



*Achieve
Ambitions*

JLL Research Report

Vietnam | *Southeast Asia's New Industrial Powerhouse*

Vietnam | July 2018



Preface

Over the past 20 years, Vietnam has established itself as one of the brightest manufacturing hotspots in Southeast Asia. In 1986, there was 335 hectares of land dedicated to industrial parks. Fast forward to 2018 and Vietnam now boasts 80,000 hectares. This phenomenal growth can be attributed to the following:

- Vietnam establishing itself as an export-driven economy
- Dedicated Industrial and Economic Zones
- Free Trade Agreements (FTAs)
- Strong economic growth
- Young, plentiful, low-cost workforce

These initiatives have led to significant investment by large foreign companies. The best case study is Samsung, which has reportedly invested over USD 17 billion in Vietnam. This has provided confidence to a raft of other foreign companies from around the globe to set up operations in the country.

The industrial property market in Vietnam, including industrial land, ready-built factories, warehouses and logistics properties, is in the nascent stage of development; however, as we have witnessed in other countries around the region, we expect the industrial market will enter a new phase and move up the value chain in the future, moving away from labour intensive to capital intensive.

This paper aims to provide a comprehensive overview of the industrial market, the key advantages and challenges of investing and operating in the country, the potential impact of Industry 4.0 and how e-commerce will play an important role in the development of the logistics sector.




Stephen Wyatt
Country Head, Vietnam
JLL



Key takeaways from this report

- 1 **Concentrated Industrial Development**
The Vietnam industrial market is concentrated in three key economic zones (KEZs), North, Central and South. The Southern region was the first hub and home to conventional sectors. The North has attracted more advanced high-tech industries and is strategically located close to China. The Central region is the relative newcomer.
- 2 **Export Driven Economy**
Vietnam is establishing itself as an export-driven economy. The government is encouraging business in this sector, demonstrated by establishing Economic Zones in the North, Central and South regions and the country entering into 18 FTAs, which is creating a business-friendly environment for domestic and foreign companies.
- 3 **Movement from China**
China continues to move away from labour-intensive industries and move up the value chain, which has led to companies relocating to other South-east Asian countries. Due to its close proximity and geographical location, Vietnam stands to be one of the largest beneficiaries of this migration. Trade wars between China and the US could have a twofold impact. 1. Expedite the movement of companies from China to Vietnam 2. Trade Wars will increase the price of goods, which could slow global consumption, reducing output for exporters.
- 4 **Strategic Location**
Vietnam is strategically located between China and Singapore with 3,260 km of coastline, providing excellent access to Vietnam's East Sea, one of the major shipping routes in the world. Roughly 40% of cargo transported from the Indian Ocean to the Pacific crosses the East Sea before arriving in China, Japan, South Korea and the United States.
- 5 **Evolving Logistics Market**
Many commentators predict the logistics market will be the 'stand out' performer over the next 5-10 years. The rapid growth of the middle-income population creating more disposable income and a growing obsession with e-commerce will put significant demand on logistics facilities.
- 6 **Infrastructure**
According to ADB, Vietnam spends 5.8% of its GDP on infrastructure, which is the highest in Southeast Asia. In order for Vietnam to enter the next phase of the industrial/logistics cycle and become more competitive with regional counterparts, it is important that significant expenditure continues in the infrastructure network, including highway networks, deep-sea ports, upgrading of utility networks and renewable energy.
- 7 **Industry 4.0**
One of the challenges for Vietnam over the next few years will be the ability to adapt and embrace the inevitable disruption and changes brought about by technology and automation, now commonly known as Industry 4.0.



Northern Key Economic Zone

Central Key Economic Zone

Southern Key Economic Zone

Vietnam Industrial Market History



1975

FALL OF SAIGON – UNIFIED VIETNAM

Under the 'Saigon Government' in order to 1. disperse the workers' concentration in Saigon and relax the densely populated urban area; 2. promote industrial development, trimming the imbalanced growth between Saigon and other localities.



1963

Bien Hoa 1, the 1st IP founded in Bien Hoa

1986

Vietnam's economic reforms (Doi Moi), transition from agriculture and light industry to heavy industry. Agriculture and not heavy industry would be most important sector. To support agriculture and light industry, most manufacturers were small-scale and applied limited technical level. Emphasise the importance of improving efficiency and of foreign investment and possible tourism revenues, however still lack of appropriate policies and incentives implemented.

1991

Tan Thuan Export Processing Zone (EPZ), Vietnam's 1st EPZ, founded in HCMC.



Establishment of Regulation on Export Processing Zones (Decree No. 322 / HDBT of the Council of Ministers dated 18 October 1991) and IP Regulations (Decree 192 / CP of the Government dated 28 December 1994), a part of the Government effort to implement the strategy of socio-economic stabilisation and development in 1991-2000.

1995

Vietnam join the Association of Southeast Asian Nations (ASEAN). A main pillar of the country's foreign policy, opened the new period of integration in the region in all aspects and plays a key driving force to promote trade and investment intra- flows. Industrial development bloomed regarding both quality and quantity on the back of newly favourable policies implemented and growing number of FDI into the country.

1992

1st entrance of foreign investors -China National Electric Import & Export Corporation (CUEC), via Joint Venture with Saigon Industrial Park Development (Saigon IDP) in developing Linh Trung EPZ.



1998

Hoa Lac Hi-tech Park, the 1st Hi-tech Park (HTP), founded under the Decision No.198/1998/QĐ-TTĐ.

2001

Quang Trung Software Park, the 1st Information Technology Centre (ITC), founded.



2007

Vietnam joins World Trade Organisation (WTO), marking an important turning point for Vietnam in expanding global relationship and reforming policy.



2009 - 2011

Global Economic Crisis



2008

The 1st 100% foreign-invested Industrial Park in Vietnam, namely Shun Far (Taiwan) and Shenzhen Shenyue Joint Investment Co., Ltd (China) with their first projects developed in Bac Ninh and Hai Phong respectively.



2011+

The concept of built-to-suit warehouse/factory space was first introduced by international manufacturers.

2014

The Vietnam Economy recovered with a number of new laws being released. The all-round improvement placed Vietnam back on the radar of investors.



2018

Becamex IDC and Warburg Pincus Launch 'BW Industrial' to create largest for-rent industrial and logistics platform in Vietnam.

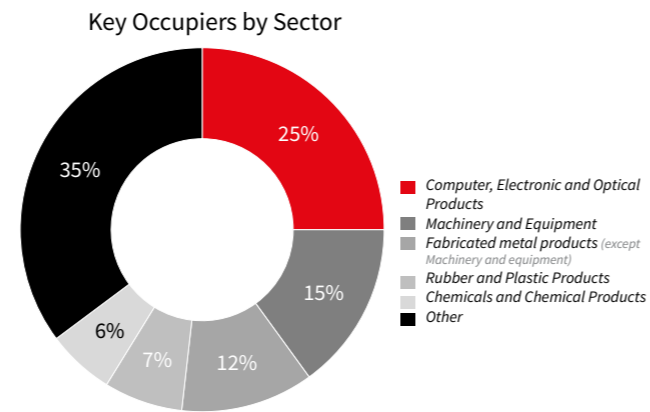
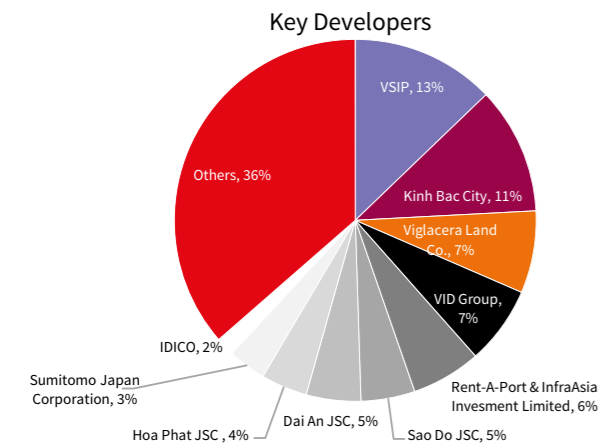
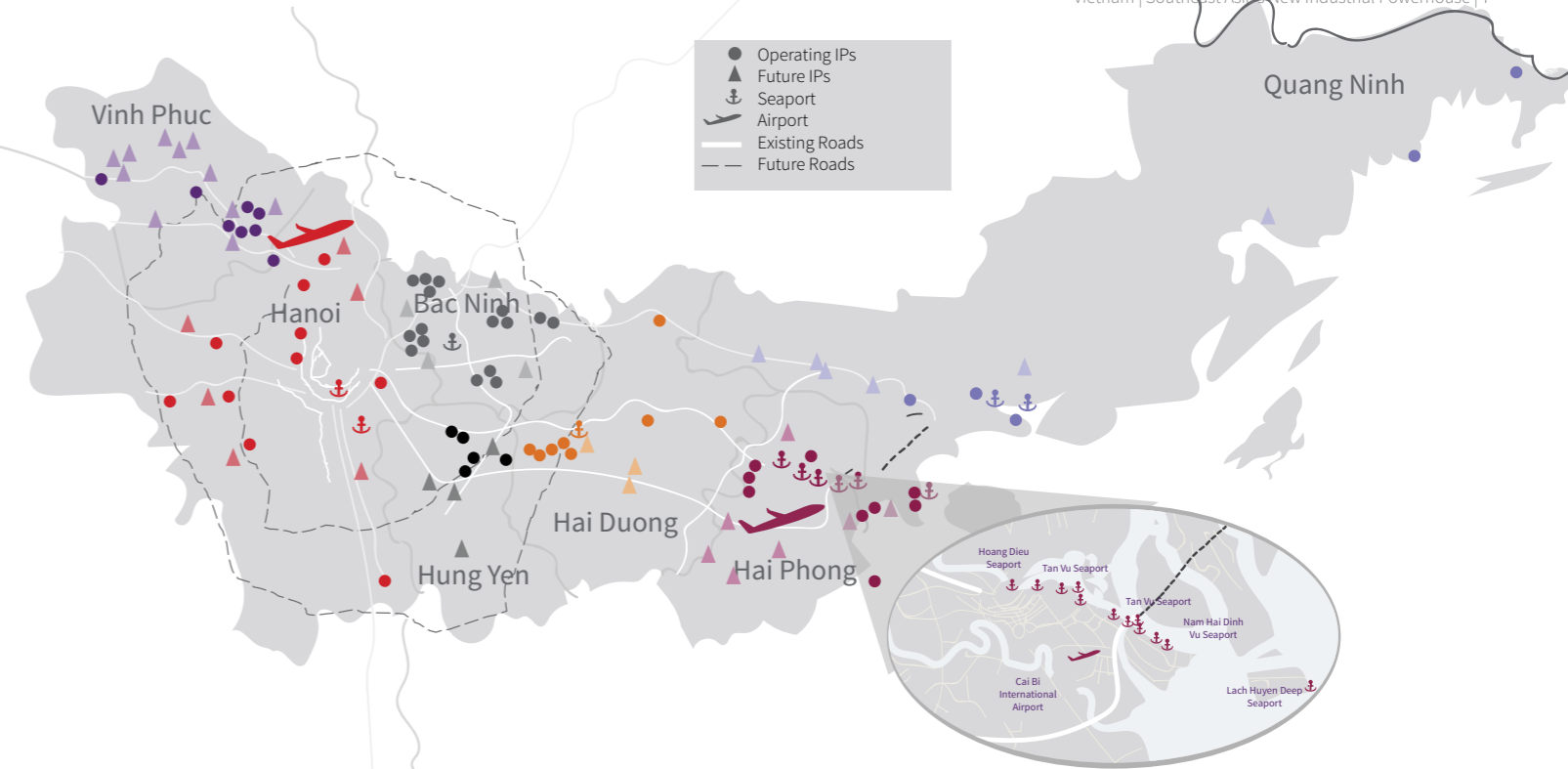
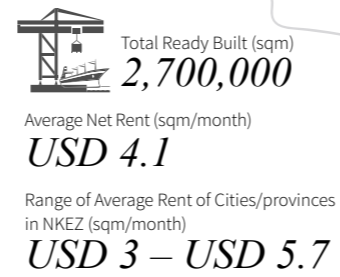
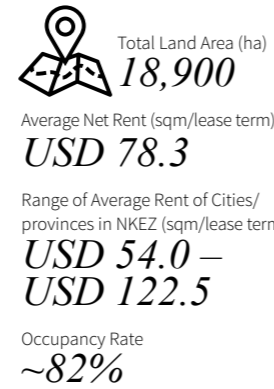


