CAPITALAND ASCENDAS REIT

2022 INDEPENDENT MARKET STUDY REPORT

CapitaLand
Ascendas REIT

Our cover page is an extended expression of last year's concept. In this iteration, the cover features the use of fluid forms in a hybrid state of solid and liquid. The solid state represents the Group's strong fundamentals and resilient growth strategies, while the liquid state is symbolic of the Group's agility and adaptability to evolve its business to overcome new challenges.

The curves of each form subtly reference the letters 'O' and 'C' to symbolise the ONE CapitaLand ecosystem. This is exceptionally meaningful this year as all the different entities under the Group have formally included the CapitaLand brand name in their respective branding identities – paving the way forward as a united front and growing as ONE CapitaLand.

About CapitaLand Ascendas REIT

CapitaLand Ascendas REIT (CLAR) is Singapore's first and largest listed business space and industrial real estate investment trust (REIT). As one of Singapore's REIT pioneers, CLAR has played a crucial role in the development of the Singapore REIT sector. It provides an attractive platform for investment in business and industrial properties across developed markets.

CLAR owns and manages a well-diversified portfolio, valued at S$16.4 billion. The portfolio comprises 227 investment properties in Singapore, Australia, the United States (USA) and the United Kingdom (UK)/Europe. CapitaLand Ascendas REIT Management Limited, the manager of CLAR (the Manager), is a wholly owned subsidiary of Singapore-listed CapitaLand Investment Limited, a leading global real estate investment manager with a strong Asia foothold.

Vision

To be a leading global real estate investment trust

Mission

To deliver predictable distributions and achieve long-term capital stability for Unitholders

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Independent Market Study Report

Singapore

By Edmund Tie & Company (SEA) Pte Ltd, February 2023

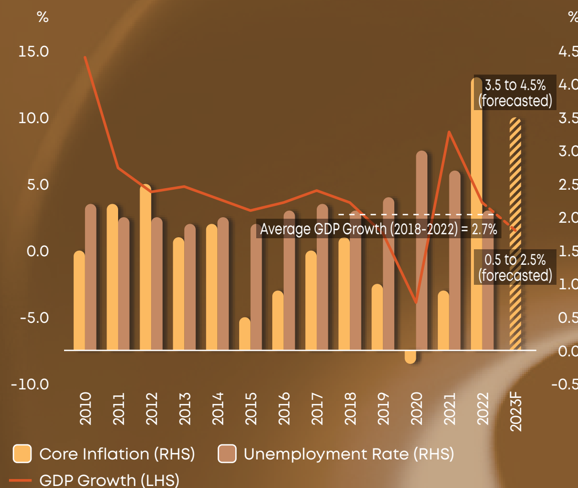
1.0 ECONOMIC OVERVIEW

Headwinds and uncertainties remain elevated, with a further slowdown in Singapore's economy expected in 2023

According to the Ministry of Trade and Industry (MTI), Singapore's economy expanded by 3.6% in 2022, moderating from 2021's 8.9% growth but slightly higher than the MTI's forecast of 3.5%. In 2022, the labour market recorded significant improvement as compared to the previous year amid sustained economic growth. The average overall unemployment rate declined to 2.1%[1] from 2.7% in 2021 and held steady at pre-pandemic level, while total employment rose to an unprecedented level (231,700), largely driven by non-residents as border restrictions were lifted.

Amid the manufacturing slowdown, the manufacturing sector contracted by 2.6% y-o-y in 4Q22, reversing from the 1.1% growth in the previous quarter, attributed to output declines in the general manufacturing, electronics, chemicals and biomedical manufacturing clusters. In December 2022, the Index of Industrial Production, an indicator for manufacturing output, contracted by 3.1% y-o-y, with contractions registered across all sectors with the exception of transport engineering (9.3%) and electronics (4.6%). Full-year manufacturing output growth for 2022 decelerated sharply to 2.5% from 13.3% in 2021.

Figure 1: GDP Growth, Core Inflation[2] and Unemployment



Source: Department of Statistics Singapore (DOS), Ministry of Trade and Industry Singapore (MTI), Ministry of Manpower (MOM)

In 2023, the US and Eurozone are expected to experience sharp slowdowns, while the global supply chain disruptions may persist amid the protracted Russia-Ukraine war. China's growth is projected to pick up, which improves the regional economies' growth outlook. A further slowdown in Singapore's economy is expected in 2023, with growth forecasted to be "between 0.5 and 2.5%" by the MTI due to weakening global economic conditions.

2.0 KEY GOVERNMENT POLICIES AND PLANS

Long term urban redevelopment

The Urban Redevelopment Authority charts Singapore's land use development. In particular, there are a few urban transformation projects that are ongoing into the medium to long term, which strive to bring forth economic growth, create jobs and increase the amenities of the areas.

1. Changi Region: Envisioned to be a vibrant ecosystem around the airport, key projects in the area include the Changi Aviation Park (for aviation-related sectors), Changi Airport Terminal 5, Changi East Industrial Zone and Changi East Urban District.
2. Punggol Digital District: As Singapore's first enterprise and smart district, it will feature the future Singapore Institute of Technology's campus and JTC's Business Park spaces, catering to key digital growth industries such as cybersecurity and digital technology as well as serve as a lifestyle destination for the community.
3. Woodlands Regional Centre: As the largest economic hub in the north, it will comprise of two precincts, Woodlands North Coast and Woodlands Central, supporting the Northern Gateway and Agri-tech and Food Corridor.
4. Jurong Innovation District (JID): The JID will be an industrial district for advanced manufacturing, supporting an ecosystem of manufacturers, technology providers, researchers and education institutions, such as the neighbouring Nanyang Technological University.
5. Tuas Mega Port Project: Expected to be fully completed in the 2040s, the next-generation port will be fully automated and digitalised, with the capacity to handle 65 million twenty-foot equivalent units (TEUs), or 1.5 times our current capacity. Till date, five berths have commenced operations under Phase 1 (out of four phases) of the project, with its global reach and connectivity benefitting factories in Tuas and Jurong with quicker production-to-market turnarounds.

1 Based on preliminary estimates, Ministry of Manpower
2 Core inflation defined by the Monetary of Singapore is a measure that excludes the components of "Accommodation" and "Private Road Transport".

Independent Market Study Report

Singapore

By Edmund Tie & Company (SEA) Pte Ltd, February 2023

Industry Transformation Maps (ITM)

First launched between 2016 and 2018, the ITMs aim to drive industry transformation, support the growth of enterprises, and help Singaporeans take up quality jobs. The refreshed ITMs for five sectors - Electronics, Precision Engineering, Energy & Chemicals, Aerospace and Logistics – outlined strategies to grow Singapore's manufacturing value-added (VA) by 50 per cent from 2020 to 2030. It involves support for research and development, deep tech innovation, extensive digitalisation and environmental sustainability, as well as foster partnerships between companies and Institutes of Higher Learning.

Major Investment Sales

In 2022, total major industrial investment sales (S$10 million and above) amounted at least $1.2 billion. The largest transaction was the sale of 1 Buroh Lane, a five-storey ramp-up multi-temperature-controlled food storage and distribution centre, for S$191.9 million. The second largest transaction was acquisition of Enterprise Logistics Centre, a ramp-up logistics warehouse building in Tuas, for S$120.6 million by a Singapore unit of Hong Kong-based Intex Development Company. Another major transaction was the sale of Philips APAC Center at Toa Payoh for S$104.8 million. In addition, Cycle & Carriage Singapore divested four of its properties for an undisclosed sum in October last year.

Sector trends

Achieving supply chain resilience stood at the forefront of industrialists' agenda this year amid the protracted supply chain disruptions and heightened stockpiling requirements. Industrialists embarked on various strategies to manage inventories and mitigate risks, including investments in analytics, technology and sustainability solutions. Accordingly, such investments will continue to bolster demand for modern warehouse and logistics spaces.

Amid flight to quality, prime logistics assets, high-tech factories and city-fringe business parks continued to be sought-after, with rents and capital values rising in tandem. In response, more redevelopments of ageing assets into future-proof properties have been carried out by landlords. In line with the Industrial 4.0 revolution, some of the upcoming assets or recent completions are built-to-suit facilities or high-tech properties designed to cater to high value-add manufacturing, such as advanced manufacturing, biomedical science and information and communications technology, and R&D innovation.

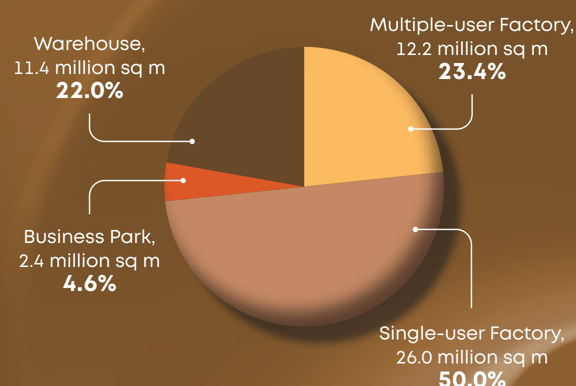
New growth sectors

High-value manufacturing industries, such as Medical Technology (MedTech) and Green Technology (GreenTech), as well as niche sectors such as cold chain logistics are poised to be new growth areas for the industrial sector and likely contribute to greater demand for industrial spaces. MedTech involves the R&D and manufacturing of high-value medical technology products, such as implantable pacemakers and life science instruments, while GreenTech harnesses technology to meet sustainability objectives such as through the use of alternative energy and high-tech agriculture.

3.0 INDUSTRIAL PROPERTY MARKET OVERVIEW

As at Q4 2022, the total industrial stock stood at about 52.0 million sq m[3], of which 85.3% (44.3 million sq m) is private stock. Out of the total stock, 50.0% (26.0 million sq m) is single-user factory, followed by multiple-user factory (23.4%, 12.2 million sq m), warehouse (22.0%, 11.4 million sq m) and business park (4.6%, 2.4 million sq m) (Figure 2).

Figure 2: Island-wide Industrial Stock, in Net Lettable Area (NLA) (Q4 2022)



Source: JTC

Government Land Sales Program

The Industrial Government Land Sales (IGLS) programme for the first half of 2023 (1H 2023) comprises four sites in the Confirmed List and three sites in the Reserve List totalling 7.16 hectares (ha), an increase from 4.48 ha of total site area under the 1H 2022 IGLS programme. The four sites in the Confirmed List are located at Plot 7 Tampines North Drive 4, Plot 8 Jalan Papan, Plot 10 Tampines North Drive 5 and Woodlands Avenue 8, while the three Reserve List sites

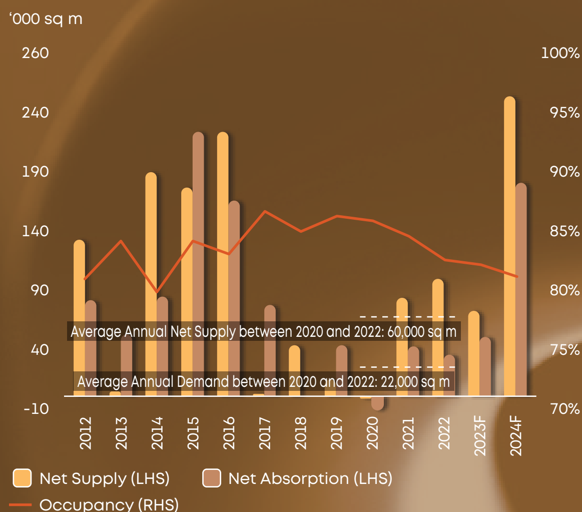
3 All data on areas are NLA unless otherwise stated.

are located at Plot 3 Jalan Papan, 11 Tuas Avenue 18 and Tuas Road. Under the latest IGLS programme, all the industrial sites are zoned Business 2 (B2) and are mostly small land plots smaller than 1.0 ha. In terms of land tenure, one plot in the Confirmed List and two plots in the Reserve List have 20-year leasehold tenure, while the other plots are offered with 30-year leasehold tenure.

4.0 BUSINESS PARK

The growing occupier interest in business parks arise from industries such as biomedical and R&D. In line with the Industrial 4.0 revolution, demand for business park spaces is likely to continue to be driven by high value-add industries. In 2023, rents of well-located business parks are forecasted to rise by 2-3%.

Figure 3: Net Supply, Net Absorption and Occupancy (Business Parks)



F refers to forecast.
Source: JTC, EDMUND TIE Research

Stock and Supply

The total business park stock stood at 2.4 million sq m as at Q4 2022, of which 84.1% is privately held (2.0 million sq m). In 2022, net supply increased by 99,000 sq m, surpassing preceding years' level though it was lower than the surge in supply witnessed during the 2014-2016 period (196,000 sq m average per annum). CleanTech Three (60,000 sqm NLA) developed by JTC was the biggest project completed in 2022.

Demand and Occupancy

Occupancy rates of business parks in the East and West regions declined

Business park's leasing demand moderated and recorded a slower pace of absorption of 35,000 sq m in 2022 from 43,000 sq m in 2021. By planning regions, business parks in the East Region recorded negative net absorption (-9,425 sq m) in 2022 while demand held up in the Central and West Regions. As firms relooked their corporate real estate requirements, an increasing number of them have opted for business park spaces for cost savings and as part of their decentralisation strategies. The growing occupier interest in business parks arises from industries such as biomedical and R&D.

Overall occupancy rate of business parks declined by 2.0% points to 82.5% in 2022, as net supply (99,000 sq m) outpaced net absorption. Business parks in the Central Region recorded the highest occupancy rate at 93.3%, an improvement of 1.8% points. On the other hand, occupancy rates declined by 1.8% points to 76.7% in the East Region and by 9.4% points to 60.7% in the West Region.

Potential Supply

Bulk of business park supply pipeline coming onstream in 2024

As of Q4 2022, the bulk (66%) of the business park supply pipeline will be completed in 2024, followed by another 19% in 2023. The major business park projects coming onstream this year include Elementum and Surbana Jurong Campus (Table 1). In 2024, the JTC-developed Punggol Digital District Phase I (166,350 sq m GFA) is expected to be completed.

Table 1: Pipeline Supply (2023 to 2025, Business Park)

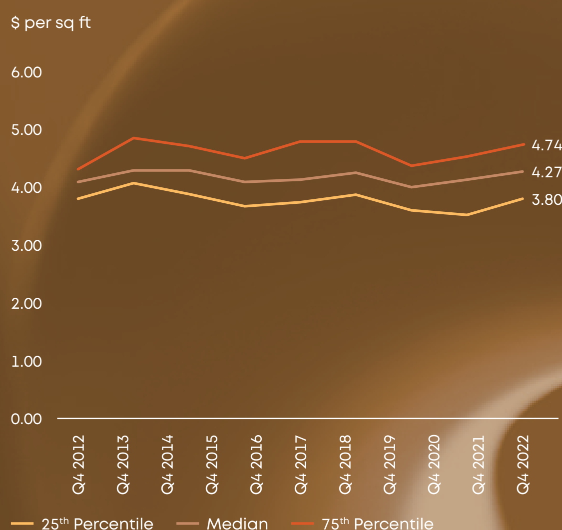
Development	Developer/ Owner	Location	Region	GFA (sq m)	NLA (sq m)
2023					
Elementum	HB Universal Pte Ltd	North Buona Vista Drive	Central	35,180	28,848
Surbana Jurong campus	Surbana Jurong Capital (JID) Pte Ltd	Cleantech Loop	West	34,870	28,593
7 Science Park Drive	Science Park Property Trustee Pte Ltd	Science Park Drive	Central	28,820	23,632
2024					
Punggol Digital District Phase I	JTC Corporation	Punggol Way	North-East	166,350	136,407
2025					
Punggol Digital District Phase II	JTC Corporation	Punggol Way	North-East	68,950	56,539
1 Science Park Drive	SPRINT Plot 1 TM Pte LTD	Science Park Drive	Central	112,530	92,275

Source: JTC, EDMUND TIE Research

Rents

In 2022, JTC's business park Rental Index rose by 2.0%. The 25th percentile rent[4] registered the steepest increase at 8.0% to $3.80 per sq ft per month in 2022. The 75th percentile rent[5] increased by 4.6% in 2022 to $4.74 per sq ft per month, while the median rent increased by 3.4% in 2022 to $4.27 per sq ft per month. Newer business park spaces near to transport nodes such as MRT stations have commanded higher rents and prime rents can range from $4.50-$7.00 per sq ft per month. The growing occupier interest in business park spaces from high value-add industries has resulted in rents to increase across the board (Figure 4).

Figure 4: Rents (Business Park)[6]



Source: JTC, EDMUND TIE Research

Outlook

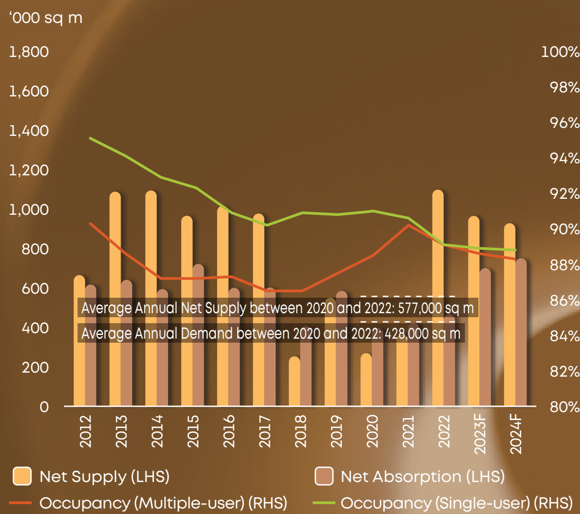
The growing occupier interest in the business park segment is expected to continue into 2023 as more firms are likely to opt for business park spaces for cost savings. In line with the Industrial 4.0 revolution, demand for business park spaces is likely to continue to be driven by high value-add industries, such as biomedical science, information and communications technology, as well as research & development. In 2023, rents of well-located business parks are forecasted to rise by 2-3%, with newer quality stock expected to post higher rental growth of around 3% while older stock could see rental growth of 1.5-2.0%.

4 The 25th percentile rents generally represent transactions in older stock.
5 75th percentile rent is a proxy for better and newer business park spaces.
6 Refers to gross rent per month including service charge but excluding Goods and Services Tax (GST).

5.0 HIGH-SPECS AND LIGHT INDUSTRIAL SPACE

Amid the manufacturing slowdown and cooling export performance, a slower pace of rental growth for multiple-user factory of between 4-5% is forecasted for 2023. In line with the growth of advanced manufacturing, rents of high-tech spaces are projected to record growth of 6-7% in 2023.

Figure 5: Net Supply, Net Absorption and Occupancy (Multiple-and-single-user Factory Space)



F refers to forecast.
Source: JTC, EDMUND TIE Research

Stock and Supply

In 2022, the total factory stock comprising high-specifications (or high-specs) industrial and light industrial space grew by 3.0% to 38.2 million sq m. About 15.8% of this stock is high-specs industrial spaces (excluding data centres)[7].

The JTC Defu Industrial City (270,000 sq m NLA) located at Defu South Street 1 was the biggest high-specs industrial project completed in 2022. A major factory project was TimMac @ Kranji developed by JTC which received partial TOP of 114,000 sq m NLA, with full completion expected in 2023. A total of four data centres were fully or partially completed in 2022, developed by AirTrunk (33,000 sq m NLA), STT (12,000 sq m NLA), Amazon (10,200 sq m NLA) and Google (47,000 sq m NLA).

Demand and Occupancy

Net absorption for factory space remained resilient despite manufacturing slowdown

Despite the manufacturing slowdown, overall demand for factory space remained resilient in 2022. Net absorption rose to 465,000 sq m in 2022 from 421,000 sq m in 2021. An increase in demand was recorded across factory spaces in the different planning regions, with those in the North-East region recording the strongest increase. In 2022, the occupancy rates of both multiple-user factory space and single-user factory space stood at 89.1%, after experiencing a decline of 1.1% points and 1.5% points respectively from the previous year as supply outpaced demand.

Potential Supply

Bulk of factory supply to come onstream between 2023 and 2024, largely single-user factories

The bulk of the factory pipeline is expected to come onstream between 2023 and 2024, comprising around 1.9 million sq m NLA (5.0% of existing stock). Out of the 2023-2024 factory pipeline, 77% of it will be single-user factories.

About 940,000 sq m (GFA) of the 2023-2024 pipeline supply are expected to be high-specs industrial space, which includes some 250,000 sq m (GFA) of data centres (Table 2). One of the key upcoming factory spaces this year is Malkoha (Meta)'s single-user factory which will bring forth 140,500 sq m NLA of space. In 2024, United Microelectronics Corporation's single-user factory is expected to be completed (192,000 sq m NLA).

7 Based on EDMUND TIE's estimates.

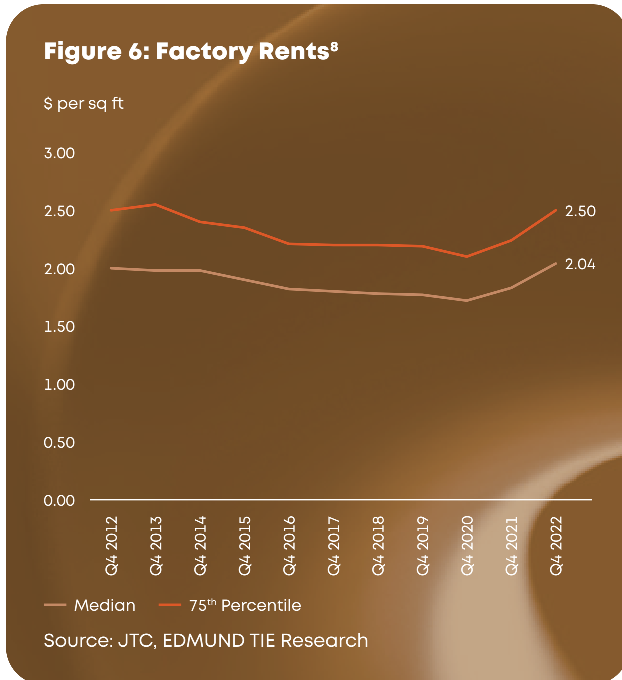
Table 2: Selected Pipeline Supply (Light industrial, high-specs and data centres)

Development	Developer/ Owner	Location	Region	GFA (sq m)	NLA (sq m)
2023					
Light Industrial					
Single-user factory	Hyundai Motor Singapore Pte Ltd	Jurong West Avenue 2	West	86,910	71,266
Tuas Vista	RBC Investor Services Trust Singapore Ltd	Tuas South Avenue 2	West	31,060	25,469
Single-user industrial development	Wilmar Distribution Pte. Ltd.	Jalan Ahmad Ibrahim	West	28,750	23,575
7000 Ang Mo Kio Avenue 5	7000 AMK LLP	Ang Mo Kio Avenue 5	North-East	24,690	20,246
High-specs					
Solaris @ Tai Seng	SB (Ipark) Investment Pte. Ltd.	Tai Seng Avenue	North-East	105,250	86,305
161, 163 & 165 Kallang Way	Mapletree Industrial Trust	Kallang Way	Central	60,550	49,651
Single-user factory	Global Foundries Singapore Pte Ltd	Woodlands Industrial Park D Street 2	North	55,030	45,125
Data Centres					
Single-user factory	Malkoha Pte Ltd	Sunview Way	West	171,340	140,499
Single-user factory	Amazon Asia-Pacific Resource Pte Ltd	Loyang Drive	East	11,540	9,463
2024					
Light Industrial					
JTC Space @ AMK	JTC Corporation	Ang Mo Kio Street 64/65	North-East	116,630	95,637
Polaris @ Woodlands	Soon Hock Investment Group Pte Ltd	Woodlands Avenue 12	North	52,340	42,919
High-specs					
Single-user factory	United Microelectronics Corporation	Pasir Ris Industrial Drive 1	East	233,710	191,642
Single-user industrial development	Siltronic Silicon Wafer Pte Ltd	Tampines Industrial Avenue 5	East	147,300	120,786
Data Centres					
Single-user factory	Google Asia Pacific Pte Ltd	Lok Yang Way	West	62,700	51,414

Source: JTC, EDMUND TIE Research

Rents

In 2022, both 75th percentile rents for multiple-user factory, a proxy for high-specs industrial, and median rents witnessed similar rates of increase at around 11.5% to $2.50 per sq ft per month and $2.04 per sq ft per month respectively (Figure 6).

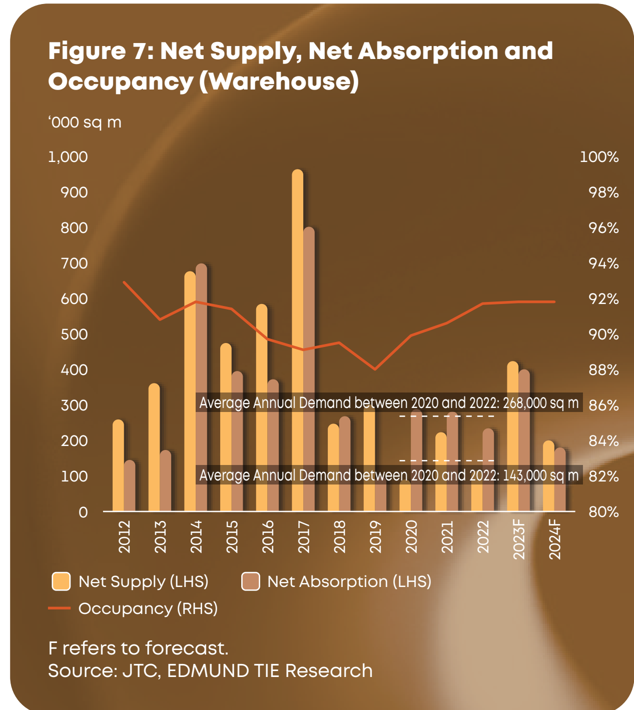


Outlook

As manufacturing sentiment continued to be weighed down by weaker global demand, overall factory activity contracted for the fifth consecutive month in January 2023. Amid multiple economic headwinds and a softer manufacturing outlook, the upward trend seen in overall industrial prices and rents over the past nine quarters is expected to persist but moderate in the coming months, especially for the multiple-user factory segment. However, high-value manufacturing industries, such as MedTech and GreenTech, are poised to be new growth areas for the industrial sector and likely contribute to greater demand for industrial spaces. For the multiple-user factory space segment, the demand-supply dynamics are still fairly healthy. In view of the manufacturing slowdown and cooling export performance, we expect a slower pace of rental growth for multiple-user factory of between 4-5% in 2023. In line with the growth of advanced manufacturing, rents of high-tech spaces are projected to record growth of between 6% and 7% in 2023. Amid tight supply and strong demand, continued rental growth for data centres is anticipated.

6.0 LOGISTICS AND DISTRIBUTION CENTRES[9] (WAREHOUSE)

Demand for modern warehouse and logistics spaces is expected to remain strong amid protracted supply chain disruptions and sustained e-commerce growth. Warehouse spaces are likely to outperform with rental growth forecast to be around 6% in 2023.



Stock and Supply

The total warehouse stock increased by 1.0% y-o-y to 11.4 million sq m in 2022. The net supply of 115,000 sq m in 2022 was half of that recorded in 2021 (223,000 sq m). With an NLA of 86,000 sq m, Tee Yih Jia Food Hub at 5 Senoko Road was the largest warehouse completed in 2022.

Demand and Occupancy

Sustained demand amid protracted supply chain disruptions and sustained e-commerce growth

Overall warehouse demand was largely sustained amid protracted supply chain disruptions and the relentless growth of e-commerce. Net absorption declined to 234,000 sq m in 2022 from 280,000 sq m in 2021. However, warehouse demand outpaced supply and resulted in a 1.1% points improvement in occupancy rate to 91.7%, the highest level since 2014. Apart from warehouses in the North Region which saw occupancies fall by 4.2% points to 87.0% in 2022, the occupancies of those located in other regions improved.

8 Refers to gross rent per month including service charge but excluding Goods and Services Tax (GST).

9 As there are no official statistics on logistics and distribution centres in Singapore, warehouse data from JTC is used as a proxy.

Potential Supply

Bulk of warehouse supply pipeline to come onstream in 2023
The bulk of the upcoming warehouse supply is expected to come onstream this year (68%) followed by another 32% in 2024. Between 2023 and 2024, approximately 725,000 sq m (GFA) of warehouse space is expected to come onstream, or about 6.4% of the existing stock, higher than the average annual net supply between 2020 and 2022 (143,000 sq m).

In 2023, some of the major projects in the pipeline include Allied Sunview's 96,000 sq m (NLA) warehouse and 2PS1 (58,000 sq m NLA) developed by Soilbuild Business Park REIT (Table 3). Notably, all the key upcoming warehouse developments are in the West Region.

Table 3: Selected Pipeline Supply (Logistics and Distribution Warehouse)

Development	Developer/ Owner	Location	Region	GFA (sq m)	NLA (sq m)
2023					
Warehouse development	Allied Sunview Pte Ltd	Sunview Road	West	116,810	100,457
2PS1	Soilbuild Business Park REIT	Pioneer Sector 1	West	70,330	60,484
Fairprice Group Fresh Food Distribution Centre	NTUC Fairprice Co-operative Ltd	Sunview Road	West	61,130	52,572
JTC Logistics Hub @ Gul	JTC Corporation	Gul Circle	West	54,780	47,111
Warehouse development	Soon Bee Huat Trading Pte Ltd	Penjuru Lane	West	24,320	20,915
2024					
Logos eHub	Pandan Crescent Pte Ltd	Pandan Crescent	West	81,050	69,703
Warehouse development	ESR SG Real Estate 1 Pte Ltd	Benoi Crescent	West	64,490	55,461
Warehouse development	ACW Holdings Pte Ltd	Penjuru Lane	West	45,270	38,932
Warehouse development	Tiong Nam Logistics (S) Pte Ltd	Senoko Loop	West	24,940	21,448

Source: JTC, EDMUND TIE Research

Independent Market Study Report

Singapore

By Edmund Tie & Company (SEA) Pte Ltd, February 2023

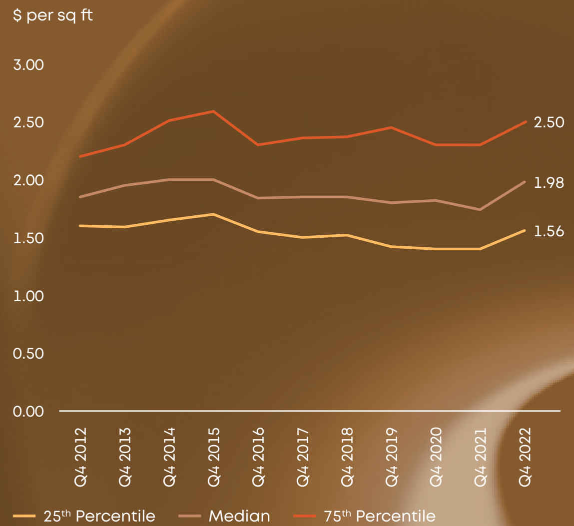
Rents

Amid sustained demand, warehouse rents increased across the board. Median rents experienced the steepest rise at 13.8% y-o-y to $1.98 per sq ft per month in Q4 2022, followed by 25th percentile rents (11.4%), a proxy for traditional warehouses, and 75th percentile rents (8.7%), a proxy for modern logistics and distribution centres (Figure 8).

Outlook

Amid the protracted supply chain disruptions and heightened stockpiling requirements, industrialists will continue to seek to achieve supply chain resilience. As more industrialists embark on various strategies to manage inventories and mitigate risks, including investments in analytics, technology and sustainability solutions, such investments in superior logistics technology will continue to bolster demand for modern warehouse and logistics spaces. We expect warehouse spaces to outperform amid sustained demand, with rental growth forecast to be around 6% in 2023.

Figure 8: Warehouse Rents[10]



Source: JTC, EDMUND TIE Research

10 Refers to gross rent per month including service charge but excluding Goods and Services Tax (GST).

Independent Market Study Report

Australia

By Colliers International, February 2023

ECONOMIC OVERVIEW

The Australian economy performed well in the first nine months of 2022, and timely indicators suggest growth held up in the final quarter of 2022 despite broader headwinds. However, the prospects of a significant slowing in the global economy have intensified over the past six months, fuelled by persistently high inflation and rising policy rates, the energy crisis in Europe, and the various headwinds affecting China's recovery. For Australia, economic conditions are expected to be mixed in 2023, and the growth outlook is dependent on the path for inflation and interest rates.

Key trends within the Australian economy are noted as follows:

Gross Domestic Product (GDP)	The Australian economy is forecast to grow solidly in Q4 2022, before slowing in 2023 as higher consumer prices, rising interest rates and declining housing prices weigh on growth. GDP growth is forecast to be 3% over 2022 and then 1.5% over 2023 and 2024.
Interest Rates	The cash rate increased substantially in 2022 in response to higher inflation levels. The cash rate currently stands at 3.1% and is expected to rise to around 3.6%-3.8% by mid-2023.
Inflation (CPI)	Australian Consumer Price Index (CPI) has increased sharply throughout 2022 and currently stands at 7.8% (year to December 2022) which represents the highest level since the early 1990s. Inflation is widely forecast to be at its peak and is expected to gradually fall throughout 2023.
Jobs growth	The unemployment rate in December 2022 measured 3.5% which is well below the 10-year average of 5.5% and below the 4.2% levels recorded at the end of 2021. Jobs growth in the 12 months to December 2022 totalled just over 450,000.
Population Growth	Australia's population growth has increased following the opening of international borders. In the 12 months to June 2022 (latest available data), population growth totalled 1.13% nationally and follows a sharp pick up in net overseas migration. Population growth is expected to pick up substantially in 2023; however, it is not likely to reach pre-COVID-19 levels until 2024.
Wages Growth	Wages growth has increased by 3.1% in the year to September 2022, up from the 2.2% recorded at the same point in 2021.
Consumer Confidence	Consumer sentiment has fallen sharply throughout 2022 as rising cost of living pressures have impacted disposable incomes. The index currently stands at 83.7%, which is well below the 104.6% recorded at the same point in 2021.

Independent Market Study Report

Australia

By Colliers International, February 2023

INDUSTRIAL & LOGISTICS MARKET OVERVIEW

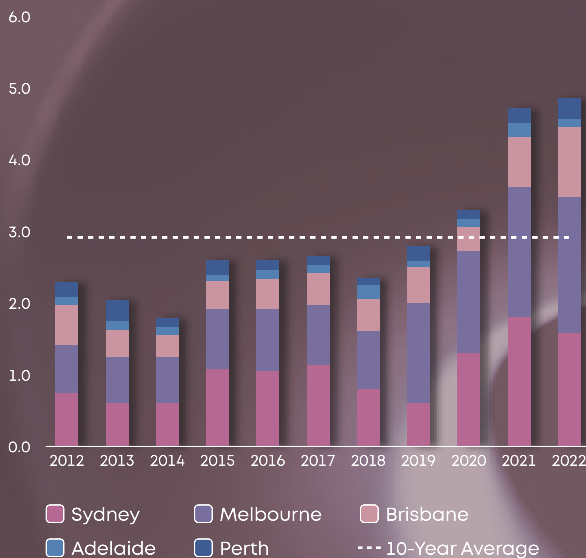
The Australian industrial and logistics sector has continued to show its strength throughout 2022, particularly with regard to occupier demand and rental growth, despite growing economic uncertainty. The outlook for the sector over the next 12 months remains positive, and both domestic and offshore investors are expected to continue to re-weight their allocations to industrial and logistics property.

The sector's outperformance has been underpinned by heightened demand from retail trade and transport and logistics occupiers, who have collectively leased almost 70% of space in 2022. In combination with high pre-commitment rates for new supply, vacancy rates have fallen sharply in all markets and currently average 0.6% at a national level. Occupier demand surpassed the heights of 2021, with 4.85 million sqm leased nationally in 2022 (deals above 5,000 sqm), up 3.0% from 2021.

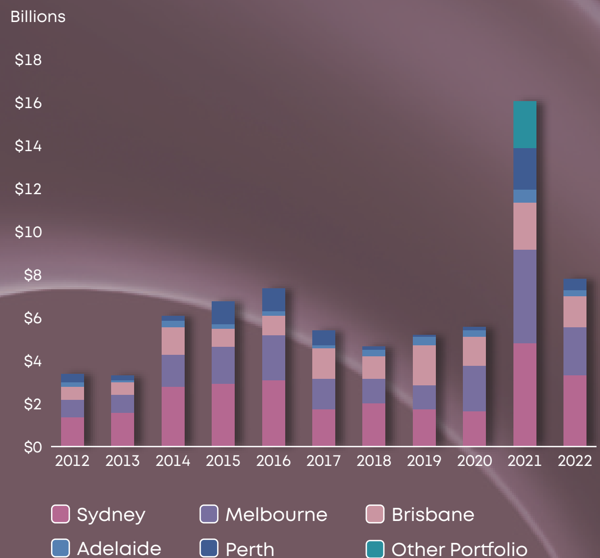
From a pricing perspective, higher funding costs and an increase in the risk-free rate (10-year Government bonds) have meant the yield compression cycle has ended and expansion in the order of 86 basis points has been recorded (to Q4 2022) since the low point in Q1 2022. Notwithstanding this, income growth within the sector is at its highest level on record (+21.7% for 2022), which has supported asset values to a large extent and will become the primary driver behind asset values over the next five years.

Despite broader economic headwinds and softening yields, transaction activity remains buoyant with approximately A$8.0 billion trading in 2022. While this is well below the A$16.0 billion in 2021, volumes for 2022 are above where they sat at the same point in 2018, 2019 and 2020, highlighting the continued demand for assets in the sector. Domestic institutions (listed and unlisted) have acquired 62% of assets by value in 2022 and are often backed by offshore capital. Offshore investors acquiring assets directly accounted for 17% of volumes in 2022. On the flip side, private investors were the dominant vendors in 2022 with 47% of assets by value stemming from this segment of the market, followed by corporates at 19%.

Australian Industrial and Logistics Gross Take-up
(million sqm)



National Investment Volumes
(>A$10 million - AUD)



Source: Colliers Research

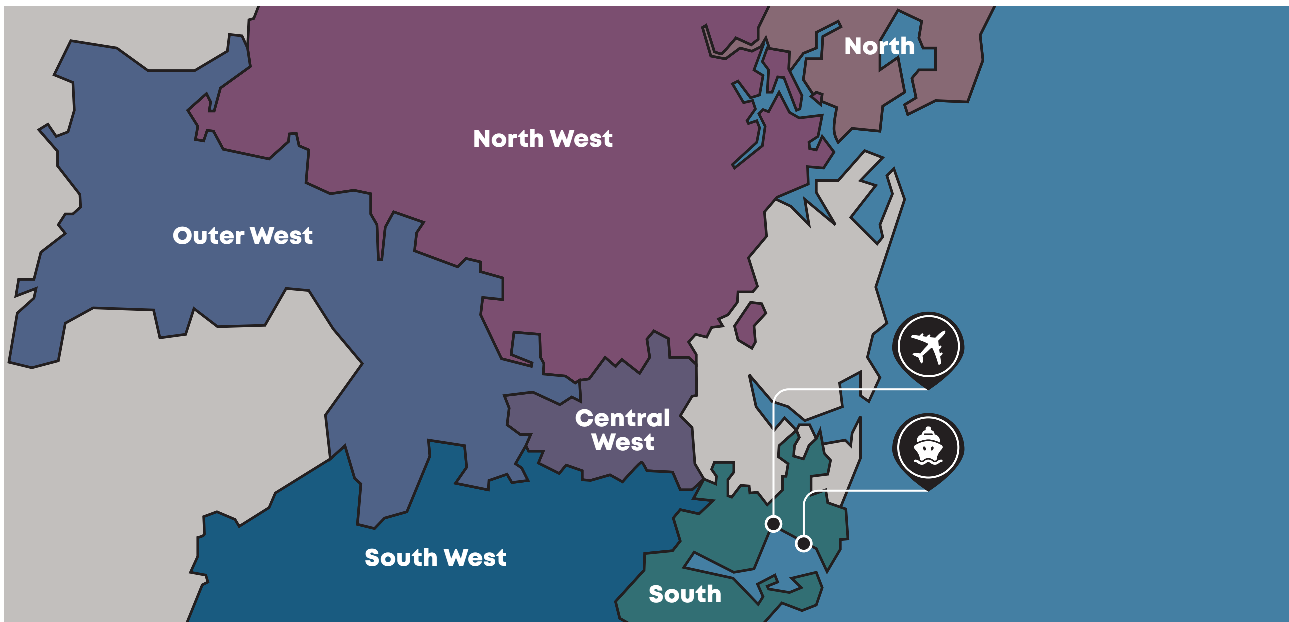
Independent Market Study Report

Australia

By Colliers International, February 2023

1. SYDNEY INDUSTRIAL & LOGISTICS

The Sydney industrial and logistics market is broken into several major precincts; Central West, Outer West, North West, South West, South, and North. The South market has traditionally been Sydney's most important industrial hub due to its proximity to Port Botany, the Sydney Airport, and the CBD. Logistics, retail and port-related tenants predominantly occupy the South precinct. In recent years, however, the South Sydney industrial market has experienced strong levels of stock withdrawal for alternative uses due to zoning changes. A similar situation has been experienced in the North industrial precinct where residential activity has continued to encroach on the industrial space market. Today, the North industrial precinct is dominated by smaller and high-value users such as IT, Pharmaceutical, and Hi-tech industries.



