



CHỨNG KHOÁN GUOTAI JUNAN (VIỆT NAM)
GUOTAI JUNAN SECURITIES (VIETNAM)

OVERVIEW OF VIETNAM SEMICONDUCTOR INDUSTRY

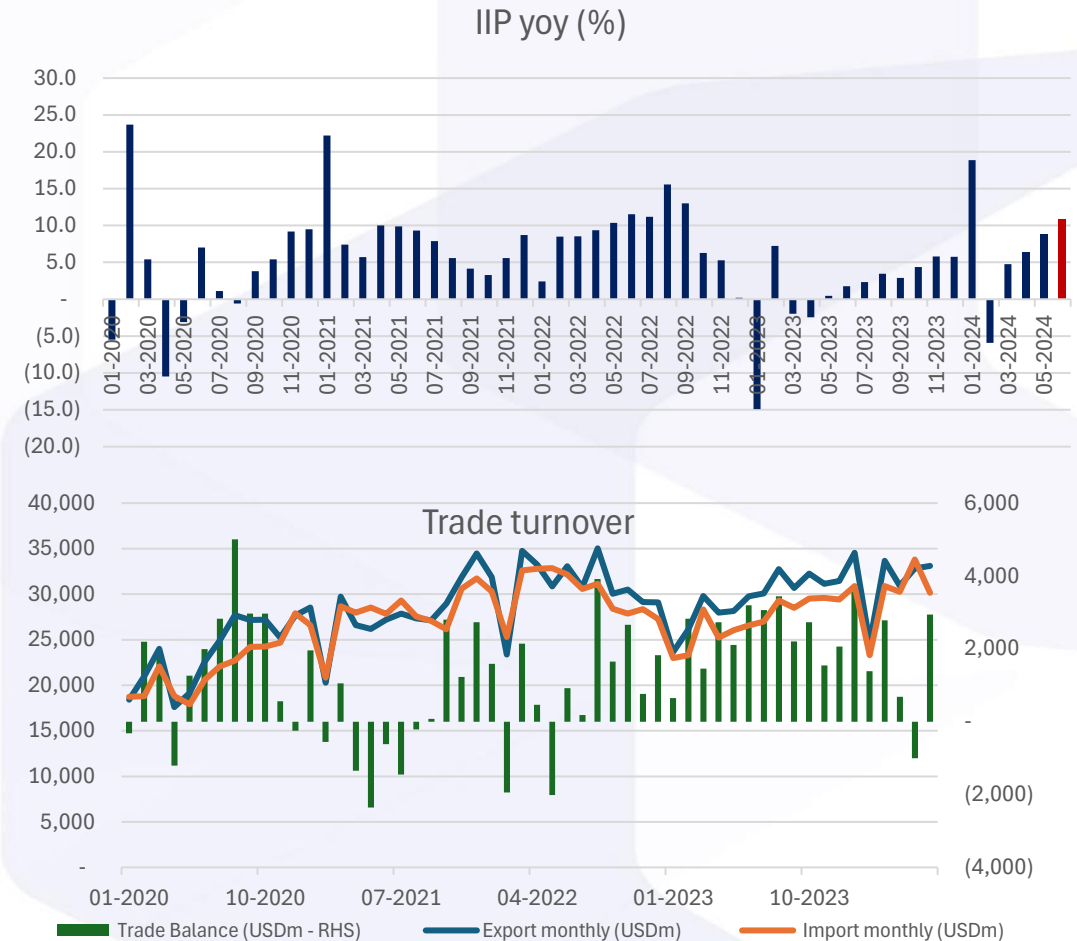
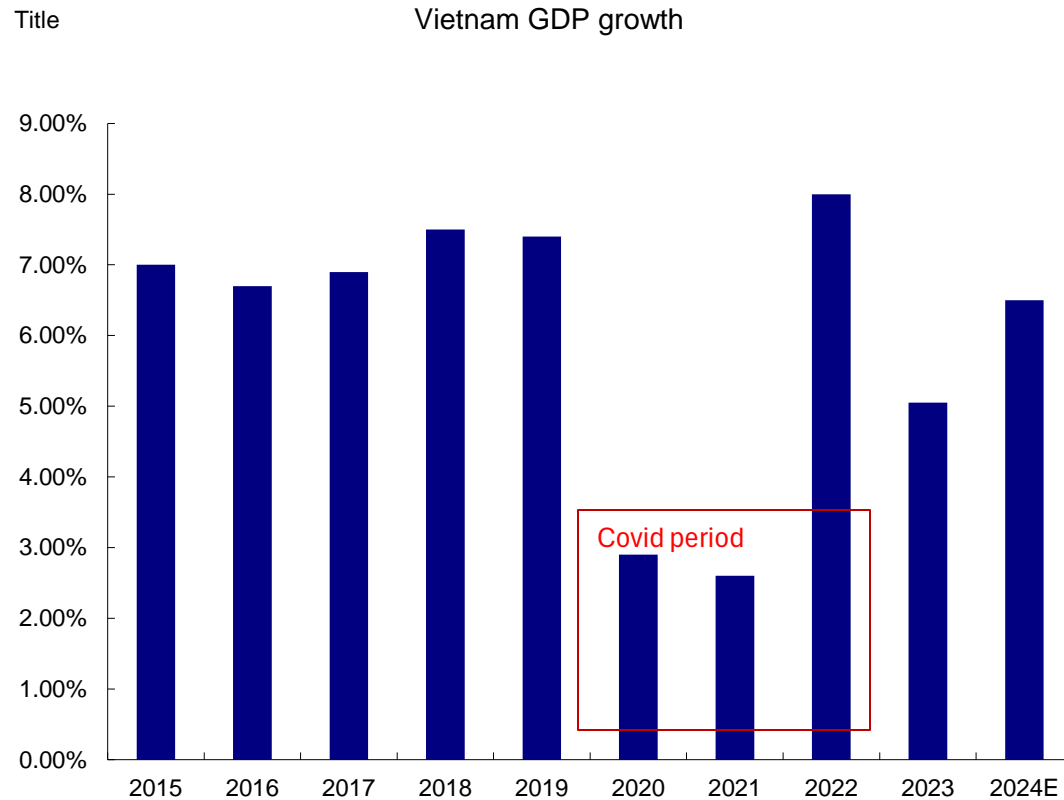
Vietnam Semiconductor Prospect

- Vietnam has a lot of potential to develop semiconductor industry. This industry can soon become a key economic sector of Vietnam and the country has enjoyed many opportunities to attract investment in the industry.
- Revenue in the Semiconductors market is projected to reach US\$18.23bn in 2024. Revenue is expected to show an annual growth rate (CAGR 2024-2029) of 11.48%, resulting in a market volume of US\$31.39bn by 2029.
- We believe that the prospects for developing Vietnam's chip and semiconductor industry are still very open thanks to Vietnam's outstanding advantages including strategic geographical location and the improving internal strength of the economy, a large & growing high-quality workforce, large rare earth reserves and Government policies to promote the semiconductor industry.
- Currently, Vietnam's semiconductor industry is still in its infancy. However, with the movement of semiconductor giants into Vietnam (Samsung, Amkor, Nvidia, Qualcomm), and new advances of domestic technology corporations such as FPT and Viettel in chip design activities, we believe that in the long term, Vietnam will penetrate deeper into the industry's value chain.
- In addition, the supporting industry for the semiconductor industry is also a potential market.



The Macroeconomic Economy Of Vietnam's Impact On Attracting Investment In The Semiconductor Industry

1. High GDP growth and strong production growth momentum



Sources: Bloomberg, FiiiproX, GTJASVN Research

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The Macroeconomic Economy Of Vietnam's Impact On Attracting Investment In The Semiconductor Industry

2. Vietnam's Investment promotion policies

Investment incentive policies:

- Land lease incentives for investments in High-Tech Zones: Land rent exemption for 15 years from the date of the land lease decision.
- Corporate income tax incentives: A preferential tax rate of 10% for 15 years from the date of being granted the Certificate of High-Tech enterprise. If investing in CNC, a preferential tax rate of 10% is enjoyed for 30 years. CIT exemption for 4 years, 50% CIT reduction for 9 years.
- Personal income tax incentives: A 50% reduction for each individual working directly in the economic zone.

