Creating Resilience

Prolonged Supply Chain Disruption to Accelerate Southeast Asian Logistics Real Estate Demand

VIEWPOINT

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INTRODUCTION: SUPPLY CHAINS EXPERIENCE INCREASING STRESS

Macroeconomic and geopolitical headwinds have pressured distribution networks and revealed vulnerabilities in supply chains across Asia Pacific since the onset of the COVID-19 pandemic, with manufacturing hubs in Southeast Asia among those most affected.

Pandemic-related disruption

Disruption to production amid the Delta variant-driven surge in COVID-19 infections beginning in mid-2021 was severe, forcing countries such as Thailand, Malaysia, Vietnam and others to introduce strict lockdowns to contain the spread of the virus, leading to the temporary closure of numerous manufacturing facilities (Figure 1).

Figure 1: Examples of Disruption to Manufacturing Production in Southeast Asia in 2021

Duration	Country	Incidents & Impacts	Affected Manufacturers
2 weeks	Thailand	Lockdown measures in response to surging COVID-19 cases forced multiple manufacturers to temporarily close their Thai facilities for two weeks.	• Global automobile manufacturers
5 months	Malaysia	Restrictions on semiconductor facility capacity forced manufacturers including microchip packaging and testing companies to temporarily shut or operate at reduced staffing levels.	• Several semi-conductor companies
5 months	Vietnam	Labour intensive manufacturing activity was largely affected. Strict lockdowns in Ho Chi Minh City, Hanoi and surrounding provinces curtailed labour-intensive manufacturing activity, with numerous global brands forced to temporarily shutter personal electronics and apparel/footwear factories.	• Major suppliers for global footwear/sports wear brands • Global electronic companies.

Source: Various News Sources, CBRE Research, 2022.

With most if not all Southeast Asian countries having informally adopted a policy of living with the virus towards the end of 2021, supply chain bottlenecks caused by large-scale lockdowns, manufacturing shutdowns and restrictions on the movement of factory workers, are gradually being alleviated.

However, a certain level of global and regional disruption will persist in the short- to- medium term, preventing supply chain activity from normalising to pre-pandemic levels. Much of this is due to ongoing border controls in mainland China, Hong Kong SAR, Taiwan and Japan, which continue to constrain the movement of labour and logistics.

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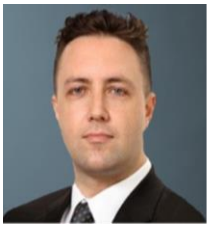

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Mainland China's zero-covid policy impacts production in ASEAN

Mainland China's % of ASEAN's Total Goods Trade Volume

24.8% (2020)

Mainland China's ongoing pursuit of zero-covid continues to stress regional supply chains. While the country's approach has largely been effective in containing the spread of the virus, lockdowns and other measures have invariably caused severe disruption to business activity, especially supply chain-related functions such as manufacturing, industrial production, goods shipping, port operations and customs clearance.

The country accounted for just under a quarter of ASEAN's total goods trade volume in 2020, making it Southeast Asia's largest trading partner [1]. Given mainland China's important role in regional value chains, sudden disruption to local manufacturing activity resulting from lockdowns continues to pose an ongoing risk to manufacturing clusters in Southeast Asia.

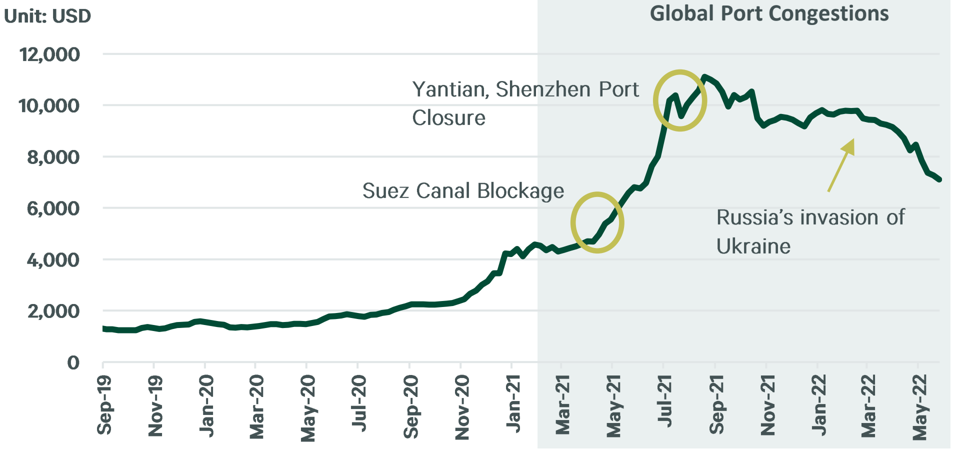
Mainland China's industrial intermediaries play a key role in the manufacturing output of five major Southeast Asian economies (Vietnam, Thailand, Singapore, Indonesia and Malaysia), accounting for US$178 billion or 7.8% of the GDP of these markets [2]. Vietnam has the highest manufacturing dependence on mainland Chinese products.

