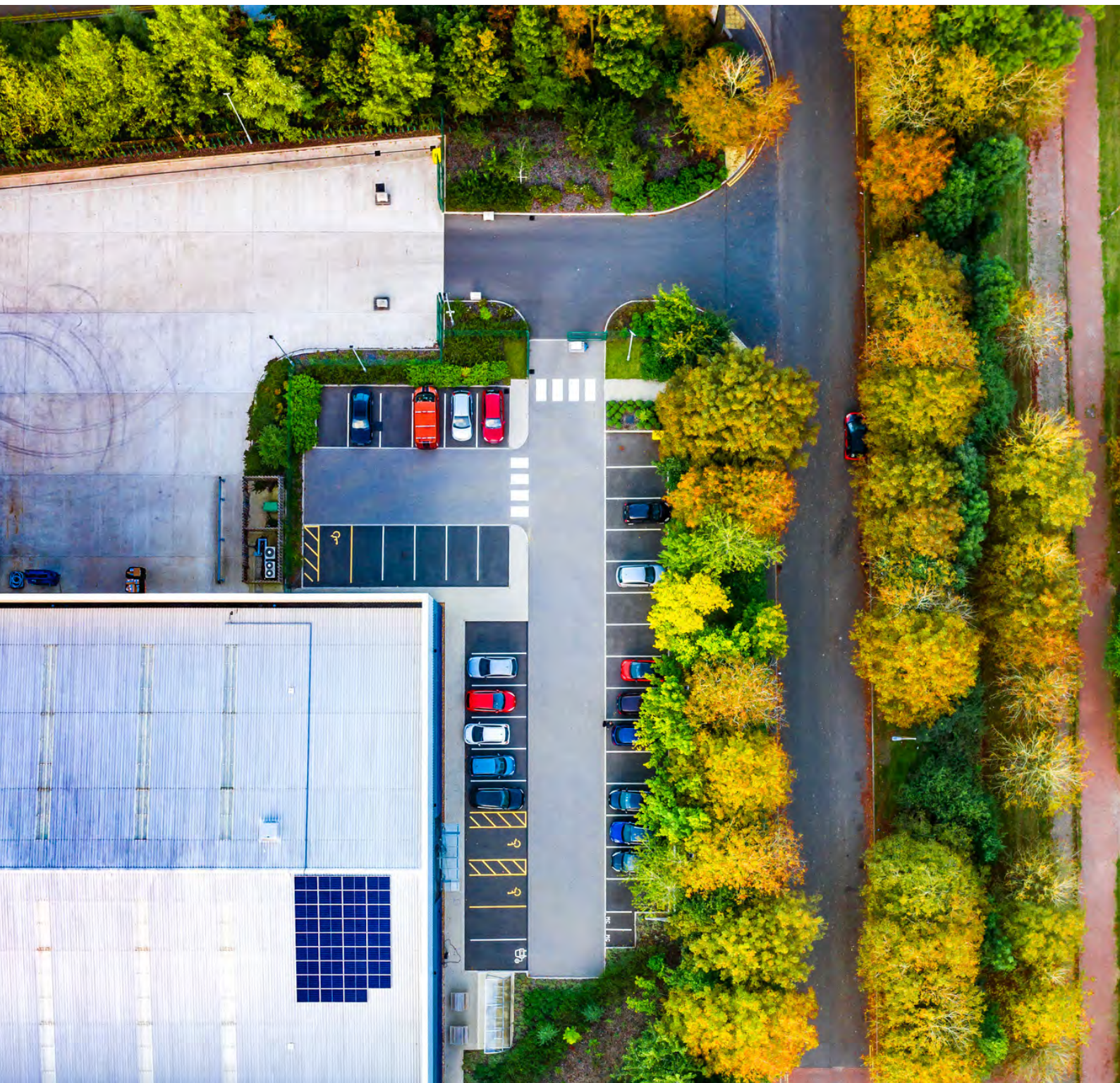

Thailand Logistics Property Market H2 2022





HIGHLIGHTS



THE TOTAL SUPPLY OF READY-BUILT WAREHOUSES IN THAILAND INCREASED STEADILY BY 4.6% H-O-H TO 5.35 MILLION SQ M.



THE OCCUPANCY RATE REACHED 85.5%, INCREASING BY 0.4% H-O-H.



THE AVERAGE ASKING RENT REMAINED UNCHANGED AT 159 BAHT PER SQ M PER MONTH.