Import duty exemptions

- Goods are imported to form fixed assets of select projects prescribed under the law;
- Goods are imported for implementing export processing contracts with foreign parties;
- Raw materials and supplies are imported to directly serve the production of software products, and cannot be produced domestically;
- Goods are imported for use in scientific research and technological development, and cannot be produced domestically.

Special incentives

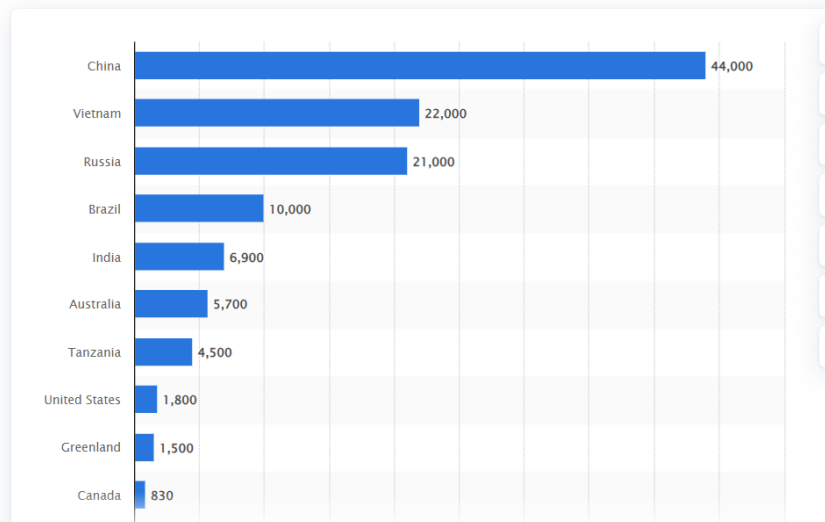
- the Prime Minister issued **Decision 29/2021/QĐ-TTg** providing the levels, duration, and conditions for the application of special incentives for investment projects which are granted based on the satisfaction of the law-specified criteria on investment capital, high technology, technological transfer, added value, and value chain participation of Vietnamese enterprises.
- The new regulation is expected to encourage foreign investors with large capital amounts and high technologies to make long-term commitments with Vietnam while promoting the process of technology transfer and increasing the spillover effects of FDI.



The Macroeconomic Economy Of Vietnam’s Impact On Attracting Investment In The Semiconductor Industry

3. Abundant raw materials supply and government policies

Reserves of rare earths worldwide as of 2023, by country
(in 1,000 metric tons REO)



In 2022, Vietnam ranked 6th place in rare earths production but ranked 2nd in top 5 countries that have the largest rare-earth reserves in the world, estimated at 22 million metric tons (MT). These reserves are strategically located along the northwestern border with China and the eastern coastline.

Production Trends: Vietnam's production of rare earths was relatively modest at 1,200 MT in 2022, decreasing to 600 MT in 2023. Despite this, Vietnam stands out as the only country outside of China with a vertically integrated rare earth magnet supply chain. This unique position has garnered significant interest from international companies across various sectors, looking to diversify their supply sources away from China.

Key Projects and Market Expansion: Vietnam has set an ambitious target to produce 2.02 million MT of rare earths by 2030. To achieve this, several key projects have been initiated. Notably, the Dong Pao mine in Lai Chau Province, spanning over 132 hectares, is set to become Vietnam's largest rare earth mine. This project, along with others, is expected to significantly boost Vietnam's output and contribute to the global supply chain.

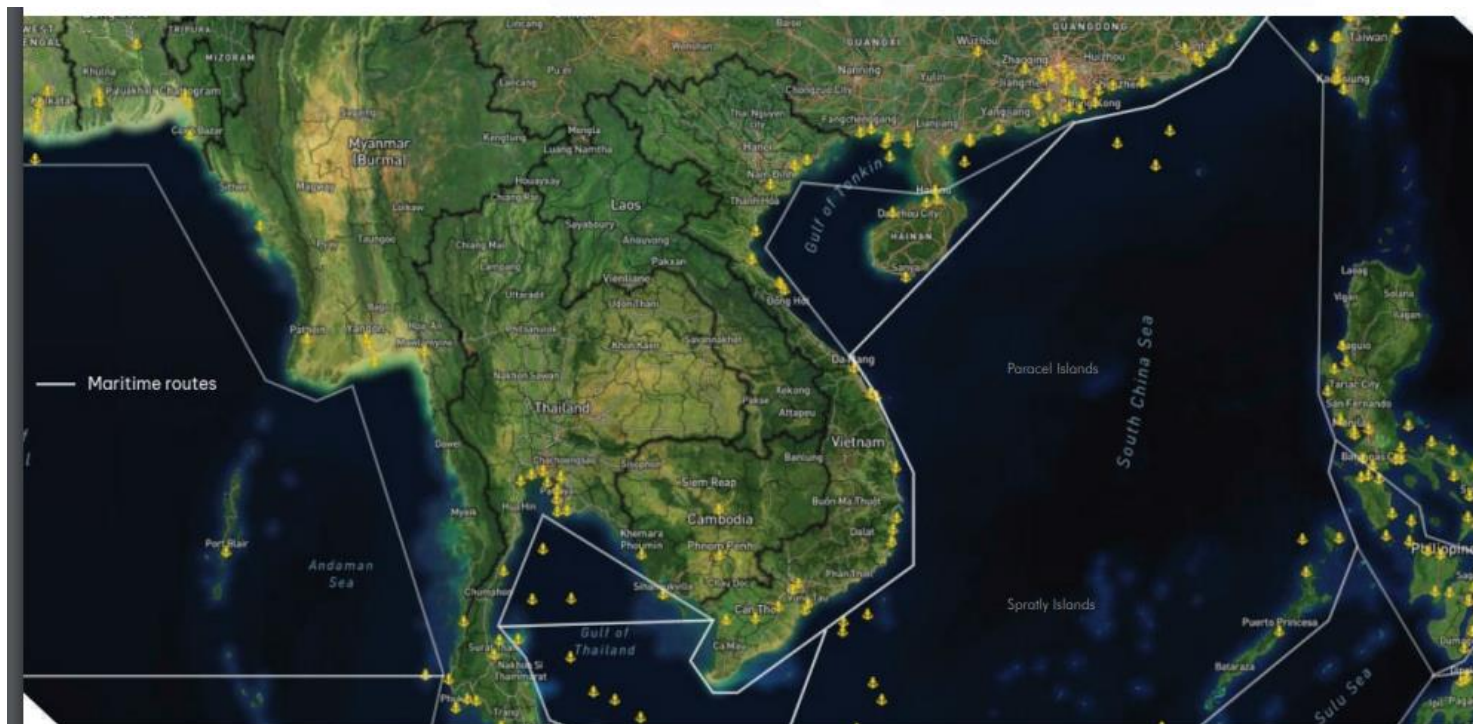
Many multinational corporations are looking to Vietnam to produce semiconductor chips, because Vietnam holds the golden key to the semiconductor industry, which is rare earth. Statistics of businesses investing in semiconductor production in Vietnam such as Amkor Technology Vietnam (1.6 billion USD), Hana Micron Vina investing 600 million USD (1 billion USD in 2025), Intel Vietnam (more than 1 billion USD), Samsung commits to invest an additional 3.3 billion USD in semiconductor component production.