[1] The Growing China-ASEAN Economic Ties, HKTDC, 2021.
[2] China Covid-Zero Economics, OECD, Allianz, 2022.

Global shipping bottlenecks continue

The rising cost of shipping, along with higher congestion, has stressed supply chains over the past 18 months, with incidents such as the Suez Canal Blockage and port closures in Shenzhen and Ningbo driving up container freight prices. Container shipping costs remain elevated, with those in mid-June 2022 more than double January 2021's levels (Figure 2). Global port congestion is projected to last for the duration of this year, with the re-opening of Shanghai and resulting backlog of shipments likely to create further upward pressure on global shipping costs.

Figure 2: Global Container Freight Pricing Index – Weekly Prices



Note: Global Container Freight Index represents the market rate for 40' containers shipping fee (FEUs)
Source: Source: fbx.Freightos.com, June 2022

Energy and commodity price volatility

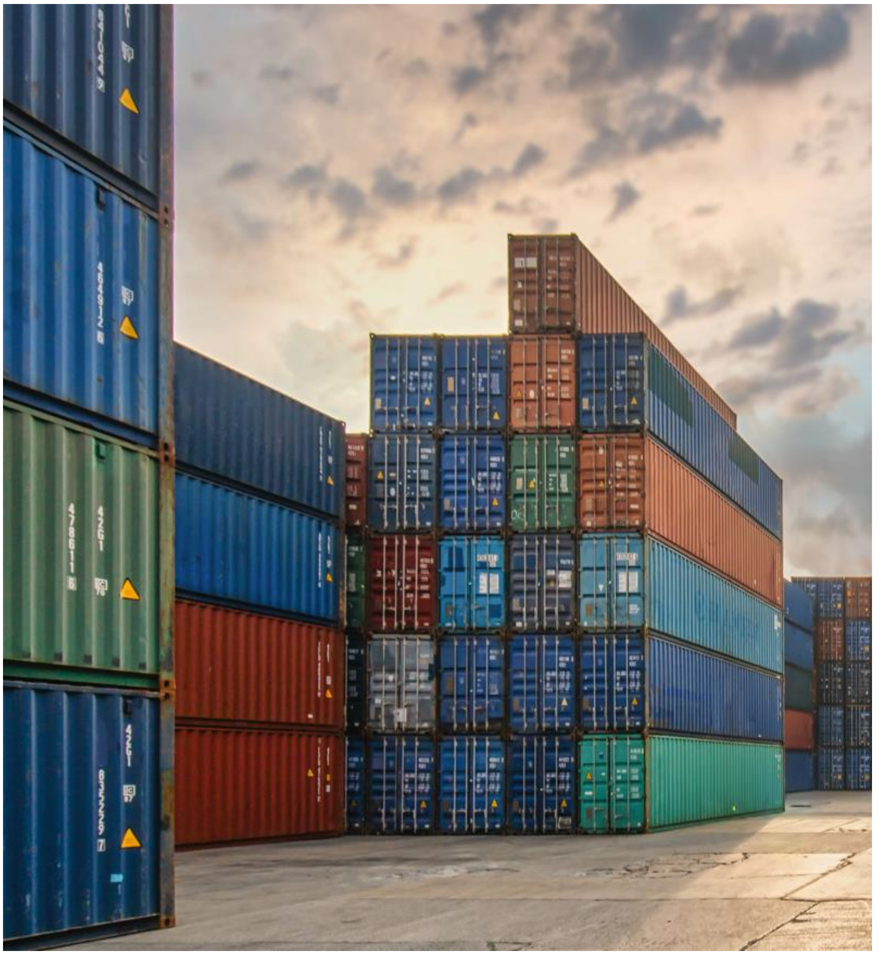
The onset of the Russia-Ukraine war in February of this year has driven up energy prices, particularly for oil and gas, compounding the challenges facing regional supply chains. Brent Crude Oil prices have increased by 41% year-to-date[3] following the introduction of Western sanctions on Russian oil exports.