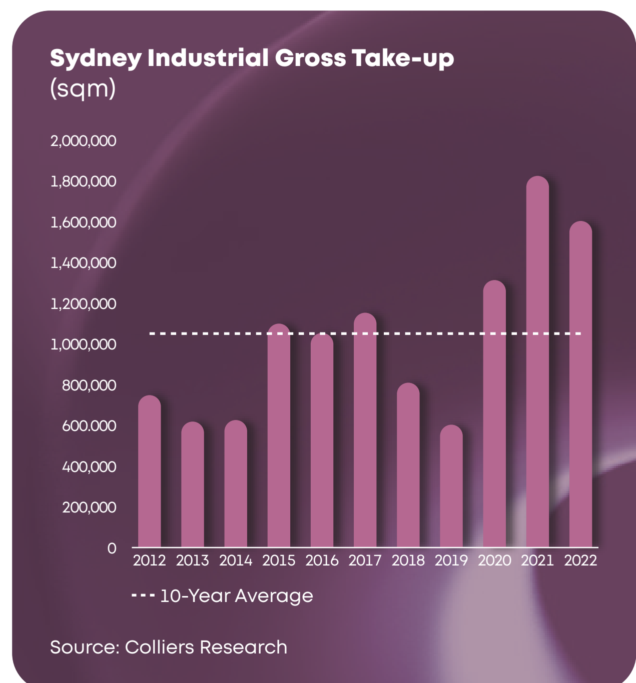
In recent years, the lack of larger space availability in the inner-city markets has resulted in larger industrial users moving towards the South West, Outer West, and North West precincts where much of the new supply is concentrated. In addition, the Western markets are benefitting from a significant level of road upgrades and infrastructure investment. Tenancy profiles include a diverse range of industries, including Third Party Logistics (3PL), retail, supermarkets, and construction.

1.1 OCCUPIER MARKET

1.1.1 Leasing Activity

Leasing activity across Sydney remained elevated in 2022 with 1.6 million sqm being leased in the year, not far from the record 1.8 million sqm in 2021. This level of demand remains well above the 10-year annual average of 1.04 million sqm.

Given falling vacancy rates, 65% of lease deals by NLA stemmed from pre-commitment or speculative built facilities. Demand was spread across the city, albeit dominated by the Outer West (815,000 sqm) and West (210,000 sqm) submarkets. By sector, take-up in 2022 was led by transport and logistics (43%), followed by retail trade (31%) and health/pharmaceutical (11%).



1.1.2 Vacancy Rates

As of Q4 2022, the Sydney vacancy rate measured 0.2%, down from 1.9% in Q4 2021. For many submarkets across the city, there are no leasing options currently available and include the Outer West, West and North West submarkets. Across the city, there is just ~50,000 sqm currently available for lease.

Sydney Industrial Vacancy Rates by Submarket – Q4 2022

	South	North	Outer West	North West	South West	Central West	Sydney Average
Q4 2021	0.9%	1.8%	1.2%	1.9%	0.3%	3.3%	1.9%
Q4 2022	0.3%	1.2%	0.0%	0.0%	0.2%	0.5%	0.2%

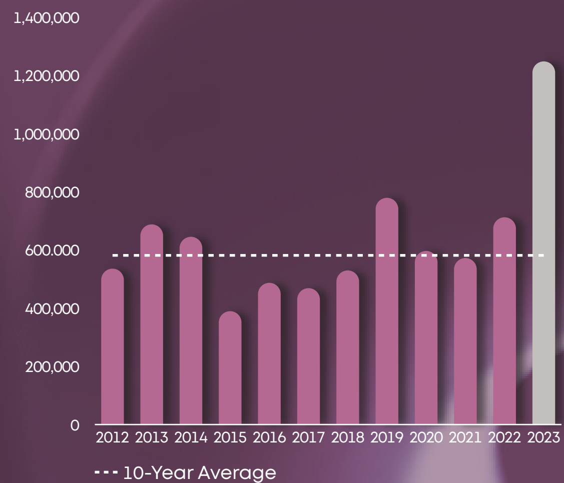
Source: Colliers Research

1.1.3 Supply

Industrial completions reached approximately 720,000 sqm in 2022, up from ~575,000 sqm in 2021. Of the stock to complete in 2022, all facilities were leased prior to completion which highlights the current strength of the occupier market.

For 2023, the supply pipeline is expected to increase to approximately 1.25 million sqm and is dominated by facilities within the Outer West submarket. Beyond 2023, there is potential for a further 1.3 million sqm to be delivered to the market in 2024 as this is when the bulk of facilities within the Mamre Road Precinct can be delivered.

Sydney Industrial Supply (sqm)



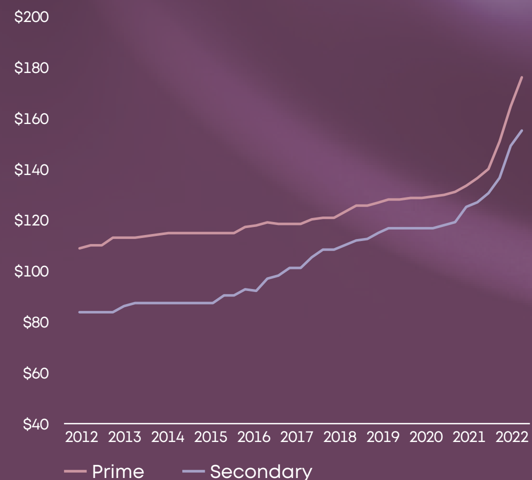
Source: Colliers Research

1.1.4 Rents & Incentives

As a result of a lack of available leasing options and continued high demand levels, record levels of rental growth have occurred across all submarkets in 2022. As at Q4 2022, average net face rents measured A$208/sqm for prime (A$176/sqm in Western Sydney) and A$180/sqm for secondary (A$155/sqm in the Western markets). On an annual basis, prime rents grew by 24.9%, the largest YoY increase on record. Secondary grade rents have grown by 22.1% over the past year.

Average prime incentives have fallen further throughout the year and currently average 5.9% (range of 0.0% to 10.0%), down from 10.4% at the end of 2021. Secondary incentives are on par at 5.8%, down from 10.3% a year ago.

Western Sydney Industrial Net Face Rents (A$/sqm)



Source: Colliers Research

Sydney Prime Rents by Submarket, Q4 2022

	South	North	Outer West	North West	South West	Central West	Sydney Average
A$/sqm p.a.	$301	$246	$175	$171	$171	$187	$208
12-month change	30.0%	10.1%	29.6%	29.7%	28.2%	27.5%	24.9%
Average Incentive	7.5%	7.5%	5.2%	4.0%	6.3%	5.3%	5.9%

Source: Colliers Research

1.2 INVESTMENT MARKET

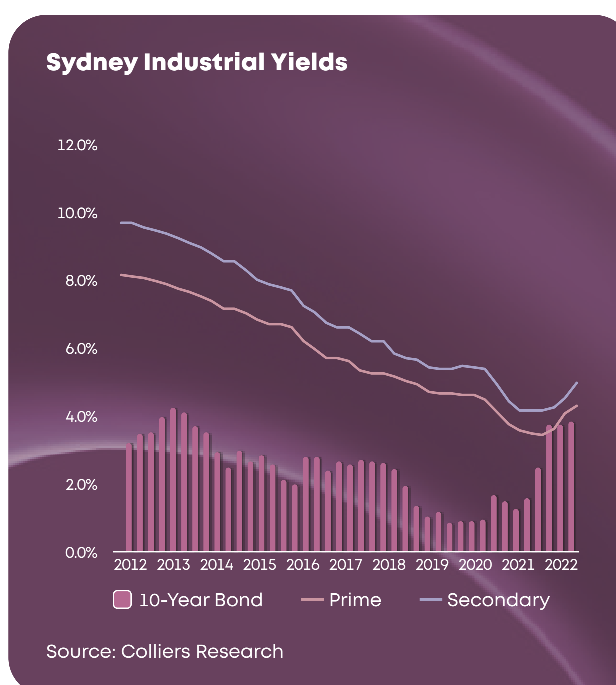
1.2.1 Volumes

After a strong start to 2022, transaction volumes fell sharply in the second half of the year, with higher debt costs, a deteriorating economic outlook and pricing uncertainty weighing on investment activity. In 2022, approximately A$3.3 billion traded which was well below the A$4.8 billion recorded in 2021. Notable transactions for 2022 include the Rosehill Business Park, which Wentworth Capital (formerly NashCap) acquired from GPT for A$141.6 million and the Leda Holdings Portfolio (three assets) which Pittwater Industrial bought for A$95 million. Beyond this, there were multiple other confidential sales above A$100 million.

1.2.2 Yields

In response to higher interest rates and funding costs, industrial yields have softened across the Sydney market as meeting price expectations of both the vendor and buyer remains the challenge. Since the low point in yields in Q1 2022, prime yields have softened by 84 basis points while softening in the secondary market has totalled 81 basis points.

Average prime yields in Sydney currently average 4.32% (range of 4.00% - 4.75%) while secondary average 5.00% (range of 4.75% - 5.50%).



Source: Colliers Research

1.3 OUTLOOK

Occupier demand is forecast to remain robust over the next 12 months, led by the transport and logistics sector as businesses continue to outsource their transport functions. At the same time, demand from the retail trade sector is expected to somewhat moderate as cost-of-living pressures limit consumer consumption, particularly to discretionary retail items.

From a rental perspective, prime rental growth of ~8.0% is forecast over the next 12 months with inner and middle ring markets expected to be closer to 10.0% over the period while Western Sydney prime rents are forecast to grow by ~8.0% in the year ahead.

Pricing uncertainty is expected to persist in the first half of 2023 and yields are expected to soften further over the next six months given the higher interest rate environment. At this stage, we are expecting prime industrial yields to average closer to 4.75% by mid-2023.

2. MELBOURNE INDUSTRIAL & LOGISTICS

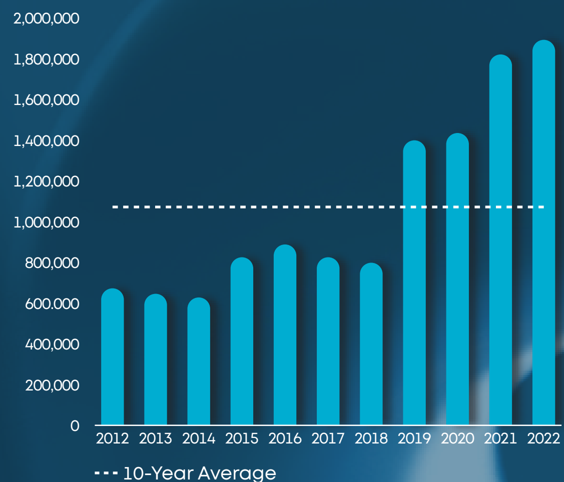
The Melbourne industrial market comprises five major precincts; the North, South East, West, Outer East, and City Fringe. The City Fringe precinct primarily consists of smaller sites with higher rents, specifically appealing to tenants that need to be located close to the city. Many of these industrial sites are being slowly converted to residential sites due to high underlying land values and diminishing availability of land suitable for residential development. The South East and Outer East precincts comprise larger land holdings with Industrial hubs including Moorabbin, Cheltenham, Clayton, and Dandenong. The largest industrial precinct in Australia is the West precinct which has the largest industrial and logistics sites. This precinct continues to have new pockets of land unlocked in areas including Truganina, Tarneit, and Ravenhall.

2.1 OCCUPIER MARKET

2.1.1 Leasing Activity

Demand for warehouse space reached a record 1.88 million sqm in 2022, surpassing the previous high of 1.81 million sqm in 2021. Melbourne's West submarket continues to be the most active market in Australia, with almost 850,000 sqm leased in 2022. The South East submarkets remain active with 540,000 sqm leased in 2022 (both South East and Outer East submarkets), with a lack of stock capping the rate of take-up.

Retail trade (38%) and transport and logistics (33%) were the two most active sectors for the year, while manufacturing saw a large uptick in demand, accounting for 18% of lease deals. 58% of take-up by Gross Lettable Area (GLA) stemmed from pre-commitment/speculative deals.



2.1.2 Vacancy Rates

In response to demand levels, vacancy rates remain below historical levels in all submarkets. As of Q4 2022, the vacancy rate for the Melbourne industrial market measures 0.6%, down sharply from 2.7% in Q4 2021. Vacancy rates have fallen across each submarket with the South East being the tightest at 0.2%. Across the market, there is just ~160,000 sqm currently available for lease as compared to over 670,000 sqm in Q4 2021.

Melbourne Industrial Vacancy Rates by Submarket – Q4 2022

	South East	Outer East	West	North	Melbourne Average
Q4 2021	0.3%	1.9%	3.2%	5.8%	2.7%
Q4 2022	0.2%	0.5%	0.9%	0.6%	0.6%

Source: Colliers Research

2.1.3 Supply

Industrial completions across Melbourne totalled almost 1.1 million sqm in 2022, up from the 920,000 sqm which was delivered to the market in 2021. This level of supply is well above the 10-year average of 550,000 sqm per annum.

Looking ahead, supply levels are forecast to remain strong in 2023, with approximately 1.1 million sqm expected to enter the market. Of this total, almost 560,000 sqm stems from speculative developments.

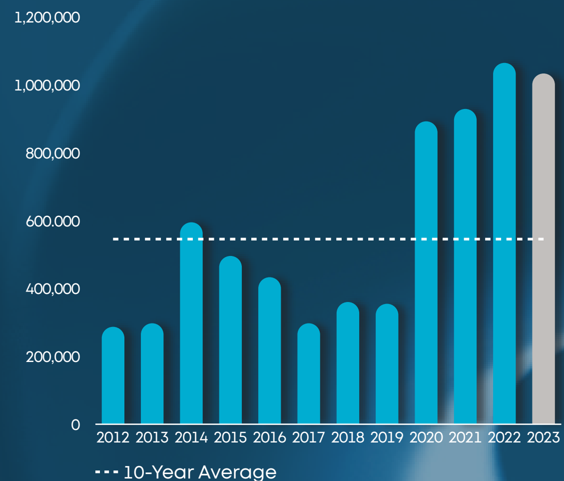
2.1.4 Rents & Incentives

Strong rental growth continues to be recorded across the Melbourne market as occupiers compete for space given the low vacancy rate. In 2022, prime rents jumped by 20.0% while growth in secondary rents averaged 20.3% across the market. This level of growth is the strongest on record for the Melbourne market.

As at Q4 2022, net face rents in Melbourne average A$117/sqm for prime and A$96/sqm for secondary (excl. City Fringe). Pre-commitment rents typically range between A$95-$105/sqm in the West and A$130-$140/sqm in the South East submarket.

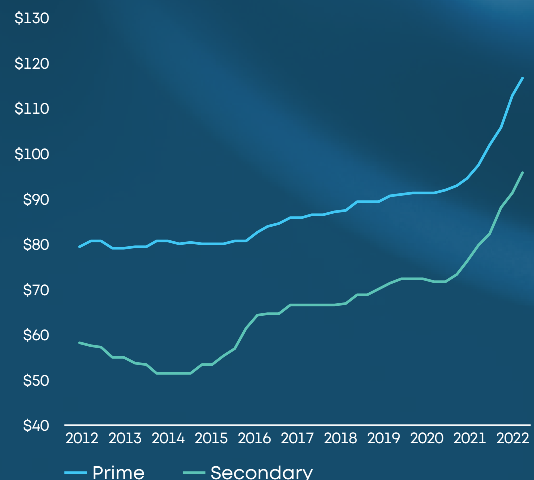
Average incentives have declined over the year for both prime and secondary space. Incentives currently average 11.9% for prime (ranging from 7.5% to 17.5%) and 11.1% for secondary (ranging from 7.5% to 17.5%).

Melbourne Industrial Supply (sqm)



Source: Colliers Research

Melbourne Industrial Net Face Rents (A$/sqm)



Source: Colliers Research, Excludes City Fringe precinct

Melbourne Prime Rents by Submarket, Q4 2022

	South East	Outer East	West	North	Melbourne Average*
A$/sqm p.a.	$121	$129	$108	$109	$117
12-month change	17.8%	18.8%	21.0%	23.0%	20.0%
Average Incentive	10.0%	11.0%	15.0%	11.5%	11.9%

Source: Colliers Research * Excludes City Fringe

2.2 INVESTMENT MARKET

2.2.1 Volumes

After a strong start to 2022, investment activity has slowed more recently across the Melbourne market as headwinds such as higher interest rates and debt costs limit the number of assets being brought to market. In 2022, just over A$2.3 billion traded within Melbourne, down from A$4.4 billion in 2021.

Notable transactions include five assets acquired by ESR for A$106.5 million, reflecting a blended yield of 4.46%. Assets as part of this transaction include 147-153 Canterbury Road, Kilsyth (A$22.2 million) and 321-327 Greens Road, Keysborough (A$25.0 million). Outside of this, 45-49 Vella Drive, Sunshine West was acquired by Centennial for A$11 million.

Institutional investors remained the dominant buyer type in 2022. Alternatively, private investors and corporate groups remain active in bringing assets to market given the outlook for further increases in yields.

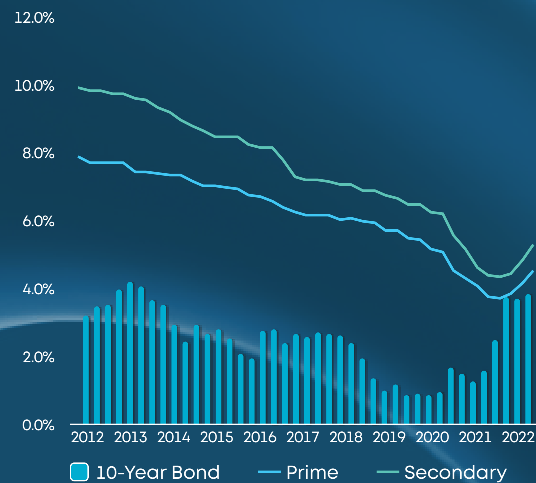
2.2.2 Yields

Inflationary pressures are continuing to drive an upward interest rate cycle and has led to a softening of yields in 2022. Midpoint prime yields recorded 80 basis points of softening in 2022 with prime yields now averaging 4.55% across the Melbourne market (range of 4.25% to 5.00%). The rate of yield expansion in the secondary market was more pronounced at 95 basis points since the pricing peak in Q1 2022, with midpoint yields now averaging 5.35% (range of 5.00% to 5.75%).

2.3 OUTLOOK

Going forward, it is expected leasing demand will remain elevated in 2023, albeit below the levels recorded over the past two years. Supply chains are

Melbourne Industrial Yields



Source: Colliers Research

expected to normalise in 2023 and it is likely that high inventory models will begin to unwind, however, will continue to remain above the levels seen prior to the pandemic. This in turn is expected to see more modest levels of demand from the retail trade sector

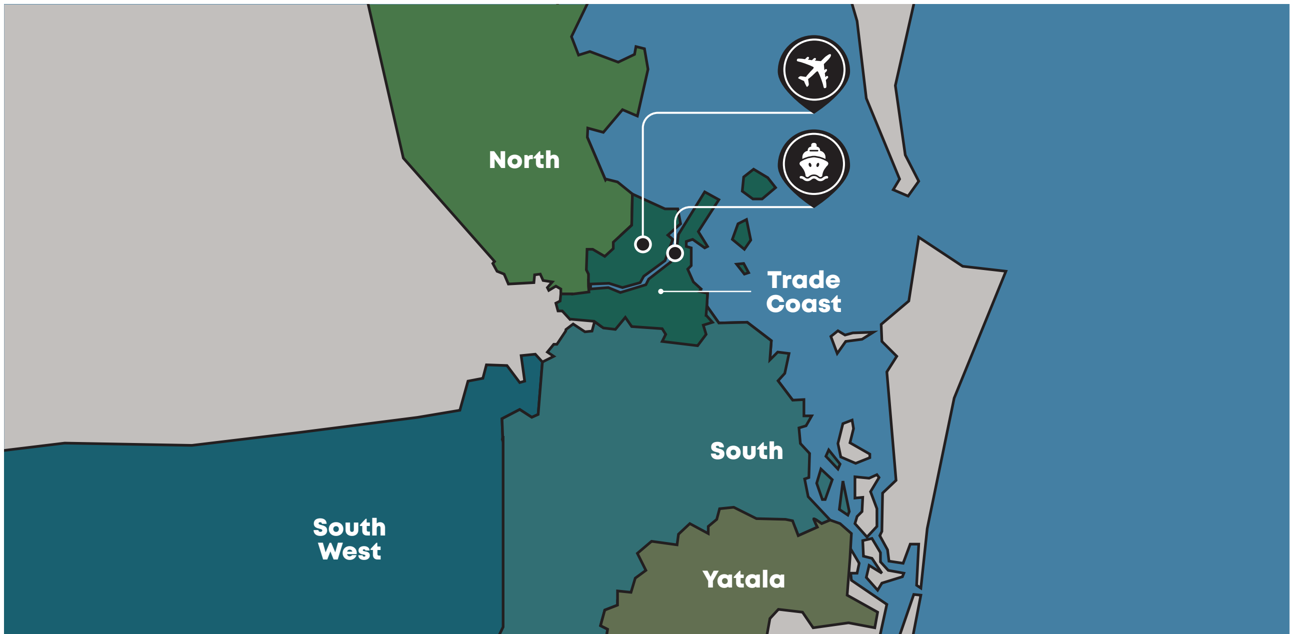
Rental growth of ~7.5% is forecast for the prime market over the next 12 months with the West and South East markets expected to outperform given the lack of leasing options. Rental growth is expected to remain strong for secondary space with similar levels of growth expected across the Melbourne market.

From a pricing perspective, we expect yields to soften further over the next 12 months, given the higher interest rate environment. At this stage, we are forecasting further yield expansion in the order of 50 basis points by the end of 2023, most of which will occur in the first half of 2023.

3. BRISBANE INDUSTRIAL & LOGISTICS

The Brisbane industrial market has five key precincts: Australia Trade Coast (ATC), Brisbane North, Brisbane South, Brisbane South West, and Yatala. The ATC has direct links to air, sea, road, and rail networks which supports its desirability from transport and logistics providers.

The Brisbane North benefits from overflow demand on the Trade Coast due to its proximity to the Brisbane Airport and the Port of Brisbane. The southern precincts (South, South West, and Yatala) have benefitted from major transport infrastructure upgrades and high levels of population growth in recent years. As a result, the bulk of new supply and tenant demand has stemmed from the southern precincts in recent years.

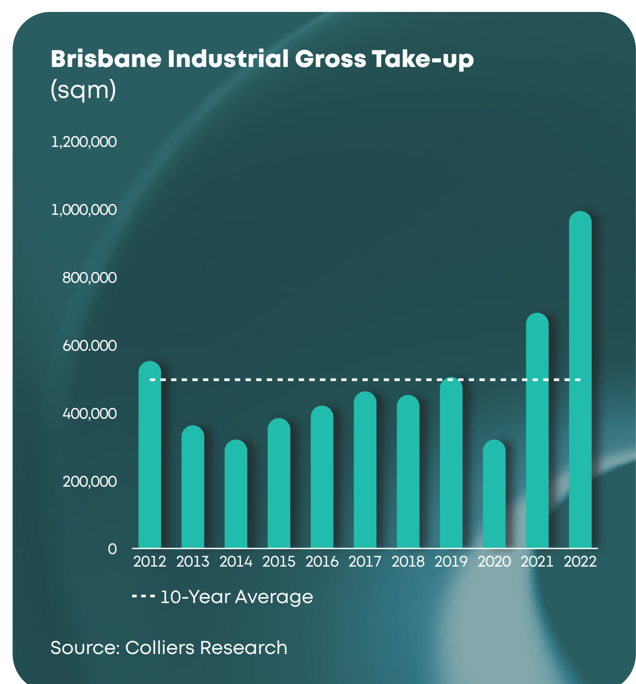


3.1 OCCUPIER MARKET

3.1.1 Leasing Activity

Transport and logistics occupiers have underpinned a new record year for the Brisbane market, with almost 1.0 million sqm being leased in 2022. This strong result follows 690,000 sqm being leased in 2021. The Southern submarkets continue to be the most active, with 71% of lease deals by area occurring in the South, South West or Yatala submarkets.

Demand continues to be skewed to new builds given the limited leasing options of existing space, with 71% of take-up by GLA stemming from pre-commitment or speculative deals.



3.1.2 Vacancy Rates

Recent lease deals have reduced the Brisbane vacancy rate to 0.8% in Q4 2022, down from 2.6% in Q4 2021, with the ATC and North submarkets being the tightest markets. Across the market, there is just over 85,000 sqm currently available for lease.

While there remains a pipeline of speculative projects across each submarket, current tenant enquiry will ensure the vacancy rate remains low for the foreseeable future.

Brisbane Industrial Vacancy Rates by Submarket – Q4 2022

	ATC	North	South	South West	Brisbane Average
Q4 2021	2.5%	3.3%	2.2%	3.2%	2.6%
Q4 2022	0.9%	0.0%	0.4%	1.6%	0.8%

Source: Colliers Research

3.1.3 Supply

In 2022, approximately 440,000 sqm of new stock was added to the Brisbane market, which is up from the ~375,000 sqm added in 2021. For 2022, the southern submarkets captured the bulk of new supply at ~390,000 sqm while modest levels of completions occurred in the ATC and North submarkets.

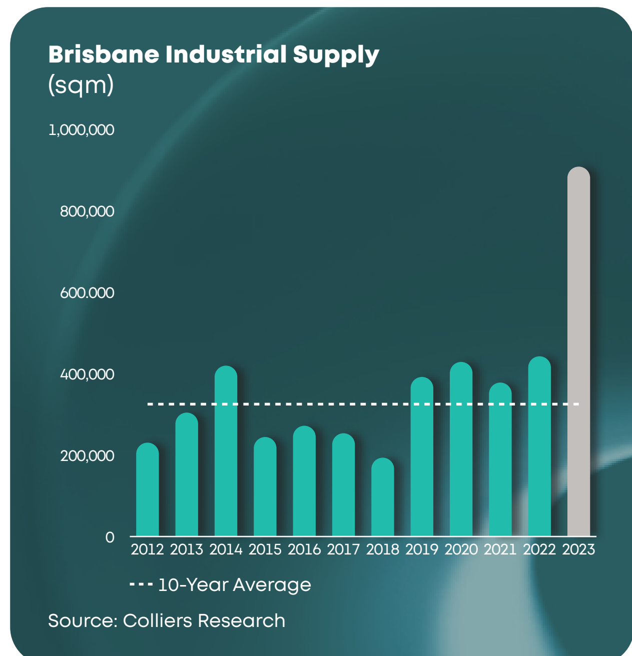
Beyond 2022, there is the potential for over 900,000 sqm to be delivered to the market in 2023 which would represent a record level of supply for the Brisbane market. However, at this stage, only around 40% of this pipeline is pre-committed with several projects only going ahead once a pre-commitment is secured which may delay the timing of some of this supply.

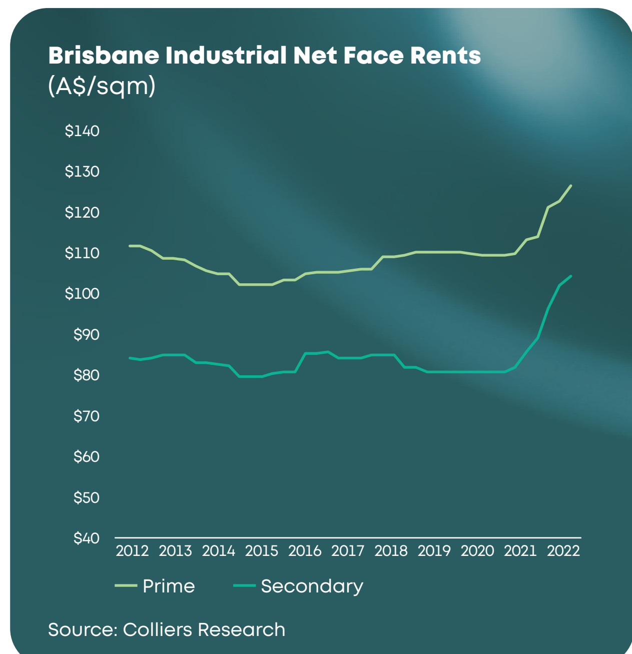
3.1.4 Rents & Incentives

Industrial rents experienced strong levels of growth in 2022, however, rents for prime space lagged the Sydney and Melbourne markets throughout the year. Prime net face rents increased by 12.4% in 2022 to A$130/sqm with the largest increase recorded in the ATC (+12.8%) and North (+15.2%) submarkets.

Secondary grade rents recorded growth of 21.5% in 2022 to A$105/sqm. The North and South West submarkets recorded the largest increase over the year at 34.4% and 24.2% respectively.

Incentives have also fallen sharply, currently averaging 11.5% for prime and 10.5% for secondary.





Brisbane Prime Rents by Submarket, Q4 2022

	ATC	North	South	South West	Brisbane Average
A$/sqm p.a.	$133	$133	$128	$128	$130
12-month change	12.8%	15.2%	10.9%	10.9%	12.4%
Average Incentive	7.5%	7.5%	12.5%	12.5%	11.5%

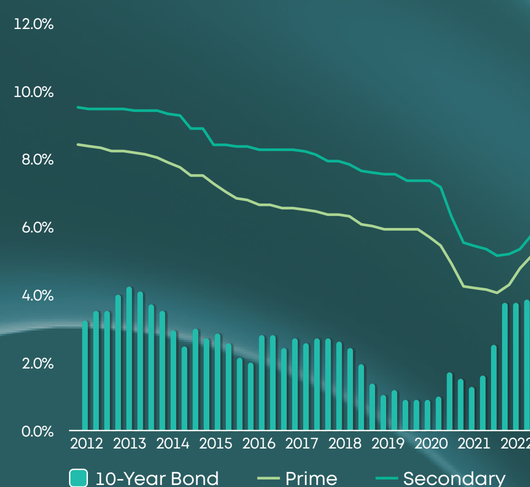
Source: Colliers Research

3.2 INVESTMENT MARKET

3.2.1 Volumes

As a result of several large transactions, investment volumes remained elevated in 2022, albeit under the heights recorded in 2021. In 2022, approximately A$1.4 billion traded, however, by number, assets remain tightly held while there remains a divergence between vendor and purchaser expectations given rising yields. The largest transaction to occur over the year was Fife Capital's acquisition of a 50% stake in 99 Sandstone Place, Parkinson for A$177.4 million. The sale reflected an initial yield of 4.74% and reflects a 16% increase in value from when it last sold in 2020. Other major acquisitions include ESR buying five assets from Direct Commercial Property for A$61.6 million, reflecting a yield of 5.75%.

Similar to broader national trends, private investors remain the most active vendors in 2022 while institutions have been the most active purchasers over the period.



Source: Colliers Research

3.2.2 Yields

Prime and secondary yields have softened 110 and 70 basis points respectively since the peak in pricing in Q1 2022 as rising funding costs are being priced in. At present, prime yields currently average 5.15% (range of 5.00% to 5.50%) and secondary are higher at 5.80% (range of 5.50% to 6.00%).

The rate of yield softening has been consistent across all submarkets, while the yield range remains tighter within the ATC and North submarkets at 5.00% respectively for prime.

3.3 OUTLOOK

Industrial take-up activity is expected to remain strong in 2023 as the level of tenant enquiry remains significant. However, with vacancy rates trending lower, a large share of deal activity is expected to stem from pre-commitment and speculative deals.

Rental growth has consistently lagged Sydney and Melbourne over the past 12 months, however, given the lack of leasing options in all markets, rents are expected to accelerate over the next six months. We are forecasting prime rental growth of ~6.5% for the next 12 months with the ATC and North submarkets expected to outperform with growth rates of ~7.5% expected.

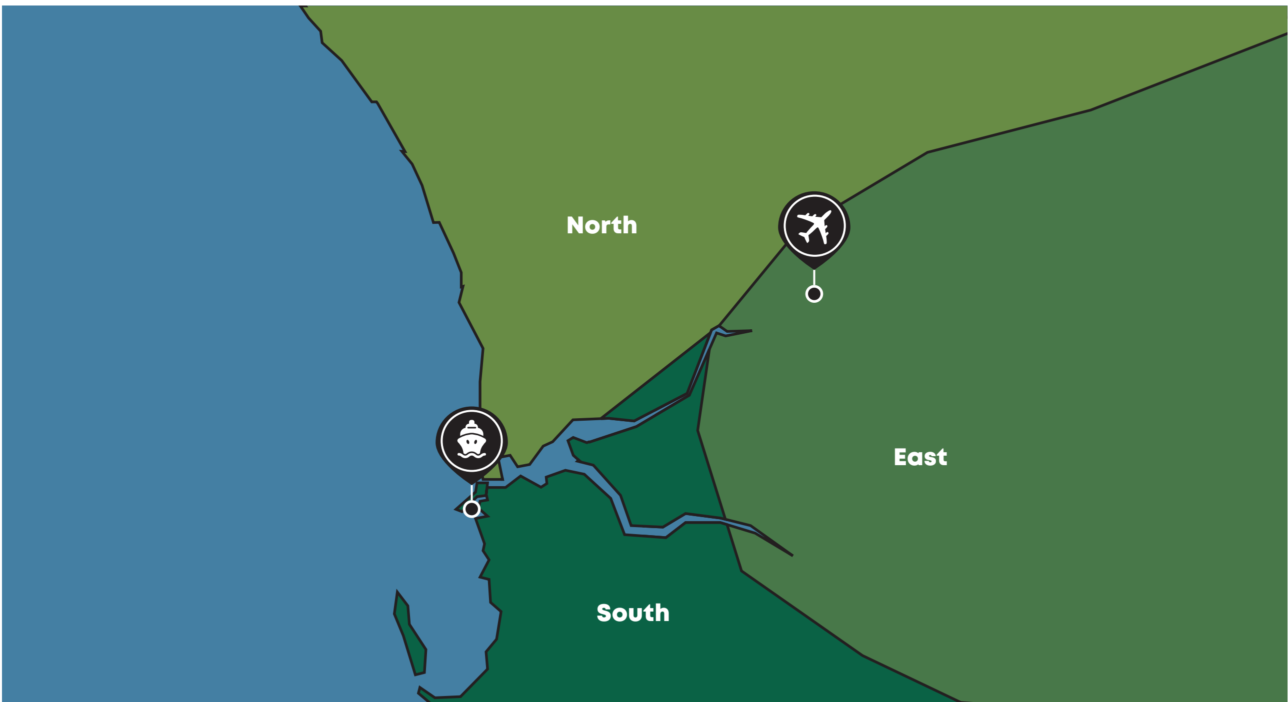
Developers' risk appetite has increased in light of improved market conditions and the flight to quality trend, particularly in the +5,000 sqm size range in southern Brisbane. As a result, developers are expected to remain active in their speculative development plans.

From a pricing perspective, we expect yields to soften further over the next 12 months given the higher interest rate environment. At this stage, we are expecting prime industrial yields to average closer to 5.30% by early to mid-2023.

4. PERTH INDUSTRIAL & LOGISTICS

The Perth industrial market is divided into three regions North, East, and South. The main transport and logistics precincts are in Perth's East and South industrial regions.

The largest precinct in terms of major (>2,000 sqm) industrial space stock is Kewdale/Welshpool. Located approximately 6km east of the Perth CBD and sitting immediately south of the Perth International Airport, this precinct has traditionally been Perth's premier transport and logistics precinct. It is home to the Kewdale Freight Terminal which is linked by rail to Perth's seaports and all other intra and interstate rail freight lines; hence it has historically been the focus of Institutional and major industrial investors.

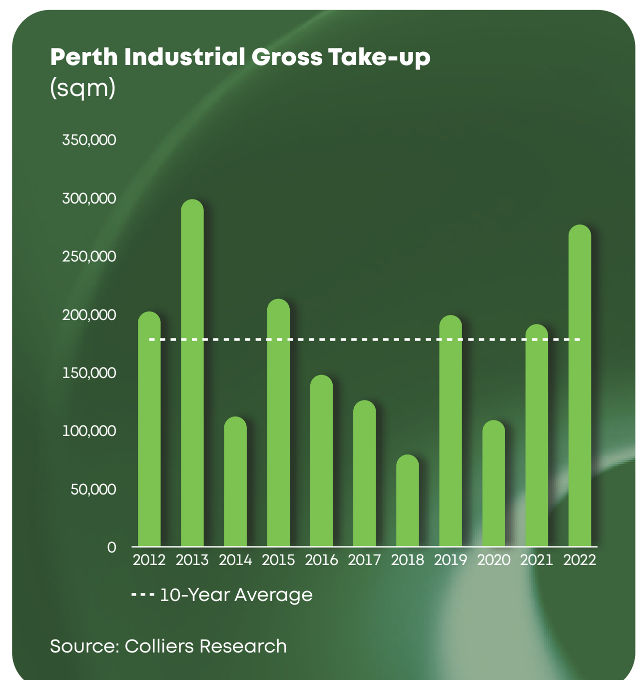


4.1 OCCUPIER MARKET

4.1.1 Leasing Activity

The Western Australia (WA) economy continues to show its strength, supported by further growth in exports, a strong jobs market and population growth well above the national average. As a result, warehouse demand remains elevated in Perth, however, take-up volumes remain restricted by a lack of leasing options.

In 2022, 280,000 sqm was leased across Perth, dominated by the East submarket. This level of demand is above the 190,000 sqm recorded in 2021 and the 10-year annual average of 175,000 sqm. Retail trade and transport and logistics remain the two most active sectors, highlighted by Officeworks' 16,384 sqm pre-commitment at Perth Airport. Other lease deals include Inghams pre-committing to 9,845 sqm at 152 Talbot Road, Hazelmere.



4.1.2 Vacancy Rates

Following a sharp fall in the vacancy rate in the first half of 2022, the Perth vacancy rate increased moderately to 0.7% in Q4 2022, up from 0.2% in Q2 2022. The increase in the vacancy rate is the result of several new additions within the East submarket, however, enquiry on these facilities has been strong and should be leased shortly. Leasing options remain limited in all submarkets, however, the North submarket is the tightest at 0.2%.

Perth Industrial Vacancy Rates by Submarket – Q4 2022

	East	North	South	Perth Average
Q4 2021	–	–	–	4.1%
Q4 2022	1.0%	0.2%	0.6%	0.7%

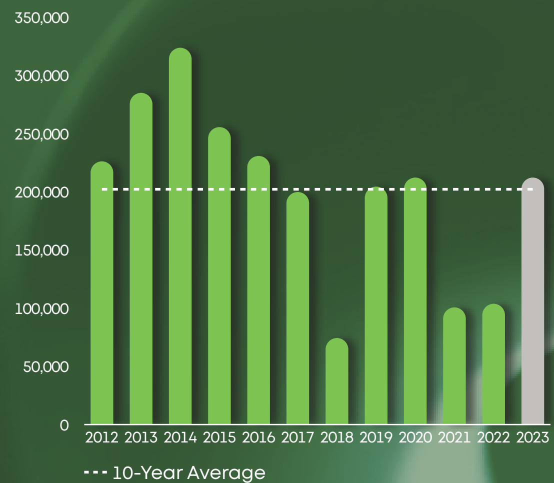
Source: Colliers Research

4.1.3 Supply

Despite record levels of occupier demand, the supply pipeline for 2022 was limited with just over 100,000 sqm added to the market for the year. Notable additions include Amazon's new facility at Jandakot Airport (~20,000 sqm) and follows the 25,200 sqm Australia Post facility completed earlier in the year.

At present, the supply pipeline for 2023 stands at approximately 215,000 sqm, around 75% of which is expected to eventuate within the East submarket. Developer confidence for speculative development has improved sharply over the past six months and as a result there is almost 100,000 sqm in the pipeline for 2023 and includes 18,780 sqm at LOGOS' 152 Talbot Road, Hazelmere estate.