Sources: Statista



The Macroeconomic Economy Of Vietnam's Impact On Attracting Investment In The Semiconductor Industry

4. Advantages of geographical location and transportation infrastructure



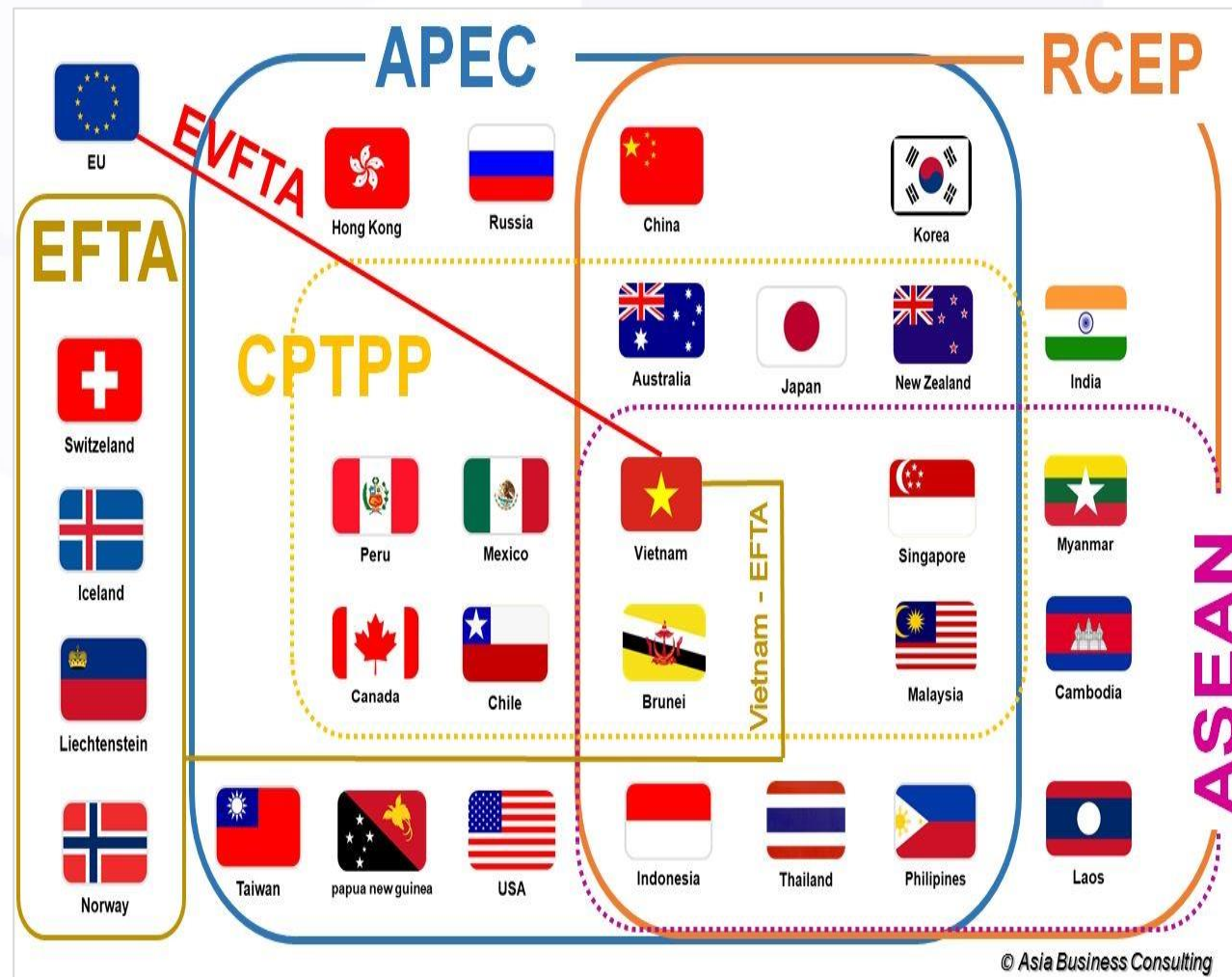
Vietnam is located at the gateway to Southeast Asia: Vietnam has a favorable geographical position for connecting with major economic centers around the world such as China, India, Japan, South Korea, Europe, and the United States. With its long coastline and contiguous land borders with many countries, Vietnam serves as the gateway to the sea for many Southeast Asian nations in particular and Asia in general. With a system of 34 seaports along its coastline, including deep-water ports like Hai Phong Port, Cai Lan Port, Saigon Port, Danang Port, and more, Vietnam has a well-established maritime infrastructure.



The Macroeconomic Economy Of Vietnam's Impact On Attracting Investment In The Semiconductor Industry

5. Vietnam participation in Economic Zone and FTAs

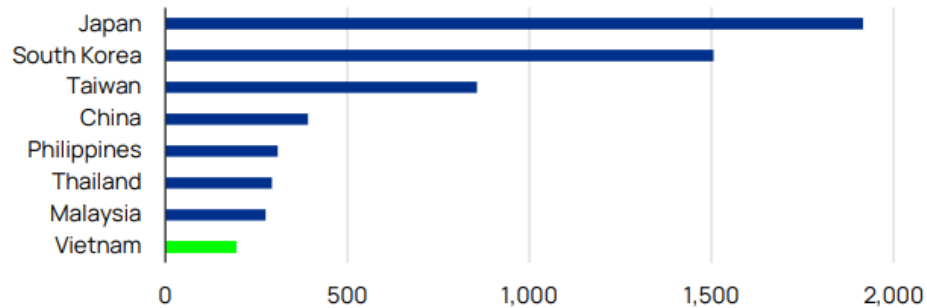
Vietnam's economy has become closely linked with the global economy. Vietnam has signed 16 FTAs, and there are 3 FTAs in negotiation. These agreements reduce trade barriers and create a more favorable environment for exporting semiconductors.



The Macroeconomic Economy Of Vietnam's Impact On Attracting Investment In The Semiconductor Industry

6. Cost competitiveness – abundant Labor sources with lower cost

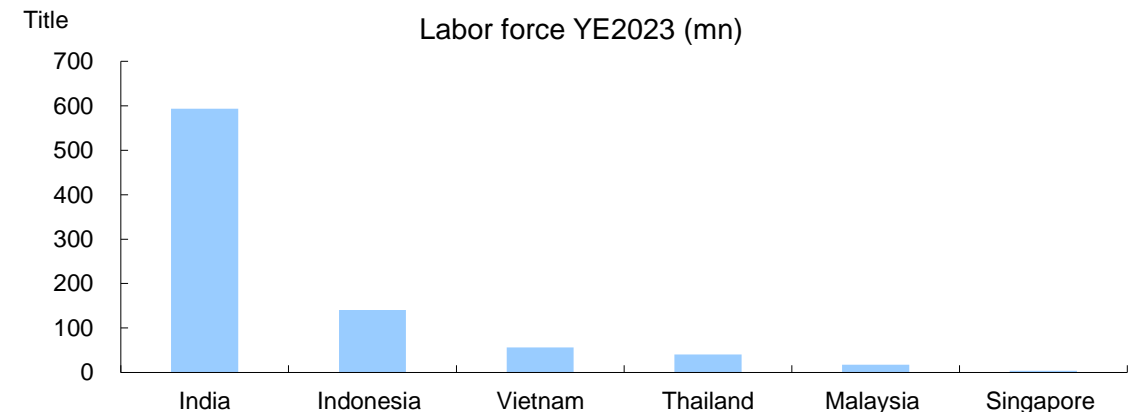
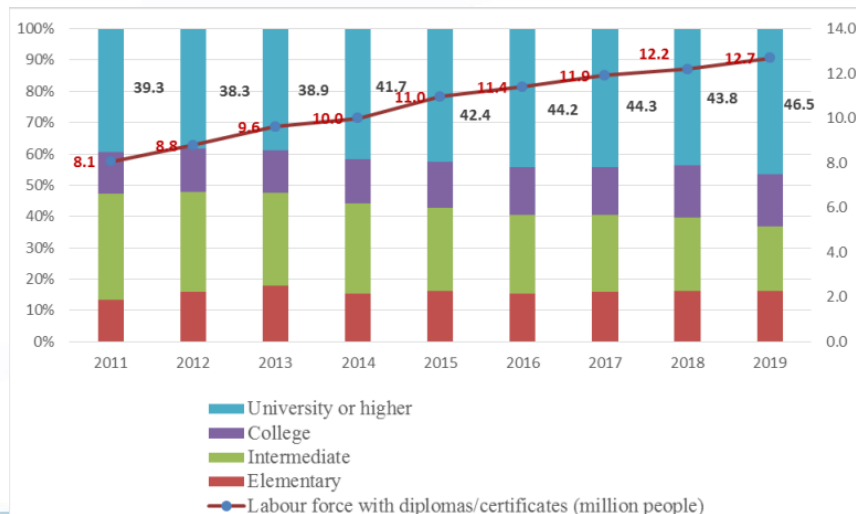
Minimum monthly wages in selected Asia-Pacific countries in 2022 (USD)



Vietnam is currently still in the golden population period with the labor participation rate in 2023 reaching 68.5%. Vietnam's labor force can be considered abundant, ranking just after India and Indonesia with 56 million people. The number of technically skilled personnel in Vietnam averages over 6 mn individuals and constitutes around 10% of the total labor force.

