

Viet Nam's electronics supply chain:

Decent work challenges and opportunities

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# About the Viet Nam Chamber of Commerce and Industry

The Viet Nam Chamber of Commerce and Industry (VCCI) is a national organization that brings together and represents the business community, entrepreneurs, employers and business associations in Viet Nam (hereinafter referred to as "the business community"). The purpose of the VCCI is to develop, protect and support the business community, contribute to national socio-economic development, and promote economic, trade and technological cooperation with foreign partners on the basis of equality and mutual benefits and in accordance with the law.

The Viet Nam Chamber of Commerce and Industry was set up with two key functions:

- ➤ To represent the Viet Nam business community, ensuring the promotion and protection of its legal and legitimate rights in domestic and international relations; and
- ▶ To promote the development of the business community; promote and support trade, investment, scientific and technological cooperation and other business activities of the business community in Viet Nam and abroad; and promote the building of harmonious labour relations in enterprises.

# About the International Labour Organization

The International Labour Organization (ILO) is the United Nations specialized agency devoted to advancing opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity. It brings together governments, employers and workers – the tripartite constituents of 187 Member States – to set labour standards, develop policies and devise programmes promoting decent work for all women and men.

The ILO delivers on its mandate through Decent Work Country Programmes, which bring together its knowledge, instruments, advocacy and cooperation at the service of its tripartite constituents in a results-based framework to advance the economic and working conditions that give all workers, employers and governments a stake in lasting peace, prosperity and progress.

Through its Sectoral Policies Department (SECTOR), the ILO promotes decent work in 22 economic and social sectors at the global, regional and national levels.

### **Preface**

During the past decade, Viet Nam has become one of the top electronics suppliers in the world and its electronics industry has emerged as the country's most important export sector. Viet Nam's integration into global supply chains has opened up great opportunities for the industry, but at the same time placed new expectations on manufacturers and suppliers, employers and workers.

From the first outbreak in early 2020, the COVID-19 pandemic accentuated decent work deficits in global electronics supply chains due to movement restrictions, a loss of working hours and wages, suspension of collective bargaining agreements and cancellation of wage increases, along with health and safety risks. In Viet Nam, the ILO and the VCCI are working with the Government of Viet Nam, the Viet Nam General Confederation of Labour (VGCL) and other key supply chain partners to promote a safe return to work and to "build forward better" with improved business continuity planning.

This includes action to foster a more resilient, inclusive and sustainable electronics industry and global electronics supply chain, which is supported by the European Union-funded "Sustainable Supply Chains to Build Forward Better" project, the ILO-International Finance Corporation (IFC) "Better Work Vietnam" programme and other ILO projects.

This report assesses the electronics industry in Viet Nam, the largest export sector and one of the largest employers in Viet Nam, with the aim of understanding opportunities and challenges for advancing decent work during the post-COVID-19 recovery period.

We hope that this overview report will inform national partners and key supply chain stakeholders and encourage the Government of Viet Nam, as well as electronics manufacturers and workers, to continue in their efforts to promote and create better workplaces and seize new opportunities for the industry to succeed in the global marketplace.

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The report was drafted by Prof Gale Raj-Reichert, Bard College Berlin, and benefited from the thorough review and additional inputs of Dr Dao Quang Vinh, ILO consultant and former Director General of MOLISA's Institute of Labour Science and Social Affairs (ILSSA). They drew on valuable contributions from Dr Chu Thi Lan and the research team at MOLISA ILSSA, from Dr Pham Thu Lan at the VGCL Institute for Workers and Trade Unions, and from a survey distributed by the VCCI among its members, with the help of the ILO-IFC Better Work Vietnam programme.

On the VCCI side, the development of the report was spearheaded by Tran Thi Lan Anh, Tran Thi Hong Lien, and Mai Hong Ngoc. On the ILO side, technical inputs were provided by ILO officials Casper N. Edmonds, Youngmo Yoon, Caitlin Helfrich, Vu Kim Hue, Nguyen Thi Thanh Thao, Kassiyet Tulegenova and Francine Ndong, as well as Nguyen Hong Ha, Sabine de Bruijn, Jeffrey Eisenbraun, Samira Manzur, Yuki Otsuji and Lee Dong Eung, along with Ingrid Christensen and Nguyen Ngoc Trieu from the ILO Country Office for Viet Nam. An external consultant, Valerie Baldwinson, proofread and edited the material.

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## **Acronyms and abbreviations**

**ASEAN** Association of Southeast Asian Nations

**CPTPP** Comprehensive and Progressive Agreement for Trans-Pacific Partnership

CSR Corporate social responsibility

DAG Domestic advisory group

EU European Union (adj.)

**EVFTA** EU-Viet Nam Free Trade Agreement

FDI Foreign direct investment
FTA Free trade agreement

GSO General Statistics Office of Viet Nam

IFC International Finance Corporation

**ILSSA** Institute of Labour Science and Social Affairs

IMF International Monetary FundMNE Multinational enterprise

MOLISA Ministry of Labour – Invalids and Social Affairs

**OECD** Organisation for Economic Co-operation and Development

OSH Occupational safety and health
RBA Responsible Business Alliance

**RCEP** Regional Comprehensive Economic Partnership

**R&D** Research and development

**SME** Small and medium-sized enterprise

**TVET** Technical and Vocational Education and Training

US United States (adj.)
UN United Nations (adj.)

UNDP United Nations Development Programme
 VCCI Viet Nam Chamber of Commerce and Industry
 VEIA Viet Nam Electronics Industry Association
 VGCL Viet Nam General Confederation of Labour

WTO World Trade Organization

## Executive summary

This report assesses the electronics industry in Viet Nam, the largest exporting sector and one of the largest employers in Viet Nam, with the aim of understanding opportunities and challenges for advancing decent work objectives during the post-COVID-19 recovery period.

The electronics industry in Viet Nam has grown extraordinarily in a short period of time. This has been heavily influenced by favourable domestic legal frameworks and policies promoting foreign investment, the characteristics of labour supply and wages in the country, the industry's integration into global supply chains, Viet Nam's participation in international trade agreements and regional shifts in production due in part to the COVID-19 pandemic.

The electronics industry in Viet Nam has historically been dominated by foreign enterprises, the manufacturing activities of which have switched from sales to the domestic market to exports since the 2000s as part of their global supply chains. Today, the electronics industry is dominated by export-oriented production led by the industry's giants, namely Apple, Samsung, LG, Canon and Foxconn. The majority of domestic enterprises are small and medium-sized enterprises (SMEs), which produce mainly low value-added products for foreign enterprises. A few domestic electronics brands produce goods for the domestic market or niche export markets or have become suppliers to the automotive industry or other industries.

Labour costs in Viet Nam are lower in comparison to other neighbouring countries, such as China and Malaysia, which has been a factor in attracting foreign investment to the industry. In general, the work conducted in the electronics industry in Viet Nam is labour-intensive and low value-added assembly and testing activities. There are a few and increasing foreign investments in higher value-added research and development facilities, where domestic engineers are employed.

During the COVID-19 pandemic, neighbouring countries with electronics factories faced shutdowns and slowdowns to contain the spread of the virus. In contrast, the successful COVID-19 containment policies of the Vietnamese Government led foreign enterprises to accelerate the shift of production to Viet Nam. These large multinational enterprises were first and foremost in need of substitute and additional production capacity to respond to rising demand for consumer electronics. However, part of the relocation of production from China to Viet Nam was also the result of trade disputes and reduced trade between the United States and China. In this context, global brands have increasingly looked to Viet Nam to diversify their global supply chains.

The shift of production to Viet Nam was facilitated by several recently signed trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Regional Comprehensive Economic Partnership (RCEP), and the EU-Viet Nam Free Trade Agreement (EVFTA). These are projected to contribute to the growth of the Vietnamese electronics industry through reduced trade barriers to export markets and to increasingly attract foreign investments into export-oriented manufacturing.

Based on findings from an enterprise survey, interviews with enterprises, electronics workers and different governmental and non-governmental stakeholders, and a variety of secondary sources, this report discusses the business impacts of COVID-19 on a select group of electronics enterprises in Viet Nam and two key provinces for the electronics industry (Bac Giang and Bac Ninh), as well as the current status of decent work challenges and opportunities in the electronics industry and activities around corporate sustainability and due diligence.

In general, the enterprises that were surveyed and interviewed for this report faced mixed impacts from COVID-19. Most faced higher prices and unavailability of inputs and materials, higher operational costs and delays in logistics and shipments, and delays in customer payments. However, there were no clear trends of reduced or increased orders from customers during the pandemic months. Various policies and support measures were implemented by the central and provincial governments and industrial zone managements to prevent the spread of the virus among workers and to continue production. The VCCI and the VGCL and their affiliates at the local level also contributed actively to the overall support for the sector to overcome the obstacles caused by the pandemic and to "build forward better". However, the industry continued to face worker shortages after pandemic pressures eased and production activities resumed fully.

The state of decent work in Viet Nam's electronics industry was assessed based on the four strategic objectives of the Decent Work Agenda: employment, rights at work, social protection and social dialogue, with gender equality and non-discrimination as cross-cutting objectives.

- 1. When it comes to employment, as the largest employer in the country, the majority of workers in the electronics industry are women, although the share of men has been increasing steadily in recent years. The vast majority of jobs are in middle-skill occupations, which involve skilled machine and equipment operators and assemblers. A small percentage of occupations in the industry is in the high-skill category, which is dominated by male workers and has not grown in recent years. Employers have indicated a general lack of workers with higher skills as well as soft skills.
- 2. With regard to rights at work, the average income of workers in the electronics industry in Viet Nam is higher compared to wages in the manufacturing sector as a whole and nationally. The gender pay gap has been narrowing over the past decade. The percentage of workers with overtime working hours in the industry is higher than in overall manufacturing and this has been the case since 2015. The enterprises that were surveyed indicated that it was a challenge to meet the legal requirements on working hours. A general and official assessment of safety and health hazards in the industry is lacking; however, studies by civil society organizations have indicated a number of risks, which need further exploration. Enterprises indicated a need for more and better training on occupational safety and health.
- **3.** In the area of social protection, social insurance is mandatory in Viet Nam, and workers in the electronics industry have a higher percentage of participation in the national scheme compared to workers in the manufacturing sector as a whole and nationwide. However, some enterprises have indicated that it is a challenge to meet the legal requirements on social insurance.
- **4.** Finally, social dialogue was less frequent during the pandemic than before the COVID-19 pandemic hit. Innovative approaches to social dialogue include a pilot to establish collective bargaining agreements with multiple employers and the use of digital technology to improve communication between management and workers and to settle workers' grievances.

Corporate social responsibility (CSR) activities have generally been on the rise in Viet Nam, led by foreign enterprises and Vietnamese business organizations, in particular the VCCI. The Government of Viet Nam has also worked with industry groups to reward enterprises for their performance in this area. Improved engagement is important for the electronics industry, as many brands and buyers in key markets such as the European Union and the United States are obliged to ensure compliance with international human rights and labour and environmental standards and have adopted corporate codes of conduct, such as the Responsible Business Alliance (RBA) Code of Conduct. The move in key markets to make corporate sustainability and due diligence mandatory makes it even more important for enterprises in Viet Nam to comply with national laws and the principles of international labour standards.

This report, furthermore, outlines a set of policy recommendations for the Government of Viet Nam, enterprises and the social partners and for the ILO and other international organizations to promote decent work for the sustainable growth of the electronics industry in Viet Nam. These recommendations are based on the understanding of the significant opportunities that increasing demand for electronics and investments by foreign enterprises in Viet Nam provides, as well as of the challenges faced from an underdeveloped domestic supplier base and heavy reliance on imports of foreign inputs. Unless these opportunities and challenges are addressed, the low localization rate will result in very low shares of total domestic value-added in the industry. There are also challenges relating to the full implementation of the 2019 Labour Code, to enhancing compliance with regulations on working conditions, and to the lack of skilled workers in the industry.

Policy recommendations are for the Government of Viet Nam to utilize industrial policies to strengthen the competitiveness, productivity and working conditions of enterprises in the industry, improve the skillset of workers for higher skilled occupations, and effectively implement labour laws through improved monitoring of working conditions.

Recommendations to enterprises and industry organizations are for foreign enterprises to continue to ensure their operations and suppliers in Viet Nam adhere to decent work objectives, including effective grievance mechanisms, and contribute to training workers to improve their skills. Domestic enterprises should make use of existing policies and assistance programmes to improve their competitiveness and compliance with labour laws, engage in effective industrial relations and ensure decent work objectives. Employer organizations should continue their activities to foster dialogue between business and government and workers on the formulation and implementation of policies to ensure sustainable growth of the electronics industry that meets decent work objectives.

Furthermore, workers are encouraged to participate in training programmes to improve their skills and knowledge and understanding of their interests and rights in line with decent work objectives. For worker organizations, upper-level trade unions should support the operations of grassroots-level trade unions. The VGCL at the central and provincial levels should continue its activities in supporting skills training, legal advice and job creation in line with decent work objectives.

International organizations and industry associations, depending on their mandate and expertise, can partner and cooperate with other stakeholders along the supply chain to ensure compliance with codes of conducts and share information on compliance by enterprises to better understand where there are opportunities and challenges for decent work. Finally, the ILO should continue to engage with enterprises, the social partners and other stakeholders to advance decent work in line with the goals of the ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration), and support the Government of Viet Nam in the effective implementation of a new industrial relations framework and the timely and full implementation of the 2019 Labour Code.



## Introduction

The electronics industry in Viet Nam has experienced tremendous growth over the last decade. This is evidenced by the rapid rise in the share of electronics exports of total exports from the country from 5 per cent in 2010 to 32.22 per cent in 2021 (Ministry of Planning and Investment [2022]; GSO n.d.). Export earnings rose from 5.2 per cent of gross domestic product in 2010 to 14 per cent in 2017 (ILO 2021). In 2021, total electronics exports were valued at US\$108.37 billion, making up a third of all exports (Tien 2021) and the industry recorded its highest production output in both consumer electronics and electronic components in that year (Joseph 2021). Today, the electronics industry is the largest export sector in the country (Nguyen and Mah 2022). Worldwide, Viet Nam ranked 12th in world exports of electronics products in 2020 (MOIT 2021) and ranked second (to China) in the list of top mobile phone exporters (Workman 2022).

A key reason for the extraordinary growth of the electronics industry in Viet Nam is its increasing participation in global supply chains. Viet Nam has become a major production location for outsourced production of consumer electronics, such as smartphones. Major brand firms and large manufacturing suppliers have located, or are locating, production facilities in the country to produce final goods for global exports. As a result of the large number and size of manufacturing facilities and the labour-intensive nature of production, the electronics industry has become one of the largest employers in the country (ILO 2021).

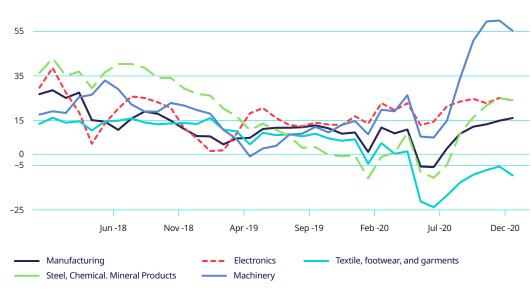
In the coming years, Viet Nam's participation in the electronics supply chain will likely be positively impacted by recently signed international free trade agreements, namely the 2019 EVFTA,<sup>1</sup> the 2018 CPTPP,<sup>2</sup> and the 2022 RCEP. These trade agreements are projected to increase electronics production and foreign investments in Viet Nam due to more favourable tariffs.

Global and regional factors have also led to Viet Nam's rise as an important sourcing location for electronics. Rising wages in neighbouring China and reduced trade between the United States and China has led to some relocation of production out of China and further expansion into Viet Nam (Tang 2019).

The impact of the COVID-19 pandemic on Viet Nam's electronics industry was mixed. During the early phases of the pandemic (in the first quarter of 2020), while exports of certain consumer electronics such as printers, cameras and components fell by 52 per cent, others such as computers, telephones and telephone components increased by 16 per cent (ILO 2020). This reflected changes in demand for certain types of electronics products as consumers across the world faced lockdowns and purchased more products for the home office, home schooling and home entertainment (Stewart and Crossan 2022). Another important dynamic was that Viet Nam's relatively successful early containment of the virus kept factories open during that time. This was not the case in neighbouring electronics production locations, like China and Malaysia, which faced factory shutdowns and slowdowns in early 2020. As a result, some foreign enterprises decided to both relocate production from neighbouring countries and expand production in Viet Nam. In 2020, during the height of the COVID-19 pandemic, Viet Nam was one of just a few countries that recorded extensive growth in electronics output and exports. This contrasted with its second largest export industry, garments, which experienced a decline in exports during that time (ILO 2020). Figure 1 shows how in comparison to other industries in the country the electronics industry was affected less during the first wave of the pandemic in 2020, and how exports recovered quickly to 2019 levels towards the second half of 2020 (IMF 2022).

<sup>1</sup> EC. 2019. EU-Vietnam Trade Agreement and Investment Protection Agreement.

<sup>2</sup> MOIT. n.d. "CPTPP: Viet Nam's Commitments in Some Key Areas".



#### ► Figure 1. Viet Nam exports by industry (2018–2020)

Source: IMF (2022)

Today, the electronics industry in Viet Nam continues to grow through increasing integration into global supply chains. As the industry and country recovers from the COVID-19 pandemic, there are both opportunities and challenges for meeting decent work objectives. The question of how the growth of the electronics industry can contribute to sustainable economic and social outcomes and advance decent work in Viet Nam is an important objective for the Vietnamese Government, employers, workers and other key stakeholders in the industry.

Based on the results of a rapid survey (hereinafter the "ILO/VCCI Rapid Survey"), which was a collaboration between the ILO and the VCCI and carried out as part of the "Sustainable Supply Chains to Build Forward Better" project with funding from the European Union,<sup>3</sup> this report assesses the state of decent work in the electronics industry in Viet Nam before and during the pandemic and offers recommendations for the stakeholders of the industry to advance decent work.

This report continues with Chapter 2, which summarizes the research methodology and the data and different types of sources used in this report. Chapter 3 and Chapter 4 describes Viet Nam's electronics industry and its participation in global supply chains. They provide a general mapping of different types of enterprises, their production processes and products, and export markets. It also discusses the impacts of the COVID-19 pandemic on a select group of electronics suppliers and on the effects on the industry in two provinces, Bac Giang and Bac Ninh. Chapter 5 discusses the state of decent work objectives in the electronics industry in Viet Nam based on the four pillars of the ILO Decent Work Agenda. Chapter 6 discusses corporate sustainability and due diligence in the electronics industry and the role of different partners and stakeholders in this process. Chapter 7 discusses key opportunities and challenges that Viet Nam may face based on evolving internal and external contexts, legal frameworks, policies and capacities for further development of the electronics industry and advancing decent work objectives. Chapter 8 concludes the report with a set of key findings and policy recommendations targeted at different stakeholders that can contribute to achieving decent work objectives in the electronics industry in Viet Nam, including in the post-COVID-19 recovery period.

<sup>3</sup> ILO-EU project 2021–2023. "<u>Decent Work in Global Supply Chains: Sustainable Supply Chains to Build Forward Better</u>".





## Methodology

The analysis and discussions in this report are based on primary and secondary data.