Perth Industrial Supply
(sqm)



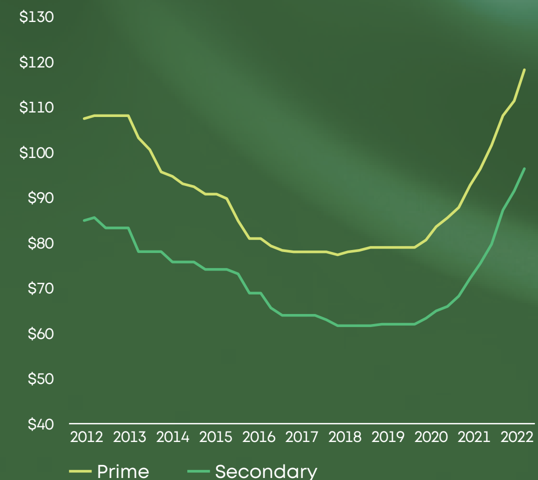
Source: Colliers Research

4.1.4 Rents & Incentives

Rental growth continues to remain strong across the market, supported by a lack of leaving options. Prime rents increased by 6.0% in Q4 2022 (22.6% YoY), while secondary was even stronger on an annual basis at 27.6%. Prime rents currently average A$118/sqm while rents around A$130/sqm are being achieved in select cases for new space in the East submarket. Secondary rents currently average A$97/sqm.

Incentives have fallen further, averaging 5.0% for prime and secondary grades respectively.

Perth Industrial Net Face Rents
(A$/sqm)



Source: Colliers Research

Perth Prime Rents by Submarket, Q4 2022

	East	North	South	Perth Average
A$/sqm p.a.	$123	$118	$115	$118
12-month change	18.4%	25.7%	24.3%	22.6%
Average Incentive	5.0%	5.0%	5.0%	5.0%

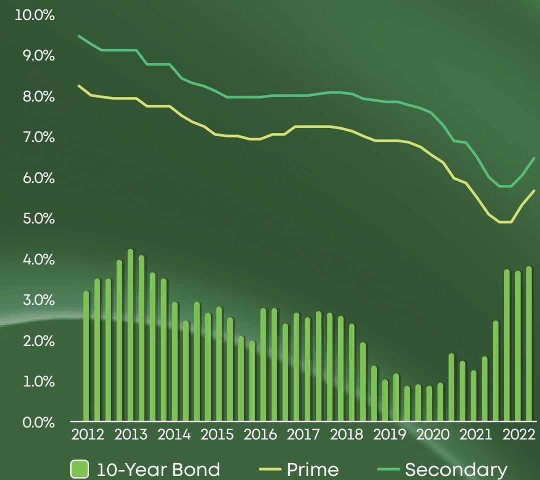
Source: Colliers Research

4.2 INVESTMENT MARKET

4.2.1 Volumes

Investment volumes picked up in the second half of 2022 with A$367.5 million in trading, bringing the 2022 total to almost A$530 million. However, this level of activity was underpinned by one large transaction with very few assets being offered to the market for sale as select groups adopt a wait and see approach in the short term as they work out where current pricing sits in light of recent yield softening.

The largest sale to occur in 2022 was Charter Hall acquiring the Roe Highway Logistics Park for ~A$300 million from a consortium which includes Hesperia and Fiveight. The sale included a number of stabilised assets and development sites and reflected an equivalent market yield of ~4.00%. Other sales include 15 Beach Street, Kwinana Beach which Redhill Partners acquired for A$16.2 million.



Institutional interest for industrial assets in Perth has grown substantially, particularly over the past 12 months with many perceiving the market to offer value and upside when compared to the East Coast. However, large portions of the core industrial market are controlled by a number of high-net-worth individuals who continue to expand portfolios as opposed to divesting, which has limited investment volumes.

4.2.2 Yields

A price discovery period begun for the Perth market in 2022 as higher interest rates and funding costs have led to yield expansion across both prime and secondary grades. Since Q1 2022, prime yields softened by 65 basis points, while secondary grade yield expansion was higher at 77 basis points over the same period. Prime yields now average 5.69% across the market (range of 5.00% to 6.00%), with the East submarket being the tightest as 5.33%.

4.3 Outlook

Occupier demand exceeded the levels recorded in 2021 and further momentum is expected over the next 12 months given the volume of active enquiry in the market. Supply chains are expected to normalise in 2023 and it is likely that high inventory models will begin to unwind, however, and will continue to remain above the levels seen prior to the pandemic. This in turn is expected to see more modest levels of demand from the retail trade sector. Demand from the transport and logistics and manufacturing sectors is expected to offset this.

Rental growth of ~6.0% is forecast for the prime market over the next 12 months with consistent growth expected across each submarket given the lack of leasing options. There are selected core precincts where rental growth is expected to outperform and growth of >6.5% is likely for the year ahead.

From a pricing perspective, we expect yields to soften over the next 12 months given the higher interest rate environment. At this stage, we are forecasting prime yield expansion in the order of 50 basis points by the end of 2023, however, once the cash rate stabilises (forecast to stabilise from mid-2023), the level of softening is expected to moderate.

5. SUBURBAN OFFICE MARKET OVERVIEW

The recovery of office markets across Australia has entered a period of bifurcation across both CBD and non-CBD locations. Quality and location of the asset are becoming increasingly important, as buildings in areas with great amenities and strong transport infrastructure links outperform, sometimes better than higher graded buildings in poorer locales. Analysis of Colliers leasing activity shows that over 80% of deals were from 'move within' activity, that is, they moved either within a CBD or within a metro market. CBD and metro tenants are staying true to their preferred location despite the attractive terms on offer to relocate. With the current skills shortage, an appealing workplace is becoming increasingly important to tenants to retain staff.

Vacancy levels in metro office locations are beginning to improve; however, many are still above the long-term average, particularly within markets that have experienced higher levels of supply over the last two years. Total vacancy across the monitored metro office markets has decreased by 0.16 percentage points over the previous six months to 14.0% (as of Q3 2022). Although this sits above the 10-year historical 6-month average of 9.7%, it is still positive for the metro office markets, with vacancy declining for the first time since the onset of the pandemic, despite a large amount of supply having entered some markets over the last two years such as North Sydney, Parramatta and Melbourne's City Fringe. Whilst we acknowledge that the vacancy profile is somewhat different across the metro markets, leasing activity is gathering pace, particularly for Core Fringe locations as opposed to suburban locations. However, vacancy is expected to stay above the long-term average for metro markets over the next three years as further new supply comes to market and potential resultant backfill space.

Newer, well-located buildings continue to benefit from the flight-to-quality and flight-to-experience thematic and are more readily occupied, leaving behind backfill space and keeping vacancy elevated in secondary stock. Demand for newer, high-quality office product within proximity to the CBD and amenity and infrastructure is driving a robust supply pipeline within core fringe locations such as the Melbourne City Fringe.

Average face rents are recovering from the impact of the pandemic over the last two years as landlords gain more confidence in the office recovery moving forward and a more stable incentive profile. As a result, average prime metro office net effective rents over 2022 rose by 2.0% overall, although there are different patterns across the markets. Brisbane metro recorded positive annual growth of 2.2%, as did Melbourne with a rise of 8.4%, and West Perth rents rose 14% on average. Sydney Metro, however, recorded a decline in average prime net effective rents over 2022, as downward pressure on rents has started to gather pace in markets such as Macquarie Park and Chatswood and St Leonards; markets with a substantially higher vacancy profile that are competing for tenants that are attracted to newer developments in more core fringe locations.

Investment activity has been more muted over 2022, recording A$4.53 billion in sales in the main Sydney, Melbourne, Brisbane, Adelaide and Perth metro markets. This is almost a 40% decrease in the total AUD volume of transactions reported over 2021. Rising interest rates, record high bond rates, and high domestic and international inflation have resulted in deteriorating buyer sentiment and an increasing expectation of softening yields. This has resulted in an initial slowdown in sales activity as buyers and vendors adjust their expectations.

6. SYDNEY METRO OFFICE MARKET

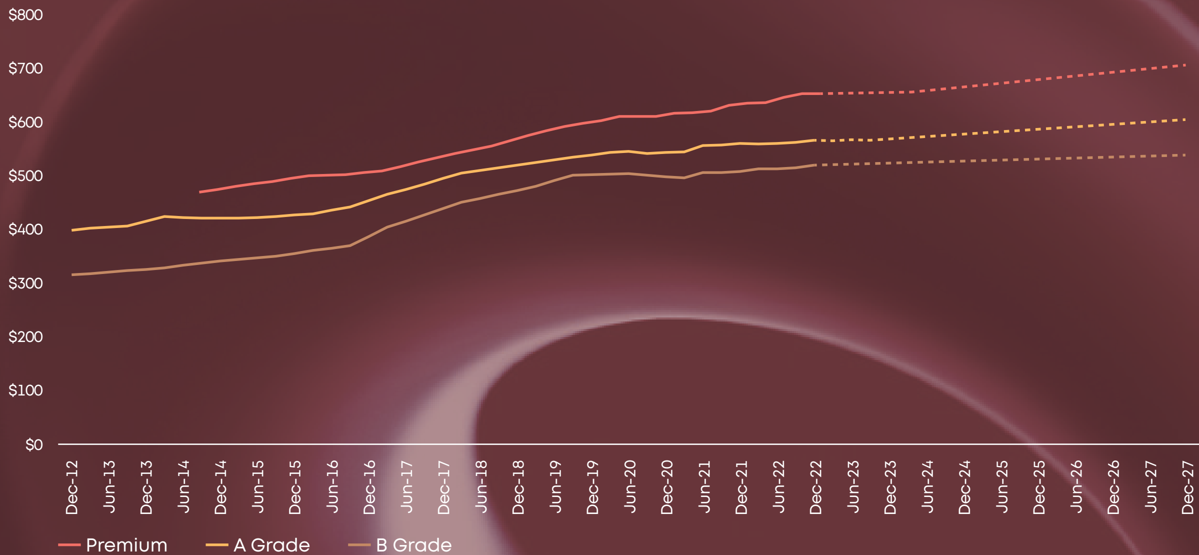
6.1 MARKET OVERVIEW

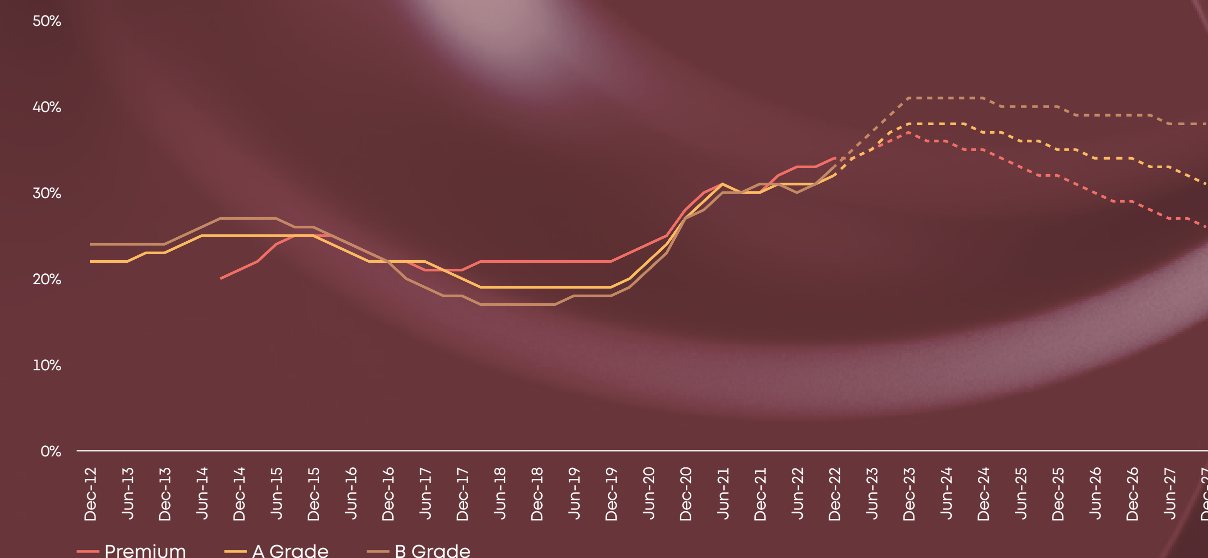
The major office markets across Sydney Metro combined cover 3,398,719 sqm (NLA) of total office space (as at January 2023). This is broken down by North Sydney (918,143 sqm), St Leonards (340,886 sqm), Chatswood (271,003 sqm), Parramatta (959,818 sqm) and Macquarie Park (908,869 sqm). However, there are also the markets of City Fringe, South Sydney and the business parks at Sydney Olympic Park, Rhodes and Norwest.

6.2 LEASING ACTIVITY, DEMAND AND SUPPLY DRIVERS

According to the Property Council of Australia latest figures, 22,800 sqm of new office space was added to the Sydney Metro market in the second half of 2022, primarily in the Chatswood and Parramatta areas. With three developments currently under construction, there is a robust pipeline of projects heading into 2023, but supply will start to decline in 2024 as several projects with target deliveries in 2025 and beyond are mooted.

Across the entire metropolitan market, demand was subdued in the second half of the year. The most recent 6-month net absorption, estimated at approximately -5,178 sqm through January 2023, has been attributed to a significant amount of A grade stock entering the market. Vacancy in the metropolitan market was 16.5% in January 2023, indicating an increase from H1 2022 figures. Colliers anticipates a recovery in demand and vacancy over the coming years as tenants continue to improve the quality of their space.

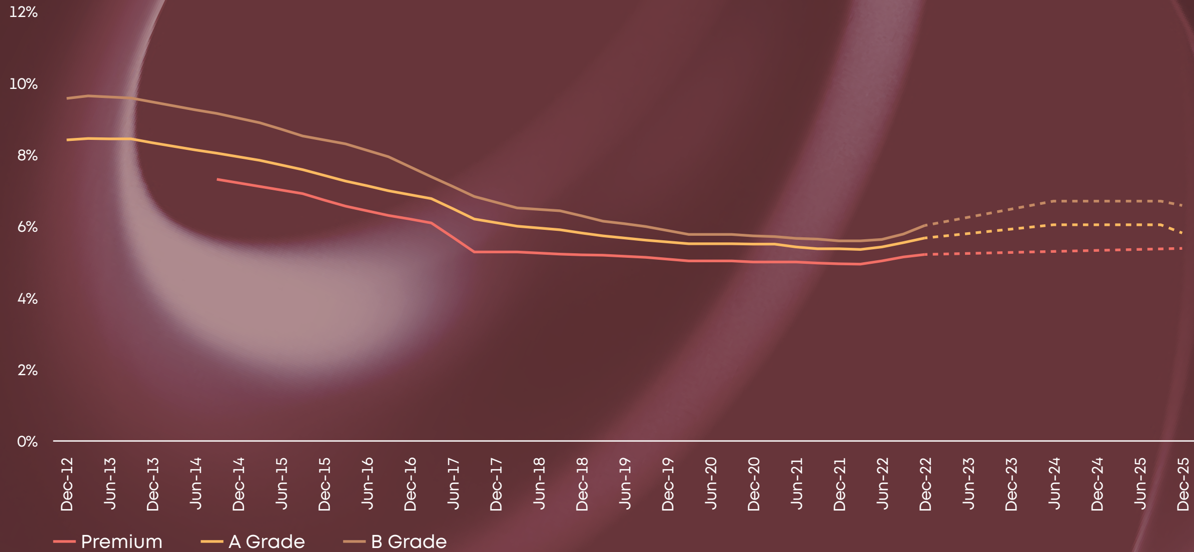




Average Net Face Rents and Incentives by Market, Q4 2022

	Submarket	Avg. Net Face Rent (A$/sqm/annum)			Avg. Gross Incentive (%)		
		Low	High	Average	Low	High	Average
Prime	North Sydney	$858	$1,075	$966	33%	38%	35%
	St Leonards	$610	$710	$660	35%	40%	38%
	Chatswood	$610	$700	$655	33%	39%	36%
	Macquarie Park	$448	$485	$466	35%	40%	38%
	Parramatta	$560	$650	$605	35%	42%	38%
	CBD Fringe	$696	$800	$748	20%	26%	23%
	Sydney Olympic Park	$452	$475	$463	22%	27%	24%
	Rhodes	$446	$470	$458	35%	39%	37%
	Norwest	$330	$380	$355	27%	32%	30%
	South Sydney	$460	$500	$480	20%	30%	28%
Secondary	North Sydney	$675	$800	$738	35%	40%	38%
	St Leonards	$550	$650	$600	35%	42%	39%
	Chatswood	$460	$570	$515	34%	39%	37%
	Macquarie Park	$360	$390	$375	32%	38%	35%
	Parramatta	$500	$550	$525	30%	40%	35%
	CBD Fringe	$527	$629	$578	17%	26%	21%
	South Sydney	$320	$400	$360	25%	30%	28%

Source: Colliers Research



6.3 RENTS AND INCENTIVES TREND

Although at a slower rate than the previous quarter, net face rentals have generally maintained their positive trend of increasing across the whole market. In comparison to the second quarter of the year, premium grade rents have increased by 1.6%, A grade rents have increased by 0.5%, and B grade rents have increased by 0.3%. Similarly, incentives have continued to remain strong for all grades, specifically in the B grade market where the flight to quality theme puts pressure on leasing for secondary stock.

6.4 INVESTMENT VOLUMES AND YIELDS

From Q2 2022 to Q3 2022, investment activity in Sydney's Metro markets increased by 13% for sales exceeding A$10 million. Six transactions totalling A$818 million have been recorded so far in the third quarter of 2022. A notable transaction was the A$400 million sale of 73 Miller Street, North Sydney, to UBS Asset Management. Average yields are now softening across all grades, ranging from 12 to 25 basis points, as the economy enters an upward interest rate cycle due to higher inflation rates.

6.5 OUTLOOK

Developers are still actively sourcing sites and applying for and receiving development approval, resulting in a large number of potential projects particularly in North Sydney and Parramatta. However, we expect that the timing of projects will increasingly be pushed further out, beyond 2024 and 2025 due to construction constraints and uncertain economic activity.

Increased enquiry into Sydney Metro markets is expected to lead to more positive net absorption and continued healthy take up of space. This elevated and rising demand outlook will support net absorption of both the newly delivered stock and some of the standing vacancy, resulting in an expected gradual improvement in the vacancy rate.

Face rents are expected to remain positive within the Metro market and will support confidence in the market and keep leasing activity elevated. With the flight to quality, new and existing A grade incentives are expected to tighten faster than secondary incentives and Colliers anticipates prime net effective rent growth to return while secondary rents are expected to remain flat for longer.

7. BRISBANE METRO OFFICE MARKET

7.1 MARKET OVERVIEW

The Brisbane Fringe Office market, which has 1.3 million sqm of stock, is divided into five precincts, with Urban Renewal being the largest and fastest growing. It accounts for 43% (563,579 sqm) of the total office stock in the Fringe region. The area extends from New Farm to Bowen Hills and includes Fortitude Valley.

Inner South is the second largest office precinct in Brisbane Fringe, accounting for 277,848 sqm of office stock. It stretches from South Brisbane to Greenslopes and includes Woolloongabba and West End.

Milton is the oldest Brisbane Fringe precinct, with 238,716 sqm of stock. In recent years, the region has seen relatively little new development, with the area undergoing transformation through refurbishment. It is home to a diverse range of knowledge-based firms in engineering, design, civil contracting, and digital sectors.

Spring Hill is well-located near to the CBD region, with a total office stock of 152,171 sqm. Toowong is Brisbane's smallest fringe precinct, with 74,647 sqm of office space.

7.2 LEASING ACTIVITY, DEMAND AND SUPPLY DRIVERS

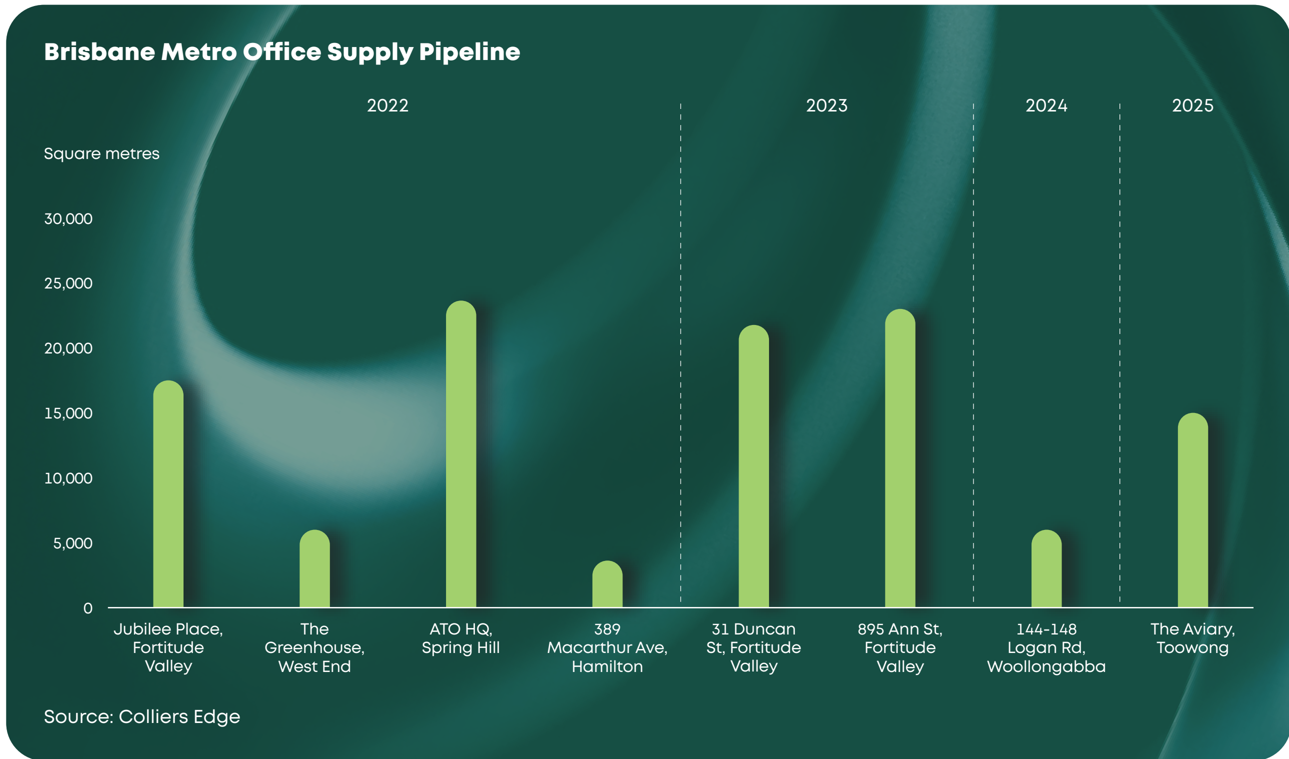
Business confidence, strong labor markets, growth in white collar employment, and other crucial lead indicators for office markets have all remained favorable. As a result, the Brisbane fringe office market has been experiencing a strong recovery, with an overall increase in tenant demand resulting in a 12-month net absorption of 63,625 sqm to January 2023. As such, the vacancy rate has dropped to 15.3% in January 2023, the lowest level since January 2021. Of all the precincts in the Brisbane fringe, Toowong and Urban Renewal were the tightest, with Urban Renewal seeing the greatest amount of net absorption among the Brisbane fringe precincts in the year to January 2023. Spring Hill also saw unprecedented levels of absorption (28,023 sqm) in the past 12 months, owing partly to ATO taking up 24,000 sqm at 152 Wharf Street in Spring Hill.

Supply chain disruptions and inflationary pressures have contributed to an increase in material and construction costs. This, along with rising borrowing rates and changing lending requirements, has resulted in many development projects being deferred, as developers are unable to make the project work or are unable to get the financing required. Higher levels of pre-commitments have become essential for projects to advance. As such, just two new developments are expected to complete in 2023. 31 Duncan Street, Fortitude Valley (21,767 sqm) is projected to complete with a 70% pre-commitment, while a federal government tenant at 895 Ann Street, Fortitude Valley (24,794 sqm) is interested in leasing the entire building when it becomes available.

Due to the high levels of pre-commitment currently present in new supply, vacancy levels are expected to remain constrained as demand consumes existing stock due to a shortage of uncommitted supply entering the market.

There is a significant amount of pent-up demand for quality office space at present, however, as a slowing and uncertain economy become more apparent, this demand may start to decline. The Olympics, however, is likely to act as a catalyst for new jobs and economic growth. With Queensland's unemployment not expected to rise significantly enough to have a massive impact on office space, and the Queensland economy expected to grow by 2.5% by 2022/2023, demand for office space is expected to remain high, albeit slower.

As it has over the last year, the demand will continue to come from SME's with typical size requirements of around 300 sqm, but there has been an uptick in recent months in inquiries from larger enterprises exceeding 1,000 sqm, so this may continue into 2023.



7.3 RENTS AND INCENTIVES TREND

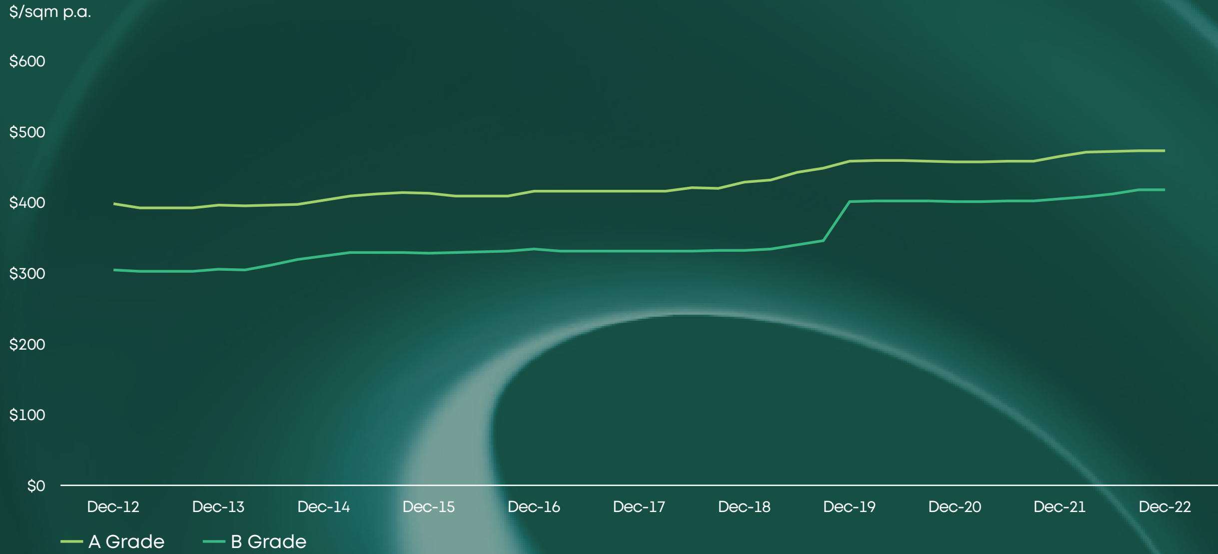
As landlords continue to confront rising interest rates, operating and building expenditures, and rising construction costs, the cost of servicing their debt has increased, and this cost has been passed on to tenants, resulting in year-over-year rental rate increases. In the 12 months to December 2022, Brisbane fringe rents increased by 1.7% to be between A$475/sqm and A$500/sqm net face for Grade A, while B Grade rents increased by 3% to range between A$410/sqm and A$440/sqm. Rents rose the most in the Urban Renewal area, notably in secondary stock, as a result of limited B grade stock as well as it coming from a lower base. As a result, the overall Brisbane fringe secondary rent growth was somewhat higher than A grade rent growth.

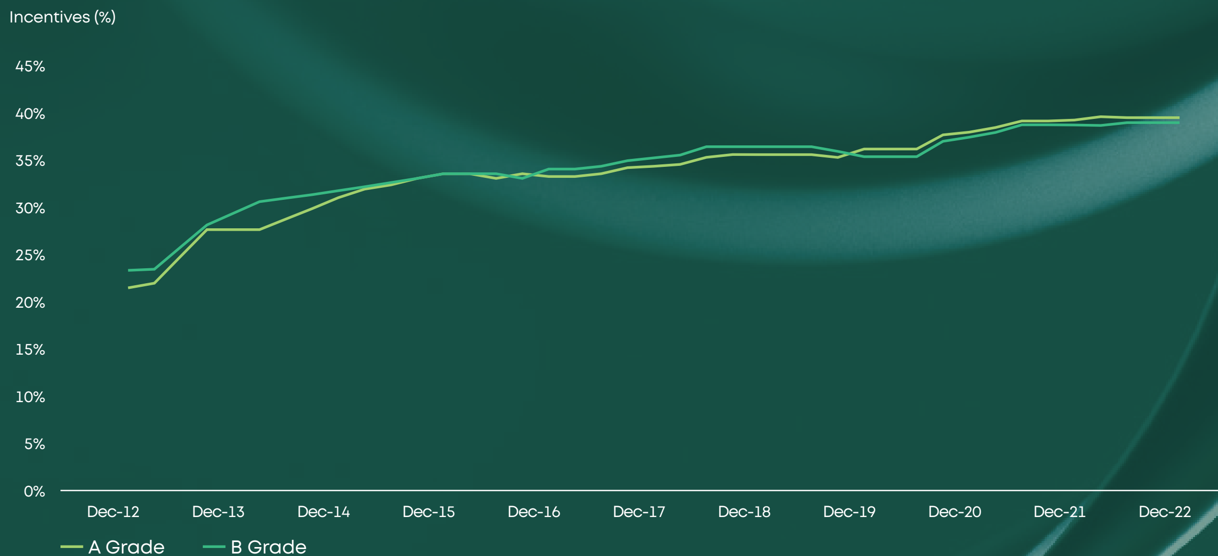
In December 2022, incentives ranged between 37% and 42% as landlords have provided incentives to businesses in the form of fit-outs and rent-free periods, in an effort to persuade businesses to sign new leases or urge existing tenants to stay. Due to low development activity, vacancy in the Brisbane fringe is anticipated to fall, and as the leasing market tightens, incentives are expected to be reduced, resulting in a positive increase in both face and effective rentals.

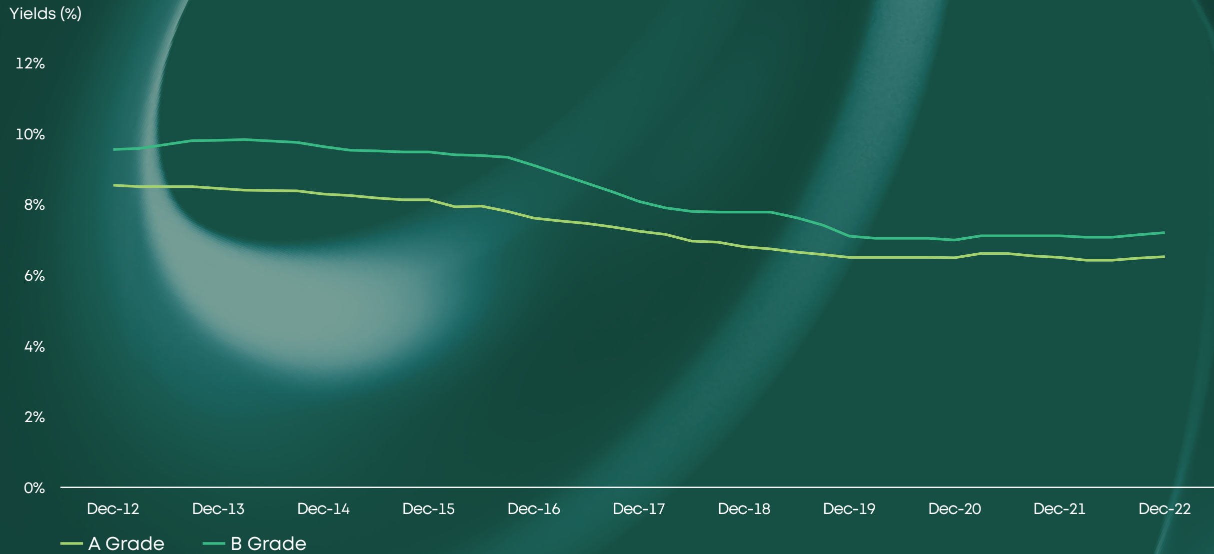
Average Net Face Rents by Market, Q4 2022

Net Face Rents	Inner South		Urban Renewal		Milton		Toowong	
Q4 2022	A Grade	B Grade	A Grade	B Grade	A Grade	B Grade	A Grade	B Grade
A$/sqm p.a.	$530	$458	$529	$451	$459	$398	$439	$410
6 month rental change	0.2%	0.0%	1.1%	5.0%	0.0%	0.5%	0.8%	0.4%
12 month rental change	4.6%	4.1%	3.5%	8.6%	2.7%	0.5%	0.8%	0.6%

Source: Colliers Edge


Brisbane Metro Office Average Net Face Rents
(A$/psm p.a.)
$/sqm p.a.
$600
$500
$400
$300
$200
$100
$0
Dec-12
Dec-13
Dec-14
Dec-15
Dec-16
Dec-17
Dec-18
Dec-19
Dec-20
Dec-21
Dec-22
A Grade
B Grade
Source: Colliers Edge


Brisbane Metro Office Average Incentives
Incentives (%)
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Dec-12
Dec-13
Dec-14
Dec-15
Dec-16
Dec-17
Dec-18
Dec-19
Dec-20
Dec-21
Dec-22
A Grade
B Grade
Source: Colliers Edge



7.4 INVESTMENT VOLUMES AND YIELDS

The total value of transactions in 2022 was A$967 million, a 10% decline from 2021. The Brisbane metro investment market has slowed down recently, with minimal activity as a result of some sellers choosing to withdraw buildings off the market rather than accept price reductions as the effects of the macroeconomic uncertainty have begun to be felt. Capital values have started to see modest falls as a result of this increase in yields, which have risen by about 10 to 15 basis point movement from the peak after the Reserve Bank began raising the cash rate. A slowing economic outlook is also likely to have an impact on investors' appetite for office properties. On average, yields are predicted to move out by around 50 basis points by the end of 2023 in line with higher borrowing costs, which translates to a 5% correction in capital values.

Institutions and private investors are active purchasers in the current market, as evidenced by Charter Hall and PSP Investments, one of Canada's largest pension investment managers, purchasing an office building currently under construction at 31 Duncan Street, Fortitude Valley in a structured transaction estimated to be around A$350 million. In other large transactions, Marquette Properties purchased a 12-level A-grade office complex in South Bank for A$104.4 million while 512 Wickham Street is believed to have sold for around A$110 million. Interests associated with Bloomberg Incorporation Limited purchased 1 Breakfast Creek Road, Newstead for approximately A$58 million, while a private investor purchased 159 Coronation Drive and 5 Cribb Street in Milton, with a total GLA of 3,624 sqm in two buildings, for A$46.6 million.

7.5 OUTLOOK

The current pipeline suggests that development activity will pick up in 2024, however much of the development activity will be pre-commitment led with developers in the short-term continuing to feel the pressure from rising construction and borrowing costs. Projects will continue to be pushed out, although the supply pipeline could increase if previously announced projects that are currently on hold are brought online through improved pre-commitment.

Vacancy is projected to continue to drop as demand continues to consume the current supply because no further supply is expected to enter the market until 2024. Incentives are expected to be reduced as the leasing market tightens, resulting in a positive increase in both face and effective rentals.

Investors are likely to take a wait-and-see approach, limiting transactional activity until the future becomes clear. Over the next 24 months, it is anticipated that office markets will experience a pricing correction as a result of declining investor confidence following interest rate hikes and market volatility. On average, this year's yields are predicted to move out by 50 basis points in line with higher borrowing costs, which translates to a 5% correction in capital values.

8. MELBOURNE METRO OFFICE MARKET

8.1 MARKET OVERVIEW

The Melbourne Metro office market comprises a total of around 4,869,349sqm (NLA) of office space (as at September 2022). This is broken down into the City Fringe (1,360,964sqm), Inner East (596,877sqm), Outer East (973,414sqm), South East (445,890sqm), North & West (392,186sqm), St Kilda Road (648,837sqm) and Southbank (451,181sqm) precincts.

8.2 LEASING ACTIVITY, DEMAND AND SUPPLY DRIVERS

In terms of Colliers deals conducted during 2022, the number (263) is 15% higher than the number done in 2021 (228). The total for 2022 was 73% higher those done in pre-pandemic 2019, when 152 deals were inked. The amount of space committed (163,107sqm) is around 5% lower than the significantly strong 2021 total which was 81% higher than the whole of 2020.

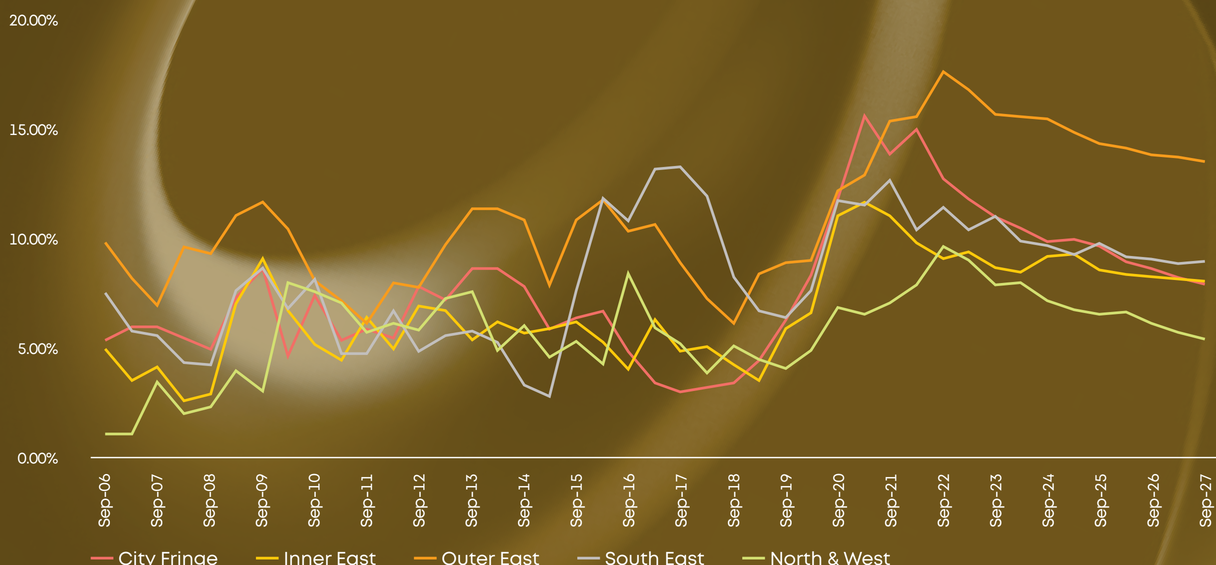
Enquiry has remained healthy in the Melbourne Metro markets. Keeping in mind that 2021 was a remarkably strong year for enquires, with the number of enquiries 50% higher than 2020, the number of enquires this year has fallen back by around 20%, but is still well above long term enquiry levels. In terms of volume of space, 523,000 sqm was enquired about in 2022, which is 18% below the 2021 full year total, which again was a record year for enquiry in the Melbourne Metro markets.

With business owners increasingly needing to provide a compelling reason for their employees to return to the office, workplaces which provide flexibility and have a health and sustainability offering, are in high demand and these are more likely to be newly built or recently refurbished buildings. Therefore, we expect the current flight to quality will become increasingly more pronounced.

The overall Metro Melbourne vacancy rate at September 2022 was 12.9%, significantly above the long-term average of 7.6%. The metro market added a total of 59,400 sqm of new supply in the six months to September 2022, while vacant stock rose by 4,625sqm to 485,200 sqm across all regions.

The highest rate of vacancy is currently in St Kilda Road at 20.9%, a long term high for the precinct, as weak demand resulted in negative net absorption. The Outer East had the second highest vacancy at 17.5%, a rise from the 15.6% recorded in March 2022, as two major developments completed.

The City Fringe saw vacancy improve from 14.9% in March 2022 to 12.7% at September 2022. Limited supply over the six months, with only two buildings over 5,000 sqm and a number of small boutique developments reaching practical completion, and significant take up for supply that had been delivered in the previous six months, supported the net absorption of almost 61,000sqm.



Source: Colliers Edge

8.3 RENTS AND INCENTIVES TREND

Average net face rents across the Metro market overall saw healthy growth over 2022. A Grade rents in new buildings rose 3.6% on average, existing A Grade by 4.6% and B Grade by 3.4%. Incentives for better quality buildings have improved while secondary quality building incentives have remained high. Consequently, net effective rents for new and existing A Grade buildings rose by 5.2% and 5.4% respectively on average, while B Grade buildings, with no change in incentives, achieved the same net effective and net face rent growth of 3.4%. The margin between A Grade and B Grade stock is becoming increasingly apparent in City Fringe, St Kilda Road and Southbank.

