



Colorbond® Steel



YCP Solidiance

# Overview of Electric & Electronics Industry in Vietnam

Provided by **YCP Solidiance** - a corporate strategy consulting firm with focus on Asia.

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# Executive Summary



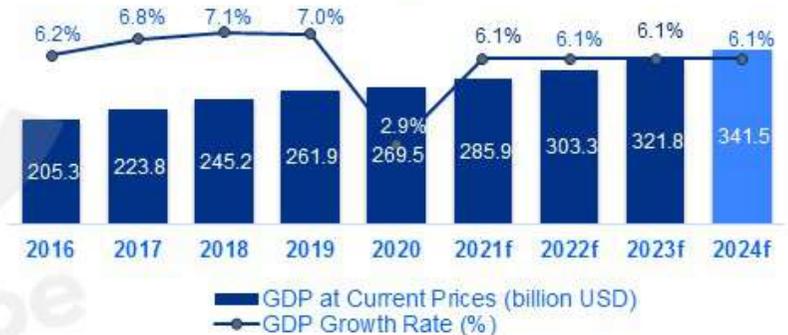
# EXECUTIVE SUMMARY

**Despite global economic difficulties during the pandemic, Vietnam has demonstrated resilience and stability as one of the few economies to grow in 2020**

## Overview

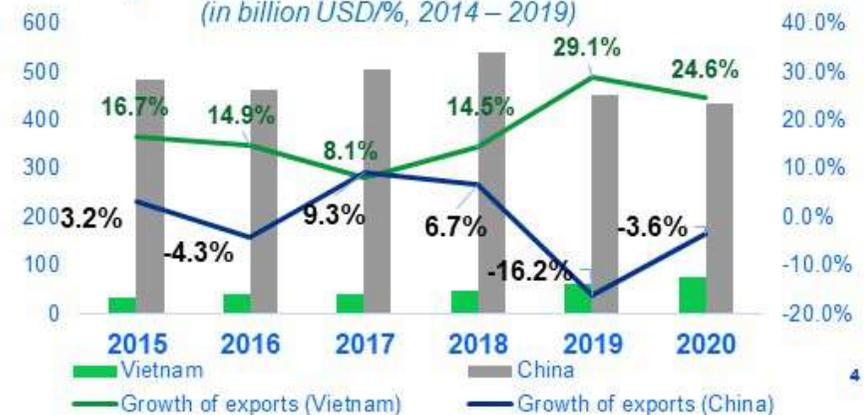
- **Vietnam** was one of the few global economies to experience **positive growth in 2020**
- Despite a drop in GDP growth from 7.0% to 2.9% in 2020 linked to the global recession due to the outbreak of CoViD-19, **GDP growth in Vietnam is forecasted at 6.1% in 2021**
- Widely praised for its response, transparency, and control measures for the pandemic, the **impact of the global recession on the Vietnamese economy has been minimal**
- Tensions in trade between the U.S. and China are attributed to the movement of manufacturing to Vietnam, but in reality, **manufacturing and business is shifting to Vietnam** due to:
  - Relative **political and social stability** compared to other countries in East and Southeast Asia
  - Rising costs of labor and operations in China **and relatively lower costs in Vietnam** compared to other developing manufacturing economies
- Foreign investment into Vietnam has classically focused on textiles / garments, components and parts assembly, and generally low value-added manufacturing:
  - Supply chains are increasingly localizing with a trend toward manufacturing more **high value-added products**

**Vietnam GDP at Current Prices and GDP Growth in billion USD / %, 2016-2024f**



**Exports from Vietnam and China to U.S.**

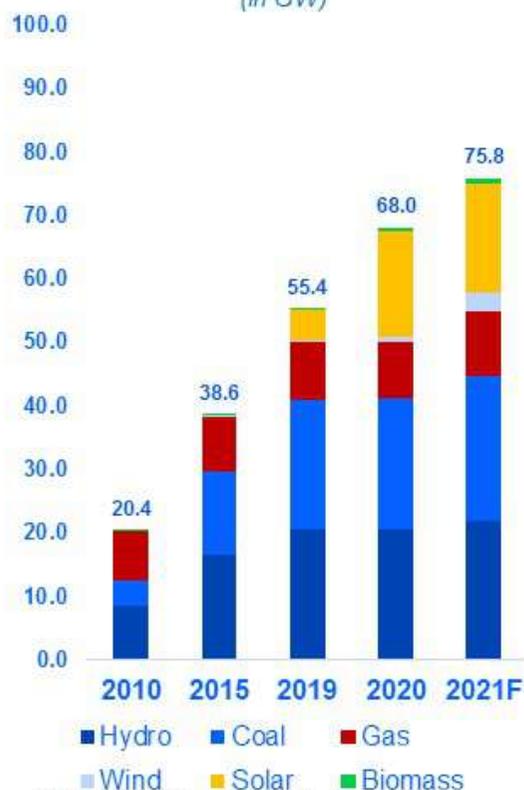
(in billion USD/% , 2014 – 2019)



# EXECUTIVE SUMMARY

**Due to successful government policy over the last several years, Vietnam has dramatically changed its energy mix and electricity system**

**Total Installed Generating Capacity in Vietnam**  
(in GW)



Source: YCP Solidiance Research & Analysis

## Overview

- **Power Development Plan 8 (PDP8)** and the **National Energy Master Plan for 2021-2030** are the two major driving strategy documents to push for electricity generation development for the short and medium term
- Significant additions were made to **renewable energy** in 2019 and 2020 due to **incentive policies** that made projects incredibly attractive
  - Decision 13/2020 finalized a Feed-in Tariff (FiT) for rooftop solar and utility-scale solar installations which drove the increase of approximately 9GW of solar in 2020
  - Discussions have been ongoing regarding the passage of policy regarding Direct Power Purchase Agreements (DPPA) which would reduce regulatory barriers for private electricity generation to connect to the grid
  - Early drafts of new policy for 2021 suggest that **FiTs for solar will be extended** at a new (lower) rate; wind FiTs, particularly offshore, will be extended as anticipated
- In the absence of stable renewable electricity generation technology, **LNG is viewed in PDP8 and other strategy as a replacement baseload energy for coal**
  - **Energy Storage has been widely discussed as one potential area of focus**

## Forecasted Load Demand and Generating Capacity in Vietnam

	2020	2025	2030	2035	2040	2045
Load Demand (GW)	38.7	59.4	86.5	114.0	135.6	153.3
Total Installed Capacity (GW)	69.3	102.2	137.7	190.4	233.8	276.6

# EXECUTIVE SUMMARY

**Electronics Manufacturing has grown dramatically in recent years, developed heavily by major global electronics brands around Ho Chi Minh City and Hanoi**

## Electronics Manufacturing Hubs in Vietnam (2021)



## Highlights

Shifting supply chains into Vietnam

Increase in foreign investments into major industrial zones and manufacturing

## Details

- In 2019, Vietnam has ranked 12<sup>th</sup> in the world and third in ASEAN in electronics export
- Vietnam is been further integrated into the global electronics supply chain recently due to increases in tariffs levied on Chinese products and increasing labor costs in China

- Major South Korean, Japanese, Chinese, Taiwanese, and American electronics manufacturers have all increased their presence in Vietnam in the last five years
- Bac Ninh in the North and Saigon High Tech Park in Ho Chi Minh City are classically considered major electronics manufacturing hubs with multiple large investors, such as Samsung, Intel, Foxconn and Canon
- Hai Phong has recently become increasingly a center for electronics manufacturing in Vietnam:
  - LG Electronics relocated production lines from South Korea to Hai Phong in 2019
  - Pegatron invested USD \$1 billion to build three manufacturing plants in Nam Dinh Vu industrial park

# Economic and Regulatory Overview

# 2

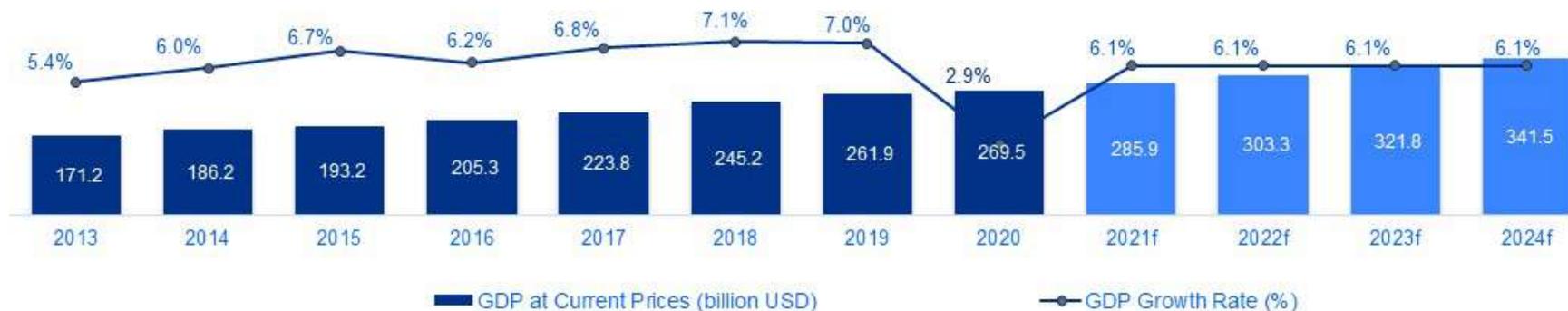
# ECONOMIC AND REGULATORY OVERVIEW

**Despite the global economic downturn due to the CoViD-19 pandemic, Vietnam recorded one of the highest GDP growth rates in the world in 2020**

Overview
<ul style="list-style-type: none"> <li>• Vietnam was one of the few global economies to experience positive growth in 2020</li> <li>• Despite a drop in GDP growth from 7.0% to 2.9% in 2020 linked to the global recession due to the outbreak of CoViD-19, GDP growth in Vietnam is forecasted at 6.1% in 2021</li> <li>• Widely praised for its response, transparency, and control measures for the pandemic, the impact of the global recession on the Vietnamese economy has been minimal</li> </ul>

Socio-Economic Statistics	2020
GDP / Capita	USD \$2,761
Population	97.6 mil
Total Area	331,235 km <sup>2</sup>
Urbanization Rate	36.8%
Inflation Rate	2.3%
Human Development Index	0.708
Largest City	Ho Chi Minh City

**Vietnam GDP at Current Prices and GDP Growth**  
in billion USD / %, 2013-2024f



Source: YCP Solidiance Research & Analysis, World Bank, Asian Development Bank (ADB), Vietnam General Statistics Office

# ECONOMIC AND REGULATORY OVERVIEW

## High FDI into Vietnam contributed a large proportion to the growth of services and industrial activities in total GDP in 2020 and Q1 2021

The Vietnamese economy has slowly shifted away from agriculture towards manufacturing and services as the population becomes more urban. A number of higher value-added industries, such as electronics manufacturing, have been prioritized by the government in order to promote their development. As a result, services and industry contributed about three-quarters of GDP in 2020 and Q1 2021

Agriculture
Q1 2021: USD 9.5 bil 2020: USD 40.1 bil Key Products: Rice, coffee, cotton, peanuts, rubber, sugarcane, tea, black peppercorn, cashew nuts, coconut, sweet potatoes, fishing, forestry

Industry & Construction
Q1 2021: USD 29.7 bil 2020: USD 90.8 bil Key Industries: Construction, textile manufacturing, footwear, electronics & computers, electric wires & cables, plastic, leather and canvas, timber, and mining

Services
Q1 2021: USD 34.4 bil 2020: USD 112.2 bil Key Services: IT Services, Tourism, accommodation and catering, wholesales and retail, finance, banking, insurance, and real estate

GDP Composition (2020) by Sector



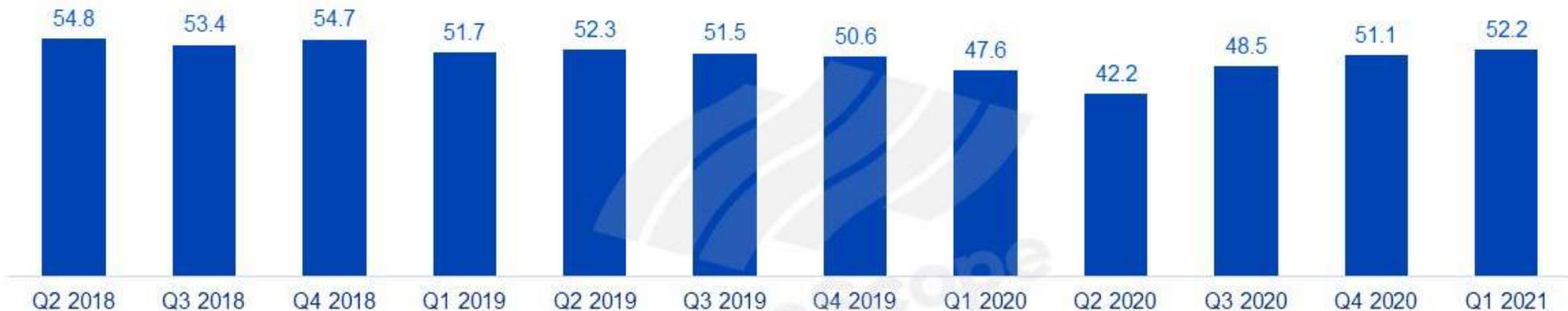
GDP Composition (Q1 2021) by Sector



# ECONOMIC AND REGULATORY OVERVIEW

**Besides the months around the onset of the CoViD-19 pandemic, the Manufacturing PMI of Vietnam has remained steadily above 50%**

Manufacturing Purchasing Managers Index (PMI)\*, Vietnam  
%, Q2 2018-Q1 2021



$$PMI = (P1 * 1) + (P2 * 0.5) + (P3 * 0)$$

Where:

P1 = percentage of answers reporting an improvement

P2 = percentage of answers reporting no change

P3 = percentage of answers reporting a deterioration

PMI **above 50** compared with the previous month represents an **expansion** while a value **under 50** represents a **contraction**, and a value of **50 indicates no change**