Primary data was collected from in-depth interviews<sup>4</sup> with respondents located in and outside of Viet Nam. In Viet Nam, interviews and focus group discussions were conducted in the last quarter of 2021 among the key tripartite partners at the central level, including representatives from the MOLISA, the VCCI, the VGCL and the VEIA. In addition, interviews were held in the Northern provinces of Bac Giang and Bac Ninh, which have received increased investments and seen production by large electronics enterprises expand in the past two years (Vy 2022). In both provinces, interviews were conducted with provincial representatives from the Department of Labour - Invalids and Social Affairs, Department of Industry and Trade, the Provincial Federation of Labour, and the Industrial Park Management Board. Additional interviews were held with representatives of the VCCI, VGCL and the VEIA in March 2022 to gather updated viewpoints and actions of these key supply chain stakeholders as the pandemic situation changed significantly.

Outside of Viet Nam, interviews were held with a brand firm that outsources production to suppliers in Viet Nam and a manufacturing supplier operating in the country (both of United States' origin). Interviews were also conducted with an industry association, research organizations and an international organization based in the European Union.

In addition, primary data was gathered from a survey of 42 electronics enterprises (the ILO/VCCI Rapid Survey contained questions about the impacts of and responses to the COVID-19 pandemic, working conditions, and training needs. ILO/VCCI Rapid Survey) to obtain information about business operations and working conditions in the sector before and during the pandemic.

This survey was organized and carried out by VCCI and the ILO in December 2021 and January 2022. The majority of enterprise respondents in the survey were involved in manufacturing electronic components. Four enterprises were suppliers of electronics components for automobiles and motorcycles (see table 1 below).

The average enterprise workforce size of the survey sample was 1,096 workers (including all workers except temporary workers), with 918 working on production lines or operations directly in a non-supervisory position. On average, around 60 per cent of workers across the surveyed enterprises were women. Out of 42 enterprises surveyed, 36 were 100 per cent foreign direct investment (FDI) and three were joint ventures between Vietnamese entities and Asian investors. These enterprises' top destination markets were, in descending order, the United States, the European Union, Japan, Korea, China, Viet Nam and other countries.<sup>5</sup>

<sup>4</sup> These will be indicated as in-text references in parentheses with the year interviews were conducted, for example (interviews 2021).

<sup>5</sup> These included Singapore, Malaysia, Indonesia, Cuba, Sweden and two unknowns.

#### ▶ Table 1. Responses by surveyed enterprises on their factory's key products

Key product by VISC Code (n=42*)	Number of enterprises	Percentage
Electronic components (C 261)	32	76.19
Computers and peripheral equipment (C 262)	0	0
Communication equipment (C 263)	1	2.38
Consumer electronics (C 264)	1	2.38
Measuring, testing, navigating and control equipment; watches and clocks (C265)	1	2.38
Irradiation, electromedical and electrotherapeutic equipment (C 266)	1	2.38
Optical instruments and photographic equipment (C 267)	1	2.38
Magnetic and optical video tapes and discs (C 268)	1	2.38
Other (please specify the main products and/or VISC code if applicable)	10	23.80

Source: ILO/VCCI Rapid Survey

Because this ILO/VCCI Rapid Survey only included 42 respondents, the findings cannot be generalized to the entire electronics industry in Viet Nam. The findings reflect the situation of and conditions in 42 firms at a time when they and the electronics industry were recovering from the pandemic. Therefore, the findings provide insights and examples of opportunities and challenges faced by different types of enterprises engaged in the electronics industry in Viet Nam, but cannot be used to draw firm conclusions about decent work challenges and opportunities in the electronics industry as a whole.

Secondary data was drawn from a report on the electronics industry by the MOLISA ILSSA. This report included data from a survey of 45 electronics enterprises conducted in 2021. Another ILSSA report (2022) combined the findings from this survey and additional data and analysis of statistics from the Labour and Employment Survey by the General Statistics Office (GSO) of Viet Nam. Graphs and figures and data from the 2022 ILSSA report are used in this report. Finally, a variety of news articles, academic articles and research reports are referenced in this report.





### A. Structure of the electronics industry in Viet Nam

In the past decade, there has been a tremendous rise in the number of enterprises registered as manufacturing computer, electronic and optical products in Viet Nam, from 613 in 2010 to 2,532 in 2019 (GSO n.d.). The majority of electronics enterprises in Viet Nam are small scale. Table 2 shows the total number of establishments in 2019, of which 42 per cent had fewer than ten workers. At the other end, 18 per cent of establishments had over 200 workers.

### ▶ Table 2. Electronics enterprises by size of employment, 2019

Number of workers	< 5	5-9	10-199	200-299	300-499	500-999	1,000- 4,999	5,000+
Number of enterprises	666	401	1,007	80	112	126	116	24
Share (%)	26%	16%	40%	3%	4%	5%	5%	1%

Source: GSO (2021)

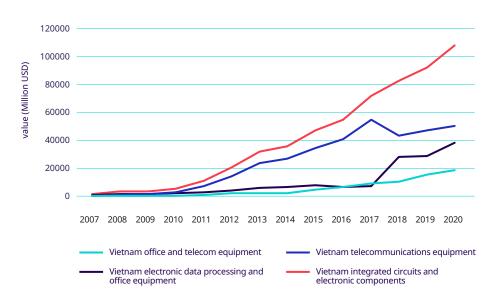
In 2020, the number of FDI enterprises reached 22,200 and accounted for 3.2 per cent of the total number of enterprises in Viet Nam.<sup>6</sup> Although foreign enterprises account for a small proportion in terms of numbers of enterprises operating in the country, they nevertheless occupy a dominant position in production and export markets. In 2021, the share of export turnover from the FDI sector for telephones and their components was 99.3 per cent, and 98.1 per cent for electronics, computers and components (GSO 2021c, p.26).

## B. Viet Nam's integration into global supply chains

The increasing participation of Viet Nam's electronics industry in global supply chains is evidenced by its steady rising share in global exports for electronics products and components. This is shown by the orange line in figure 2 for exports of "office and telecom equipment", which is a category comprising the subproduct groups "electronic data processing and office equipment", "telecommunications equipment", and "integrated circuits and electronic components". The largest subproduct group of exports (indicated by the yellow line) is "telecommunications equipment", which includes televisions, radios, sound and video recording devices and telephones, including their parts and components. The second largest subproduct group (indicated by the grey line) is "electronics data processing and office equipment", which includes computers, photocopiers and printers, including their parts and components. The smallest export product subgroup (indicated by the blue line) is integrated circuits and electronic components, which includes microchips and other types of transmitting components. The upwards trajectories signal a continually growing participation of Viet Nam in the global supply chains of these products and, as indicated earlier, for export markets.

<sup>6</sup> Source: GSO, 2022. Economic census of 2021: preliminary results.

<sup>7</sup> The product group classifications are based on the <u>Standard International Trade Classification (SITC) Revision 3</u>. Office and telecommunication equipment comprises sub-codes 75, 76, 776: electronic data processing and office equipment sub-code 75; telecommunication equipment sub-code 76; and integrated circuits and electronic components sub-sub code 776.



#### Figure 2. Viet Nam global exports of electronics products and components (2007–2020)

Source: World Trade Organization (WTO) Trade Statistics

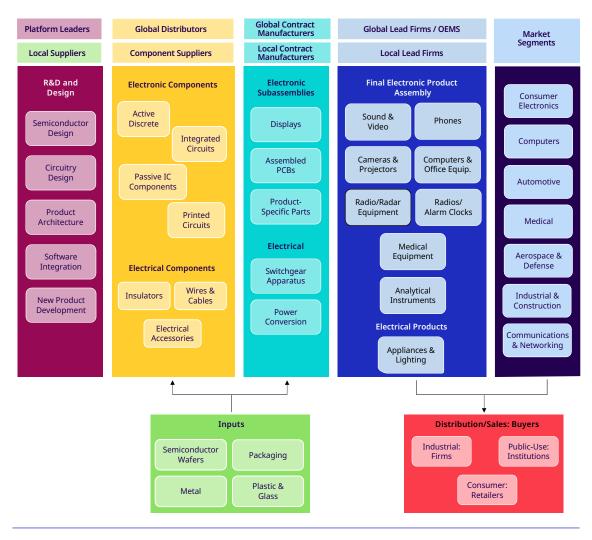
According to the GSO, in 2021 only eight products manufactured in Viet Nam across all industries were able to register export turnover of over US\$10 billion each. Two of these products were from the electronics industry, which were telephones and their parts (worth US\$57.5 billion in exports in 2021), and electronic goods, computers and parts (worth US\$51 billion in exports in 2021) (GSO 2021c). These two groups of exports amounted to around US\$108.5 billion in export turnover in 2021. These figures point to Viet Nam's participation in electronics industry global supply chains concentrated in a few products. The first is mobile phones and smartphones and their components, which are the largest consumer electronics products assembled in Viet Nam. Exports of smartphones and their parts and components sustained export values of around US\$50 billion annually over the last three years (Vietnam Plus 2022a). In 2019, Viet Nam was the second highest exporter of telephones in the world (Nguyen 2020). According to the GSO (2022), 233 million (estimated) mobile phones were made in 2021, which was a 107.6 per cent increase from 2020.

Samsung is the largest investor and electronics manufacturer (producing smartphones and electronics components) in the country. In 2022, it was reported that Samsung alone accounted for 20 per cent of Viet Nam's total electronics exports (Vy 2022). Viet Nam is also Samsung's largest production location. In 2020, 72 per cent of all Samsung smartphones were assembled in Viet Nam (Joseph 2021). In 2019, the company employed 160,000 workers in Viet Nam (Thao 2019). Other smartphone brands produced in Viet Nam are Nokia (19 per cent of all its smartphones are assembled in the country) and LG (6 per cent of all its smartphones are assembled in the country) (Joseph 2021).

Figure 3 presents a general mapping of the different types of products and activities in electronics supply chains. Seen together with the value-added "smile curve" in figure 4, the highest value-added or most profitable activities within the supply chain are in the non-manufacturing activities of "research and development (R&D) and design". Much of this activity is conducted by brand firms or leading component suppliers such as semiconductor chip manufacturers. Manufacturing or production activities include the production of "inputs", which can range from very high value-added products such as semiconductor chips and wafers to low value-added products such as packaging and glass. Inputs such as screens and displays are used in the production of "electronic and electrical components" and "electronic and electrical subassemblies". Components also vary considerably and can range from manufacturing printed circuit boards requiring advanced production facilities and process technologies to less sophisticated wires and

fibre optic cables (Frederick and Gereffi 2013). Components and subassemblies feed into the final stage of production "final electronic product assembly" and "electrical products", which are then shipped to final consumers through non-manufacturing activities that include distribution, logistics and sales in shops or online, which is captured in "distribution/sales: buyers".

#### Figure 3. General mapping of an electronics industry global supply chain



Source: Frederick and Gereffi (2013)

Figure 4 provides a simplified visual lens to assess high versus low value-added activities in the electronics industry global supply chain. The left and right portions of the curve represent the higher value-added activities, which include R&D for components and products, marketing and branding. The middle of the curve represents the lower value-added assembly activities of the electronics industry global supply chain. In Viet Nam, the electronics industry is largely concentrated in the low value-added activity of final assembly, which is labour-intensive. According to MOLISA (2022), the industry is engaged in "assembling electronic components [which] follow standardized process and detailed guidance, measuring and testing products as instructions, labelling and applying logo on electronic products, etc." Much of this activity is the assembly of imported parts and components. Viet Nam is heavily dependent on imports from China, which made up 33 per cent of all electronics imports, followed by South Korea (31 per cent) and Japan (8 per cent) in 2019 (Nguyen 2020). The trade balance in the electronics industry varies by product group. In 2021, the value imports of "electronics, computers and parts" was US\$5,940 billion, surpassing the value of exports, which was US\$51,013 billion. However, the value of imports for "phones and their parts" was US\$21,560 billion compared to a higher value of exports at US\$57,536 billion in 2021 (GSO 2021c). Tran et al. (2020) noted that the profitability of industries such as electronics (as well as garments and textiles and footwear) engaged in final assembly in Viet Nam is around 5 to 10 per cent. This means that, despite a very large export volume, the economic gains from Viet Nam's participation in the electronics industry global supply chain is relatively small.

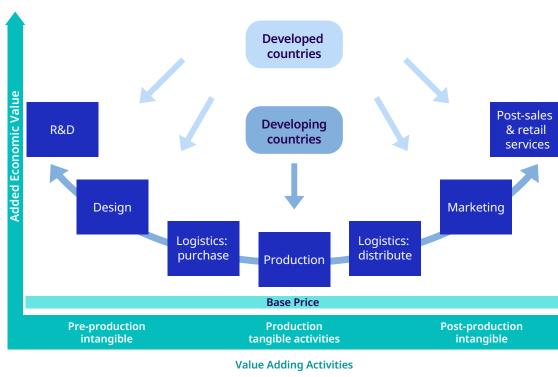


Figure 4. Value-added "smiling curve" in global supply chains

Source: Fernandez-Stark and Gereffi (2016)

The heavy concentration of final assembly global supply chain activities in the electronics industry in Viet Nam is the result of the types of enterprises located in the country, what they produce, for whom and for which export markets, the type of skills required for their production activities, and in which activities or

stages of the global supply chains they are located. These characteristics can, and will likely continue to, influence economic outcomes for these enterprises, their suppliers and decent work conditions.

The outsourcing of electronics production to Viet Nam is led by brands and leading component manufacturers. Today, some of the largest brand firms that have outsourced suppliers in Viet Nam are Apple, Canon, LG, Samsung, Microsoft, Google, Panasonic and Xiaomi (Joseph 2021). Some brands, such as Samsung, LG and Canon, have their own factories in Viet Nam. LG and Canon have their largest laser printer and inkjet printer factories worldwide near Hanoi (OECD 2021a).

The first tier of outsourced suppliers to brand firms includes large contract manufacturers, such as Foxconn and Jabil, and semiconductor chipmakers, such as Intel. For example, Intel has been conducting chip assembly and testing in Viet Nam since 1997 (Intel n.d.). Foxconn, which has been operating in Viet Nam since 2007, employed over 53,000 workers in the country in 2020 (Nguyen 2021). Foxconn is a major contract manufacturer assembling Apple iPhones, laptops and tablets in Viet Nam. According to the 2021 Apple Supplier List, 21 first-tier suppliers to the brand company were operating in Viet Nam.<sup>8</sup>

The rise of Viet Nam as an important production location in global supply chains is also evidenced by large investments by leading suppliers. Foxconn obtained a licence in 2021 to build a multi-million dollar facility to assemble laptops and tablets (Jennings 2021). Pegatron, also a contract manufacturer to Apple, plans to invest US\$1 billion for facilities until 2027 to assemble computing, communication and consumer electronic products (Reuters 2021).

These developments mean that Viet Nam is becoming increasingly integrated into the global supply chains. They can in large part be explained by the following four key drivers.

## First: Legal framework and policies to attract foreign investment and develop the electronics industry

Viet Nam's Law on Foreign Investment, which was first launched in 1987 and most recently updated as the Law on Investment 2020, sets out the statutory rights for foreign investors to contribute to the country's economy through: (i) business corporate contracts; (ii) joint ventures; and (iii) 100 per cent FDI businesses. The law was one of the first laws enacted at the beginning of the  $D \circ i M \circ i$  transition from a centrally planned economy to a market economy in 1986.

In order to attract more foreign and domestic investment for the development of industries, including electronics, Viet Nam built a number of industrial parks. As of September 2021, there were 291 industrial zones and economic zones operating in the country. As a result of these measures, Viet Nam was able to attract some of the largest foreign enterprises from Japan, South Korea, Taiwan, Province of China, and the United States, and these continue to dominate Vietnamese manufacturing industries today (Raj-Reichert and Plank 2019). Some of the first enterprises to invest in Viet Nam in the 1990s were Japanese enterprises who entered into joint ventures with Vietnamese state-owned enterprises and opened factories in the country to manufacture consumer electronics such as television sets for the domestic market. During the early 2000s, investments by South Korean and Chinese enterprises followed (Mitarai 2005). From the late 2000s onwards, Viet Nam has attracted investments from enterprises originating in the United States and Taiwan, Province of China, to manufacture products for exports as part of global supply chains (Joseph 2021; Raj-Reichert and Plank 2019).

Industrial policies can have an impact on how the electronics industry in Viet Nam integrates into and benefits from its participation in global supply chains (ILO 2014). Policies can incentivize decisions to outsource production to Viet Nam and provide various types of support to foreign and local enterprises. Policies to improve the skills development, training and education of workers, as well as support to enterprises to

<sup>8</sup> Apple. 2021. Apple Supplier List.

<sup>9</sup> MPI. 2021. Report on establishment and development of industrial zones and economic zones in 9 months of 2021 (in Vietnamese only).

improve innovation and competitiveness, can help an industry move into higher value-added activities. Policies aimed at domestic enterprises, for example, can assist them in becoming suppliers to foreign enterprises by improving their quality of production activity and achieving technologically advanced functions and activities with increased value-added. Policies on foreign investment can steer foreign enterprises towards engaging in technology and skills transfer, fostering innovation and technological advancement in the country while meeting sustainable growth objectives and advancing decent work.

On this topic, Viet Nam issued several medium- and long-term industrial development and digital technology strategies. Among these, one of the key priorities is the development of the electronics sector. Resolution No. 52/2019 of the Polit Bureau – Viet Nam Communist Party – highlights that Viet Nam will develop relevant policies to develop the spotlighted sectors and technologies, including the electronics sector. Moreover, the Vietnamese Government has also committed to supplementing policies to support technology transfer, mastery and development from abroad to Viet Nam in these priority sectors and fields.

Examples of policies and programmes to specifically support the development of SMEs include the 2017 Law on Support for SMEs, which provides preferential taxes, loans, credit guarantees, land rental preferences, technology transfers, training and human resource development. The main policy to help SMEs integrate into global supply chains by helping them to comply with international technical standards and achieve economies of scale is the programme on development of supporting industries 2016–2025 by the Ministry of Industry and Trade (Decision No. 68/QD-TTg), which supports the development of the high-tech and components and parts industries (among other industries such as garments, textiles and footwear) comprising "supporting industries" to domestic and foreign enterprises. Activities of this programme include providing consultancy and training services to meet the manufacturing requirements of global supply chains (MOIT 2017). The programme also aims to attract foreign investment into these supporting industries. According to the Organisation for Economic Co-operation and Development (OECD) (OECD 2021a), while the programme is focused on improving the competitiveness of SMEs and local suppliers, it could focus more on training and capacity-building.

The Technology Transfer Law of 2017 (Law No. 07/2017/QH14) aims to encourage foreign enterprises to transfer technology to local enterprises. Thus far, however, this policy has not been very successful because the number of registered licence agreements has only been a handful per year since the law came into effect (Nguyen et al. 2020). How the law can create effective incentives for foreign investors may require more study in the short term. For the electronics industry, it would be important to assess whether low value-added production in which Viet Nam is concentrated is a deterrent for technology transfer initially. Also, understanding the limits to technology transfer, namely where foreign enterprises are restricted through their own trade secrets, can influence the outcomes of this important policy.

In general, enterprises seeking to source high-quality and high value-added products require suppliers to meet higher standards and have specific production capacities. Many brands and first-tier suppliers conduct pre-qualification assessments of potential suppliers before they establish a business relationship. An understanding of the specific demands and needs of the industry can inform the type of business development and education and skills training the Government can support and provide, which can be especially important to domestic SMEs.

At the provincial level, the authorities promote enterprise development and provide additional incentives to the FDI by implementing a number of measures, including supporting enterprises after investment, removing difficulties and obstacles for enterprises and reforming administrative procedures. For example, in September 2020, the provincial government of Bac Ninh signed a memorandum of understanding with

<sup>10</sup> Resolution No. 52/2019 (in Vietnamese only).