Northern Vietnam

The Northern region of Vietnam comprises 25 provinces. The North key economic zone (NKEZ) is made up of seven cities/provinces; Hanoi, Hai Phong, Bac Ninh, Hai Duong, Hung Yen, Vinh Phuc, Quang Ninh.

The majority of operating IPs are developed by local groups. There are a select number of foreign developers in the region, such as VSIP (Singapore/Vietnam), Thuan Thanh 2 (Taiwan), Nomura (Japan).

The North region, led by Hanoi, Hai Phong and Quang Ninh, has developed significantly over the past 5-10 years.



Being considered as ‘the Number One option’ for manufacturers looking to exit China, Northern Vietnam has been highlighted by many companies looking for a new destination with lower labour costs compared to China, whilst maintaining close proximity to their Chinese operations.

As a late starter in comparison to the South, the North region, led by Hanoi, Hai Phong and Quang Ninh, has been able to attract more advanced hi-tech industries. The region developed significantly in the past 5-10 years and is becoming increasingly sophisticated.

Opportunities

- The economic triangle of Hanoi – Hai Phong – Quang Ninh is one of the KEZs of the country. Hai Phong is the transportation hub of the northern coast. Sea transportation is established with the advantage of operating a deep sea port in the area.
- The close proximity to China and the growth of the Provincial Competitiveness Index (PCI) in the area are likely to help to attract more large manufacturing enterprises to set up new factories/warehouse/logistics space in the region.
- Developed transport infrastructure network with full transportation by sea, railway, road and air, easy to connect with other cities/provinces in Vietnam and other countries all over the world.
- The investment in heavy industry has helped to concentrate talent and infrastructure to support the heavy manufacturing in the area.
- Cheap labour costs and a relatively high proportion of young workers. The presence of national education institutions in Hanoi also help to attract skilled labour to the North.
- Large land banks are available in key provinces for future expansion phases.

Threats

- Heavy focus on 1-2 key sectors and selected major occupiers, e.g. Samsung, which may lead to the threat of a skilled labour shortage in these sectors.



Central Vietnam

The Central Key Economic Zone (CKEZ) comprises five provinces: Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai and Binh Dinh. The majority of development activity is concentrated in Da Nang and Quang Nam.

The Central region is still in its infancy when compared to its more established neighbours to the North and South and as such opportunities in this region shall present itself in later years as the other two regions mature.

The majority of operating IPs in the Central region are developed by local groups with some IPs in Hue and Quang Ngai developed by IP authorities of the provinces. Key industries in the region mainly focus on light industry projects, such as food processing industry.



Average Net Rent (sqm/lease term)
USD 33.4

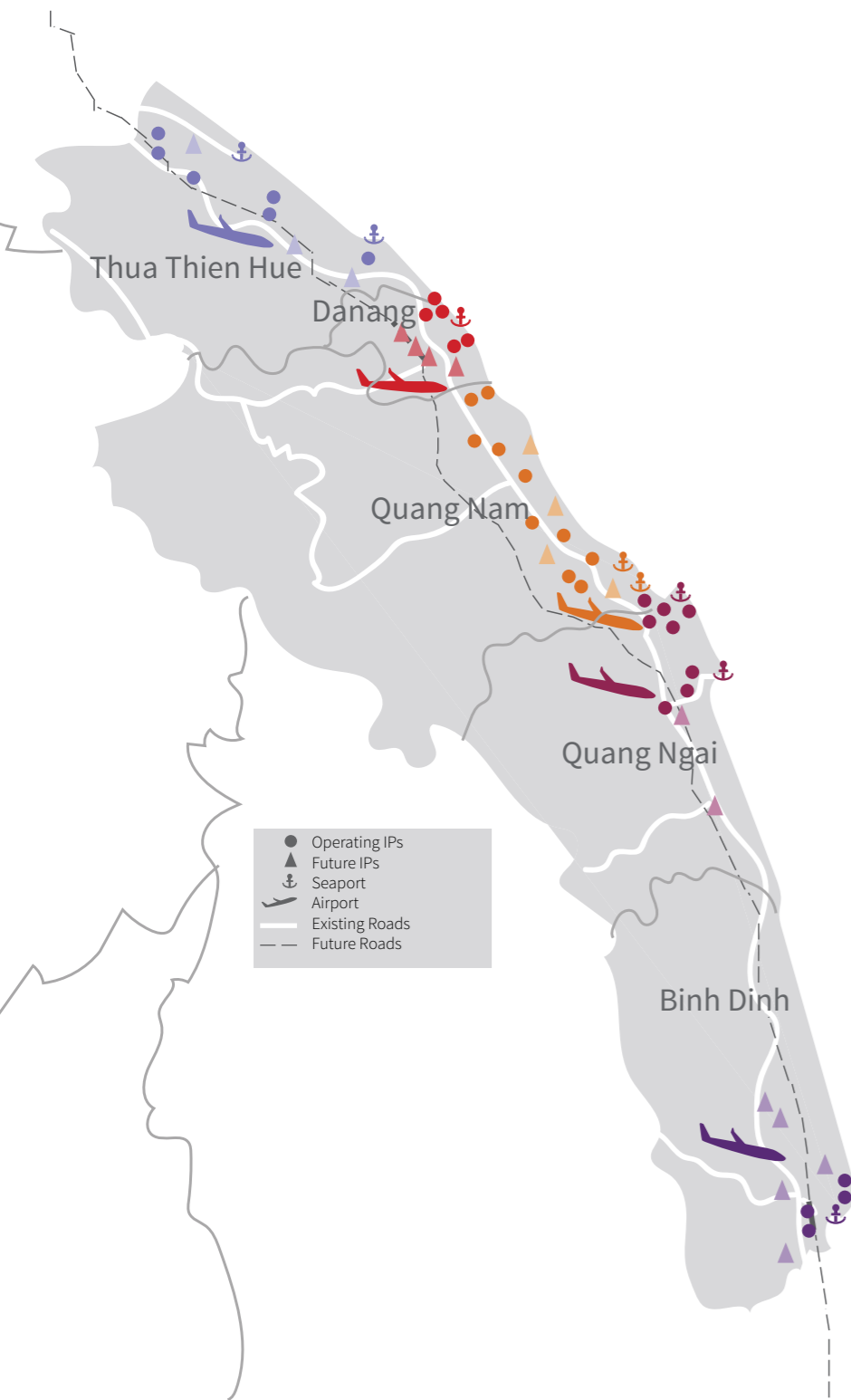
Range of Average Rent of Cities/provinces in CKEZ (sqm/lease term)
USD 22.5 – USD 55.5