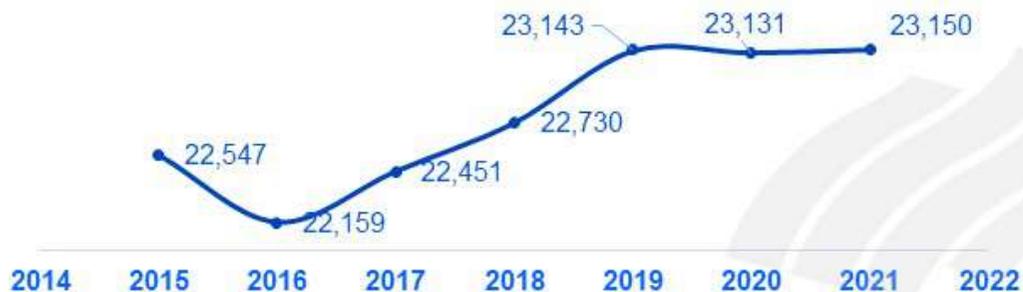
## Highlights

- Due to the global economic impact of CoViD-19 epidemic, the Manufacturing PMI **fell at below 50 index points** during the period between February and August 2020, but has since recovered to levels higher than before the pandemic
- In April 2021, this figure **stood at 54.7 percent**, 4.7 percentage points higher than that of last month and **being the highest since 2019**, indicating a rapid growth of total manufacturing output and new orders

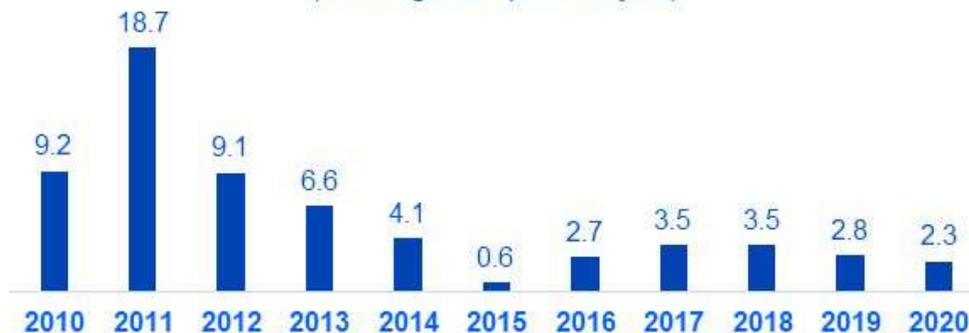
# ECONOMIC AND REGULATORY OVERVIEW

**Vietnam controlled its inflation rate and steadied its currency in order to be more competitive on the global marketplace**

Historic Average Exchange Rate  
(VND / USD)



Annual Inflation of Consumer Prices  
(% change from previous year)



## Highlights

- After serious issues with inflation for much of the 1980s-2000s, the Vietnamese Dong has relatively stabilized
  - Despite a brief classification of Vietnam as a **currency manipulator** by the United States Department of Treasury at the beginning of 2021, the **classification was lifted in May 2021 indicating a strong likelihood that it will not apply tariffs to imported products from Vietnam**, particularly as it continues to vie for dominance on the global markets against China
- Historically, the exchange rate between VND to USD has increased gradually making local investments increasingly attractive, with black market use of USD in local transactions making the USD stronger, but with the onset of the **CoViD-19 pandemic and global recession in 2020, the State Bank of Vietnam managed to stabilize the VND in order to continue to attract FDI**

# ECONOMIC AND REGULATORY OVERVIEW

Despite the global economic downturn, Vietnam attracts a large amount of FDI capital, a key contribution to economic growth

## Highlights

- In 2020, there were **33,070 cumulative active FDI projects** with a value of **USD \$384 billion in registered capital**
- **Manufacturing continues to account for the majority** of FDI with 47.8% of total FDI value.
- Manufacturing in Vietnam **benefited as many companies in China moved production to Vietnam** as production costs, regulations, and tariffs increased with the U.S. which prompted **foreign businesses to reorganize their supply chains in Asia**

## Foreign Direct Investment (FDI) Sources (2020)

No	Country	Investment Value (million USD)	No. of Projects
1	South Korea	70.6	8,983
2	Japan	60.2	4,632
3	Singapore	56.5	2,629
4	Taiwan	33.7	2,792
5	Hong Kong	25.6	1,944



Source: YCP Solidiance Research & Analysis, Vietnam Foreign Investment Agency

# ECONOMIC AND REGULATORY OVERVIEW

## Manufacturing and Processing, Automotive, and Real Estate are among the most active sectors for Foreign Indirect Investment (FII)

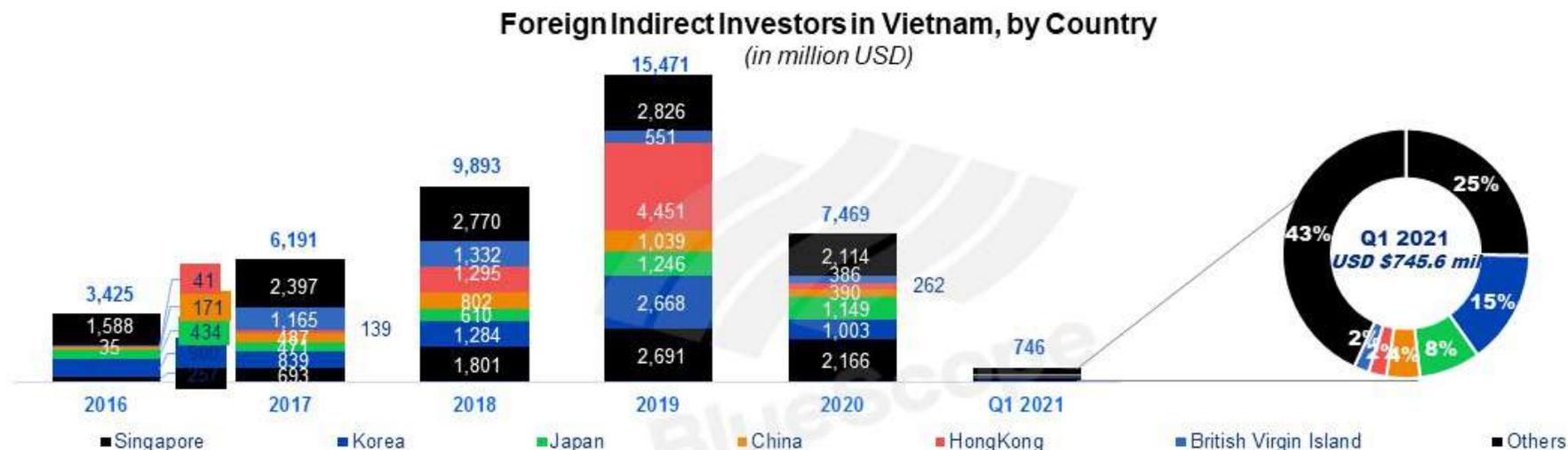
### Highlights

- CAGR of FII from 2016 to 2019 was approximately 65% before dropping 52% in 2020 due to the impact of the global recession related to CoViD-19; FII inflows typically account for 30-40% of total foreign investment in Vietnam
- In 2019, Manufacturing and Processing accounted for about half of total FII, a likely result of trade tensions between the United States and China and increased interest in diversifying supply chains and increasing supply chain security
- Real Estate has benefitted from additional investors wanting to diversify their investments in the form of expansion of existing projects as well as opening new projects

Foreign Indirect Investment in Vietnam, by Sector  
(in million USD)



## Singapore and Korea are the top two Foreign Indirect Investors to Vietnam in recent years



### Highlights

- FII flows in Vietnam are less consistent than FDI and depend heavily on the global market; Singapore and the Republic of Korea have generally been the largest contributors to indirect investments in Vietnam
- The Netherlands and Taiwan also rank highly as major indirect investors: the Netherlands was the second largest indirect investor in Vietnam in 2017 and 2020 with total investment of USD \$699 million and USD \$1.0 billion, respectively
- Taiwan has also been a major investor: USD \$533 million in 2016, USD \$677 million in 2019, and \$76 million as of Q1 2021
- Major regional investors include Malaysia with USD \$226 million in 2016 and Thailand with USD \$91 million in Q1 2021

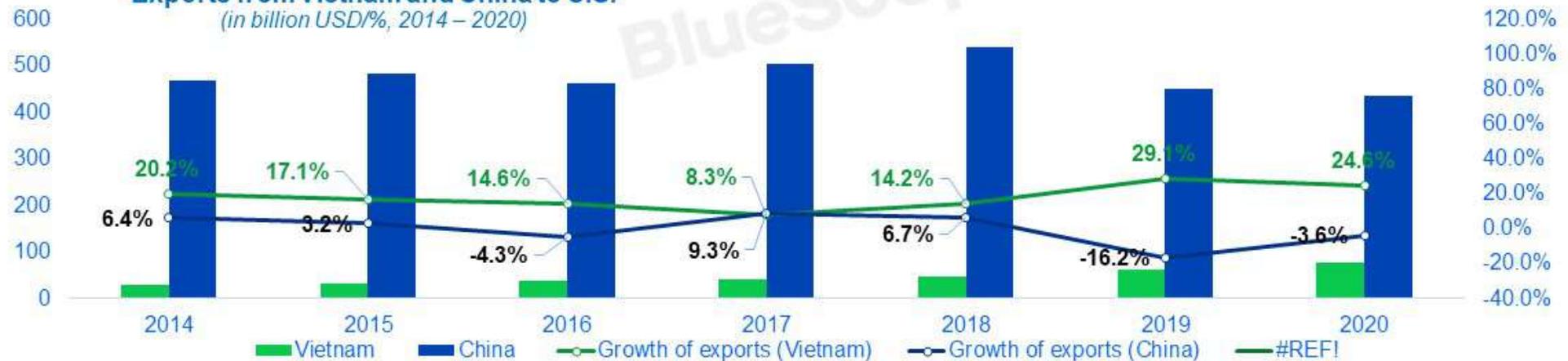
## Vietnam is regarded as one of the largest benefactors of U.S.-China trade tensions



### Highlights

- Due to the announcement of the Trump administration in 2019, China exports to the U.S. **significantly declined, over 16%**, whereas this figure of Vietnam experienced a **dramatic growth of over 29%**.
- As diplomatic and trade tensions between China and other countries in ASEAN have escalated, Vietnam has progressively **ramped up manufacturing, attracted foreign investors, and increased exports to the U.S.**

**Exports from Vietnam and China to U.S.**  
(in billion USD/%, 2014 – 2020)



Source: YCP Solidiance Research & Analysis, General Statistics Office, World Integrated Trade Solution (WITS)

## Industrial rent continues to increase as interest and demand outpace limited supply

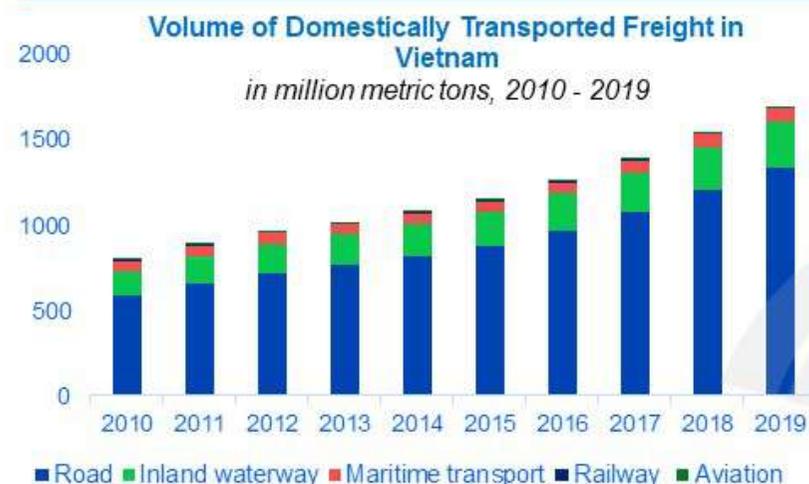


### Highlights

- Overall, industrial rent has increased between 2020 and 2021 as demand has increased while supply is limited, with **prices in the North increasing at an average of around 10% and around 9% in the South over the last year**
- **Hung Yen** in the North and **Ba Ria-Vung Tau** in the South are two notable provinces with sharp rental price increases due to **limited remaining land allocations and high remaining rental years**
- Rent prices on industrial land in **Ho Chi Minh City and Hanoi increased at a slower pace** due to relatively **fewer rental years remaining** on the existing vacancies
- **Industrial rent prices in Vietnam are lower than those of regional counterparts:** Indonesia (USD \$200/m<sup>2</sup>/term), Singapore (USD \$400/sq<sup>2</sup>/term), and Malaysia and Thailand (USD \$200-250/sq<sup>2</sup>/term) with developers keen on opening new industrial parks in the future to meet expected demand

# ECONOMIC AND REGULATORY OVERVIEW

**Road is the primary mode of domestic goods transport while maritime transport is used as an alternative for long-distance domestic and foreign trade**



### Overview

- **Road is dominant domestic transport mode** representing more than **79% of all freight** and over **56% of passengers**
- **Rail** was earliest transport connection between North and South, but is now **one of the slowest and most dated**
- **Inland waterway transport is small scale** but handles **significant amounts of local goods transport**
- **Maritime transport is primary alternative to road** for freight movement **between North and South**
- **Air transport is fastest mode of goods transport** but is prohibitively **expensive**

### Upcoming and Expected Transport Infrastructure Developments

- Three key projects of the **North-South Expressway** are **expected to alleviate road congestion** and **save transport cost and time**: (1) Mai Son-National Highway 45, (2) Vinh Hao-Phan Thiet, and (3) Phan Thiet-Dau Giay
- Vietnam Railways is planning to **update existing rail** and **build new high-speed lines** in order to develop high-speed rail by 2030
- The Ministry of Transport has announced plans to spend **USD \$15.4 billion by 2030** to develop **28 airports** with a capacity of 308 million passengers and 7.5 million tons of cargo per year
- **Gemalink, in Cai Mep, will become the largest deep-sea container port in Vietnam** when it begins operations within the next 2-3 years, adding an additional 1.5 million TEU capacity and capability to accommodate ships with capacity of up to 20,000 TEU