<sup>11</sup> Prime Ministerial Decision No. 138/QD-TTg dated 26 January 2022 and Prime Ministerial Decision No. 1851/QD-TTg dated 27 December 2018 approving the scheme "boosting the transfer, mastery and development of technologies from foreign countries into Viet Nam in priority branches and domains in the period to 2025, with a vision towards 2030".

<sup>12</sup> MOIT. 2017. <u>Approve the Supporting Industry Development Program to 2025</u> (in Vietnamese only).

the Samsung Group to support the development of local enterprises to become suppliers to Samsung through an improvement consultancy programme.<sup>13</sup> The government of Bac Ninh has also, since 2015, collaborated with Korean experts to improve production processes of local enterprises and improve product standards. In 2017, some 29 local enterprises became component suppliers to Samsung as a result of this initiative, supplying optical discs, packaging and printing, precision moulds and plastic components (Samsung Newsroom 2017). It was reported that most businesses participating in this initiative improved their ability to compete in the supply chain of Samsung and other businesses. These are examples of initiatives that can improve quality and competitiveness goals and increase skill levels and value-added contribution over time. This can help to ensure that, in the future, the development of a local supplier base results not only on growth in value-added products and services but also higher skills, higher wages and improved working conditions.

The challenge for the future is to ensure that foreign investment in the industry is strategic in its contribution to technological advancement and industrial and skills upgrading. Continued investments with older technology equipment will increasingly pose challenges for augmenting the value-added of electronics manufacturing activities and will also increase the risk of pollution and occupational safety and health risks. In recent years, imports of equipment using older generations of technology have raised these concerns across a number of industries, including electronics.<sup>14</sup>

### Second: Labour supply and wages

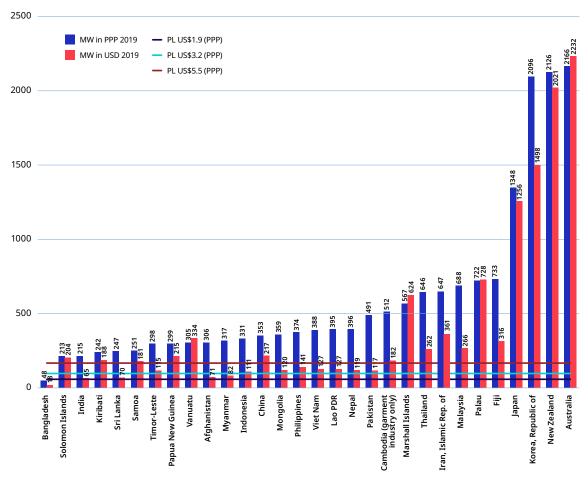
In 2020, the population was estimated at 97.58 million, ranking Viet Nam the 15th most populous country in the world and the third in Southeast Asia (Nhân Dân 2019), with a labour force aged 15 and above of 54.8 million people (GSO 2020, p. 89). Viet Nam has been experiencing a period of "golden population structure" since 2006, which is expected to continue until 2039, with the number of working-age people predicted to double that of people in the dependent age groups. This means that the Vietnamese labour force is relatively young compared to other populous countries of East Asia. By the second quarter of 2017, the young labour force group aged 15–34 years old accounted for 37.6 per cent of the total population (ILO 2018).

Labour costs are often considered a key factor for attracting FDI, especially in the manufacturing sector. Comparing Viet Nam to other neighbouring countries that are important production locations in the electronics industry global supply chain, figure 5 shows that the average monthly minimum wages in US dollars (red bar) of Viet Nam in 2019 was lower than Thailand, Malaysia, China and the Philippines, and higher than Indonesia and India. Similarly, a 2020 survey by the Japan External Trade Organization on the business conditions of Japanese enterprises in Asia and Oceania showed that average wages in Viet Nam are still lower compared to neighbouring countries in the region.

<sup>13</sup> Voice of Vietnam. 2020. "Tripartite Cooperation Programme to Boost Supporting Industry", 22 September 2020.

<sup>14</sup> Lam Thanh Ha. 2019. Chinese FDI in Vietnam: Trends, Status and Challenges; Dan tri. 2019. Warning about outdated technology, flowing with Chinese FDI, is "evacuating" to Viet Nam (in Vietnamese only).





MW = minimum wage. PL = poverty line. PPP = purchasing power parity.

Note: The data refer to national minimum wage rates where they exist. For countries with multiple minimum wage rates, the rate selected refers to: the national minimum wage floor where it exists; the urban rate where there are different rates in urban and rural areas; the industrial rate (e.g. SMIG) when different rates apply to industrial and agricultural workers (e.g. SMIG/SMAG systems); the rate for unskilled workers or the lowest occupational category where rates differ by skill level or occupation; the rate applied to domestic enterprises where there are different rates and foreign enterprises; the lowest regional rate when there are different rates in different regions and no national minimum wage floor exists; the rate applied to small enterprises when rates vary depending on firm size; and the rate for the manufacturing sector when rates differ by sector (if multiple rates exist within the manufacturing sector, the lowest rate is selected).

Source: ILO minimum wage database for the minimum wage levels, International Monetary Fund's World Economic Outlook database (Oct. 2020) for the PPP conversion rates and World Bank's World Development Indicators (Oct. 2020) for the exchange rates.

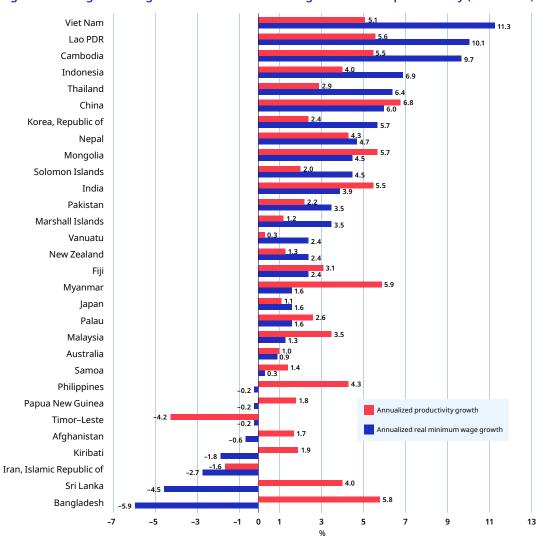
Source: ILO Global Wage Report 2020-2021<sup>15</sup>

In 2019, the average monthly base salary of manufacturing workers in Viet Nam was US\$250, the same in the Philippines, but much lower than wages in Indonesia, Thailand, Malaysia and China (Japan External Trade Organization, 2021). This can contribute to Viet Nam's attractiveness in the region as a preferred outsourced production location for labour-intensive assembly work, which falls within the low value-added stages of global supply chains (ILO 2021). While labour costs were among the lowest in the countries of the Association of Southeast Asian Nations (ASEAN), some of the enterprises that took part in the ILO/VCCI Rapid Survey responded that it was a challenge to comply with the statutory minimum wage. This is most likely a reflection of the low value-added and the downward pressure on prices of some inputs and components in electronics manufacturing.

Over the last decade, Viet Nam has furthermore experienced the fastest growth of the average annual real minimum wage in the Southeast Asia region, with an average annual increase of 11.3 per cent between 2010 and 2019. Since wages grew faster than inflation, these increases represent a positive gain for workers.

During the same period, real minimum wage growth exceeded annual productivity growth in Viet Nam (see figure 6). While this may signal lower competitiveness for low-cost manufacturing activities, Viet Nam's average minimum wage is still lower than other competitor production countries in the region. It also reflects that labour productivity can be raised to match higher wages by increasing the value-added of production activity, including through the development of skills in the industry.

#### ▶ Figure 6. Average annual growth of real minimum wages and labour productivity (2010–2019)



**Note:** For countries that have adopted a minimum wage after 2010, the annual growth of real minimum wage is calculated using the years between the implementation and 2019. For Japan, data refer to the weighted national averages calculated by the national statistical office.

Source: ILO minimum wage database for the minimum wage level and International Monetary Fund's World Economic Outlook database (Oct. 2020) for inflation (end of period consumer prices).

### Third: International trade agreements

Viet Nam's trade liberalization intensified in the 2000s with the bilateral trade agreement with the United States (2001), the accession to the WTO (2007), the CPTPP (2019), the EVFTA (2020), the RCEP (2020), the United Kingdom-Viet Nam Free Trade Agreement (2021) and free trade agreements (FTAs) with other partners in recent years. As of January 2022, Viet Nam was officially a party to 15 FTAs (including seven FTAs signed as a member of ASEAN and eight FTAs signed as an independent party) and is currently negotiating two FTAs. These bilateral and multilateral FTAs have enabled Vietnamese enterprises to benefit from expanded access to regional and global markets. According to Kikuchi et al. (2018), the RCEP is projected to expand Vietnamese electronics exports to East Asian countries by 18 per cent and the CPTPP would increase exports into trading partner markets by 12.5 per cent. The EVFTA is particularly important as the European Union is Viet Nam's second largest export market after the United States. In 2018, the European Union imported from Viet Nam close to one third of total telephones imported by the European Union that year. Since 2011, Viet Nam has been the sixth largest exporter of high-tech products to the European Union (Eurostat n.d. – see figures 7 and 8). As figure 7 shows, Viet Nam's share of exports to the European Union grew between 2011 and 2021.

Among the top six exporters to the European Union, Viet Nam had the highest annual growth rate of 18.6 per cent between 2010 and 2021. The largest product group of exports from Viet Nam to the European Union is in electronics-telecommunications, which mainly comprises telephones, <sup>18</sup> followed by computers and office machines. <sup>19</sup>

The EVFTA can provide an opportunity to increase sales and produce more lucrative electronic and electrical products in Viet Nam for the EU market as it will eliminate 74 per cent of import tariffs for electronics into the European Union after coming into effect, and will remove the remaining tariffs within three to five years thereafter.<sup>20</sup> It is estimated that the EVFTA will increase Vietnamese exports of electronics into the EU market by 7.5 per cent (Kikuchi et al. 2018).

<sup>16</sup> VCCI-WTO Center. 2022. <u>Information on current FTAs and FTAs under negotiation</u>.

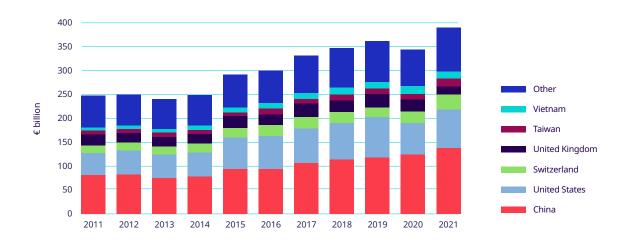
<sup>17</sup> Asia Business Consulting. 2020. Free Trade Agreements in Viet Nam.

<sup>18</sup> EC. n.d. "EU Trade Relations with Vietnam: Facts, Figures and Latest Developments".

<sup>19</sup> Eurostat. n.d. "International Trade and Production of High-Tech Products".

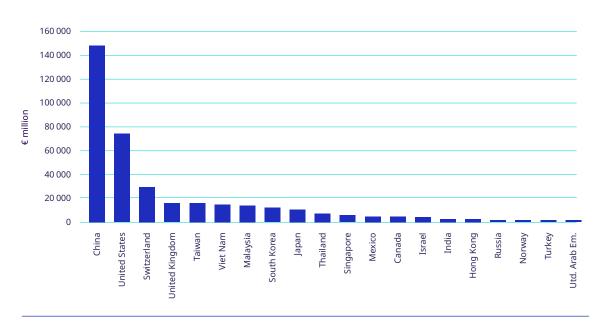
<sup>20</sup> Vietnam Net Global. 2020. "Electronics, seafood and garment industries to benefit the most from EVFTA".

#### ► Figure 7. EU imports of high-tech products, top six partners, 2011–2021, € billion



Source: Eurostat (Comext database DS-018995)

#### Figure 8. EU imports of high-tech products, top 20 partners, 2021



Source: Eurostat (Comext database DS-018995)

## Fourth: New trends in global supply chains and the impact of COVID-19

The past few years have seen a surge in foreign investments in the electronics industry in Viet Nam (Hsu 2021). Several external factors help explain the increasing growth in foreign enterprise investments in the country. First, foreign enterprises have relocated and expanded production away from China due to rising US import tariffs on Chinese goods, compounding already rising costs such as higher wages in China. There are several reports of production relocations from China to, and expansion in, Viet Nam. In 2018, Samsung closed their mobile phone factories in China and expanded production in Viet Nam, Nintendo shifted its outsourced production of gaming products (Tang 2019) and Apple's supplier Foxconn (Lee 2020) shifted some of its production from China to Viet Nam.

Second, a more recent factor was the need for additional production capacity by manufacturing suppliers faced with factory shutdowns and slowdowns, quarantines and closed borders in large neighbouring production countries like China and Malaysia during the COVID-19 pandemic in 2020. A rise in demand for consumer electronics was due to increased home-office, home-schooling and in-home entertainment activities. During this time, factories in Viet Nam were able to continue operations due to successful early virus containment measures (IMF Staff Country Report 2020) and became a substitute location for production. The drop in exports for Viet Nam was the least severe among other manufacturing countries.

In 2020, Viet Nam experienced increased production (expansions and relocations) in comparison to neighbouring production countries. For example, Samsung shipped and flew parts and components from China into Viet Nam (to circumvent land border crossing closures) (China Briefing 2020). Particularly hard hit due to factory shutdowns in neighbouring production locations such as Japan, Taiwan, Province of China, and South Korea was the semiconductor chip industry. Intel, for example, increased its production in Viet Nam by 30 per cent during the first half of 2020 compared to the same period in 2019 to overcome limited production in other locations (Hoang, Lien. 2021a).

A third factor is the desire by global brands and large suppliers to diversify their global supply chains to increase resilience against future shocks and disruptions, as well as reputational risks. Panasonic, for example, relocated the production of consumer electronics from Thailand to Viet Nam in 2021 (Retail Asia 2021). Viet Nam is seen by brand firms as one of the most preferable locations by outsourcing enterprises in their so-called "China plus one strategy" (Hsu 2021). According to an industry association representative, Viet Nam is seen as a better alternative location over Malaysia (a traditional "China plus one strategy" production location), given the latter's higher risk of human rights violations such as forced labour (Verité 2014; Raj-Reichert 2019), which have drawn public attention in recent years (interviews 2022).

Another trend in relation to supply chains is that export markets in different regions increasingly shape and impact the production of goods and working conditions. Different export markets have different demands and requirements for technical specifications, standards, labels or certifications on quality, environmental impact and social criteria, including working conditions in outsourced factories (see Chapter 5). Local Vietnamese enterprises, which are often small and have limited capacity, frequently struggle to integrate into electronics global supply chains, which are led by large foreign enterprises (OECD 2018). Domestic suppliers are generally unable to meet the quality standards necessary for export markets (Raj-Reichert and Plank 2019. As a result, domestic enterprises are mainly located in the second and lower tiers of the global supply chain and in lower value-added activities such as packaging, chemicals, services and printing (Ngoc and Binh 2019). Without the ability to perform higher value-added activities for global supply chains, it has been reported that domestic suppliers have few links with foreign enterprises in the industry (MOLISA 2022). For example, Intel uses only 18 Vietnamese partners among hundreds of enterprises providing materials and components for its production. According to Pham et al. (2022, p. 258), "Samsung Electronics Viet Nam uses only seven Vietnamese partners among its 93 suppliers, and these Vietnamese firms only provide low value-added activities such as packaging and printing while suppliers of high value-added are companies from South Korea or other ASEAN countries or foreign firms who have invested in Viet Nam". According to an official at the Department of Industry and Trade in Bac Giang province, a major location for electronics production, domestic suppliers find it difficult "to enter the

supply chain of large corporations due to insufficient investment capital, responsiveness to technology requirements, development policies, [and the] thinking of business leaders, etc." One of the causes of the limited development of Viet Nam's domestic electronics sector is difficulties in the Government's picking winner policies (Pham et al. 2022). State-owned enterprises and multinational enterprises (MNEs) have been given more favourable conditions (land access, tax rates and so on) than domestic private enterprises.

There are a few domestic electronic brand firms in Viet Nam, such as Darling, Belco and Hanel. These domestic brands mainly produce home appliances such as television sets. There is evidence of Vietnamese brand firms' inability to compete with foreign brands, especially when it comes to mobile phones and smartphones. Domestic brands such as Q-Mobile, F-mobil, Avio, Zik 3G, and Mobiistar have all failed to survive competition from foreign brands such as Samsung, Apple, Nokia and LG (Ngoc and Binh 2019). The formerly successful domestic smartphone brand, Vsmart by Vingroup JSC, stopped production of telephones (and televisions) in 2021 to concentrate on electric cars and smart home products (Nguyen and Puri 2022). A notable exception is Bkav, a cybersecurity enterprise that produces smartphones, which has built a strong position in the niche market for "specialized security phones" in the local market (Asia News Network 2021).

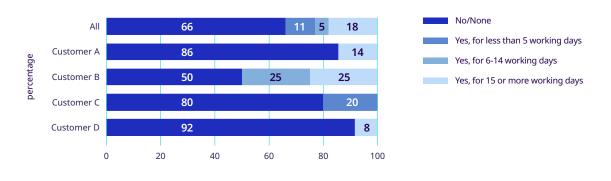




This section assesses how COVID-19 impacted the electronics enterprises in Viet Nam that participate in global supply chains. The results of the ILO/VCCI Rapid Survey has revealed a number of challenges that electronics enterprises faced during the pandemic. The discussion in this chapter is based on a snapshot of a specific segment of the electronics industry in the country and its participation in specific global supply chains and related industries.

In general, respondents did not face significant closures or suspension of their operations in 2020 during the onset of the COVID-19 pandemic (see figure 9). For the few enterprises that did close their facilities, the majority did so due to government or local authority requirements or an internal decision to prevent the spread of infections in facilities. Other reasons for facility closures were a lack of materials, orders and workers.

## ► Figure 9. Number of days facilities were closed or suspended categorized by customer enterprises



Source: ILO/VCCI Rapid Survey

An important impact of the pandemic on enterprises was fluctuations in orders. Changes to customer orders from Q1–Q3 in 2019 (before the pandemic) to Q1–Q3 in 2021 (the start of the second year of the pandemic) were mixed. Close to the same number of enterprises had higher orders (18 enterprises) and lower orders (17 enterprises). Nine enterprises reported no changes to their orders (table 3).

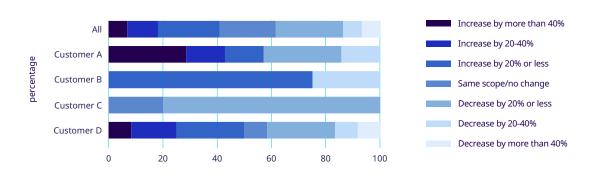
▶ Table 3. Difference in total orders received Q1–Q3 2021 in comparison to Q1–Q3 2019

Responses	Number of firms	Percentage
Increase by more than 40%	3	6.82
Increase by 20%–40%	5	11.36
Increase by 20% or less	10	22.73
Same scope/no change	9	20.45
Orders in 2021 were lower by 20% or less	11	25.00
Orders in 2021 were lower by 20%–40%	3	6.82
Orders in 2021 were lower by more than 40%	3	6.82

Source: ILO/VCCI Rapid Survey

To better understand the mixed outcomes, an assessment was made as to whether these were the result of customer, product or export market factors. Figure 10 shows the changes to orders relative to a list of large customer enterprises. The results are also mixed. All suppliers except one (customer C), reported both higher orders and lower orders. Only one customer had reduced orders or no changes to orders at all.