Occupancy Rate
~52%

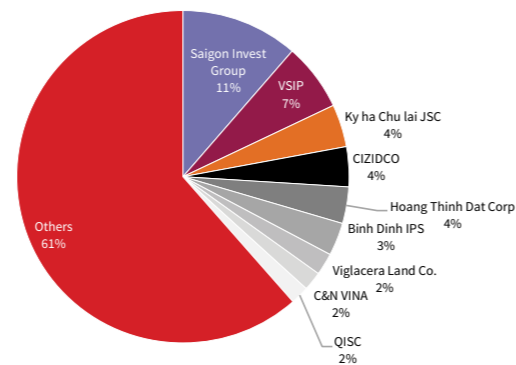


Average Net Rent (sqm/month)
USD 2.9

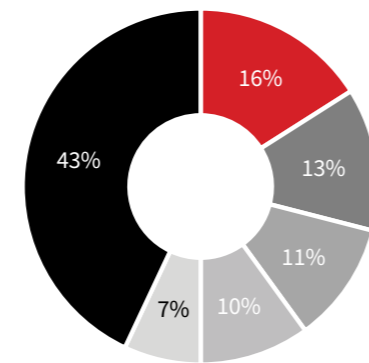
Range of Average Rent of Cities/provinces in CKEZ (sqm/month)
USD 2.5 – USD 3.0



Key Developers



Key Occupiers by Sector



- Food Processing
- Fabricated Metal Products (except Machinery and equipment)
- Others non-metallic mineral products
- Paper and Forest-products
- Rubber and Plastic Products
- Other



Opportunities

- Good quality infrastructure will be improved further.
- Highly acclaimed efforts in improving the ease of doing business, economic governance and administrative reform.
- Relatively cheaper labour costs than other regions across the country and a relatively high proportion of young workers.
- Large land banks are available for future expansion phases.

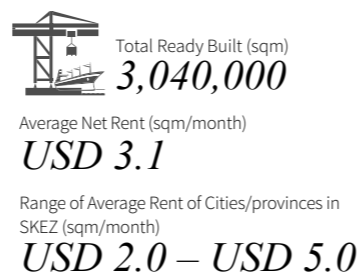
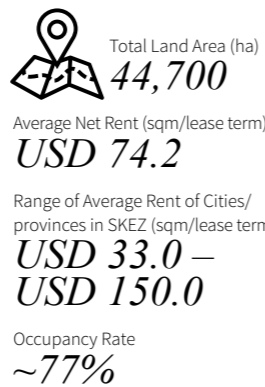
Threats

- Challenging to find skilled labour in the Central region as opposed to South or North regions.

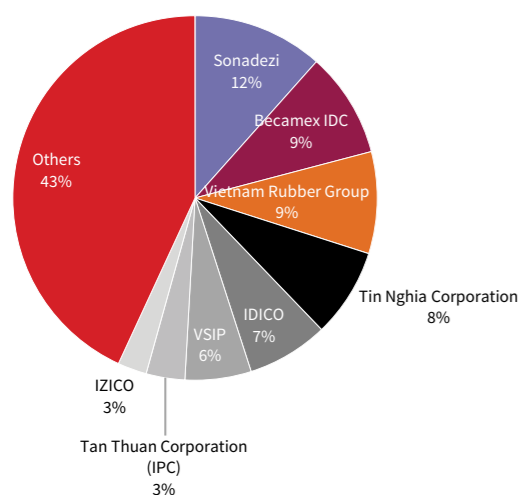
Southern Vietnam

The South comprises of 17 cities/provinces. The South key economic zone (SKEZ) is formed by eight cities/provinces: HCMC, Binh Duong, Dong Nai, Long An, Ba Ria-Vung Tau, Binh Phuoc, Tay Ninh and Tien Giang.

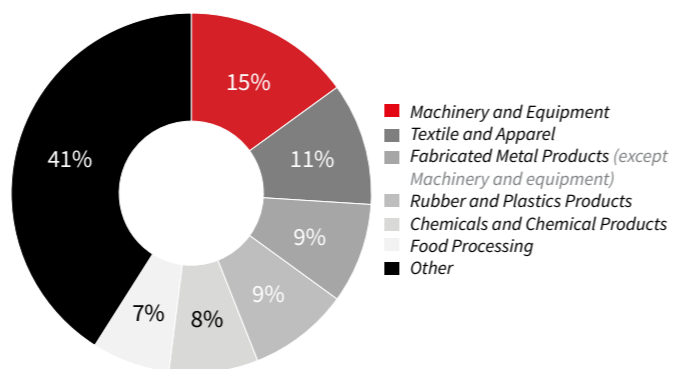
The majority of operating IPs are developed by local groups. Some foreign developers in the region are VSIP (a joint venture of Singapore and Vietnam) and Amata (Thailand). The Southern region, centred around HCMC, Binh Duong and Dong Nai Province, is considered the most active economic zone across the country. As the first hub of industrial development, the South has enjoyed a head start and as such is ahead in its growth, development and attractiveness.



Key Developers



Key Occupiers by Sector



Leading the industrial development of the whole country, the Southern region has been home to a notable number of traditional sectors such as rubber and plastics or textile and apparel industries. These industries reflect the backbone of Vietnam's core Industrial market. While government policies exist to foster and drive core industries, much of the investment within such industries are off the back of existing occupiers and supporting services, in contrast to the North, which is attracting 'new' FDI and new segments of investment.

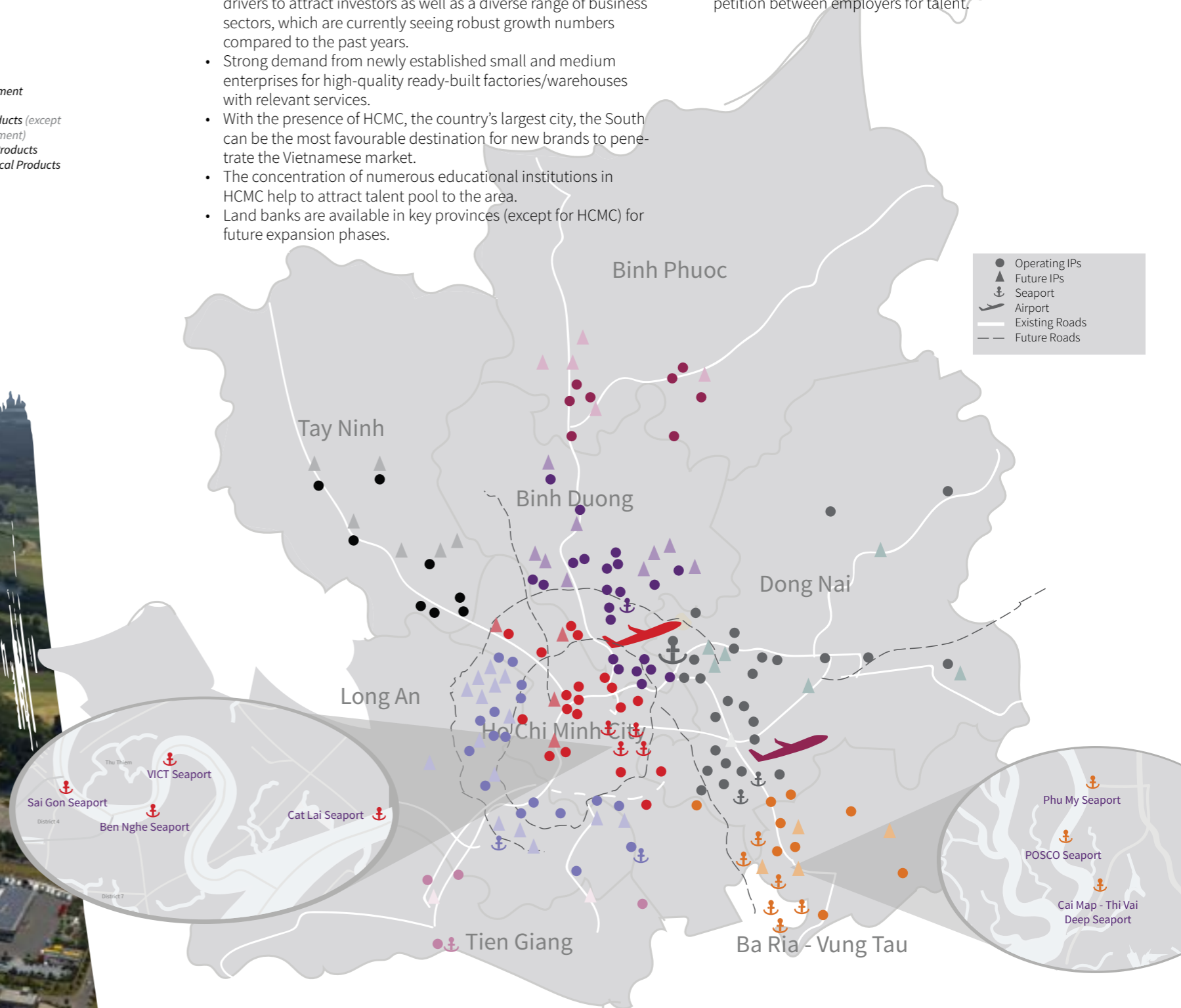
As the Southern region's economy is more diversified, companies from less popular sectors may find this region a more favourable environment to invest.