STRONG DEMAND FROM 3PL, FMCG, AND INDUSTRIAL SECTORS DROVE NET ABSORPTION IN H2 2022 TO 225,000 SQ M., UP BY 13% FROM H1.



MARCUS BURTONSHAW
Executive Director,
Head of Occupier Strategy & Solutions



Environmental, Social, and Governance (ESG) concerns have become increasingly important in the global logistics property market, and Thailand is no exception. Driven by regulatory requirements, investor pressures, and the industry's commitment to achieving net-zero carbon emissions, the sector has started to incorporate sustainability features in warehouse developments. Examples include water flow reduction techniques, double-skin facades, natural ventilation, and solar panels. Despite the growing awareness of ESG and sustainability in the Thai logistics property market, the adoption of sustainable practices lags behind other sectors, such as hotels and offices. Stakeholders must continue to prioritize sustainability and explore innovative solutions to meet net-zero goals, ensuring the long-term success of the market.



LOGISTICS PROPERTY MARKET INDICATORS

	5.35M SUPPLY (sq m)	4.58M OCCUPIED SPACE (sq m)	85.5% OCCUPANCY RATE	159 ASKING RENT (THB / sq m / month)
% Change				
H-o-H	▲ 4.6%	▲ 5.2%	▲ 0.4% pts.	0.0%
Y-o-Y	▲ 9.1%	▲ 10.2%	▲ 0.9% pts.	▼ 0.1%

MARKET OVERVIEW

The Thai economy grew by 2.6% in 2022, which fell short of the earlier forecast of 3.4%, due to the decline in exports and government expenditure, even though the tourism industry started to recover.

According to the National Economic and Social Development Council (NESDC), private consumption remained the primary contributor to Thailand's GDP growth in the second half of 2022, with an increase of 13.7% Y-o-Y in H2, up from 10.3% in H1. In addition to the robust labour market, the country's full opening in H2 added international visitors to around 11 million, up from the record low of 428,000 the previous year. Fixed Capital Investment continued to grow by 5.6% Y-o-Y, up from 3.6% in H1. Government expenditure declined by -0.7% Y-o-Y in H2 after an expansion of nearly 10% in H1 from the reduction in healthcare service expenses. The export value in H2 grew at a slower pace of

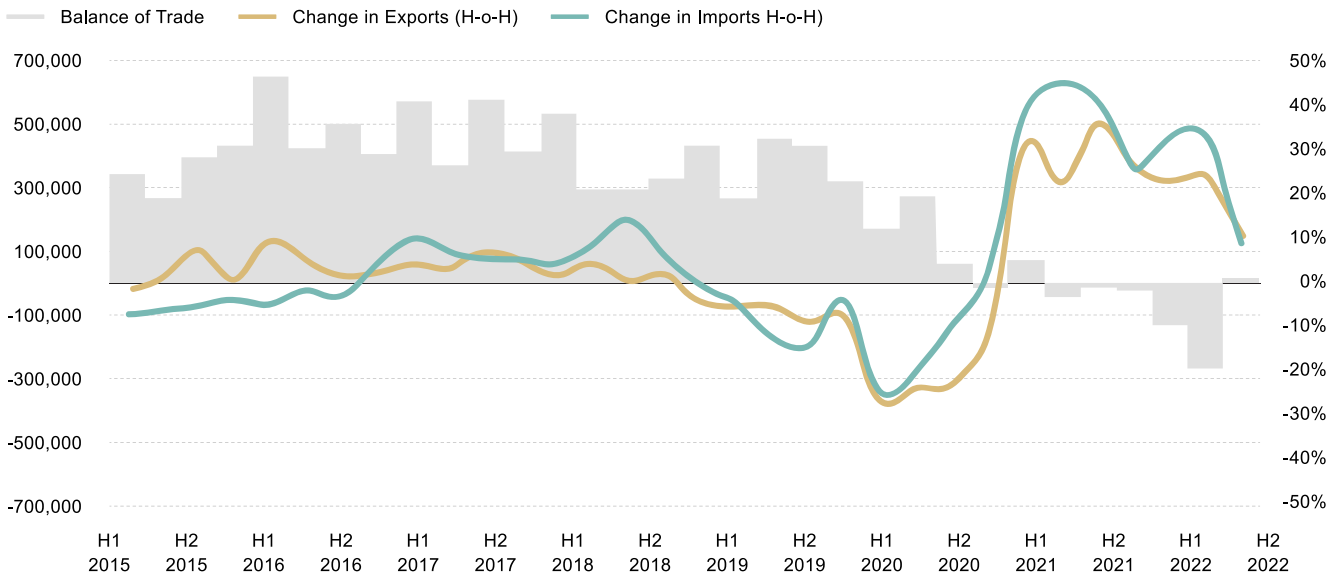
16.9%, down from 24.6% in H1, led by the reduction in trading partners' demand for agricultural products, plastic pellets, gold and storage devices. Likewise, the imports value decelerated, expanding by 20.6%, down from 29.8% in H1, mainly due to the contraction in domestic demand for steel, copper, aluminium and medical products.