Price volatility will impact shipping and logistics costs for Southeast Asian businesses and consumers. A recent report by CBRE Supply Chain Advisory showed that 45%-70% of supply chain costs arise from shipping and transportation. British Petroleum World Energy data show that the combined consumption of crude oil by Indonesia, Thailand, Singapore, Philippines and Malaysia amounted to 5.9 million barrels per day in 2020, accounting for 17.2% of Asia Pacific's total consumption.

Brent Crude Oil Price Inflation (Year-to-date)

+41%

[3] Yahoo Finance, as of 17 June 2022.



DISRUPTION TO DRIVE INDUSTRIAL & LOGISTICS LEASING DEMAND

Building resilient distribution networks

Despite experiencing considerable disruption since the onset of the pandemic, CBRE expects Southeast Asia to be among the major beneficiaries of a drive among manufacturers and distributors to strengthen supply chain resilience.

At the core of this strategy is overhauling inventory models. Over the past two years, manufacturers, omni-channel retailers and logistics companies in Southeast Asia have shifted from a "just-in-time" inventory approach to a "just-in-case" model which requires them to keep large volumes of stock on hand to serve as a buffer to potential disruption. As supply chain operations gradually normalise, occupiers will seek to achieve a balance between these two inventory strategies while focusing on inventory control and stabilisation.

From the omnichannel retail end, e-commerce platforms and grocery retailers are exhibiting strong demand for space as they build up local inventory levels near points of consumption to ensure delivery fulfilment. From the global shipping end, 3PL and retail occupiers will continue to strengthen inventory near sea-ports and other transportation facilities to mitigate exposure to trade with mainland China.

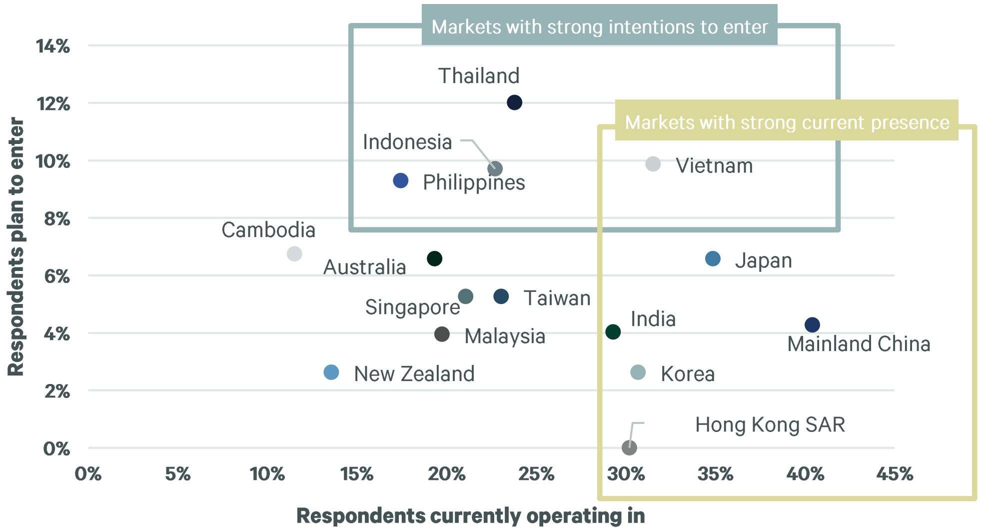
ASEAN benefits from diversification of production & sourcing bases

CBRE expects manufacturers and distributors to diversify product sourcing to different countries. Many such companies have already adopted "China Plus One" strategies involving the relocation of some or all of production, particularly within labour-intensive industries, out of mainland China and into multiple bases in nearby markets.

Top Four Destinations for Occupier Expansion

Thailand, Indonesia, Vietnam, Philippines

Figure 3: Which Asia Pacific market(s) is your company currently operating in and planning to enter over the next three years?



Source: CBRE Asia Pacific Logistics Occupier Survey, 2021.

This shift will be facilitated by the multiple free-trade agreements ASEAN economies have recently signed with Mainland China and other regional trading partners, with the Regional Comprehensive Economic Partnership (RCEP), which took effect at the beginning of this year, set to play an especially prominent role. The trading volume of RCEP member states accounts for 30% of the global total, with the agreement estimated to create cumulative export and import growth of around US$500 billion for ASEAN countries by 2035 [4].