Source: YCP Solidiance Research & Analysis, Vietnam Ministry of Transport, Statista

# ECONOMIC AND REGULATORY OVERVIEW

**Vietnam currently only has one deep-water port so the handling capacity of ports in the country are still relatively low**

- Seaports in Vietnam enjoy a strategic central location for markets in Asia, but with **only one-deep water port**, no single port can handle high volumes
- In 2020, total container throughput of ports was about **22.1 million TEUs**, up 13% from the previous year and growing ~13% annually from 2014 to 2020
- There are **44 seaports** with a total capacity of **470-500 million tons/year** in **three main port clusters**:
  - North: Hai Phong
  - Central: Da Nang & Quy Nhon
  - South: Cat Lai - Cai Mep
- **Ports in the South handle the largest proportion of total volume**, reaching ~63% of total volume and ~74% of total container throughput in Vietnam



**Container Port Traffic in Vietnam**  
in million TEU (20 foot equivalent units), 2014 - 2020



Source: YCP Solidiance Research & Analysis, World Bank, KB Securities

# ECONOMIC AND REGULATORY OVERVIEW

**Low labor costs and attractive incentives are primary reasons to manufacture in Vietnam while avoidance of tariffs levied on manufacturing in China a new reason to relocate**

## Some Recent Major Supply Chain Shifts into Vietnam

Company	Sub-segment	Investor	Registered Capital (mil USD)	Year	Location	Details
<b>FOXCONN</b>	Electronics	Singapore	270	2021	Bac Giang (North)	Foxconn Technology, which manufactures electronics for Apple, received a license from the Vietnamese government in January 2021 to build a USD \$270 million plant (Fukang Technology) to make laptops and tablets in Bac Giang
<b>Google</b>	Electronics	United States	N/A	2020	Vinh Phuc (North)	Google moved production of its Pixel 4A and 5 smartphones to Vietnam in 2020 from China with potential ties to Taiwanese electronics manufacturer, Foxconn
<b>LUXSHARE ICT</b>	Electronics	China	270	2020	Bac Giang (North)	Luxshare-ICT is one of three manufacturers of Apple products, including the iPhone; Luxshare-ICT Vietnam has invested USD \$270 million into a production facility in Bac Giang province, employing 28,000 workers to avoid tariffs with the U.S. and higher costs in China
<b>PEGATRON</b>	Electronic parts	Taiwan	~1,000	2020	Hai Phong (North)	Pegatron, a manufacturing partner of Apple, Microsoft, and Sony, received licenses to initially invest USD \$19 million into manufacturing facilities in Hai Phong, and is also seeking licenses for a second (USD \$481 million) and third (USD \$500 million) phase project by 2026-2027
<b>yokowo</b>	Electronic parts	Japan	18	2019	Ha Nam (North)	Yokowo Corporation invested USD \$18 million into a 3.6-hectare plant in Dong Van II Industrial Park (Ha Nam) moving its supply chain out of China in order avoid heavy U.S. tariffs on products made in China

# ECONOMIC AND REGULATORY OVERVIEW

**Foreign entities are required to register their investment and enterprise before they are eligible for business licenses required to operate in Vietnam**

Requirement	Details	Approx. Time Required
Registration Certificate	<ul style="list-style-type: none"> <li>Law 61/2020/QH14 on Investment <b>requires the Foreign investor to apply for an Investment Registration Certificate (IRC)</b> when investing</li> <li>Law 59/2020/QH14 on Enterprises <b>requires Foreign business apply for an Enterprise Registration Certificate</b> when establishing and managing enterprises</li> <li>IRCs &amp; ERCs are approved by the Department of Planning and Investment</li> </ul>	At least 30 working days
Business license requirements	<ul style="list-style-type: none"> <li>A <b>business license is required</b> by Ministry of Industry and Trade to grant an eligible business entity with the <b>rights to import, export and distribute products</b> while complying the conditions in Decree 09/2018/ND-CP</li> <li>Certain economic activity codes (4-digit number) are required to register the business license accordingly</li> </ul>	At least 7 working days
Others	<ul style="list-style-type: none"> <li><b>Retail Store License</b> is required for the sale of products to retail customers as described in Decree 09/2018/ND-CP, Section 3</li> <li>There is <b>no restriction on the percentage of FDI</b> to establish commercial electrical and electronics entity in Vietnam.</li> </ul>	At least 45 working days

# ECONOMIC AND REGULATORY OVERVIEW

## The new Law on Investment No. 61/2020/QH14 includes various amendments to the investment incentives, aiming to attract more foreign investment

### Market access conditions applicable to foreign investors

- The new Law introduces the concept of "market access conditions applicable to foreign investors" based on: (1) ratio of foreign ownership, (2) investment method, (3) scope of investment, (4) capability of investor(s), and (5) other conditions as prescribed in the relevant laws and international treaties to which Vietnam is a party

### Lowering the foreign ownership threshold from 51% equity to 50%

- Under the previous law, enterprises with 51% or more of its charter capital owned by foreign investors were classified as foreign investments, requiring the enterprises to obtain the investment registration certificate
- The **ownership threshold has been reduced to 50%** in order to prevent technically majority foreign-controlled local enterprises from not going through foreign investment registration procedures

### Adding more business sectors that qualify for investment incentives

- Companies that invest in specially specified sectors, such as public transport, education, and healthcare, can receive investment incentives, such as lower corporate income tax rates, exemption of import duties on raw materials or goods imported for manufacturing of higher value-added finished products, and exemption or reduction of land rents and taxes

# ECONOMIC AND REGULATORY OVERVIEW

**Vietnam offers one of the most competitive tax regimes in Southeast Asia, whereby companies and organizations can benefit from three key forms of incentives**

Corporate Income Tax Incentives	Import Duty Exemption	Land Rental Fee Exemption
<p>Each incentive is applicable to certain types of projects. The most common incentives are those available for investments made in <b>specialized locations, industries, or investment zones*</b>.</p> <p><b>PREFERENTIAL TAX RATES</b></p> <ul style="list-style-type: none"> <li>• 10% for the project's lifetime</li> <li>• 10% for 15 years</li> <li>• 17% for the project's lifetime</li> <li>• 17% for 10 years</li> </ul> <p><b>TAX HOLIDAYS</b></p> <ul style="list-style-type: none"> <li>• 4 years of tax exempt, 50 percent reduction for the next 9 years</li> <li>• 4 years of tax exempt, 50 percent reduction for the next 9 years</li> <li>• 2 years of tax exempt, 50 percent reduction for the next 4 years</li> </ul> <p style="text-align: center;"><u><b>Decree 218/2013/ND-CP</b></u></p>	<p>Duty exemption is applied for merchandise imported to create Fixed asset of preference investment project or investment project funded with Official Development Assistance capital sources.</p> <p>Some of applicable merchandise include:</p> <ul style="list-style-type: none"> <li>• <b>Machinery and equipment;</b></li> <li>• <b>Components, parts, spare parts</b> for assembly or operation of machinery and equipment;</li> <li>• <b>Raw materials and supplies</b> used for manufacture of machinery and equipment, components, parts, or spare parts of machinery and equipment;</li> <li>• <b>Building materials</b> which cannot be produced at home country</li> </ul> <p style="text-align: center;"><u><b>Decree 134/2016/ND-CP</b></u></p>	<p>A land rental fee exemption is provided to a number of investment projects that satisfy specific conditions such as <b>investment in encouraged sectors or certain business fields and/or encouraged geographical locations</b>.</p> <p>Based on the project's circumstances, exemption period varies differently:</p> <ul style="list-style-type: none"> <li>• Exemption for the <b>whole project life</b></li> <li>• <b>Fifteen years</b> of exemption</li> <li>• <b>Eleven years</b> of exemption</li> <li>• <b>Seven years</b> of exemption</li> <li>• <b>Three years</b> of exemption</li> </ul> <p style="text-align: center;"><u><b>Decree 46/2014/ND-CP</b></u></p>

# ECONOMIC AND REGULATORY OVERVIEW

**As the government continues efforts to increase energy independence and reduce dependence on coal-based electricity, renewable energy plays a greater role**

Policy	Details
<b>Power Development Plan 8</b>	<p>The Ministry of Industry and Trade (MoIT) recently released a draft update to the National Power Development Plan (2021-2030 with a vision to 2045) (PDP 8). PDP 8 lays the framework for the future energy mix of Vietnam with goals set across the entire energy sector. PDP8 proposes the <b>reduction of dependence on coal through the adoption of LNG</b> for baseload generation supplemented heavily through <b>renewable energy in conjunction with energy storage</b></p>
<b>Decision No. 2068/QD-TTg</b>	<p>There are <b>numerous incentives to encourage investment and development of renewable energy</b>, including hydroelectricity, biomass, wind, and solar:</p> <ul style="list-style-type: none"> <li>• <b>Zero import duty</b> for assets to form the fixed assets of a renewable energy project, and for materials and semi products that are unavailable in the domestic market</li> <li>• <b>Corporate income tax</b> exemption or reduction</li> <li>• <b>Land rental</b> exemption or reduction</li> <li>• <b>Government funding</b> for research and technology of pilot projects</li> </ul>
<b>Resolution No. 55 – NQ/TW</b>	<p>Resolution No. 55-NQ/TW was issued in February 2020 with a number of general policy frameworks aimed at: (1) <b>increasing privatization</b> of electricity generation, (2) <b>diversifying</b> the energy mix, (3) increasing <b>renewable energy</b>, (4) improving <b>electricity generation efficiency</b>, (5) integrating <b>digital and Industry 4.0 technology</b>, and (6) <b>better management and regulation</b> of domestic fossil fuel resources</p>
<b>Draft Direct Power Purchase Agreement (DPPA)</b>	<p>The Ministry of Industry and Trade (MoIT) is currently drafting a plan to implement a Direct Power Purchase Agreement (DPPA) mechanism to allow private sale / trade of electricity and eliminate <b>the need for PPAs to go through Vietnam Electricity (EVN)</b> with its primary objectives being:</p> <ul style="list-style-type: none"> <li>• <b>Attracting more private sector investment</b> into a more competitive electricity market</li> <li>• <b>Addressing energy security through resource diversification</b>, namely renewable energy</li> </ul>

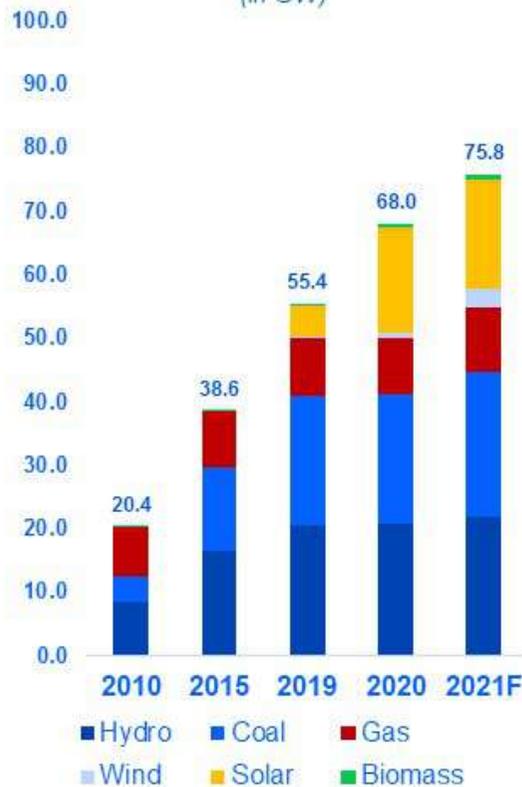
# Electric and Electronics (E&E) Sector Overview



# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

**New growth of Electricity Generation in Vietnam for the foreseeable future will be in Renewable Energy and LNG**

**Total Installed Generating Capacity in Vietnam**  
(in GW)



Source: YCP Solidiance Research & Analysis

## Overview

- **Power Development Plan 8 (PDP8)** and the **National Energy Master Plan for 2021-2030** are the two major driving strategy documents to push for electricity generation development for the short and medium term
- Significant additions were made to **renewable energy** in 2019 and 2020 due to **incentive policies** that made projects incredibly attractive
  - Decision 13/2020 finalized a Feed-in Tariff (FiT) for rooftop solar and utility-scale solar installations which drove the increase of approximately 9GW of solar in 2020
  - Discussions have been ongoing regarding the passage of policy regarding Direct Power Purchase Agreements (DPPA) which would reduce regulatory barriers for private electricity generation to connect to the grid
  - Early drafts of new policy for 2021 suggest that **FiTs for solar will be extended** at a new (lower) rate; wind FiTs, particularly offshore, will be extended as anticipated
- In the absence of stable renewable electricity generation technology, **LNG is viewed in PDP8 and other strategy as a replacement baseload energy for coal**
  - Energy Storage has been widely discussed as one potential area of focus

## Forecasted Load Demand and Generating Capacity in Vietnam

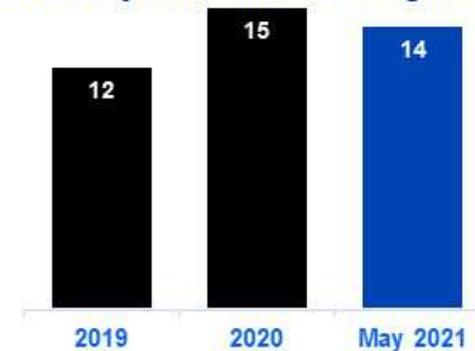
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# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

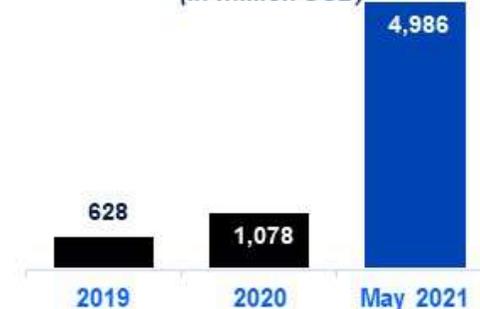
**With the passage of Resolution 55 promoting private investments in electricity generation, FDIs in Electricity Generation have increased dramatically**