### ▶ Figure 10. Change in orders received by customers from Q1–Q3 2021 vs Q1–Q3 2019



Source: ILO/VCCI Rapid Survey

The change in orders relative to export market destinations also presents a mixed picture. Table 4 shows enterprises had both increases and decreases in orders for exports to Japan, the United States, South Korea, China and the European Union. The largest increases were reported for exports to the United States followed by South Korea, while the largest decrease was reported for exports to China followed by the European Union.

► Table 4. Change in orders categorized by primary markets from Q1–Q3 2021 compared to Q1–Q3 2019

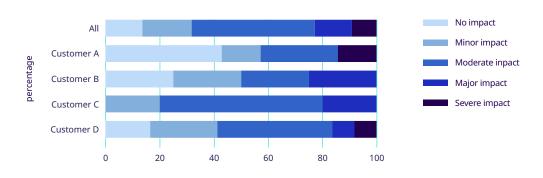
Variable (Order Change)	Obs	Mean	Std Dev	Min	Max
All	44	3.932	1.576	1	7
Primary markets					
US	18	3.44	1.977	1	7
EU	14	4	1.797	1	7
Japan	14	3.5	1.16	2	6
Korea	10	3.7	1.889	1	7
China	11	4.182	1.94	2	7
Viet Nam	17	3.882	1.453	1	6

Source: ILO/VCCI Rapid Survey

Through the ILO/VCCI Rapid Survey, all suppliers also reported some reduction in the size of markets for their outputs. There were more enterprises that reported a reduction in the size of the Japanese end market. The negative impact was greater for larger facilities producing for the US and the EU consumer markets. These factories experienced a combination of lower orders and smaller markets.

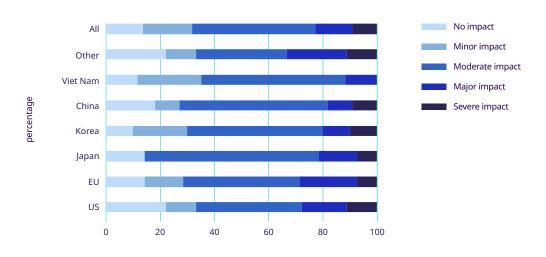
Figure 11 shows that lower orders due to shifts in sourcing were quite similar for all end markets (figure 12), suggesting no specific end market effects on customer shifts in sourcing. Most enterprises reported a moderate impact of shifts in sourcing by customers, which led to lower orders.

### ▶ Figure 11. Lower orders due to shifts in sourcing by customer



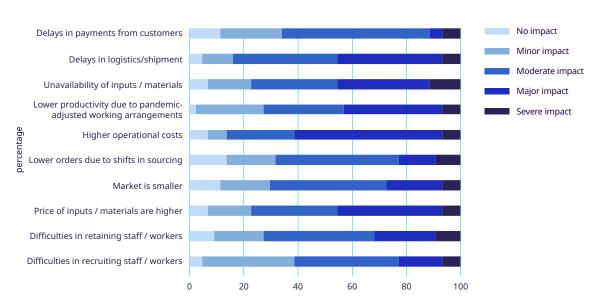
Source: ILO/VCCI Rapid Survey

### Figure 12. Lower orders due to shifts in sourcing by end markets



Source: ILO/VCCI Rapid Survey

When assessing impacts on operations from different exogenous factors, the largest impacts reported were higher prices for inputs and materials, unavailability of inputs and materials, higher operational costs, and delays in logistics and shipments (figure 13). In addition, difficulties in recruiting workers and difficulties in retaining workers also significantly affected facilities.

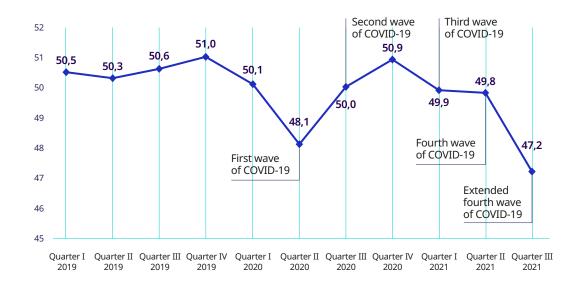


▶ Figure 13. Overall look at the pandemic's impact on facilities

Source: ILO/VCCI Rapid Survey

Along with fluctuations (increase and decrease in orders) in end markets, the disruption to supply chains and disease control measures adopted by the Vietnamese Government, such as strict social distancing and factory lockdowns and forcing a series of non-essential businesses and services to close, resulted in a large number of businesses being heavily affected and many workers were forced out of the market (figure 14).

### ▶ Figure 14. Total employed workers across quarters, 2019–2021 (million people)



The following Section and Chapter 5 provide further details and discussion on the impact of COVID-19 on decent work objectives in the electronics industry.

### A. Experiences of provinces

The impacts of the COVID-19 pandemic on the electronics industry differed from province to province in a variety of ways. One large and cross-cutting challenge was that many workers lost their jobs or returned home during factory closures (Hoang 2021b). Interviews with a select number of government and industry stakeholders in Bac Giang and Bac Ninh, two prominent locations of electronics production in the country, provide examples on the different impacts faced by enterprises.

### **Bac Giang**

The province of Bac Giang, in north Viet Nam close to Hanoi, withstood the initial impact of the pandemic relatively quickly and recorded positive growth in exports in 2020 (Nguyen 2021). Bac Giang is a success story in many ways. It was one of the poorest regions in Viet Nam but has experienced the highest economic growth in the country in recent years. This is partly the result of preferential policies for foreign enterprises to invest in the region, through land rent and tax incentives. It has in place six industrial parks and has experienced a rapid growth of the electronics industry. The province is home to the country's largest electronics companies, namely Foxconn or Luxshare (Minh 2021). These include several key suppliers of Apple<sup>21</sup> and Samsung.<sup>22</sup>

During the surge in COVID-19 infections in May 2021, Bac Giang was hit relatively hard. Four industrial parks, with around 300 enterprises and 200,000 workers, were ordered by the provincial government to stop all operations to contain the virus. This had a considerable impact on domestic suppliers linked to large exporting customer branded firms, such as Samsung and Apple (Dobberstein 2021). These disruptions were deepened by the temporary restriction of transportation of materials and workers in the industrial hub.

Bac Giang has a large number of workers from other provinces. During the height of the pandemic, many workers returned home after days staying inside the dormitories when their factories were closed. Many of these workers did not return after factories reopened and the electronics industry therefore faced an acute labour shortage. According to a local workers' representative, the key reasons were worker anxieties and the unpredictable evolution of the COVID-19 pandemic, which meant that workers did not know when the next lockdown would come and prevent them from working or travelling home again. The provincial government supported enterprises extensively in July and August 2021 by transporting workers back to the factory site and by recruiting more workers. Some enterprises committed to paying generous bonuses for returning workers. Some large enterprises even offered higher wages to attract workers. This has led to increased labour mobility, albeit with an uneven distribution of labour across enterprises in industrial zones. Despite these various efforts, there have still been labour shortages (interviews 2021). SMEs that did not offer higher wages faced more labour shortages than large enterprises that did.

<sup>21</sup> Apple. 2021. Apple Supplier List.

<sup>22</sup> Samsung. 2021. <u>Samsung Supplier List</u>.

When it came to policies impacting workers directly, in June 2021 the Government implemented the "3 on-site" policy, which allowed designated workers to work, eat and sleep on site or in production facilities without leaving. Enterprises faced challenges providing accommodation for workers that was suitable in the prevention of the spread of the COVID-19 virus according to the authorities' requirements (interviews 2021). Some electronics manufacturers, including suppliers to Samsung, set up tents in their factories for workers to sleep on site and remain in the factories to contain the spread of infection and maintain production activity (Chua and Uyen 2021). The policy was to create a bubble in which workers would not get infected with the virus outside of the factory and therefore not disrupt production. During this period in 2021, some suppliers also stopped working or encountered difficulties in delivering goods and services altogether.

In response, the central government provided cash support for workers and financial support to enterprises. The provincial government also provided hundreds of thousands of vaccine doses to factory workers (Chua and Uyen 2021). The Labour Federation in Bac Giang encouraged its members (workers in the factories) to set up emergency relief teams to deliver essential goods to workers in dormitories, assisted enterprises with disinfecting and cleaning factories, rearranging working areas according to the epidemic prevention plan, facilitating virus testing for workers. The Labour Federation also provided masks and hand sanitizers to assist businesses in restarting production activities quickly.

After the lockdown period was over, during the period of recovery and urgency to meet production demands, there were other challenges and opportunities to consider. For example, some enterprises found it difficult to properly arrange leave days for workers per the requirements of the Labour Code. On a positive note, according to the Department of Labour – Invalids and Social Affairs of Bac Giang, a shortage of non-resident workers and foreign workers gave local workers a "better chance of finding a job locally when enterprises expand the age, gender and qualifications of recruitment. In the past, workers above the age of 35 were finding it difficult to find a job, but now they are not. Besides, the wage policy became more competitive among businesses, and the policies on bonuses and overtime meals helped increase the quality of life for employees" (interviews 2021).

#### **Bac Ninh**

The provincial government of Bac Ninh, adjacent to Bac Giang in the north and to the "economic triangle" connecting Ha Noi, Hai Phong and Quang Ninh, is an important region for electronics manufacturing in Viet Nam. Bac Ninh was the country's largest FDI recipient in the first two months of 2022 (Viet Nam Plus 2022b).

Since 2015, Bac Ninh has identified electronics as one of the three priority sectors for development. It has attracted investments from a number of large electronics enterprises such as Samsung, Canon, LG and Foxconn. Notably, Samsung has one of its largest and most modern assembly factories in the world, located in Bac Ninh (Viet Nam Plus 2022a). These large enterprises are supported by around 500 suppliers in Bac Ninh (interviews 2022). According to the Apple Supplier List 2021, five of its 21 suppliers in Viet Nam are located in the province (Apple 2021).

The electronics industry contributes annually on average 90 per cent of the province's export value, with an annual export value of more than US\$30 billion in 2021. The industry is also a large importer of parts and components, signifying final assembly activities for global supply chains (interviews 2022).

Like Bac Giang, Bac Ninh has faced a shortage of workers since the onset of the COVID-19 pandemic. Other impacts on workers included the inability to organize social dialogues in the past two years. These are normally held twice a year, according to the representative of the management board of the Bac Ninh industrial zones. The management board has instead used online messaging apps, such as Zalo (the leading messaging app in Viet Nam) to connect with workers.

<sup>23</sup> Decision No. 2787/QD-BYT dated 5 June 2021 and other related guides on pandemic response plans in businesses, enterprises and industrial zones.

Bac Ninh's policies to prevent and control the spread of COVID-19 have been coordinated with experts from the Ministry of Health. It focused on a "six pillars" system, which consists of testing, tracing, isolation, 5K (masking, distancing, no gatherings, disinfection and health declaration), vaccination and treatment. Like other provinces, Bac Ninh also implemented the "3 on-site" policy and the "one route, two destinations" policy, which required enterprises to arrange transportation between the factory and place of accommodation (dormitory, hotel or hostel). There were also specific policies to reduce production levels to 50 per cent or 60 per cent if a facility was unable to fully meet the "3 on-site" or "one route, two destinations" policies. The aim of these policies was to suppress the virus yet maintain production output at least equal to the 2019 benchmark. During the pandemic, the authorities at central and local level and the Labour Federation provided extensive support to electronics workers.

In summary, although developing later than other manufacturing industries, Viet Nam's electronics industry has quickly risen to the first position in terms of exports by taking advantage of Viet Nam's comparative advantages, including low labour costs, its geographical location and free trade agreements and preferential policies to attract foreign investment. The electronics industry is led by FDI enterprises, while the participation of domestic enterprises is still limited. This industry is deeply involved in global supply chains, heavily dependent on input imports and world consumption markets. The fluctuations of the end market and the disruption of the supply chain have a great impact on the operation of the industry and thereby affect the employment and income of workers, of which the COVID-19 pandemic is major living evidence. Moving forward, the electronics industry is expected to see an increased demand for skilled workers and labour shortages are expected to grow in the near future.





The ILO Decent Work Agenda is based on the four pillars of: (i) employment; (ii) rights at work; (iii) social protection; and (iv) social dialogue, with gender equality and non-discrimination as cross-cutting objectives. Decent work is part of the 17 Sustainable Development Goals, notably Goal 8, which aims to promote inclusive growth and decent work for all by 2030. Specific Sustainable Development Goal targets that correspond to the decent work objectives are:<sup>24</sup>

- ➤ Target 8.5: Full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- ➤ Target 8.7: Eradicate forced labour, end modern slavery and human trafficking and by 2025 end child labour in all its forms.
- ▶ Target 8.8: Protect labour rights and promote safe and secure working environments for all workers.

Against this previous assessment, this chapter assesses the current state of decent work in the electronics industry for each of the four pillars of the Decent Work Agenda.

### A. Employment

### **Employment growth and skill levels**

Over the past decade, the electronics industry has become one of the largest employers in the country. In 2010, 2.8 per cent of all manufacturing jobs in the country were in the electronics industry and this rose to 7.3 per cent in 2021 (MOLISA 2022). In 2020, there were around 910,000 jobs in the electronics industry (see table 5).

### ► Table 5. Number of jobs in the electronics sector

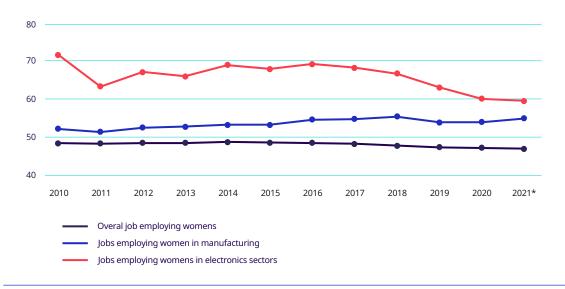
Total number of jobs (million)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total nationwide	49.49	50.68	51.42	51.64	52.74	52.53	53.30	53.70	54.25	54.66	53.61
Electronics	0.20	0.17	0.18	0.18	0.23	0.40	0.46	0.54	0.62	0.80	0.91
Urban	0.08	0.08	0.07	0.08	0.09	0.12	0.13	0.14	0.14	0.20	0.24
Rural	0.12	0.08	0.10	0.11	0.14	0.27	0.33	0.40	0.48	0.60	0.67
Male	0.06	0.06	0.06	0.06	0.07	0.13	0.14	0.17	0.21	0.29	0.36
Female	0.14	0.11	0.12	0.12	0.16	0.27	0.32	0.37	0.42	0.51	0.55

Source: Calculations from GSO Labour Force Survey data

The majority of workers in the industry have historically been women workers, which made up around 60 per cent of electronics workers in 2020 (see table 5 and figure 15). Figure 15 shows that, while the percentage of women workers in the electronics industry has been steadily declining, they are still the majority at around 60 per cent.

<sup>24</sup> The Global Goals: 8 Decent Work and Economic Growth.

### ► Figure 15. Employment structure by gender (%)



2021\* Represents data for only the first two quarters of 2021. Source: Calculations from GSO Labour Force Survey data



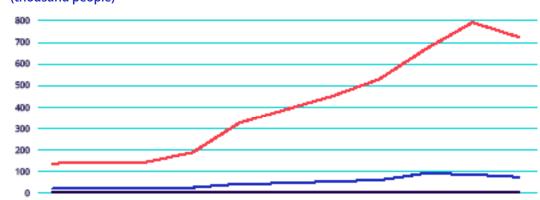
Box 1 describes the differences between low-skill, middle-skill and high-skill occupations and their specific educational and training requirements based on the International Standard Classification of Occupations-08 (ISCO-08) and the International Standard Classification of Education 1997 (ISCED-97) (see box 1). This allows for an assessment of the current state of labour-intensive and lower value-added work and employment in the industry and can help point to the types of educational and training requirements needed for moving up the value-added stages of global supply chains with higher wages and improved working conditions.

The majority of jobs in the industry in Viet Nam are in the middle-skill category (see figure 15). Data on specific types of occupations show "skilled machine and equipment operators" make up the majority of workers in the industry (see table 6). Also observable is a slight growth in high-skilled workers.

#### ▶ Box 1. Mapping of ISCO-08 major groups to skill level and linked to ISCED-97 education levels

ISCO-08 major groups	Skill level	Definition	ISCED-97 groups of education level
1. Managers	3+4		
2. Professionals	4	"Involve the performance of tasks that require complex problem-solving and creativity based on an extensive body of theoretical and factual knowl- edge in a specialized field"	6. Second stage of tertiary education (leading to an advanced research qualification); 5a. First stage of tertiary education, first degree (medium duration)
3. Technicians and associate professionals	3	"Involve the performance of complex technical and practical tasks that require an extensive body of factual, technical and procedural knowledge in a specialized field"	5b. First stage of tertiary education, first degree (short or medium duration)
<ul> <li>4. Clerical support workers</li> <li>5. Services and sales workers</li> <li>6. Skilled agricultural, forestry and fishery workers</li> <li>7. Craft and related trades workers</li> <li>8. Plant and machine operators, and assemblers</li> </ul>	2 2 2 2	"Involve the performance of tasks such as operating machinery, and electronics equipment; driving vehicles; maintenance and repair of electrical and mechanical equipment; and manipulation, ordering and storage of information"	4. Post-secondary, non-tertiary education 3. Upper secondary level of education 2. Lower secondary level of education
9. Elementary occupations	1	"Involve the performance of simple and routine tasks which may require the use of handheld tools and consider- able physical effort"	1. Primary level of education
10. Armed force occupations	1+2+4		

Source: ILO, 2012, International Standard Classification of Occupations: Structure, group definitions and correspondence tables (Volume I)



2015

Mid-skilled workers

2016

2017

2018

2019

High-skilled workers

2020

2021

#### Figure 16. Number of jobs in the electronics industry in Viet Nam based on skill levels (thousand people)

Source: Calculations from GSO Labour Force Survey data

Low skilled workers

2012

2013

2014

2010

Skill levels are important because they generally determine wages and because higher skill levels are generally associated with better working conditions.

According to ISCO-08 "middle-skill occupations" include "plant and machine operators and assemblers" (categorized as Major Group 8 in the classification). Within this occupational category is the subcategory of "assemblers" (Sub-Major Group 82), which includes "electrical and electronic equipment assemblers". Assemblers are defined as:

"Assemblers assemble prefabricated parts or components to form subassemblies, products and equipment, according to procedures strictly laid down. The products worked on may be moved from one worker to the next along assembly lines. Competent performance in most occupations in this sub-major group requires skills at the second ISCO skill level. Tasks performed by workers in this sub-major group usually include: assembling components into various types of products and equipment according to strictly laid down procedures; reviewing work orders, specifications, diagrams and drawings to determine materials needed and assembly instructions; recording production and operational data on specified forms; inspecting and testing completed components and assemblies; wiring installations and circuits; rejecting faulty assemblies and components" (ILO 2012, p. 329).

This definition of assemblers generally captures the labour-intensive final assembly, testing and inspection work in the electronics factories in Viet Nam that are connected to global supply chains.

The skills required for assemblers, as indicated in the definition, corresponds to ISCO Skill Level 2, which are: "generally obtained through completion of the first stage of secondary education<sup>25</sup> (ISCED-97 Level 2). Some occupations require the completion of the second stage of secondary education (ISCED-97 Level 2) ... [or] completion of vocation-specific education undertaken after completion of secondary education (ISCED-97 Level 4). In some cases, experience and on-the-job training may substitute for the formal education" (ILO 2012, p. 12).

<sup>25 &</sup>quot;Secondary education" according to ISCED-97 Level 2 is obtained after nine years of schooling from the start of primary education. See <a href="http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-1997-en\_0.pdf">http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-1997-en\_0.pdf</a>, page 24.