With emerging Southeast Asian markets also providing a fast-growing consumer base and lower cost of labour, many companies intend to relocate production to one or more of these countries – a phenomenon that will generate substantial new demand for industrial and logistics real estate.

[4] China Daily, Ministry of Commerce, 2022.

RCEP's Cumulative Value Add to ASEAN's Trade by 2035

US$500 billion

Government initiatives

To support manufacturers and boost supply chain efficiencies, various Southeast Asian governments have announced plans to improve transport infrastructure and connectivity.

Singapore

Singapore aims to increase cargo capacity and productivity through its new Tuas Mega Port, which upon completion of its final project phase sometime after 2040 will be the largest container terminal in the world, with a total capacity of up to 65 million TEUs.

Vietnam

Vietnam has a seaport master plan for 2021-2030 to enhance infrastructure connectivity, reduce logistics costs and promote marine economic development. The master plan will focus on the development of six major port clusters including northern Hai Phong city, Thanh Hoa, Da Nang and Khanh Hoa in the central region, and Cai Mep (Ba Ria-Vung Tau) and Tran De (Soc Trang) in the south.

Indonesia

The government of Indonesia has committed substantial funds towards constructing and enhancing transportation-related infrastructure including new seaports, airports and roads to significantly increase cargo capacity.

Malaysia

In 2018, Malaysia introduced its "Industry4WRD" Industry 4.0-related scheme providing a comprehensive transformation agenda for the manufacturing sector, including rolling out schemes to support the adoption of digital technologies in the manufacturing and related service sectors.

Free Trade Agreements

Other regulatory interventions to improve the supply chain include Free Trade Agreements (FTAs) to facilitate trade and reduce tariffs, with a view to positioning Southeast Asia as a gateway for manufacturing. Along with the aforementioned RCEP, major FTAs include the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) .

Major FTAs between ASEAN and global trading partners

RCEP, CPTPP

Estimated Southeast Asia E-commerce GMV

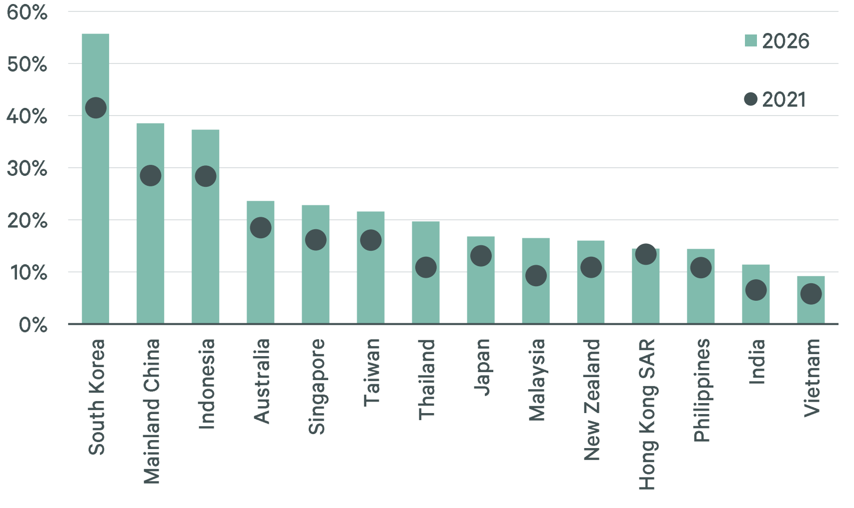
US$360 billion

Capitalising on robust omnichannel retail growth

Lockdowns and other mobility restrictions have provided added impetus to already robust e-commerce growth in Southeast Asia, with Indonesia, Thailand and the Philippines recording strong increases in online sales in recent years. Google/Bain's 2021 Southeast Asia E-Conomy report estimated that the region's number of e-commerce users rose from 290 million pre-pandemic to 350 million in 2021. E-commerce GMV (Gross Merchandise Value) for Southeast Asia totalled US$174 billion in 2021, an increase of 76% from 2019. The report estimates that Southeast Asia's GMV will reach US$360 billion in 2025.