Overview
<ul style="list-style-type: none"> <li>From 2019 to 2020, a large portion of foreign investments in energy came from <b>Singapore, Thailand, and Hong Kong</b></li> <li>Based on current plans, the newest revision of PDP8, and expected policy changes in 2021, the areas of major investment are expected to be <b>LNG, offshore wind, and energy storage</b> <ul style="list-style-type: none"> <li>With curtailment on renewable assets becoming a major problem at the beginning of 2021, policy has shifted significant focus to <b>promoting energy storage and other infrastructure to stabilize and expand the electricity grid</b></li> </ul> </li> <li>In the first five months of 2021, there were <b>14 new energy-related infrastructure FDI projects registered, the majority specifically in wind</b>, with a total value of \$4.9 billion USD following current policy and market trends favoring utility-scale wind installations in contrast to small-scale rooftop solar installations that dominated the market in 2020 due to more favorable FIT policies</li> <li><b>FDI inflow into energy-related infrastructure increased significantly</b> from 2019 to 2020 with total FDI inflows in projects generating and distributing Electricity, Water, and Gas increasing from <b>3% to 18%</b></li> </ul>

**New Electricity Generation FDI Registrations**



**Value of New Electricity Generation FDI Registrations (in million USD)**



## ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

As the Vietnamese government has instituted more policy to attract foreign capital into electricity investments, the focus has been on LNG and renewable energy

### Some Recent Major Foreign Investments in Electricity Generation in Vietnam

Company	Sub-segment	Investor	Registered Capital (mil USD)	Year	Location	Details
JV GS Energy & VinaCapital	LNG	Singapore	3,100	2021	Long An (South)	Long An LNG Power Plant Project I and II (Singapore), with a total registered capital of over 3.1 billion USD with the goal of electricity transmission and distribution, and power generation in Long An (granted the Investment Registration Certificate dated 19 March, 2021).
JV Viettracimex & Marubeni Corporation	Thermal	Japan	1,310	2021	Can Tho (South)	O Mon II Thermal Power Plant Project (Japan), with a total registered capital of over 1.31 billion USD with the goal of building a thermal power plant to meet the electricity supply demand for the regional power grid and system. national electricity in Can Tho (granted the IRC on January 22, 2021).
 HBRE H & Brothers Renewable Energy	Wind	Vietnam	203	2021	Ha Tinh (North)	The 120MW wind power plant will have 25 turbines capable of producing over 350 GWh of electricity annually. The authorities of Ha Tinh recently completed the environmental impact assessment and approved plant construction to begin early June 2021. The project received its Investment Certificate in 2020 with 85% of funding coming from foreign loans and is scheduled to go online in November 2021.
 DELTA OFFSHORE ENERGY	LNG	Singapore	4,036	2020	Bac Lieu (South)	The Investment Certificate for a new 100-hectare LNG project was approved for Delta Offshore Energy in 2020 with 80-85% of the investment capital sourced from a foreign loan. A 25-year PPA was signed in January 2021 with the plant expected to be fully operational in 2024.

## ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

Previously, renewable energy projects were centered heavily in the South of Vietnam because there was higher solar and wind potential

### Some Recent Major Domestic Investments in Electricity Generation in Vietnam

Company	Sub-segment	Investor	Registered Capital (mil USD)	Year	Location	Details
Ca Mau 1A JSC	Wind	Vietnam	213	2019	Ca Mau (South)	Ca Mau 1A Wind Power Plant is 1 of 4 power plants within Ca Mau 1 Wind Power Cluster project with total capacity of 350MW. The project received its Investment Certificate in 2019, but Phase 1 construction did not begin until January 2021 due to delays in PPA. Upon completion of Phase 1, the project will have 83 turbines with an installed capacity of 4.5MW each.
Loc Ninh Energy JSC	Solar	Vietnam / Thailand	457	2020	Binh Phuoc (South)	Loc Ninh 1 is one of five solar power plants that will contribute 50MW of installed capacity to the planned 850MW total upon completion. Originally developed by Hung Hai Group, Super Energy from Thailand took over development of Loc Ninh 1-4 in April 2020 investing USD \$73 million to take over 70-100% of the controlling stakes and USD \$384 million to complete the construction.
 TRUNG NAM Group	Wind	Vietnam	238	2020	Bac Lieu (South)	Dong Hai Wind Power Plant 1 is expected to have 100MW of installed capacity across 25 4MW turbines. Phase 1 began construction in April 2019 and is expected to connect to the grid and go into operation by the end of Q2 2021. Construction of Phase 2 (including additional transformers and other grid-connecting infrastructure) began in October 2020.

*For a longer list of projects, please refer to the Annex*

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

Vietnam's electronics industry is growing rapidly, receiving multiple investments from leading foreign electronics manufacturers

## Electronics Manufacturing Hubs in Vietnam (2021)



## Highlights

Shifting supply chains into Vietnam

Increase in foreign investments into major industrial zones and manufacturing

## Details

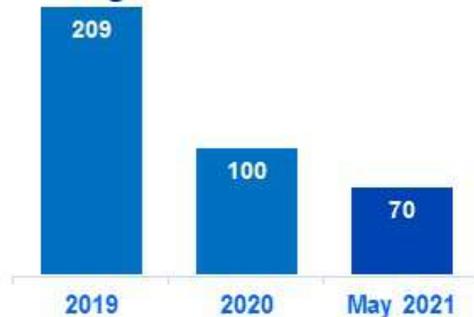
- In 2019, Vietnam has ranked 12<sup>th</sup> in the world and third in ASEAN in electronics export
- Vietnam is being further integrated into the global electronics supply chain recently **due to increases in tariffs levied on Chinese products and increasing labor costs in China**

- Major South Korean, Japanese, Chinese, Taiwanese, and American **electronics manufacturers have all increased their presence in Vietnam in the last five years**
- **Bac Ninh** in the North and **Saigon High Tech Park** in Ho Chi Minh City are classically considered major electronics manufacturing hubs with multiple large investors, such as **Samsung, Intel, Foxconn and Canon**
- **Hai Phong has recently become increasingly a center for electronics manufacturing** in Vietnam:
  - LG Electronics relocated production lines from South Korea to Hai Phong in 2019
  - Pegatron invested USD \$1 billion to build three manufacturing plants in Nam Dinh Vu industrial park

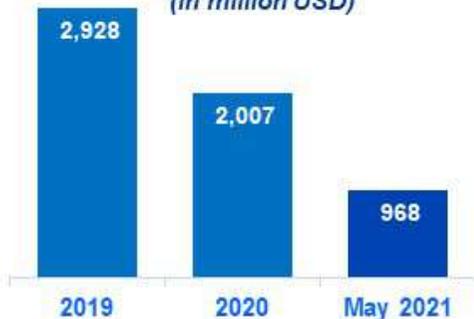
# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

Electric and Electronics (E&E) Manufacturing represents a large proportion of the number and value of FDI

New Electronics Manufacturing FDI Registrations



Value of New Electronics Manufacturing FDI Registrations (in million USD)



## Overview

- According to General Statistics Office of Vietnam, Vietnam had 2,098 electronics manufacturing enterprises and 1,658 electrical components manufacturing enterprises as of 2018
  - In the first five months of 2021, 70 projects in the electronics and electrical sector were officially registered with a value \$968 million USD.
- From 2019 to 2020, Electrical and Electronics Manufacturing accounted for about 20% of newly registered manufacturing projects, however, the value of E&E as a proportion of FDI was only 7.6% in 2019 and 7.0% in 2020 which suggests that **the majority of E&E manufacturers are for low value-added products.**
- According to the latest statistics from the Ministry of Industry and Trade (MoIT), **supporting industries for the electronics industry currently account for over 80% of the value of the electronics industry**, such as component manufacturing, materials, mold, and mechanical processing
  - Semiconductor chip production (component manufacturing) accounts for over 70% of supporting industries.
- The **electronics supporting industry has not yet developed fully in Vietnam due to low localization rate**, averaging about 20-30% accounted for mainly in plastic packaging and metal components.

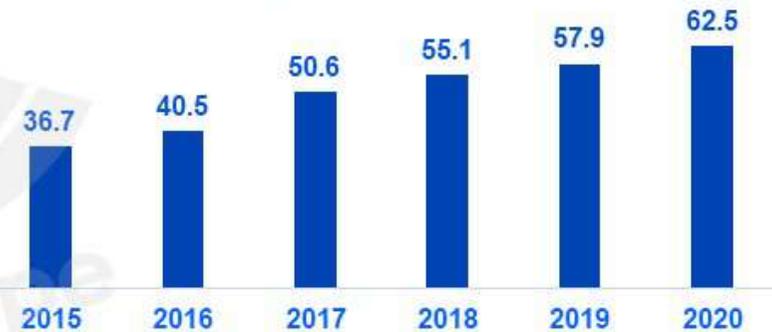
# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

Vietnam began exporting more electronic products and components than it imported starting in 2018

**Overview**

- The **export value to manufacturing cost ratio has increased** in recent years suggesting that E&E manufacturing in Vietnam is **trending towards production of higher value-added products**
- **Localization and manufacturing capacity** are the two **main challenges to growth of the E&E manufacturing sector**
- Early and unconfirmed data for 2021 suggest that the trend in **growth of E&E manufacturing in Vietnam will continue** despite the global recession

**E&E Sector Manufacturing Output**  
(in billion USD)



**Value of Manufactured Electronics Products and Components in Vietnam**  
(in billion USD)



## ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

With a large local market and numerous free trade agreements with key global markets, Vietnam is increasingly attractive for manufacturing electronics

### Some Recent Major Investments into Electronics Manufacturing in Vietnam

Company	Sub-segment	Investor	Registered Capital (mil USD)	Year	Location	Details
<b>FOXCONN</b>	Tablets and Laptops	Singapore	293	2021	Bac Giang	Fukang Technology Factory Project by Foxconn Singapote PTE registered investment capital of 293 million USD with the goal of manufacturing and processing tablets and laptops in Bac Giang (Investment Certificate issued on 15 January 2021).
<b>Qualcomm</b>	R&D lab for wireless technology	United States	N/A	2020	Hanoi (North)	Qualcomm has set up a new R&D facility in Hanoi, its first R&D lab in Southeast Asia; the facility will be used for developing wireless technology (4G, 5G), Internet of Things (IoT), and testing services to local manufacturing partners such as VinSmart, BKAV, and Viettel
<b>wistron</b>	Laptops, PC and Monitors	United States	274	2019	Ha Nam (North)	In 2019, Wistron received an investment certificate to develop a hi-tech electronics factory in Ha Nam specializing in manufacturing and assembling various electronic devices, including: laptops, desktops, and computer monitors
<b>TCL</b>	TV	China	53.5	2019	Binh Duong (South)	Multinational Chinese electronics firm TCL chose a 7.3-hectare area to set up a TV production plant with an investment of USD \$53.56 million in Binh Duong in 2019
<b>UAC</b>	Aviation electrical components	United States	170	2019	Bac Ninh (North)	Universal Alloy Corporation (UAC), one of the world's leading avionic manufacturers, began construction of a USD \$170 million Sunshine aerospace parts factory at Da Nang Hi-Tech Park in March 2019

## ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

Major electronics brands have a strong established presence in Vietnam and are continuously expanding more of their manufacturing and their operations locally

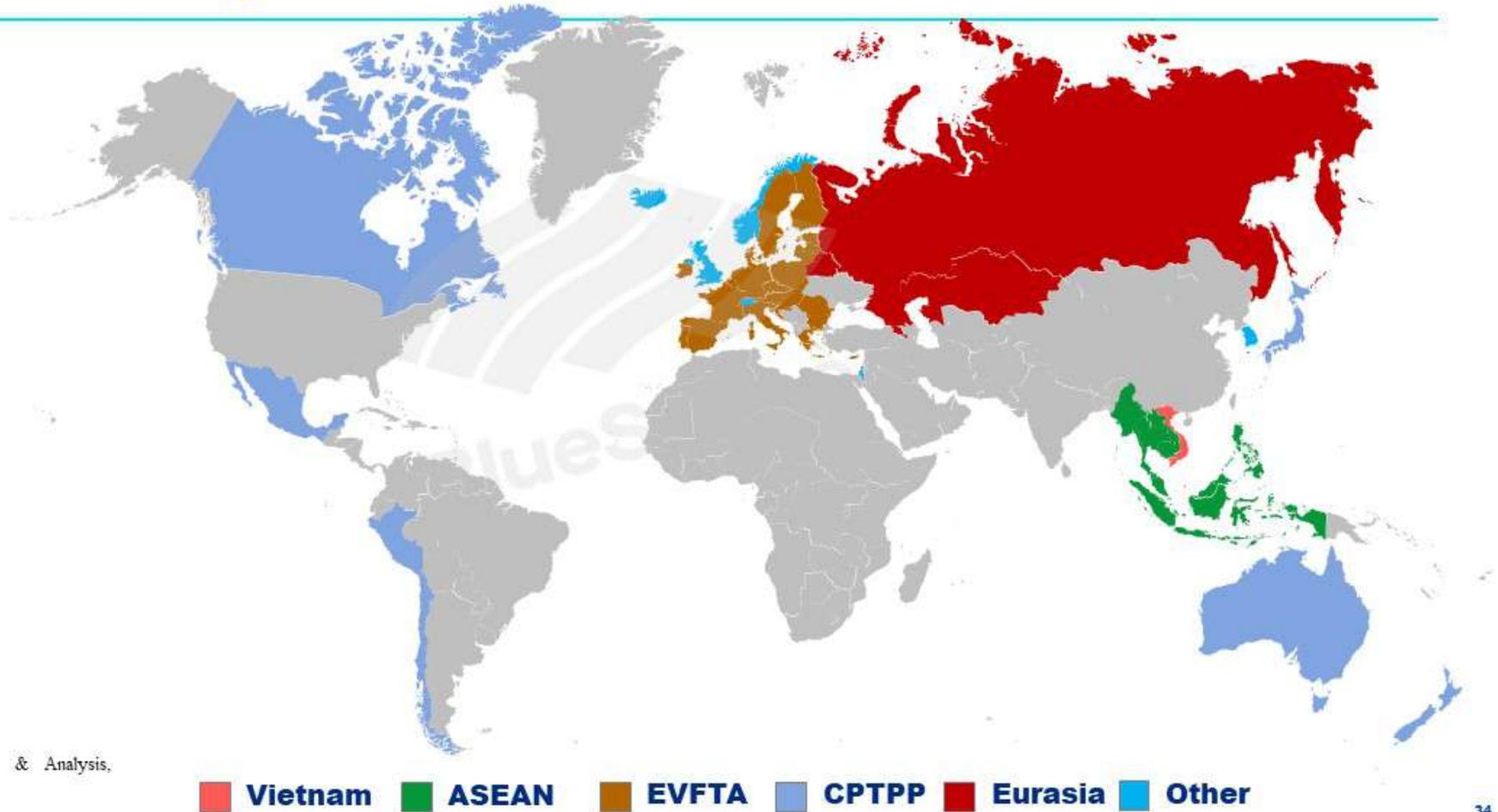
### Some Recent Major Expansions in Electronics Manufacturing in Vietnam

