeo@dws.com

**Ana Leon**
Retail Research
ana.leon@dws.com

**Joseph Pecora, CFA**
Apartment Research
joseph.pecora@dws.com

Europe

**Tom Francis**
Property Market Research
tom.francis@dws.com

**Siena Golan**
Property Market Research
siena.golan@dws.com

**Rosie Hunt**
Property Market Research
rosie.hunt@dws.com

**Martin Lippmann**
Property Market Research
martin.lippmann@dws.com

**Florian van-Kann**
Property Market Research
florian.van-kann@dws.com

**Aizhan Meldebek**
Infrastructure Research
aizhan.meldebek@dws.com

Asia Pacific

**Koichiro Obu**
Head of Research & Strategy, Asia Pacific
koichiro-a.obu@dws.com

**Natasha Lee**
Property Market Research
natasha-j.lee@dws.com

**Seng-Hong Teng**
Property Market Research
seng-hong.teng@dws.com

**Hyunwoo Kim**
Property Market Research
hyunwoo.kim@dws.com

## The authors

**Koichiro Obu**
**Head of Research & Strategy, Asia Pacific**

**Seng-Hong Teng**
**Property Market Research**

# IMPORTANT INFORMATION – APAC, EMEA, LATAM & NORTH AMERICA

The brand DWS represents DWS Group GmbH & Co. KGaA and any of its subsidiaries, such as DWS Distributors, Inc., which offers investment products, or DWS Investment Management Americas, Inc. and RREEF America L.L.C., which offer advisory services.

This material was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. It is intended for informational purposes only. It does not constitute investment advice, a recommendation, an offer, solicitation, the basis for any contract to purchase or sell any security or other instrument, or for DWS or its affiliates to enter into or arrange any type of transaction as a consequence of any information contained herein. Neither DWS nor any of its affiliates gives any warranty as to the accuracy, reliability or completeness of information which is contained in this document. Except insofar as liability under any statute cannot be excluded, no member of the DWS, the Issuer or any office, employee or associate of them accepts any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage whether direct, indirect, consequential or otherwise suffered by the recipient of this document or any other person.

The views expressed in this document constitute DWS Group's judgment at the time of issue and are subject to change. This document is only for professional investors. This document was prepared without regard to the specific objectives, financial situation or needs of any particular person who may receive it. No further distribution is allowed without prior written consent of the Issuer.

Investments are subject to risk, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time.

Investment in real estate may be or become nonperforming after acquisition for a wide variety of reasons. Non-performing real estate investment may require substantial workout negotiations and/ or restructuring. Environmental liabilities may pose a risk such that the owner or operator of real property may become liable for the costs of removal or remediation of certain hazardous substances released on, about, under, or in its property. Additionally, to the extent real estate investments are made in foreign countries, such countries may prove to be politically or economically unstable. Finally, exposure to fluctuations in currency exchange rates may affect the value of a real estate investment.

Investments in Real Estate are subject to various risks, including but not limited to the following:
_ Adverse changes in economic conditions including changes in the financial conditions of tenants, buyer and sellers, changes in the availability of debt financing, changes in interest rates, real estate tax rates and other operating expenses;
_ Adverse changes in law and regulation including environmental laws and regulations, zoning laws and other governmental rules and fiscal policies;
_ Environmental claims arising in respect of real estate acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established;
_ Changes in the relative popularity of property types and locations;
_ Risks and operating problems arising out of the presence of certain construction materials; and
_ Currency / exchange rate risks where the investments are denominated in a currency other than the investor's home currency.

An investment in real estate involves a high degree of risk, including possible loss of principal amount invested, and is suitable only for sophisticated investors who can bear such losses. The value of shares/ units and their derived income may fall or rise.

War, terrorism, economic uncertainty, trade disputes, public health crises (including the recent pandemic spread of the novel coronavirus) and related geopolitical events could lead to increased market volatility, disruption to US and world economies and markets and may have significant adverse effects on the global real estate markets.

This marketing communication is intended for professional clients only.

DWS is the brand name of DWS Group GmbH & Co. KGaA and its subsidiaries under which they operate their business activities. The respective legal entities offering products or services under the DWS brand are specified in the respective contracts, sales materials and other product information documents. DWS, through DWS Group GmbH & Co. KGaA, its affiliated companies and its officers and employees (collectively "DWS") are communicating this document in good faith and on the following basis.

This document has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by DWS Group, are appropriate, in light of their particular investment needs, objectives and financial circumstances. Furthermore, this document is for information/discussion purposes only and does not constitute an offer, recommendation or solicitation to conclude a transaction and should not be treated as giving investment advice.

The document was not produced, reviewed or edited by any research department within DWS and is not investment research. Therefore, laws and regulations relating to investment research do not apply to it. Any opinions expressed herein may differ from the opinions expressed by other legal entities of DWS or their departments including research departments.

The information contained in this document does not constitute a financial analysis but qualifies as marketing communication. This marketing communication is neither subject to all legal provisions ensuring the impartiality of financial analysis nor to any prohibition on trading prior to the publication of financial analyses.

This document contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author's judgment as of the date of this document. Forward looking statements involve significant elements of subjective judgments and analyses and changes thereto and/ or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by DWS as to the reasonableness or completeness of such forward looking statements or to any other financial information contained in this document. Past performance is not guarantee of future results.

We have gathered the information contained in this document from sources we believe to be reliable; but we do not guarantee the accuracy, completeness or fairness of such information. All third party data are copyrighted by and proprietary to the provider. DWS has no obligation to update, modify or amend this document or to otherwise notify the recipient in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.

Investments are subject to various risks, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time. Furthermore, substantial fluctuations of the value of any investment are possible even over short periods of time. The terms of any investment will be exclusively subject to the detailed provisions, including risk considerations, contained in the offering documents. When making an investment decision, you should rely on the final documentation relating to any transaction.

No liability for any error or omission is accepted by DWS. Opinions and estimates may be changed without notice and involve a number of assumptions which may not prove valid. DWS or persons associated with it may (i) maintain a long or short position in securities referred to herein, or in related futures or options, and (ii) purchase or sell, make a market in, or engage in any other transaction involving such securities, and earn brokerage or other compensation.

DWS does not give taxation or legal advice. Prospective investors should seek advice from their own taxation agents and lawyers regarding the tax consequences on the purchase, ownership, disposal, redemption or transfer of the investments and strategies suggested by DWS. The relevant tax laws or regulations of the tax authorities may change at any time. DWS is not responsible for and has no obligation with respect to any tax implications on the investment suggested.