Opportunities

- The industrial hub of Vietnam and most established economic area of the country attracts the highest level of FDI given the favourable investment climate.
- Developed transport infrastructure network with full transportation by sea, railway, road and air make it easy to connect with other cities/provinces in Vietnam and other countries all over the world.
- Numerous modern facilities and well-trained labour are key drivers to attract investors as well as a diverse range of business sectors, which are currently seeing robust growth numbers compared to the past years.
- Strong demand from newly established small and medium enterprises for high-quality ready-built factories/warehouses with relevant services.
- With the presence of HCMC, the country's largest city, the South can be the most favourable destination for new brands to penetrate the Vietnamese market.
- The concentration of numerous educational institutions in HCMC help to attract talent pool to the area.
- Land banks are available in key provinces (except for HCMC) for future expansion phases.

Threats

- Quality infrastructure development is urgently needed when compared to competing economic regions such as the North.
- The lack of proximity to China makes the South more challenging for time-sensitive investors under the 'China plus one strategy' to transfer components between factories in China and assembly plants in South Vietnam.
- While talent concentration is one of the South's advantages, the vigorous growth of manufacturing can cause a high competition between employers for talent.

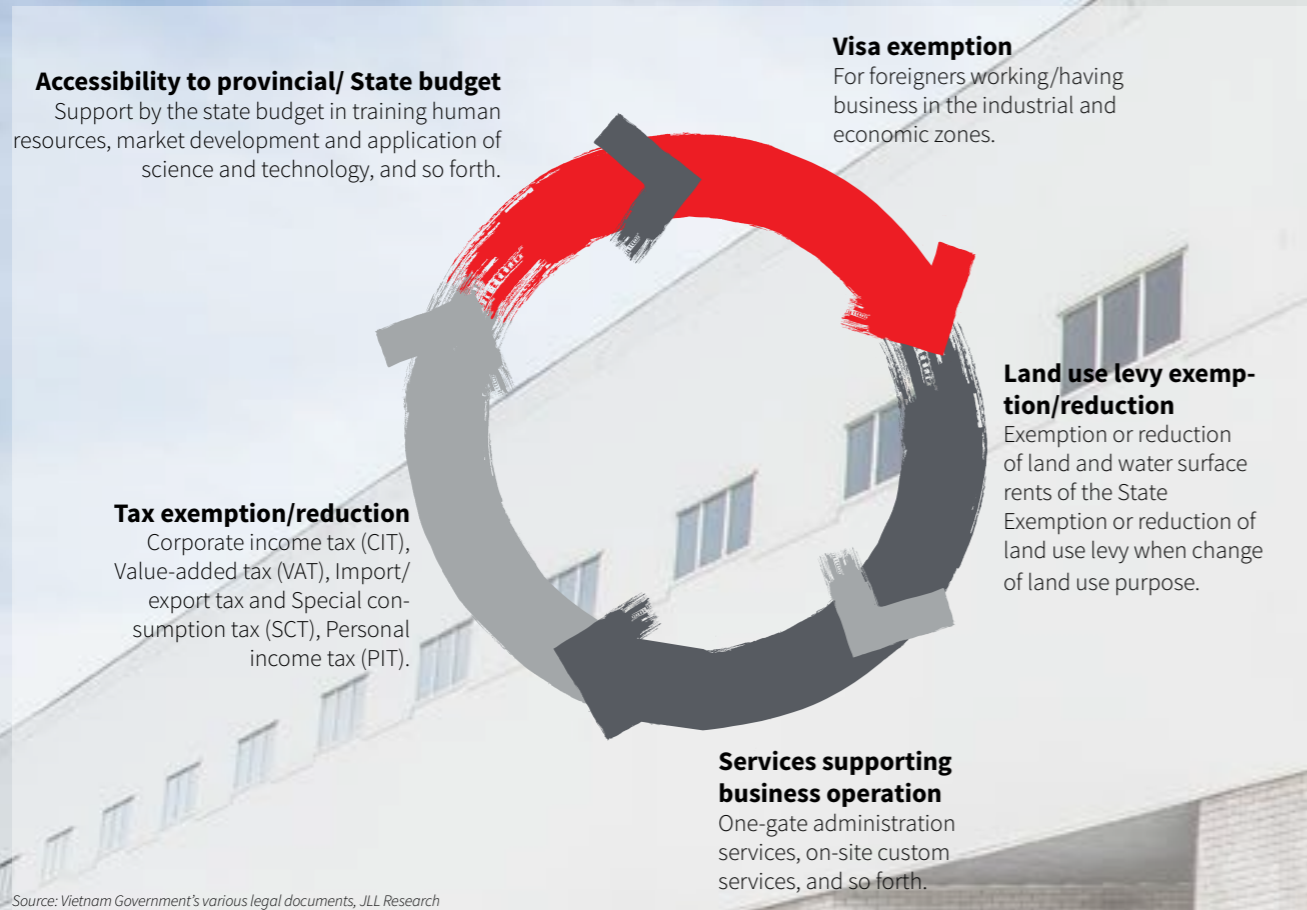


Advantages

The following pages highlight a number of key factors that will have a positive impact on the industrial sector in the future.

1. Incentives within Industrial and Economic Zones

As Vietnam looks to establish itself as an export-driven economy, the government is creating a favourable environment for companies to operate in the country. For businesses establishing operations within economic zones can generally be entitled to all or some forms of government business incentives schemes, as below:



Source: Vietnam Government's various legal documents, JLL Research

As of June 2018, there are seven specific industrial zone and economic zone models available, offering various benefits/incentives and operating under different mechanisms to facilitate the industrialisation and modernisation of the country.

	Definition	Relating legal document	Example of incentives*	Representative projects
Industrial Park ("IP")	A zone that specialises in the production of industrial goods or provision of services for industrial production and has specified geographical boundaries.	Decree No. 82/2018/ND-CP	<ul style="list-style-type: none"> Tax holiday/tax exemption/tax reduction are vary across regions and zones and can be subject to both corporate and personal. Popular tax incentives: <ul style="list-style-type: none"> – 2-4 years holiday – 3-15 years tax reduction – Import duty exemption 	VSIP, Amata
Export Processing Zone ("EPZ")	An industrial zone that specialises in the production of export goods, provision of services for export goods production and export activities and has specified geographical boundaries.	Decree No. 82/2018/ND-CP	<ul style="list-style-type: none"> VAT: 0% for selected goods CIT: 15% tax rate applicable for selected businesses PIT⁽¹⁾ 50% reduction of the payable personal income tax Imported/Export duty exemption for select products 	Tan Thuan, Linh Trung
Hi-tech Park ("HTP")	A multi-functioned economic-technical park with delimited boundaries, aiming to research, develop and apply high technologies; nurse high-tech enterprises, train for the high-tech workforce, produce and trade in high-tech products. Within a high-tech park, there may be export processing zones, bonded warehouses, tax suspension warehouses, and residential quarters.	<ul style="list-style-type: none"> Decree No. 99/2003/ND-CP Circular No. 32/2014/TT-BLDTBXH 	<ul style="list-style-type: none"> CIT: 0% (4 years) – 5% (next 9 years) – 10% (next 2 years) – 20% (remainder) Imported duty exemption for select products VAT: 0% tax applicable for selected products One-gate administration service 	Hoa Lac Hi-tech Park, Saigon Hi-tech Park
Information Technology Centre ("ITC")	A zone concentrating activities of research – development, training, production of and trading in information technology products and services, infrastructure provision, information technology service provision for organisations, enterprises and other activities related to information technology.	<ul style="list-style-type: none"> 2006 Law on information technology 2008 Law on high technologies Decree No. 154/2013/ND-CP 	<ul style="list-style-type: none"> Entitled to select form of land assignment with a collection of land levies, ground rent CIT: 0% (4 years) – 5% (next 9 years) – 10% (next 15 years) Imported/Export duty exemption for select products 	Quang Trung Software
Agricultural Hi-tech Park ("AHTP")	A centralised production area where high technologies are applied to produce at least one advantageous agricultural product which ensures high yield, quality, added values and in an environmentally friendly manner under regulations of laws.	<ul style="list-style-type: none"> 2008 Law on high technologies Decree No. 210/2013/ND-CP 	<ul style="list-style-type: none"> Incentives on land usage such as exemption/ reduction of land use levy, or rent. State support on investment, including support in recruiting and training human resource, ability to access the Central/State Budget. 	Moc Chau AHPT (Son La), Cau Dien AHPT
Economic Zone ("EZ")	A general term for a zone that has a separate economic space with a particularly favourable investment and business environment for investors with specified geographical boundaries. This zone is organised into functional areas, including non-tariff area, bonded area, export processing area, industrial area, entertainment area, tourism area, urban area, residential area, administrative area and other functional areas suitable to characteristics of each economic zone.	Decree No. 82/2018/ND-CP	<ul style="list-style-type: none"> CIT: 10% throughout the project execution duration for hi-tech projects PIT 50% reduction of the payable personal income tax Enjoy incentives applicable to geographical areas with exceptionally difficult socio-economic conditions under the Investment Law, the Land Law, the Enterprise Income Tax Law, the Export Tax and Import Tax Law, the Cooperative Law and other tax laws. 	Dinh Vu-Cat Hai
Border-grade Economic Zone ("BGEZ")	An economic zone that is located in a land border area where exists an international border gate or a major border gate.	Decree No. 82/2018/ND-CP	<ul style="list-style-type: none"> Import duty, VAT and special consumption tax: Domestic and foreign travellers and tourists entering non-tariff areas in border-gate economic zones may purchase imported goods there and bring them into inland Vietnam and are entitled to exemption from these taxes. Visa exemption: for stay no more than 15 days. 	Mong Cai BGEZ, Moc Bai BGEZ
Coastal Economic Zone ("CEZ")	An economic zone that is located in a land border area where exists a coastal line.	<ul style="list-style-type: none"> Decree No. 82/2018/ND-CP Decision No. 126/2009/QD-TTg 	<ul style="list-style-type: none"> CIT: 0% (4 years) – 5% (next 9 years) – 10% (next 15 years) PIT⁽¹⁾ 50% reduction of the payable personal income tax Imported and export duty exemption for select products 	Dung Quat CEZ, Vung Ang CEZ, Chu Lai CEZ