Company	Sub-segment	Investor	Registered Capital (mil USD)	Year	Location	Details
 LG	TV	Korea	750	2021	Hai Phong (North)	LG announced an addition of about USD \$750 million to its LG Display Vietnam facility in the northern port city of Hai Phong in early 2021, raising its total investment in Vietnam to USD \$3.25 billion
 Intel	Electronic chips	United States	475	2021	Ho Chi Minh City (South)	In early 2021, Intel injected USD \$475 million to the first phase of its chip assembly and manufacturing facility in Vietnam with a total of USD \$1.5 billion so far
 SAMSUNG	Cellphones	Korea	220	2020	Hanoi (North)	As the largest overseas investor in Vietnam and with its large 12-year-old manufacturing facility in Ho Chi Minh City, Samsung initiated a USD \$220 million R&D project in Hanoi in March 2020 establishing what will become their largest R&D in Southeast Asia
 Microsoft	Tablets and Laptops	United States	N/A	2020	Hanoi (North)	After shifting its production of Nokia phones to Vietnam in 2014, Microsoft began moving production of some of its tablet, notebook, and desktop computers, including its Surface line, to Vietnam in the second quarter of 2020

*For a longer list of projects, please refer to the Annex*

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Regional Free Trade Agreements with Vietnam



Source: YCP Solidiance Research & Analysis,  
Vietnam Ministry of Finance

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Free Trade Agreements with Vietnam (1/5)

Name	Details	Analysis
<b>ASEAN Free Trade Area</b>	<p>Vietnam is a founding member of the Association of Southeast Asian Nations (ASEAN), a regional organization comprising of ten Southeast Asian states that promotes intergovernmental cooperation and facilitates economic integration amongst its members founded in 1967. The ASEAN Free Trade Area, signed in 1992, includes a Common Effective Preferential Tariff (CEPT) for the promotion of free flow of goods. To meet the target of zero import duties, countries have been gradually lowering their import duties since its inception.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Tariff-free export of essentially all goods manufactured in Vietnam and import of raw and processed materials meant for manufacturing in Vietnam</li> <li>• Streamlined custom procedures and greater access to products for the wider market</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Countries like Malaysia, Singapore, and Thailand dominate higher value-added product manufacturing while leaving more basic manufacturing assembly to economies with less developed manufacturing</li> </ul>
<b>CPTPP</b>	<p>The Trans-Pacific Partnership (TPP) and TPP-11 after US's withdrawal, was renamed the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). On 8th March 2018, CPTPP was officially signed by its 11 country members, Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. The general principle of the CPTPP is to bring import duties to 0% on all tariff lines. The CPTPP also contains several regulations related to trade and investment such as regulations on technical barriers to trade, food safety and hygiene, regulations on customs and trade facilitation, regulations on investment environment, investment protection.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Removal of tariffs to traditional export partners in electrical and electronics components are expected to boost exports dramatically in both finished manufactured electronics as well as components</li> <li>• Tariff-free import of more sophisticated electronic devices, components, and accessories, such as semiconductors and multi-layer printed circuits, is expected to boost manufacturing of finished products and higher value-added electronics</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• An increase in production standards will increase production costs in Vietnam in the short-term as adapts to the changes</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Free Trade Agreements with Vietnam (2/5)

Name	Details	Analysis
<b>Vietnam – EU (EVFTA)</b>	<p>The Free Trade Agreement (EVFTA) and the Investment Protection Agreement (EVIPA) between Vietnam and 27 European Union member states (already excluding the UK) were ratified by the European Parliament on 12th February 2020 and approved by the Vietnamese National Assembly on 08 June 2020. Both Agreements were signed on 30 June 2019. EVFTA was effect 01 August 2020 while EVIPA needs further ratification by the EU Parliament before it takes effect.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• With electronics already currently a major export from Vietnam to the EU, reductions in tariffs will be a competitive advantage to Vietnamese manufacturing, encouraging movement of manufacturing to Vietnam</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Major focus of EVFTA grants expansion opportunities for sectors, such as Machinery and Textiles, but has relatively limited advantages for the Electricity sector</li> </ul>
<b>Vietnam – Eurasian Economic Union (VN-EAEU)</b>	<p>The free trade agreement came to force in October 2016. Eurasian Economic Union (EAEU) is a trade block includes Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia. Vietnamese government has committed to eliminate import duties on 90% goods originating from EAEU within 10-year tariff reduction schedule. EAEU has abolished import duties on 88% of goods, particularly, immediately eliminate 43% of total tariff lines. The remaining of tariff will be gradually reduced within 10 years.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• With the total elimination of tariffs on essentially all manufactured electronics and appliances, Vietnam has a strong competitive advantage to develop manufacturing aimed at EAEU markets</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Safeguard measures exist in the agreement that the EAEU members may trigger if the volume of Vietnamese goods imported into the EAEU exceed a certain amount during the year</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Free Trade Agreements with Vietnam (3/5)

Name	Details	Analysis
<b>Vietnam – South Korea FTA (VKFTA)</b>	<p>The Vietnam-South Korean free trade agreement came to effect in 2015. Vietnam will completely remove import duties on 89.9% of all products from South Korea over a 15-year period following implementation, while South Korea will reciprocate for 95.4% of all products imported from Vietnam.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>As one of the largest FDI partners in Vietnam investing in major sectors including electronics development and manufacturing, the deepening of the relationship between the two countries is a huge advantage for positioning Vietnam in the global supply chain as demand for Korean branded manufactured goods continues to grow</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Experts have noted that tariff reductions may be more advantageous for agricultural products, textiles / garments, and machinery rather than electronics and electrical components</li> </ul>
<b>Vietnam – Japan Economic Partnership Agreement (VJEPA)</b>	<p>The Vietnam-Japan Economic Partnership Agreement became effective in 2009. Under this Agreement, 92% of goods traded between Vietnam and Japan are tax exempt or reduced as of 2019. Additional reductions and eliminations are planned by 2026 to extend to nearly 97% of tariff lines.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Agricultural and industrial products including electrical and electronic components are included in the tariff reduction / elimination schedule through 2026</li> <li>As the relationship between Japan and China becomes more delicate, Vietnam is a natural substitute market for manufacturing</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Japanese import of Vietnamese products tends to focus more on commodity products and less on high value-added manufactured goods</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Free Trade Agreements with Vietnam (4/5)

Name	Details	Analysis
<b>Vietnam-Chile FTA (VCFTA)</b>	<p>Signed in November 2011, the free trade agreement came to effect in 2014. Vietnam has committed to abandon tariff on 87.8% of good originating from Chile within 15 years. From Chile, 83.54% of the total tariff lines were eliminated right after the effectiveness of the Agreement. Up to 2029, Chile will eliminate the tariffs for most of the goods from Vietnam.</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Reductions of tariffs and trade barriers between Vietnam and Chile seen as major advantage as products and raw materials produced by both countries can work in complement with each other</li> <li>• Chile contributes wines, copper, as well as agricultural technology, raw materials, and energy investments while Vietnam contributes tropical agricultural products and electronics and mechanical components</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Logistics between the two countries is challenging, and while CPTPP is expected to improve connectivity between the countries, it adds competitors to Vietnam with some countries like Malaysia</li> </ul>
<b>Vietnam-United Kingdom (UKVFTA)</b>	<p>Signed in December 2020 and effective January 2021, UKVFTA is essentially an extension of the existing conditions of EVFTA to the United Kingdom as they left the European Union and adds potential for the UK to join CPTPP as well</p>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• The agreement is expected to boost import and export between the UK and Vietnam in electronics, textiles, machinery, and pharmaceuticals and follow similarly to the EVFTA</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>• Like EVFTA, the sectors with the most relative advantage as a result of the agreement are textiles / garments, shoes, and agriculture</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Major Free Trade Agreements with Vietnam (5/5)

Name	Details	Analysis
<b>Vietnam - EFTA</b>	Officially launched in May 2012 between Vietnam and key non-EU members (EFTA: Norway, Switzerland, Iceland, and Liechtenstein); the negotiation on terms of the FTA is still ongoing	<p><b>Expected Advantages:</b></p> <ul style="list-style-type: none"> <li>• VEFTA is expected to boost FDI inflow into developing sectors in Vietnam: services, technology, manufacturing, and renewable energy</li> </ul> <p><b>Ongoing Challenges:</b></p> <ul style="list-style-type: none"> <li>• <b>The negotiation process has encountered many obstacles, mainly related to intellectual property rights and public finance</b></li> </ul>
<b>Vietnam - Israel</b>	Discussion between the two countries began in December 2015 to create a bilateral trade agreement between the two nations	<p><b>Ongoing challenges:</b></p> <ul style="list-style-type: none"> <li>• Israel is mostly focused on direct tariff-free import of agricultural and fisheries products, textiles / garments, and other commodity products rather than higher value-added manufactured products, such as electronics and electrical components</li> </ul>



# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Participation of Vietnam in Free Trade Agreements through ASEAN (1/3)

Name	Details	Advantages/Challenges
<b>ASEAN Free Trade Area</b>	Vietnam is among the founding members of the Association of Southeast Asian Nations (ASEAN), a regional organization comprising of ten Southeast Asian states that promotes intergovernmental cooperation and facilitates economic integration amongst its members founded in 1967. The ASEAN Free Trade Area, signed in 1992, includes a Common Effective Preferential Tariff (CEPT) for the promotion of free flow of goods. To meet the target of zero import duties, countries have been gradually lowering their import duties since its inception.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Tariff-free export of essentially all goods manufactured in Vietnam and import of raw and processed materials meant for manufacturing in Vietnam</li> <li>Streamlined custom procedures and greater access to products for the wider market</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Countries like Malaysia, Singapore, and Thailand dominate higher value-added product manufacturing while leaving more basic manufacturing assembly to economies with less developed manufacturing</li> </ul>
<b>ASEAN – South Korea Free Trade Agreement (AKFTA)</b>	The ASEAN-Korea FTA includes all ASEAN nations and eliminated or reduced tariffs on over 90% of all traded goods between nations. The FTA was originally instigated in 2005 and additional agreements on goods (2007), services (2009) and investment (2009) make up the entirety of the FTA. According to the agreement, 86% of total import tariff in Vietnam will be eliminated by 2018 while the remaining 14% will be: (i) reduced to 5% by 2021, and (ii) partially reduced by 2021 or remained the applied MFN rate.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Steel, electronics, electrical components, and home appliances are among the categories that Vietnam receives preferential treatment against other ASEAN countries</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Korea may prefer countries with more historically developed and mature supply chains in manufacturing, particularly in electronics and electrical components</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Participation of Vietnam in Free Trade Agreements through ASEAN (2/3)

Name	Details	Advantages/Challenges
<b>ASEAN – China Trade Agreement (ACFTA)</b>	ASEAN has a trade treaty with China that effectively eliminated or reduced tariffs on some 8,000 products or 90% of imported goods. The agreement came into effect in 2006. Vietnam commits to eliminate tariff of 90% tariff lines in 10 years, with some flexible till 2018. For the remaining tariff lines, Vietnam commits to cut to the range of 5% to 50% by 2020.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>As Vietnam already imports a lot of both finished products and raw material for manufacturing, reductions in tariffs will help boost manufacturing in Vietnam to some degree</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>There are tactics being used to continue manufacturing in China and using Vietnam as a third-party transport point to circumvent tariffs imposed on China by other major trading partners of Vietnam, like the U.S.</li> </ul>
<b>ASEAN – Japan Comprehensive Economic Partnership (AJCEP)</b>	AJCEP was first implemented in December 2008. Recently, Japan and five members of ASEAN (Laos, Myanmar, Thailand, Singapore, and Vietnam) signed AJCEP's first protocol to further promote trade and investment among signees.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>VJEPA, which gives more preferences to bilateral trade and investments, combined with AJCEP, accelerates the elimination of some duties and barriers</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Similar to Korea, for certain sectors of higher value-added manufactured products, there may be more preferred treatment towards other ASEAN countries</li> </ul>
<b>ASEAN – Australia and New Zealand Free Trade Agreement (AANZFTA)</b>	A free trade agreement was signed between the ASEAN trading block, Australia, and New Zealand in 2009. The agreement establishes zero import duties on most goods traded between the trade block and the two countries.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Reduction in tariffs and barriers will help Coal and other energy products Agricultural p</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Competition may arise with other members of CPTPP</li> </ul>