The general price level still increased in H2. Headline Inflation went up to 6.5%; meanwhile, core inflation expanded to 3.1%. This suggests that the price increase for food and energy exceeded that of other products and services. However, the latest data from the Ministry of Commerce indicated that the inflation rates of food and energy have

been easing gradually, while those of other products remained high.

When looking at the logistics-related indicators from the Office of Industrial Economics (OIE), the finished goods inventory index in H2 reduced to 127 from 136 in H1, which reflects the growing domestic consumption and the decline in new production. The Production Index decreased to 94, from June's figure of 99, since producers fretted over weaker demand, most notably from abroad, and became more conservative towards the new production levels. The shipment index in H2 followed a similar pattern to other indicators, decreasing to 107 from 125 in H1.

FIG 1 : GOODS & SERVICES BALANCE | THAI BAHT (MILLIONS)



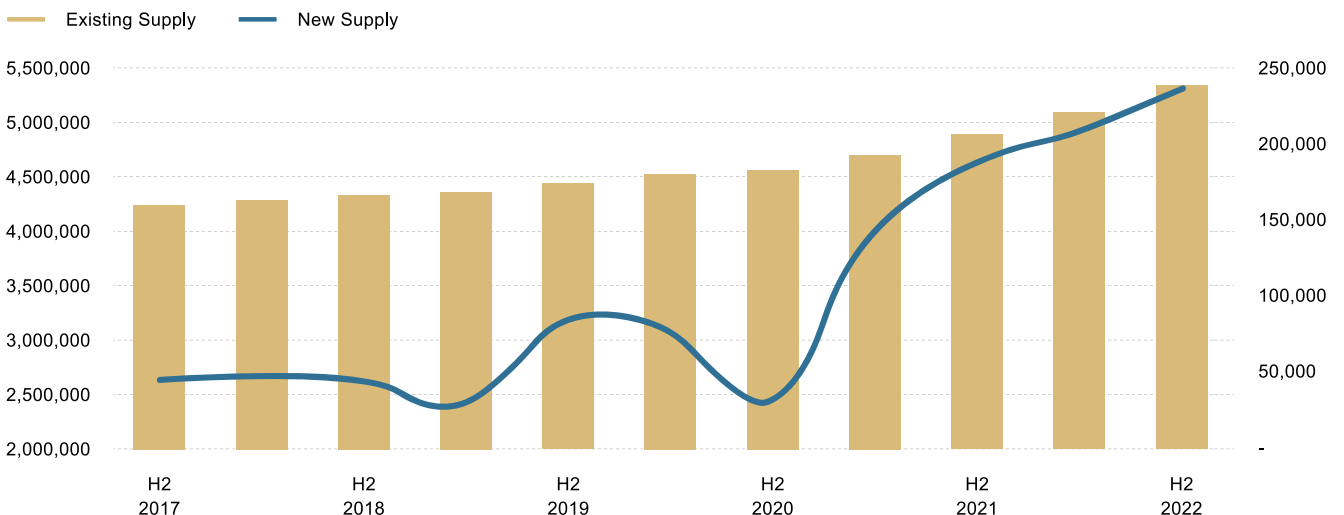
Source: NESDC

SUPPLY

CURRENT SUPPLY

The total supply of ready-built warehouses accounted for 5.35 million sq m, an additional 237,749 sq m of warehouse space compared to the previous six months. This addition represents a growth of 4.6% H-o-H and 9.1% Y-o-Y. The new supply includes WHA Teparak KM. 21 and Thriven Bangna KM.7 in Samutprakarn, Rangsit Factory and Warehouse's Buildwell Phase 1 in Pathumthani, KR Warehouse, Namyong (WHA CIE1) and Yamato Warehouse in Chonburi and Bangkok Free Trade Zone 5 in Ayutthaya.