The quality of human resources in Vietnam has also improved significantly. According to the World Bank, Vietnam's human capital index (HCI) has increased from 0.66 to 0.69 in the 10 years 2010 - 2020. Vietnam's human capital index continues to be higher than the average of countries have similar income levels despite lower public spending on health, education and social protection. Vietnam is one of the countries in the East Asia - Pacific region with the highest score on the human capital index.

Number and structure of labor force by professional and technical qualifications

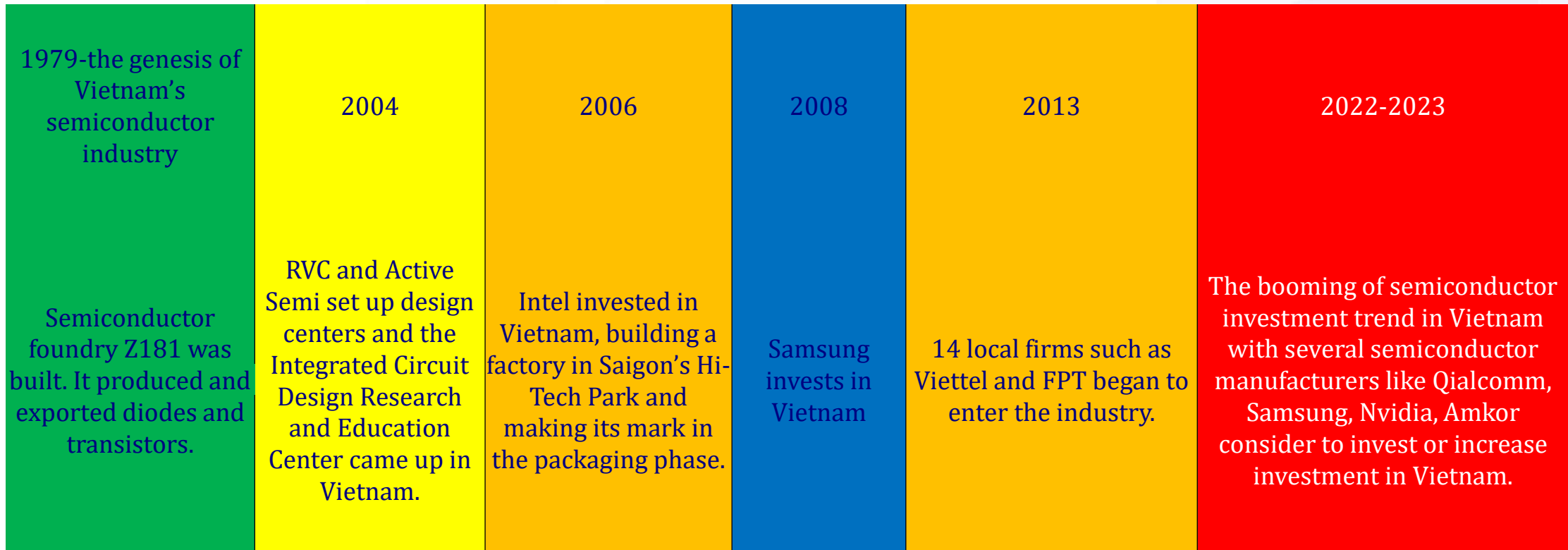


Sources: World Bank, ILSSA, GTJASVN Research

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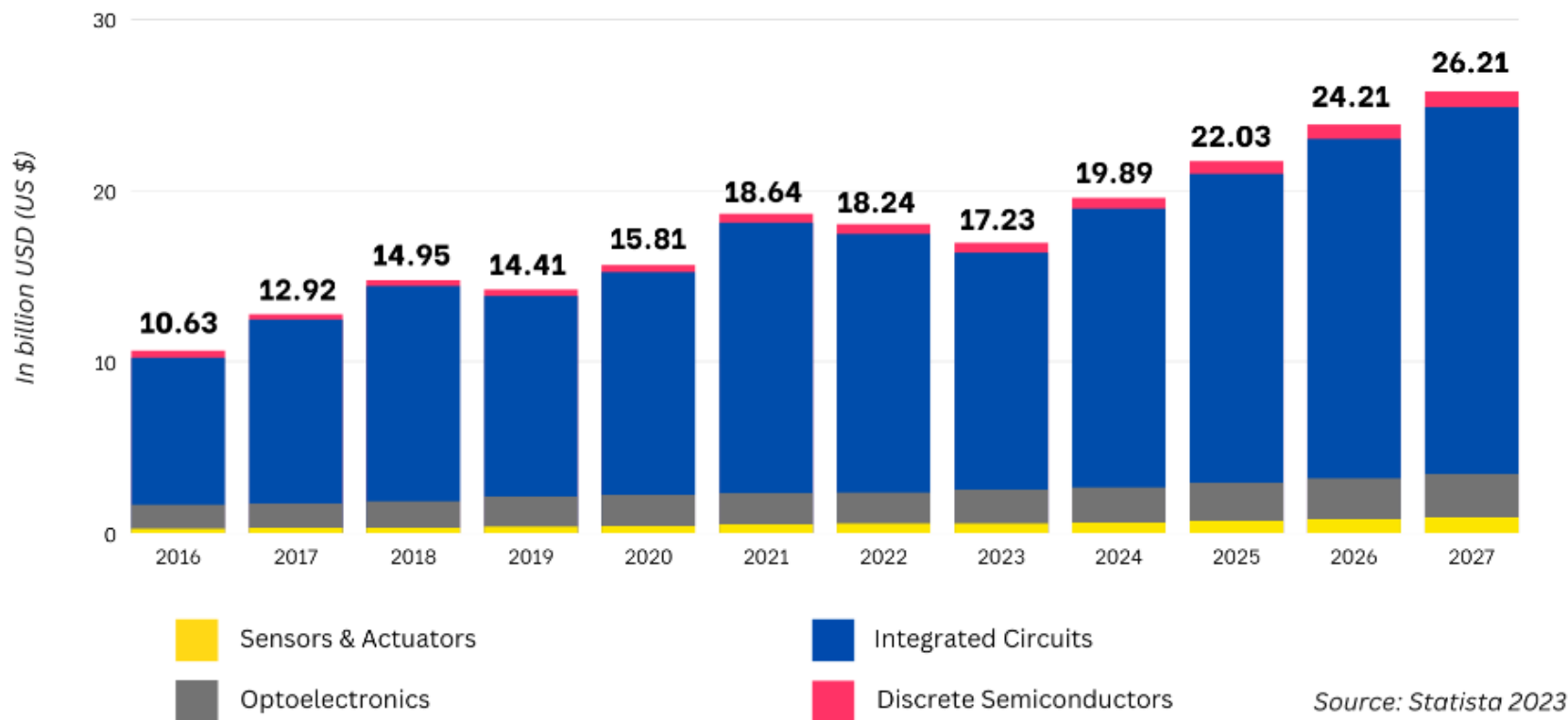
History of Vietnam Semiconductor Industry