# ELECTRIC AND ELECTRONICS (E&E) SECTOR OVERVIEW

## Participation of Vietnam in Free Trade Agreements through ASEAN (3/3)

Name	Details	Advantages/Challenges
<b>ASEAN – India Free Trade Agreement (AIFTA)</b>	The ASEAN-India free trade agreement came into effect in 2010 but took a longer time to reduce tariffs across the various product lines. From the end of 2016, tariffs of over 4,000 products has been lowered or abolished.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>India can contribute significant expertise in developing sectors in Vietnam: IT services, pharmaceuticals, and oil and gas.</li> <li>India can provide a number of vital raw materials: zinc, iron, steel, and artificial staple fibers</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>The bureaucratic nature of India and Indian business results in delays and slowness</li> </ul>
<b>ASEAN – Hong Kong FTA (AHKFTA)</b>	Officially negotiated in 2014 and came into effect in June 2019, AHKFTA is expected to offer easier market access for goods trading between ASEAN and Hong Kong. In January 2020, Vietnam just issued Decree 07/2020/ND-CP on the special preferential tariff for 2019-2022 period.	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Clauses in the agreement expected to reposition Vietnam to exporting more hi-tech goods, such as electronics, machinery, vehicles, and medical devices</li> </ul> <p><b>Challenges:</b></p> <ul style="list-style-type: none"> <li>Political instability and connection to mainland Chinese entities may complicate future business</li> </ul>
<b>RCEP (ASEAN + 6)</b>	Negotiations started in 2013 among ASEAN countries, China, South Korea, Japan, India, Australia and New Zealand.	<p><b>Expected Advantages:</b></p> <ul style="list-style-type: none"> <li>As Vietnam strives to increase hi-tech manufacturing, RCEP can help local firms increase exports and attract high-quality goods for its consumers</li> <li>Would be the largest regional trading block globally</li> </ul> <p><b>Ongoing Challenges:</b></p> <ul style="list-style-type: none"> <li>Political tensions between China and other members of the group are problematic to further development</li> </ul>



# Upcoming Notable and Relevant Industry Events

# 4

# UPCOMING NOTABLE AND RELEVANT INDUSTRY EVENTS

## Notable Upcoming Events in Vietnam (1/4)

Event	Details
<p><b>Vietnam Real Estate Symposium 2021</b></p> <ul style="list-style-type: none"> <li>13 May 2021</li> <li>Time: 2:00 p.m. (Hanoi/Jakarta)</li> <li>Location: Park Hyatt Saigon, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Australian Chamber of Commerce (AusCham) Vietnam; Cushman &amp; Wakefield</li> <li>Presenters include:               <ol style="list-style-type: none"> <li>Ms. Chau Ta, Vice Chair, AusCham Vietnam; Executive Director, SC Capital</li> <li>Mr. Michael Kokalari, CFA, VinaCapital</li> <li>Mr. Paul Tonkes, Director, Logistics &amp; Industrial Services, Cushman &amp; Wakefield Vietnam</li> </ol> </li> <li>Link: <a href="https://auschamvn.org/events/vietnam-real-estate-symposium-2021-whats-next-english-speaking-conference-only/">https://auschamvn.org/events/vietnam-real-estate-symposium-2021-whats-next-english-speaking-conference-only/</a></li> </ul>
<p><b>Solar Energy Future Vietnam 2021 Conference &amp; Exhibition</b></p> <ul style="list-style-type: none"> <li>29-30 June 2021</li> <li>Location: HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Solar Energy Future Vietnam 2021</li> <li><i>International exhibition on Electrical Installation, Transmission &amp; Distribution and Lighting Technologies, Supplies &amp; Services</i></li> <li>Link: <a href="https://www.vietnam.leader-associates.com/sefv">https://www.vietnam.leader-associates.com/sefv</a></li> </ul>
<p><b>Industry 4.0 Summit 2021</b></p> <ul style="list-style-type: none"> <li>06-07 July 2021</li> <li>Location: Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: Central Economic Commission (Central Government)</li> <li><i>Themed as “Accelerating Modernization &amp; Industrialization In The Digital Era,” Industry 4.0 Summit is a state-sponsored event to convene industry and policymaking leaders for a 2-day summit to discuss strategies to realize Resolution No. 23-NQ/TW of the Politburo on “Orientations for building national industrial development policies to 2030, with a vision to year 2045” featuring a high-level forum, 8 conference sessions and a technology exposition.</i> Link: <a href="https://i40summit.vn/2021/">https://i40summit.vn/2021/</a></li> </ul>
<p><b>HVAC Vietnam 2021</b></p> <ul style="list-style-type: none"> <li>07-10 July 2021</li> <li>Location: SECC District 7, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Informa Markets Vietnam</li> <li><i>International Exhibition on Heating, Ventilation, Air-Conditioning, Air Filtration &amp; Purification, Refrigeration Systems in Vietnam</i></li> <li>Link: <a href="https://www.hvacrseries.com/vietnam/en/home.html">https://www.hvacrseries.com/vietnam/en/home.html</a></li> </ul>

# UPCOMING NOTABLE AND RELEVANT INDUSTRY EVENTS

## Notable Upcoming Events in Vietnam (2/4)

Event	Details
<b>Smart City Asia 2021</b> <ul style="list-style-type: none"> <li>05-07 August 2021</li> <li>Location: SECC District 7, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Exporum Korea / Vietnam</li> <li><i>Expo will be feature presentations and a trade show to highlight developments and networking for AI, Big Data, and IoT integration into private and public infrastructure</i></li> <li>Link: <a href="https://smarcityasia.vn/en/home/">https://smarcityasia.vn/en/home/</a></li> </ul>
<b>Vietnam Manufacturing Expo 2021</b> <ul style="list-style-type: none"> <li>11-13 August 2021</li> <li>Location: Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: Reed Tradex</li> <li><i>Vietnam's only exhibition on SMT, testing technologies, equipment and supporting industries for electronics manufacturing</i></li> <li>Link: <a href="https://www.vme-expo.com/">https://www.vme-expo.com/</a></li> </ul>
<b>ITU Digital World 2021</b> <ul style="list-style-type: none"> <li>06 September 2021</li> <li>Time: 8:00 a.m. (Hanoi/Jakarta)</li> <li>Location: Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: ITU Telecom, International Telecommunication Union (United Nations)</li> <li><i>ITU Digital World 2021 is organized by ITU Telecom and is part of the International Telecommunication Union (ITU), the United Nations agency that is responsible for ICT-related issues. ITU Digital World brings the smartest ideas and entrepreneurial spirit of digital start-ups and ICT SME's together with governments, regulators, industry leaders, consultants and experts from emerging and developed markets around the world. This unique audience has the influence and intelligence to power faster social and economic development, create collaborative opportunity and stimulate industry growth.</i></li> <li>Link: <a href="https://digital-world.itu.int/">https://digital-world.itu.int/</a></li> </ul>
<b>Vietnam Industrial and Manufacturing Fair</b> <ul style="list-style-type: none"> <li>08-10 September 2021</li> <li>Location: Binh Duong World Trade Center</li> </ul>	<ul style="list-style-type: none"> <li>Host: OMG Events Management</li> <li><i>Multidisciplinary trade show and conference to highlight developments in industry and manufacturing in Vietnam; will be associated with a number of simultaneous events related to materials handling, logistics, automation, and robotics</i></li> <li>Link: <a href="https://vietnamfair.net/">https://vietnamfair.net/</a></li> </ul>

# UPCOMING NOTABLE AND RELEVANT INDUSTRY EVENTS

## Notable Upcoming Events in Vietnam (3/4)

Event	Details
<b>NEPCON Vietnam 2021</b> <ul style="list-style-type: none"> <li>15-17 September 2021</li> <li>Location: Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: NEPCON Vietnam</li> <li><i>Vietnam's only exhibition on SMT, testing technologies, equipment and supporting industries for electronics manufacturing</i></li> <li>Link: <a href="https://www.nepconvietnam.com/en-us/seminars.html">https://www.nepconvietnam.com/en-us/seminars.html</a></li> </ul>
<b>Vietnam ETE</b> <ul style="list-style-type: none"> <li>30 September-02 October 2021</li> <li>Location: SECC District 7, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: CIS Vietnam</li> <li><i>Annual exhibition and conference for electrical equipment and renewable energy related products and technology</i></li> <li>Link: <a href="https://vietnam-ete.com/">https://vietnam-ete.com/</a></li> </ul>
<b>Vietnam International Industrial Fair</b> <ul style="list-style-type: none"> <li>06-08 October 2021</li> <li>Location: Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: Vietnam Exhibition Fair Center (VEFAC)</li> <li><i>Multidisciplinary and multinational trade promotion event featuring capabilities of Vietnamese industry in automation, manufacturing equipment, electrical equipment, and products for supporting industries</i></li> <li>Link: <a href="http://niif.vn/en/">http://niif.vn/en/</a></li> </ul>
<b>Future Energy Show Vietnam 2021</b> <ul style="list-style-type: none"> <li>20-21 October 2021</li> <li>Location: Adora Center, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Terrapinn</li> <li><i>Two-day event featuring conference and exhibition with renewable energy leaders, developers, technology providers, and policymakers</i></li> <li>Link: <a href="https://www.terrapinn.com/exhibition/future-energy-show-vietnam/index.stm">https://www.terrapinn.com/exhibition/future-energy-show-vietnam/index.stm</a></li> </ul>
<b>Solar PV Show Vietnam</b> <ul style="list-style-type: none"> <li>09-10 November 2021</li> <li>Location: Adora Center, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Leader Associates</li> <li><i>Two-day event advertised as an information exchange and business networking platform expected to attract industrial specialists, government agencies, investors, developers, network providers, financiers, EPCs, and key equipment and solution providers</i></li> <li>Link: <a href="https://www.solarshowvietnam.com/">https://www.solarshowvietnam.com/</a></li> </ul>

# UPCOMING NOTABLE AND RELEVANT INDUSTRY EVENTS

## Notable Upcoming Events in Vietnam (4/4)

Event	Details
<p><b>ASEAN Wind Energy 2021</b></p> <ul style="list-style-type: none"> <li>09-10 November 2021</li> <li>Location: Adora Center, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Leader Associates</li> <li>Conference and networking event expected to attract wind farm operators, turbine and component manufacturers, investors, financiers, legal and advisory firms, construction firms, logistics and port operators, and more</li> <li>Link: <a href="https://www.aseanwindenergy.com/">https://www.aseanwindenergy.com/</a></li> </ul>
<p><b>Electric &amp; Power Vietnam 2021 (concurrent with Renewable Energy Vietnam 2021)</b></p> <ul style="list-style-type: none"> <li>10-12 November 2021</li> <li>Location: SECC District 7, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Informa Markets</li> <li>Biannual trade event for power, electricity, and process engineering solutions featuring technology for power transmission and distribution, smart grid, power equipment and generating sets, and electrical accessories</li> <li>Link: <a href="https://electricvietnam.com/">https://electricvietnam.com/</a></li> </ul>
<p><b>Renewable Energy Vietnam 2021 (concurrent with Electric &amp; Power Vietnam 2021)</b></p> <ul style="list-style-type: none"> <li>10-12 November 2021</li> <li>Location: SECC District 7, HCMC</li> </ul>	<ul style="list-style-type: none"> <li>Host: Informa Markets</li> <li>Trade show specifically aimed towards renewable energy products trade run in conjunction with Electric &amp; Power Vietnam 2021 trade show</li> <li>Link: <a href="https://electricvietnam.com/need-to-know/about-re2021/">https://electricvietnam.com/need-to-know/about-re2021/</a></li> </ul>
<p><b>EnTech Vietnam 2021</b></p> <ul style="list-style-type: none"> <li>17-19 November 2021</li> <li>Location: Hanoi International Exhibition Center, Hanoi</li> </ul>	<ul style="list-style-type: none"> <li>Host: Global Expo</li> <li>Conference and product exhibition for environmental and energy products with participation from the Hanoi city government, South Korean and Vietnamese environmental ministries</li> <li>Link: <a href="http://entechvietnam.com/en/home/">http://entechvietnam.com/en/home/</a></li> </ul>



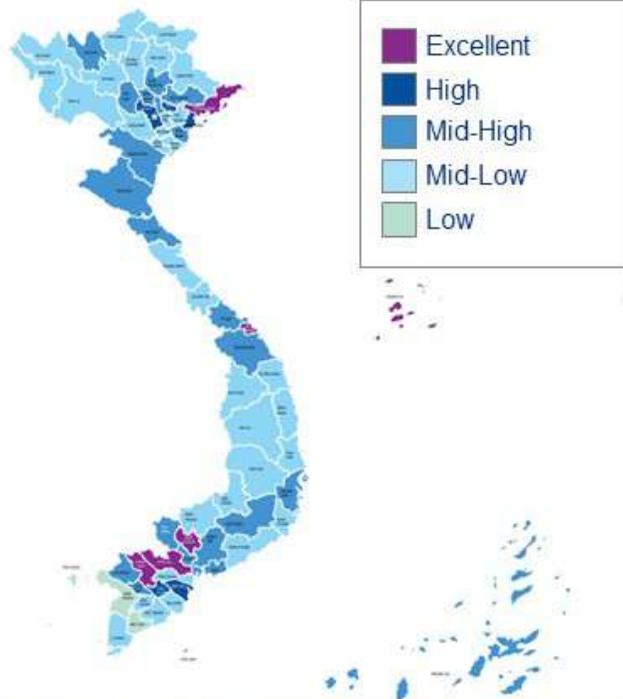
# Notable Indexes and Publications Overview

# 5

# NOTABLE INDEXES AND PUBLICATIONS OVERVIEW

## Vietnam Provincial Competitive Index

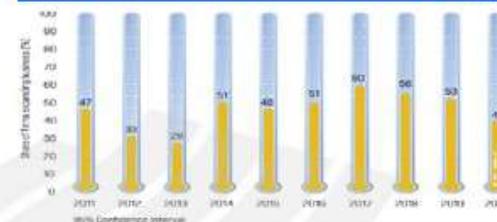
PCI 2020 Map



- 50% of existing firms in six provinces (Quang Binh, Tuyen Quang, Hau Giang, Binh Thuan, Dong Thap, and Bac Giang) had plans to expand their operations in the next two years
- Quang Ninh, in the North of Vietnam, tops the 2020 PCI ranking with a score of 75.09, an increase of 1.69 from 2019 securing the top position for the fourth consecutive year and the only province to surpass 75 points in the PCI rankings since 2010.