	Table 6.	Number	and	share	of jobs	in	electronics
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Number of job (thousand people)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*
TOTAL	167.6	178.7	184.7	233.3	397.2	461.8	538.2	621.9	801.6	914.9	836.0
Managers	0.7	1.7	1.1	0.1	0.7	0.4	1.2	0.4	1.1	0.2	0.0
Professionals	11.8	13.6	16.4	15.9	25.8	32.8	38.8	37.3	58.1	55.8	48.8
Associate professionals and technicians	7.2	7.4	9.5	10.3	17.0	12.8	14.7	23.3	32.9	29.6	27.6
Office workers	7.0	9.5	7.2	10.4	15.7	19.6	24.0	27.2	30.8	38.4	24.4
Personal services, security services, and skilled sales workers	4.8	5.1	4.4	6.3	9.3	9.9	12.6	13.7	13.4	18.6	16.8
Skilled machine and equipment operators	95.9	102.3	103.3	127.2	212.9	301.5	343.3	401.2	554.6	679.2	602.1
Basic/unskilled workers	9.3	11.5	13.1	17.4	26.8	25.0	29.0	28.9	37.8	33.9	35.2
Share (%)	100	100	100	100	100	100	100	100	100	100	100
Managers	0.39	0.94	0.62	0.06	0.17	0.09	0.23	0.06	0.14	0.02	0.00
Professionals	7.03	7.59	8.90	6.80	6.49	7.09	7.21	5.99	7.24	6.10	5.84
Associate professionals and technicians	4.29	4.15	5.13	4.41	4.28	2.77	2.74	3.74	4.11	3.23	3.30
Office workers	4.17	5.31	3.87	4.44	3.95	4.25	4.47	4.38	3.84	4.20	2.92
Personal services, security services, and skilled sales workers	2.84	2.87	2.40	2.69	2.35	2.13	2.34	2.21	1.68	2.03	2.01
Skilled machine and equipment operators	57.24	57.27	55.90	54.52	53.60	65.30	63.79	64.51	69.18	74.24	72.03
Elementary/unskilled workers	5.55	6.43	7.07	7.44	6.73	5.42	5.39	4.65	4.71	3.71	4.21

Source: Calculations from GSO Labour Force Survey data

The modest growth in "high-skill workers" are defined according to the ISCO-08 classification (Major Group 1 Managers; Major Group 2 Professionals; and Major Group 3 Technicians and associate professionals). According to table 6, around 10 per cent of occupations in the industry (within the categories of managers, professionals and associate professionals, and technicians) were high-skill over the last few years. These occupations correspond to the ISCO Skill Levels 3 and 4. Skill Level 3 requires knowledge and skills "obtained as a result of study at a higher educational institution for a period of 1–3 years following completion of secondary education (ICSED-97 Level 5b)" (ILO 2012, p. 13). Skill Level 4 requires knowledge and skills "obtained as a result of study at a higher educational institution for a period of 3–6 years leading to the award of a first degree or higher qualification (ICSED-97 Level 5a or higher)" (ILO 2012, p. 13). Skill level 4 additionally includes analysis and research, for example to share knowledge with others and for the "design of structures or machinery and of processes for construction and production" (ISCED, p. 4). As shown in table 6, the majority of high-skilled workers are professionals, which correspond to Skill Levels 3 and 4 requiring higher educational qualifications. The data does not show what percentage of these higher skilled occupations are held by Vietnamese versus foreign employees.

It is important to note the gender differences in occupations based on skill requirements in the industry. Based on select available data, figure 17 and table 7 show gender differences in worker participation in

what is termed "elementary occupations" or "simple workers", which represented less than 5 per cent of occupations in the industry. This corresponds to ISCO-08 Major Group 9, which "involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort. Most occupations in this major group require skills at the first ISCO skill level" (ISCO-08, p. 337).

Tasks can include "product-sorting; packing and unpacking produce by hand" (ISCO-08, p. 337). Skill Level 1 is based on the completion of primary education<sup>26</sup> and a possible short period of on-the-job training. Figure 17 and table 7 indicate that, overall, there was a steady rise in the total number of elementary occupations from 2011 to 2019 before the COVID-19 pandemic. However, its share of total jobs has been on the decline, falling from around 7 per cent of all jobs in the industry in 2013 to around 4 per cent in 2021. There has been an historical overrepresentation of female workers in this category of occupations, as shown in figure 17. However, the gap between the number of female and male workers in these jobs narrowed after the start of the COVID-19 pandemic. The share of all male workers in the electronics industry who are employed in elementary occupations has gradually increased in the last five years from 3.5 per cent in 2016 to 4.6 per cent in 2021 (surpassing the share of female workers in 2021). The share of all female workers in the electronics industry employed in this occupational category has been on a downward trend, falling from 8.6 per cent in 2014 to 4 per cent in 2021. There has also been an overall reduction in the number of female workers employed in this occupational category in 2020 and 2021. One possible explanation may be the general phenomenon of female workers not returning to their factory jobs after returning home during factory closures and quarantine (interviews 2021).

### ► Figure 17. Rate of male workers and female workers in elementary occupations in the electronics industry



It is important to assess gender differences in the middle- and high-skill categories of occupations in the industry. Table 7 breaks down the proportion of all male and female workers according to type of occupation in the industry over time.

▶ Table 7. Share of workers in elementary occupations in the electronics industry

Group of workers	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total number of jobs in the electronics industry (in thousands)	167.6	178.7	184.7	233.3	397.2	461.8	538.2	621.9	801.6	914.9	836.0
Number of elementary/ simple workers (in thousands)	9.3	11.5	13.1	17.4	26.8	25.0	29.0	28.9	37.8	33.9	35.2
Share of elementary/ simple jobs in the industry (%)	5.55	6.43	7.07	7.44	6.73	5.42	5.39	4.65	4.71	3.71	4.21
Number of female workers (in thousands)	8.0	8.7	9.9	13.9	20.8	19.9	23.8	23.6	29.6	22.5	19.7
Number of male workers (in thousands)	1.3	2.8	3.1	3.2	6.0	4.9	5.2	5.3	7.6	11.3	15.5
Share of female workers in elementary occupations out of all female workers in the electronics industry (%)	7.5	7.3	8.2	8.6	7.7	6.2	6.5	5.7	5.9	4.1	4.0
Share of male workers in elementary occupations out of all female workers in the electronics industry (%)	2.2	5.0	5.0	4.5	4.8	3.5	3.1	2.6	2.6	3.1	4.6

Source: Calculations from GSO Labour Force Survey data

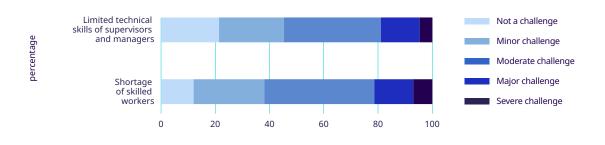
► Table 8. Proportion of male and female workers in different occupation categories in the electronics industry

Group of workers	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Male	100	100	100	100	100	100	100	100	100	100	100
Managers across sectors, levels and units	0.1	0.7	0.4	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0
Professionals	11.6	14.2	15.4	11.3	10.2	12.5	12.0	11.2	11.3	9.4	8.0
Associate professionals and technicians	6.9	7.6	7.2	9.0	8.8	5.2	4.8	6.5	6.6	5.1	3.7
Office workers (basic skill level, clerical support workers, etc.)	1.7	4.8	3.0	4.8	4.3	3.3	4.3	4.1	3.1	4.4	3.5
Personal services, protective services and skilled sales workers	6.0	3.9	5.9	6.0	5.3	4.2	4.6	4.1	3.1	2.3	3.5
Skilled machine and equipment operators and assemblers	48.6	47.5	45.8	49.2	45.6	57.5	57.4	58.6	64.2	68.2	66.3
Elementary workers	2.2	5.0	5.0	4.5	4.8	3.5	3.1	2.6	2.6	3.1	4.6

Group of workers	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Female	100	100	100	100	100	100	100	100	100	100	100
Managers across sectors, levels and units	0.1	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Professionals	4.2	4.7	5.7	4.6	4.1	4.4	5.1	3.4	4.9	4.0	4.4
Associate professionals and technicians	2.8	2.7	3.7	2.3	2.3	1.7	1.8	2.5	2.7	2.0	3.0
Office workers (basic skill level, clerical support workers, etc.)	5.6	5.4	4.2	4.3	3.9	4.7	4.6	4.6	4.3	4.1	2.5
Personal services, protective services, and skilled sales workers	1.1	1.3	0.6	1.2	1.0	1.2	1.3	1.3	0.9	1.8	0.9
Skilled machine and equipment operators and assemblers	62.4	62.9	61.6	57.4	57.8	69.0	66.9	68.0	72.2	78.3	76.0
Elementary workers	7.5	7.3	8.2	8.6	7.7	6.2	6.5	5.7	5.9	4.1	4.0

Results from the ILO/VCCI Rapid Survey showed that around 60 per cent of respondents found a shortage of skilled workers a moderate to severe challenge. Similarly, around 50 per cent of respondents found technical skills of supervisors and managers to be a moderate to severe challenge for their facilities (see figure 18). Enterprise survey results also showed around one third of respondents identifying gaps in specific skills. They were supervisory and management skills such as communication, negotiation and problem-solving skills, soft skills (for young workers and female workers), and training skills for factory trainers.

## ► Figure 18. Enterprise survey results: "How serious a challenge are the following issues in this factory?"



Source: ILO/VCCI Rapid Survey

The general assessment of employment in the electronics industry is that it is dominated by female workers in middle-skill level occupations requiring a minimum educational qualification of secondary education, and that there is a shortage of specific supervisory and managerial skills. Yet, anecdotally, Ngoc and Binh (2019) discussed the competitiveness of Vietnamese engineers for the electronics industry in the Southeast Asia region. Vietnamese engineers are increasingly working for foreign enterprises such as Samsung. It was reported in 2016 that 1,700 Vietnamese high-skilled workers worked at Samsung's largest R&D centre in Southeast Asia, which it opened in Hanoi in 2012 (UNIDO 2018). It was also reported that 10 per cent of all of Samsung's software developers globally are Vietnamese engineers. Samsung also opened its second R&D centre in the Saigon Hi-Tech Park in Ho Chi Minh City in 2017 (Ngoc and Binh 2019). Vietnamese engineers working in the electronics industry have fairly high qualifications in the East Asia region (Nguyen 2020).

In general, in Viet Nam a high percentage of the overall labour force (both males and females) has completed advanced education.<sup>27</sup> This was around 87 to 88 per cent from 2010 to 2020 and is higher than neighbouring countries such as Cambodia, Malaysia, the Philippines, Thailand and Indonesia (see figure 19).

### ► Figure 19. Labour force of Viet Nam with advanced education (% of total working-age population with advanced education)

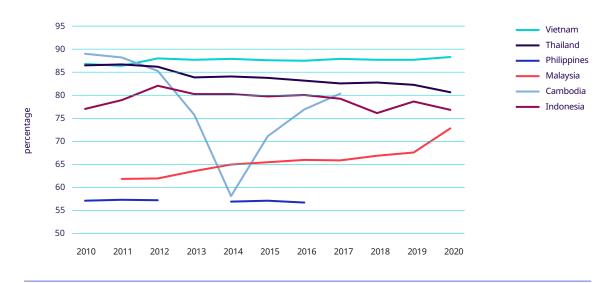


Source: World Bank (2022)

When broken down by gender, the percentage of women in the labour force with advanced education has been around 88 per cent for a decade. This is relatively high in comparison to neighbouring countries in the region (see figure 19). Similarly, the percentage of men in the labour force with advanced education grew from 86 per cent to 88 per cent in the past decade and is higher than several neighbouring countries (see figure 20).

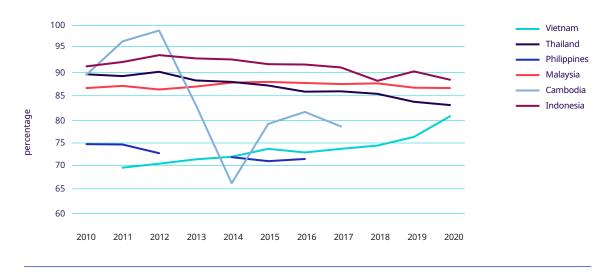
<sup>27 &</sup>quot;Advanced education" comprises short-cycle tertiary education, a bachelor's degree or equivalent education level, a master's degree or equivalent education level, or doctoral degree or equivalent education level, according to the International Standard Classification of Education 2011 (ISCED 2011).

## ► Figure 20. Labour force of Viet Nam with advanced education, female (% of female working-age population with advanced education)



Source: World Bank (2022)

# ► Figure 21. Labour force of Viet Nam with advanced education, male (% of male working-age population with advanced education)



Source: World Bank (2022)

In 2015, Viet Nam was ranked tenth by the World Economic Forum in a list of countries with the most engineering graduates. Viet Nam was also in the top ten of the Human Capital Index in 2016, higher than China, Indonesia and India. It ranked seventh among countries in Asia in the English Proficiency Index in 2014, surpassing Indonesia and China (TMA Solutions n.d.).

In secondary education, Viet Nam performs at a significantly high level even compared to developed countries. Gross enrolment rates in lower secondary education increased between 2010 and 2019 from 91 per cent to 98 per cent and from 60 per cent to 70 per cent in upper secondary education.<sup>28</sup> During its last two Programme for International Student Assessment (PISA) assessments (in 2012 and 2015), Viet Nam scored higher than the United Kingdom and the United States. Viet Nam's performance was exceptional given it was the participant with the lowest gross domestic product among the group of countries assessed (Dang et al. 2020).

The quality of education and data on advanced education attainment by the working population in Viet Nam, higher in comparison to neighbouring production countries, does not point necessarily to a lack of skilled workers in the country. Rather, it reiterates the assessment that the low-skilled nature of work in the electronics industry is due to the demands by the foreign electronics enterprises located in Viet Nam to supply global supply chains. As a representative from Bac Giang noted, "Workers in electronics enterprises are usually unskilled workers. Enterprises conduct short training courses in 12 weeks to meet job requirements. Therefore, enterprises do not have a need for workers to participate in vocational training" (interviews 2021).

### B. Working conditions and social protection

According to the 2019 Labour Code (Article 20), there can be two types of labour contracts. They are an "indefinite-term" (or permanent labour contract) or a "definite-term" labour contract, which can be no longer than 36 months or three years maximum. The proportion of workers employed in the electronics industry with labour contracts, either definite- or indefinite-term contracts, is close to 100 per cent. This is a higher rate in comparison to all other industries of the economy (see table 9).

► Table 9. Share of workers b	y labour contract status (%)
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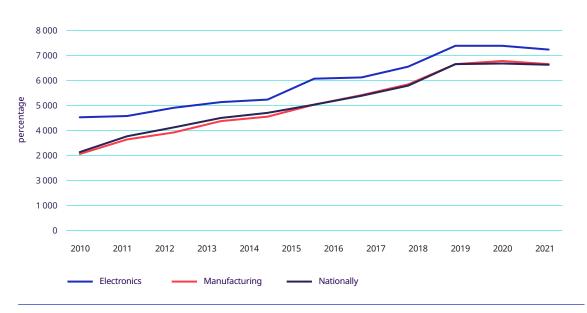
Group of workers	2015	2016	2017	2018	2019	2020	2021
Electronics	100	100	100	100	100	100	100
With labour contracts	98.3	98.3	98.0	98.8	98.6	98.6	97.7
Without labour contracts	1.7	1.7	2.0	1.2	1.4	1.4	2.3
Manufacturing	100	100	100	100	100	100	100
With labour contracts	73.4	74.0	76.8	77.8	81.2	81.3	79.8
Without labour contracts	26.6	26.0	23.2	22.2	18.8	18.7	20.2
Whole economy	100	100	100	100	100	100	100
With labour contracts	58.6	58.8	59.1	59.5	63.1	62.3	61.2
Without labour contracts	41.4	41.2	40.9	40.5	36.9	37.7	38.8

 $Source: Calculations \ from\ GSO\ Labour\ Force\ Survey\ data\ Source: Calculations\ from\ GSO\ Labour\ Force\ Survey\ data$ 

### Wages

An important contributing factor to Viet Nam's attractiveness for global supply chain-linked foreign investments is its stable young<sup>29</sup> and relatively low-wage workforce in the Asia Pacific region. In Viet Nam, wages in the electronics industry are on average higher than the overall manufacturing sector. Data from the GSO Labour Force Survey shows that average monthly wages for wage and salaried workers in the electronics industry increased in the past decade from Vietnamese dongs 4.5 million (around US\$197 in 2022) in 2011 to dongs 7.2 million (around US\$315 in 2022) in 2021 (see figure 22).

## ► Figure 22. Average income of salaried workers in the electronics industry (Vietnamese dongs thousand)



Source: Calculations from GSO Labour Force Survey data

### ► Table 10. Average income of salaried workers in the electronics industry (Vietnamese dongs thousand)

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Electronics	4,502	4,566	4,882	5,124	5,209	6,053	6,112	6,527	7,364	7,369	7,202
Manufacturing	3,055	3,641	3,922	4,364	4,533	5,010	5,402	5,820	6,627	6,744	6,618
Nationally	3,119	3,758	4,113	4,488	4,698	5,023	5,372	5,776	6,629	6,645	6,600

Source: Calculations from GSO Labour Force Survey data

Broken down by occupation, there is a major difference in monthly incomes between the highest paying occupation, managers (averaging 19,000 thousand Vietnamese dongs per month in 2020), and elementary workers (averaging 5,867 thousand dongs per month) (table 11). The majority of occupations in the industry

 $<sup>29 \</sup>quad \text{In 2020, 48.6 per cent of the labour force of the country was between 15 to 24 years of age (ILOSTAT)}.$ 

is in the "skilled machine and equipment operators and assemblers", which received an average income of 7,038 thousand dongs per month. As will be discussed in the next section, a low monthly salary can lead to situations where workers depend on overtime for a sufficient income.

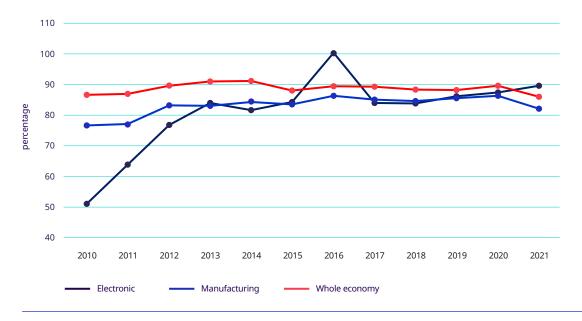
► Table 11. Average monthly income of different occupations in the electronics industry (Vietnamese dongs thousand per month)

Indicator	2011	2015	2019	2020	2021
Electronics industry as a whole	4,502	5,209	7,364	7,369	7,202
Managers across sectors, levels and units	8,475		12,000	19,000	
Professionals	6,359	7,179	11,477	10,589	10,670
Associate professionals and technicians	4,337	7,721	8,431	8,189	8,870
Office workers (basic skill level, clerical support workers, etc.)	3.348	6.266	8.108	8.474	8.469
Personal services, protective services and skilled sales workers	2.661	4.011	7.073	6.273	6.075
Skilled machine and equipment operators and assemblers	4,581	4,962	6,956	7,038	6,950
Elementary workers	3,534	4,359	6,395	5,867	6,068

Source: Calculations from GSO Labour Force Survey data

There is a gender pay gap in the electronics industry, which appears to have narrowed relatively quickly over the past decade. In 2010, the average wage for women was 51 per cent of that of men, and in 2021 it was 89.6 per cent (see figure 23). The wage gap for female workers in the electronics industry is smaller than for other industries and sectors in the whole economy.