Vietnam semiconductor revenue

Revenue by segment

SOA source of asia

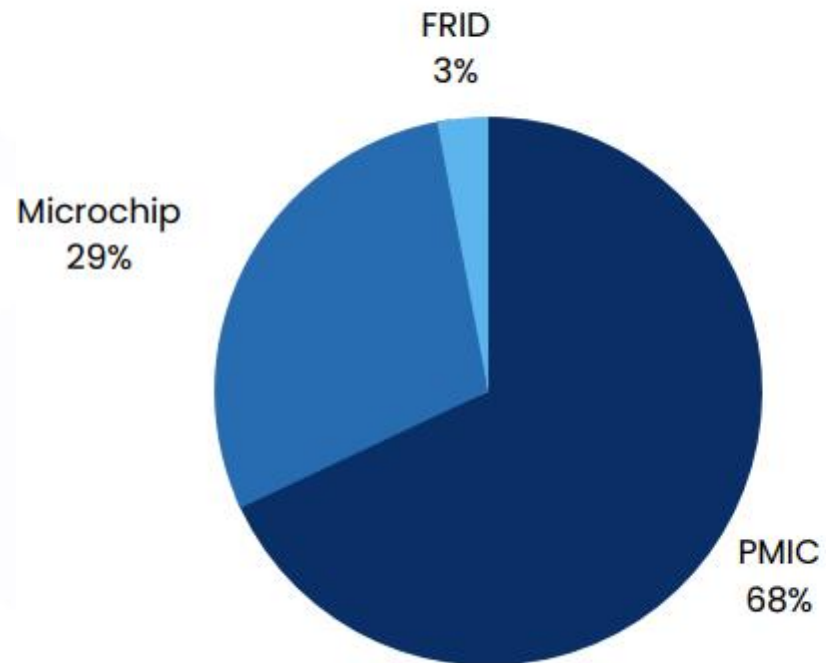


The Vietnam semiconductor revenue was \$17 bn in 2023 and is expected to have the CAGR of 11% in 2024-2027 period, culminating in a market volume of \$31 bn by 2027.

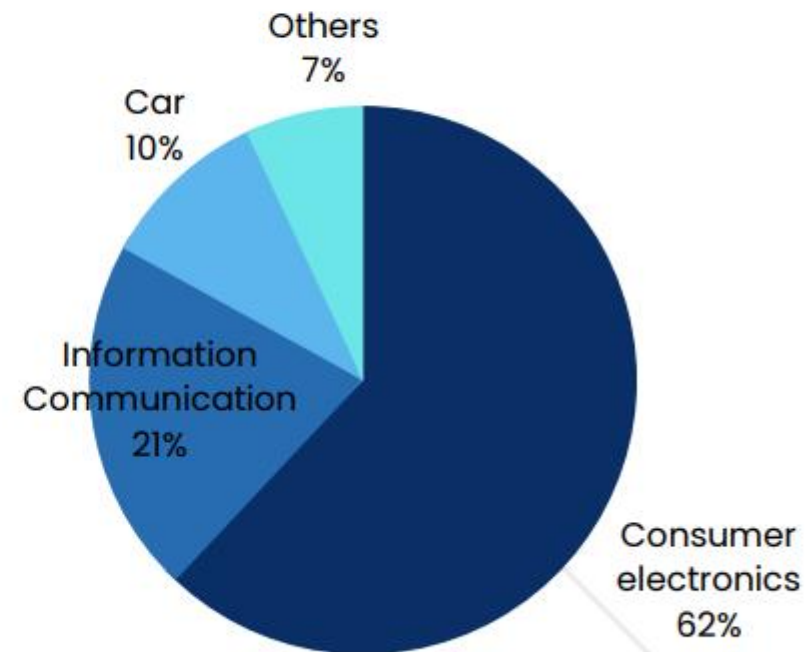


Vietnam's chip product and application

Market share value of semiconductive **chip product** segments



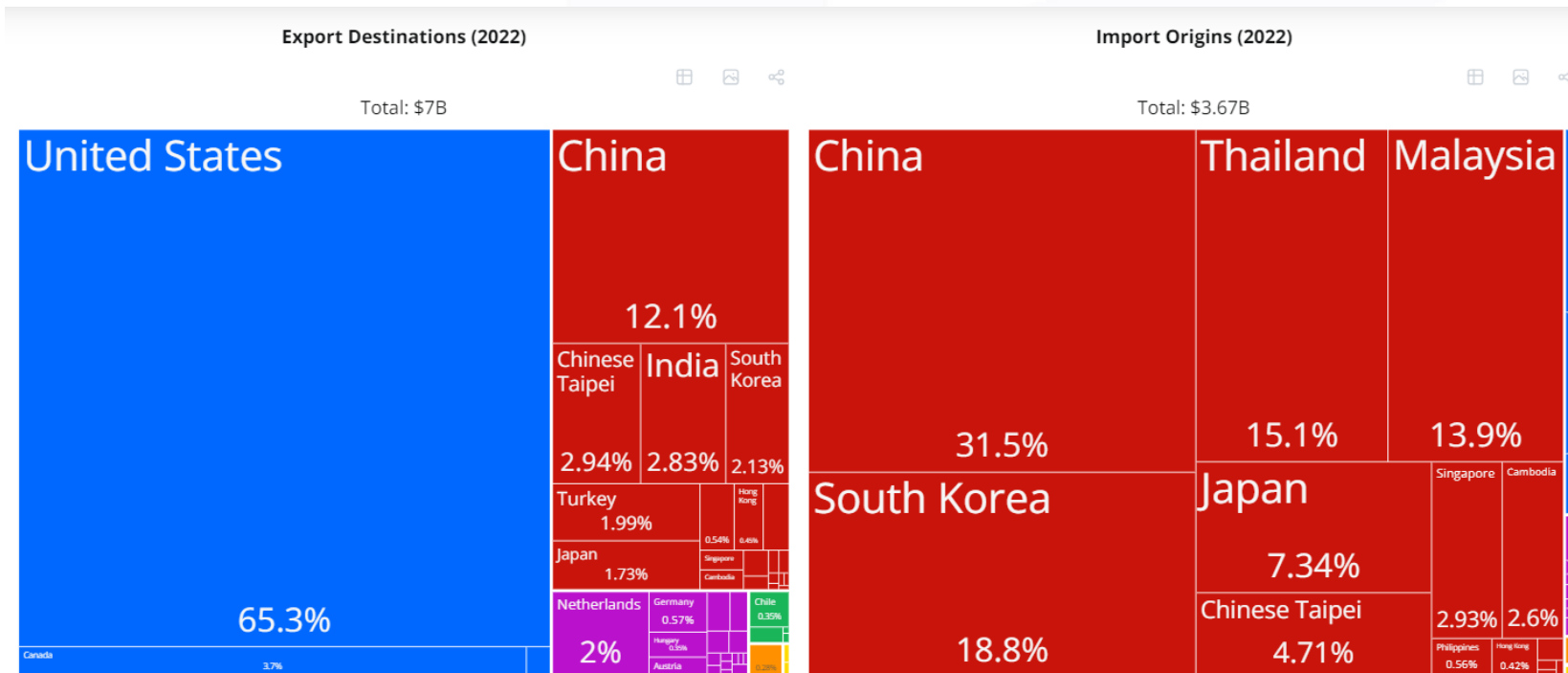
Market share value of semiconductor **chip application** areas



Source: IBEP Vietnam, 2023



Vietnam's chip and semiconductor import-export situation



In 2022, Vietnam exported \$7B in Semiconductor Devices, making it the 6th largest exporter of Semiconductor Devices in the world. At the same year, Semiconductor Devices was the 8th most exported product in Vietnam. The main destination of Semiconductor Devices exports from Vietnam are: United States (\$4.57B), China (\$845M), Canada (\$259M), Chinese Taipei (\$206M), and India (\$198M).

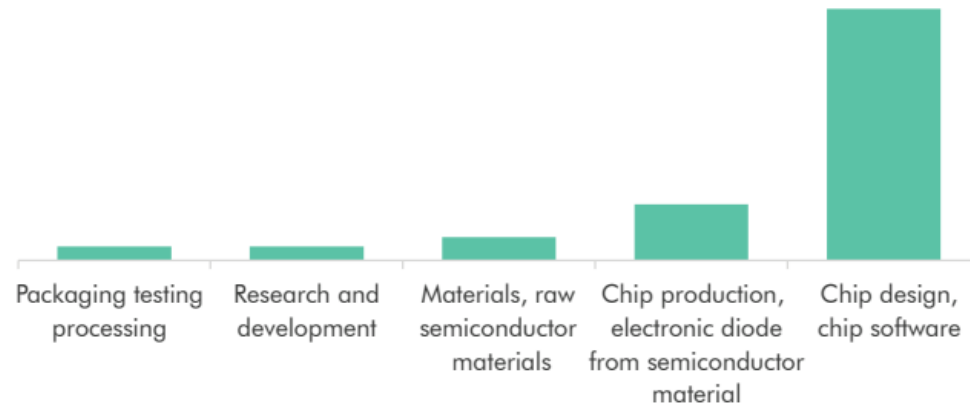
The fastest growing export markets for Semiconductor Devices of Vietnam between 2021 and 2022 were United States (\$1.56B), China (\$292M), and Chinese Taipei (\$196M).