FIG 2 : CURRENT SUPPLY | SQ M



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

SUPPLY DISTRIBUTION

In H2 2022, all major sub-markets saw a steady increase in supply. The net lettable area of the Bangkok Metropolitan Region, the currently largest sub-market, increased by 4.3% H-o-H to 2.4 million sq m, representing 48.3% of all ready-built warehouse space in Thailand. The Eastern Seaboard came in second with a 3.7% growth H-o-H to nearly 2.0 million sq m or 36.0% of the market. Finally, the Central region saw the highest growth in supply by percentage change at 7.9% H-o-H, increasing to 917,000 sq m, while there is no change in the total supply elsewhere in Thailand.

TABLE 1 : NET LETTABLE AREA AND NET SUPPLY CHANGE BY REGION | SQ M - NEAREST HUNDRED

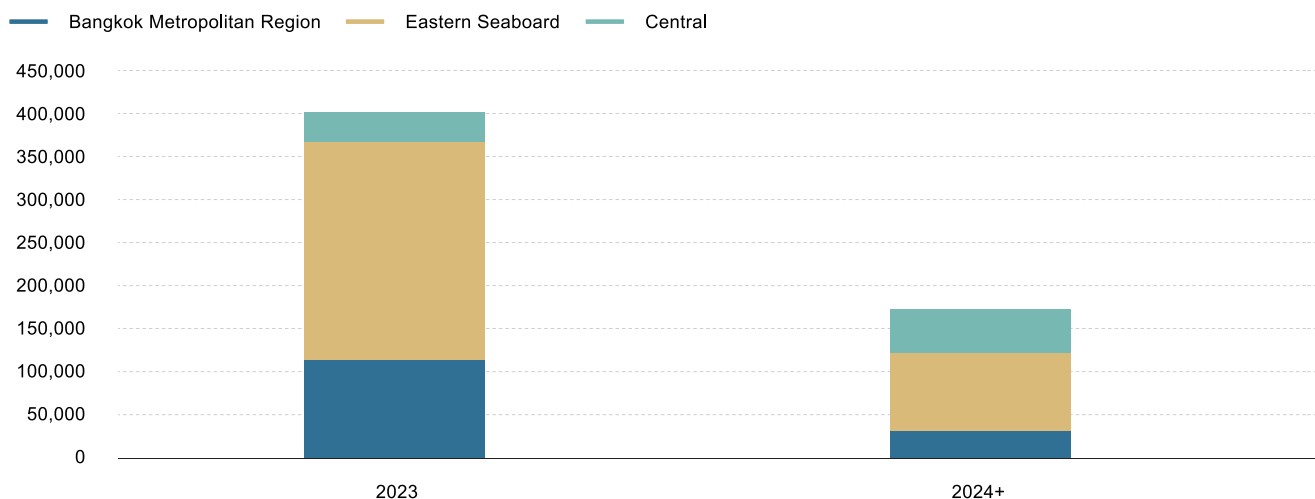
Region	Net Lettable Area as of H2 2022	%Change	
		(H-o-H)	(Y-o-Y)
Total	5,354,000	▲ 4.6%	▲ 9.1%
Bangkok Metropolitan Region	2,442,000	▲ 4.3%	▲ 9.3%
Eastern Seaboard	1,956,900	▲ 3.7%	▲ 9.4%
Central	917,000	▲ 3.7%	▲ 9.4%

SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

FUTURE SUPPLY

The total size of the future lettable area totalled 578,700 sq m, with 403,100 sq m in 2023 and 175,600 sq m in 2024 onwards. This future space accounted for 10% of the current supply. Around 59% of the supply in the pipeline is in the Eastern Seaboard, followed by the Bangkok Metropolitan Region, with a share of 26%.