Average net face rents for prime grade buildings recovered strongly and sit 7.6% higher than a year ago after a 3.4% rise over Q4 2022. This was due to a healthy rise in net face rents for New A-Grade buildings (+10.1%) that need to achieve higher rents due to construction cost increases and have been able to achieve these rent levels due to strong demand for their superior quality and amenity. In contrast, existing A-Grade face rents recorded a 4.6% rise over 2022 and B-Grade a 4.3% increase.

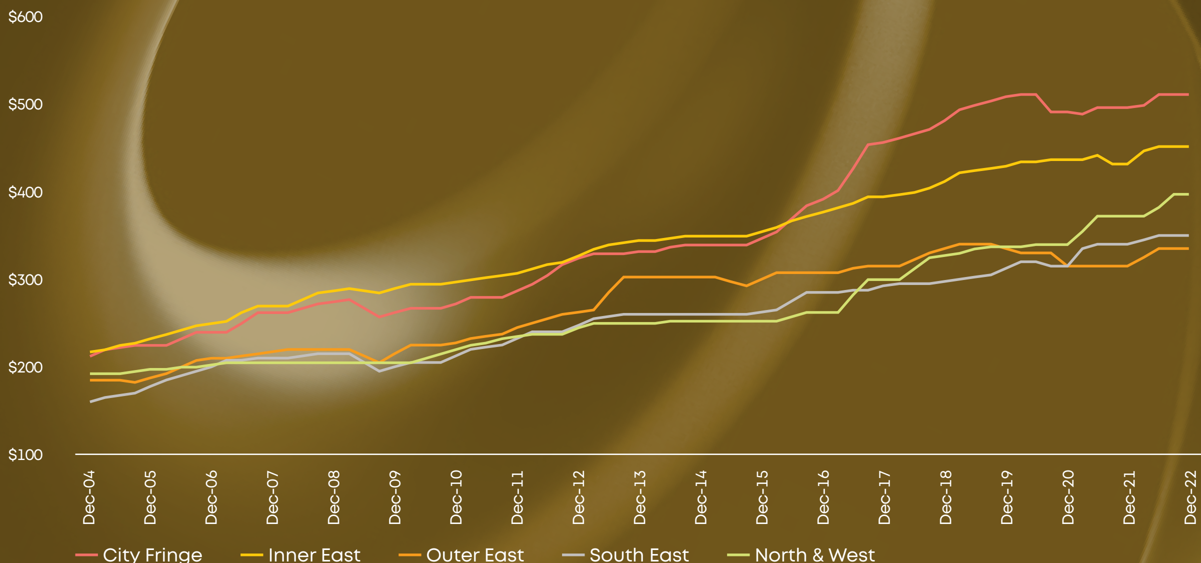
Incentives have now begun to contract, with New A-Grade incentives dropping back by 1 percentage point over the year to sit at 32% on average and Existing A Grade and B Grade incentives contracting by half a percentage point to an average of 31% and 30% respectively. Consequently net effective rents achieved higher growth rates than face with New A Grade rising by 11.7% over the year, existing A-Grade up by 5.4% and B-Grade up by 4.6%.

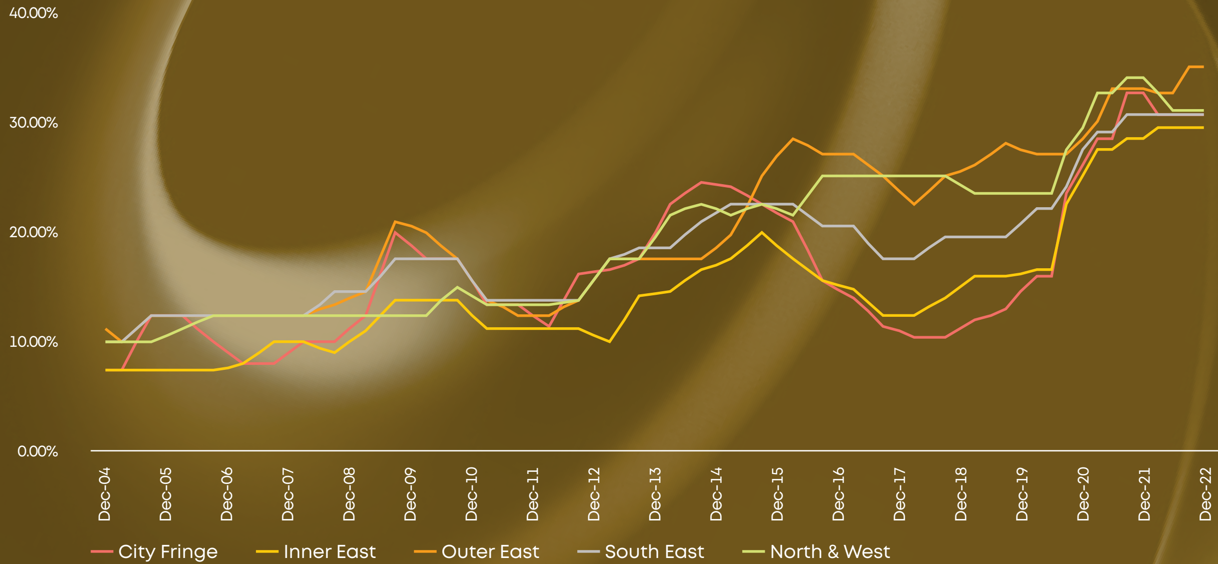
Secondary incentives currently sit lower than prime incentives with landlords of these assets being limited in their ability to afford to push them higher. However, as vacancy improves and market activity accelerates, incentives for better quality assets are expected to contract at a faster pace and drop below secondary asset incentives over coming years.

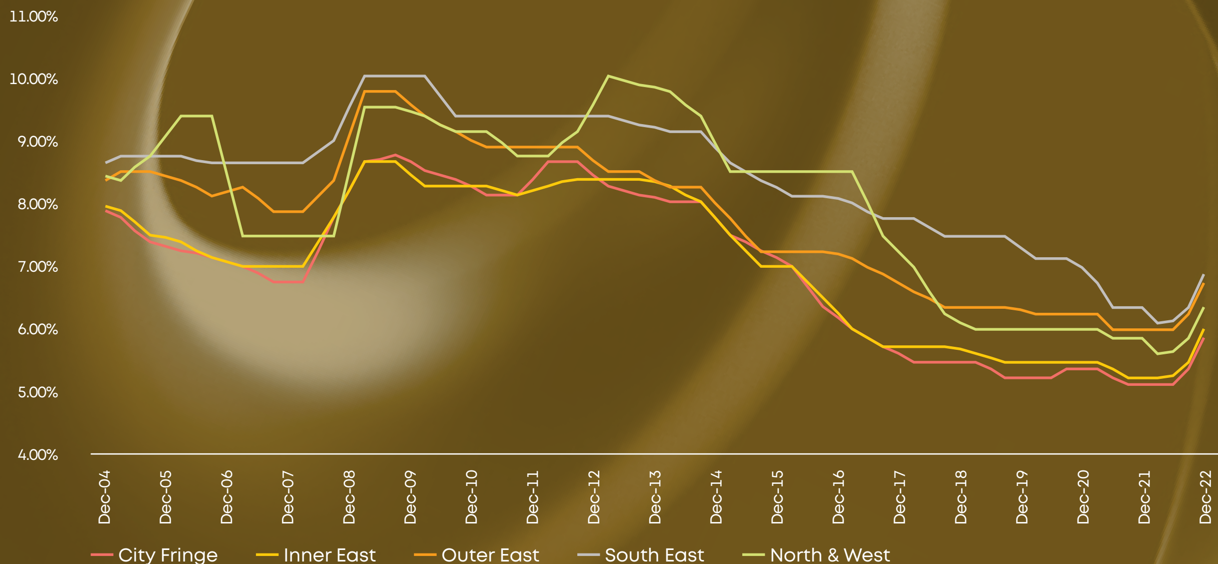
8.4 INVESTMENT VOLUMES AND YIELDS

Sales volumes (above A$10 million) in the Melbourne Metro markets slowed during 2022, dropping back by 32% to A$993.5m after a particularly strong 2021. With high domestic and international inflation triggering a rise in interest rates over the second half of the year, offerings to market have largely dried up, and consequently transaction activity has slowed.

The largest share of activity in 2022 has been within the City Fringe submarket, accounting for 41% of the value of all Metro sales. This was above the ten-year average of 33% of sales originating in this submarket. The Inner East and South East sub markets also saw an above average level of activity, with 19% and 18% respectively of all Metro sales in 2022, compared to their long-term average of 9% and 6% respectively. In contrast, the Outer East, North & West, St Kilda Road and Southbank have all experienced lower levels of activity than their long-term averages.







After many years of yield compression, the successive and aggressive rise in interest rates both internationally as well as domestically by the Reserve Bank, have prompted yields to begin to soften. Initially the move was small with a 3 basis points rise for A Grade and a 4 basis points rise for B Grade assets in June quarter of 2022. The third and fourth quarters of 2022 saw the rises accelerate with a 22 basis points and 50 basis points rise respectively for A Grade assets and a 21 basis points and 75 basis points rise respectively for B Grade assets. These rises have been fairly uniform across the Metro market regions, and are on par with the softening of yields in the Melbourne CBD.

8.5 OUTLOOK

Over six months to September 2022, four buildings (over 5,000 sqm) were completed, adding 41,700 sqm of space. Another six smaller buildings were also delivered adding 17,700 sqm. 2023 will see close to 100,000 sqm of supply with a large proportion of this space already committed. With development slowing during the lock down period and limited projects starting, we are likely to see an under supply of stock in the medium term, especially in the city fringe market. There is a projected healthy pipeline from 2025 onwards, although construction will be required to commence on some of these projects to deliver in this time frame.

Demand has been strengthening across the metropolitan markets. The latest 6-month net absorption, estimated at circa 63,500 sqm up to September 2022, was underpinned by particularly strong absorption within the City Fringe, with the Inner East and South-East precincts also positive. Vacancy across the metropolitan market was recorded at 12.9% in September 2022, which was slightly improved from March 2022, due to healthy take up of new supply.

With healthy demand expected to continue most markets are expected to see vacancy continue to improve over 2023 with just the one exception of the South-East which has a couple of larger buildings expected to be delivered towards the end of 2023, keeping the vacancy rate elevated.

As tenants continue to upgrade the quality of their space, increasing the demand for good quality, well located, office buildings, prime net face rents are expected to record moderate growth, but with incentives improving, net effective rents will show a more pronounced rise. Metro prime net face rents are expected to rise by 3% over 2023, with effective rents increasing on average by 4.6%.

Secondary net face rents will show more limited rises, increasing on average across the Metro markets by 0.8%, and with a slight improvement in incentives, effective rents are expected to show a 1.2% increase over 2023.

Assets which are in demand have long WALE, newer buildings, and tend to have a government tenant. Income is key at the moment, and quality tenant covenants are particularly attractive. Nevertheless, across the board, we expect yields will continue to soften over the course of 2023, particularly as vendors come to terms with the new interest rate environment and buyer sentiment. We are expecting that secondary assets, particularly assets which have vacancy or require capital expenditure will see yields move out more aggressively. This will result in the divergence between A-Grade and B-Grade yields to widen and become more reflective of the longer-term spread.

Independent Market Study Report

United States

By CBRE Strategic Investment Consulting, February 2023

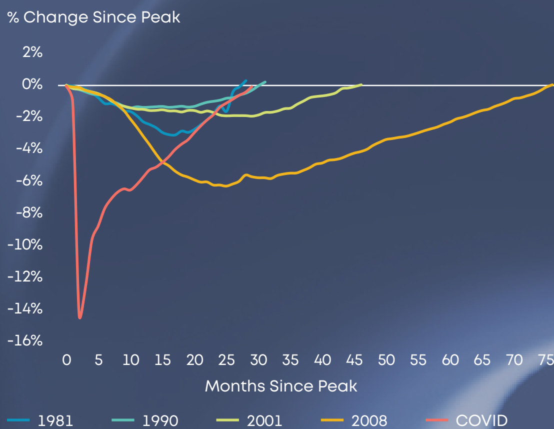
SECTION 1: ECONOMIC OVERVIEW

Employment and Unemployment

Total employment returned to pre-pandemic levels in mid-2022, just over two years following historic job losses. The economic recovery time for the pandemic-induced recession was 46 months shorter than the Global Financial Crisis (2007-2009) and 16 months shorter than the Dot-Com recession (2001). Job growth likely would have been even stronger in 2022, but the labor force participation has yet to recover to pre-pandemic levels, which is the primary factor driving historically high job opening rates. Labor shortages and turnover have impacted the office-using sector, in addition to a marked shift in companies' space utilization and hybrid work policies coming out of the pandemic. Compared to the overall private sector, the professional and business services sector experienced higher job opening rates, whereas hiring rates remained low, indicating greater difficulty in recruiting and retaining workers.

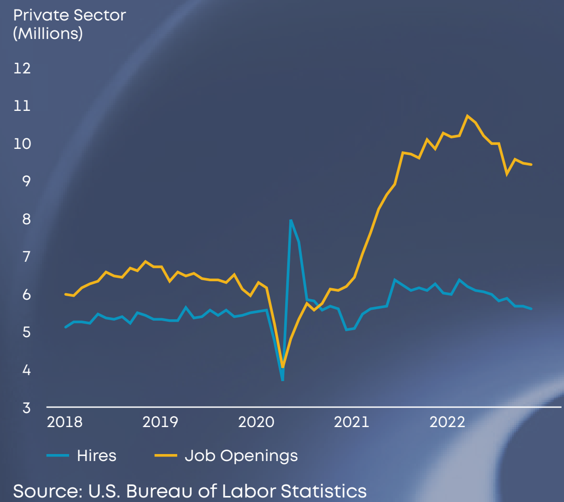
Job openings and hiring rates for total private employment peaked in Q1 2022 and declined throughout the remainder of the year as concerns over economic headwinds caused some employers to reduce or delay expansion plans. Despite the headline-grabbing tech layoffs in the U.S. in late 2022, softening in the labor market has not yet impacted the unemployment rate, which ended the year at 3.5%, in line with the pre-recession low. However, tight monetary policy and weak economic growth are expected to further curb labor demand in 2023, leading to a softening in the labor market and a slightly elevated unemployment rate between 4-5%.

Job Recovery Exceeded Pre-Pandemic Peak by August 2022



Source: U.S. Bureau of Labor Statistics, Oxford Economics

Job Openings Remain High as Hiring Slows

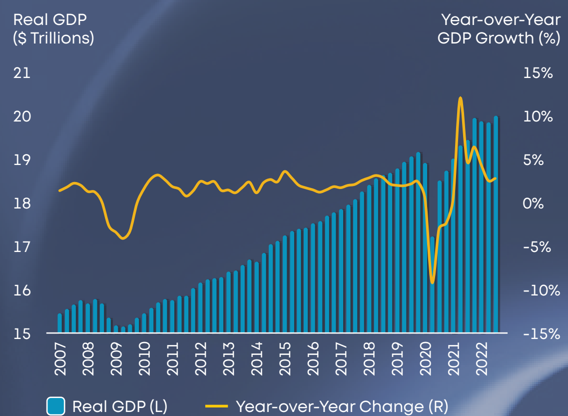


Source: U.S. Bureau of Labor Statistics

Gross Domestic Product (GDP)

Real GDP increased by 2.1% year-over-year in 2022 (down from 5.9% in 2021), but tightening monetary policy is expected to weaken GDP growth in 2023. CBRE Econometric Advisors (CBRE-EA) expects a mild recession in 2023, forecasting negative GDP growth of approximately -1% for much of the year, though the annual average should be slightly positive by year end. Gross Private Domestic Investment (GPDI) was the largest contributing factor to real GDP growth in Q1 2022 before it moderated in the subsequent quarters. The decline in GPDI is primarily due to slowing residential investment as the housing market cools. Non-residential investment (including structures) continued to rise steadily in 2022.

Real GDP Exceeded Pre-Pandemic Peak in Q3 2021



Source: U.S. Bureau of Economic Analysis; U.S. Federal Reserve Bank

Independent Market Study Report

United States

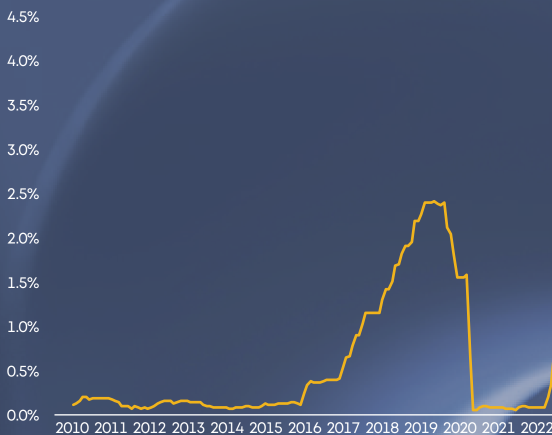
By CBRE Strategic Investment Consulting, February 2023

Inflation, Interest Rates, and the Fed

Inflation continued to soar throughout 2022, defying economists' expectations at the start of the year when many believed inflation would be transitory. The annual average consumer price index (CPI) growth rate was over 8% in 2022, up from 5% in 2021. The inflation rate peaked during the summer of 2022 and slowed through the latter half of the year as supply chains normalized and tighter monetary policy reined in the housing market and curtailed consumer demand. The high interest rate environment and weaker demand, along with a potential resolution to the conflict in Ukraine, should lead to lower inflation in 2023. CBRE expects year-over-year CPI growth to decelerate to 4% by year-end 2023.

The U.S. Federal Reserve (Fed) implemented several aggressive interest rate hikes in 2022 to keep inflation in check and maintain economic stability. The effective federal funds rate (EFFR) increased from 0.08% in January to 4.1% at year-end, a much more rapid pace than in previous rate hike cycles. CBRE-EA forecasts the EFFR to peak around 5% in the second half of 2023 and begin to decrease thereafter, assuming inflation continues easing toward the Fed's long-term 2% target. Longer term interest rates (i.e. the 10-year U.S. Treasury yield) are a primary concern for real estate valuations and are impacted by Fed decisions. The 10-year U.S. Treasury yield reached 3.9% at the end of the 2022, above the 2% average over the prior decade. The 10-year U.S. Treasury yield is likely to settle in the low-3% range by year-end 2023, which is not high enough to substantially impact asset values or investment dynamics in the long run.

Federal Funds Rate Grew Quickly in 2022



Source: U.S. Federal Reserve Bank

Population

U.S. population growth had been hindered by falling birth rates and lower net migration prior to the pandemic, but COVID-19 caused population growth to slow even further in 2020 and 2021. In 2022, the U.S. population exhibited signs of recovery. Increases in both migration and total births led to an uptick in population growth in 2022, with net international migration into the U.S. rebounding to the highest level since 2017 and, the highest year-over-year increase in total births since 2007. Strong labor market conditions as well as increased flexibility created by work-from-home opportunities likely contributed to this trend. Population and immigration growth are expected to continue to accelerate in 2023.

Government Stimulus & Election Results

Most of the pandemic-driven stimulus activity that was implemented by the U.S. Federal Government and Federal Reserve in 2020 tapered off in 2021 and 2022 as the economy recovered, resulting in a short-term curtailment of government spending in 2022 relative to prior years. In 2022, two pieces of legislation were signed into law that are expected to have ongoing economic impact over the next several years. The bipartisan Infrastructure Investment and Jobs Act authorized US$1.2 trillion in spending to support federal highway and transit initiatives, including US$550 billion for hard infrastructure spending. Aside from the influx of money into the economy, the act will address the nation's challenged supply chain infrastructure and support warehouse and logistics growth over the next decade. Federal lawmakers also passed the Inflation Reduction Act of 2022, which was signed in August 2022. The act is the largest investment addressing climate change in U.S. history and includes several healthcare and tax reform provisions from the failed Build Back Better bill of 2021. The Inflation Reduction Act includes expanded tax incentives for clean energy infrastructure and building retrofits that may benefit commercial real estate investors.

Both policies were passed before the 2022 midterm elections, where the Republican Party narrowly gained control of the House of Representatives, resulting in a split Congress in 2023-2024 as the Democratic Party retains control of the Senate. The split Congress will likely result in political gridlock, which should limit any substantive federal policy changes over the next two years.

Drivers of Job Growth

Demand for jobs in the tech and life sciences sectors accelerated in 2022, outperforming the growth in total employment. Scientific R&D services employment

growth accelerated to 11% year-over-year, while overall life sciences and healthcare employment grew by 5.4% and 3.1%, respectively. Life sciences and healthcare are expected to remain major drivers of job growth in 2023, in contrast to tech whereby major firms announced layoffs late in 2022. These tech layoffs are largely seen as cost-cutting moves ahead of a potential recession after aggressive tech hiring in 2020-2022. Even with said layoffs, tech employment levels still far exceed pre-pandemic levels. Tech job postings grew 25% in 2022 and the sector will likely remain an important employment driver going forward, particularly as demand for tech talent in industries like healthcare, finance and consulting, remains robust. The digital economy and expansion of domestic high-tech manufacturing (particularly semiconductors) are expected to be major drivers of both employment and GDP in the next few years.

Outlook

Despite the historic pace of the economic recovery in 2021-2022 and the strength of the labor market going into 2023, the combined effect of rising interest rates, high inflation and some dislocation within supply chains will lead to some near-term challenges. However, the expected recession is likely to be mild and brief. Healthy corporate financials should reduce the likelihood of excessive layoffs and low average household debt will sustain consumer spending, especially if inflation continues to recede toward normalized levels. An economic downturn is likely to have a negligible impact on industrial real estate, given the strength of market fundamentals and increased demand due to underlying structural shifts in the sector. Conversely, office real estate may face weaker demand until employment growth resumes, while the underlying structural shifts in workplace strategy (i.e. work-from-home) continue to impact the asset type.

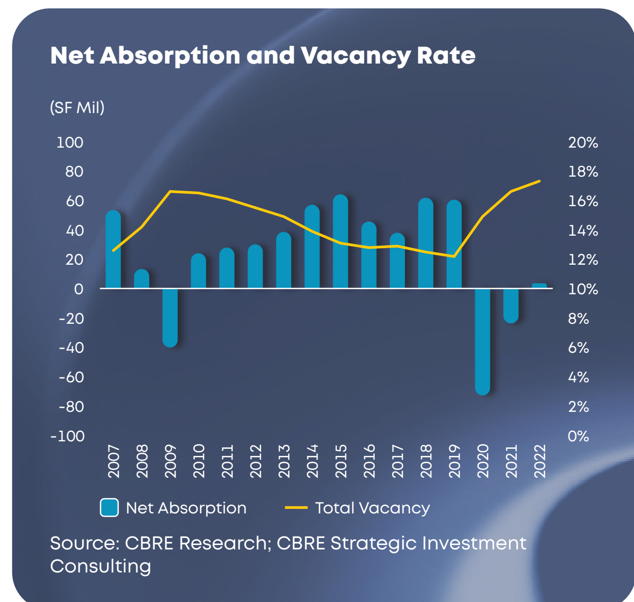
SECTION 2: U.S. OFFICE OVERVIEW

Market Fundamentals

The U.S. office market made significant strides toward recovery in 2022, though macroeconomic headwinds weighed on this positive momentum in the second half of the year. A higher interest rate environment combined with slow or negative economic growth would in turn reduce leasing demand and real estate investment activity, particularly for lesser-quality office properties. Wide adoption of remote and hybrid work arrangements has had a major impact on office demand, which has led to a slow and uneven recovery in leasing and absorption. As firms continue to reduce office footprints and economic uncertainty looms, the gap between fundamentals for prime (Class A) vs. lower-tier (Class B/C) office properties is expected to further widen in 2023.

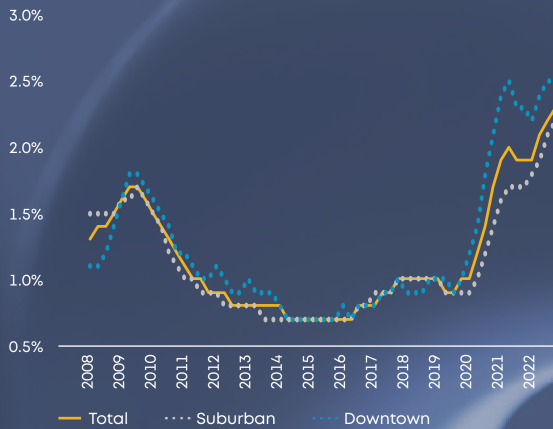
Despite negative net absorption in Q4 2022, annual net absorption was positive for the first time after two consecutive years of net declines. This gain was driven by the suburban market, which posted 6.3 million sq. ft. of positive net absorption. Although the suburban market continues to outperform the downtown market on a national basis, demand for downtown office space strengthened significantly in 2022 compared to the prior two years, with negative net absorption equal to -0.2% of inventory (compared to an average of -2% during 2020 and 2021). The flight-to-quality trend is evident in the outperformance of Class A properties. This is especially apparent in downtown submarkets where net absorption was positive for the first year since the start of the pandemic.

Although demand strengthened last year, new supply additions continued to exceed net absorption. As a result, the total vacancy rate increased to 17.3% in 2022, up 70 bps from the previous year. The average downtown vacancy rate was about 420 bps lower than suburban on average from 2007-2019, but this trend has been reversing since the pandemic onset. In 2022, the average total vacancy rate was higher in the downtowns than in the suburbs (17.6% vs. 17.2%) for the first time since 1997.

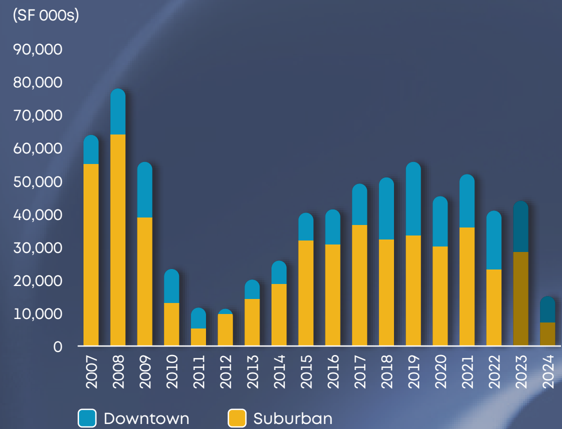


Source: CBRE Research; CBRE Strategic Investment Consulting

Sublease availability and vacancy rates increased in 2022, especially in the second half of the year as more companies (especially in tech) downsized office space and headcount in response to slowing revenue growth. Downtown markets were initially hit harder by rising sublease activity, but the spread between downtown and suburban sublease vacancy rates appears to have peaked in early 2021. In 2022, sublease vacancy rates increased by 20 bps year-over-year to 2.5% in the downtown market, while suburban markets increased by 50 bps to 2.2%.

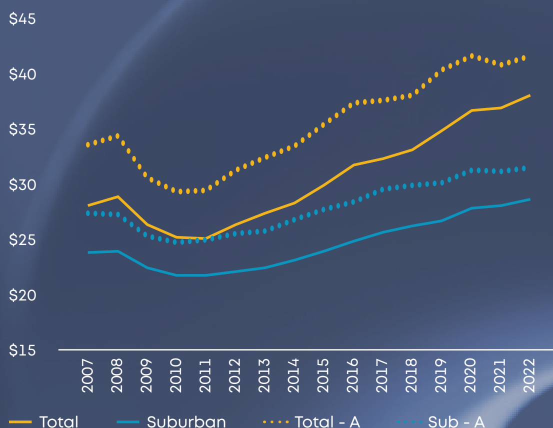


Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

The average gross rental rate for U.S. office grew 3.1% in 2022 to US$38.01 per sq. ft. per year. Suburban and downtown markets had essentially equal rates of rental growth last year, representing a notable turnaround for downtown office, where gross rents declined by over 2% in 2021. In addition to stronger absorption for existing product, supply additions also helped boost average asking rents in 2022, as new high-quality space delivered. As a percentage of existing inventory, suburban office completions slowed to 0.9% in 2022, while the downtown completion rate rose slightly to 1.2%. The completion rate is expected to be 1.1% in both downtown and suburban markets in 2023 before dropping to 0.5% and 0.3%, respectively, in 2024 as developers and construction lenders halt plans amid uncertainty and rising construction costs.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Emerging Trends

The continued shift toward remote-hybrid work models is prompting owners and occupiers to increasingly scrutinize office utilization patterns and decide what to do with underutilized space. Some firms will continue to put excess space up for sublease, but this trend should begin to settle as firms get a better handle on their true space needs after assessing the impact of return-to-office policies on attendance and planning for future growth. As companies find the optimal balance of maximizing space use with employee needs, CBRE-EA estimates that the amount of sq. ft. required per employee could fall by up to 15% compared to the pre-pandemic ratio.

Firms trying to attract and retain talent in a tight labor market are focusing on amenity-rich workplaces and quality office locations that will help draw workers back to the office. Office locations that minimize employee commute times (e.g. suburban properties near major residential population centers and downtown properties with excellent public transit connections) are expected to fare most favorably over the long-term. Occupiers striving to make the most efficient and cost-effective use of office space will likely lean towards more flexible office space to support the evolving needs of employees while preserving the ability to change direction as needed. For many tenants, this may result in decisions to reduce their overall footprint but could motivate them to upgrade to higher quality space, a better location or more flexibility, further benefiting prime properties.

SECTION 3.1: SAN DIEGO OFFICE MARKET[1]

Market Overview

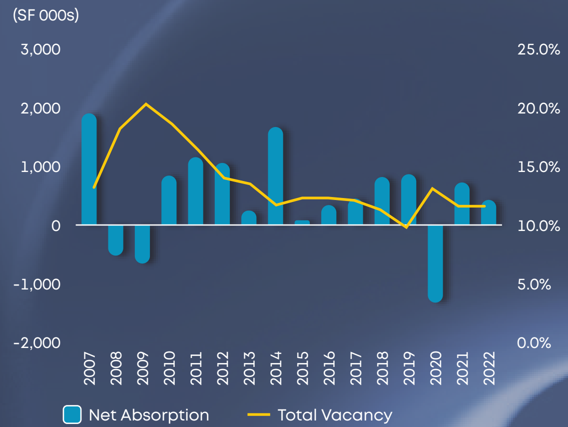
San Diego office market conditions improved in the first half of 2022 before economic headwinds prompted a slowdown in leasing and investment activity. Market fundamentals were positive overall, and the average asking rent remained at an all-time high in excess of US$36 per sq. ft. per year. Strong office investment was a positive factor, with total sales volume reaching US$2.6 billion in 2022, exceeding pre-pandemic levels of activity. Another key driver has been the robust venture capital investment the region attracts, which remained above pre-pandemic levels and continued to fuel demand for life science conversions and premium office space in high-demand tech submarkets.

Tech companies were largely responsible for the strong leasing activity in the first half of the year before slowing in the last quarter of 2022. Top transactions were dominated by new leases and expansions from tech and life sciences companies, but activity was robust for professional and financial services as well. The largest leases were concentrated in Class A assets, indicating tenants were favoring higher quality space when evaluating their footprint.

Ample leasing activity fueled another strong year for office net absorption, which reached 425,000 sq. ft. in 2022. After 1.3 million sq. ft. of negative net absorption in 2020, nearly 90% of that net occupancy lost has been recovered. The vacancy rate was unchanged from 2021 at 11.6%, as strong absorption was offset by new inventory hitting the market. Despite a few large move outs, Class A net absorption was positive at 160,000 sq. ft., primarily due to an asset that delivered fully occupied in the UTC submarket.

San Diego has had a much lower sublease vacancy rate than many U.S. suburban markets, but that figure began rising in 2022 and has been the primary driver of rising overall vacancy, especially for Class A product. Total Class A vacancy rose 100 bps year-over-year to 11.9% even though direct vacancy fell 40 bps to 9.7% over that period. This was because of the large increase in sublease vacancy for Class A product. More than half of the vacant sublease space sits in Del Mar Heights, where sublease vacancy has grown so much that it exceeds direct vacancy. Most other suburban submarkets did not change dramatically and still have relatively low sublease vacancy rates.

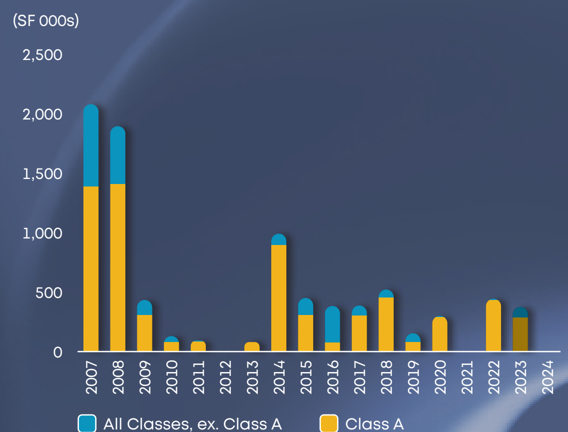
Net Absorption and Vacancy Rate



Source: CBRE Research; CBRE Strategic Investment Consulting

In total, 445,000 sq. ft. of new construction was delivered in 2022. Other than a 12,000 sq. ft. building in North County, all of the new sq. ft. delivered was in Del Mar Heights and UTC and primarily oriented toward R&D and life sciences tenants. The construction pipeline has been slowing after a decade of robust growth. Most of the projects that are currently underway are concentrated in the Downtown submarket, with a significant portion of the space already pre-leased.

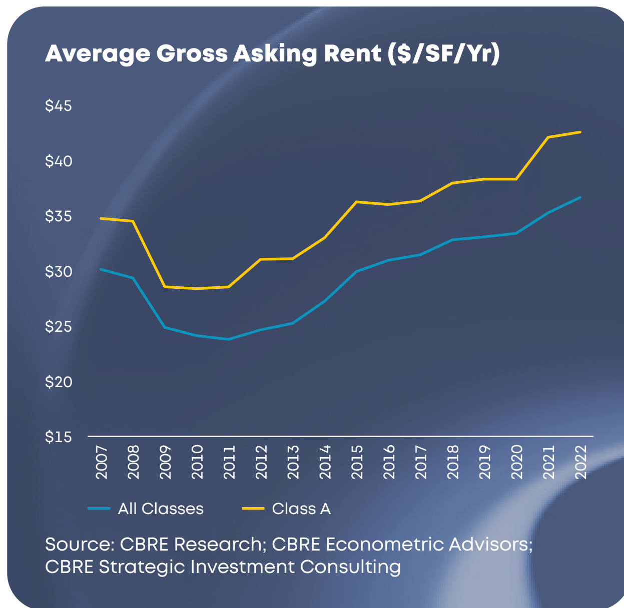
Construction Deliveries



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

1 Unless otherwise noted, stats refer to suburban office only

The average gross rent in San Diego increased 3.9% year-over-year to US$36.64 per sq. ft. per year in 2022, the highest asking rent on record. Elevated rents have mainly been driven by life sciences companies that demand premium space in an increasingly tight office market. Large tech tenants are also driving up rents and continuing to absorb space as firms establish new locations and expand existing footprints in the region. Average Class A rent growth was slower, up 1.1% to US$42.56 per sq. ft. per year.

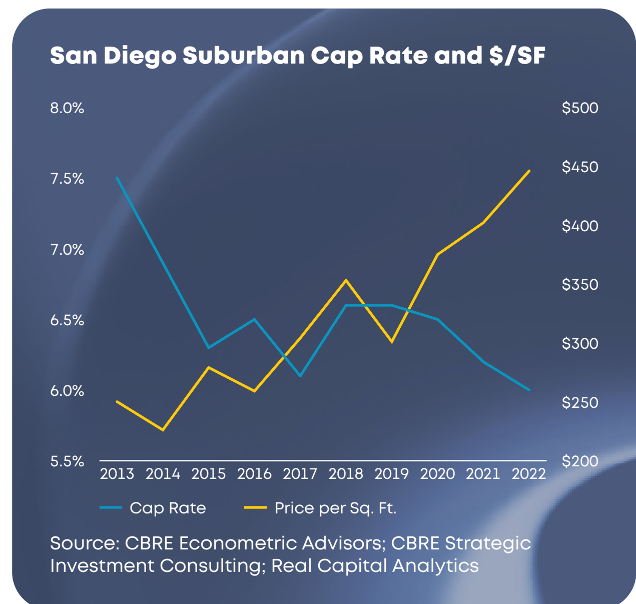


Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

San Diego has been an attractive market for venture capital investment in recent years. Life science venture capital has flowed steadily into the region since 2016 and tech funding has surged since 2020, especially for software companies. A total of US$5.7 billion in funding was raised by tech companies from 2020 to 2022, roughly the same amount as the total raised by tech companies during the prior 17 years (2002 to 2019). Venture capital funding moderated overall in 2022 but remains well-above pre-pandemic levels. Large tech occupiers have pulled back space late in 2022 in response to weakened economic performance, but venture capital activity and continued tech job growth indicate that tech activity in San Diego is likely to improve as the economy and capital markets rebalance.

San Diego had robust sales activity in 2022, especially given current lending market conditions. Volume was slightly down from 2021, which was a banner year for suburban office sales, but 22% higher than the average over the last 10 years. The average price per sq. ft. rose to a record high US$446 in 2022, up 11% from the previous year. The largest sale in 2022 was Apple's acquisition of Rancho Vista Corporate Center in Rancho Bernardo for US$445 million (US$550 per sq. ft.). Apple plans on expanding its existing headcount in San Diego to 5,000 employees by 2026. The second largest transaction was Regent Properties' sale of the 230,957 sq. ft. campus Atlas to Tritower Financial Group for US$88.8 million (US$385 per sq. ft.), which was part of a larger office portfolio deal.

Rising asset values and increased interest in suburban life sciences conversions drove the average cap rate down 20 bps to 6.0% at the end of 2022. CBRE-EA estimates that the average institutional-grade cap rate for the overall San Diego market rose 30 bps to 4.8% in 2022, with a more significant increase expected in 2023.



Source: CBRE Econometric Advisors; CBRE Strategic Investment Consulting; Real Capital Analytics

Submarket Commentary

Sorrento Mesa

Sorrento Mesa is one of the most in-demand submarkets for life sciences and tech tenants in the region, and is home to well-known names like Qualcomm, Raytheon and Dexcom. The submarket is characterized by traditional office and corporate headquarters, as well as lab facilities and R&D/Flex space. The submarket is near the region's top accelerators, incubators and venture capital firms, as well as important STEM talent pipelines, such as UCSD and venture-backed firms. Conversion activity from traditional office to life sciences has increased substantially in recent years, which could drive a tightening of the traditional office market and push lease rates higher as inventory falls.

A few larger Class A vacancies hit the market as some companies consolidated within the submarket or relocated elsewhere in San Diego. This led to 143,000 sq. ft. of negative net absorption and a 340 bps increase in the overall vacancy rate to 11.9%. For example, Dexcom vacated 90,000 sq. ft. at Pacific Corporate Center and

consolidated operations to a nearby existing facility in the submarket. A mix of tenants vacated large portions of Seaview Corporate Center and The Elements at Wateridge, which contributed more than 150,000 sq. ft. of new vacancy. As a result, total Class A vacancy rose 590 bps to 14.7%. Given the high demand for large Class A blocks in the submarket, it is likely these vacancies will be short-term. As for large new leases and expansions, tech and life science companies accounted for nearly all activity.

Rancho Bernardo

Rancho Bernardo is located along the freeway Interstate 15 corridor, which has resulted in a significant influx of tenants who have been displaced by life science conversions in Sorrento Mesa and other parts of Central San Diego. The decreasing office supply in nearby submarkets and lack of new construction activity has increased Class A office demand in Rancho Bernardo. Rents have generally reflected a tighter market, with the average gross asking rent growing 5.3% year-over-year to US$38.95 per sq. ft. per year. The Class A rate grew at the same pace to US$44.15 per sq. ft. per year. Only one building is expected to deliver in the next two years, which is an 83,000 sq. ft. Class B facility. Limited supply should continue to put pressure on rents, especially for large blocks of Class A space.

A large move-out by Teradata resulted in nearly 200,000 sq. ft. of new vacant Class A space, which drove net absorption negative in the submarket. But other large move-outs were offset by strong activity from the tech sector, including a lease by Apple that quickly absorbed a vacated space in Q1 2022. The company continued its expansion in Rancho Bernardo in the remainder of the year. Rancho Bernardo closed the year with a higher vacancy rate than other nearby suburban submarkets, but space is still relatively scarce, with only 428,000 sq. ft. or 13.5% of net rentable area (NRA) vacant. Most of that space is concentrated in a small set of buildings.