Sources: OEC



Current Status Of The Semiconductor Supply Chain In Vietnam

Semiconductor Supply chain in Vietnam (by work type)



Source: HOUSELINK Research

The number of semiconductor industry projects invested in Vietnam is not much, mainly in the field of chip & software design. From 2015 up to now, the project type has been diversified with the entering of other work types, as: simple chip and diode manufacturing, and raw materials projects. Plant manufacturing projects tend to increase, especially in H1 of this year. Projects in the industry have continuously invested in Vietnam through the years (even in two years 2020 and 2021). Vietnam is one of the top countries in the list of investment locations thanks to macroeconomic stability, the investment and high determination of the government and businesses in developing the high-tech electronics industry, a moderate foreign policy and especially a marked improvement in infrastructure and labor resources in recent years.

In recent years, some countries such as Korea, Taiwan, China, India and Hong Kong have started to invest in more semiconductor projects in Vietnam.



The industry supply chain has a different concentration of investment locations depending on the work types

Semiconductor project allocation by region



■ South ■ North ■ Central

The North is currently attracting investment in a variety of project work types compared to other regions. With the advantage of a complete electronics supply chain and abundant human resources in the electronics industry, manufacturing projects are also more concentrated in this region than in the other two regions. Besides, the North is also the location for design projects, R&D, etc. Prominent projects in the North are Samsung's manufacturing and R&D projects.

Most projects in the South are chip design. Intel's chip assembly and pilot factory project in the Hochiminh Hi-Tech Park.

The Central region currently only attracts a few projects in terms of design and raw materials.

In term of investment country, the United States involve in design, raw materials, and packaging & testing work mainly.

Semiconductor supply chain by region

● Packaging testing processing ● Research and development ● Materials, raw semiconductor materials
● Chip production electronic diode and semiconductor material ● Chip desing, chip software

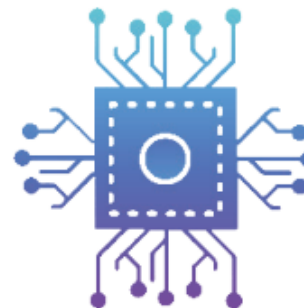
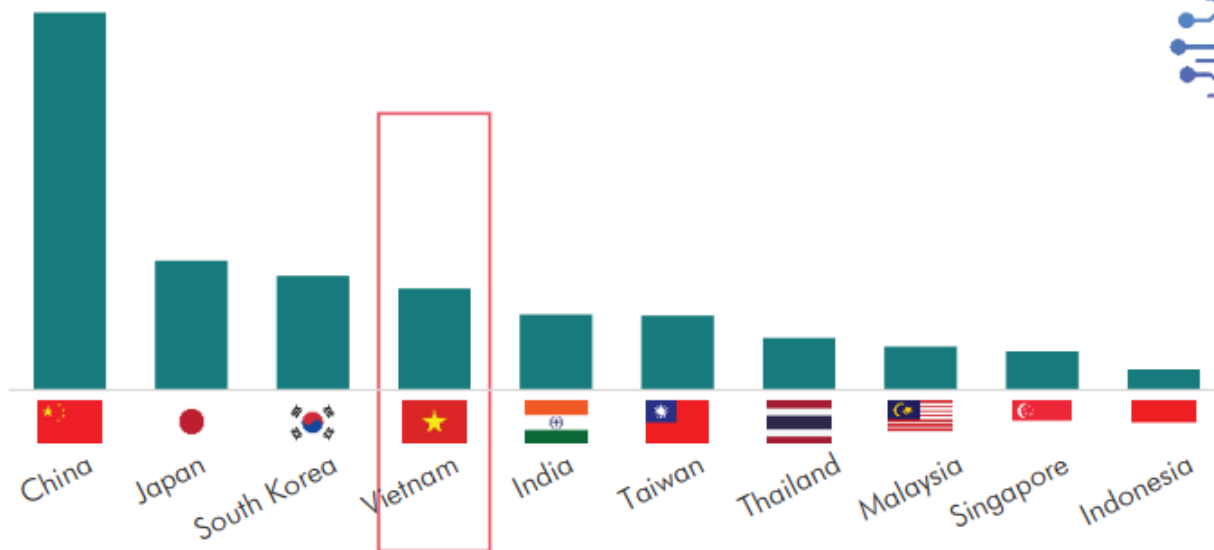


Sources: Houselink, GTJASVN Research



Vietnam in the semiconductor value chain- very early stage

Top 10 Asian countries exporting semiconductors to the United States
June/2023



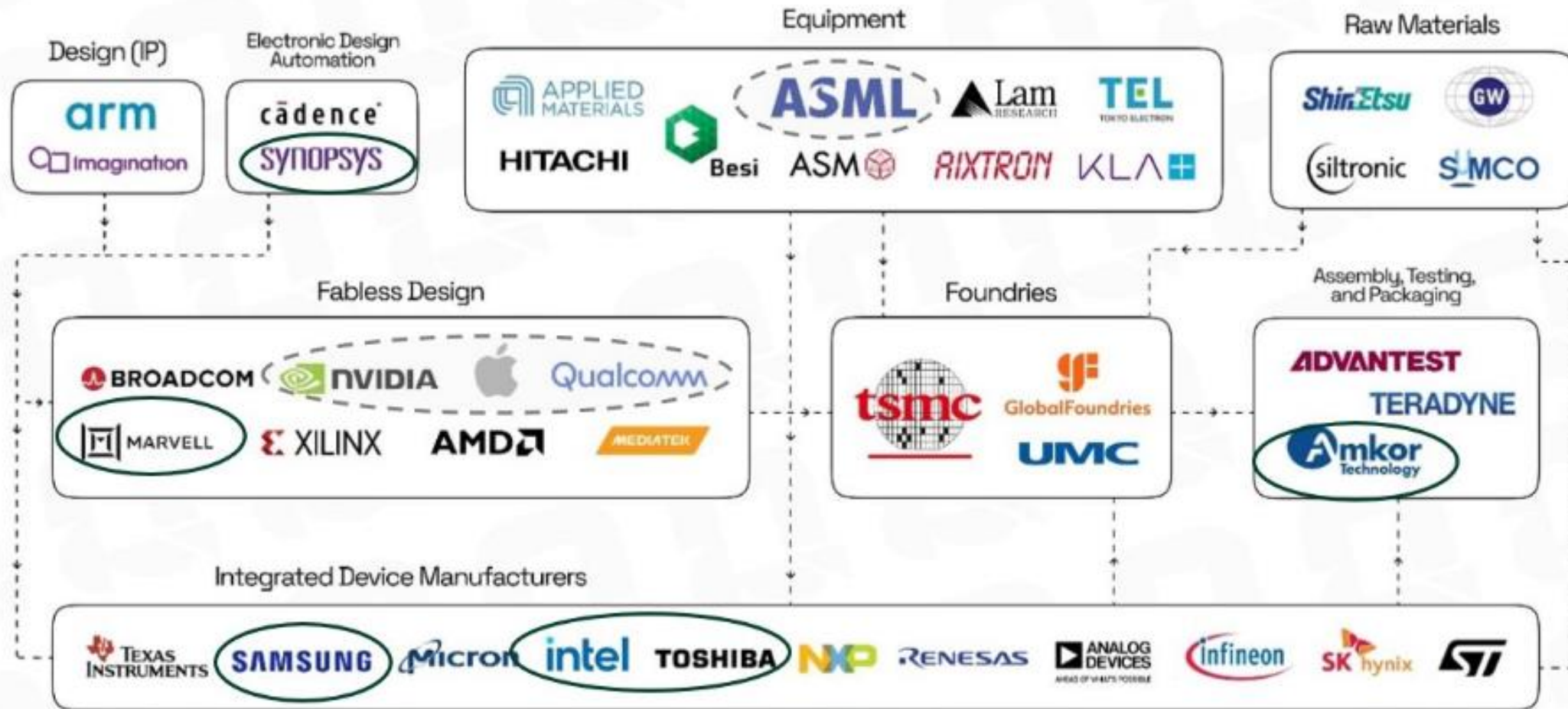
In June 2023, Vietnam ranked fourth among Asean countries exporting semiconductors to the US, following China, Japan and South Korea. However, Vietnam's contributions remain minor when the entire supply chain is considered. **Despite significant growth in chip imports, Vietnam primarily participates in the final phases of semiconductor production, focusing on assembly, testing and packaging.** This role, while crucial, represents the lower-value end of the supply chain. The nation is actively working to develop its design and packaging capabilities to increase its influence in the global semiconductor industry.