FIG 3 : FUTURE SUPPLY BY REGION | SQ M



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

DEMAND

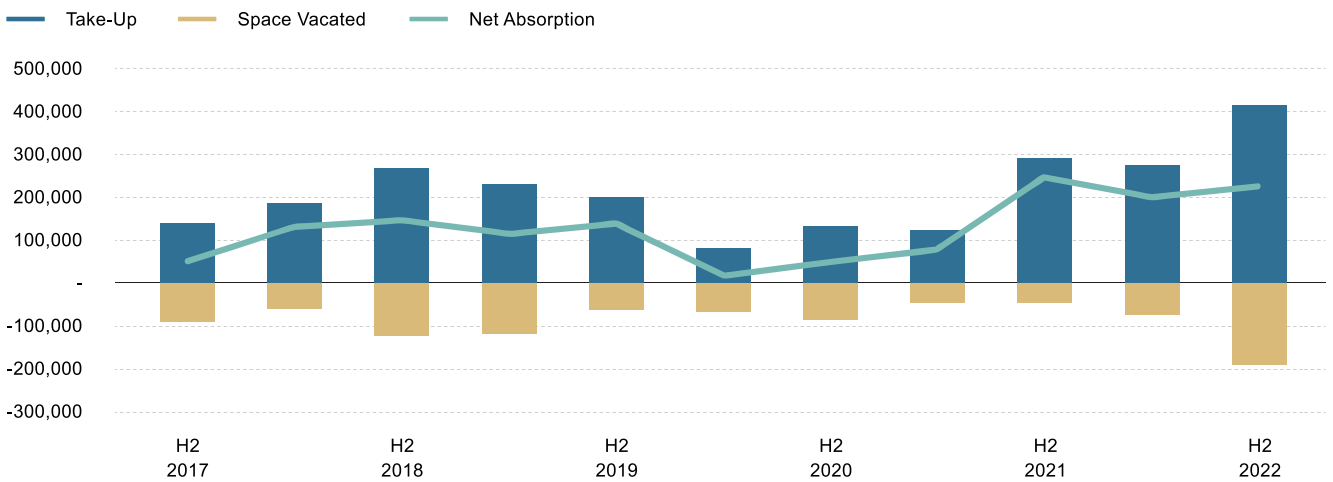
The total leasing activities of ready-built warehouses in Thailand increased by more than 70% in H2 2022, thanks to the continuous growth of e-commerce and the full reopening of the country. The take-up rate soared, passing 412,000 sq m, with the space vacated increasing to 188,000 sq m. This led to a positive net absorption rate of 225,000 sq m., 13% higher than the H1 2021 figure.

The total occupied space, therefore, increased by 5.2% H-o-H or 10.2% Y-o-Y to 4.58 million sq m, representing an occupancy rate of 85.5%, an all-time high in 10 years.

The fulfilment service providers and international logistics operators remained key occupiers that required ample warehouse space, as has been the case in the previous years. Meanwhile,

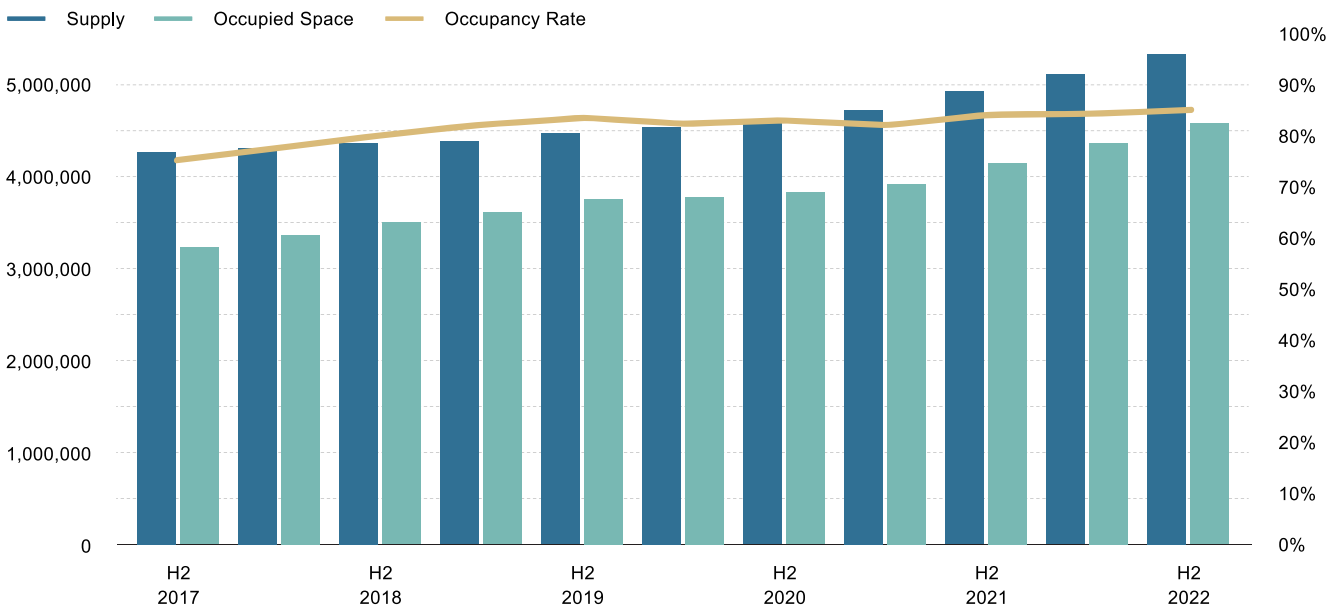
demand from Fast-Moving Consumer Goods (FMCG) companies is growing, supported by more robust domestic consumption and a rebound in retail sales. However, the need for warehouses from occupiers in the automotive and computer hardware sectors dropped slightly due to global chip shortage and the decelerated export value.