The pandemic-driven boost to e-commerce has spurred the growth of homegrown platforms such as Tiki in Vietnam, Centralonline in Thailand, PGMall in Malaysia and Tokopedia in Indonesia. Pan-Southeast Asia e-commerce platforms such as Lazada and Shopee and regional players including JD.com have also been expanding rapidly in key Southeast Asian markets, driving robust demand for suitable real estate to accommodate modern distribution centres and last mile staging points.

Figure 4: E-commerce penetration by market 2021 vs 2026F



Source: Euromonitor, CBRE Research, 2022.

FDI FOCUSED ON EMERGING SOUTHEAST ASIAN MARKETS

Vietnam

Thanks to its low costs, large pool of labour, favourable FDI regulations and rapidly improving infrastructure, Vietnam has been the single largest beneficiary of the China Plus One phenomenon, with the electronics, semiconductor and furniture segments registering sharp increases in FDI as manufacturers diversify sourcing and production out of mainland China. FDI in Vietnam reached US$22 billion in the first nine months of 2021, an increase of 4.4% y-o-y.

Much of this investment is being directed into manufacturing operations in industrial parks, with the south of the country attracting the bulk of capital. This is driving demand for export-linked modern warehousing and domestic warehousing close to major industrial areas. CBRE has also tracked an increasing number of requirements for satellite warehouses near seaports, inland ports, and major air hubs.

Malaysia

Other attractive options for manufacturers looking to relocate production include Malaysia, which has seen strong FDI inflows into the manufacturing sector, particularly semi-conductor packaging, in recent years. Much of this capital has been directed into Penang, which is emerging as a high-tech manufacturing hub.

Along with robust demand from 3PLs, e-commerce and pharmaceutical companies, this is driving activity by foreign institutional developers looking to invest in the construction of fulfillment centres, modern warehouses, cold storage and distribution centres across the country.

Thailand

The net flow of FDI into the Thailand's manufacturing sector surged more than eightfold y-o-y to around US$3.0 billion in the first nine months of 2021 as the country remained an appealing option for companies seeking to shift supply chains out of China.

The nearshoring of the supplier base continues to promote growth in demand for industrial and logistics space across Thailand, with 3PLs, e-commerce platforms and express delivery companies among the most active source of space requirements.

Indonesia

Over the past few years, Indonesia has lifted a number of key restrictions on foreign investment, which along with the country's steadily improving business conditions, has boosted the country's appeal as a China Plus One destination.

More than 1 million sq. m. of modern logistics space has come on stream in Greater Jakarta over the past two years, attracting strong interest from e-commerce platforms requiring fulfillment space. Industrial parks continue to spring up across Java, with the central parts of the island witnessing strong development activity. East Java, particularly Surabaya, has seen strong demand for space in port-linked industrial parks.

Philippines

While the Philippines' is at a relatively nascent stage of development in terms of its modern logistics industry compared to Vietnam, Thailand and Indonesia, 3PLs and e-commerce platforms are driving strong demand for industrial and logistics space in the key areas of Metro Manila, Laguna and Cavite in South Luzon. Demand arising from the relocation of manufacturing into the Philippines is becoming especially prominent. However, climate change-related risks and the country's geographic isolation from the rest of Southeast Asia continue to pose a barrier.

More developers are nevertheless earmarking land for new industrial and logistics developments in the Philippines to add to existing industrial parks that host manufacturing activity, export processing zones, and logistics warehouse operations, with the Calabarzon area south of Metro Manila emerging as a key focus.

Figure 5: Summary of Southeast Asian Industrial and Logistics Markets

Country	Logistics Demand drivers	Supply and Vacancy	Rents
Indonesia	• Largest population in Southeast Asia and strong consumption growth • Rapid internet penetration and e-commerce growth • Transportation infrastructure and connectivity are improving, reducing overall logistics costs	• Over 10 million sq. ft. of modern logistics space added in the last two years in Greater Jakarta	Stable to upward
Malaysia	• Infrastructure improvements within secondary areas such as the ongoing WCE Highway and the Westport expansion • Improvements in global trade • Last-mile and 3PL serving e-commerce	• Around 1.31 million sq. ft. of warehousing currently under construction • Warehousing to be primary focus of the rising e-commerce demand	Stable to upward
Philippines	• Second largest population in SEA • Pandemic-driven e-commerce growth • Digital technology adoption among businesses and consumers • Improved road connectivity and infrastructure	• Total land availability in the CALABA region (Cavite, Laguna, Batangas) currently stands at 33.4 million sq. ft.. • Low vacancy of 3.5%, 3.3%, and 4.1% in Cavite, Laguna, and Batangas, respectively	Stable
Singapore	• Rapid e-commerce growth • World's busiest transshipment hub, connected to 600 ports in over 120 countries and 23 FTAs • Established infrastructure and supply chain network and ecosystems • Stockpiling for inventory	• Super prime vacancy to stay low • Ongoing shortage of prime assets	Upward

Source: CBRE Research, 2022.