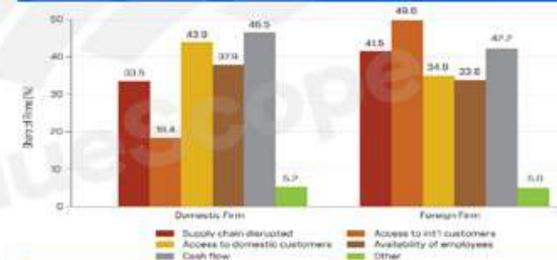
Source: YCP Solidiance Research & Analysis

Foreign Investment Survey



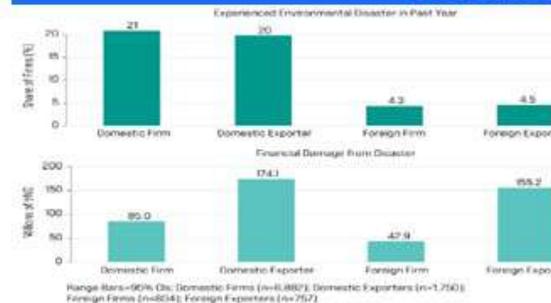
The share of existing businesses planning to expand their operations decreased by more than 12%, from 53% in 2019 to 41% in 2020. The decrease is likely a measure of the struggle of major economies globally more than a decrease in confidence in the Vietnamese market.

CoViD-19 Impact



In a survey of major obstacles posed by CoViD-19, foreign firms were primarily concerned about disrupted supply chains (42%) and access to international markets (50%) while domestic firms were concerned by a shrinking domestic market and declining cash flow (47%) and lack of domestic customers (44%).

Corporate Environmentalism



In the last five years, Vietnam has been plagued by serious environmental disasters, such as a chemical waste leak into the Eastern Sea, salination of the Mekong Delta, and flooding and erosion in central Vietnam. These events negatively impacted many businesses through both physical property damage and negative public perception which led to disruptions in supply chain and sales.

## World Bank Doing Business Report

### Overview

The World Bank's Doing Business Report is an annually published report aiming to provide an objective basis for understanding and improving the regulatory environment for business around the world.

Vietnam ranked **70<sup>th</sup> among 190 economies** in the 2020 report, falling one spot from its position in 2019. However, Vietnam's **overall score improved by 1.2 percentage points**, standing at 69.8 in 2020.

Out of 10 indicators, Vietnam ranked best in the two following areas:

- **Dealing with Construction Permits**, which tracks the procedures, time and cost to build a warehouse. A company is required to go through **10 procedures to legally build a warehouse in Vietnam**. The whole process takes **166 days** with a total cost of **0.5% of total warehouse value**.
- **Getting Credit**, which covers two aspects of accessing to finance – the strength of credit reporting systems and the effectiveness of collateral and bankruptcy laws in facilitating lending. Vietnam **scored 80.0 in the ease of getting credit**, much higher than the average score of East Asia and Pacific region, which is only 58.0.

### Ease of doing business in Vietnam

DB Rank in 2020

**70<sup>th</sup>**  
Among 190 economies

DB Score in 2020

**69.8**  
Out of 100

Topics	DB 2020 Rank	DB 2020 Score	DB 2019 Score	Change in score (% points)
Overall	70	69.8	68.6	↑ 1.2
Starting a Business	115	85.1	84.8	↑ 0.3
Dealing with Construction Permits	25	79.3	79.0	↑ 0.3
Getting Electricity	27	88.2	87.9	↑ 0.3
Registering Property	64	71.1	71.1	-
Getting Credit	25	80.0	75.0	↑ 5
Protecting Minority Investors	97	54.0	54.0	-
Paying Taxes	109	69.0	62.9	↑ 6.1
Trading across Borders	104	70.8	70.8	-
Enforcing Contracts	68	62.1	62.1	-
Resolving Insolvency	122	38.0	38.1	↓ 0.1

## World Economic Forum Global Competitiveness Report

### Overview

The World Economic Forum releases a global competitiveness report annually based on interviews with key stakeholders to understand the relative competitiveness of countries around the world. **Vietnam has consistently ranked in the middle.**

In 2019, Vietnam ranked **best globally for social safety, liner shipping connectivity, and inflation** as well as high ranking for **market size**. It also ranked relatively well in **technology adoption and connectivity measures** as well as in measures for **market stability and balanced financial system**. However, Vietnam struggled in rankings for press freedom and balance of governance. Vietnam also is noted for tariff-based trade barriers, though this is partly addressed by the free trade agreements that Vietnam introduced in 2020 and 2021.

A potential new global issue highlighted in the 2020 edition, triggered by CoViD-19, is the **potential risk that stimulus packages used as a tool to prevent failures in the short term may lead to market distortions in the long run**. The overall impact will likely be minimal in Vietnam but could be an issue with FDI inflow and trading partners, such as the U.S., Japan, and Korea.

Ranking of Vietnam (out of 141 in 2019)								
2011	2012	2013	2014	2015	2016	2017	2018	2019
59	65	75	70	68	55	74	77	67
<span style="color: green;">■</span> Improvement from Previous Rank					<span style="color: red;">■</span> Drop from Previous Rank			

The Impact of CoViD-19 Crisis on Global Indicators of Competitiveness		Advanced Economies			Emerging and Developing Economies	
		% Change (2017-2019 Avg. vs. 2020)	2017-2019 Avg		% Change (2017-2019 Avg. vs. 2020)	2017-2019 Avg
<b>Most Negative Shift</b>	Competition in Network Services	-2.9%	67.9	Business Costs of Crime and Violence	-2.5%	52.3
	Collaboration between Companies	-2.6%	51.9	Judicial Independence	-2.4%	43.5
	Competition in Professional Services	-2.3%	78.0	Organized Crime	-1.2%	56.5
	Competition in Retail Services	-1.8%	75.0	Extent of Market Dominance	-0.6%	43.8
	Ease of Finding Skilled Employees	-1.5%	60.0	Public Trust of Politicians	-0.4%	32.0
<b>Most Positive Shift</b>	Government's Responsiveness to Change	8.2%	52.1	Collaboration within a Company	6.9%	51.6
	Collaboration within a Company	4.6%	65.0	Government Responsiveness to Change	6.8%	42.3
	Venture Capital Availability	4.4%	47.2	Efficiency of Train Services	5.9%	34.3
	Social Safety Net Protection	4.2%	67.5	Venture Capital Availability	5.9%	33.6
	Soundness of Banks	4.0%	73.3	Country Capacity to Attract Talent	5.8%	40

**Anex**

**6**

### Recent Electricity Generation Investments in Vietnam (1/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
VinaCapital GS Energy Pte. Ltd	Singapore	LNG	2021	Power generation, distribution, and transmission	3,128,799,885	Long An
JV Viettracimex & Marubenic Corporation	Japan	Thermal	2021	Power generation, distribution, and transmission	1,314,070,446	Can Tho
Cu Ne Renewable Energy Co., Ltd.	Singapore	Wind	2021	Investment in construction and operation of Cu Ne 1 Wind Power Plant	94,000,000	Dak Lak
Cu Ne Wind Energy Co., Ltd.	China	Wind	2021	Investment in construction and operation of Cu Ne 2 Wind Power Plant	83,064,000	Dak Lak
KrongBuk Wind Energy Co., Ltd.	Singapore	Wind	2021	Investment in construction and operation of KrongBuk Wind Power Plant 2	79,446,800	Dak Lak
KrongBuk New Energy Co., Ltd.	Singapore	Wind	2021	Investment in construction and operation of KrongBuk Wind Power Plant 1	78,723,500	Dak Lak
VNM Investment Co., Ltd. (Singapore)	Singapore	Wind	2021	Investment in construction and operation of wind power plant	67,365,475	Dak Lak
Ecowin Corporation	Singapore	Wind	2021	Power generation, distribution, and transmission	56,603,774	Ben Tre
BT# Windfarm JSC	Philippines	Wind	2021	Power generation, distribution, and transmission	54,600,000	Quang Binh
VNM Investment Co., Ltd. (Singapore)	Singapore	Wind	2021	Investment in construction and operation of wind power plant	27,999,316	Dak Lak

## Recent Electricity Generation Investments in Vietnam (2/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
Delta Offshore Energy Pte. Ltd	Singapore	LNG	2020	LNG manufacturing complex	4,000,000,000	Bac Lieu
BT1 Wind Power JSC	Philippines	Wind	2020	Producing electricity by wind power; electricity distribution and activities related to electricity generation by renewable energy.	156,822,000	Quang Binh
BT2 Wind Power JSC	Philippines	Wind	2020	Producing electricity by wind power; electricity distribution and activities related to electricity generation by renewable energy.	138,249,000	Quang Binh
Mekong Wind Power JSC	Thailand	Wind	2020	Power production. Power transmission and distribution	109,020,000	Ben Tre
Mekong Wind Power JSC	Thailand	Wind	2020	Power production. Power transmission and distribution	103,370,000	Ben Tre
Tan Hoan Cau Group	Vietnam	Wind	2020	Hai Phong Wind Power II Complex: Power generation, transmission, and distribution	213,454,075	Ben Tre
HBRE Ha Tinh Wind Power JSC	Vietnam	Wind	2020	Wind farm for power generation, transmission, and distribution	202,130,229	Ha Tinh
Trung Nam Wind Power Tra Vinh 1 JSC	Vietnam	Wind	2020	Dong Hai Wind Power Factory: Power generation, transmission, and distribution	199,396,292	Tra Vinh
Cho Long Wind Power JSC	Vietnam	Wind	2020	Cho Long Wind Power Factory: Power generation, transmission, and distribution	199,180,681	Gia Lai
Tan Hoan Cau Group	Vietnam	Wind	2020	Wind Power Factory No.5: Power generation, transmission, and distribution	194,049,159	Ben Tre

### Recent Electricity Generation Investments in Vietnam (3/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
TTP Phu Yen JSC	Thailand	Solar	2019	Hoa Hoi Solar Power Plant with total design capacity 214.46 MW	216,752,174	Phu Yen
Sermsang Power Corporation	Thailand	Wind	2019	V1-2 Wind Power Plant	96,000,000	Tra Vinh
Palatial Global Inc.	British Virgin Island	Wind	2019	Vietnam Power Wind Power Plant: Power generation, transmission, and distribution	77,270,000	Ninh Thuan
Indochina Wind PTE Ltd.	Singapore	Wind	2019	Hong Phong 1 Wind Power Plant: Investment in independent power plant using wind energy to generate electricity and connect to the national grid	74,790,783	Binh Thuan
QNY Energy JSC	Korea	Solar	2019	QNY Solar Power Plant	70,000,000	Binh Dinh
Ca Mau 1A JSC	Vietnam	Wind	2019	Ca Mau 1A Wind Power Plant: Power generation, transmission, and distribution	213,776,722	Ca Mau
Loc Ninh Energy JSC	Vietnam	Solar	2019	Loc Ninh 1 Solar Power Plant: Investment in solar power plant and power transmission lines	213,631,699	Binh Phuoc
Tan Hoan Cau JSC	Vietnam	Wind	2019	Hai Phong Wind Power III Complex: Power generation, transmission, and distribution	193,342,475	Ben Tre
Ca Mau 1C JSC	Vietnam	Wind	2019	Ca Mau 1C Wind Power Plant: Power generation, transmission, and distribution	194,342,475	Ca Mau
Ca Mau 1D JSC	Vietnam	Wind	2019	Ca Mau 1D Wind Power Plant: Power generation, transmission, and distribution	190,023,753	Ca Mau

### Recent Manufacturing Investments in Vietnam (1/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
Foxconn Singapore Pte. Ltd	Singapore	Electronics	2021	Manufacturing and processing tablets and laptops	270,000,000	Bac Giang
Everwin Precision Hongkong Co., Ltd.	Hong Kong	Electrical component	2021	Manufacturing cases and parts from plastic for smart devices such as phones, watch bands, laptops	200,000,000	Nghe An
Hayward Quartz Technology Inc.	U.S.A	Electrical component	2021	Manufacturing silicate, sapphire, and other semi-conductor parts for electrical components	110,000,000	Da Nang
Fujikin International Co., Ltd	Japan	Electronics	2021	R&D for automated robotics technology	35,000,000	Da Nang
Partron Vina Co., Ltd.	Korea	Electrical component	2021	Manufacturing and assembling cameras (ISM)	30,000,000	Vinh Phuc
Platel Vina Co., Ltd.	Korea	Electrical component	2021	Manufacturing electronic equipment shells, electrical and electronic components from plastic with a scale of 3,000,000 products/year, equivalent to 400 tons of products/year	30,000,000	Dong Nai
LS Electric Co., Ltd	Korea	Electronics	2021	Manufacturing of electric motors, generators, transformers, power distribution and control equipment	25,000,000	Bac Ninh
Vision Best Holdings Limited	China	Electrical component	2021	Processing and manufacturing mobile phone equipment	19,950,000	Hai Phong
Shanghai Moon's Electric Co.,Ltd	China	Electrical component	2021	Manufacturing precision motor	18,000,000	Hai Phong
Lotes Vietnam Co., Ltd.	Taiwan	Electrical component	2021	Manufacturing computer RAM connector pins	17,198,000	Thai Binh