Market Outlook

Base and effective rents have both remained above 2019 levels since the onset of COVID-19, which bodes well for the stability of the San Diego suburban office market. General economic uncertainty will likely weigh on activity in the coming year, and it is likely tenants will opt for shorter-term leases, downsizing and renewals. A large amount of new Class A speculative product is still in the pipeline and will be delivered in UTC and Del Mar Heights in 2023, which could test the suburban market. Aging existing space in the Sorrento Mesa and Rancho Bernardo submarkets will have to compete with newer assets in nearby submarkets. While demand and limited supply have kept rents at record highs, the forecasted economic downtown in 2023 has already had a dampening effect on tenant interest and resulted in an increase in sublease availabilities and vacancies. This is expected to be temporary as the economy is projected to improve later this year. Office investment and venture capital remains strong in the region however, which is a positive sign for investor sentiment.

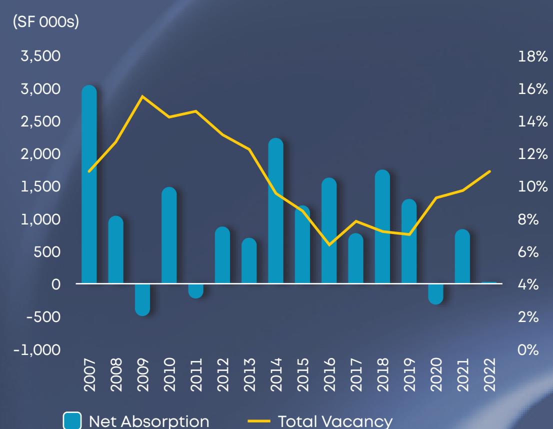
SECTION 3.2: RALEIGH-DURHAM OFFICE MARKET[2]

Market Overview

Demand from tech and life sciences companies led to 29,000 sq. ft. of positive net absorption in 2022, despite some significant space givebacks and some large occupiers downsizing during the year. Class A leasing activity, particularly in the second quarter, was the primary driver of overall market absorption, with Class A net absorption reaching 183,000 sq. ft. Office-using employment growth outpaced total employment, while the high-tech job growth rate was well above the national average in 2022. These trends indicate continued high demand for office space that suits growing high-tech users in the market.

The life sciences and tech industries led leasing activity, with companies like Apple and Elevate signing deals in the market. Total leasing activity fell in 2022, but renewal activity remained strong and was particularly concentrated in the RTP/I-40 submarket. In addition to overall slowing in leasing activity, 879,000 sq. ft. of new construction deliveries contributed to the vacancy rate rising 130 bps to 12.1%. This is the highest vacancy rate since 2013, but still well below the 17.2% peak during the Global Financial Crisis. Because new deliveries were concentrated among Class A product, the Class A vacancy rate increased by 160 bps to 15.1% in 2022 despite strong occupancy gains overall.

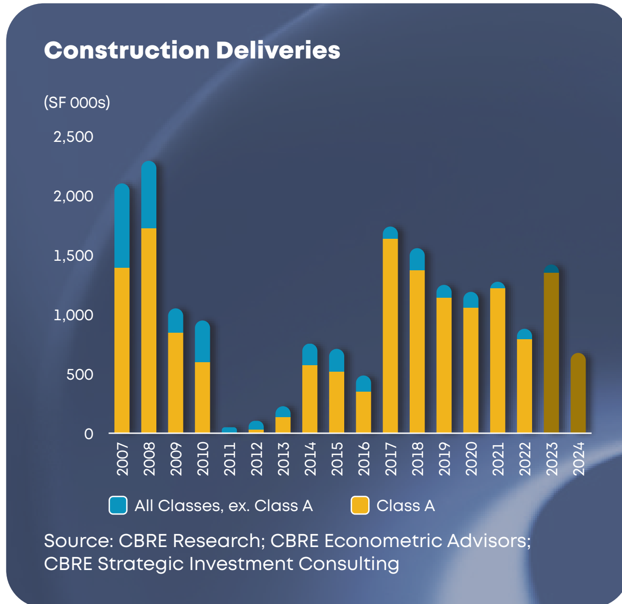
Net Absorption and Vacancy Rate



Source: CBRE Research; CBRE Strategic Investment Consulting

2 Unless otherwise noted, stats refer to suburban office only

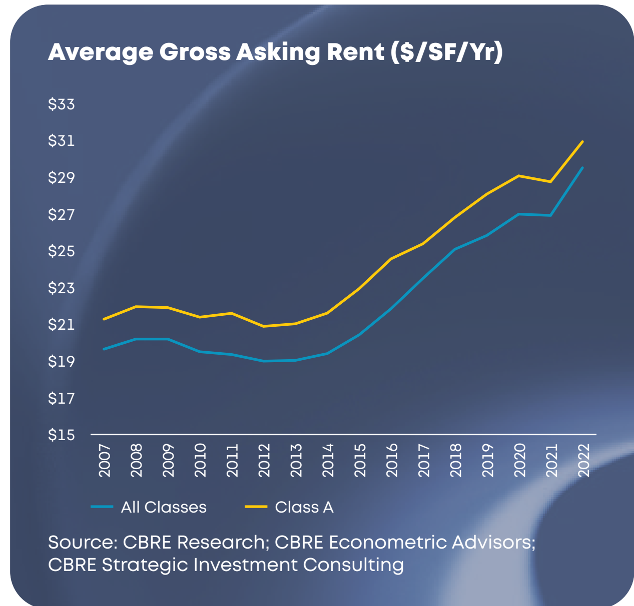
Over two million sq. ft. of new space is expected to be delivered in the next two years, which could keep the vacancy rate elevated if demand does not accelerate. As of year-end 2022, 28% of the expected new inventory was already pre-leased, which will help minimize the impact on vacancy. The largest project in the pipeline is software company Bandwidth's new global HQ in West Raleigh, which will bring 440,500 sq. ft. of occupied space online in 2023.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Sublease inventory had not been a major issue in suburban Raleigh-Durham during 2020-2021 as most companies delayed making any space decisions, but the sublease vacancy rate increased 100 bps year-over-year to 2.0% in 2022, the highest on record. Larger occupiers like Glaxo Smith Kline (GSK) and LabCorp are responsible for significant portions of available sublease space. Class A sublease vacancies rose to a historic high of 1.7 million sq. ft. or 3.0% of total Class A space in 2022. There is still a fairly substantial gap between sublease availability (still physically occupied, but listed) and sublease vacancy, which indicates more potential sublease move-outs could be on the way. As of year-end 2022, 2.2 million sq. ft. of available sublease space was still occupied.

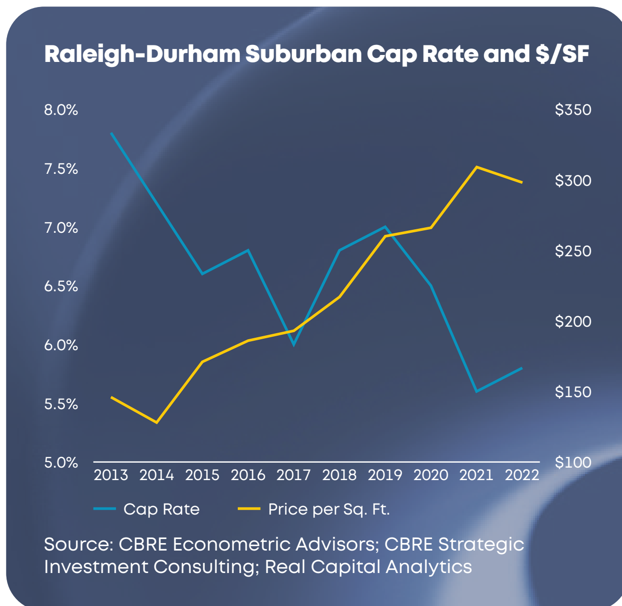
The average gross asking rent grew 9.6% to US$29.50 per sq. ft. per year in 2022, a significant rebound after a slight drop in 2021. The substantial increase in brand new, available Class A space helped drive average asking rent growth. The Class A average asking rent grew by 7.6% in 2022 to US$30.92 per sq. ft. per year, which also followed from a decline in 2021.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Total sales volume for Raleigh-Durham suburban office declined to US$1.4 billion in 2022 as interest rate hikes and economic uncertainty dampened investment activity. Total volume in 2022 was down by 30% from 2021 but remained 22% above the previous 10-year average. The slower demand had a minor impact on pricing, with the average sale price per sq. ft. falling 4% to US$298. The largest sale in 2022 was CBRE Investment Management's acquisition of Park Point at Research Triangle Park (RTP), a 663,000 sq. ft. research park sold for US$380 million (US$573 per sq. ft.) with a cap rate of 5.4%. Other sales over US$100 million include Oak Street RE Capital's purchase of the 336,000-sq.-ft. Syngenta RTP property for US$213 million (US$635 per sq. ft.) with a 6.5% cap rate in a sale-leaseback transaction.

Due to a slight softening of values, the average cap rate for suburban office in Raleigh-Durham rose 20 bps year-over-year to 5.8%, which was still low by historic standards. CBRE-EA expects institutional-grade cap rates will further soften slightly in 2023 before returning to steady compression through 2027.



Source: CBRE Econometric Advisors; CBRE Strategic Investment Consulting; Real Capital Analytics

Submarket Commentary – Research Triangle Park (RTP)/I-40

The RTP/I-40 submarket benefits from proximity to amenities in the market—such as research institutions, universities and Raleigh-Durham international airport—and a significant portion of the region's growing concentration of highly skilled workers. It is also home to Research Triangle Park, the largest research park in the country at 7,000 acres. The submarket is characterized by a wide variety of industries, including science and technology firms, educational institutions and startups. In the first half of 2022, Apple announced plans to renovate its temporary offices at MetLife III for roughly US$19.3 million as it moves forward on plans to build out a new billion-dollar campus, creating around 3,000 specialized jobs. This is part of a continuing longer-term trend of large tech occupiers setting up campuses in the submarket.

RTP/I-40 represents approximately 30% of the total suburban Raleigh-Durham office market, so the submarket largely reflected the broader market trends. RTP/I-40 continued to gain occupancy with 55,000 sq. ft. of positive net absorption, but 330,000 sq. ft. of new product hit the submarket in 2022, which helped drive the vacancy rate of 240 bps to 13.3%. Similar to the overall market, sublease vacancy jumped 150 bps to a record 3.4%, with sublease availability climbing to 11.5%. More than half of the sq. ft. available for sublease in Raleigh-Durham was in the RTP/I-40 submarket and the historically high level could lead to a sharp rise in vacancy if tenants decide to vacate in the near future. Rent growth was weaker in RTP/I-40 compared to the overall suburban market, but rent growth was relatively strong in 2021 in the submarket, meaning average growth over the last two years was more similar.

The Class A stock within RTP/I-40 outperformed Raleigh-Durham's overall Class A segment throughout the pandemic, a continuation of the trend over the past several years. From 2012 to 2022, the average Class A net absorption rate (net absorption as a share of total rentable area) was 3.9% per year, compared to 2.7% for the overall Class A market. Two new Class A projects are expected to deliver in the submarket in 2023, totaling 143,000 sq. ft. Both projects are being built speculatively (without pre-leasing), however, given the size, the overall impact to submarket fundamentals is expected to be minimal. The larger project will add 112,000 sq. ft. of Class A product to an existing office park on Meridian Pkwy. Though expected in 2023, the developers have deferred full build-out of the project and are expected to have a 10-month construction timeline once they have a tenant-in-tow, meaning the project is increasingly likely to deliver in 2024.

Market Outlook

Though market fundamentals have been generally positive, the steady significant construction activity combined with the flurry of sublease listings is likely to result in continued higher vacancy in the short-term. As market conditions begin to normalize in 2023 and construction slows thereafter, vacancy should tighten and continued rent appreciation should continue. If the trend of tenants consolidating or downsizing their requirements continues, the slowing of demand could hinder the speed of the recovery. CBRE-EA forecasts that the suburban office vacancy rate will rise to the low-13% range in 2023 then peak at 13.7% in 2024 before steadily falling over the next five years. The average suburban rent could soften in 2023 and 2024 as existing spaces compete with recent sublease listings and newly delivered assets, but rents will likely hold steady or rise modestly for high-quality, stabilized properties during this period.

The market's favorable demographics, proximity to institutions, and a lower cost of doing business have made it an attractive destination for both established and growing knowledge-based firms in the region. These factors will continue to buoy the office market in the long-term, though near-term performance will depend on how the market responds to the forecasted economic downturn.

SECTION 3.3: PORTLAND OFFICE MARKET[3]

Market Trends

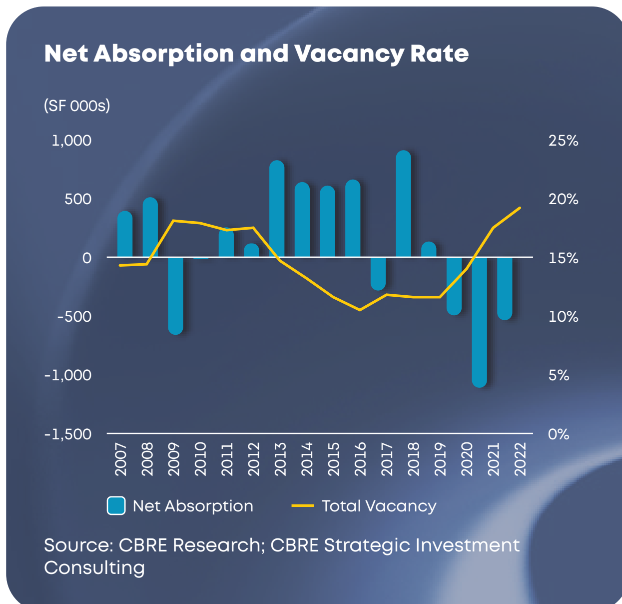
It was another challenging year for the Portland suburban office market, as 2022 marked three straight years of significant negative net absorption. The market finished 2022 with 536,000 sq. ft. of negative net absorption, accounting for 1.6% of NRA. This was

3 Unless otherwise noted, stats refer to suburban office only

a relative improvement over 2021 when tenants gave back more than a million sq. ft. The lack of demand drove the vacancy rate up 170 bps to 19.2%, which is the highest rate since 2003.

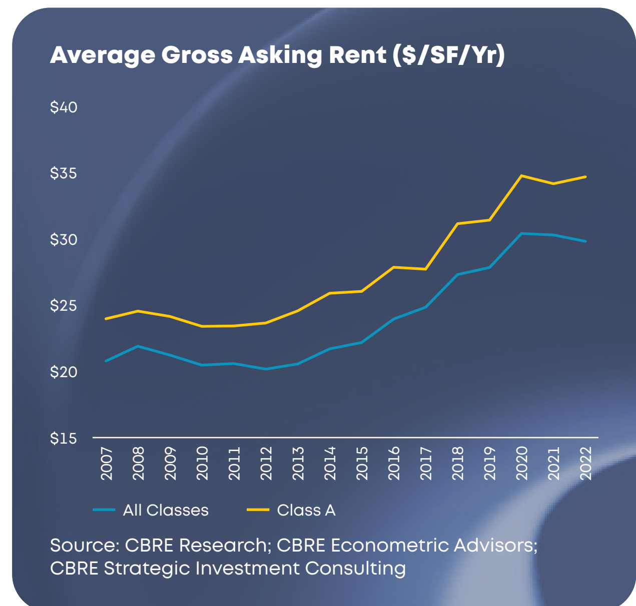
Class A inventory represents 40% of the suburban Portland office market and has performed significantly worse than the Class B/C market. Class A negative net absorption reached 525,000 sq. ft. or 3.9% of total inventory. The Class A vacancy rate increased by 440 bps year-over-year to 25%, which is more than double the rate from just five years prior. A combination of weakening demand and significant new supply additions has helped drive up the vacancy rate. Over the last five years (2018-2022), more than 10% of the suburban Class A inventory was delivered.

Leasing activity in Portland was driven largely by health care, software and professional services companies. Leasing strategies have been mixed, with many large tenants renewing and "right-sizing." For example, Salesforce and Survey Monkey both signed deals in Q4 for less space than they previously occupied. Reassessment of office footprints drove much of the contraction, but in some cases, this reassessment has benefitted suburban office product. Since 2020, several professional services tenants relocated to the suburbs while maintaining a hybrid work schedule (e.g. Umpqua Bank, Liberty Mutual), taking advantage of proximity to the residences of their employees and more affordable office rents.



Source: CBRE Research; CBRE Strategic Investment Consulting

Slowing demand impacted rent growth, with suburban gross asking rents falling -1.6% year-over-year to US$29.82 per sq. ft. This was the second straight year of declining nominal average rent, which is a divergence from the national trend of weak but positive nominal rent growth. The Class A suburban average asking rent was less impacted, growing 1.5% year-over-year to US$34.69 per sq. ft. per year, despite weakening in other fundamentals. Landlords have been especially hesitant to lower asking rents for Class A product, preferring to negotiate on concessions (e.g. more free rent, lower escalations) to keep base rents in line with recent years. Asking rents have been more stable in the Suburbs than Downtown. Both overall and Class A rents were 10% higher Downtown than in the suburbs in 2021. In 2022, overall rents were just 4% higher Downtown, and Class A rents were 2% lower Downtown than in the suburbs, further indicating a growing tenant preference for the suburbs beyond the relative rent affordability.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Suburban sublease availability increased dramatically in 2022 after a mild rise earlier in the pandemic period. Sublease availability increased 140 bps to 3.8% in 2022 for all classes and 280 bps to 5.2% for Class A—the largest year-over-year increases on record. For the suburban market overall, sublease vacancy increases were less dramatic, but the sublease vacancy rate did pass the mark reached during the Global Financial Crisis (GFC) in 2007. Class A sublease vacancy increased more substantially, rising 150 bps to 3.7%, which also surpassed the GFC-level.

Independent Market Study Report

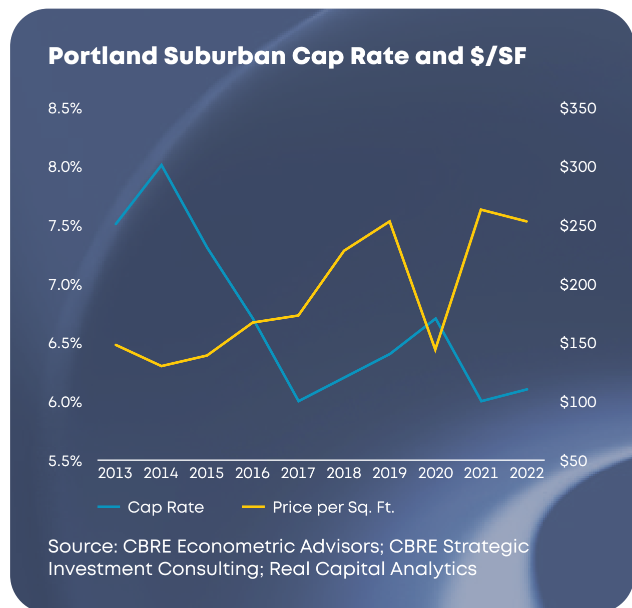
United States

By CBRE Strategic Investment Consulting, February 2023

A mix of tenant types have listed space on the market for sublease in 2022, spanning tech, insurance and financial services. The largest new listing in 2022 is from the cybersecurity software company McAfee, who listed all 98,820 sq. ft. of the Class B building they occupy in Hillsboro. Digimarc is another software company who listed their entire 47,164 sq. ft. Class B building in Beaverton, which sits vacant as of Q4 2022. Wells Fargo Mortgage listed their 49,426-sq.-ft. Class A building in Airport Way, but their lease is set to expire in late 2023. Finally, PacificSource Health Plans has vacated and listed their 51,907 sq. ft. Class B building in Lane County. More sublease listings are expected to hit the market in 2023. Most notably, Providence Health & Services listed their 338,000 sq. ft. Class B building in Beaverton for sublease just after the close of Q4 2022, though the tenant has not disclosed if or when it plans to vacate the space.

New suburban office construction has slowed substantially since 2020, which should provide some relief to rising vacancy rates if leasing activity picks back up. Just one project delivered in 2022—the 75,000 sq. ft. Upland project in Vancouver—and no other leasable projects are expected to deliver in the next two years in the Portland suburbs. Construction is underway on the Terminal 1 project in Vancouver. The 366,000 sq. ft. building is pre-leased to Zoominfo and is expected to deliver in 2025.

Much like the rest of the U.S., sales volume of suburban assets slowed as 2022 progressed. Higher interest rates and growing economic uncertainty curbed demand in a segment that was in high demand in 2021. At US$477 million in sales in 2022, the volume was down 41% from 2021. The number of sales was down, but the volume was also impacted by the smaller size of sales that did occur. There were no sales above US$50 million in 2022, with the largest single-property sale being 3310 NE Aloclek Dr in Hillsboro for US$40 million (US$436 per sq. ft.). However, values have remained relatively stable with the average sales price per sq. ft. falling just 4% year-over-year to US$253. The slight softening of property values combined with flat rent growth led to a 10 bps increase in the market average cap rate to 6.1%. CBRE-EA estimates that the average institutional-grade cap rate for Portland metro area has softened more dramatically, up 110 bps to 5.3% in 2022. CBRE-EA expects the average institutional-grade cap rate to peak at 5.8% in 2023 before progressively tightening to 5.0% by 2027.



Source: CBRE Econometric Advisors; CBRE Strategic Investment Consulting; Real Capital Analytics

Submarket Commentary

Beaverton/Sylvan

After relative stability during the pandemic, demand for office space in the Beaverton submarket weakened substantially in 2022, which led to a record 187,000 sq. ft. of negative net absorption (6.6% of total inventory). As a share of NRA, the Class A segment fared even worse, ending 2022 with 110,000 sq. ft. of negative net absorption or 12.4% of inventory. The net loss in occupancy drove the overall average vacancy rate up 660 bps to 18.7%, the highest since 2010. The spike in Class A vacancy was even more pronounced, jumping 12.5 percentage points to 17.0%.

Nearly all 2022 move-outs were relatively small tenants, but large new leases (non-renewals) were virtually non-existent in the submarket. The largest move-out of the year was Software Solutions Unlimited, which vacated 58,000 sq. ft. at Nimbus Corporate Center. The 47,000 sq. ft. Digimarc sublease vacancy at 9405 Gemini Dr also added significantly to the rise in vacancy. Despite the challenging year, the total vacancy rate in Beaverton is slightly below the suburban office average. No new construction is expected in the submarket for the foreseeable future, which should help ease the supply/demand imbalance.

The average gross asking rent in Beaverton increased 6.8% to US$23.60 per sq. ft. per year despite the softening of other market fundamentals. This is in part explained by the quality and pricing of the new product that hit the market in 2022, especially among Class B assets. The average Class A rent fell by 1.6% to US$25.34 per sq. ft. per year, which is a relative discount in the market. Compared to the overall suburban market, Class A rents were 27% lower in Beaverton.

Sunset Corridor/Hillsboro

The Sunset Corridor/Hillsboro submarket rebounded in 2022 after setbacks in 2021. The submarket gained 39,000 sq. ft. of net absorption, pushing the vacancy rate down 170 bps to 16.2%. The Class A segment also tightened, with 22,000 sq. ft. of positive net absorption lowering the vacancy rate 200 bps to 18.9%. Stronger demand helped drive the overall gross asking rent up 6.9% to US$26.70 per sq. ft. per year and the Class A rent up 11.3% to US$27.80 per sq. ft. per year.

Though there were no large new leases, steady renewal activity like Salesforce's 52,000 sq. ft. deal helped steady the market. Office move-outs were also minimal, but the slowing of tenant demand in the R&D/Flex market could mean more space to compete with certain types of low-rise office. Notably, Nike vacated a 78,000 sq. ft. flex facility at 9310 NE Tanasbourne Dr. CBRE-EA reported 317,000 sq. ft. of negative net absorption in the Sunset Corridor R&D/Flex market in 2022, though not all of that space will be suitable or optimal for office users.

Market Outlook

The Portland office market has been through a tumultuous period since the onset of the pandemic, and the market is expected to remain challenged in the near term. The concentration of tech companies has made the market vulnerable to work-from-home arrangements, weakening demand from a historically large industry driver. However, there is some upside for suburban submarkets, especially for assets located near attractive suburban population nodes. Office-using employment has been growing and surpassed the pre-pandemic level, and many companies are reconsidering work-from-home arrangements by adopting hybrid options or enforcing mandatory office attendance. As more tenants come back to the office market, suburban assets will offer an attractive option with proximity to where many workers live (minimizing commute times has become very important in motivating hybrid workers to come into the office) and lower real estate costs. New construction will be virtually non-existent in the coming years, which should also keep vacancy in check and drive new tenants to existing assets.

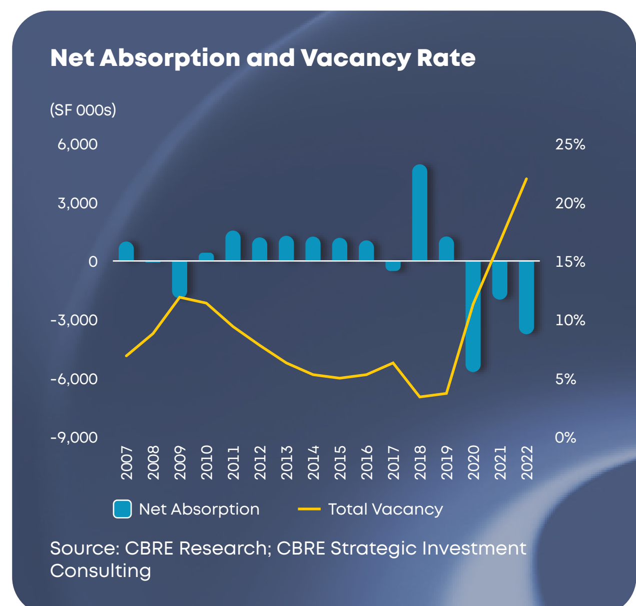
SECTION 3.4: SAN FRANCISCO OFFICE MARKET[4]

Market Trends

The San Francisco office market struggled to find its footing in 2022 for the third consecutive year following the onset of the COVID-19 pandemic. The high concentration of tech companies in the market has meant that adoption of remote and hybrid work arrangements has been particularly widespread. This trend has created uncertainty around long-term space requirements, which was exacerbated by notable tech industry layoffs and general macroeconomic headwinds in the second half of 2022. However, by late 2022 most major tech companies, as well as many other large occupiers across other industries, had instituted mandatory policies for employees to return to the office for at least 2-3 days per week, which should help stabilize market conditions in 2023.

Recovery in leasing activity continues to lag other large U.S. office markets, and the total sq. ft. leased across San Francisco in 2022 fell about 5% compared to 2021. However, Class A leasing increased about 7% year-over-year, highlighting the continued outperformance of high-quality assets. Technology and financial services companies drove the most leasing in 2022, but a wide variety of industries were represented among the largest leases of the year. This broader demand base should help insulate the market from the impact of potential industry-specific shocks. Another positive indicator was new leases and expansions (vs. renewals or contractions of existing footprints) accounting for roughly 60% of the total sq. ft. leased in 2022, reflecting companies' continued interest in establishing or expanding their presence in San Francisco.

Despite comparable levels of leasing activity in the past two years, net absorption was significantly weaker than in 2021. This is because tenants returned more space to the market in 2022. As a result, the vacancy rate continued to rise, reaching a record high of 22%—in stark contrast to the mid-3% range in 2018-2019. A drop off in new construction activity helped prevent more significant vacancy increases, as major deliveries from 2021 (many of which were projects that had been delayed by COVID-19) are still being absorbed.

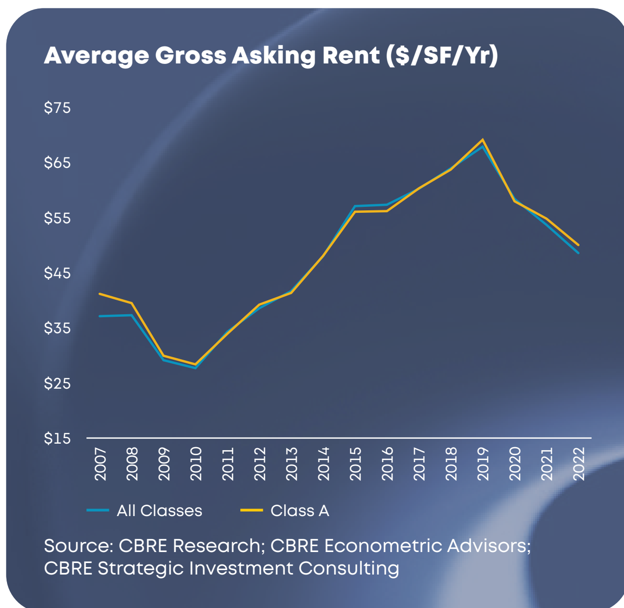


Source: CBRE Research; CBRE Strategic Investment Consulting

4 Unless otherwise noted, stats refer to San Francisco County (synonymous with City boundaries)

Sublease vacancy accounted for about one-fifth of total vacant space last year and a record 4.8% of total NRA. After improving through the first half of 2022, sublease vacancy began rising again through the remainder of the year. There was 3.7 million sq. ft. of vacant sublease space at the end of 2022, up slightly from the prior two years and 8.5 times greater than the 2018-2019 average.

Given the amount of slack in the market, rents have continued to fall as landlords prioritize filling vacancies within their buildings. The average annual gross asking rent declined 9.5% year-over-year in 2022, falling below US$50 per sq. ft. per year for the first time since 2014.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

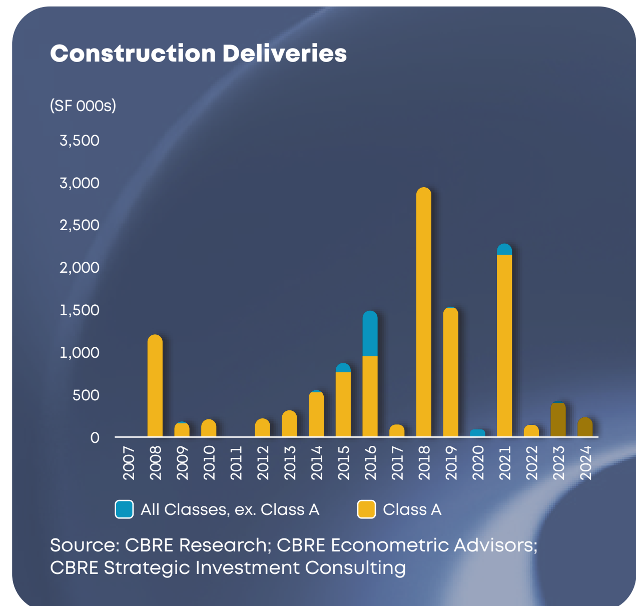
As many occupiers shift toward a "less but better" strategy and consolidate their footprints in top-quality space, occupancy and rent declines have been significantly less pronounced for Class A assets than Class B/C. In 2022, average vacancy rates were 20.1% for Class A space vs. 27.2% for Class B/C, and the average gross asking rent declined 8.7% for Class A space vs. 13.8% for Class B/C. Nearly three-quarters of all rentable space in the market is within Class A buildings.

After two years of relatively healthy sales activity, prolonged weakness in real estate fundamentals weighed heavily on San Francisco office investment. Office sales volume slid to US$886 million in 2022, 80% below the 2012-2021 average. However, investment in the market has remained steadier than in prior downturns, with 2022 volume more than double the 2009 volume and nearly triple the 2002 volume.

The largest sale was DivcoWest's acquisition from Gap Inc. of 550 Francois Blvd.—a 309,000 sq. ft. building formerly used as the Old Navy headquarters. The building sold for US$356 million, or US$1,131 per sq. ft. Gap will be moving their operations to a new location within the market, and DivcoWest plans to reposition the property for life sciences tenants, which are currently very undersupplied. The only other sale exceeding US$100 million was Hanwha Life Insurance's acquisition of 300 Grant Ave. from a joint-venture group, including Lincoln Property Co. and four smaller foreign investors. The 70,000 sq. ft. LEED Gold property sold for US$155 million or a record-shattering US$2,214 per sq. ft.

These big-ticket sales boosted the average price per sq. ft. to US$961, up 11% from 2021 and the second-highest annual average in the market after 2020. The spread between the average and median price per sq. ft. is significantly wider than the market norm, highlighting that investor interest was more concentrated on the extremes of the price spectrum, with either prime assets or small value-add properties making up the bulk of all sales in 2022.

Despite market challenges, the average cap rate was unchanged in 2022. However, given lower net operating income and some erosion in asset values, CBRE-EA expects the average cap rate for institutional-grade assets to increase modestly through 2023. Cap rates are expected to hit the cyclical low point in 2023, with a resumption in asset value appreciation and cap rate compression thereafter.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Submarket Commentary – South of Market (SoMa)

Leasing momentum in the South of Market (SoMa) submarket remained slow in 2022, dominated by Google's nearly 300,000-sq.-ft. sublease of Stripe's HQ building. All other leases were less than 100,000 sq. ft. but were signed by tenants across a variety of industries, though tech companies remained a significant share. Larger leases were a mix of renewals and new leases, both of which are positive indicators for stabilization of submarket conditions.

After nearly doubling in 2021, the total vacancy rate rose by a relatively moderate 200 bps to 17.2% in 2022, which was roughly 500 bps tighter than the rate for San Francisco overall. Although the average vacancy rate remains much tighter for Class A assets in the submarket, this segment had more space returned to the market in 2022. The Class A vacancy rate increased nearly 400 bps year-over-year to 11.3%. Negative net absorption for Class A assets totaled 124,000 sq. ft., slightly exceeding the 122,000 sq. ft. of negative net absorption across the SoMa submarket overall, though the Class A segment accounts for 58% of total sq. ft. in SoMa.

Sublease vacancy has been especially high in SoMa, due to the concentration of firms able to quickly pivot to remote work, as well as those that have announced major layoffs in 2022. Though the velocity of new sublease listings in the submarket slowed significantly in 2022, the 306,000 sq. ft. of vacant sublease space represents an unsustainable 5.6% of NRA. Sublease vacancy in Class A assets, which had previously outperformed the submarket overall, increased at a faster rate in 2022, nearly doubling from 2021 levels to 117,000 sq. ft. or 3.7% of the NRA, but this figure remains well-above the historic norm of about 1.0%.

As the submarket demand picture remains uncertain, average rental rates continue to tumble. The average asking rent for all asset classes in the submarket has declined for three consecutive years, but the pace of decline has lessened somewhat each year. However, the average gross asking rent has declined by significantly more (in percentage terms) and the pace has increased markedly each year.

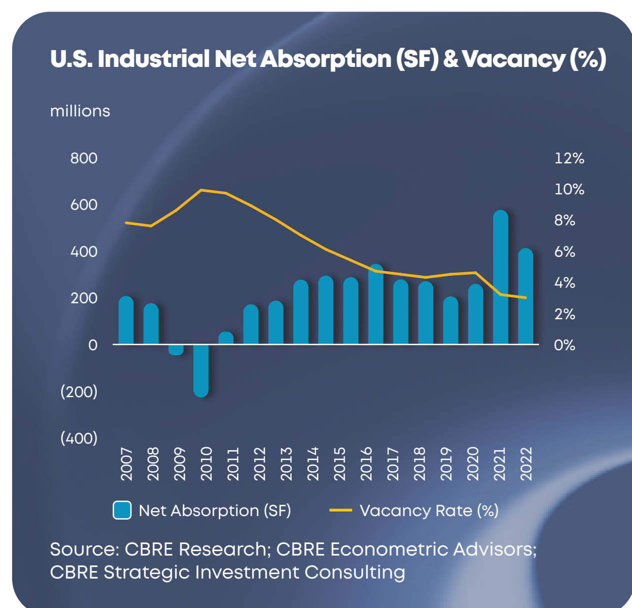
Market Outlook

Office completions in 2022 are expected to make up just 0.7% of existing inventory, and deliveries will likely slow even further during the next five years. Limited construction in the pipeline (and none located in SoMa) should take some pressure off the market, helping support a gradual recovery in San Francisco and the SoMa submarket over the next few years. CBRE-EA expects demand to improve going forward, with modest positive net absorption in 2023 that steadily strengthens thereafter, but the vacancy rate will likely remain in double-digits through the medium-term. Rental rates are also not expected to rebound to pre-pandemic levels within the next five years, as excess space dampens pricing. If demand accelerates more quickly, rates could surge in response, as was the case in prior downturns. The concentration of high-tech companies and young talent will keep the market more vulnerable to remote-work trends, but buildings that offer space for collaboration and flexibility for hybrid work will thrive in the new office environment.

SECTION 4: U.S. INDUSTRIAL OVERVIEW

Market Fundamentals

Macroeconomic concerns had little impact on industrial and logistics real estate fundamentals in 2022. Net absorption reached 412 million sq. ft., a drop from 2021, but still the second highest annual total on record going back to 1989 (and about 34% higher than the 10-year average). New construction completions continued to rise, reaching a record 370 million sq. ft., but strong demand, particularly from large occupiers, has kept the market from reaching equilibrium. Availability and vacancy rates both tightened further in 2022, setting new record lows for the second consecutive year. The availability rate fell 40 bps to 4.8%, and the vacancy rate fell 20 bps to 3.0%.



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

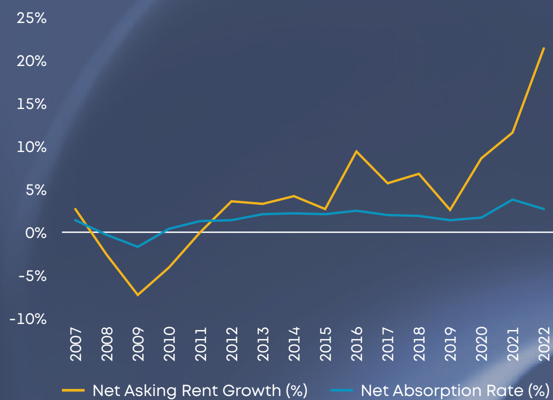
Independent Market Study Report

United States

By CBRE Strategic Investment Consulting, February 2023

Given outsized demand, as well as developers looking to recoup significant construction cost escalation, the net asking rent soared to a record US$11.08 per sq. ft. per year, up by 21.4% year-over-year (nearly double the 11%-range previous growth peaks in 2021 and 1998). A disproportionate share of the markets with the strongest rent growth over the past year are in California and Florida (led by Los Angeles, Riverside, and Miami), though several emerging industrial markets in the Sun Belt, such as Savannah, Greenville, and Charlotte, also experienced significant rent gains. On average, rent growth is expected to remain elevated well above historic averages through at least 2025 as forecasted demand keeps up with supply. Although the substantial construction pipeline should result in a third consecutive year of new record-high completions in 2023, construction financing challenges and economic conditions have resulted in a decline in new projects breaking ground, which will lead to completion slowdowns beginning in 2024. Depending on the extent to which occupiers delay expansion plans, there may be a slight uptick (likely less than 50 bps) in the vacancy rate in 2023, but this would likely reverse in 2024.

U.S. Industrial Net Asking Rent Growth (%) & Net Absorption Rate (% YoY)



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Emerging Trends

The key forces propelling the industrial sector since the onset of COVID-19—namely e-commerce sales growth, supply chain diversification, inventory controls, and population shifts—will continue to fuel strong demand in 2023. Leasing activity will likely be more restrained in response to economic uncertainty, particularly among smaller occupiers with lower capital reserves, but fundamentals will remain solid overall. Third-party logistics (3PL) companies are expected to continue leading leasing activity as retailers and other companies outsource to avoid supply chain challenges and labor shortages.

U.S. E-Commerce Sales Growth

Source: U.S. Census Bureau

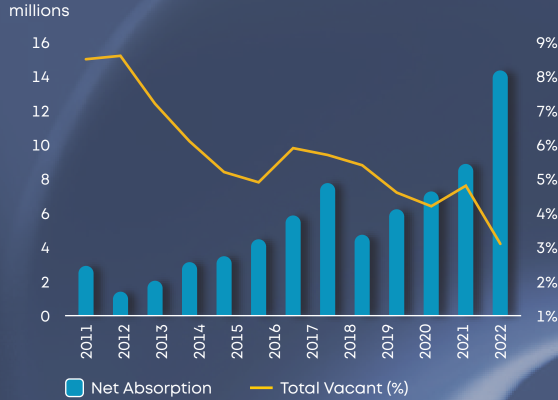
Supply chain and logistic problems over the past two years have prompted some companies to consider diversifying their product sourcing to protect inventory and mitigate future disruptions, adopting a "China Plus One" approach by partially shifting manufacturing to other Asian countries, Mexico, or onshore to the U.S. In addition to increased demand for U.S. manufacturing and distribution facilities, this trend will mean that imports flow into and throughout the U.S. along a greater number of transportation networks, benefiting more industrial real estate locations. Location optimization is also being utilized to control supply chain costs since domestic freight costs remain higher than pre-pandemic levels due to higher fuel costs and labor shortages. This means that industrial properties located in transportation hubs with high-quality infrastructure are expected to see particularly strong demand from both tenants and investors.