Country	Logistics Demand drivers	Supply and Vacancy	Rents
Thailand	• Continuous growth in modern logistics warehouse supply • Booming e-commerce sector • Strong growth in domestic online shopping	• Vacancy to stay low despite continued growth in new supply	Stable
Vietnam	• Third largest population in SEA • China Plus One • Young and growing workforce • Ready-built infrastructure	• New supply due to peak in both south and north Vietnam	Stable

Source: CBRE Research, 2022.

Figure 6: Summary of Southeast Asian Industrial Sectors and Industrial Real Estate Players

Country	Growth industries	Key Players
Indonesia	Food and beverage, textiles and clothing, automotive, electronics, and chemicals	MMP, LOGOS, Astra/ HK Land, Genesis, JD Property, ESR, NWP, Frasers Property
Malaysia	E&E, semiconductors, pharmaceutical, logistics	Axis, Atrium, LYL, Mapletree, LOGOS
Philippines	Logistics, data centres, e-commerce, consumer electronics	AyalaLand, Aboitiz, FAST, Panorama, Orca
Singapore	Semiconductors, biomedical, pharmaceuticals	ESR-LOGOS, , Mapletree, CWT, AIMS, Boustead
Thailand	3PL, FMGC, healthcare, manufacturing	WHA, Frasers Property, Prospect Development
Vietnam	Semiconductors, electronics, textiles, consumer product manufacturing	ESR-LOGOS, GLP/SLP, BW Industrial, Mapletree, Boustead

Source: CBRE Research, 2022.

INVESTING IN INDUSTRIAL REAL ESTATE IN SOUTHEAST ASIA

Industrial real estate investment in Southeast Asia has historically been led by Singapore due to the country's more mature capital and REIT markets. In 2019, Singapore accounted for 59% of industrial investment in Southeast Asia, a figure that rose to 75% in 2021 as investors embarked upon a flight to safety amid heightened market volatility.

In emerging markets that are preferred FDI destinations for the manufacturing sector, such as Thailand and Vietnam, local authorities are pursuing a policy of amalgamating fragmented land parcels and allocating industrial land to industrialists and developers. Amid increasing demand for modern logistics facilities, more international operators are taking an interest in the sector and looking to increase their exposure to logistics development.

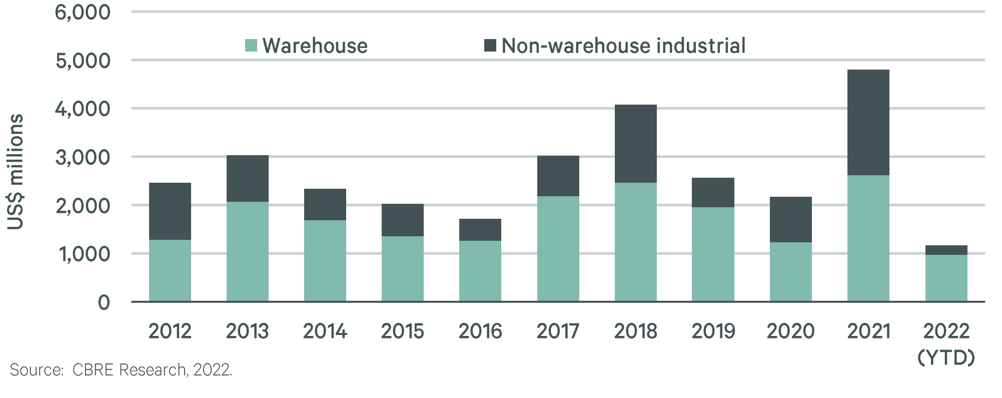
As these markets are relatively underdeveloped and maintain restrictions on foreign ownership along with currency controls, the most suitable method for foreign players seeking entry to Southeast Asia is via joint ventures with local firms or developers.