▶ Figure 23. Comparison of wages earned by female workers as a percentage of male workers



Source: Calculations from GSO Labour Force Survey data

▶ Table 12. Comparison of wages earned by female workers as a percentage of male workers

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Electronics	51.1	63.9	76.9	84.0	81.7	84.3	100.4	84.1	83.8	86.2	87.4	89.6
Manufacturing	76.7	77.2	83.2	83.1	84.4	83.5	86.3	85.1	84.7	85.6	86.3	82.1
Whole economy	86.6	87.0	89.7	91.1	91.2	88.1	89.5	89.4	88.4	88.2	89.6	86.0

Source: Calculations from GSO Labour Force Survey data

While the gender pay gap is narrowing, the types of occupations female workers mainly occupy in the industry has not changed significantly since 2015, particularly in high-skill jobs (see table 13). For example, the percentage of female workers in the "professionals" occupation category was 4.1 per cent in 2015 and 4.4 per cent in 2021 and in the "associate professionals and technicians" occupation category it was 2.3 per cent in 2015, with a very minimal increase to 3 per cent in 2021. Where there has been a significant rise in the type of work female workers are doing in the industry is in the "skilled machine and equipment operators and assemblers" occupation category, which was 57.8 per cent in 2015 and grew significantly to 76.0 per cent in 2021. This also coincided with a drop in the share of female workers in the "elementary workers" category, which was 7.7 per cent in 2015 and fell to 4 per cent in 2021.

When it comes to male workers, there has been a fall in high-skill occupations overall from 2015 to 2021 (see table 13). While 10.2 per cent of all male workers in the electronics industry were in "professional" occupations in 2015, this share fell to 8 per cent in 2021. More significantly, the number of male workers in "associate professionals and technicians" occupations fell from 8.8 per cent in 2015 to 3.7 per cent in 2021. As with female workers, there was a significant rise in the percentage of male workers in "skilled machine and equipment operators and assemblers" occupations, from 45.6 per cent in 2015 to 66.3 per cent in 2021. The percentage of male workers as "elementary workers" stayed relatively the same at 4.8 per cent in 2015 and 4.6 per cent in 2021.

What the overall trend shows is that, generally, occupations in high-skilled occupations have fallen and there has been a significant growth in jobs for "skilled machine and equipment operators and assemblers". This conforms to the low-skill and labour-intensive nature of the industry, which continues to persist.

► Table 13. Comparison of jobs occupied by all male workers versus all female workers in the electronics industry, 2015–2021

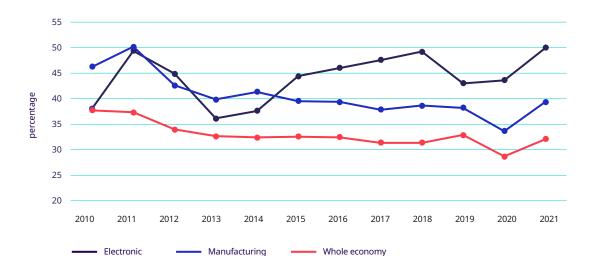
Group of workers	20	15	20	16	20	17	20	18	20	19	20	20	20	21
	М	F	М	F	М	F	М	F	М	F	М	F	М	F
Professionals	10.2	4.1	12.5	4.4	12.0	5.1	11.2	3.4	11.3	4.9	9.4	4.0	8.0	4.4
Associate professionals and technicians	8.8	2.3	5.2	1.7	4.8	1.8	6.5	2.5	6.6	2.7	5.1	2.0	3.7	3.0
Office workers (basic skill level, clerical support workers, etc.)	4.3	3.9	3.3	4.7	4.3	4.6	4.1	4.6	3.1	4.3	4.4	4.1	3.5	2.5
Personal services, protective services, and skilled sales workers	5.3	1.0	4.2	1.2	4.6	1.3	4.1	1.3	3.1	0.9	2.3	1.8	3.5	0.9
Skilled machine and equipment operators and assemblers	45.6	57.8	57.5	69.0	57.4	66.9	58.6	68.0	64.2	72.2	68.2	78.3	66.3	76.0
Elementary workers	4.8	7.7	3.5	6.2	3.1	6.5	2.6	5.7	2.6	5.9	3.1	4.1	4.6	4.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Calculations from GSO Labour Force Survey data

### **Working hours**

According to the 2019 Labour Code, normal working hours must not exceed eight hours per day or 48 hours per week. Workers in the industry are permitted to work up to 300 hours of overtime per year. In response to increased production demand and a lack of workers during the COVID-19 pandemic, on 1 April 2022 the Government temporarily extended the legal overtime limit temporarily until the end of the year from 40 hours a month to 60 hours a month.<sup>30</sup>

Data from 2010 to 2021 shows a gradual rise in the percentage of workers working overtime (above 48 hours a week) in the electronics industry in comparison to other industries and economic sectors (see figure 24). The electronics industry was persistently above the overall manufacturing industry in the percentage of workers working overtime in the last five years. In 2020, close to 50 per cent of electronics workers worked over 48 hours per week on average. According to an official from the Department of Labour - Invalids and Social Affairs in Bac Giang, due to tight production schedules and order deadlines, workers in electronics factories averaged between 40 to 50 hours of overtime each month (interviews 2021). Over 50 per cent of respondents in the ILO/VCCI Rapid Survey found complying with the legal requirements on working hours challenging.



▶ Figure 24. Percentage of workers who have overtime hours (over 48 hours a week)

Source: Calculations from GSO Labour Force Survey data

Excessive overtime is a major and widespread concern for the global electronics industry across different production countries. In general, there are two key drivers of excessive overtime. The first is the nature of peak production ramp-up phases, in which there is demand for more work or more daily output quotas for workers leading to increased overtime concentrated during those periods, which can be excessive (ILO 2014).

A second driver for excessive overtime is workers needing extra working hours to earn sufficient income. This is a situation faced especially in low waged production work when the base salary is low (Electronics Watch 2019; Raj-Reichert and Plank 2019; Chieu 2022).

 $<sup>30 \</sup>quad Resolution \ No. \ 17/2022/UBTVQH15 \ dated \ 24 \ March \ 2022 \ of the \ National \ Assembly \ Standing \ Committee.$ 

#### Social insurance

Social insurance, along with health insurance and unemployment insurance, is one of the three schemes in the mandatory social security system of Viet Nam. Social insurance has a wide benefit coverage and includes sick leave, maternity leave, allowances for work-related accidents and occupational diseases, pension allowance and mortality allowance. According to Article 168 of the Labour Code, "Employers and employees shall participate in compulsory social insurance, compulsory health insurance and unemployment insurance" and "Where an employee is not covered by compulsory social insurance, compulsory health insurance or unemployment insurance, the employer shall, in addition to and at the same time with salary payment, pay the employee an amount equal to the compulsory social insurance, compulsory health insurance, unemployment insurance premiums payable by the employer in accordance with regulations of law on social insurance, health insurance and unemployment insurance". Social insurance in Viet Nam is governed by the 2014 Social Insurance Law and Decree No. 115/2015/ND-CP in 2015 expanded coverage of compulsory social insurance for employees who are Vietnamese citizens with labour contract periods of one month or more.

Findings from the ILO/VCCI Rapid Survey showed around 32 per cent of enterprises reported that it was challenging to meet the legal requirements on social insurance. This was especially the case for larger enterprises (ILO 2022). However, in general, workers in the electronics industry have a higher percentage of participation in the social insurance scheme compared to other industries in the manufacturing sector and in the whole economy. In 2021, 93 per cent of electronics workers participated in the social insurance scheme (table 14).

► Table 14. Share of workers by social insurance participation status (%)

Sector	2017	2018	2019	2020	2021	2020	2021
Electronics	100	100	100	100	100	100	100
Insured	88.4	89.8	92.3	92.5	93.4	98.6	97.7
Uninsured	11.6	10.2	7.7	7.5	6.6	1.4	2.3
Manufacturing	100	100	100	100	100	100	100
Insured	66.4	69.0	72.3	73.1	72.4	81.3	79.8
Uninsured	33.6	31.0	27.7	26.9	27.6	18.7	20.2
Whole economy	100	100	100	100	100	100	100
Insured	50.3	51.7	54.1	53.9	53.3	62.3	61.2
Uninsured	49.7	48.3	45.9	46.1	46.7	37.7	38.8

Source: Calculations from GSO Labour Force Survey data

# C. Fundamental principles and rights at work and other international labour standards

The ILO Declaration on Fundamental Principles and Rights at Work was adopted in 1998 and amended in 2022. It sets out the obligation of ILO Member States to respect, to promote and to realize, in good faith, the principles concerning the fundamental rights, which are the subject of some specific ILO Conventions and rights at work, even if they have not ratified the said relevant Conventions. Member States, therefore, have the duty to adopt, implement and effectively enforce national laws and regulations and to ensure that the fundamental principles and rights at work and ratified international labour Conventions protect and are applied to all workers, taking into account other international labour standards.

There are five categories of principles and rights at work: freedom of association and the right to collective bargaining; the elimination of forced or compulsory labour; the abolition of child labour and the elimination of discrimination in respect of employment and occupation; and a safe and healthy working environment.<sup>31</sup> These principles and rights have been expressed and developed in ten ILO Conventions that have been recognized by the ILO Governing Body as fundamental (table 15).

#### ► Table 15. Fundamental ILO Conventions

Number	Convention
29	Forced Labour Convention, 1930, and the Protocol of 2014
87	Freedom of Association and Protection of the Right to Organise Convention, 1948
98	Right to Organise and Collective Bargaining Convention, 1949
100	Equal Remuneration Convention, 1951
105	Abolition of Forced Labour Convention, 1957
111	Discrimination (Employment and Occupation) Convention, 1958
138	Minimum Age Convention, 1973
155	Occupational Safety and Health Convention, 1981
182	Worst Forms of Child Labour Convention, 1999
187	Promotional Framework for Occupational Safety and Health Convention, 2006

Source: ILO Conventions

# A.1. Freedom of association and the right to collective bargaining

Freedom of association ensures that workers and employers can organize to efficiently negotiate work relations. Governments have an obligation to create a stable political and civil climate, as well as the legal

<sup>31</sup> At its 110th Session in June 2022, the International Labour Conference decided to amend paragraph 2 of the ILO Declaration on Fundamental Principles and Rights at Work (1998) to include "a safe and healthy working environment" as a fundamental principle and right at work.

and institutional frameworks that enable autonomous employers' and workers' organizations to operate freely, without fear of reprisal.

Combined with effective freedom of association practices, sound collective bargaining practices ensure that employers and workers have a voice in negotiations and that the outcome will be fair and equitable. Collective bargaining allows both sides to negotiate fair wages and working conditions and can help prevent costly labour disputes.

There is limited information available about the number and scope of collective bargaining and collective bargaining agreements in the electronics industry in Viet Nam today. The exception is data about strikes and industrial disputes (Table 16). It is clear that more research is needed to better understand the implications and impact of collective bargaining and other forms of social dialogue in Viet Nam's electronics industry today and in the future.

▶ Table 16. Number of strikes in the electronics industry in comparison to strikes nationwide

Year	Total number of strike cases nationwide	Electronics sector					
		Number of cases	Percentage				
2017	329	15	4.56				
2018	214	21	9.81				
2019	121	9	7.44				
2020	125	12	9.60				
2021	107	9	8.41				
Quarter 1/2022	65	15	23.08				
Total	961	81	8.43				

Source: VGCL (2022)

According to the VGCL, the share of strikes in the electronics industry of all strikes nationwide has increased in the last few years, from less than 5 per cent in in 2017 to 8 per cent in 2021. In the first quarter of 2022, around 23 per cent of all strikes in the country occurred in the electronics industry. In Bac Ninh, one of the electronic manufacturing centres in Viet Nam, in the first seven months of 2022, five out of all five strikes were in electronics enterprises (Bac Ninh FoL August 2022). Strike cases reported in the news were due to worker demands concerning higher wages, meal allowances, bonuses, working hours, chemical exposure, maternity allowance, and sick and annual leave.

Freedom of association and collective bargaining are both enabling rights that are fundamental to the attainment of all ILO strategic objectives. These enabling rights have allowed strong and independent workers' and employers' organizations to contribute to the growth and development of their countries and of specific economic sectors and industries, including the electronics industry.

As one of 187 Member States of the ILO, Viet Nam must fulfil its obligation to promote, to realize and to respect, in good faith, the fundamental principles and rights at work, including freedom of association and the right to collective bargaining. These enabling rights are the foundation for addressing and improving working conditions in the electronics industry today and in the future.

# A.2. The elimination of forced or compulsory labour and the abolition of child labour

The opening up of the Vietnamese economy has brought in its wake new forms and patterns of vulnerability for the country's children. Social institutions to address this vulnerability have not always been able to keep pace with these changes. Recent reports indicate a rise in internal migration and the number of displaced and unregistered families and children found in urban centres. Children and young people can now be found in informal work, in arrangements that are unsupervised and unregulated. In these situations, the children, having limited access to education, can neither develop themselves nor have a dignified life. Migrants, ethnic minorities and young girls are among those who require targeted attention.

Considering the formal and factory-based nature of work in the electronics industry in Viet Nam, it is uncommon to encounter forced and child labour in the country's electronics supply chains. In the ILO report from 2020 on labour law compliance in the electronics sector, the main challenges were found to be in the areas of discrimination, working hours, low wages and allowances, occupational health and safety risks, weak trade unions and industrial relations, weak monitoring of labour compliance by MOLISA and industrial zone authorities, and the use of private standards on working conditions. Moreover, there were no findings concerning forced or child labour.

# A.3. The elimination of discrimination in respect of employment and occupation

Discrimination stifles opportunities, wastes human talent and accentuates social tensions and inequalities. Measures to prevent and eliminate all forms of discrimination are therefore critical to investing in people's capabilities and advancing decent work in the electronics industry globally and in Viet Nam.

Together with the UN Convention on the Elimination of All Forms of Discrimination against Women and International Covenant on Economic, Social and Cultural Rights, the ILO Equal Remuneration Convention, 1951 (No. 100) and Discrimination (Employment and Occupation) Convention, 1958 (No. 111) recall the principles of equality and non-discrimination, affirm a woman's right to work, and call on governments to adopt and implement rules and regulations that establish a comprehensive set of obligations to ensure that women can enjoy equal labour rights in law and practice. Convention No. 111 calls on governments to abolish laws, regulations and cultural practices that restrict the types of work in which women can engage, that limit women's freedom of movement, or that permit gender-based work-related discrimination, violence or harassment. In other words, governments are obliged to ensure that women can exercise their right to work on a basis equal to that of men.

In the 2020 ILO report on labour law compliance in the electronics sector, findings revealed discrimination by some enterprises in the hiring of female workers. There were also questionable discriminatory practices involved, for instance in relation to allowances for menstruating or non-pregnant workers.

As the electronics manufacturing workforce in Viet Nam is heavily dominated by female workers, some enterprises recognize the need to offer reporting mechanisms that women workers consider safe, accessible and non-threatening to use in situations of sexual harassment (as well as gender discrimination or sexual violence). A study by Uyen and Bao (2022) reported that many female workers who faced sexual harassment across all sectors in Viet Nam were not aware they were victims, which is attributed to a lack of training in the workplace on sexual harassment, or chose not to report such incidences out of fear of losing their jobs and retaliation. Hence, gender-specific forms of reporting mechanisms that are sensitive to this context and which conform to local social and cultural norms are important to effectively address such issues. More broadly, ensuring that the specific needs of female workers, such as breastfeeding rooms, maternity leave and health check-ups are addressed, is also part of advancing gender equality and addressing discrimination at work.

### A.4. Occupational safety and health

According to the Law on Occupational Safety and Hygiene (OSH), the Law on Fire Prevention and Fire Fighting, and the Law on Chemicals and the Labour Code, employers must regularly inspect workplaces for safety conditions and provide sufficient training to workers, biannual health check-ups for workers and personal protective equipment where necessary. To carry out these tasks there must be an OSH officer in facilities and an OSH Council, if there are over 1,000 workers, to undertake inspections every six months. Production facilities must have a fire safety plan in place. Chemical data sheets and adequate labelling of chemicals must be provided. Labour accidents must be reported and investigated with the possibility of worker compensation provided.

Training by employers on OSH is mandated by the Law on Occupational Safety and Health (Article 14), which states that "employers must organize OSH training for workers performing jobs subject to strict requirements for OSH and also provide periodic retraining. Workers have the right to receive OSH training before conducting work that is subject to strict OSH requirements. Article 14 also requires that managers, officers and representatives of OSH are trained, pass an examination and receive certification from an OSH training institution. The Law on Chemicals (Article 30) also requires periodic training of workers in chemical safety.

Given the similarity in the nature of production throughout the electronics industry global supply chain, typical OSH hazards can be expected to be similar in different production locations, including Viet Nam. Final product assembly work involves the exposure to certain types of chemicals, including cleaning solvents (Koh et al. 2004). A study of chemical use in the electronics industry in Viet Nam noted the use of alcohol and corrosive detergents as well as sulfuric acid (IPEN 2017), which are common chemical substances used in assembly processes throughout the industry. Assembly work can also lead to musculoskeletal disorders due to repetitive motion and eyestrain from prolonged visual inspection work involving microscopes. Also, there can be exposure to high levels of noise from machinery with motors, cutting equipment and packaging machines (Koh et al. 2004).

A report by Electronics Watch on Viet Nam (2019) raised several issues concerning OSH in the electronics industry, including worker exposure to hazardous chemicals and harmful levels of noise. A survey of electronics workers conducted in 2017 showed low worker awareness of their exposure to chemicals and other physical hazards, such as metal dust and radiation. These findings coincided with inadequate OSH training received by the workers (Electronics Watch 2019).

The ILO/VCCI Rapid Survey also indicated the challenges in relation to training on OSH, including a lack of trainers, which was a common concern. Many survey respondents (18 out of the 42 respondents) noted they would be interested in a "training of trainers course on occupational safety and health", which suggests that there is an urgent need to enhance capacity and knowledge about OSH.

The COVID-19 pandemic also brought a new and different OSH challenge to enterprises in the industry. Prevention of infection was undertaken by complying with public health protocols, including personal protection equipment, testing and vaccinations. Based on the ILO/VCCI Rapid Survey, on average the vaccination rate of workers was high. Across 40 suppliers, around 86 per cent of the workforce was fully vaccinated by the end of October 2021. During the pandemic, it is also reported by local authorities that electronics factories strengthened the hygiene at work and practice distancing seriously to avoid virus infection and spreading<sup>32</sup>.

Assessing the OSH situation in the electronics industry in Viet Nam will require an official study by the Government to understand industry-wide trends of where there are areas of concern, challenges and best practices that can be used to protect the rising number of workers in the industry. With the inclusion of a safe and healthy working environment as a fundamental principle and right at work in 2022, it has become even more urgent and important to conduct such a study as the basis for updating guidance on ways to effectively control and eliminate new and emerging OSH risks in the electronics industry in Viet Nam.

### D. Social dialogue

Social dialogue includes all types of negotiation, consultation and exchange of information among representatives of workers, employers and governments in decision-making on employment and workplace issues (ILO 2013). Mature and healthy industrial relations depend on dialogue and bargaining between employers and workers. These differing interests can be represented collectively by employers' organizations and by trade unions or workers' organizations. Effective communication and proper institutions for industrial relations can have important outcomes on employment and working conditions and settling industrial disputes in an effective manner (UNDP 2020).