Source: Vietnam Government's various legal documents, JLL Research



2. Movement from China

China may no longer be the top priority as it was prior to 2012, which is providing opportunities for the growth of manufacturing in Southeast Asia countries, most notably Vietnam and Indonesia. The rationale for this shift can be defined by the following:

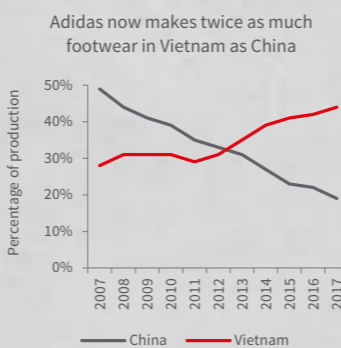
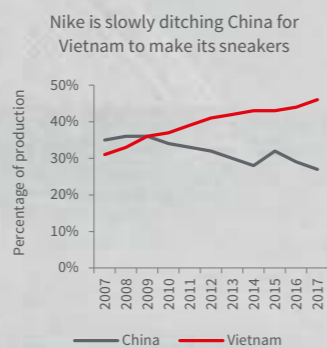
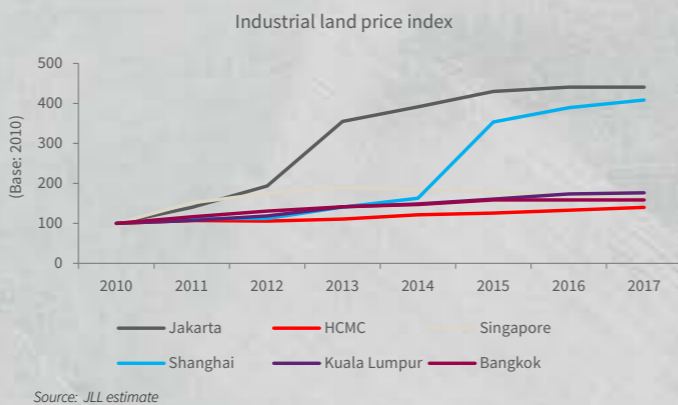
- **Costs are rising in China.** Subsequently, foreign investors seeking locations for cost-saving will see Vietnam as a good alternative. Companies are always looking for ways to reduce overheads, such as labour, occupational costs and reduce tax rates.

In the last two decades, China was recognised as the world's manufacturing market mainly due to its affordable labour costs; this is no longer the case. IMA Asia estimates that manufacturing wages in China rose from USD 2.0 per hour in 2010 to USD 3.9/hour in 2016. In comparison, manufacturing wages in Vietnam are close to USD 1 - USD 1.4 per hour.

- **The growth in industrial land prices:** It is recorded that key cities such as Shanghai in China have risen its land prices of USD 180 per sqm, more than those recorded in other Southeast Asian cities whilst Vietnam was comparatively competitive at USD 100-USD 140 per sqm.

- **Different concentration in industries:** Factories in Vietnam specialise in low-value and labour-intensive goods such as autos, furniture and garments when China moves up the value chain to restructure its economy towards domestic consumption, services and higher value exports, resulting in the relocation demands of foreign investments on the basis of labour, land and other factors.

Vietnam's exports growth has exceeded China's pace since 2011. In the 2010-17 period, exports from Vietnam grew at a CAGR of 18%, while China's exports growth slowed to 9% CAGR.



Source: www.theatlantic.com

3. Free Trade Agreements

Over recent years, Vietnam has entered a journey of international integration and creating an export-driven economy, attracting nearly USD 36 billion in FDI in 2017. As part of this journey, Vietnam entered 16 FTAs. Of these, ten FTAs have been signed; two FTAs have been

signed but not yet effective; one FTA has concluded negotiations and three FTAs are under negotiation. Of these, the most significant FTAs include the European Union (EVFTA) due for completion by 2018 and the CPTPP signed earlier this year and to be effective in 2019.



4. Strategic location

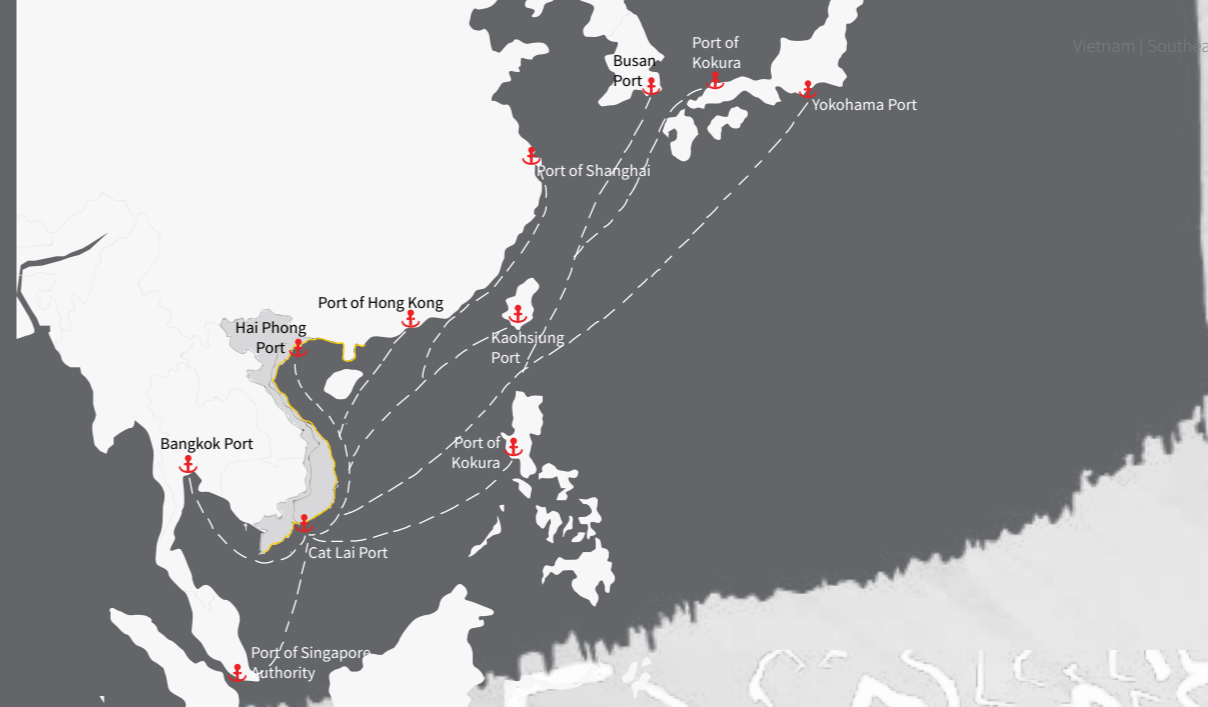
Vietnam is strategically located between China and Singapore with 3,260 km of coastline, providing excellent access to Vietnam's East Sea, one of the major shipping routes in the world. Roughly 40% of cargo transported from the Indian Ocean to the Pacific crosses the East Sea before arriving in China, Japan, South Korea and the United States.

Thanks to its favourable geographical position, Vietnam is the transshipment point for goods imported from Asian countries via Cat Lai port and goods exported to the US and EU via the Cai Mep - Thi Vai port area. With this strategic advantage, Vietnam possesses significant possibilities to develop deep seaports across the country, facilitate import-export goods for industries, which will lead to an increase in logistics development.

According to Decision 70/2013/QĐ-TTg, Vietnam has 44 seaports with a total capacity of 470 million-500 million tonnes per year, of which ten large seaports are considered to contribute significantly to develop and integrate the country's economy with the world.

No.	Seaport	Elemental ports	Maximum Allowed DWT
1	Hai Phong (Hai Phong)	Hoang Dieu, Dinh Vu, Vat Cach, Tan Vu, Lach Huyen	10,000 – 20,000
2	Vung Tau (Vung Tau)	Cai Mep, Phu My, Song Dinh,	30,000 – 50,000
3	Van Phong (Khanh Hoa)	My Giang, Doc Let	350,000*
4	Quy Nhon (Binh Dinh)	Thi Nai	50,000
5	Quang Ninh (Quang Ninh)	Cai Lan	70,000
6	Sai Gon (HCMC)	Tan Cang Cat Lai, Cai Mep, Hiep Phuoc	20,000 – 30,000
7	Cua Lo (Nghe An)	No.1, No.2, No.3, No.4	30,000 – 50,000
8	Dung Quat (Quang Ngai)	Dung Quat, Sa Ky	20,000 – 70,000
9	Chan May (Thua Thien Hue)	No.1, No.2, No.3	30,000
10	Da Nang (Da Nang)	Tien Sa – Son Tra, Lien Chieu, Tho Quang	30,000 – 50,000

*For oil-transport ships



5. Favourable Investment Thesis

Regarding yield on cost and cash-on-cash yields, the yield on cost of developing industrial facilities in Vietnam can reach 11-12%, the highest range across the region (see 'A Revival of Southeast Asian manufacturing hubs', April 2017 by Regina Lim).