Figure 7: Examples of Recent Joint Ventures Formed in Vietnam

JV Partners	Date	Market	Investment Capacity	Confirmed Portfolio
GLP & SEA Logistics Partners (SLP)	2020	Hanoi, HCMC and nearby cities	US$1.1 billion	6 projects of 9.7 million sq.ft.
KTB Asset Management (Korea) & LogisValley	2021	HCMC, Haiphong and Bac Ninh	US$107 million	3 projects
Boustead Projects Ltd & Khai Toan Joint Stock Company (KTG)	2022	Hanoi, HCMC and nearby cities	US$28.2 million	Several projects

Source: CBRE Research, 2022.

Figure 8: Industrial investment volume in Southeast Asia by segment



Source: CBRE Research, 2022.

CONCLUSION

Pandemic-related border controls, mainland China's zero-covid policy, the rising cost of global shipping and higher energy prices will continue to pressure Southeast Asian supply chains in 2022 and mostly likely beyond.

As occupiers respond by strengthening supply chain resilience and seeking to strike a balance between "just-in-time" and "just-in-case" inventory models, CBRE believes new demand for modern warehouses is well-positioned for substantial growth.

Industrial and logistics real estate demand will also benefit from the implementation of China Plus One strategies by manufacturers seeking to relocate production out of mainland China and into multiple bases in nearby markets, with ASEAN economies set to be clear winners.

As the RCEP and other free-trade agreements take effect, Southeast Asian markets' tariffs with their major trading partners will fall significantly, benefiting export growth and increasing the role and importance of the region's markets in global supply chains, spurring additional real estate requirements.

On top of this, the continued robust growth of Southeast Asia's e-commerce industry will continue to underpin strong demand for warehouses in the coming years.

As well as booming occupier demand, CBRE expects investment in Southeast Asian manufacturing and logistics real estate to accelerate, with opportunities in developed markets likely to focus on developing institutional grade logistics stock to ride on local consumer market growth and the increasing importance of Southeast Asia in global value chains.

APPENDIX: REAL ESTATE INVESTMENT RESTRICTIONS IN SOUTHEAST ASIA

Country	Foreign Ownership	Currency Controls
Indonesia	Foreigners can own property built on land with a “right to use” title only but can acquire land with “right to build” title. Freehold land titles can only be held by Indonesian nationals or legal entities stipulated by the government.	The Indonesian rupiah cannot be freely traded outside Indonesia’s territory. All currency remittances must be conducted through foreign exchange banks located in Indonesia and regulated by Bank Indonesia (BI), Indonesia’s central bank.
Malaysia	Foreigners can own freehold and leasehold land priced above MYR1 million in most states, except for Malay Reserved Land.	There are no restrictions for non-residents to invest in Malaysia to purchase ringgit assets, such as land property and securities. There are also no restrictions for non-residents to transfer abroad, in foreign currency, all profits, returns and divestment proceeds from their investments in Malaysia.
Philippines	In general, Philippine real estate law prohibits the foreign ownership of land. Foreign investors may therefore indirectly own land by investing a maximum equity of 40% in domestic corporations or joint ventures. As an alternative to owning land, foreign investors are allowed a 50-year lease, renewable for another 25 years, over private land in connection with the establishment of industrial estates, factories, assembly or processing plants, agro-industrial enterprises, land development for tourism, industrial or commercial use, and other similar priority productive endeavours.	Dividend and profit remittances as well as capital repatriation of foreign investments are not regulated. Foreign investors are free to remit dividends and profits from their own foreign exchange sourced from outside the domestic banking system. However, if foreign exchange is sourced from the local banking system, foreign investments must have prior registration with the central bank Bangko Sentral ng Pilipinas (BSP).
Singapore	Foreign investors do not generally face restrictions on purchasing commercial or industrial properties, although specific restrictions on foreign ownership apply to certain types of residential property and land.	There are generally no foreign exchange or currency restrictions on the remittance or repatriation of capital or profits in or out of Singapore.
Thailand	Foreign individuals and corporations are not allowed to hold freehold land titles, except for land located in industrial estates for manufacturing or logistics use. For other properties, foreign investors can acquire freehold land interest by way of: • Forming a joint venture with no more than 49% stake; • Receiving rights from the Board of Investment	Repatriation of investment funds, dividends and profits as well as loan repayments and interest payments thereon, after settlements of all applicable taxes, may be made freely.
Vietnam	Land ownership is restricted and foreigners are eligible for 50-year leasehold ownership only.	Remittances must be conducted through registered capital bank accounts opened at authorized banks licensed in Vietnam.

Source: CBRE Research, 2022.

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