Table 17 lists the top areas in which respondents to the ILO/VCCI Rapid Survey indicated they lacked knowledge and skills. These included the following areas that are directly linked to social dialogue: workplace cooperation and communication; rights and responsibilities of trade unions and management in industrial relations; freedom of association; and collective bargaining and collective bargaining agreements.

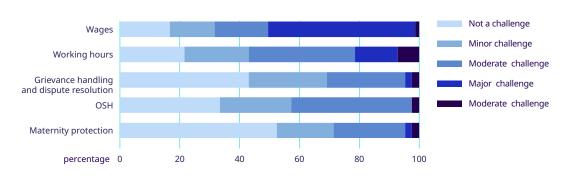
#### ► Table 17. List of top areas of training capacity gap

Issue areas	Number of respondents	Percentage
Forced labour	16	45.71
Discrimination	14	40.00
Workplace sexual harassment prevention	13	37.14
Freedom of association, collective bargaining and collective bargaining agreements	15	42.86
Rights and responsibilities of trade unions and management in industrial relations	17	48.57
Workplace cooperation and communication	21	60.00
Occupational safety and health	14	40.00

Source: ILO/VCCI Rapid Survey

Capturing the experiences of enterprises in the past year, figure 25 shows, furthermore, that 40 per cent of the respondents that took part in the ILO/VCCI Rapid Survey found it challenging to meet legal requirements and/or customer requirements concerning social dialogue and collective bargaining. Around 30 per cent of respondents, moreover, reported challenges to meeting legal requirements and/or customer requirements in relation to grievance handling and dispute resolution. Some 45 per cent of respondents reported worker complaints about working conditions as a challenging issue in their facilities. Around 19 per cent of respondents reported conflicts between workers, supervisors and managers as a minor challenge, and 31 per cent of respondents reported it as a moderate challenge (ILO 2022).





Source: ILO/VCCI Rapid Survey

While it cannot be directly linked to the rise in the number of strikes, it was reported that worker-management dialogues, which normally take place several times a year, were less frequent during the pandemic years (interviews 2021). Respondents to the ILO/VCCI Rapid Survey reported an average of 3.8 worker-management sessions in 2021, slightly lower than the averages for 2020, which were 4.5 sessions, and 4.4 sessions on average in 2019.

Prior research by Goto and Arai (2017) on foreign electronic enterprises in Viet Nam found worker-management dialogues occurring within the institution of worker unions. The authors also reported it unusual that 100 per cent of workers in the factories they interviewed were union members, including managerial employees. The authors noted that such dialogue may not be conducive to collective bargaining platforms for workers vis-à-vis management. Since 2015, the VGCL, with ILO technical support, has piloted multi-employer collective bargaining agreements in industrial clusters, one being the collective bargaining agreement signed by the group of 20 electronics enterprises in Trang Due Industrial Park (Hai Phong city) with the Hai Phong Economic Zone Trade Union in 2016 (ILO 2019).

Social dialogue also involves proper mechanisms for receiving worker complaints, worker-management negotiations and resolutions, which are essential for ensuring decent work conditions in global supply chains. Effective grievance mechanisms, in particular, are important for empowering workers to safely and without fear of negative consequences communicate violations of labour laws and labour rights. Social dialogue can help not only to solve and improve situations, but also to prevent labour rights violations and poor working conditions. Increasingly, large MNEs, including those investing in Viet Nam, request suppliers to have in place grievance mechanisms that allow workers to submit complaints to be dealt with either in a judicial or non-judicial manner through mediation and conciliation (interviews 2022).

In recent years, digital technology has allowed for new forms of communication about workplace grievances, including online grievance platforms. Some suppliers in Viet Nam use such digital grievance tools, which can collect data and information on worker satisfaction, receive complaints and offer a tracking system for grievance resolutions. In some cases, this data can be viewed by all workers and shared in real time with customer enterprises (interviews 2022).



Corporate social responsibility (CSR) in Viet Nam was first introduced by transnational corporations in the garment and textile industries during the mid-1990s through codes of conduct or clauses in procurement contracts that were passed on to local suppliers (UNDP 2020).

Since then, there have been a series of activities to raise awareness of CSR, to encourage the uptake of CSR by Vietnamese businesses, to strengthen communication among enterprises engaged in these endeavours, and to foster an enabling environment for CSR in Viet Nam (Bekefi 2006). In general, compliance with CSR initiatives have been demanded by transnational corporations, especially those based in Europe and the United States. However, CSR was also promoted by the Government of Viet Nam and supported by employers' organizations, such as the VCCI, the European and American chambers of commerce in Viet Nam, and other business associations such as the garment and textile associations. Since 2006, the VCCI, in collaboration with the Ministry of Industry and Trade, MOLISA, the VGCL and the Viet Nam Textile and Apparel Associations, have organized the "CSR Awards" to honour businesses that perform well in the CSR area. This is an example of how the Government of Viet Nam engages with the social partners and industry associations in promoting CSR in Viet Nam.

The VCCI has proactively been driving CSR for its members. It founded the Global Compact Network Viet Nam in 2007 with the United Nations Development Programme (UNDP) in Viet Nam and founded the Viet Nam Business Council for Sustainable Development in 2010. More recently, the VCCI has collaborated with the Australian Human Rights Commission to strengthen business capacity and train business leaders on responsible business conduct and human rights, in line with the UN Guiding Principles on Business and Human Rights. This collaboration involved developing a corporate sustainability index, which was launched in 2022. This initiative recognized that the "COVID-19 pandemic demonstrated responsible business conduct and respect for human rights may help firms be resilient to crises and recover quickly" (VCCI 2022).

It is important to recognize that many foreign enterprises in the global electronics industry increasingly require their suppliers to comply with national labour law and the principles of international labour standards. They have sought to strengthen compliance through private labour governance mechanisms, the outcomes of which could further decent work objectives. With the move to mandatory human and labour rights due diligence, compliance with labour law and the principles of international labour standards are increasingly becoming a requirement for suppliers to participate in global supply chains for export markets such as the US and EU markets (Nadvi and Raj-Reichert 2015; Raj-Reichert 2011 and 2019; UNIDO 2018).

Many of the large foreign enterprises in Viet Nam and brand firms sourcing from Viet Nam, such as Apple, Canon, Cisco, Foxconn, Intel, Jabil, LG, Microsoft and Pegatron, are members of the RBA, which is the world's largest industry coalition. RBA members must comply with the code of conduct in their operations in Viet Nam and ensure compliance among their suppliers in all tiers of the chain. The RBA Code of Conduct references several international standards such as the UN Universal Declaration of Human Rights and the ILO international labour standards, as well as the UN Guiding Principles and the OECD Guidelines for Multinational Enterprises. Specifically, the RBA Code of Conduct has labour standards on freely chosen employment, child labour, working hours, wages and benefits, humane treatment, non-discrimination/non-harassment, and freedom of association. Specific to health and safety, there are standards on occupational safety, emergency preparedness, occupational injury and illness, industrial hygiene, physically demanding work, machine safeguarding, sanitation, food and housing, and health and safety communication.<sup>34</sup> The RBA Code of Conduct also requires its members to establish a management system to ensure compliance, which includes programmes for training managers and workers to meet the code of conduct and legal and regulatory requirements in the country of operation. Manufacturing enterprises and suppliers must demonstrate their compliance with the RBA Code of Conduct regularly

 $<sup>33 \</sup>quad MOLISA. See \underline{\ http://www.molisa.gov.vn/Pages/tintuc/chitiet.aspx?tintucID=9103.} \\$ 

<sup>34</sup> The RBA Code of Conduct also includes environmental and business ethics standards, which are not directly linked to meeting decent work objectives. The 2021 version of the RBA Code of Conduct is available at: <a href="https://www.responsiblebusiness.org/media/docs/RBACodeofConduct7.0\_English.pdf">https://www.responsiblebusiness.org/media/docs/RBACodeofConduct7.0\_English.pdf</a>.

through internal reports, self-assessments, monitoring, internal and third-party audits, and corrective measures.

Viet Nam has also committed to strengthen compliance with national labour laws and to respect, to promote and to realize the fundamental principles and rights at work as part of the country's recent accession to new international trading agreements. The EVFTA and the CPTPP contain provisions that emphasize that companies need to comply with labour rights, national labour laws and respect the principles of international labour standards.

The EVFTA is considered to be the most ambitious free trade agreement the European Union has signed with a developing country in terms of its coverage and liberalization commitments (Delegation of the European Union to Vietnam. 2016), including in relation to the promotion of labour standards. The EVFTA contains a chapter on trade and sustainable development with several provisions on working conditions. This chapter commits Viet Nam to implementing the ILO core labour standards and making progress towards ratifying other ILO Conventions. The agreement also requires both the European Union and Viet Nam not to derogate from enforcing domestic labour laws as a means to attract trade or foreign investment. Both parties are allowed to pursue labour regulations above and beyond the ILO standards and Conventions, but not below them.

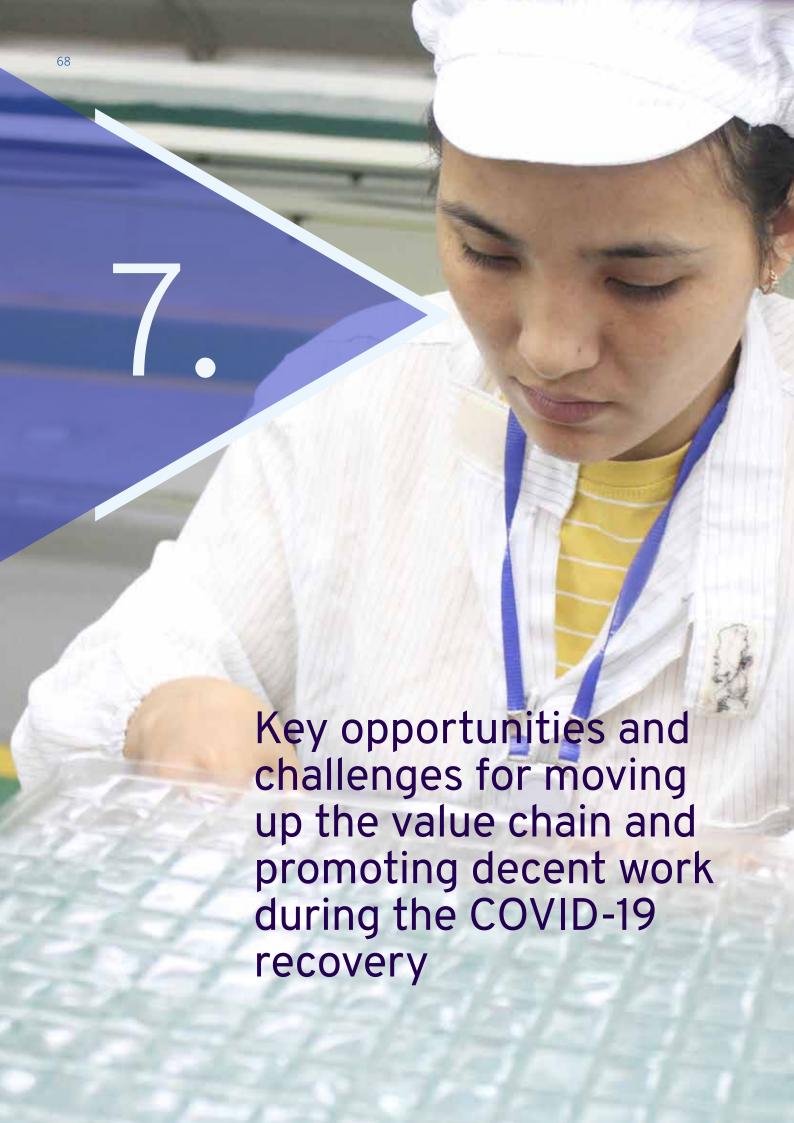
Prior to ratifying the EVFTA, the Vietnamese Government ratified the ILO Right to Organise and Collective Bargaining Convention, 1949 (No. 98) in June 2019 and the Abolition of Forced Labour Convention, 1957 (No. 105) in July 2020. The preparation for ratification of the Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) is also planned<sup>36</sup> in accordance with the national needs and socio-economic conditions. These steps by the Vietnamese Government were welcomed as a signal to the global community and interested stakeholders, including potential business partners and investors, that Viet Nam will uphold the rights of workers.

The move to mandatory human rights and environmental due diligence policies is expected to be more and more common tools to promote responsible business conduct. The European Commission has proposed a directive on corporate sustainability due diligence to ensure human rights and environmental standards are upheld in global supply chains. The proposed regulation is, at the time of writing, being discussed by the EU Parliament and Council and would go through several steps before it is voted on, adopted and implemented, which could take several years. In addition, several EU Member States have developed national global supply chain laws to ensure enterprises conducting business in their markets do not violate labour rights or standards in their global supply chains. These new global supply chain laws include the 2017 French Duty of Vigilance Law, the 2019 Dutch Child Labour Due Diligence Law, and the 2020 German Supply Chain Due Diligence Act. In other words, the EU regulatory landscape is becoming stricter and more complex in terms of global supply chain regulations on working conditions.

<sup>35</sup> While not discussed in detail in this report, it is important to note that Chapter 19 of the CPTPP on "Labour" also calls on Viet Nam to meet its commitments to the ILO fundamental principles and rights at work, which includes the eight ILO core Conventions. The CPTPP calls for the effective enforcement of labour laws in Viet Nam and for the promotion of public awareness of labour laws, which includes clear public information on procedures and compliance.

<sup>36</sup> https://www.ilo.org/hanoi/Informationresources/Publicinformation/Pressreleases/WCMS\_793248/lang--en/index.htm Accessed on 10.7.2022.





## A. Opportunities

Viet Nam's electronics industry benefits from several important opportunities to further contribute to inclusive growth and decent work:

- ▶ The electronics manufacturing industry is one of the fastest-growing industries in the world (Econotimes 2022), and as more production processes and activities are going digital worldwide, the demand for electronic components will expand (UNCTAD 2019).
- ▶ In Viet Nam, electronics, information and telecommunication technologies are among the top ten prioritized sectors approved by the Government for the industrial development strategy period between 2025 and 2035,<sup>37</sup> including prioritizing supporting industries for development.<sup>38</sup>
- ▶ Labour costs in Viet Nam are lower than other countries in the region (Japan External Trade Organization, 2021). However, the ambition of Viet Nam is not to remain a low-cost, low-skilled production hub, but instead to increase skill levels, productivity, competitiveness and working conditions in tandem.
- ▶ Due to the ongoing US-China trade conflict and rising manufacturing costs in China, outsourcing brands and their suppliers seek to diversify their supply base. Viet Nam is a desirable option given its geographic physical proximity and connection to China, which is a key supplier of components as well as an important end market (Frederick and Gereffi 2013).
- ▶ New FTAs came into effect recently, such as the EVFTA, the CPTPP and the RCEP, which will lower tariff barriers and create more opportunities to export electronic products from Viet Nam. The new FTAs also create favourable conditions to attract foreign investment to the electronics industry.
- ▶ More promising in terms of higher value-added activities is the increasing foreign investment in R&D and production involving high-tech technologies in the country. Samsung, for example, has two R&D centres in the Saigon Hi-Tech Park in Ho Chi Minh City (Ngoc and Binh 2019). Intel has increased its investments in its chip assembly and testing facilities in Viet Nam with an additional US\$475 million into its Saigon Hi-Tech Park facility in 2021. The investments were used to manufacture more complex technological products like 5G products and Intel's tenth generation core processors (Hoang 2021a). This is Intel's largest assembly and test location globally and employs around 2,700 workers in the country (Intel 2021).
- An opportunity for growth and upgrading exists among small suppliers engaged in the circular electronics economy in Viet Nam, including after-sales services such as repair, re-use, refurbishment and recycling.

<sup>37</sup> Prime Ministerial Decision No. 879/QĐ-TTg of 9 June 2014.

<sup>38</sup> Resolution No. 115/NQ-CP of August 2020 on solutions to promote the development of the supporting industry by 2030.

## B. Challenges

There are also a number of challenges to moving up the value chain and promoting decent work during the COVID-19 recovery in Viet Nam, which are due to:

#### Undeveloped domestic supporting industries

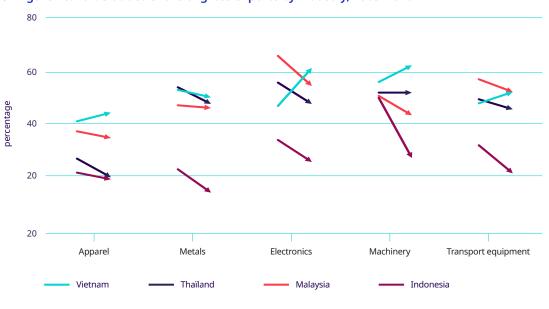
As discussed earlier, the electronics industry in Viet Nam continues to be dominated by large, well-resourced and highly competitive foreign investors. Foreign enterprises continue to expand and relocate production from other countries, namely China, to Viet Nam. This has been mainly in labour-intensive assembly activities of imported parts and components. Viet Nam has a continued heavy reliance on inputs from suppliers located abroad. Domestic businesses, on the other hand, are mostly small, less productive and less innovative than foreign-invested enterprises, and not well integrated into global value chains (IFC 2021). Domestic businesses, especially SMEs, face challenges competing on quality and know-how to become suppliers to foreign enterprises in Viet Nam.

Several key constraints to shifting to local production inputs are listed as the scarcity of domestic suppliers with the ability to meet required quality, quantities, delivery times and prices, besides relevant policies to assist local enterprises (IFC 2021). Moreover, the global economy is weakened by the ongoing war in Ukraine through significant disruptions in trade, food and fuel, which puts significant negative impact on global financing conditions.

The continuing domination of the electronics industry by foreign enterprises also has its challenges in terms of economic development outcomes domestically. Ngoc and Binh (2019, p. 6) reported low local content use of domestically produced parts and components in final products assembled in Viet Nam. In 2016, domestic suppliers were able to meet only 30 to 35 per cent of inputs for electronic appliances and only 5 per cent for high-tech electronic products (Ngoc and Binh 2019). This "localization rate" is also lower than India and China (Can 2022). This means there is very low value-added or value capture by domestic suppliers (Gereffi 2019). The lack of strong supporting domestic industries results in a high dependence on imports of inputs, parts and components for the assembly of final products in the country. In 2019, the share of total value-added in the "computers, electronic and optical products" and "electrical equipment" industries was 2.2 per cent and in "telecommunications" only 1.1 per cent (Can 2022).

Instead, according to the OECD (2021a), there has been a sharp rise in foreign value-added of electronics exports from Viet Nam, with a very steep upward arrow (see figure 26).

Due to the underdevelopment of supporting industries in Viet Nam, electronics industry production is very import-dependent, with domestic firms struggling to assimilate into global supply chains.



#### ▶ Figure 26. Value-added share of gross exports by industry, 2005–2016

Source: OECD (2021a), p. 145

# Obstacles in implementing domestic labour law, international labour standards and the 2019 Labour Code

The 2019 Labour Code, which came into force in 2021, sets out working conditions and the protection of workers' rights. A general issue raised in interviews with stakeholders was the need to improve overall compliance with, and enforcement of, the 2019 Labour Code as important for business operations during the post-pandemic recovery period in ways that could expand decent work conditions in the electronics industry. However, a concern shared by various non-governmental stakeholders and enterprises interviewed is the lack of clarity on how to implement different parts of the Labour Code, including for independent workers' representative organizations at the enterprise level. In the ILO/VCCI Rapid Survey, when asked about their familiarity with the Labour Code, only around 36 per cent of suppliers reported being "extremely familiar" and 52 per cent "moderately familiar" with the legislation. Interviews with provincial government representatives noted that, during their dialogues with businesses, one item of discussion was the problem of knowing how to properly implement the articles on annual leave under the new Labour Code.