Source: Tradingeconomics

Semiconductor factories in Vietnam are still focused on assembly, testing and packaging, accounting for about 6% of the value chain. The value of this stage is much lower than about 53% of the value of the design stage and 24% of the value of the production stage and also uses less direct raw metals, including silver.



Semiconductor companies presence in Vietnam as of 2023



Key players

Besides foreign projects, Vietnam also has several technology companies and businesses that have been researching, designing, and manufacturing chips such as **FPT Semiconductor**, **Viettel**, etc. This will be the path for Vietnam to participate more deeply in the global semiconductor industry.

Large Vietnamese enterprises such as Viettel, VNPT and FPT have also proactively built their capacities to participate in chip research, development and production.

For the case of FPT, the corporation has launched FPT Semiconductor Co which specializes in the field of semiconductor chips. The company has received large orders to produce over 70 million chips. At the same time, FPT has also focused on launching training programs on semiconductor chips at the FPT education system.

Currently, FPT is in charge of the product research and development stage. However, during the production process, they are teaming up with foreign original equipment manufacturers for production and distribution abroad as conditions in Vietnam are not ready.

COMPANIES PARTICIPATING IN CHIP DESIGN BY REGION IN VIETNAM

Source: Vietnam Microchip Community



Emerging trend in Vietnam's Semiconductor industry



Fostering international Alliances: US-VN Partnership



Investment and infrastructure development to boost the semiconductor ecosystem. Key provinces such as Bac Giang, Bac Ninh, Thai Nguyen, HCMC have involved into significant production hubs for high-tech, high-value semiconductor manufacturing. In total, foreign companies have committed new investment valued approximately \$5 bn to Vietnam's semiconductor industry.



Benefit from the trend of expanding assembly and testing activities to new countries

Global semiconductor industry context- US diversify the supply chain from the China market

US

In August 2022: Approval of the CHIPS and Science.

Act: Promoting domestic production, investment; Reducing the United States' reliance on gradually diminishing foreign sources, mainly from East Asian countries. In October 2022: The new regulations from the Bureau of Industry and Security (BIS) under the US Department of Commerce, are notable for; Restricting AI chip access, Design limitation, Constraining the ability to produce advanced chips, Restricting the capability to produce equipment mainly from China's access.

Friend-shoring policy: aimed at deepening the economic ties of the United States with some friendly economies to reduce the risk of supply chain disruptions.

China

In August 2023: China has implemented policies restricting the export of rare metals for semiconductor production. Plan to roll out its largest financial support package in five years, worth over 1 trillion yuan (143 billion USD).

Others

Several other countries such as Taiwan, South Korea, Mexico, and Canada have also designed and implemented special incentive packages for the chip and semiconductor manufacturing industry.



Benefit from the trend of expanding assembly and testing activities to new countries

Global semiconductor industry context- US diversify the supply chain from the China market

Currently, many large corporations from the US, Korea... are investing billions of dollars in semiconductor production projects in Vietnam. Recently, the first semiconductor factory project in the North of Hana Micron Vina Company in Van Trung Industrial Park (Bac Giang) invested by a Korean company with a capital of nearly 600 million USD was inaugurated. In addition, California-based companies Synopsys and Marvell also announced the establishment of a semiconductor design center in Ho Chi Minh City after the Vietnam-US relationship became closer.

- Samsung Electronics: 850 mn USD investment in Vietnam to produce semiconductor components at Samsung Electro-Mechanics Vietnam factory in Thai Nguyen. Inaugurate the Research and Development Center in Hanoi in 2022.
- Apple: its suppliers: Foxconn, Pegatron, Goertek have moved some production out of China to reduce risks due to trade tensions and supply shortages.
- Dell: plan to stop using China-made chips by 2024. Ask suppliers to reduce the amount of other made-in-China components. Ask product assemblers and suppliers of other components to help prepare capacity in countries beyond China, such as Vietnam.

Sources: Bloomberg, GTJASVN Research



The US has significantly invested in Vietnam's semiconductor industry, seeing its potential in the global supply chain. Many US firms have setup facilities or R&D centers there.

LEADING SEMICONDUCTOR COMPANIES IN VIETNAM

Vietnam's semiconductor companies mostly come from foreign-invested companies.



Intel committed to spend US\$ 475 million to build a cutting-edge microelectronics testing and assembly facility in Vietnam.

Amkor is set to begin operations in Bac Ninh province and will invest about US\$1.6 billion until 2035 in building state-of-the-art facility.

Pegatron spent US\$ 22.9 million to buy land in Vietnam. The corporation intends to invest a further US \$1 billion to establish significant production capacity in the area.

Synopsys already signed an MoU with Vietnam's Saigon high-tech park to provide training for Vietnamese electrical engineers while giving away 30 licenses, at US\$ 20 million worth, for the tech park.

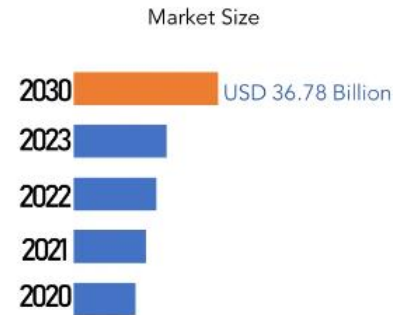
In the latest visit of Nvidia vice chairman in Vietnam, Nvidia reached an agreement with tech firm FPT Corp. to invest \$200 million in building an AI-propelled factory using Nvidia's latest technology like H100 Tensor Core graphics processing unit (GPU).



Benefit from the trend of expanding assembly and testing activities to new countries

More than 75% of global semiconductor factory capacity is located in Asia (frontend), but this region's market share in chip assembly and testing (back-end) is up to 90%. With the exception of large IDMs, most chip companies have outsourced assembly and testing processes to third-party vendors (OSAT). The majority of major OSATs are based in China and Taiwan, accounting for about 80% of the OSAT market by 2022. Although the US is aiming to increase domestic assembly and testing capabilities, nearly all Assembly and testing are all done in Asia. In 2024, the back-end assembly and test market is undergoing significant transformation, as prominent IDMs and semiconductor foundries move further into advanced packaging, while big OSAT also continues to enhance its packaging capabilities. At the same time, semiconductor companies based in the US and EU are expanding their domestic front-end wafer processing facilities. **In addition to this expansion, semiconductor companies are also implementing processes to move back-end assembly and testing services to new countries. For example, some new assembly and test capacity is being expanded in Vietnam, Malaysia, India and Poland, reflecting how IDM and OSAT are diversifying and de-risking their supply chains.** Another aspect that assembly and test facilities should consider is the energy, materials and other resources used in assembly, testing, transportation and distribution – which are still less important in the equation of preserving the sustainability of the semiconductor industry.

Outsourced Semiconductor Assembly and Test Market by Service, Packaging and by Region Global Trends and Forecast from 2023 to 2030



The restricted influence on the manufacturing process poses constraints for the Outsourced Semiconductor Assembly and Test (OSAT) market.

Outsourced Semiconductor Assembly and Test (OSAT) market stands to benefit from the synergy between High-Performance Computing and Artificial Intelligence, presenting new avenues for growth and opportunities.

Heterogeneous Integration opens up possibilities for Outsourced Semiconductor Assembly and Test (OSAT) market.