## Recent Manufacturing Investments in Vietnam (2/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
Pegatron Corporation	Taiwan	Electronics	2020	Game consoles (game consoles), phone accessories, smart speakers, game controllers; - Laptop (Notebook), Tablet (Tablet), desktop computer, All-in-one computer (AIO); - Switches (Switch) and Wifi transceiver.	481,000,000	Hai Phong
Wistron Corporation	Taiwan	Electronics	2020	Manufacturing and assembling various electronic computer equipment and computer peripherals such as laptops and desktops, computer monitors.	273,913,043	Ha Nam
Universal Global Technology Co., Ltd.	China	Electrical component	2020	Manufacturing and assembling electronic circuit boards for wearable equipment.	200,000,000	Hai Phong
Goertek Technology (Hong Kong) Co., Ltd.	Hong Kong	Electrical component	2020	Manufacturing, processing and assembling electronic components.	100,000,000	Nghe An
Olympus Corporation	Japan	Electronics	2020	Manufacturing digital camera lenses and electronic equipment of optical instruments with a scale of 200,000 products / year.	85,714,286	Dong Nai
DBG Electronics (Investment) Co., Ltd.	Hong Kong	Cellphones	2020	Outsourcing and assembling of cordless phones; phone; data transmission equipment.	80,000,000	Thai Nguyen
Korea Circuit Co., Ltd.	Korea	Electrical component	2020	Manufacturing of electronic components: Electronic Circuit Boards (PCB) for cell phones and Memory Ram	69,230,000	Vinh Phuc
Global Sun Trading Co., Ltd.	Taiwan	Electrical component	2020	Manufacturing 3C components, spare parts for servers and televisions	50,000,000	Quang Ninh
Asia Vital Components Co., Ltd.	Taiwan	Electrical component	2020	Manufacturing and processing computer radiators, computer fans, frames, and computer cases.	50,000,000	Ha Nam
CE LINK Co., Ltd.	Hong Kong	Electrical component	2020	Manufacturing and processing of electronic components, electronic products, details: electronic cables; Plastic electronic equipment shell; Manufacturing and processing circuit boards	49,843,000	Bac Giang

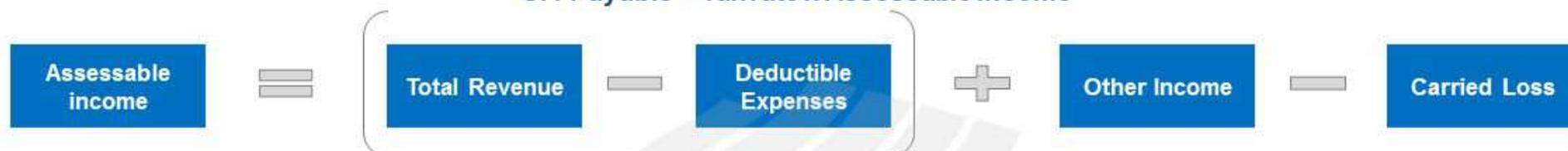
## Recent Manufacturing Investments in Vietnam (3/3)

Company	Investor	Sub-segment	Year	Details	Registered Capital (in USD)	Location
Qisda Corporation	Taiwan	Electronics	2019	LCD Screen manufacturing	263,000,000	Ha Nam
Luxshare-ICT (Vietnam)	Samoa	Electronics	2019	Production and processing of electronic components such as wireless headsets (Bluetooth), audio components used for cell phones and other electronic equipment.	190,000,000	Bac Giang
Win Billion Technology Co., Ltd.	Hong Kong	Electronics	2019	Antennae for cell phones, tablets, and laptop manufacturing.	120,000,000	Thai Nguyen
Kortek Corporation	Korea	Electronics	2019	Manufacturing, processing and assembling electronic LCD & OLED screens and electronic components for LCD & OLED screens.	30,000,000	Ha Nam
Jin Qiang Industrial Company Limited	Taiwan	Electrical component	2019	Manufacturing, assembling, repairing and maintaining electromechanical works of all elevator electromechanical components.	3,500,000	Binh Phuoc
Korea Electric Terminal Co., Ltd.	Korea	Electrical component	2019	Manufacturing and processing connecting equipment, connectors, connecting cables and components of connecting equipment for electronic products and equipment.	8,360,000	Thai Nguyen
Risun (HK) Technology Co., Ltd.	Hong Kong	Electronics	2019	Manufacturing, processing, and assembling electronic products, components and details such as: Wifi transmitter, Bluetooth headset, headphone cord, charger cord	66,000,000	Ha Nam
Prosperity Investment Holding Pte. Ltd & Jochu Investment Ltd	Singapore & British Virgin Island	Electronics	2019	Manufacturing and developing metal components and plastic parts for TFT-LCD screens	15,000,000	Ha Nam
Pre-secure Investment Co., Ltd	British Virgin Island	Electronics	2019	Manufacturing lighting equipment (lights, lamp accessories, aluminum alloy lamp components, other lamp components)	19,450,000	Ha Nam
Broad-ocean Motor (Hong Kong) Investment Co., Ltd.	Hong Kong	Electronics	2019	Manufacturing of air-conditioning engines	5,000,000	Ba Ria-Vung Tau

Source: YCP Solidiance Research &amp; Analysis

**Corporate Income Tax Incentives – By Location)**

**Tax Calculation**  
**CIT Payable = Tax rate x Assessable Income**



1. (Total revenue – Deductible expenses) is considered an income from main business activities. Such income is entitled to CIT incentives, if any.
2. Normally, other forms of income are not entitled to CIT incentives, and thus, shall be subject to the standard CIT rate of 20 per cent. Other income includes gains from foreign exchange revaluation, income from disposal of fixed assets, interest income, etc. not related to the main business.

**CIT Incentives by location**

Activities	CIT Incentives	
	Preferential Tax rate	Tax Holiday
<ul style="list-style-type: none"> <li>▪ With especially difficult socio-economic conditions*</li> <li>▪ Economic Zones*</li> <li>▪ High-tech Zones*, including concentrated information technology parks established under the Prime Minister’s decision</li> </ul>	10% for 15 years	<ul style="list-style-type: none"> <li>▪ 4 years of tax exemption</li> <li>▪ 50% reduction for the next 9 years*</li> </ul>
<ul style="list-style-type: none"> <li>▪ With difficult socio-economic conditions*</li> </ul>	17% for 10 years	<ul style="list-style-type: none"> <li>▪ 2 years of tax exemption; and</li> <li>▪ 50% reduction for the next 4 years</li> </ul>
<ul style="list-style-type: none"> <li>▪ Industrial Parks (which are not located in the favorable socio-economic locations)</li> </ul>	Not applicable	<ul style="list-style-type: none"> <li>▪ 2 years of tax exemption; and</li> <li>▪ 50% reduction for the next 4 years</li> </ul>

1. Generally, preferential tax rate is applicable from the first revenue-generation year, except for high-tech enterprises or projects.
2. Generally, tax holiday is available from the first profit-making year or the fourth revenue-generation year, where applicable, except high-tech enterprises

## Corporate Income Tax Incentives – By Sector)

Activities (for example)	CIT Incentives	
	Preferential tax rate	Tax holiday
<ul style="list-style-type: none"> <li>High-tech enterprises (including science and technology enterprises); research, application, and incubation of hi-technology projects</li> <li>Environmental protection</li> <li>Investment for infrastructure development (water plant, power, road, port, etc.)</li> <li>Software production</li> <li>Supporting industries</li> </ul>	10% for 15 years	4 years of tax exemption; and 50% reduction for the next 9 years
<ul style="list-style-type: none"> <li>Socialised projects in regions with difficult/especially difficult socio-economic conditions*</li> </ul>	10% for the whole project's duration	4 years of tax exemption; and 50% reduction for the next 9 years
<ul style="list-style-type: none"> <li>Socialised projects <b>not</b> located in difficult or especially difficult socio-economic regions*</li> </ul>	10% for the whole project's duration	4 years of tax exemption; and 50% reduction for the next 5 years
<ul style="list-style-type: none"> <li>Farming, husbandry, processing of agriculture and aquaculture in difficult regions, forestry in difficult regions; production of plant varieties, animal breeds, production of salt; preservation of agriculture products, aquaculture products and foods, etc.</li> </ul>	10% for the whole project's duration	Tax exemption and reduction under incentives for location (if applicable)
<ul style="list-style-type: none"> <li>Farming, husbandry, processing of agriculture and aquaculture products not located in difficult and especially difficult regions*</li> </ul>	15% for whole project duration	
<ul style="list-style-type: none"> <li>Manufacturing of steel, energy saving products, machinery and equipment serving agriculture, forestry, fisheries and salt production, traditional crafts, etc.</li> </ul>	17% for 10 years	

\* Please refer to page 64-66 for additional details

**Corporate Income Tax Incentives – By Business Scale**

**CIT Incentives by business scale**

Activities	CIT Incentives	
	Preferential Tax rate	Tax Holiday
<ul style="list-style-type: none"> <li>VND 6 trillion capital project (~ US \$259.7 million) (1)</li> </ul>	10% for 15 years 17% for 10 years	<ul style="list-style-type: none"> <li>4 years of tax exemption</li> <li>50% reduction for the next 9 years</li> </ul>
<ul style="list-style-type: none"> <li>VND 12 trillion capital project (~ US \$519.4 million) (2)</li> </ul>		

**Land Rental Fee Incentives**

Project	Exemption Time
<ul style="list-style-type: none"> <li>▪ Investments in encouraged sectors*, new business development bases</li> </ul>	3 years
<ul style="list-style-type: none"> <li>▪ Investment in areas of difficult socio-economic conditions*</li> </ul>	7 years
<ul style="list-style-type: none"> <li>▪ Investments in areas of especially difficult socio-economic conditions*; in especially encouraged sectors*; projects in the list of investment encouragement sectors investing in difficult socio-economic areas</li> </ul>	11 years
<ul style="list-style-type: none"> <li>▪ Projects in the list of especially encouraged investment sectors in areas of difficult socio-economic conditions of projects in the list of encouraged investment sectors in areas of especially difficult socio-economic conditions</li> </ul>	15 years
<ul style="list-style-type: none"> <li>▪ Projects in the list of especially encouraged investment sectors* in areas of especially difficult socio-economic conditions*</li> </ul>	Whole project life

*\* Please refer to page 64-66 for additional details*

### Provinces classified as having difficult or especially difficult socio-economic conditions that qualify for corporate tax incentives

No.	Provinces	No.	Provinces	No.	Provinces
1	An Giang	19	Ha Nam	37	Phu Yen
2	Ba Ria – Vung Tau	20	Ha Tinh	38	Quang Binh
3	Bac Giang	21	Hai Phong	39	Quang Nam
4	Bac Kan	22	Hau Giang	40	Quang Ngai
5	Bac Lieu	23	Hoa Binh	41	Quang Ninh
6	Ben Tre	24	Khanh Hoa	42	Quang Tri
7	Binh Dinh	25	Kien Giang	43	Soc Trang
8	Binh Phuoc	26	Kon Tum	44	Son La
9	Binh Thuan	27	Lai Chau	45	Tay Ninh
10	Ca Mau	28	Lam Dong	46	Thai Binh
11	Cao Bang	29	Lang Son	47	Thai Nguyen
12	Da Nang	30	Lao Cai	48	Thanh Hoa
13	Dak Lak	31	Long An	49	Thua Thien Hue
14	Dak Nong	32	Nam Dinh	50	Tien Giang
15	Dien Bien	33	Nghe An	51	Tra Vinh
16	Dong Thap	34	Ninh Binh	52	Tuyen Quang
17	Gia Lai	35	Ninh Thuan	53	Vinh Long
18	Ha Giang	36	Phu Tho	54	Yen Bai

**Prioritized sectors and project types eligible for investment incentives**

No.	Hi-Tech	No.	Social
1	Information technology	1	Education
2	Biotechnology	2	Vocational training
3	New Material technology	3	Healthcare
4	Automation technology	4	Culture
5	Supporting product for high technology	5	Sports
6	Scientific research and development	6	Environmental
7	Software production		

### Number of Special Economic Zones by Province

Province	Number	Province	Number
An Giang	3	Long An	24
Binh Duong	29	Quang Nam	4
Binh Phuoc	9	Quang Ninh	7
Binh Dinh	5	Ho Chi Minh City	18
Bac Ninh	13	Tay Ninh	5
Can Tho	6	Vinh Phuc	10
Hanoi	14	Da Nang	6
Hai Duong	10	Dong Nai	31
Hai Phong	4		

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LONG LASTING BEAUTY FOR WORLD-CLASS PROJECTS

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Activate™

The breakthrough technology for withstanding severe environments with microstructure of 4 phases.

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Solar reflectance technology

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For construction's long lasting beauty



# THE BREAKTHROUGH TECHNOLOGY THAT SETS NEW MARKET BENCHMARK

Activate™ TECHNOLOGY



Ma trận 4 lớp  
chống ăn mòn vượt trội

*The microstructure of 4 phases  
for superior corrosion resistance*



Bảo hành ngay cả trong  
môi trường khắc nghiệt  
(sắt biển, KCN ô nhiễm)\*

*Warranties are also applicable to  
projects in severe environments  
(marine, polluted industrial zone)\**



Bảo hành ngay cả trong  
môi trường khắc nghiệt  
(sắt biển, KCN ô nhiễm)\*

*Warranties are also applicable to  
projects in severe environments  
(marine, polluted industrial zone)\**

**20+ years**  
of research &  
development

**AU\$100+ million**  
of R&D investment

**18,000+**  
Test & exposed panels  
in laboratory &  
real world environment

**20+ patents**  
For BS's industry leading  
alloy coating structure &  
its manufacturing process



## Green value for your buildings



Thermatech<sup>®</sup>  
TECHNOLOGY

- **Thermatech solar reflectance** technology acts as added insulation in hot weather, making it easier for air-conditioning to keep buildings cool.
- Reduce annual cooling energy consumption by up to **15%\***.
- Lower peak roof temperature by up to **6°C\***.
- **Greater comfort** while using less energy, which helps to reduce cost and is friendlier to the environment.

*GREEN BUILDING* rating tool such as the Leadership in Energy and Environment Design (LEED) encourages use of materials with high SRI value to mitigate the UHI effect.

*COLORBOND<sup>®</sup> steel with Thermatech<sup>®</sup> is able to provide higher SRI value thus complying to the green building requirements*

\*Depending on level of insulation, colour, building shape and function.



COLORBOND® steel with Clean technology **prevents dirt from bonding to the surfaces.** As a result, dirt particles remain “loose” and wash away during rainfall, resulting in a cleaner look.



**SUPERIOR  
DURABLE PAINT  
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**FOR PROJECT'S  
LONG-LASTING  
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## YCP SOLIDIANCE

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**Thank you**