While these figures are not much higher than the cost of debt, rental growth is likely to be strong given average annual inflation of 3.5-4.5%. As most developers take on loans equivalent to 50-70% of development cost, effective cash on cash yield can be attractive at 11-15%.

Indicative average funding costs and returns for development cost of industrial assets

Market	Typical cost of debt (%)	Typical LVR	Yield on cost (%)	Yield spread over debt cost (bps)	Cash-on-cash yield (%)	Inflation
Indonesia	10-12%	50-70%	10-12%	0-200 bps	10-15%	3.5%
Vietnam	10-11%	up to 70%	11-12%	100-200 bps	11-14%	4.7%
Singapore	3-3.5%	50-70%	7-8%	350-500 bps	12-15%	0.8%
Philippines	8-12%	60%	10-12%	0-400 bps	10-15%	4.0%
Malaysia	6.5-7.5%	50-70%	9-11%	150-350bps	11-16%	2.2%
Thailand	5-6%	40-50%	7-8%	200-300bps	8-11%	0.7%

Market yields for all markets. Debt costs are based on investment grade borrowers fixed pricing on typical market maturities.

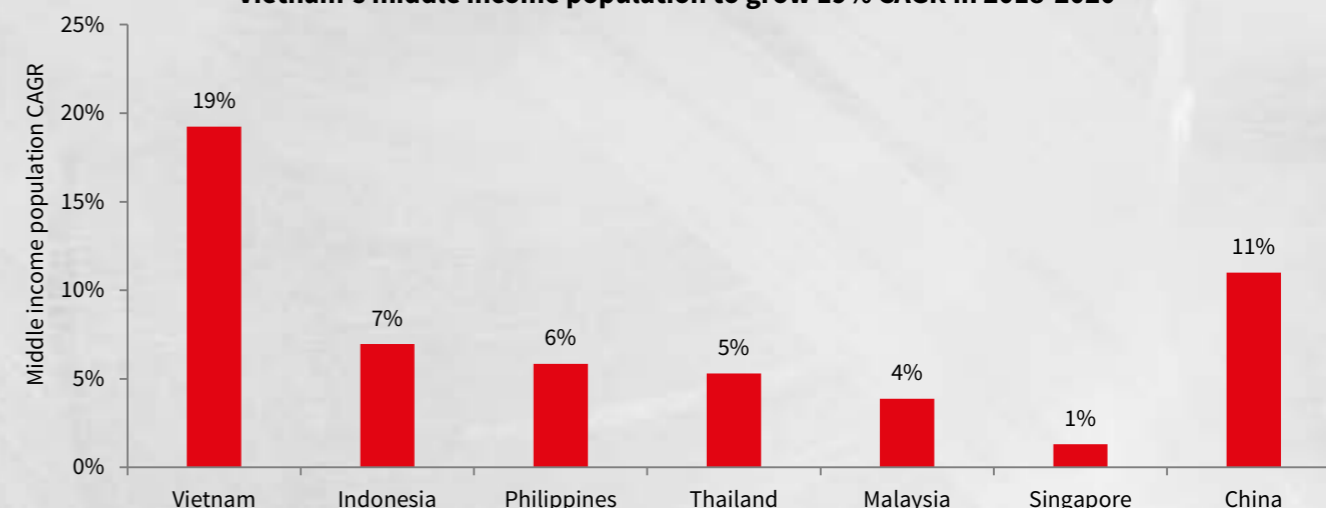
Source: JLL, 2Q18

6. The Expansion of the Middle and Affluent Income Class (MAC)

According to Oxford Economics, Vietnam has nearly 21.6 million households with an income range of USD 7,500 - USD 70,000 per household in 2017. Households that fall in this income range account for the middle-income population, which has grown at 4.5% per annum from 2012 to 2017. The affluent income households, which have annual incomes of more than USD 70,000, has increased at an annual rate of 16.9% over the same period, from 0.2 million

households in 2012 to 0.5 million households in 2017. As at 2017, the middle and affluent income class accounted for 22.1 million households, or 81.7% of the total Vietnam households. From 2018 to 2020, the total number of households in the middle and affluent class is expected to grow to 85.7% of total households in Vietnam by 2020.

Vietnam's middle income population to grow 19% CAGR in 2018-2020

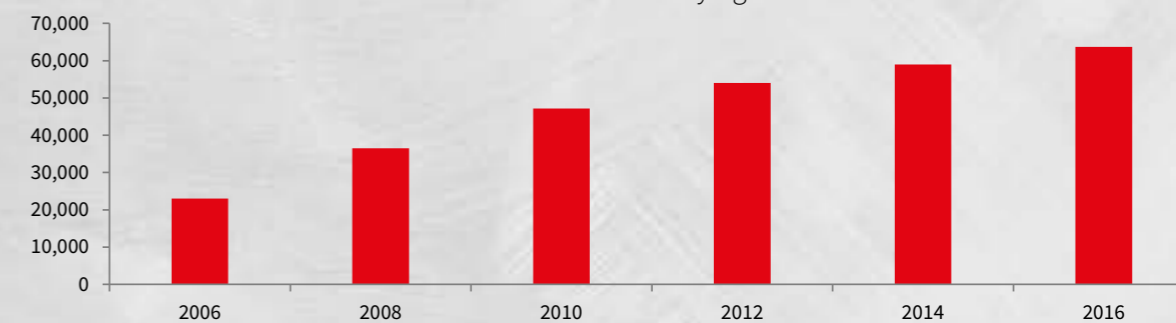


Source: Brookings Institute

The rising affluence of the Vietnamese population can be witnessed from the increase in the number of Vietnamese students going abroad to pursue international education. According to the UNESCO Institute of Statistics, more than 63,700 Vietnamese students were studying abroad at the end of 2016, up 35% compared to 2010. The number of students being sent overseas for international education grew at a CAGR of 12% during the 2006-16 period, highlighting the growth of the middle and affluent class in Vietnam.

This large and expanding MAC with significantly rising purchasing power is expected to result in an increase in the demand for goods purchase, which is an important factor related directly to e-commerce as the wealthier the household is, the more purchase demands they have.

Number of students studying abroad



Source: UNESCO Institute of Statistics



7. The Robust Growth of E-commerce

Smartphone Penetration

The number of people using smartphones amongst mobile phone users witnessed a strong growth of 84% in 2017 whilst it was 78% in the previous year. In secondary cities, 71% of local people use smartphones against 93% using mobile phones. In addition, it was recorded that 89% of the population in rural areas own a mobile phone, of which 68% of them have a smartphone, according to Nielsen Vietnam Smartphone Insights Report 2017.

With such considerable growth in smartphone penetration in major cities, the e-commerce market will be facilitated significantly as the shopping trend via smartphones keeps increasing every year, resulting in the resonant expansion of this market and the requirements of logistics services.

Mobile Internet

According to OpenSignal Report 2018, the coverage of 4G networks in Vietnam is 71.26% area. Compared to countries in Southeast Asia, Vietnam's 4G coverage is behind Thailand, Singapore, Malaysia, Brunei and Indonesia. The average speed of the 4G network in Vietnam is 21.49 Mbps, higher than other Southeast Asian countries and only behind Singapore, the world's fastest 4G network with a speed of 44.31 Mbps. Alongside the steady growth of smartphones, it is proved that the possibilities for Vietnamese to access the internet are increasing by the expansion of the 4G network, facilitating the demand for purchase goods by a faster and more convenient way via their phones.

Shopping Behaviours

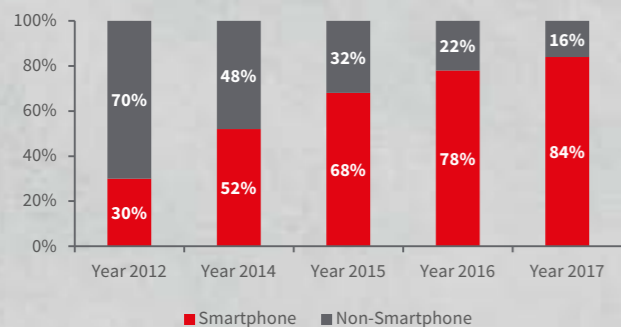
Vietnam is witnessing a surge in online shopping sales. This increase in activity will put severe pressure on the logistics, supply chain, distribution and retail channels, factories/warehouses. We expect a considerable increase in investment activity in this area in order to satisfy consumer demand.

According to KPMG's International survey: "The truth about online consumers", 18% of consumers in Vietnam purchase goods from an online-only retailer such as Amazon, Lazada and Tiki whereas 10% purchased from the website of a retail shop, and only 3% direct purchase was made via a manufacturer or brand's website. The top reason for this online shopping trend is the convenience of shopping due to the possibilities to compare prices, or to find online sales or better deals. As a result, big names in the e-commerce market will need to concentrate on improving their logistics services to provide a better shopping experience for customers.

Southeast Asia is now the world's third-largest region for internet users, according to Google and Temasek. Vietnam is considered to be one of the fastest growing e-commerce markets in the region with the growth rate estimated at over 25% and will become the hotspot for international investment, stated by Vietnam E-commerce Association (VECOM).