FIG 4 : SUPPLY-DEMAND DYNAMICS | SQ M



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

FIG 5 : SUPPLY, DEMAND & OCCUPANCY RATE | SQ M



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

The market occupancies in H2 2022 continued to rise due to the high demand for ready-built warehouses in the Bangkok Metropolitan Region. As demand outpaced new supply, the market occupancy rate reached 85.5%, up by 0.4% pts H-o-H or 0.9% pts Y-o-Y.

The Bangkok Metropolitan Region saw its total change in occupied space increase by 154,100 in H2. The rise in demand, most notably in the Bangna-Trad area, increased the occupancy rate by 2.7% pts H-o-H to 90.1%. The occupancy rate for Eastern Seaboard declined by -1.5%

pts H-o-H to 81.4%, from a slowdown in new leasing compared to H1. Meanwhile, the occupancy rate for the central region also decreased by -1.5% pts H-o-H to 81.7% due to the significant increase in new supply within the sub-market.

TABLE 2 : OCCUPANCY RATE BY REGION

Region	H2 2022	% Point Change	
		(H-o-H)	(Y-o-Y)
Total	85.5%	▲ 0.4% pts	▲ 0.9% pts
Bangkok Metropolitan Region	90.1%	▲ 2.7% pts	▲ 0.9% pts
Eastern Seaboard	81.4%	▼ 1.5% pts	▲ 0.9% pts
Central	81.7%	▼ 1.5% pts	▲ 0.7% pts

SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

TABLE 3 : OCCUPIED SPACE AND NET ABSORPTION BY REGION | SQ M - NEAREST HUNDRED

Region	Occupied Space as of H2 2022	Net Absorption	
		H2 2022	2022
Total	4,575,700	225,200	425,000
Bangkok Metropolitan Region	2,201,400	154,100	208,200
Eastern Seaboard	1,605,700	29,200	153,600
Central	748,000	34,300	55,600

SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

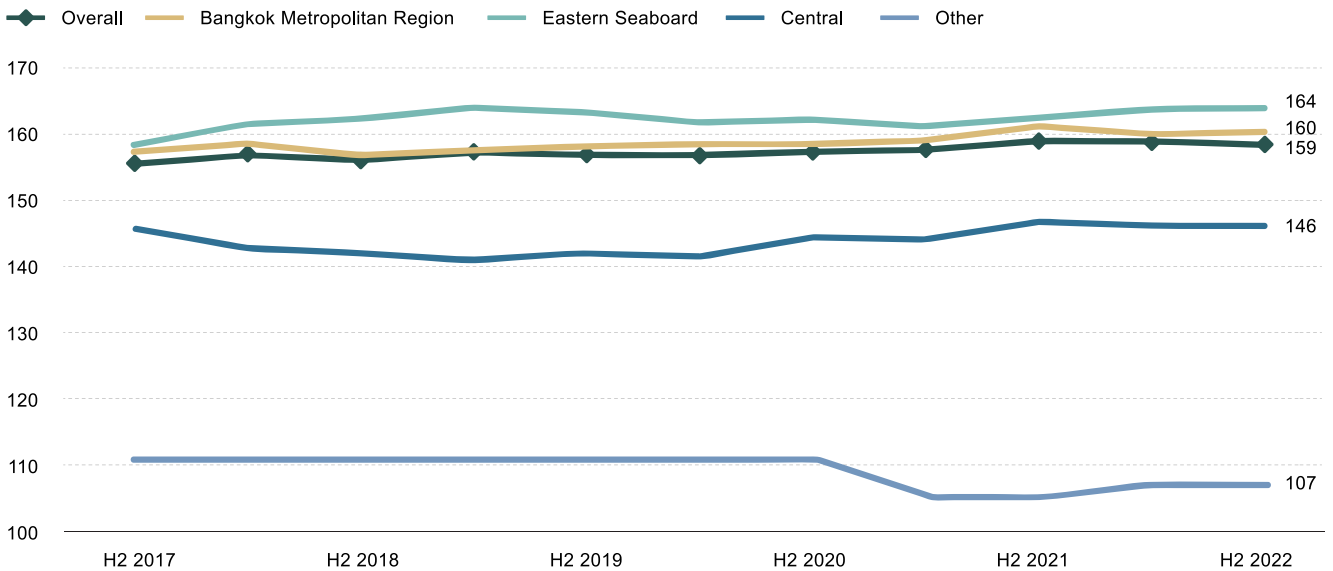
RENTAL RATES

The average asking rent for ready-built warehouses in Thailand remained unchanged at 158.6 THB per sq m per month in H2 2022. Apart from the new projects, the asking rents for most properties remained stable, with a small number of properties dropping their rental rates to fill up vacant space.

The minimum asking rents for all regions were relatively the same at around 100-110 THB per sq m per month. However, the ceiling ranged more widely from 200 THB per sq m per month in the Bangkok Metropolitan and the Eastern Seaboard, 180 THB in the central region and 120 THB for the rest of Thailand.

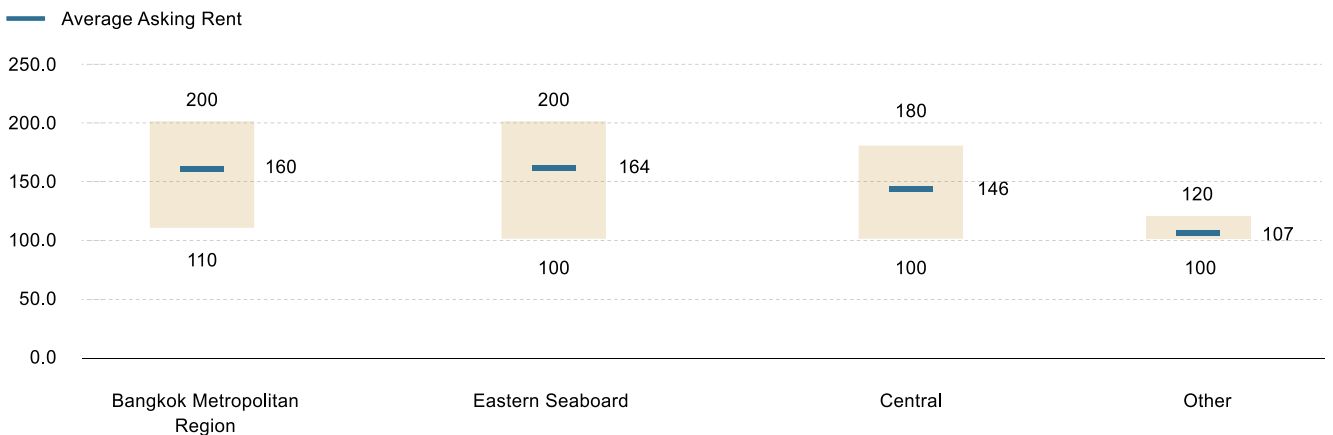
Over the past year, asking rents in the Bangkok Metropolitan and Central regions decreased to 160 and 146 Baht per sq m per month, representing a drop of -0.8% and -0.3% Y-o-Y, respectively. On the other hand, the Eastern Seaboard saw an increase in rents by 0.8% Y-o-Y, primarily influenced by new properties that attempted to charge higher rents.

FIG 6 : READY – BUILT WAREHOUSE AVERAGE ASKING RENT BY REGION | BAHT PER SQ M PER MONTH



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

FIG 7 : READY-BUILT WAREHOUSE ASKING RENT SPREADS | BAHT PER SQ M PER MONTH



SOURCE: KNIGHT FRANK (THAILAND) – OCCUPIER STRATEGY & SOLUTIONS

REVIEW & OUTLOOK

The logistics property market in H2 2022 continued an upward trend, backed by e-commerce expansion and the full reopening of the country. Demand for warehouse space in 2022, as indicated by net absorption, was the highest in the past five years and increased by 30% from 2021. As the rise in demand surpassed new supply, the overall occupancies improved from H1 to almost 86%, while the market rent remained unchanged.