SECTION 5.1: KANSAS CITY INDUSTRIAL MARKET

Market Trends

2022 was a banner year for the Kansas City industrial market, with record performance across most real estate indicators. Net absorption topped 14 million sq. ft. (4.7% of inventory), exceeding the previous peak (2021) by more than five million sq. ft. E-commerce, distribution and logistics companies remained the dominant drivers of demand, accounting for more than half of total sq. ft. leased in large deals (100,000 sq. ft.+) in 2022. Though new supply additions were significant, it was not enough space to keep up with the surge in demand. As a result, the total vacancy rate fell 170 bps to 3.1%.

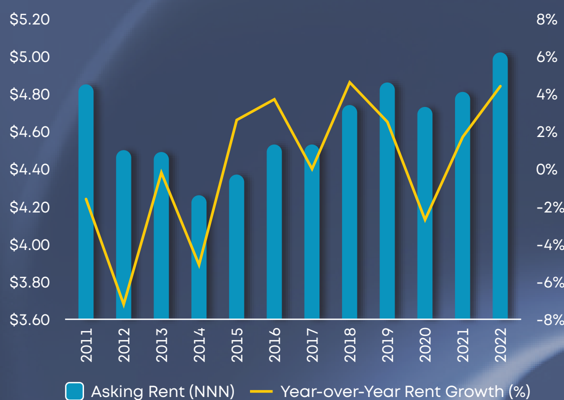
Kansas City Industrial Net Absorption (SF) & Vacancy (%)



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

The limited amount of available space put upward pressure on market rates. The average asking triple-net (NNN) rent rose to US$5.02 per sq. ft. per year, up 4.4% from 2021. Growth in the average effective rent was even more dramatic in 2022, climbing 13% year-over-year and indicating that some tenants were motivated to pay well above asking rent to secure space. The spike in effective rents was also a reflection of landlords not offering as many concessions. Fewer deals included any period of free rent, and, for deals that did, the average the number of free months fell by 0.2 from 2021.

Kansas City Industrial Net Asking Rent ($/SF/Yr) & Growth (% YoY)



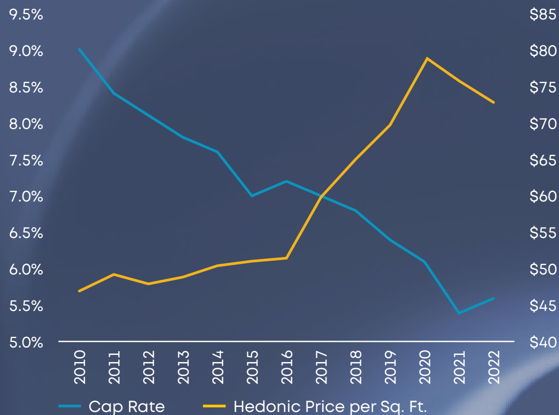
Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Nearly 11 million sq. ft. of new supply was completed in 2022 (3.5% of existing inventory), most of which was bulk distribution facilities (100,000+ sq. ft.). Developers are on track to maintain the rapid pace of the prior two years, with approximately 22 million sq. ft. of new space expected to deliver in Kansas City from 2023-2024 (likely peaking in 2023). Four consecutive years of construction activity at this scale will likely cause some softening in the vacancy rate. However, given the current tightness of the market, some additional availability (particularly of large, modern warehouses) will allow tenants to expand more easily and potentially attract more relocations of tenants from other markets.

Kansas City Construction Deliveries (SF) & Delivery Rate (% of NRA)

Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Investment sales activity slowed in 2022, especially later in the year as rising interest rates increased the cost of capital, but it remained robust relative to historical market norms. Compared to record investment levels in 2021, the total volume of US$692 million in 2022 was down 51%. However, 2022 volume was 45% higher than the 10-year average and approximately on par with 2019-2020. Similarly, although industrial pricing fell 3.6%, the US$72.84 per sq. ft. average in 2022 was still the third-highest on record (just behind 2020 and 2021) and 22% above the 10-year average. The drop in property values softened cap rates slightly. CBRE-EA estimates the institutional-grade cap rate at 5.6% as of year-end 2022, up 20 bps year-over-year.



Source: CBRE Econometric Advisors; Real Capital Analytics

Submarket Commentary

East Jackson County

Demand for industrial space in Jackson County, the largest of the Kansas City submarkets, increased notably in 2021 but remained relatively weak compared to the rest of the market. Net absorption reached 2.9 million sq. ft. in 2022, which is about 2.7% of total inventory. This was the lowest net absorption rate of all counties in the Kansas City market and two percentage points below the market average. However, low net absorption in the county is largely a consequence of the limited amount of remaining available space. The vacancy rate in Jackson County was 2.1% at the end of 2022, 100 bps lower than the market average. Additionally, new supply was limited in 2022. Although 34% of existing market inventory is located in the county, just 10% of the new sq. ft. delivered in 2022 was located there. Rent growth was stymied by the lack of available modern bulk distribution space (at least 100,000 sq. ft., 28' clear height, and built after 1989), with a 0% vacancy rate for this segment at the end of the year. The average NNN asking rent climbed just 2.6% year-over-year to US$4.78 per sq. ft. per year.

Three modern bulk distribution facilities were completed in Jackson County in 2022, adding just over 1 million sq. ft. to the submarket: two new warehouses at Blue River Commerce Center (BRCC) totaling 636,000 sq. ft. and Building 6 at I-49 Logistics Center, which added 367,000 sq. ft. All three buildings were fully occupied before year-end, mostly by single tenants, making these deals among the largest new leases of the year. BRCC II was leased to Genesys Integrators and Beyond Warehousing, BRCC V was leased to Imperial Bag & Paper Company, and Building 6 to Skymark Refuelers and Amazon. With just one exception (125,000 sq. ft. by Pure Fishing Inc. at 1601 St Louis Ave), all new leases of at least 100,000 sq. ft. were in buildings delivered in 2021, 2022 or set to be delivered in 2023.

At the end of 2022, 4.1 million sq. ft. was under construction in Jackson County, including two more buildings at Blue River Commerce Center scheduled for delivery in 2023. BRCC III (463,000 sq. ft.) is already pre-leased by Beyond Warehousing and BRCC IV (391,000) is 61% leased to Alpha Logistics. The two largest projects underway in the submarket are Space Center – Summit 2 (nearly 1 million sq. ft.) and Building 7 at I-49 Logistics Center (920,000 sq. ft.). Both are scheduled for delivery in 2023 and are currently 100% available. As of year-end 2022, only 9.5 million sq. ft. or 9% of the inventory in Jackson County could be classified as modern bulk distribution, but these properties make up 100% of the sq. ft. underway. Once completed, these properties will increase inventory in this segment by 43% within the submarket.

North and South Johnson County

Industrial real estate fundamentals were strong across the board in Johnson County in 2022. Net absorption reached 4.1 million sq. ft. or 5% of submarket inventory. Absorption of new supply additions played a role in net new occupancy, but the bulk was from large new leases in existing facilities. Strong leasing drove the vacancy rate down 410 bps year-over-year to 2.4%. High demand for space in the submarket combined with limited availability drove the average NNN asking rent up 12.3% year-over-year to US$5.95 per sq. ft. per year —the highest average rent in the market. About one-third of the available bulk distribution space in the Kansas City market is in Johnson County, which has helped boost the average rent in the submarket (since asking rates are based on available space being marketed for lease).

Six buildings totaling 1.4 million sq. ft. delivered in 2022 in Johnson County, three of which were modern bulk distribution facilities. All the new deliveries were in South Johnson County (South of I-435/KS-10) except one 15,000 sq. ft. facility. The largest delivery in Johnson County was the 570,000 sq. ft. I-35 Logistics Center, which came online pre-leased to The Clorox Company. Building 5 at Lenexa Logistics Centre was nearly as large at 565,000 sq. ft., and it delivered partially leased (217,000 sq. ft.) to KGP Telecommunications. A 200,000 sq. ft. build-to-suit facility for MSI also delivered on Mill Creek Rd. Five other new leases totaling 1.8 million sq. ft. were signed in existing modern bulk distribution facilities, though three of these deals were in nearly new buildings that had delivered in 2021.

At 4.4 million sq. ft., Johnson County has more modern bulk distribution product underway than any other Kansas City submarket. More than 75% of the

submarket sq. ft. underway is in South Johnson County, all of which is speculative bulk distribution product that was still fully available as of Q4 2022. Just over 1 million sq. ft. of product is underway in North Johnson County, of which about 90% is speculative bulk distribution. As of Q4 2022, the only pre-leasing was 143,000 sq. ft. at Kansas Commerce Center to Fill-Rite company.

Northland

The Northland region is comprised of Platte and Clay Counties, which combined had 70 million sq. ft. of industrial space at the end of 2022. Platte County is much smaller (24% of the Northland region) but has grown substantially in recent years, especially the modern bulk distribution segment, which now makes up more than half of total inventory in the county. Development has also been active in the more established Clay County submarket, including 4.7 million sq. ft. added in 2022. The Northland region is expected to be a major target for development in the coming years, with 2.5 million sq. ft. underway as of year-end 2022, which accounts for about one-fifth of all development expected in the metro area.

Leasing activity was very strong in 2022 in the Northland region, resulting in 4.6 million sq. ft. of net absorption across the two counties. Much of this absorption (3.8 million sq. ft.) came from pre-leasing of the 5.3 million sq. ft. of new construction that delivered in 2022. The remaining 1.5 million sq. ft. of new space that delivered unleased did contribute to a slight (30 bps) rise in the vacancy rate to 4.5% (still tight relative to historical norms for the submarket). Over 90% of the vacant space in Northland is in Clay County. In addition to new construction deals, several large renewals were executed in existing buildings, and the largest new lease was WinCo Foods' 108,000 sq. ft. deal at 8800 NE Underground Dr. in Clay County. The largest new lease of an existing asset in Platte County was Charles D Jones Co.'s 85,000 sq. ft. lease at Riverside Horizons V.

Strong demand, as well as a notable amount of brand-new space available, drove the average asking lease rate up 14.1% year-over-year to US$5.06 NNN per sq. ft. per year. In Clay County, asking rent growth was 18.6%, year-over-year which was the highest in the Kansas City market. Platte County rent growth was also strong, reaching 10.5%, year-over-year which was more than double the market-level growth rate.

Market Outlook

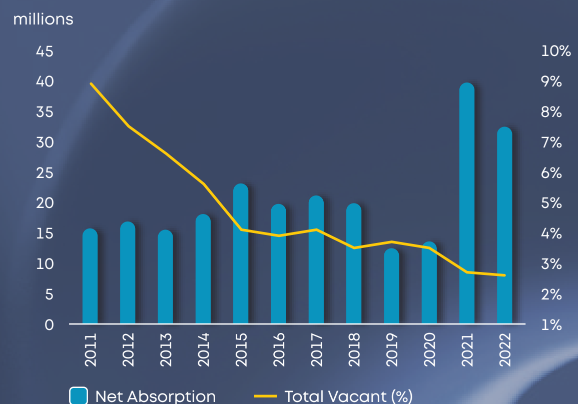
Because the pace of new supply additions has not kept up with cumulative excess demand, growth in the Kansas City market has been hindered in recent years. But the expected surge in development in the coming years should help drive expansion and activity in a much sought-after market. The metro's central location with access to rail and major interstate highways make it a highly attractive location for warehousing, distribution, logistics and e-commerce companies with a national footprint. Non-bulk infill warehouses will also be especially sought-after for last mile distribution, given the relative tightness and virtually non-existent development activity in that segment of the market. CBRE-EA forecasts annual asking rent growth to settle in the 2.6%-3.6% range in the coming five years, but last-mile infill rent is likely to exceed that due to the low availability and limited new supply of the product type.

SECTION 5.2: CHICAGO INDUSTRIAL MARKET

Market Trends

The Chicago industrial market tightened further in 2022, with the average vacancy rate falling 10 bps to 2.6%—the lowest on record for the market. Nearly 30 million sq. ft. of new construction hit the market, of which more than 70% delivered pre-leased. Occupancy of the new product combined with ample leasing activity and limited move-outs at existing properties brought overall net absorption to 32 million sq. ft. in greater Chicago. Leasing activity and net absorption were just shy of the record-highs set in 2021. E-commerce, logistics and retail companies were the biggest demand drivers in 2022, accounting for nearly half of the sq. ft. leased in deals over 100,000 sq. ft. Strong demand combined with tight supply drove the average triple-net (NNN) asking lease rate up 5.5% year-over-year to US$6.09 per sq. ft. per year—another record for the market. Meanwhile, analysis of completed lease transactions revealed that the average effective rent increased 25% year-over-year, indicating that landlords are offering fewer concessions and that some tenants are willing to pay above asking rates.

Chicago Industrial Net Absorption (SF) & Vacancy (%)



Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

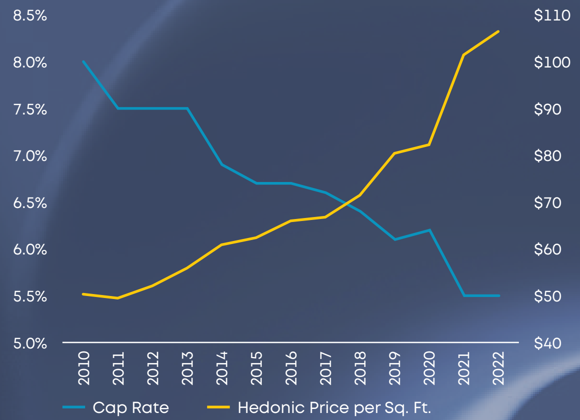
The supply pipeline remains robust with 36 million sq. ft. under construction as of year-end 2022, nearly all of which will be delivered in 2023. Bulk distribution facilities (100,000 sq. ft. or larger) made up 97% of new supply additions in 2022 and will continue to account for most deliveries over the next two years. This additional supply should help the market better accommodate the strong appetite for industrial space, particularly given compounding excess demand after the prior two years of absorption outpacing new deliveries. As a percentage of the existing Chicago industrial market (over 1 billion sq. ft. of inventory), new supply remains is extremely limited, so a significant uptick in vacancy is not expected in the near-term. Construction activity is likely to slow in 2024 as rising construction costs and interest rates may cause some developers to wait on starting new projects.

Chicago Construction Deliveries (SF) & Delivery Rate (% of NRA)

Source: CBRE Research; CBRE Econometric Advisors; CBRE Strategic Investment Consulting

Mirroring trends across nearly all U.S. markets, Chicago's industrial investment sales activity slowed in 2022, especially in the latter half of the year as interest rates increased and economic conditions grew uncertain. Compared to record investment levels in 2021, transaction volume totaled US$7 billion, down 22% year-over-year. However, it was still the second highest annual sales volume on record and 47% higher than the 10-year average. Chicago's industrial pricing increased 4.9% to an average of US$107 per sq. ft., the highest on record and 52% above the 10-year average. Operating income rose in tandem with values, keeping the average cap rate unchanged at the record market low of 5.5% in 2022.

Chicago Industrial Cap Rate & Price Per Sq. Ft.



Source: CBRE Econometric Advisors; Real Capital Analytics

Submarket Commentary

O'Hare

O'Hare is the second largest submarket in Chicago and consistently one of the most active in terms of leasing activity, due in large part to proximity to the massive O'Hare International Airport. In 2022, however, leasing activity slowed substantially, in large part because there were very few existing high-quality bulk distribution facilities available to lease, though net absorption remained positive at 202,000 sq. ft. A relatively modest 554,000 sq. ft. of new construction delivered in 2022, all of which was leased before year-end, but some spaces vacated by tenants moving into these new properties remained empty. As a result, the submarket vacancy rate climbed 90 bps to 2.1%, though this is still extremely tight by historic and national standards. While this tightness slowed net absorption it also helped drive significant rent growth. The average asking lease rate increased 14% in the submarket to US$7.98 NNN per sq. ft. per year, which is 31% higher than the market average rent.

Given the extremely limited availability, the largest new lease in 2022 was in a new building. DSV Air & Sea, a global transport and logistics company, leased the entire 307,000 sq. ft. distribution facility delivered on Devon Ave in Bensenville. The second largest lease was for a 277,0000 sq. ft. building still under construction, which is a build-to-suit for R&M Trucking. Though more supply is on the way, it is unlikely to be enough to make a significant dent in the supply/demand imbalance. At the end of 2022, 1.5 million sq. ft. was under construction in O'Hare, which is less than 2% of existing inventory. In addition, more than two-thirds of the construction is build-to-suit or pre-leased, meaning the submarket is likely to remain tight for the near future.

Central DuPage/Kane
Central DuPage is among the smallest of the Chicago industrial submarkets, but recent and upcoming construction activity have made it an emerging growth location. Leasing activity in 2022 was roughly on par with recent years, which led to over one million sq. ft. of net absorption (2.8% of inventory). Despite the strong momentum, a few large move-outs and 1.5 million sq. ft. of new construction (of which just 250,000 sq. ft. had been leased as of year-end 2022) led to a 150 bps increase in the vacancy rate to 3.4% (tight by national standards but among the highest across the Chicago market). Asking rent growth in the submarket was on par with the overall market, with the average increasing 5.4% to US$5.88 NNN per sq. ft. per year.

New construction deliveries in 2022 accounted for 3.9% of total inventory, adding much-needed supply to the previously extra-tight submarket. While this contributed to higher vacancy in the short-term, it leaves the submarket better-positioned for future leasing of both new and existing product. As of year-end 2022, another one million sq. ft. of new speculative construction was underway, and a total of two million sq. ft. is expected to deliver by the end of 2023, further helping to attract new tenants in search of room to grow to this submarket.

South Suburbs/South Cook County
Tenant demand was generally robust in the South Suburbs in 2022, but a few large move-outs dampened net absorption to 1.1 million sq. ft. (relatively soft compared to recent years) and pushed the vacancy rate up slightly to 3.3%. The largest move-out occurred at Southgate Commerce Center, where Warehouse Specialists and Morgan Li vacated 310,000 sq. ft. After a record 9.5 million sq. ft. delivered in 2021, new supply deliveries slowed to just over one million sq. ft. or 1.6% of the submarket's total inventory. This new supply came from a single project, The Cubes at Country Club Hills, which delivered fully available. The availability of brand-new product and strong underlying demand drove the average asking rent up 6.5% to US$5.70 NNN per sq. ft. per year.

After a surge in construction starts, there was 2.6 million sq. ft. under construction at the end of 2022, which is 4% of existing inventory. About 1.1 million sq. ft. of the pipeline is already pre-leased, with the remaining 1.5 million sq. ft. bringing much-needed modern bulk distribution supply to the submarket.

I-88 Corridor/Far West Suburbs
Anchored by the City of Aurora, the Far West Suburbs have been growing relatively slowly compared to most of the closer Chicago-area submarkets. About 1 million sq. ft. of new space delivered in 2022, and roughly the same amount was under construction as of year-end. This equates to 1.5% of submarket inventory, which was half the delivery rate of the overall market in 2022 and a full percentage point lower than the market under construction rate. Though submarket leasing activity was consistent in recent years, net absorption has been limited by the lack of available supply that can satisfy the requirements of many new or growing occupiers. As of year-end 2022, only three modern bulk distribution spaces were available, and only one was currently vacant, meaning large tenants have very few options in the submarket. Nearly 80% of the inventory under construction was available as of year-end 2022, which will add some options for interested tenants.

Average asking rent growth in 2022 was slightly weaker than the overall market at 4.5%, which brought the average NNN asking rent to US$5.75 per sq. ft. per year. As modern warehouses become available, these properties should be able to command higher rents.

Southwest Cook County/Far Southwest Suburbs
The Far Southwest Suburbs is the tightest submarket in the metro area, with just 0.9% of inventory vacant at the end of 2022. Very strong leasing activity and few move-outs drove net absorption to 5.8 million sq. ft., the most of any submarket besides Kenosha/Racine. This record net absorption occurred despite relatively light construction activity. The bulk of 2022 deliveries (68%) were driven by a 1.2 million-sq.-ft. mega-distribution facility developed as a build-to-suit for Wayfair. Several new leases of existing facilities in excess of 100,000 sq. ft. also helped drive net absorption, including NFI's nearly one-million sq. ft. deal at Carlow Corporate Center. The limited available supply in the submarket drove the average asking rent up 19% to US$6.28 NNN per sq. ft. per year.

Though 2022 saw limited construction starts, the pipeline is robust. As of year-end 2022, 3.5 million sq. ft. was under construction, which represents 3.8% of inventory. Nearly 75% of the inventory underway was available at the end of 2022, which should lead to ample net absorption in 2023 given the high user demand in the submarket.

I-39 Corridor/Rockford
Along the I-39 Corridor, the Rockford Area is the most distant suburb from Chicago's center. The submarket is relatively small and has not had significant new construction in the last several decades. Only 15% of submarket inventory has been built since 2000, compared to roughly 30% of the overall Chicago market. The lack of new inventory has hindered demand in recent years as the acceleration of e-commerce and other structural shifts have made tenants increasingly attracted to modern bulk facilities. At 6.2%, Rockford has by far the highest

vacancy rate of any Chicago submarket, but less than half of the vacant sq. ft. is in large blocks (100,000 sq. ft. or larger), and virtually none is modern Class A space. The glut of less desirable space has kept rent levels relatively low, but growth has been steady. The average asking rent grew 5% to US$3.77 NNN per sq. ft. per year. The average rent for Class B space, which makes up most of the available inventory, grew 4% to US$3.65 NNN per sq. ft. per year.

The construction pipeline remains light, with 230,000 sq. ft. under construction across two projects as of year-end 2022. Building 3 at Rock 39 Industrial Park accounts for most of this total—a 200,000 sq. ft. Class A distribution facility pre-leased to DB Schenker. The new facility will be in the same industrial park as the only large Class A block available in the submarket, which is a 141,000 sq. ft. sublease availability in a former Amazon facility.

Market Outlook

Chicago is the largest industrial market in the U.S. and will remain the core Midwest location for large distributors and manufacturers. Like many major U.S. industrial markets, Chicago is undersupplied, which has led to significant rent increases in the current cycle but has also curtailed further growth for large tenants who have limited available options. Despite general economic uncertainty, new industrial development in greater Chicago is expected to remain high in 2023 and likely set another record for sq. ft. built, though these deliveries will constitute a very small percentage of the overall market. CBRE-EA expects rents to continue to grow by an average of 4% per year in 2023 and 2024 before normalizing to 2.5%-3.5% per year thereafter. New supply should continue to fuel net absorption, though vacancy may rise somewhat if tenants moving into new properties leave behind space that is considered functionally obsolete and difficult to re-lease, particularly during periods of weaker economic growth. Overall, given the current supply/demand imbalance, additional product would likely benefit the market, allowing more tenants to enter and grow in the market.

Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

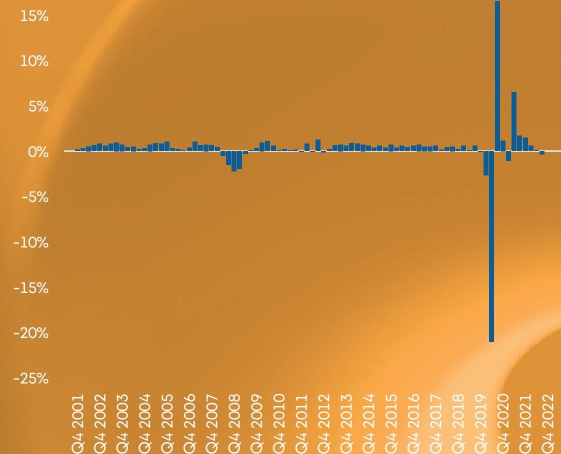
OVERVIEW OF THE UNITED KINGDOM ECONOMY IN 2022

2022 started with strong momentum following healthy post-pandemic recovery throughout 2021. As we moved through 2022, the United Kingdom (UK) started to face significant challenges. Inflationary pressure, low consumer confidence and the transition away from the low interest rate environment that had been enjoyed over recent years – coupled with political instability – has meant that the UK has seen economic growth significantly slow over the course of 2022.

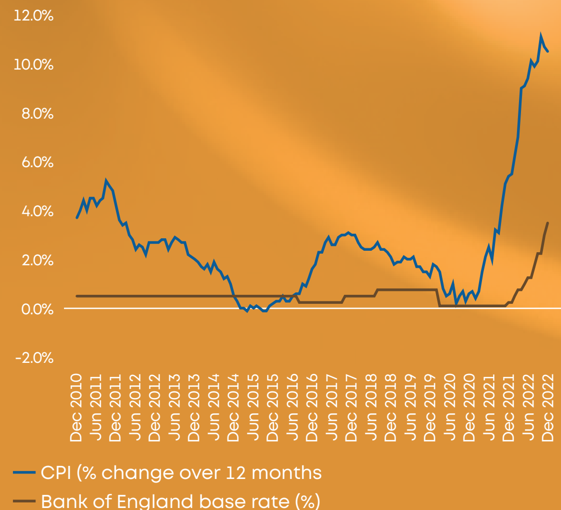
The UK economy began 2022 with modest growth of 0.6% in GDP in Q1 2022. However, as the Russia-Ukraine conflict began, this slowed in Q2 2022 to just 0.1% quarter on quarter before declining by -0.3% quarter on quarter in Q3 2022. Despite challenging conditions, the UK narrowly avoided falling into recession in Q4 2022, having recorded no growth (or decline) in Q4 2022. The Office for National Statistics reports that UK GDP increased by an estimated 4.0% in 2022, following a 7.6% increase in 2021.

Inflation, whilst impacting economies across the world, is having a more pronounced effect on the UK, in part due to depreciation of the pound pushing up prices of imported goods as well as domestic pressures such as wage growth. An important driver of inflation is energy prices, with household energy tariffs and petrol costs increasing. From December 2021 to December 2022, domestic gas prices increased by 129% and domestic electricity prices by 65%. However, the full impact of rises in energy cost has been somewhat mitigated by the UK Government's Energy Price Guarantee for consumers (which limits the maximum amount that suppliers can charge per unit of gas and electricity) and the Energy Bill Relief Scheme for non-domestic users (which provides a discount on wholesale gas and electricity prices). As a result, inflation appears to be responding to these interventions: annual inflation indicated by the Consumer Price Index (CPI) reached a 41-year high of 11.1% in October 2022 before moderating slightly in November 2022 to 10.7% and in December 2022 to 10.5% but is still above the long-term Bank of England target of 2%.

As a response to the rising inflation, the Bank of England increased the base rate, which at year end 2022 was 3.5% and now stands at 4% following a further uplift in February 2023. The result has been a curtailing of the inflationary pressures, with a further impact on the housing market and investment markets. Of particular significance was the rapid decrease of commercial real estate investment transactions as would-be purchasers and vendors struggled to understand where the new pricing would settle. Lending and financing came to virtual standstill as the financial markets reacted to the new market conditions.



Source: Office for National Statistics



Source: Office for National Statistics, Bank of England

Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

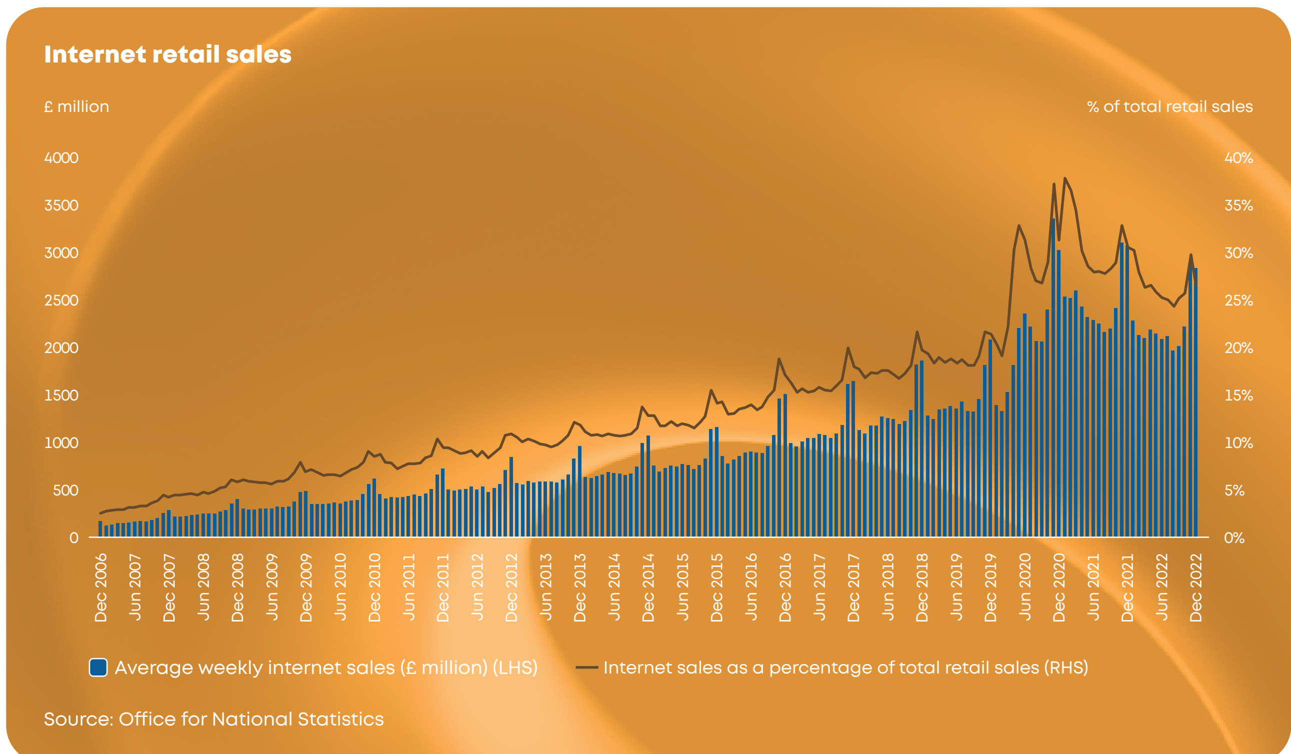
IMPACT OF COVID-19

Many of the structural changes accelerated by the Covid-19 pandemic continue to impact consumer and business activity in the UK.

Source: Office for National Statistics

Labour remains a key challenge for businesses in the UK, with Covid-19 exacerbating underlying labour shortages. In December 2022, the unemployment rate stood at 3.7%, marginally above the record low of 3.5% recorded in August 2022. One of the biggest challenges in the post-Covid-19 environment is the number of people choosing to leave the UK workforce altogether: between February 2020 and December 2022, over 516,000 people have left the UK workforce and are now classified as economically inactive, notably as a result of long-term illness. This constraint in the labour supply has put upward pressures on nominal wages which have grown by 6.6% in the year to December 2022. Staffing challenges are particularly pronounced in low-skilled jobs in sectors such as hospitality, warehousing and retail. Further adding to the challenges in the labour market has been significant disruption in second half of 2022 due to industrial action and strikes related to job security, working conditions and pay increase demands. Industrial action has been most significant within public sector and has impacted a wide range of sectors including transport, postal and healthcare services

Whilst overall consumption volumes remain largely in line with pre-pandemic levels, consumers are adapting to post-pandemic hybrid lifestyles, now spending an average of 2.5 - 3 days per week in the office and working flexibly for the remainder. Since peaking during January 2021 at a rate of 37.8% of total sales, internet sales have remained consistently above 25%. However, a significant fall in the proportion of retail sales online in 2022 is as a result of consumers curtailing their overall spending due to reduced disposable incomes with online spending suffering disproportionately as shoppers



Source: Office for National Statistics

have opted to spend more in physical retail locations where discounting is more prevalent.

Retail and distribution supply chains are evolving at a rapid pace, not only to meet demand across multiple channels, but also to mitigate against supply chain risk and disruption. Looking forward, those retailers that perform best will be those that are able to successfully implement and scale omni-channel distribution and have robust supply chains, without compromising cost or service.

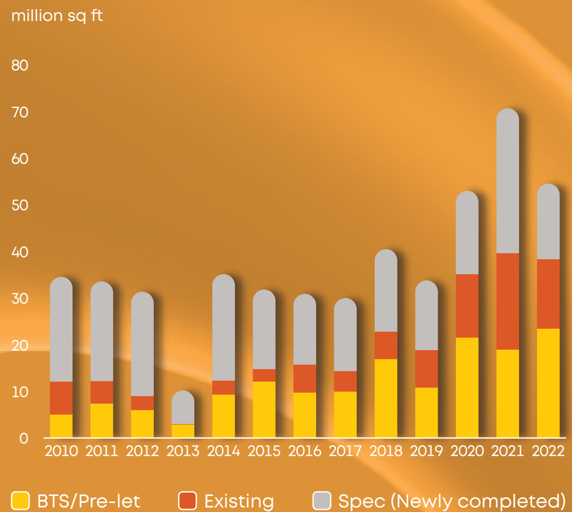
Whilst supply chain pressures peaked during the Covid-19 pandemic, there remain challenges, including sourcing appropriate goods in desired quantities, which are likely to remain under pressure throughout 2023. As a result, businesses are considering diversification strategies such as 'nearshoring' production and product sourcing to include alternative locations to those in farther away locations (including China) to help mitigate supply chain interruption risks. Industrial and logistics properties plays a key role in ensuring supply chain resilience and will serve as a tool for occupiers to manage these risks.

OUTLOOK FOR THE UK ECONOMY

The outlook for the UK economy remains challenging. Although the UK avoided official recession in late 2022, should it come, it is predicted to be shorter and less severe than those previously experienced. Although low levels of unemployment will benefit the economy by providing critical household income, a key challenge will be ensuring that this income re-enters the economy through consumer spending. The UK economy is expected to see decline in economic activity in Q1 and Q2 2023 but returning to modest growth in Q3 and Q4 2023, ending the year with a year on year fall of -0.4%[1]. Inflation is expected to remain elevated in the first half of 2023 but is forecast to fall back by December 2023, ending 2023 at 4.3%[2] . Further uplifts in the base rate by the Bank of England are expected albeit by smaller degrees than in 2022; and the base rate is expected to end 2023 at around 4.5%[3].

OVERVIEW OF THE UK LOGISTICS AND INDUSTRIAL MARKET

Occupational take-up for UK logistics and industrial space (units of 50,000 sq ft or more) reached 54.5 million sq ft during 2022, down from a record high of 70.6 million sq ft in 2021. Despite this fall, 2022 take-up remains significantly ahead of the pre-pandemic long term average of 33 million sq ft, and is the second highest volume reported in the UK. The appetite for high-quality buildings persisted throughout 2022 with space within Grade A units increasing its share of total take up to 72% up from 66% in 2021, and representing 39.2 million sq ft of space. Of this 39.2 million sq ft; 38.3 million sq ft was taken as newly-built units that had either completed construction in the year, or are due to complete during early 2023. Furthermore, occupational demand had a clear preference for units of 50,000-150,000 sq ft, accounting for 35.9% of total take-up during the year over 221 deals, following the same trend as 2021.



Source: Cushman & Wakefield Research

Occupational take-up during 2022 was largely fuelled by demand from the logistics and manufacturing sectors, who committed to 14.2 million sq ft and 12.5 million sq ft respectively (48.9% of total 2022 take-up). The most marked difference to occupier activity in 2022 was the drop in demand from ecommerce and parcel & post operators. Ecommerce businesses took just under 5.0 million sq ft in 2022, compared with 20.6 million sq ft in 2021, whilst parcel & post operators took just 0.6 million sq ft down from 2.8 million sq ft in 2021. This drop-off in demand follows a period of rapid commitment to space during the pandemic years of 2020 and 2021; many occupiers within these sectors have now successfully acquired optimal space to meet their current operational demand, and thus are no longer as acquisitive as they have been during recent years.

1 Source: Moody's Analytics, February 2023 forecasts
2 Source: Moody's Analytics, February 2023 forecasts
3 Source: Moody's Analytics, February 2023 forecasts

Independent Market Study Report

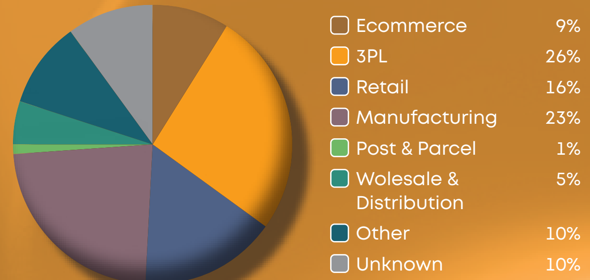
United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

Throughout 2022, developers have delivered new industrial space in key locations amidst a backdrop of ongoing constrained availability. 20.5 million sq ft of speculatively developed space was delivered in 2022, the highest volume on record. Of this speculative supply, 11.9 million sq ft was located within the Midlands and South East & East as units of 100,000-300,000 sq ft. However, a number of schemes have faced delays to their development schedules: 16 units totalling almost 3 million sq ft which were scheduled for delivery during 2022 are now expected to complete in early 2023. At the end of 2022, units under speculative construction totalled 16.5 million sq ft .

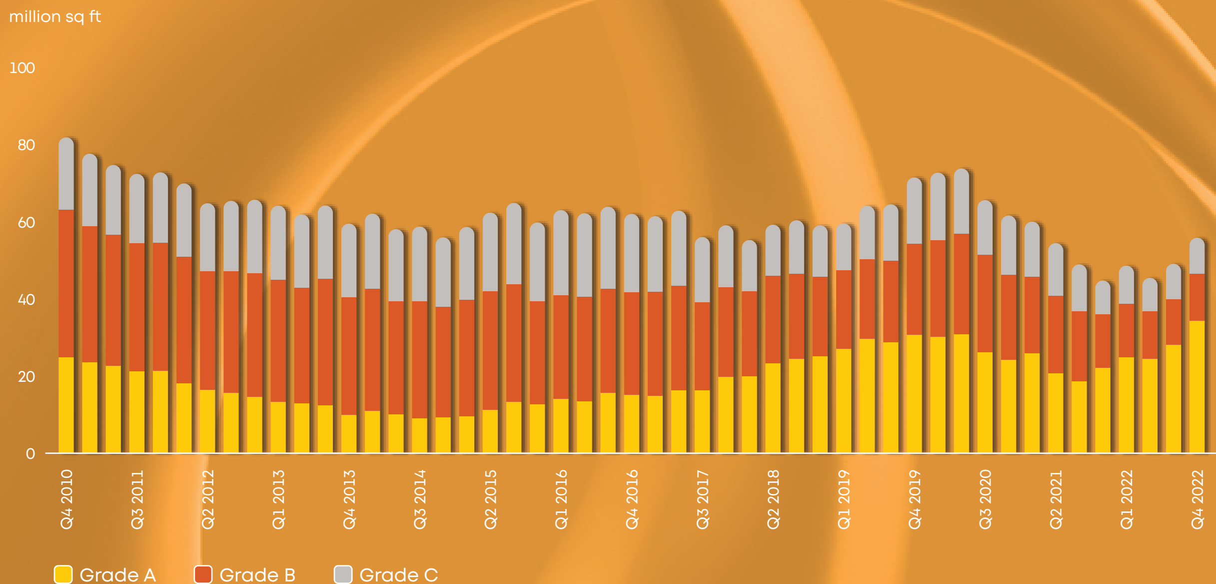
As a result of this new supply, availability has increased throughout 2022. Having reached a low of 44 million sq ft (3.9% availability rate) at the end of Q4 2021, availability now stands at just under 54.5 million sq ft nationally (4.7% availability rate). The 20.5 million sq ft of newly delivered speculative space has boosted availability of Grade A space (albeit 8.7 million sq ft of this has already been taken by occupiers) but supply in the Grade B category is now highly constrained, with just 12.3 million sq ft down from 20.1 million sq ft during Q2 2021.