38% Asia-Pacific



CHALLENGES 1. Lack of semiconductor ecosystem, including local suppliers, design firms, testing facilities and research institutes.

In the future, the next steps for the sector development are to leverage the existing cooperation agreement with US and other partners to build a more resilient and diversified semiconductor supply chain, to establish a model of training in incubation center for semiconductor circuit design in Vietnam and to create a conducive ecosystem for the growth of domestic semiconductor enterprises.

CHALLENGES 2. Limited pool of skilled labor

Vietnam's young human resources are quite quick to learn new technology. However, the investment in developing personnel resources for the semiconductor chip sector in Vietnam remains modest. Up to now, Vietnam only has 6,000 engineers working in about 40 chip and semiconductor companies, but it will need as many as 20,000 in the next five years, according to the US-ASEAN Business Council. Vietnamese authorities are aware of workforce shortcomings and are leading a push to train more engineers. 20 technical universities are starting semiconductor training programs with the goal of having 50,000 engineers added to the workforce by 2030.



CHALLENGES 3. Vietnam has not been able to exploit and deeply process rare earths

Even though it has been exploring and evaluating reserves for more than 40 years and has invested in rare earth research, up to now, Vietnam has not been able to exploit and deeply process rare earths. The main reason is because Vietnam does not have the technology to exploit and process rare earths. Only a few countries have deep processing technology for rare earths but keep copyrights, secrets and do not transfer technology such as: China, America, Australia... In addition, investing in science and technology in this field in Vietnam has been quite modest and not been paid much attention yet.

According to a report by the Department of Industry, Ministry of Industry and Trade, the situation of exploiting and processing rare earth mines in Vietnam is still limited, Currently, mining-licensed enterprises do not yet grasp the technology to process high-standard products and do not have the technology to separate rare earth products. Vietnam has only stopped at the stage of processing rare earth ores with a rare earth oxide content of about 30%.

Most recently, the Prime Minister issued Decision No. 866/QĐ-TTg dated July 18, 2023 on approving the Planning for exploration, exploitation, processing and use of minerals for the period 2021- 2030, vision to 2045. In particular, the orientation to develop the rare earth mineral exploitation and processing industry is synchronous, effective and sustainable. As Vietnam is gradually becoming an area that attracts investment for the semiconductor industry, developing internal resources in technology to manufacture rare earth into strategic materials is an important step for Vietnam to be able to take the opportunity.

Sources: Bloomberg, GTJASVN Research



CHALLENGES 4. Not yet in control of the raw material - Silver

Silver often comes as a byproduct from mining lead, copper, gold and nickel. However, mining technology is still weak, making silver recovery from the above ores almost impossible in Vietnam. Therefore, the source of precious metals, including silver, of Vietnam mainly comes from import channels, mostly from Asian countries. Vietnam imports the most precious metals from Hong Kong, accounting for more than 22% of turnover value, followed by Korea (21% value), India (11% value). These are all countries participating in the 'race' of producing electronic chips.

According to a report by the International Silver Institute, industrial silver demand will account for 79.1% of total demand in 2030, up from 44.7% in 2022. Silver consumption in the electronics sector in 2023 is forecast to increase 3% to 382.2 million ounces, accounting for more than 66% of total industrial demand.

With the long-term development orientation of Vietnam's semiconductor industry, participating in Vietnam's semiconductor value chain will not stop at the packaging stage. And then the industry will need to use more silver. To participate in the value chain in the field of semiconductor chips at important stages such as design and production, in the long term, quickly finding a source of raw materials is essential. In the context of global silver supply becoming scarcer, in addition to importing raw materials, technological innovations to exploit domestic silver-containing mineral mines will also be a solution. Not only serving the electronics manufacturing industry, silver metal, which plays a key role in green energy industries such as automobile manufacturing and wind power, is also a field that Vietnam is aiming for. Therefore, to participate more deeply in the global supply chain, Vietnam needs to have a plan to prepare good supply sources for the future to keep up with the rapid growth of the semiconductor industry.



CHALLENGES 5. Electricity insecurity

After facing electricity shortages last year, Vietnam is taking steps to ensure there is enough power to meet growing demand in 2024, especially during the peak dry season.

Last summer served as a stark reminder of the consequences of inadequate power infrastructure. Vietnam experienced power shortages that stemmed from a lack of investment in both power sources and the transmission grid itself.

These shortcomings also highlighted operational inefficiencies, with several electricity projects suffering from delays or suspensions altogether.

The consequences of these power shortages underscore the Vietnamese government's resolve to prevent a repeat of the situation in 2024.

To avoid supply disruptions, the Prime Minister has called on all relevant ministries, regional authorities, and associated organizations to develop comprehensive plans that can address even the most extreme scenarios. A range of specific measures is targeted to ensure sufficient electricity supply in 2024. One major focus is enhancing the capability of existing electricity transmission infrastructure. Additionally, the Ministry of Industry and Trade has been tasked with creating and carefully monitoring a dedicated electricity supply plan specifically for the high-demand, peak dry season months between April and July 2024. Maintaining vigilant oversight of coal and gas supplies, critical fuels for power generation, is another crucial element in the government's plan. To bolster transmission capacity, the rapid completion of the 500 kV Quang Trach - Pho Noi line takes center stage. Furthermore, Vietnam is building upon its energy resilience by ensuring that major oil, gas, and coal corporations commit to guaranteeing adequate fuel reserves for electricity production. Meanwhile, the Ministry of Industry and Trade is establishing a month-by-month electricity supply roadmap to maintain transparency and manage demand effectively.

In a significant move towards sustainable development, Vietnam's Deputy Prime Minister Tran Hong Ha has signed a decision approving a roadmap for the implementation of the National Electricity Development Plan 2021 to 2030, with a vision to 2050. This masterplan is commonly known as Power Development Plan 8 (PDP8). **This decision reflects Vietnam's commitment to accelerating the transition from conventional fossil fuels to cleaner and renewable energy sources, addressing environmental concerns, reducing greenhouse gas emissions, and aligning with global sustainability targets.**



CHALLENGES 6. Fierce competition from other regional players such as China, Taiwan, South Korea and Singapore who have more advanced technologies, larger markets and stronger government support

Malaysia and Singapore were formidable competitors and Indonesia and Thailand were also pursuing the sector.

Vietnam is working on improving its investment climate, infrastructure, intellectual property rights protection to attract more foreign investors.



Vietnam Government support of the Semiconductor Industry

Building a development strategy and a human resource development plan

Step up the training of high-quality workforce in semiconductor industry, with the goal of training 50,000 workers by 2030

Advocates building a national semiconductor system with the participation of various stakeholders, including Government, business, support organization, universities, research institutes and financial institutions

Building huge work force for the semiconductor industry. It has research institutes in Hanoi and HCM City National Universities, Hanoi University of Science and Technology. Meanwhile, large corporations including Viettel, VNPT, FPT, CMC have good resources and are ready to cooperate to develop the industry.



Vietnam Government support of the Semiconductor Industry

Tax incentive to attract FDI in the high-tech industry

Exemption from land rental and water surface rents fees for the duration of their lease for projects investing in socio-economically deprived areas. Businesses investing in the sector can enjoy a reduction of up to 50% in centralized high-tech parks.

Hanoi: industrial enterprises in Hanoi enjoy investment incentives such as exemption from corporate income tax for the first 4 years, a 5% tax rate for the next 9 years and a 10% tax rate for the next 15 years

CIT incentive policy for projects manufacturing SI products was introduced under Law 71/2014/QH13: tax exemption for 4 years, reduction of 50% of tax payable for the following 9 years and 10% tax rate for the next 15 years.

And other policies: Regarding **chip design**, Vietnam established the National Innovation Center (NIC) and signed a cooperation agreement with the two largest US chip design corporations, Synopsys and Garden, to establish chip research & design center in NIC facilities. In addition, the Government is also developing a decree, promulgating many support policy mechanisms for high-tech industries, and will establish an Investment Support Fund for high-tech industries, including the semiconductor industry. In terms of **infrastructure**, the Government has also assigned localities to plan and prepare to welcome the wave of semiconductor investment amongst the global trend.





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