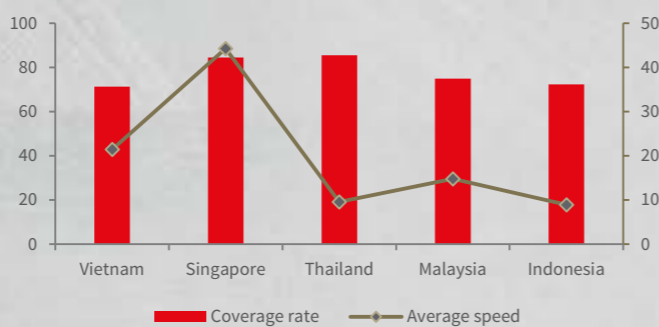
The e-commerce market has witnessed some significant events such as Jack Ma- Alibaba's founder successful collaboration between Alipay and National Payment Corporation of Vietnam (NAPAS) whilst local e-commerce portal Tiki received USD 44 million funding from JD.com - Alibaba's competitor. Tiki also implemented another Series C investment, making it a significant leader in the country's e-commerce market. In 2016, Central Group bought Zalora Vietnam and officially changed its name to Robins Vietnam.

% of People Using Smartphone Amongst Mobile Phone Users in Key Cities

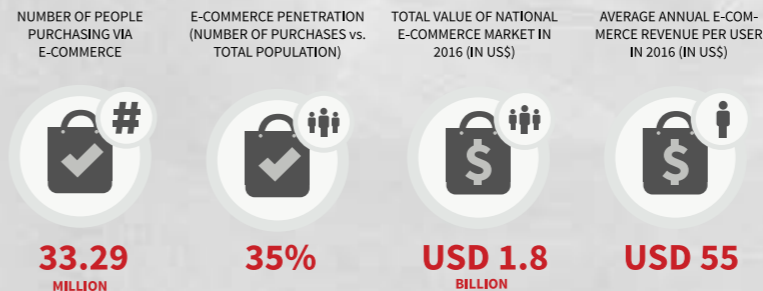


Nielsen Vietnam Smartphone Insight Report, 4Q17

The State of LTE



Source: OpenSignal, JLL Research



Source: Statista Digital Market Outlook, E-commerce Industry, extracted from "Digital in 2017: Southeast Asia" Report, Jan 2017 by Wearesocial and Hootsuite



Notes by author: Insights derived from eShopWorld data, Statista, WorldBank, OECD and other industry sources. Source: www.eshopworld.com

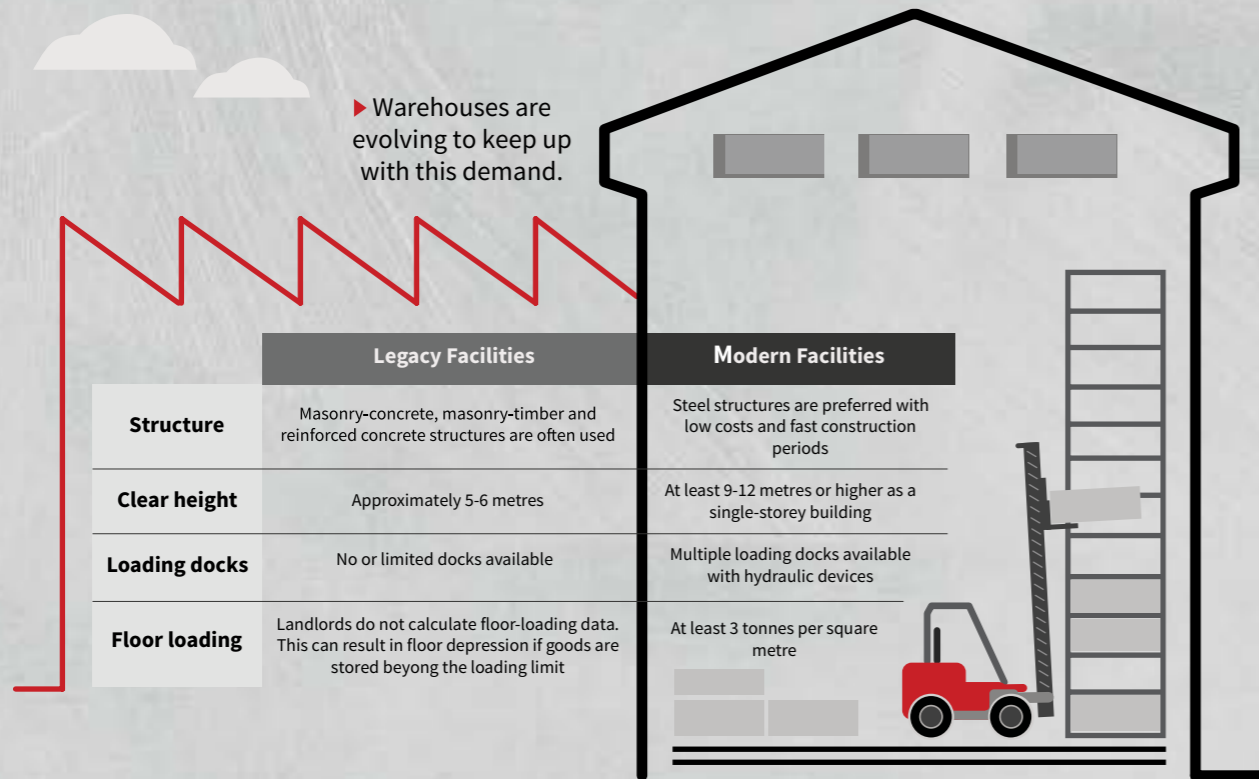
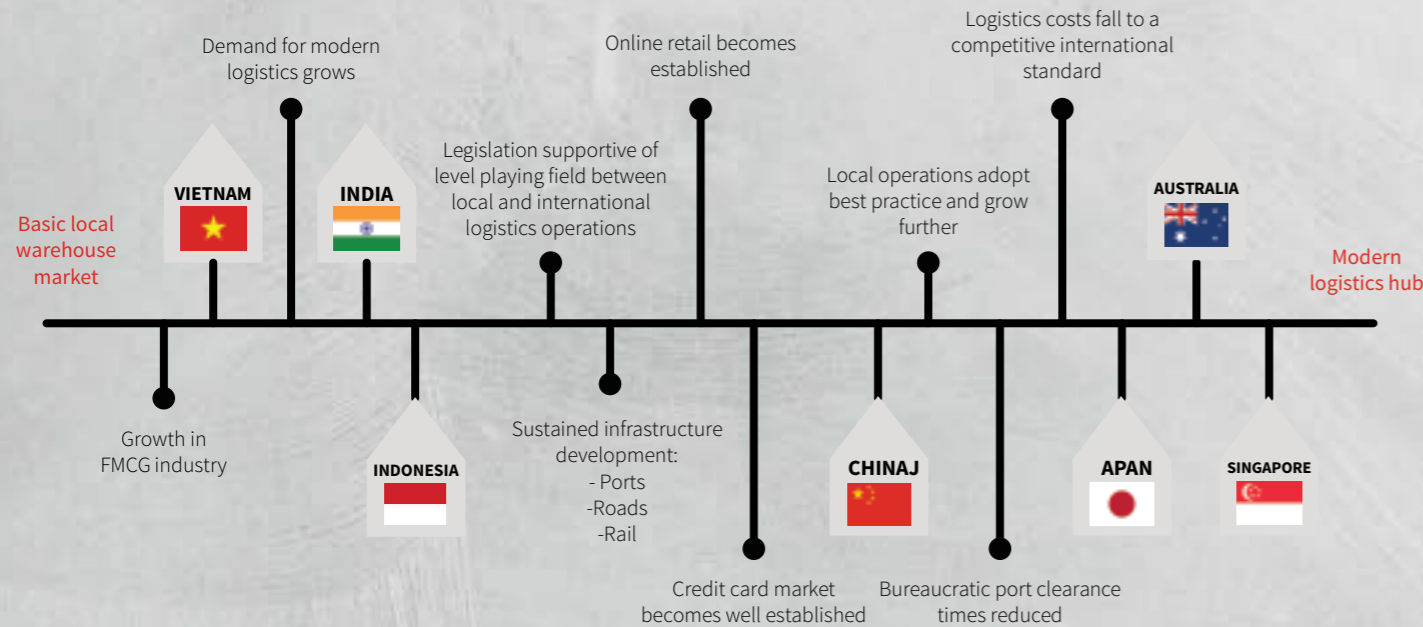
Evolving Logistics Market

Logistics is a crucial component of the Vietnamese e-commerce market to succeed and reach its full potential. In 2016, Vietnam ranked 64th in the World Bank Logistics ranking. Many foreign logistics providers and e-commerce operators are making efforts not to miss an opportunity to offer e-logistics and meet the rapidly growing demand. The launch of BW Industrial Development JSC in Vietnam, the joint venture between the leading global private equity firm Warburg Pincus and the sizeable state-owned developer Becamex IDC Corp, in May 2018 demonstrates the huge potential of this market.

Compared to regional peers, Vietnam's logistics market is still in its infancy, strongly feature by low-specification premises located in

remote locations. For e-commerce firms, it is critical to come up with new business models to handle a soaring number of frequent and small-size orders. Significant investment is needed to implement processes in technology, infrastructure and factories/warehouses to deal with the obstacles from traffic congestion to failed deliveries, as well as the higher logistical costs in rural areas.