Occupier take-up by occupier sector (units of 50,000 sq ft or more)



Source: Cushman & Wakefield Research

Availability (units of 50,000 sq ft or more)



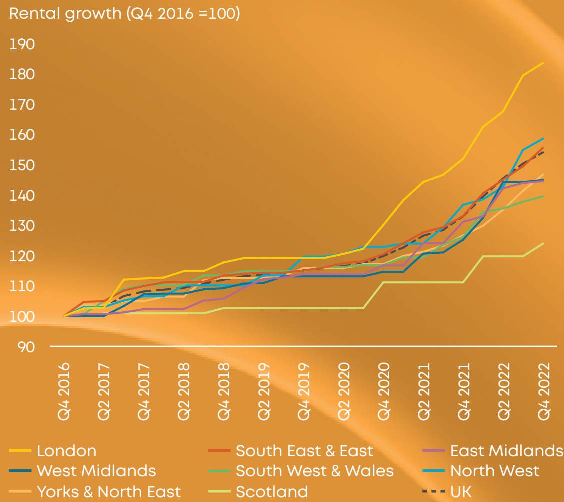
Source: Cushman & Wakefield

Independent Market Study Report

United Kingdom/Europe

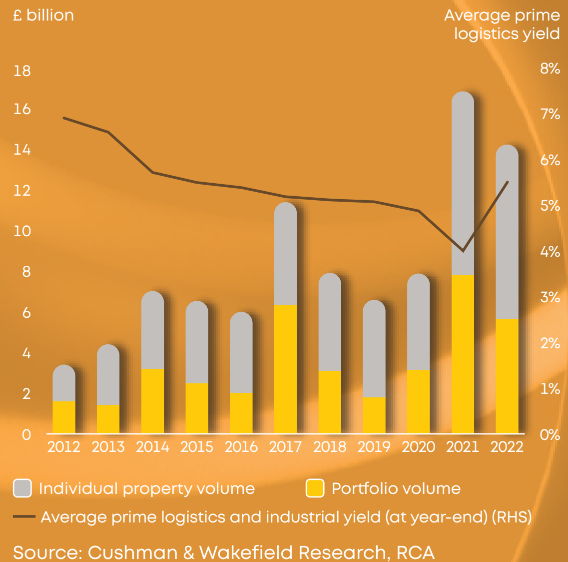
By Cushman & Wakefield (UK), February 2023

Prime headline rental growth (units of 50,000 – 100,000 sq ft)



Source: Cushman & Wakefield Research

Investment volume and prime yields



Source: Cushman & Wakefield Research, RCA

As a result of continued occupier demand and constrained supply, there has been upward rental pressure consistently throughout the year. On average, rents have grown by 15.8% year on year for units of 50,000-100,000 sq ft in 2022. As well as market dynamics, further upward pressure on rental tones has been driven by higher construction costs, due to uplifts in costs for both materials and labour, leading developers to demand higher rents in order to ensure schemes remain financially viable.

Regions seeing particularly strong rental growth in 2022 include London, the South East, the East of England, the North West, West Midlands and the North East. Occupier incentives remain at relatively low levels and at present, landlords are typically willing to offer 10-12 months rent free for a 10-year lease to occupiers with strong covenants (although deal terms are still dependent on local market conditions and market dynamics vary region by region). These levels are slightly lower than the 12-15 months' rent free that were previously available to occupiers prior to the global pandemic. However, landlords in the current economic climate are increasingly focused on ensuring a strong covenant for their assets and are considering their options including offering greater incentives and more competitive lease conditions in order to secure appropriate transactions.

Total investment volumes for the sector during 2022 reached £14.4 billion, an 18% decrease on 2021, but significantly higher than the £8.8 billion recorded during 2020. Investment activity in 2022 was distinctly different in each half of the year. In Q1 2022, a total of £6.6 billion was transacted, setting a new high in quarterly volumes, and interest in the sector drove further yield compression with the national headline yield tightening to a record low of 3.2% during Q1. Capital flows into the sector continued in Q2 and saw H1 volumes reach £9.8 billion, a 45% increase when compared with H1 2021. Transitioning into the second half of the year, investment volumes fell as investor activity responded to the wide scale property market re-pricing and mismatch between seller and buyer expectations. Investment volumes reached £3.1 billion during Q3, with a distinct shift towards lower lot-size, single-asset transactions and away from large portfolio deals. The unstable economic outlook, rising interest rates and negative sentiment have all contributed to yields being pushed out significantly during Q3 and Q4. At year-end 2022, the prime headline equivalent yield stood at 5.5% on average across the country, with 4.5-4.8% reported for London & the South East and 4.8-6.5% across the UK generally, following an average outward shift of 110-200 basis points (bps) over the year. Q4 investment volumes fell to just £1.37 billion. As a result, investors are increasingly likely to focus on well positioned assets with the opportunity for further rental growth in order to deliver returns. Despite the impact on capital values and gross returns, the sector continues to attract strategic well-placed capital as investors' confidence in the sector's strong fundamentals prevails.

Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

OUTLOOK FOR UK LOGISTICS AND INDUSTRIAL MARKET

Despite current economic conditions, occupier demand has proven resilient throughout H2 2022, and is likely to remain elevated above pre-pandemic levels throughout 2023. We anticipate 2023 volumes to be lower than 2022 as occupiers slow their acquisition programmes and seek to intensify the use of their existing footprints.

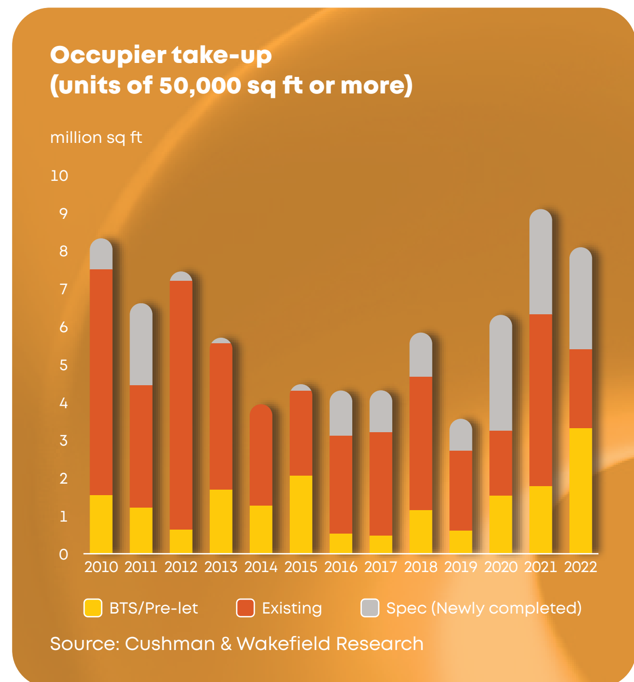
As occupiers grapple with inflationary pressure, it is likely that more tenant space will become available as occupiers consider their liabilities on excess space. Tenant space could alleviate the current shortages particularly in the Grade B category. Despite this and the healthy development pipeline for 2023, availability is set to remain constrained. This could be further exacerbated by the fact that speculative space in the development pipeline is being re-considered as a result of the re-pricing in the investment market.

Rental growth is expected to remain positive but will certainly moderate throughout 2023. The average growth in prime headline logistics rents is expected to reach 4.9% followed by an average annual growth rate of 2.8% per annum for the 2024-2026 period. In the sector's capital markets, the majority of re-pricing is thought to have already happened in 2022 but there may still be some further pricing shifts during H1 2023, as investors consider their positions before re-entering the market. Despite the re-pricing, strategically placed capital will continue to circulate, and it is expected that investment volumes will remain above their pre-pandemic levels.

NORTH WEST ENGLAND

Occupier take-up

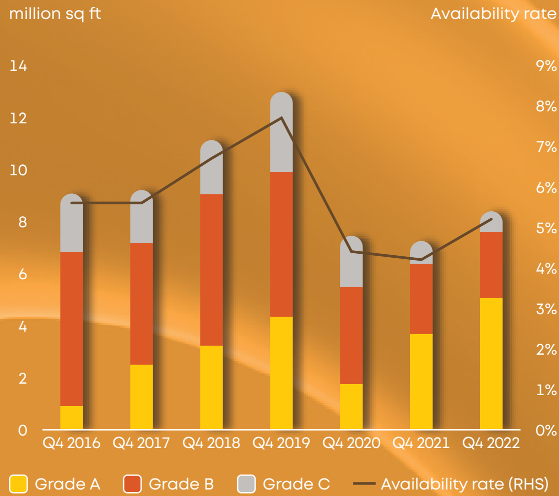
Having reached a record high of 9.1 million sq ft in 2021, occupier take-up in the North West fell back to 8.1 million sq ft in 2022, still the third strongest year on record. Take-up was driven by deals for build-to-suit space, particularly for larger buildings of which there is little supply of standing stock in the region. At 2.7 million sq ft, take-up of speculative space was also very high in 2022 and included the letting of one of the largest speculative buildings in the UK – Caddick's 544,000 sq ft unit at its Farington Park in Leyland which was let to online bathroom supplies retailer Victoria Plumbing. Manufacturers and logistics businesses have been highly acquisitive in the region in 2022 taking buildings across a range of sizes whilst retailers have also taken a significant proportion of floorspace transacted in the year, particularly as a small number of larger buildings.



Development pipeline and availability

Developers continued to deliver space within the North West during 2022, completing 2.8 million sq ft of speculative space. As of year-end, 1.3 million sq ft of this space remains available. The largest unit delivered was at Crewe Commercial Park where PLP delivered 456,000 sq ft of space, which completed during Q4, and is now under offer. Availability increased incrementally throughout the year with some 8.4 million sq ft available as of end of 2022, up from 7.2 million sq ft at the end of 2021. Of this space, over 3 million sq ft is available in units of under 100,000 sq ft. 8 units were under offer within the North West as of 2022 amounting to 1.4 million sq ft of space.

Availability (units of 50,000 sq ft or more)



Source: Cushman & Wakefield Research

Rents and incentives

As of year-end 2022, rents in the North West of England grew an average of 16.4% year on year, surpassing the 11% growth year on year observed during 2021. This growth was particularly pronounced in Manchester where headline rents for prime space of 50,000-100,000 sq ft. grew from £8.25 per sq ft to £10.00 per sq ft. Rental growth in the North West has accelerated post pandemic, having seen compound growth of circa 10% and 8.3% over the 3 and 5 year time frames respectively. Such is the supply and demand imbalance in the North West, that incentives continue to decrease, with average incentives (months rent free, 10-year lease) now sitting at just 9 months, down from 15 months at the height of the pandemic, and 12 months at the end of 2020 (when incentive terms were last broadly consistent across the market).

Prime headline logistics rents

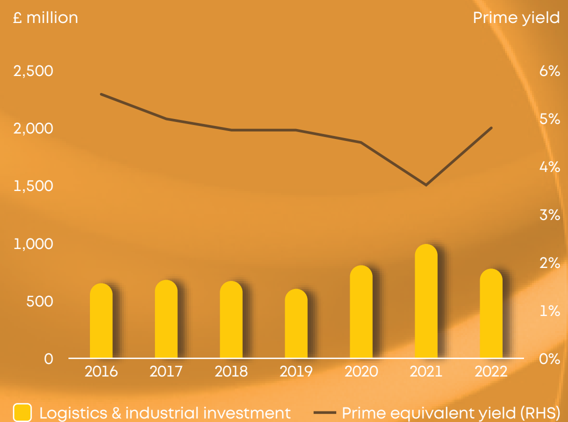
Units of 50,000-100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Liverpool	6.25	7.5	7.75
Manchester	7.25	8.25	10
Warrington	7.25	7.75	9.75
Crewe	6.4	6.5	7.5
North West average	**6.58**	**7.30**	**8.50**

Investment market and yields

Investment volumes in the North West fell to £775 million during 2022, down from £989 million during 2021. The largest single asset transaction was recorded in Ellesmere Port, a key automotive manufacturing submarket where Frasers acquired the 667,000 sq ft Peugeot premises for £100 million representing an initial yield of 3.42%. Having continued to compress in early 2022 to reach a record low of 3.45%, industrial property investment yields in the North West have since moved out, along with all property asset classes across the UK in an environment of changing trading conditions. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the region for 10-year income has moved out by 120 bps since end-2021 to 4.80% at end-2022.

Investment volume & prime yield



Source: Cushman & Wakefield Research, RCA

Outlook

Occupier demand is expected to remain keen in the North West, particularly for manufacturing and retailers. Developers are continuing to commit to the region further and several large development schemes have recently been announced. The favourable demand-supply dynamics are expected to continue to drive rental growth throughout 2023, albeit at more modest levels than previously observed. For prime North West logistics rents, Cushman & Wakefield forecasts rental growth of 4.2% in 2023. Overall, over the four-year period 2023-2026, prime headline rents are forecast to grow by 3.1% per annum.

Independent Market Study Report

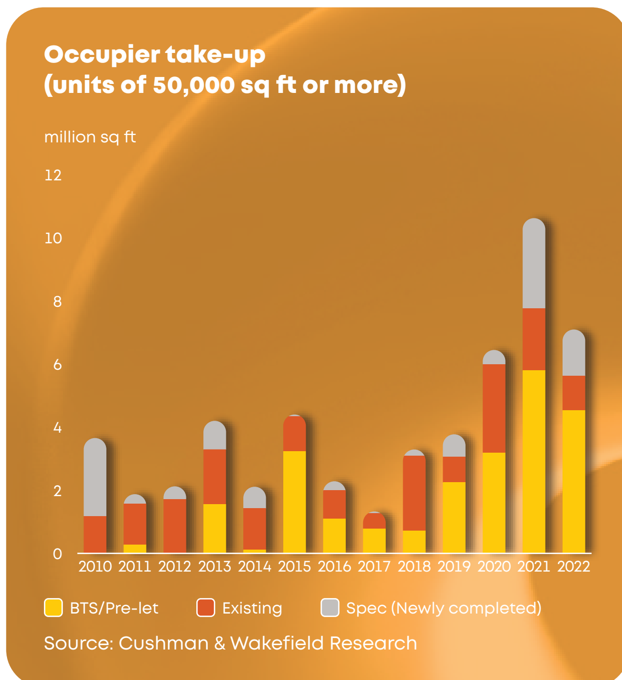
United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

YORKSHIRE & HUMBER

Occupier take-up

Having reached a record high of 10.6 million sq ft in 2021, occupier take-up in Yorkshire & Humber fell back to 6.9 million sq ft in 2022, still the second strongest year on record. Occupier take-up of speculatively built and existing secondhand space both fell in 2022, particularly as a result of a lack of available buildings. Take-up continued to be highly dependent on deals for build-to-suit space, particularly for larger buildings: indeed, the two largest deals of the year – 2 million sq ft for Amazon and 1.25 million sq ft for Next plc – were for buildings in Yorkshire. On the back of these two large transactions, retailers and ecommerce operators contracted the highest proportion of space in the region, closely followed by logistics operators.

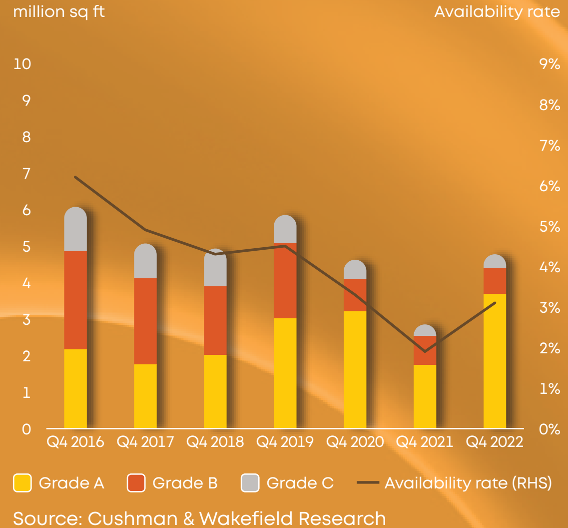


Source: Cushman & Wakefield Research

Development pipeline and availability

Just 1.2 million sq ft of speculative space was delivered in Yorkshire and the Humber during 2022, an incremental increase of 20% when compared with 2021. The largest completions of the year were recorded in Barnsley where Arrow Capital delivered two units amounting to 451,000 sq. ft of space. Notably just one unit of less than 100,000 sq ft was delivered. Availability increased considerably over 2022, the majority of available space comprising of Grade A space currently under construction or recently completed. Total availability rose from 2.8 million sq ft at the end of 2021 to 4.8 million sq ft at the end of 2022. As of the end of 2022, 6 units amounting to 594,830 sq ft are currently under offer.

Availability (units of 50,000 sq ft or more)



Source: Cushman & Wakefield Research

Rents and incentives

Prime rental levels in Yorkshire and the Humber grew by an average rate of 15.4% year on year, exceeding the 8.9% observed during Q4 2021. This growth was most pronounced in both Doncaster and Wakefield which saw 19.2% and 22.2% growth in Q4 2022 vs Q4 2021 for units of 50,000-100,000 sq ft. The highest rents in the region are in Leeds where rents have reached £8.50 per sq ft up from £7.25 per sq ft during Q4 2021. Given the strength of demand and the lack of availability, incentives for occupiers remain tight in Yorkshire and the Humberside, with average incentives (months rent free, 10-year lease) sitting at 12 months, down from 13.5 months at the end of 2020 (when incentive terms were last broadly consistent across the market).

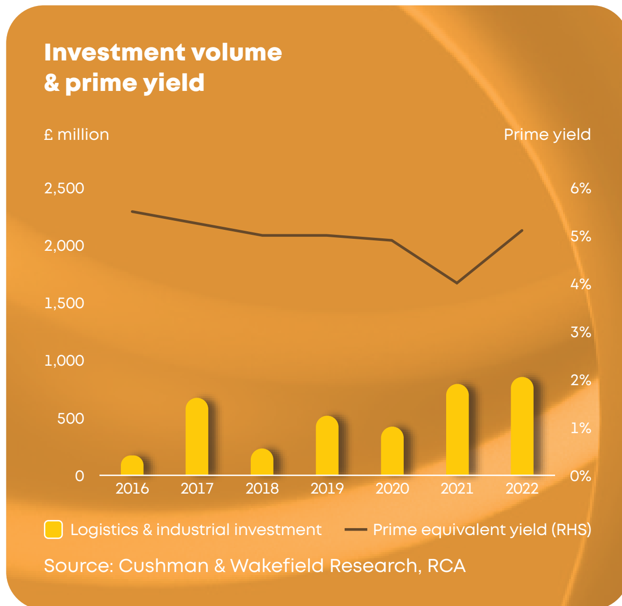
Prime headline logistics rents

Units of 50,000-100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Doncaster	6	6.5	7.75
Leeds	6.5	7.25	8.5
Sheffield	6.25	7	7.75
Wakefield	6.25	6.75	8.25
Yorkshire & Humber average	**6.20**	**6.75**	**7.79**

Investment market and yields

Logistics and industrial investment volumes total £850 million during 2022, an increase on the £791 million recorded in 2021. The largest transaction in the region was observed in Doncaster where Aver Property, a joint venture between Ergo Real Estate and NFU Mutual, forward funded Waystone and Hargreaves Land to develop 566,000 sq ft of speculative space in Doncaster for £73.5 million. Industrial property investment yields in Yorkshire & Humber continued to compress in early 2022 and reached a record low of 3.75% in Q1 2022 but, along with all property asset classes across the UK in an environment of changing trading conditions, have since moved out as the market reprices. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the region for 10-year income has moved out by 110 bps since end-2021 to 5.10%.



Source: Cushman & Wakefield Research, RCA

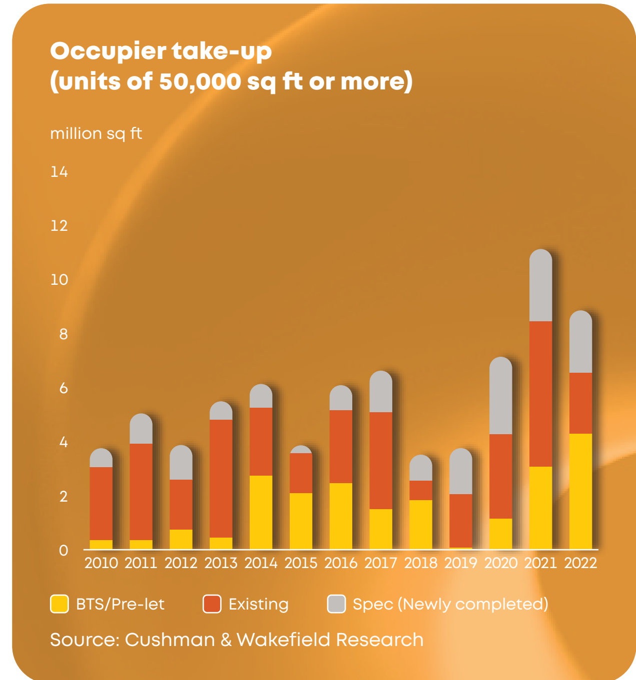
Outlook

Whilst occupier demand continues to focus on Yorkshire & Humber, the persistently acute lack of Grade B space may constrain acquisition activity. Developers are planning further development, particularly with over 2 million sq ft of space already under construction for delivery during 2023. As such, these new speculative developments combined with pent-up demand for modern distribution space is expected to generate strong rental growth in 2022 and 2023. For prime Yorkshire & Humber logistics rents, Cushman & Wakefield forecasts rental growth of 6.1% in 2023. Overall, over the four-year period 2023-2026, prime headline rents are forecast to grow by 3.6% per annum.

WEST MIDLANDS

Occupier take-up

Following a record volume of 11.1 million sq ft in 2021, occupier take-up in the West Midlands fell to 8.8 million sq ft in 2022, which is still the second strongest year on record. Whilst volume for build-to-suit space was in line with 2021, take-up of speculative space was slightly ahead, as a result of more speculative space being delivered to the market. Take-up of existing space was lower, due to a distinct lack of availability. Logistics operators were overwhelmingly the strongest proponent of demand in 2022, taking 44% of total space, followed by manufacturers at 16%. In line with other regions, demand from ecommerce operators fell markedly from 3.4 million sq ft in 2021 to just 0.8 million sq ft in 2022.

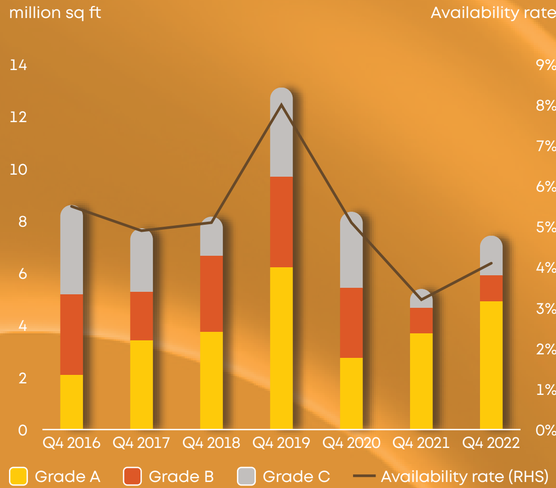


Source: Cushman & Wakefield Research

Development pipeline and availability

Completions of speculative supply in the West Midlands during 2022, reached 3.2 million sq ft , up from just under 1 million sq ft during 2021. The largest unit completing during this period was at Coventry Logistics Park where Bericote speculatively delivered 485,120 sq ft which was let to DHL shortly after construction began. Availability increased incrementally over 2022 initially rising to 6.6 million sq ft (reflecting 3.5% availability rate) during Q1 before rising to 7.4 million sq ft by the end of Q4, representing a 4% availability rate. Six units are currently under offer in the West Midlands amounting to 600,000 sq ft of space.

By Cushman & Wakefield (UK), February 2023



Rents and incentives

Rents in the West Midlands have grown at an average compound rate of 8.7% per annum over the last three years, with rental growth far exceeding this during 2022 and reaching 16.2% year on year. In sub-markets that are characterised by under supply, new schemes have been able to capitalise on robust occupier demand and set new rental benchmarks. One such example is Redditch where rents rose by 35.7% year on year, as a result of the completion of the Redditch Gateway development. Notable rental growth was also recorded in both Birmingham and nearby Solihull, which reached 29% and 26.5% year on year respectively, and are among the most in demand locations within the region. Occupier incentives have recently moved out in the West Midlands following tightening through 2020, 2021 and the first half of 2022. However, in the second half of 2022, as occupier demand slowed and as an uplift in availability is expected in the near term, many landlords have adjusted incentives being offered on deals for units in the West Midlands average incentives (months rent free, 10 year lease) now sit at 10 months, having moved outwards from 7.5 months at the end of 2020 (when incentive terms were last broadly consistent across the market), and may drift out further still as landlords look to secure occupier deals for vacant standing assets.

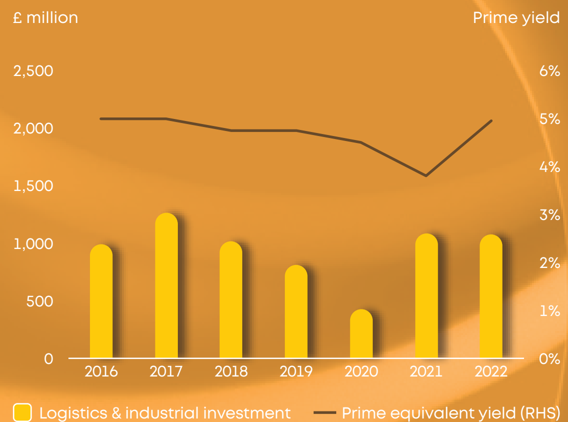
Prime headline logistics rents

Units of 50,000-100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Birmingham	7	7.75	10
Coventry	7	8	10
Rugby	7.25	7.25	8
Stoke	6	6.5	7.5
West Midlands average	**6.52**	**7.12**	**8.27**

Investment market and yields

Investment volumes in the West Midlands remained at similar levels to those observed during 2021, reaching just over £1 billion, with both years significantly up on the £431 million recorded during 2020. The largest deal was observed during July, where Railpen acquired the Sainsburys distribution centre in Tamworth for a fee of £98.35 million, representing a net initial yield of 2.81%. Having tightened further in early 2022 to reach a record low of 3.60%, industrial property investment yields in the West Midlands have since moved out as the market reprices in an environment of changing investment conditions. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the West Midlands for 10-year income has moved out by 115 bps since end-2021 to 4.95%.



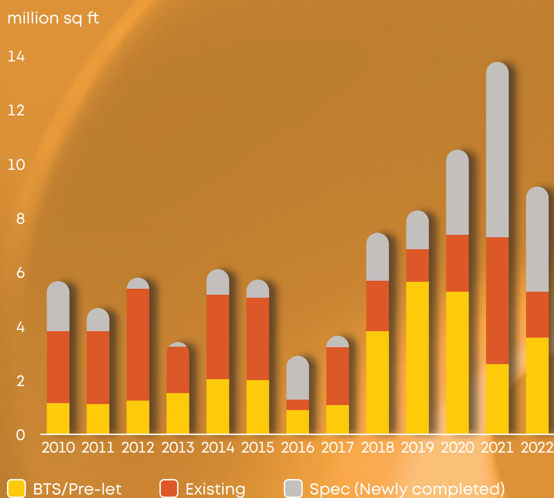
Outlook

Having seen strong performance, it is expected that the West Midlands market will continue to be highly sought after by occupiers and investors. Whilst rents grew at exceptional rates during 2022, it is expected that a healthy pipeline of new stock will help to aid supply shortages. For prime West Midlands logistics rents, Cushman & Wakefield forecasts rental growth of 5% in 2023. Overall, over the four-year time horizon of 2023-2026, prime headline rents are forecast to grow by 3% per annum.

EAST MIDLANDS

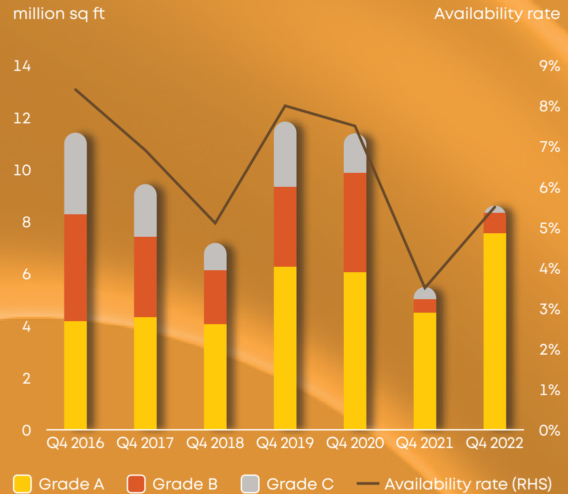
Occupier take-up

Following a record high of 13.8 million sq ft in 2021, occupier take-up in the East Midlands fell to 9.2 million sq ft in 2022, the third strongest year on record and the highest regional total across the UK. At 3.9 million sq ft, occupier commitments to build-to-suit space in 2022 exceeded 2021, fuelled by demand for larger buildings over 300,000 sq ft. Take-up of speculatively-developed and existing secondhand space both broadly halved in 2022 compared with 2021 volumes, particularly due to a lack of available product. Take-up by logistics operators and manufacturers grew in 2022 to reach 3.4 million sq ft and 1.0 million sq ft respectively (37% and 11% of total East Midlands take-up) whilst commitments by ecommerce operators and retailers fell.



Development pipeline and availability

Developers continued to rally to meet demand during 2022, delivering 5.5 million sq ft of space, up from 3.4 million sq ft during 2021. Of this 5 million sq ft, just 2 million sq ft remains available across 12 units, all of which but three being delivered during the second half of the year. 1.4 million sq ft of the space delivered during the year was at GLP's Magna Park Lutterworth scheme. Of the five units delivered at Lutterworth during 2022, just one remains and is currently under offer with completion expected early 2023. Availability rose to 8.6 million sq ft during 2022, the vast majority of which available in Grade A stock. A number of secondhand Grade B units also became available during the year, increasing Grade B availability to 726,000 sq ft up from 500,000 sq ft at the end of 2021.



Rents and incentives

Rents in the East Midlands have grown by a compound average rate of 7.9% per annum over the last three years, exceeding this during 2022 with rents growing 8.4% on average as at Q4 2022. The highest levels of rental growth were recorded in Corby, which at £7.50 per sq ft for units of 50,000-100,000 sq ft, represents one of the more affordable locations within the region. Headline rents within the region are observed in both Northampton an Lutterworth both at £9.00 per sq ft, with Lutterworth seeing a slightly larger rise on Q4 2021 of 13.2% vs 12.5%. Due to an uplift in availability expected in 2023 and a fall in take-up in H2 2022, average incentives (months rent free, 10 year lease) now sit at 10 months, having moved outwards from 7.5 months at the end of 2020 (when incentive terms were last broadly consistent across the market).

Prime headline logistics rents

Units of 50,000-100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Leicester	6.75	7.25	7.75
Lutterworth	6.25	7.95	9
Northampton	7.5	8	9
Derby	6.5	7.25	7.5
East Midlands Average	**6.34**	**7.21**	**7.81**

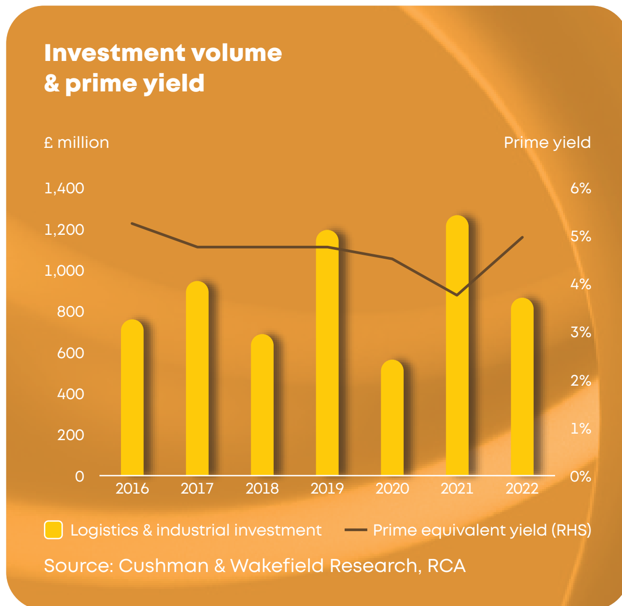
Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

Investment market and yields

Investment into the industrial and logistics sector during 2022 reached £861 million, significantly below the £1.2 billion recorded during 2021. Despite this fall, the number of transactions increased, rising to 26 from 15 in 2021. The largest transaction recorded during the year was the significant acquisition of the Silverstone Park three property portfolio by CPP Investment Board, for £273 million. Yields compressed in early 2022 to reach a record low of 3.60%, and in line the rest of the UK, yields in the East Midlands have since moved out as the market reprices in an environment of changing trading conditions. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the East Midlands for 10-year income has moved out by 120 bps since end-2021 to 4.95%.



Source: Cushman & Wakefield Research, RCA

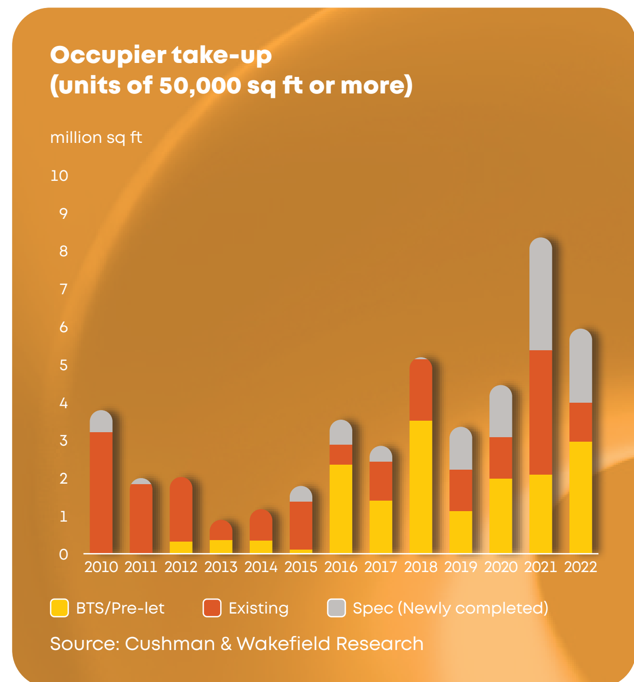
Outlook

As a key location due to its central location and strong connectivity, it is expected that space in the East Midlands will remain highly sought after in 2023. Further speculative development is expected in 2023 with a significant amount of speculative space already under construction. However, it is possible that some schemes may be delayed or seek to secure pre-lets prior to commencement, as developers gauge the market dynamics during H1 2023. For prime East Midlands logistics rents, Cushman & Wakefield forecasts rental growth of 4.4% for 2023. Overall, over the four-year time horizon of 2023-2026, prime headline rents are forecast to grow by 3.9% per annum.

EAST ENGLAND

Occupier take-up

Whilst take-up in 2022 in the East of England fell in comparison to the record high of 8.4 million sq ft recorded in 2021, at 5.9 million sq ft, this was still the second highest annual volume reported. Two of the largest deals in the country to conclude in 2022 were in the East of England: 1.2 million sq ft building for retailer The Range in Stowmarket and 655,000 sq ft for manufacturer Crown Holdings in Peterborough, both of which were build-to-suit units. These along with another 1.1 million sq ft of deals for smaller units meant that take-up of build-to-suit space reached 3.0 million sq ft, the second highest volume on record. Take-up of standing space – both newly built speculative and existing secondhand buildings – fell significantly in 2022, in part as a result of a lack of supply meaning that demand was unable to crystallised as transactions.

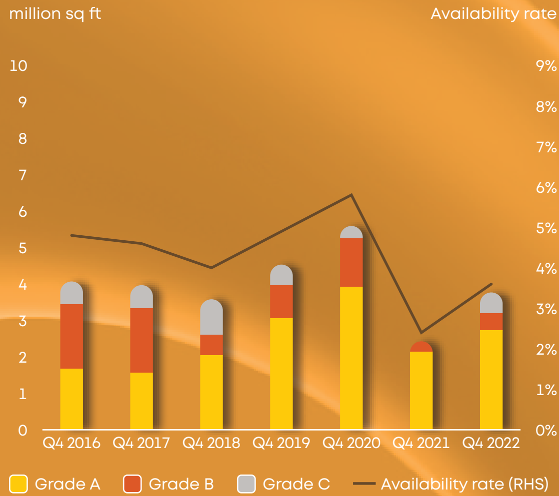


Source: Cushman & Wakefield Research

Development pipeline and availability

Having seen 1.8 million sq ft of speculative space delivered to the market during 2021, development fell during 2022, with circa 790,000 sq ft of speculative space being delivered, and all of it having been signed for during the year. The largest completion for the year was at Symmetry Park Biggleswade, where Tritax Symmetry delivered two units accounting for 305,000 sq ft of space. Availability meanwhile increased, rising from 2.4 million sq ft at the end of 2021 to 3.7 million sq ft, 1.7 million of which available in standing stock.

Availability (units of 50,000 sq ft or more)



Source: Cushman & Wakefield Research

Rents and incentives

Rents in the East of England have grown on average by 18.6% when comparing Q4 2022 to Q4 2021. Rental growth has been most pronounced in markets such as Chelmsford and Basildon, which both benefit from their close proximity to London, the M25 and the ports at Tilbury Docks and London Gateway. Strong growth was also recorded along the M1 corridor where Hemel Hempstead and Luton & Dunstable saw 21.7% and 11.4% per annum rental growth respectively. Luton & Dunstable growth was suppressed by a tranche of new supply unlocked by the addition of Junction 11a, and the creation of a new industrial cluster anchored by a regional distribution centre for retailer Lidl. Average incentives (months rent free, 10-year lease) now sit at just 10 months falling from 13 months at the end of 2020 (when incentive terms were last broadly consistent across the market) albeit there is potential for this to move out in 2023 as more supply enters the market.

Prime headline logistics rents

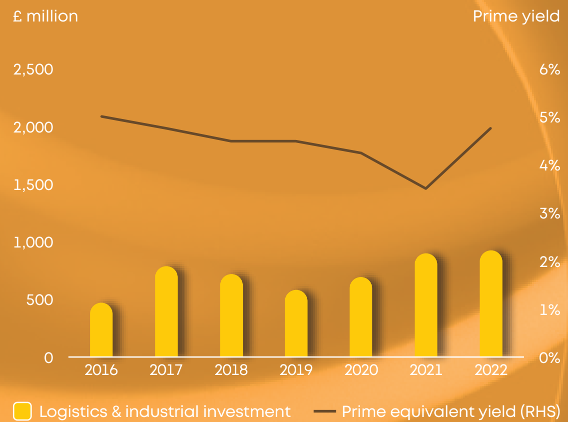
Units of 50,000 -100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Peterborough	6	6.75	6.75
Bedford	8	8.75	10.25
Harlow	9.75	11	13.25
East average	**8.78**	**9.89**	**11.81**

Investment market and yields

Investment in the East of England rose to £920 million during 2022, a marginal increase on the £900 million transacted during 2021. 28 transactions were recorded in the region up from 16 transactions during 2021. The largest transaction during the year was in Harlow where Mirastar acquired the 372,000 sq ft Icon scheme from Stoford & TPG, representing a net initial yield of 3.2%. Having continued to tighten in early 2022 to reach a record low of 3.40%, industrial property investment yields in the East of England have since moved out, along with all property asset classes across the UK in an environment of changing trading conditions. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the region for 10-year income has moved out by 125 bps since end-2021 to 4.75% at end-2022.

Investment volume & prime yield



Source: Cushman & Wakefield Research, RCA

Outlook

The East of England market remains undersupplied for both Grade A and Grade B space alike, this imbalance is unlikely to be resolved in the short to medium term, with further rental growth expected as a result. Whilst it is unlikely that take-up will exceed figures recorded during an exceptional 2021, it is expected that occupiers will continue to target the region. While Cushman & Wakefield forecasts presently do not extend to the East region, the rental growth profile can be expected to align with that of the East Midlands and South East, for which Cushman & Wakefield expect annual rental growth of circa 3.5% per annum over the four-year forecasting period (2023-2026).