Based on our data, third-party logistics companies (3PL) remained the key occupiers this year, followed by certain tenant groups such as FMCG businesses and industrial producers. We still witnessed the majority of warehouse developers moving towards built-to-suit facilities rather than speculative warehouses to avoid long periods of vacancy. Consequently, the future supply of ready-built properties remained consistent with its

average annual growth. The future-to-current supply ratio stood at 10%, compared to other commercial properties such as offices, which have this figure as high as 30%, demonstrating less possibility for supply-demand imbalance in the logistics property market.

According to International Organization for Standardization (ISO), the logistics supply chain contributes to around one-third of global carbon dioxide (CO₂) emissions. This level of impact, combined with regulatory requirements and investor pressures, has driven the whole industry to take real action towards achieving net zero commitment. In Thailand, there has been a growing awareness of ESG and sustainability within the sector, as evidenced in many parts of the logistics properties. Some warehouses have incorporated sustainability features such as water flow reduction techniques,

double-skin facades, natural ventilation, and solar panels on the roof, which could reduce their carbon footprint and save operational costs.

Although the logistics property industry in Thailand has started to implement sustainability measures, the adoption is still considered to be slower than certain property sectors, such as hotels and offices, where a higher percentage of properties have met the sustainability certification criteria or are labelled as green-certified. This lag could be attributed to a lack of strong demand from investors or prospective tenants and a lack of clear evidence supporting rental premiums for green warehouses. It is interesting to see how the industry adapts to meet net-zero goals and whether the benefits of these efforts become more evident in the future.

GLOSSARY

Bangkok Metropolitan Region – Includes Bangkok, Samut Prakan, Samut Sakhon, Nonthaburi

Eastern Seaboard (EEC) – Includes Chachoengsao, Chonburi, Rayong

Central – Includes Ayutthaya, Pathum Thani, Saraburi

NOTE: ALL FIGURES EXCLUDE DEVELOPERS WITH TOTAL SUPPLY OF LESS THAN 10,000 SQUARE METERS AND PROPERTIES NOT READY FOR HANDOVER.

We like questions, if you've got one about our research, or would like some property advice, we would love to hear from you.



PHANOM KANJANATHIEMTHAO
 Chairman
 +66 (0) 2643 8223 Ext 124
 phanom.kanjanathiemthao@th.knightfrank.com



NATTHA KAHAPANA
 Managing Director
 +66 (0)2643 8223 Ext 300
 nattha.kahapana@th.knightfrank.com



MARCUS BURTENSHAW
 Executive Director,
 Head of Occupier Strategy & Solutions
 +66 (0) 2 643 8223 Ext 104
 marcus.burtenshaw@th.knightfrank.com

RECENT MARKET-LEADING RESEARCH PUBLICATIONS



Phuket Condominium
 Market Overview 2022



Phuket Villa
 Market Overview 2022



Thailand Manufacturing
 Property Market
 Overview 2022



Bangkok Office
 Market Overview Q4 2022



Bangkok Hotel Market
 Overview 2022

Knight Frank Thailand Research, Reports are available at knightfrank.co.th/Research

Knight Frank Thailand Research provides strategic advice, consultancy services and forecasting to a wide range of clients worldwide including developers, investors, funding organisations, corporate institutions and the public sector. All our clients recognise the need for expert independent advice customised to their specific needs. Important Notice: © Knight Frank Thailand 2021. This report is published for general information only and not to be relied upon in any way. Although high standards have been used in the preparation of the information, analysis, views and projections presented in this report, no responsibility or liability whatsoever can be accepted by Knight Frank Thailand for any loss or damage resultant from any use of, reliance on or reference to the contents of this document. As a general report, this material does not necessarily represent the view of Knight Frank Thailand in relation to particular properties or projects. Reproduction of this report in whole or in part is not allowed without prior written approval of Knight Frank Thailand to the form and content within which it appears. Our registered office is 33/4, The 9th Towers, Grand Rama 9, Tower A, 31st Fl., Unit No. TNA 01-04 Rama 9 Road, Huaykwang District, Bangkok 10310 Thailand.