Driven mainly by potential growth in the e-commerce and manufacturing sectors, Vietnam logistics market will move to the next level, evolving in the same way we have witnessed in other markets (see "Indonesia Logistics – Fast Track or Derail?", June 2016 by James Taylor).

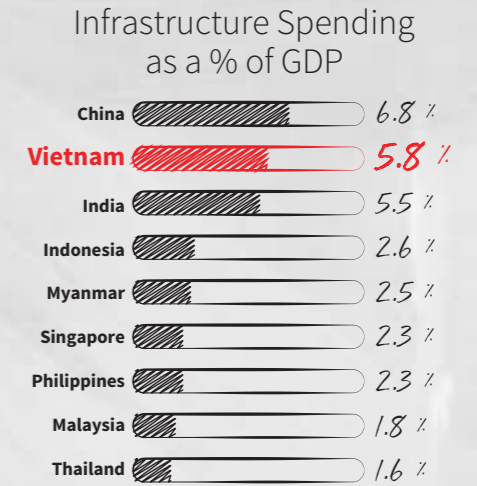


Source: JLL, flowchart extracted from "Indonesia Logistics – Fast Track or Derail?" report, June 2016 by James Taylor.

Challenges

Insufficient supporting infrastructure

While overall spending on infrastructure is relatively high when compared to neighbouring countries, there is still a long way to go. Recognising this demand, the 2020 Transport Master Plan is targeting to construct 2,000 km of highways. However, many projects face delays due to land compensation, funding and limited success in Public-Private Partnership (PPP). In order for Vietnam to enter the next phase of the industrial/logistics cycle and become more competitive and move ahead of regional counterparts, it is vitally important to continue spending significant expenditure in the infrastructure network, including both highways and utility networks, including renewable energy.



Source: Asia Development Bank

Improving but still inefficient process of trading across border

Significant improvements regarding the time and cost to trade cross-border are necessary for Vietnam. According to Doing Business 2018 report by World Bank Group, it currently takes 105 hours and 132 hours to export the product of comparative advantage and import auto parts, respectively, significantly longer than only 62 hours for export and 54 hours for import in Singapore, a more advanced country.



Source: JLL Research

The cross-border trading cost, consisting of documentary compliance [1] and border compliance costs [2], in Vietnam is less competitive than most of its regional peers. Of the total, cost of documentary compliance contributes more than 30% compared with just 10-15% in the developed nations such as Singapore. The remarkable variance in the cost structure suggests more improvement is required in the documentary compliance area.

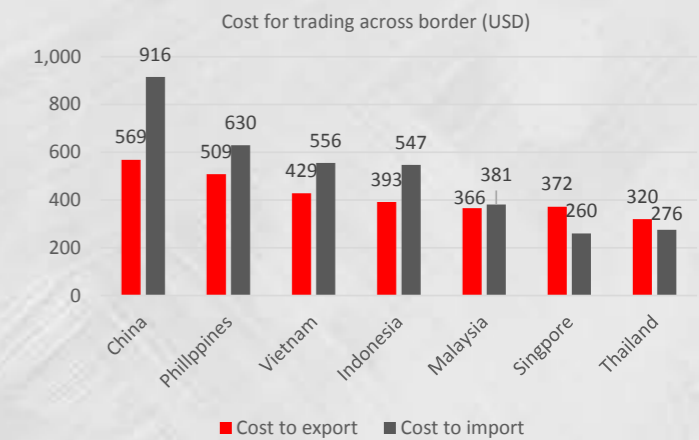
Ease of doing business

According to the WEF Global Competitive Index 2017-18, Vietnam achieved a relatively modest increase in its overall score moving up five places to (55th), narrowly surpassing Philippines (56th).

Although the withdrawal of the United States from the Trans-Pacific Partnership (TPP) earlier in 2017 eliminated significant trade opportunities, the country's growth is nonetheless projected to remain robust from strong exports.

Significant improvements are necessary across all pillars, notably among the basic requirement factors (75th) and higher education (84th), as firms perceive that the lack of an educated workforce constitutes a significant hurdle for doing business.

Vietnam could also boost its competitiveness by closing gaps in innovation and sophistication factors with countries at a similar stage of development, such as the Philippines.



Source: JLL Research

Current Status and Industry 4.0

The industrial market with a wide range of industrial parks in Vietnam has developed in recent years to be well-organised with favourable locations near major transportations routes or cities. However, in comparison with other countries within the region, Vietnam's industrial market is immature. The products produced are mostly basic with

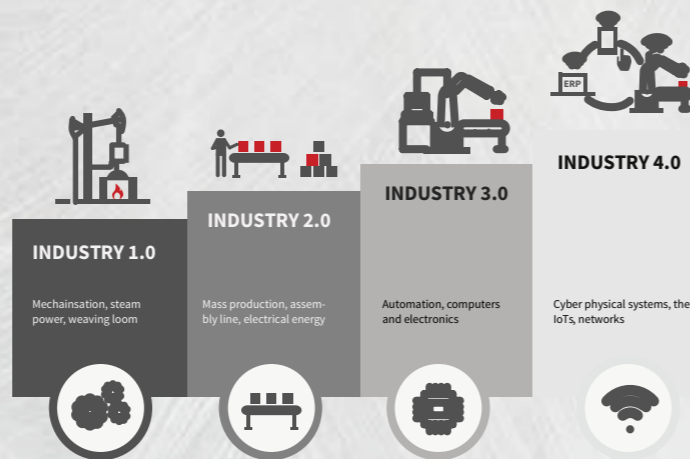
some intermediate (see chart below), using labour-intensive with low specification buildings. Vietnam still has massive potential to develop the industrial market, pushing it to the next evolution level to compete with other countries.

	NASCENT	GROWTH	MATURITY
Product and value added	Mostly basic with some intermediate Basic ▪ Woodwork ▪ Textiles ▪ Paper and printing	Mostly intermediate with some basic Intermediate ▪ Heavy machinery ▪ Refining ▪ Automobiles	Mostly high tech with some intermediate High tech ▪ Biotech ▪ Pharmaceuticals ▪ Petrochemical
Resourcing	▪ Labour intensive	▪ More capital intensive and less labour intensive ▪ More automation	▪ Low labour content ▪ High capital ▪ High automation and robotics
Typology	▪ Low density ▪ Close to port/airport ▪ Low specialisation of buildings	▪ Medium density with some low density ▪ Some clustering ▪ Some built to suit	▪ High density with some medium density ▪ Clustering of industry sectors; separation of polluted and non-polluted industries ▪ Build to suit ▪ Redevelopment of older factories close to residential into other higher value uses as city urbanisation,
Ownership	▪ Owner occupied ▪ Government owned land with annual rental	▪ Some third party owned ▪ Government sells industrial land for development	▪ Government sells industrial land for development - professional industrial or logistics developers ▪ REITs
Land tenure	▪ Mostly freehold ▪ Leasehold with long tenure (longer than 50 years)	▪ Freehold and leasehold with shorter tenure (under 50 years)	▪ Mostly lease hold with short tenure

Source: JLL Research

- There will soon be higher specification warehouse/factory products introduced to the market as a result of increasing demand for higher quality products. Green, more labour-efficient and technology-intensive industries are the next occupier generation that the country is expected to welcome.
- Logistics will become one of the most dynamic sectors over the next period as a result of the growth of the middle class, and the rise of e-commerce. The logistics market also has proved attractive to a range of international investors.
- Industrial land supply will, over time, become more limited and this could lead to tightening policies to manage the use of industrial land.
- Industry 4.0 should also be taken into account when considering the market movement in the future. The introduction of 4.0 Industries with improvement in communication technology and automation will change the industrial landscape. As this will benefit the modulation of the traditional production process, smaller plant size but networked parts will be expected.

- The traditional single large factory with a defined physical boundary will be replaced by multiple smaller factories in different regions, linked together through the Internet of Things (IoT). The current technological readiness stagnation in South Asia may impede this market innovation, the robust IoT penetration into all aspects of the manufacturing value chain will likely make Vietnam's advantageous location for logistics development less significant when compared to its regional peers.



Source: Christoph Roser at AllAboutLean.com

Case Study

Snapshot

BW Industrial Development JSC has established itself as the largest for-rent industrial and logistics developer in Vietnam, a joint venture between:

- Warburg Pincus, leading global private equity firm focused on growth investing
- Becamex IDC Corp, the largest industrial real estate developer in Vietnam

To be the #1 leading platform in Vietnam for-rent industrial and logistics real estate sector and the choice for leading MNCs, 3PLs and e-commerce companies

WHEN Established in January 2018.

WHY With a sizeable population of nearly 100 million people and an increasingly diversified economy, manufacturing and domestic consumption have become the central areas of growth for Vietnam. BW Industrial wants to tap into these growth opportunities with the goal of taking Vietnam's industrial and logistics value chain to the next level.

WHAT With over 2 million square meters in eight different sites across five key industrial zones under development and initial investment of over USD200 million, BW Industrial will focus on developing the below for-rent industrial products:

- Ready-built factory
- Logistics warehouse
- Built-to-suit facilities

HOW With a best-in-class management team, sizeable land holdings and a strong pipeline of future projects, BW Industrial is seeking to satisfy the rising demand for modern logistics warehouses, build-to-suit and readybuilt factories in addition to other industrial related products across all key industrial zones, a catalyst in driving Vietnam's economic growth.





*Achieve
Ambitions*

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