Independent Market Study Report

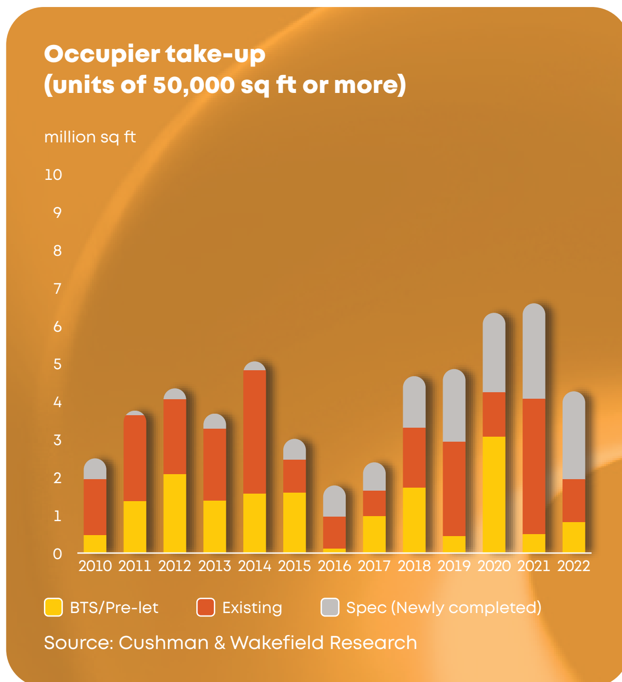
United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

LONDON & SOUTH EAST ENGLAND

Occupier take-up

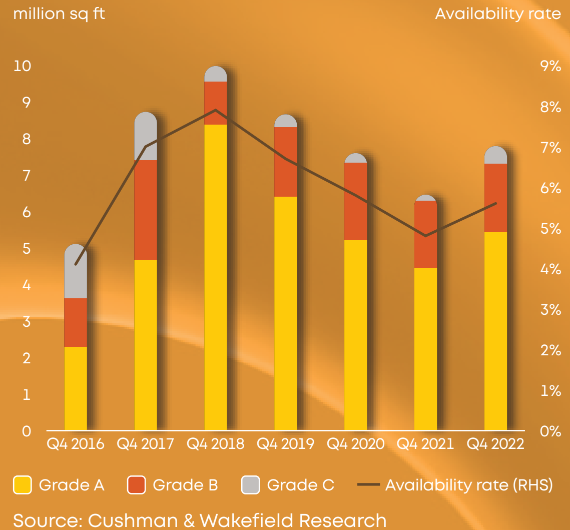
Occupier take-up in London & the South East fell to 4.3 million sq ft in 2022, down from the record high of 6.6 million sq ft recorded in 2021, particularly as a result in significantly less existing second hand space transacting. Occupiers took just 1.1 million sq ft of existing stock in 2022, compared with 2.3 million sq ft of speculative space (in line with 2021) and 0.8 million sq ft of build-to-suit space (almost double the volume for 2021). Whilst demand in the South East region fell by 23% in 2022, London take-up more than halved, in part due to a lack of available space but also slowing occupational demand in the latter part of 2022. Occupier activity in the region is characteristically predominantly in smaller units of 50,000-200,000 sq ft: in 2022, 42 of the 43 transactions in the region were for units of this size.



Source: Cushman & Wakefield Research

Development pipeline and availability

The appeal of the London & South East market in terms of high value retention, low void risk and high rental growth potential has spurred developers to deliver more speculative space with 3.9 million sq ft completed in 2022, the majority sized below 100,000 sq ft. During 2022, availability rose although there is just 7.7 million sq ft available as at Q4 2022. Shortages in supply are most acute in the Grade A space, where developers must grapple with fierce competition for suitable land from other uses.



Source: Cushman & Wakefield Research

Rents and incentives

Rents in London and the South East have continued to outperform the national average during 2022, with rents in London growing an average of 21.1% year on year vs Q4 2021, and 17.1% respectively. Park Royal continues to prove itself as one of the most desirable locations in the country, with strong connectivity and direct access to London pushing headline rents by another 20% during 2022, leaving rents now standing at £30 per sq ft for units 50,000-100,000 sq ft. In the South East, both Milton Keynes and Slough have seen considerable rental growth, with rents growing at 17.9% and 38.5% respectively. Rental growth for Slough in particular has been driven by a severe under-supply of space, resulting in competitive bids within the leasing market. Average incentives (months rent free, 10-year lease) now stand at just 9 months in London, down from 11 months at the end of 2020 (when incentive terms were last broadly consistent across the market). In the South East average incentives (months rent free, 10 year lease) now sit at 10 months, down from 13 months at the end of 2020. Given the oncoming supply to the market and the recent fall in occupier take-up, landlords are likely to offer more by way of occupier incentives in the near term.

By Cushman & Wakefield (UK), February 2023

Prime headline logistics rents

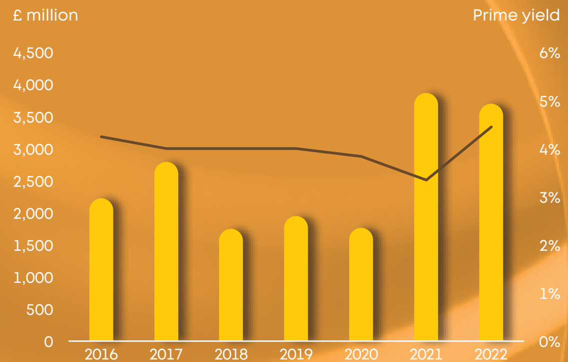
Units of 50,000-100,000 sq ft (£ per sq ft per annum)

Location	Dec-20	Dec-21	Dec-22
Dagenham	13	16.5	21
Enfield	14	17.5	21.5
Park Royal	18	25	30
London average	**13.83**	**16.20**	**19.63**
Crawley	14	15.5	15.5
Milton Keynes	8.5	9.75	11.5
Slough	15.5	16.25	22.5
South East average	**10.25**	**11.39**	**13.33**

Investment market and yields

Investment volumes fell slightly during 2022. reaching £3.7 billion down from £3.8 billion during 2021. Despite this, the number of transactions recorded rose to 105 up from 71 in 2021. A significant acquisition was that of GLP who, in February 2022, acquired the 221,000 sq ft International Business Park in E15 for £180 million, looking to capitalise on reversionary interest with a low WALE to break of 7.1 years.

In the same vein, Goodman acquired the 369,500 sq ft Staples Corner Business Park unit during August 2022, also for £180 million representing a net initial yield of 2.64%. Having reached record lows in early 2022, yields in London & South East moved out in the current market environment of changing trading conditions. On a net equivalent basis, Cushman & Wakefield prime benchmark yield for the region for 10-year income has moved out by 110 bps since end-2021 to 4.45% at end-2022. The South East and London tend to hold firmer investor interest and value than other regions and therefore yields have softened by a smaller margin than in other parts of the country during this period of investment repricing.



Source: Cushman & Wakefield Research, RCA

Outlook

Whilst take-up fell considerably in London & the South East during 2022, this was due to supply-side constraints. Whilst new schemes are expected to be delivered in key locations such as London Gateway, it is hard to see a significant impact on overall availability of stock. Rental growth is expected to be sustained, albeit at lower levels than 2021 and 2022. For the four years between 2023 and 2026, rents are expected to increase by an average of 3% per annum in West London and 5% per annum in East London. For the South East markets, Cushman & Wakefield forecasts that rents will grow by an average annual rate of 3% per annum for the four-year period 2023-2026.

Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

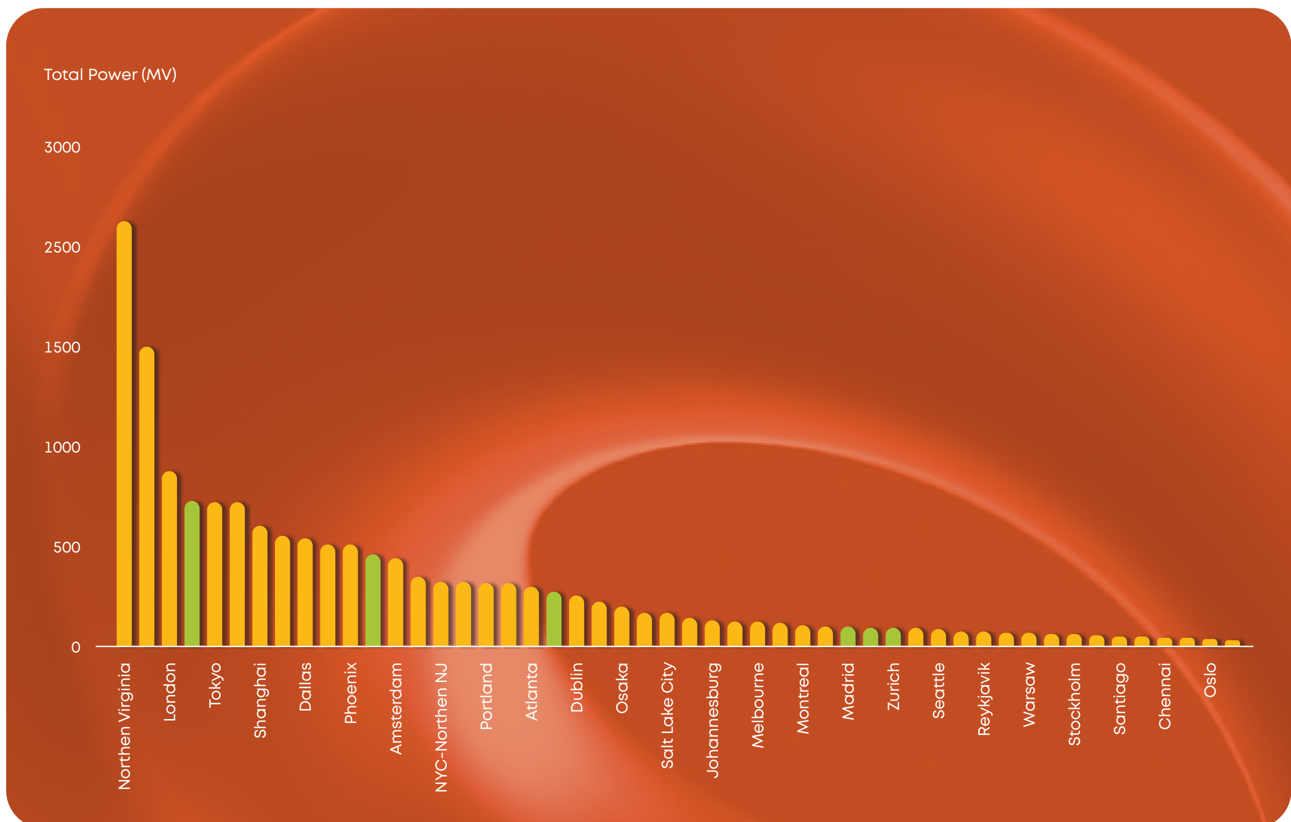
EUROPEAN DATA CENTER MARKET

Over the course of 2022, both established and emerging European markets continued their expansion despite economic and country-specific head winds. The European data center market, which prior to recent years had been centered in the four core FLAP markets (Frankfurt, London, Amsterdam and Paris) is now fully fledged and established across several further markets and is seeing inroads in a dozen others. Data center development pre-commitments were once dependent on high concentrations of government, financial and corporate entities that lent to the original four markets as key pillars of the industry in the region. Now, evolving priorities, strategies and technologies have led to changes in the landscape such as growing interest and investment in secondary markets.

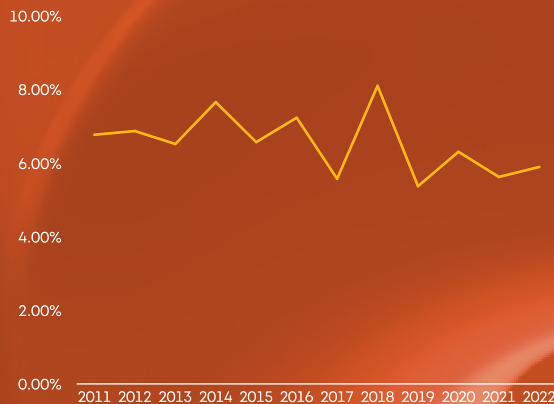
Key markets such as Dublin, Madrid, Zurich and Milan have all grown to have their own sizeable clusters of data center facilities. This growth has been driven by the desire of major cloud providers to be located in proximity to large population swathes, access to low latency connectivity infrastructure and favorable business environments. Dublin is the prime example of this trend, as cloud and colocation providers moved rapidly into a market with plentiful land, low cost power and significant tax incentives. However, Dublin and the original FLAP markets have encountered increasing challenges due to the substantial data center footprints in each market. Land and power, which were once plentiful and affordable have become more difficult to source as data center operators compete for optimal parcels and also face competition from other asset classes.

The demand for power from data centers and turbulent energy prices over the past year with the advent of the Russian-Ukrainian War and rising inflation have gained the attention and action of local governments. In Amsterdam, concern over electrical grid stress led to a moratorium on new data center development in the market proper. Whereas in Frankfurt, concerns about power and land availability have resulted in the city council delineating specific zones around the market where the construction of data centers will be allowed. Lastly, Dublin, has also faced similar challenges. With land and power prices rising, local officials have also placed moratorium on new data centers developments.

These headwinds have not halted the appetite of cloud services in the region, and all have sought to expand, either through long established plans in core markets or exploratory entrances into secondary and tertiary markets. While some of these markets have already seen growth in the wake of the COVID-19 pandemic, new markets have quickly joined the cadre this year. Beyond Madrid, Milan, Warsaw and Zurich, emerging data center activities have grown in Stockholm, Oslo, Copenhagen, Berlin, Marseille, Barcelona and Istanbul, among others.



Knock-on effects have also continued, with potential development in major markets becoming more limited. Further tertiary markets have shown growth potential of late, with secondary markets within countries (i.e. Madrid expansion leading to Barcelona interest or Frankfurt expansion leading to Berlin interest) causing primary and secondary deployments for cloud services in the same country. As the largest cloud services require ever-greater capacity to serve their local clients, data center operators have scaled their developments ever-larger to accommodate these growing deployments. In turn, secondary markets across the continent have been the growth story over the past two years, with Milan, Madrid, Warsaw, Zurich, and a swathe of markets across the Nordics rapidly growing as key cloud services have launched regions and a variety of secondary cloud services have followed to gain fast access.



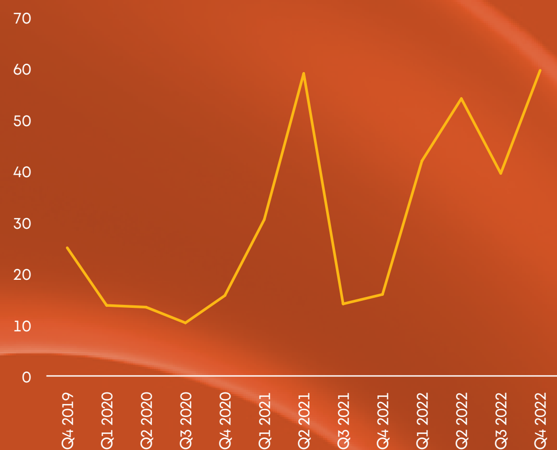
As the major cloud services have spurred interest in new markets, several mergers and acquisitions have continued through the past year among European data center operators. Digital Realty began to rebrand the Interxion assets that it acquired early in 2020, paying €7.6 billion to expand into several secondary markets across the continent and setting off a wave of expansions by other groups.

In terms of other recent mergers and acquisitions in the region, there were a number of deals throughout the year. Iron Mountain purchased XData Properties, enabling entrance into the Madrid market through 3 megawatts (MW) of commissioned power, 10 MW under construction and up to 90 MW planned. NorthC completed its acquisition of IP Exchange in Germany, pairing with recent acquisitions in Switzerland and Austria. Germany also saw the acquisition of DataCenter One by AtlasEdge in October of this year, taking control of its four data centers in Germany.

Chart: Cap rates on individual data center sales across the continent have yet to stabilize as the market has yet to reach maturity. Wide swings thanks to the small number of individual assets on offer (older vs. newer, hyperscale vs. colocation) will likely continue for some time.[1]

UNITED KINGDOM DATA CENTER MARKET – LONDON

London experienced another surge in absorption in 2022, with the second quarter once again being the strongest with rapid take-up of new deliveries from Equinix, NTT and Telehouse that delivered over the past year. Take-up has been led per usual by the largest cloud services, with mid-size cloud and finance also taking sizeable capacity.[2]



1 Source: C&W Research. Single property colocation assets that transacted within the European region as defined by the EEA plus the UK and Switzerland.

2 Source: C&W Research, datacenterHawk

Independent Market Study Report

United Kingdom/Europe

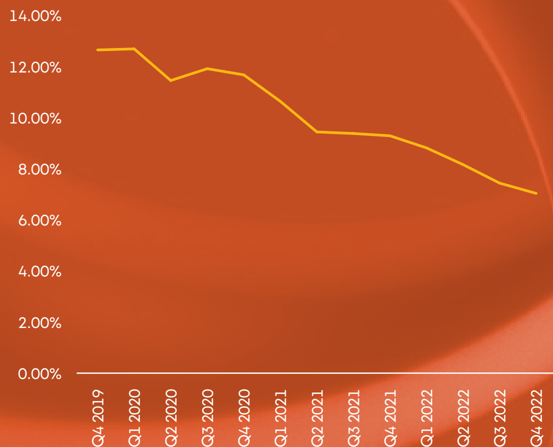
By Cushman & Wakefield (UK), February 2023

Market Vacancy

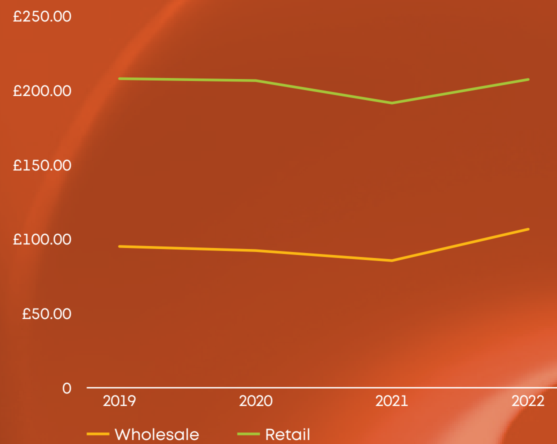
London's vacancy continued to fall throughout 2022. While vacancies had stalled somewhat at approximately 9% during the second half of 2021, has started to sizeably fall once again. As of the end of 2022, vacancy had fallen below 8%. Although 8% vacancy is higher than certain other primary markets, much of this is in small amounts across several buildings rather than available in large vacancies in one location.[3]

Rental Rates

Wholesale and retail rates[4] both inched upward during 2022, as inflationary and geopolitical pressures have driven up costs, particularly power. Wholesale pricing averages £95-120 kWh/month, higher than many of the largest primary markets globally thanks to hyperscale and institutional demand. Retail rates remain in the £200-210 kWh/month range.[5]



Source: C&W Research, datacenterHawk



Source: C&W Research, datacenterHawk

3 Source: C&W Research, datacenterHawk
4 Wholesale deals are roughly considered those above 250 kW in size, with retail colocation deals sized below this. There is no standard industry definition for this term.
5 Source: C&W Research, datacenterHawk

Independent Market Study Report

United Kingdom/Europe

By Cushman & Wakefield (UK), February 2023

London Construction Table[6]

London has the sixth deepest development pipeline for data centres actively under-construction by power in the global market, totaling nearly 272 MW. This strong development activity can be attributed to robust client demand, strong pricing, and continued land and power availability. While this is lower than the top spot London held last year, it remains one of the deepest pipelines in the world.

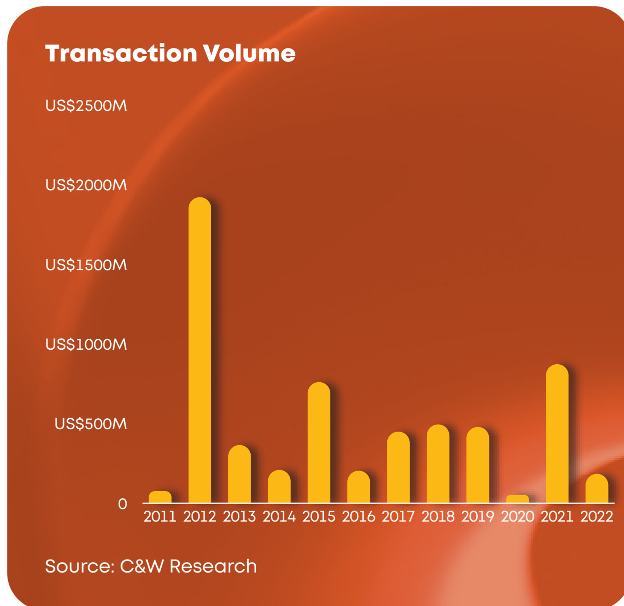
Operator	Location	Size (sqm)	Power (MW)	Stage / Est. Delivery
CyrusOne	London VI	63,000	90	In Planning
Echelon Data Centres	LCY 20	9,000	11	Under Construction / Q1 2024
Equinix	LD7 Phase 2	6,341	9.1	Under Construction / Q1 2023
	LD11x Phase 2	4,955	9	Under Construction / Q1 2023
Virtus	London 11	5,500	13	Under Construction / Q3 2023
Iron Mountain	LON-2	25,000	9	Complete / Q4 2022
Ark Data Centres	Union Park	56,000	75	Under Construction / Q4 2023
	Longcross Park	35,768	30	Under Construction / Q4 2023
	Alliance Park	27,871	45	Under Construction / Q4 2023
Global Technical Realty	Slough	16,125	40.5	Under Construction / Q2 2023
Yondr	Slough	41,312	30	Under Construction / Q1 2023
Columbia Threadneedle	Langley	93,000	100 (est)	In Planning
Stratus Cromwell	London	90,000 (est)	100	In Planning
EdgeCore	Bracknell	8,692	20	In Planning
Kao Data	Harlow	3,400	10	Under Construction/ Unannounced
Stratus Data Centres	Belvedere Phase I	Unknown	18	In Planning
	Belvedere Phase II	Unknown	18	In Planning

London Data Center Sales[7]

Property	Size (sqm)	Sale Date	Sale Price (US$'m)	MW	Cap Rate	Buyer	Seller
6-9 Harbor Exchange, Canary Wharf, London	25,845	Dec-21	262.8	10	3.99%	Blackstone	Land Securities Group
36-43 Great Sutton Street, Farringdon, London	8,454	Apr-22	59.0	7.9	N/A	Digital 9 Infrastructure	Apollo Global Real Estate

6 Source: C&W Research
7 Source: C&W Research

Historically, London transaction volume for data centers (including both single asset, portfolio and land investment sales) has ranged between US$0.5B – US$1B on an annual basis. 2012 saw a surge in investment volume as Digital Realty executed a US$1.5B portfolio acquisition of three major Sentrum-owned data centers in the market. In 2020, the pandemic and Brexit instigated a pause in transactions that led to a particularly strong year in 2021. 2022 has seen a reduced volume, though some transactions from the end of the year may yet raise the volume close to historical levels.



UNITED KINGDOM DATA CENTER MARKET – MANCHESTER

Manchester is a tertiary data center market, with a total market size of less than 20 MW and home to a handful of major data center operators including Equinix (due to their takeover of Telecity), Pulsant, and iomart. As the UK has yet to develop a true secondary data center market, the city has considerable potential, thanks to its urban population of nearly three million, making it the second largest such area in the country, and large professional employment sector across the financial and distribution industries. Equinix is particularly bullish on Manchester, having launched construction of the 2,000 cabinet MA5 late in 2021, with several phases expected in coming years.

Manchester experienced further growth in 2022, with Pulsant acquiring a 1 MW facility from M247 (along with associated staff and customers) and plans for further expansion. Datum Datacentre's acquisition of Teledata includes Teledata's existing asset market as well as a planned second data center totaling 25,000 square feet. Lastly, NetActuate set up its second location in Manchester.

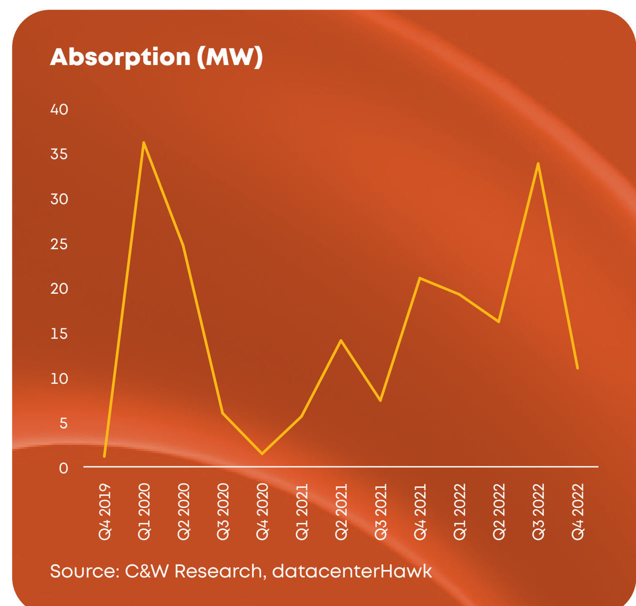
FRANCE DATA CENTER MARKET – PARIS

New projects from both hyperscalers and co-location providers continue to emerge in the market as vacancy contracted to 2% in Q3 2022 and followed with a slight uptick to 4% in Q4 2022. Multiple players have added new cloud regions in the Paris area, including Google, Oracle and Wasabi. While there have been some new deliveries, the bulk of the pipeline remains in planning stages, including DATA4 and CloudHQ's large projects in Marcoussis and Lisses, respectively.

Thales, a French defense company, has established S3NS, a partnership with Google to develop a trio of data centres that will provide cloud hosting services with state-vetted security. The firm aims to target the largest financial and healthcare institutions in France as its top potential customers, with a launch date planned for 2024. A competitor, Bleu, will be established as a joint venture between telecom giant Orange and IT consultancy Capgemini.

Absorption

Paris enjoyed fantastic take-up early in 2020, with further major -absorption in latter 2020 and 2021 made more difficult due to the smaller size of the market in comparison to other primary European peers. However, newly delivered supply has opened up the market and enabled absorption to rise again during this past year and expected to continue into 2023.[8]



8 Source: C&W Research, datacenterHawk

Independent Market Study Report

United Kingdom/Europe

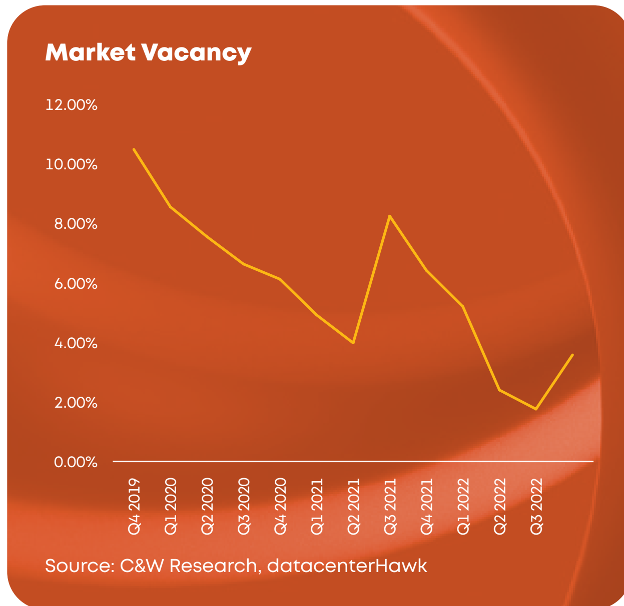
By Cushman & Wakefield (UK), February 2023

Market Vacancy

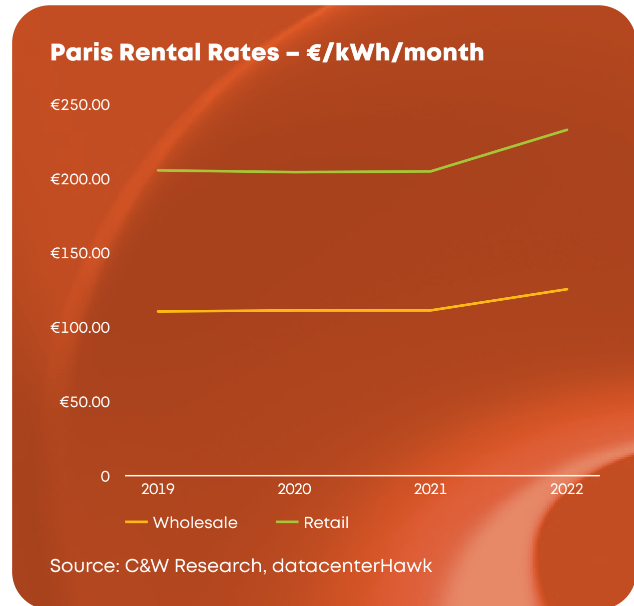
Market vacancy across Paris has continued to tighten even further over the past year, vaulting 6.4% to 1.8% during Q1 through Q3. This has made Paris one of the tightest markets around the globe.[9]

Rental Rates

Rental rates for Paris have risen over the course of this past year as inflation and geopolitical events have placed upward pressure on energy prices and the overall economy. Retail rates have risen to approximately €233/kWh/month on average.[10]



Source: C&W Research, datacenterHawk



Source: C&W Research, datacenterHawk

Paris Construction Table[11]

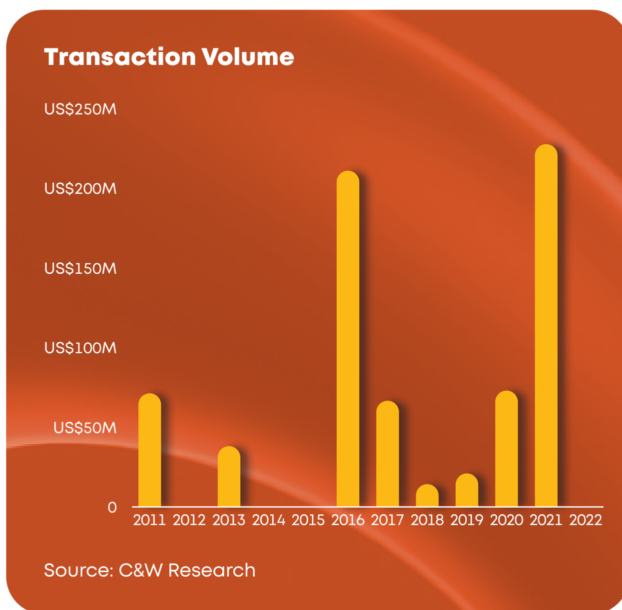
Further construction by major operators is underway across Paris, but the larger story is the nearly 400 MW in planning among Digital Realty, DATA4, and new market entrant CloudHQ. This is far greater than the 250 MW currently operational throughout the market and should lead to further major deployments. Equinix announced a second phase to its PA10 facility this year that will likely deliver an additional 7 MW in 2024. In total, an expected 190 MW or more will likely deliver over the next two years, assuming delivery of all projects actively under construction as well as Equinix's and phases of Digital Realty's and CloudHQ's other projects.

Operator	Location	Size (sqm)	Power (MW)	Stage / Est. Delivery
Equinix	PA10 Phase 1	63,000	5 (est)	Under Construction / Q1 2023
	PA10 Phase 2	3,969	7 (est)	In Planning
Digital Realty	Paris (3 buildings)	39,882	42.9	Under Construction / Q1 2023
	Les Ulis	100,000 (est)	130	In Planning
Telehouse	Magny-les-Hameaux	7,000 (est)	7	Under Construction / Q3 2023
DATA4	Marcoussis	100,000 (est)	100	In Planning
CloudHQ	Lisses	106,000	148.8	In Planning

9 Source: C&W Research, datacenterHawk
10 Source: C&W Research, datacenterHawk
11 Source: C&W Research

Paris Data Center Sales[12]

There are no recorded sales for the Paris market for 2022.The Paris investment sales market for data centers has experienced peaks in 2016 and 2021 that have exceeded US$200M in total volume for single asset, portfolio and land transactions. In 2016, Equinix executed a US$211M acquisition of one of Digital Realty's assets in the Paris market. In 2021, a portfolio acquisition of three Digital Realty assets by Ascendas totaled over US$128M, while Batipart, Covea and Assurance Credit Mutuel purchased an EQT facility for US$99M.



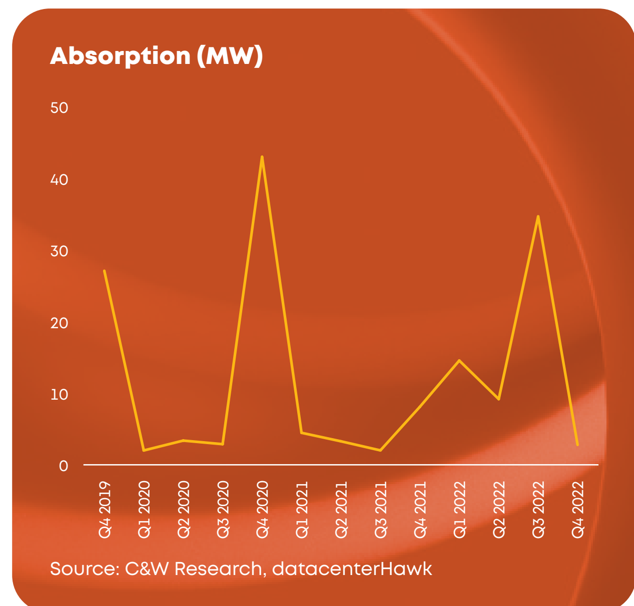
NETHERLANDS DATA CENTER MARKET – AMSTERDAM

Amsterdam has continued its trend of falling vacancies in the face of a shrinking development pipeline. Construction activity is relatively slim, with 70 MW of capacity currently underway and an active moratorium on hyperscale developments. Investment in data centers and infrastructure remains of interest despite regulatory challenges and increased efforts toward sustainability. The scarcity of available land in the Amsterdam market suggests that existing assets will see expansionary development, increasing their capacity to meet market demand. Pan-European infrastructure investment continues, exemplified by Zayo's recently deployed subsea cable route, "Zeus," which followed euNetworks' subsea high-fibre cable system, "Scylla," both of which have 96 fiber pairs and boast a speed capability of up to 4,000 Tbps.

In addition to the development moratorium and in an effort to reduce power usage by 10-15%, the city of Amsterdam has threatened data center operators with steep fines if they don't mandate "sleep mode" on idle servers. While legislation power usage legislation exists in the Netherlands, operators have declared that the servers are out of their control.

Absorption

Much of the remaining large-scale capacity throughout Amsterdam was absorbed at the end of 2020 as prospective tenants realized that the local moratorium on new development was going to continue and jumped on remaining large-scale vacancies. With deliveries rising in 2022, absorption has followed. However, limits on the future potential development pipeline in the market may ultimately limit the staying power of this trend.[13]



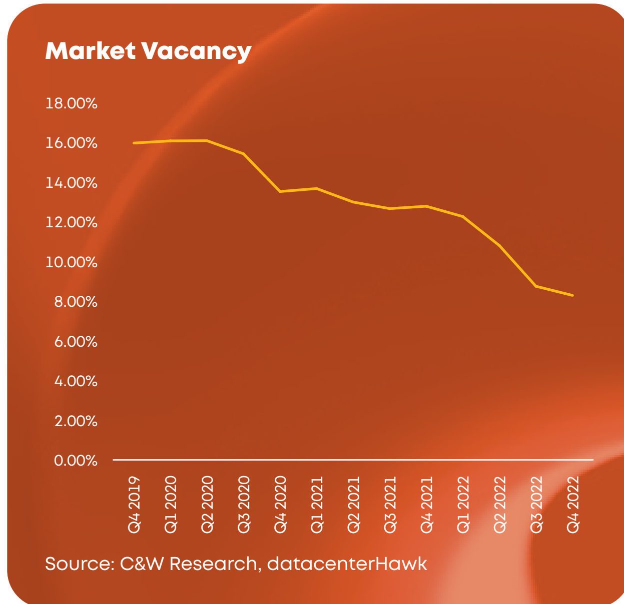
12 Source: C&W Research
13 Source: C&W Research, datacenterHawk

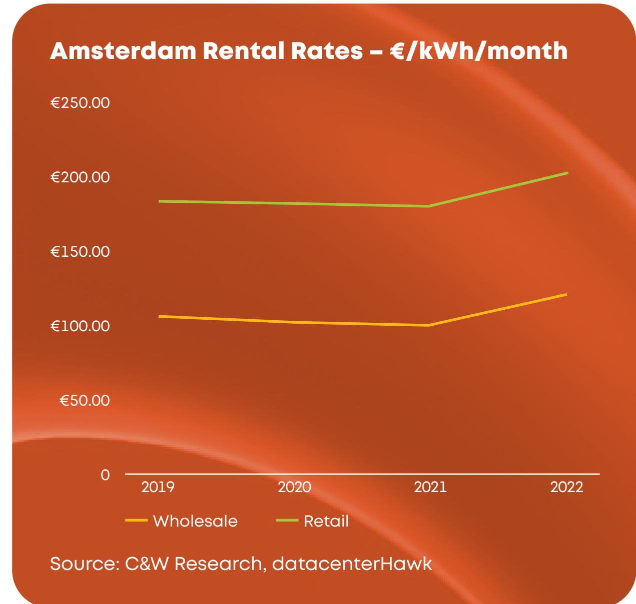
Market Vacancy

Vacancy across Amsterdam has unsurprisingly continued to fall as the moratorium on future development remain in place. This change was particularly pronounced in this past year, as vacancies fell from 12.25% to 7.78%.[14]

Rental Rates

The slight compression in rental rates over the past couple years has notably reversed as inflationary pressure and geopolitical events have caused prices to rise. Retail rates have risen to €202/kWh/month while wholesale rates have gone from €100/kWh/month to €120/kWh/month.[15]





Amsterdam Construction Table[16]

Despite the overall moratorium on large builds, previously approved phased construction has been allowed to continue in select cases. Just over 18 MW are readying for completion in Q1 2023, with locally based Switch Datacenters looking to move forward on an 18 MW phase along with GGIDC planning a 33 MW facility scheduled for completion in the second half of the year.

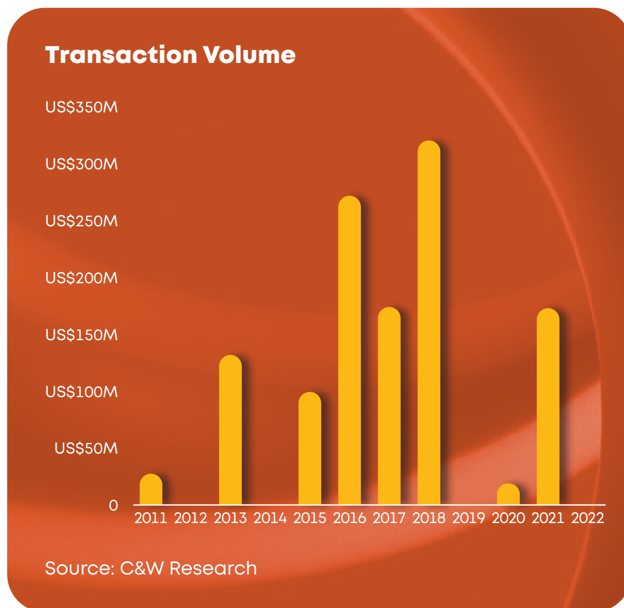
Operator	Location	Size (sqm)	Power (MW)	Stage / Est. Delivery
Switch Datacentres	AMS4 Phase 1	7,000 (est)	7	Under Construction / Q1 2023
	AMS4 Phase 2	15,000 (est)	18	In Planning / Q4 2023
Digital Realty	Amsterdam (2 buildings)	8,800	6.4	Under Construction / Q1 2023
Iron Mountain	AMS-1 Phase 4	6,271	5	Under Construction / Q1 2023
Great Grey Investments Data Center	Building 1	33,333	33.3	Under Construction / Q3 2023
	Building 2	33,333	33.3	In Planning/Unannounced
	Building 3	33,333	33.3	In Planning/Unannounced

14 Source: C&W Research, datacenterHawk
15 Source: C&W Research, datacenterHawk
16 Source: C&W Research

Amsterdam Data Center Sales[17]

There are no recorded sales for the Amsterdam market for 2022.

Amsterdam saw particularly high transaction volumes in the mid 2010's as it grew into a preeminent market in the European region. Those volumes have decreased as development of new data centers in the region becomes more difficult due to local regulations. Peak volumes for the market were experienced in 2016 and 2018. In 2016, a wide range of small and mid-sized deals drove the total volume to North of US$270M, while 2018's volume was primarily driven by Iron Mountain's US$235M purchase of EvoSwitch's 11 MW data center in the market.



Source: C&W Research

SWITZERLAND DATA CENTER MARKET – GENEVA

Geneva has a total market size of less than 20 MW. Global operators, Equinix and GTT, are present in Geneva with one facility each, and local Swiss operator, SafeHost, has announced the impending construction of their SH2 data center in nearby Gland, with 4 MW phases to eventually total 18 MW across the entire facility. This building will join the already-constructed SH1, located in the suburb of Plan-les-Ouates. The city does have a sizeable financial sector and could be used to serve clients in regional France and Italy, thanks to its convenient location close to the national borders of those countries.

In 2022, the largest news to affect this market was likely the arrival of availability zones from both AWS and Microsoft Azure in nearby Zurich. As has been seen in numerous other markets, this activity is often a catalyst for new deployments in a particular markets and surrounding ones due to knock-on effects. For all these reasons, the local data center market will likely expand in continued phases in coming years, potentially growing into a continental secondary-sized locale.

17 Source: C&W Research

CAPITALAND ASCENDAS REIT

CapitaLand Ascendas REIT Management Limited

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