#### Code of Conduct and regulatory compliance and monitoring

Today, business ethics and compliance with laws and codes of conduct on working conditions have become more important in the global industry. According to Kain and Sharma (2014, p. 40) "globally it has been realized that the challenge facing business is not just to 'market' a product; rather it lies in making the process 'Socially Acceptable'".

Accordingly, in the EU, a revised directive on public procurement in 2012 allowed EU Member States to include social considerations in the public procurement of goods, including those made in outsourced factories as part of global supply chains – a practice termed socially responsible public procurement (Raj-Reichert, et al. 2022). The goal of the practice is to enable the buying power of the European Union to ensure decent working conditions in the production of goods and services, including global supply

chains (EC 2021). The European Union's public procurement market is one of the largest in the world. In 2021, 14 per cent of the European Union's gross domestic product was made up of public purchasing. Public customers can purchase very expensive and large quantities of electronics products over many years and therefore are important consumers for brand firms. Violating public procurement contract conditions on working conditions would not only run the risk of a termination of orders but also a public scandal to governments (Stracke, Lendal and Johanisson 2013).

Brand firms with long-standing supplier governance programmes are looking for innovative ways to monitor working conditions in outsourced locations as part of due diligence and to avoid being implicated in a public scandal (interviews 2022). The presence of consumer-facing brands and other foreign enterprises with private compliance programmes can/should be an opportunity to strengthen decent work objectives. Supplier governance by brands and larger suppliers include audits, monitoring reports and other tools to gather information about worker experiences on the ground. This is done to ensure suppliers are in compliance with customer demands and requirements over working conditions. They are also interested in how codes of conduct could cascade down to lower-tier suppliers and to ensure compliance among all suppliers in global supply chains.

Suppliers are also subject to oversight by non-governmental organizations. For example, Electronics Watch conducts risk assessments of poor working conditions and labour rights' violations and monitors worker conditions in brand company factories and their suppliers in countries from which EU public procurement authorities, including Viet Nam.

The EVFTA also has in place a monitoring process through an intergovernmental committee and institutional dialogue mechanism called "domestic advisory groups" (DAGs), with the representation "of economic, social and environmental stakeholders, including, among others, employers' and workers' organizations, business groups, and environmental organizations" from both trading partners. The aim and function of DAGs is to review implementation of the chapter on trade and sustainable development (EESC n.d.). DAGs are formed in the European Union and Viet Nam separately but engage in a transnational dialogue forum with each other (Marslev and Staritz 2021). Members of the DAG in Viet Nam include the VCCI, the VGCL Institute for Workers and Trade Unions, the Viet Nam Association of Seafood Exporters and Producers, the Viet Nam Fisheries Society, Education for Nature Viet Nam, the Centre for Sustainable Rural Development, and the Viet Nam Elevator Association (MOIT 2022). The DAG in the European Union includes 20 members divided across business groups, workers' groups, and environmental and other non-governmental organizations. Members with an interest in the electronics sector include Amfori, IndustriALL and IDH – The Sustainable Trade Initiative (EESC 2021).

There has, however, been criticism over the efficacy of DAGs in other EU FTAs in bringing about improvements to working conditions (Harrison et al. 2018). These debates are on the pursuance of a "trade-labour nexus" and how the European Union aims to ensure sustainable trade from a labour perspective through a promotional or dialogue-based approach via FTAs. Hence, more attention is being paid to how DAGs will function in their latest iteration in the EVFTA. The EVFTA DAGs will be assessed for whether they serve as a better functioning model for other and future EU FTAs, including for their contributions to decent work (interviews 2021).

#### Worker skills

One of the key challenges or gaps identified by enterprises in the electronics industry is the lack of skilled workers. High skills and higher educational qualifications, for example in science and technology, are important for innovative and value-added growth of the electronics industry. For example, the number of highly qualified engineers can be correlated with the growth of innovative industries. China is an example of this (Klingler-Vidra and Wade 2020. Moreover, the ability of the Vietnamese to compete for jobs at the managerial and other professional levels, including in foreign enterprises, will be based on higher educational qualifications.

As previously discussed, there is a relatively high share of an advanced educated labour force in Viet Nam compared to neighbouring countries in the region. Yet, the workforce in the electronics industry primarily occupy middle-skill occupations. The Vietnamese workforce is still restricted when it comes to possessing soft skills, foreign language skills, teamwork skills and digital skills. Many employees in electronics factories have undergone training, but they did not meet the requirements of foreign enterprises when handling the tasks (Kizuna 2019). The interviews and the ILO/VCCI Rapid Survey have also highlighted the need to improve soft skills, competency in the use and application of information technology, and in foreign languages among workers in the industry. Generally, however, short-term on-the-job training has been more common in the electronics industry in Viet Nam, which is not conducive to obtaining such skills, as opposed to investment in educational facilities.

There are few exceptions to the largely middle-skilled workers employed in the industry. Samsung and Intel are two large foreign enterprises that employ Vietnamese engineers in their R&D facilities. These MNEs have also invested resources in developing higher educated and qualified employees. Samsung, for example, has contributed US\$2.5 million in grants and scholarships to Hanoi University of Science and Technology and US\$1.4 million in scholarships and laboratory equipment to the Posts and Telecommunications Institute of Technology. Intel, through its Intel Viet Nam, contributed US\$7 million to fund bachelor degrees for 73 Vietnamese students attending Portland State University in the United States. Intel also partners with Arizona State University and the Royal Melbourne Institute of Technology campus in Ho Chi Minh City to train engineers and managers (UNIDO 2018). These examples point to a need for higher skilled workers and higher educational qualifications when foreign enterprises invest in Viet Nam to undertake higher value-added activities such as R&D. Government policies aimed at attracting higher value-added foreign enterprises, and especially in ways that condition their investment into higher educational qualifications of workers, can have the dual effect of increasing workforce educational qualifications and skill levels and developing a higher value-added domestic-supporting industry to increase the domestic gains of Viet Nam's participation in global supply chains.





## A. Conclusions

With the aim of promoting decent work, especially during the post-COVID-19 recovery phase, this report has discussed features of the growing electronics industry in Viet Nam and its links to global supply chains and the various opportunities and challenges available for further development of the industry and decent work. Impacts of the COVID-19 pandemic were discussed and the state of play of a number of decent work factors were assessed based on available data. These discussions were also tied to how different stakeholders through different governance activities promote decent work objectives in the industry. The main conclusions are as follows:

- ▶ Viet Nam's electronics industry is a fast-growing industry, with the largest export revenue, ranked 12th in world exports of electronics products in 2020. The rapid development of the electronics industry is due to the Government's priority policies, the low cost of labour supply, expansion of international economic integration, including through FTAs, geographical location and a favourable environment in international trade. This industry is led by foreign enterprises and depends on imported parts and components, while domestic enterprises are mainly SMEs, weak in capacity and poorly linked with FDI enterprises.
- ▶ Like enterprises in other industries in Viet Nam, electronics enterprises have suffered serious impacts from the COVID-19 pandemic, but they also recovered quickly in 2021 thanks to the timely promulgation of support policies by the Vietnamese Government, cooperation between local authorities, and a sharp increase in demand for electronic goods worldwide, both during and after the pandemic. The impacts of the pandemic on the employment situation in electronics enterprises have gradually been overcome.
- ▶ The electronics industry has become one of the most important job-creating industries. From 2010 to 2020, the number of workers in the industry has increased more than 4.5 times. However, the electronics industry is concentrated on labour-intensive and low value-added segments, dominated by low-skill occupations with long working hours. This employment situation reflects the level of participation of Viet Nam's electronics industry in global supply chains, which are engaged mainly in processing, assembling and low value-added stages.
- ▶ As an inevitable consequence of the production structure of Viet Nam's electronics industry, the average salary of workers is lower than that of other production countries such as Thailand, Indonesia, China and Malaysia. Low wages, on the one hand, are an advantage in terms of labour costs to attract investment but, on the other hand, they can be a barrier to ensuring decent work, improving workers' skills and creating the basis for switching to higher stages of production that have higher added value.
- ▶ Female workers account for 60 per cent of all electronics workers. Young workers and migrant workers are other workforce issues in the electronics industry.<sup>39</sup> These characteristics call for further strengthening measures to protect female workers related to OSH and reproductive health besides gender-responsive skills training and social protection for these groups of workers.
- ▶ Employers' and workers' organizations (the VCCI and the VGCL) are essential actors and expected to play a more active role in policy advocacy and promoting decent work specified for the sector.
- ▶ The report shows the opportunities for further growth of the industry, including support policies by the Government of Viet Nam for development of the electronics industry; advantages in labour availability and wage competitiveness; new FTAs coming into effect recently; more investment for R&D by MNEs; and growth and upgrading of domestic enterprises.

▶ However, there are still challenges in moving up the value chain and promoting decent work during the COVID-19 recovery period, namely: underdeveloped domestic supporting industries; lack of adequate workers skills; incomplete implementation of the 2019 Labour Code; and challenges faced in compliance with labour laws and implementation of private codes of conduct.

## **B.** Recommendations

Ensuring decent work in the electronics industry in Viet Nam requires the Government and a variety of other stakeholders, both national and international, to engage collectively towards this objective. The development of the electronics industry and its further integration into global and regional supply chains will also, to a large degree, depend on investments by the Government in infrastructure, to reduce logistics costs (OECD 2021b) and improve human resources. As engaging in higher value-added activities through higher quality, skilled and competitive competencies can translate into higher skills, more secure jobs and higher wages, industrial policies can also be designed to help meet decent work objectives.

A set of policy recommendations on how the Government and different stakeholders can contribute to the decent work objectives are proposed.

#### **Government of Viet Nam**

Industrial policies to improve the competitiveness of enterprises in the electronics industry are an important means to enhance economic gains and to achieve social and environmental goals. During the implementation, revision and development of industrial policies, government authorities should link decent work outcomes as being equally important to the goal of increasing the competitiveness of enterprises. To this end, the Government needs to:

# Complete and effectively implement policies to support domestic enterprises in the electronics industry

Policies to develop local enterprises depend on how they are part of supporting industries or suppliers to foreign enterprises in the country. In the short term and in the context of recovering from COVID-19, government policy is focused on developing domestic suppliers to meet immediate and current production demands in the country. Thus, in the short term, the focus is on lower value-added activities and inputs of local enterprises. In the future, policies should assist the domestic supplier base to transition into higher value-added processes and products. Further, as local suppliers gain competitiveness, policies should support them in reducing their full dependency on outsourcing relationships to become competitive and innovative enterprises in their own right, including own-brand manufacturers in strategic product markets, including in domestic, regional and niche markets, in which it may be easier to compete.

This is in line with debates on how to escape the "middle-income trap" in which some global supply chain production countries find themselves if they are unable to move up and out of low-cost, labour-intensive and low value-added segments of global supply chains (Raj-Reichert 2019). Science and technology policies that support strong domestic research and development and innovation capabilities, for example leading to "made in Viet Nam" products (Klingler-Vidra and Wade 2020), can be an important policy focus area for Viet Nam's electronics industry in a post-pandemic recovery phase. The Government may also focus its resources on supporting promising Vietnamese enterprises in order to create opportunities for them to develop and play a leading role in domestic and niche export markets. In this process, the Government should resolutely change the strategy of attracting FDI investment by licensing only investment activities with new, modern and high technology.

New and different opportunities to grow a domestic supplier base and in higher value-added activities has been suggested by linking electronics suppliers with other sectors, such as the automotive industries. Electronics is increasingly important in the design and functioning of cars and the future of autonomous driving, which has been described as a "smartphone on wheels" (Raj-Reichert 2019). Specific ways in which the electronics and automotive industries can be integrated, for example, is in the production of automotive wire harnesses and transmissions (Hollweg et al. 2017).

### Strengthen policies to support reskilling and upskilling of workers

Moving the electronics industry towards higher skilled occupations will likely be dependent on different policies. First, foreign enterprises that employ the vast majority of workers in the industry would need to be incentivized to train their workers and to employ more high-skilled Vietnamese workers in both managerial roles and in operations. The former would require developing a higher skilled workforce with skills in line with the needs, demands and cultures of foreign enterprises. In order to increase higher skilled workers in operations, foreign enterprises would have to shift into higher value-added production activities in Viet Nam. The incentives and drivers for this depend on targeted policies that attract foreign investments and develop domestic enterprises into higher value-added activities. At the same time, policies should help channel individuals with higher educational qualifications and relevant skills, such as engineers, into the industry. In this regard, the public employment service system needs to be strengthened and labour market information must be completed, updated and easily accessible. This is important because public employment services centres that advise, recommend jobs and provide vocational training for workers are important organizations for the industry as they collect and provide information about the labour market and supply and recruit specific types of workers for employers.<sup>40</sup> The immediate need for skills in the industry is far from the objectives of Decision No. 1446/CP-TTq<sup>41</sup> "to build a model of training and retraining at all levels of vocational education in the Industrial Revolution 4.0, to train new occupations and skills for workers to meet Industrial Revolution 4.0". While the issue of the Fourth Industrial Revolution ("Industrial Revolution 4.0") was not prominent in the responses by the different stakeholders consulted in this research, there are important future growth questions on how, whether and when jobs in the electronics industry will be linked to automation, robotics and artificial intelligence. The promises of Industrial Revolution 4.0 are not always obvious, especially in the short term. Therefore, it can be important to assess for the short and long term in line with what types of Industrial Revolution 4.0 skills training can help meet the dual objectives of sustainable development of enterprises and decent work. This will depend on whether Viet Nam receives and makes investments for facilities that employ Industrial Revolution 4.0 technologies requiring specially trained workers. This also poses a requirement for the education and training system to meet the training needs of the workforce. The surveys showed the need for training in specific skills, in particular soft skills for workers in the industry. In line with these demands, there should be targeted and specific forms of training for soft skills. Equally important is the need to develop the higher qualifications and technical skills necessary for higher value-added occupations in the electronics industry such as managers and engineers. To achieve these goals, the Government should design policies and give incentives for developing public-private educational partnerships between universities and electronics enterprises for specific qualifications and job placements in consultation with social partners to reflect the needs of the industry and enterprises on skills development and Technical and Vocational Education and Training (TVET) policies.

<sup>40</sup> See https://www.lexology.com/library/detail.aspx?g=62b85d55-947c-486f-8b26-9e3d2312e35b.

<sup>41</sup> Prime Ministerial Decision No. 1446/QD-TTg dated 30 August 2021 approving the programme "Training and retraining to improve human resource skills to meet the requirements of the Fourth Industrial Revolution".

# Improving and effectively implementing labour, employment and social protection policies

As the 2019 Labour Code came into effect from 1 January 2021, fully promulgated documents guiding the implementation of the 2019 Labour Code is urgent. In addition, it is important for the Government to strengthen information and communication activities to raise awareness among enterprises and employees about the Labour Code, and compliance with the law needs to be enforced more widely.

Monitoring working conditions and enforcing the Labour Code is necessary for ensuring that the electronics industry is growing and developing in a way that promotes decent work objectives. This requires regular and effective labour inspections using indicators that can assess whether decent work conditions are being met. The focus should be on the implementation of regulations on labour contracts, overtime hours, OSH and social security. Since many MNEs that outsource production to Viet Nam also monitor their suppliers' working conditions, a mutually supportive programme can be developed whereby appropriate data and information from labour inspections are made publicly accessible.

The Government should conduct a study to assess the OSH situation in the electronics industry to understand industry-wide trends where there are areas of concerns, challenges and best practices that can be used to protect workers in the industry. Appropriate OSH inspections should be carried out regularly, along with labour inspections to monitor compliance with the provisions of the 2019 Labour Code and the 2015 Occupational Safety and Health Law.

## **Enterprises and industry organizations**

### Foreign enterprises

There is increasing engagement in labour governance and monitoring of working conditions in MNE factories and suppliers in Viet Nam. This is largely due to increasing customer demands for decent working conditions in export markets such as the US and the EU markets. This is because many brand customers face increased public scrutiny and increasing regulations over decent working conditions in global supply chains. Foreign enterprises should continue to ensure that suppliers in Viet Nam continue adhering to decent work objectives, which includes both complying with domestic laws, OECD's Guidelines for Multinational Enterprises and ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration), and private labour standards where applicable. This should include regular and effective social dialogue and grievance mechanisms between employers and workers on decent work objectives and as a strategy to prevent violations.

Given that skills are an important issue for both enterprises and workers, as well as for Viet Nam's transformation, foreign enterprises should contribute more to skills training for their workers, cooperate with universities, vocational training institutions in developing training programmes, provide support for teachers and assist students with internships.

#### **Domestic enterprises**

Domestic enterprises must make use of government policies and other assistance programmes to improve their governance and digital capacity and take advantage of opportunities brought by digital technology in production organization, market access and network expansion. They should have in place investment strategies to upgrade their technologies and improve product quality according to MNE standards. They should also take advantage of opportunities, where they exist, to cooperate with foreign enterprises and to participate in global supply chains. Finally, they must strengthen compliance with labour laws, pay more attention to building harmonious industrial relations, and ensure the rights and interests of workers are protected.

## **Employers' organizations**

Viet Nam's electronics industry associations and other foreign industry associations representing foreign enterprises in Viet Nam, such as Amcham, Eurocham, Korcham and the Japanese Chamber of Commerce and Industry in Viet Nam, are employers' organizations in the electronics sector. These organizations and their initiatives are important stakeholders in promoting decent work in the electronics industry. They should be more active in engaging in dialogues with government agencies, conducting policy analysis and feedback and providing information and advice to businesses in the associations.

The VCCI is the leading national organization representing businesses, entrepreneurs, employers and business associations in Viet Nam. VCCI works to develop, protect and support the business community, contribute to national socio-economic development, and promote economic, trade and technological cooperation with foreign partners in ways that promote mutual benefits, and in accordance with the law. Given its important role in tripartite mechanisms in the country and long-established links and connections, as well as its legitimacy as a partner with businesses in the electronics sector, the VCCI should develop specific programmes to ensure that decent work objectives are part of the recovery support to businesses and into the longer term.

## ► Box 2. Viet Nam Chamber of Commerce and Industry and decent work in the electronics industry

The VCCI has had a long and active engagement with the electronics industry through its Electronics Business Coalition established in 2017 as an initiative with the VEIA to promote socially responsible labour practices. The coalition has brought enterprises, suppliers, business associations and other actors engaged in the electronics industry to engage in dialogue on business and policy issues and to foster joint action to promote the electronics industry. The areas of socially responsible practices on which the coalition focuses are improving employment opportunities, worker training, conditions of work and life, and industrial relations, in line with the MNE Declaration (see discussion under the ILO (ILO 2017)).

VCCI participates actively, together with other national business associations in tripartite mechanisms such as the Industrial Relations Commission and the National Wage Council. Besides, VCCI contributes their inputs in the in the formulation and review of labour and social policies.

The VCCI has also supported businesses during the pandemic in different ways. VCCI gathers opinions of the business community, proposes to the Government various solutions and participates in the consultation process to develop policies to support employers and employees facing difficulties caused by the pandemic (from prioritizing injection vaccines for workers, flexible production organizations to ensure safety, utilization of the unemployment insurance fund to support workers and employers during difficult times, etc.)<sup>42</sup>. It also developed the Business Cooperation Council in Response to COVID-19 to share response information, experiences and solutions by enterprises, proposing policies and solutions to central and local authorities on the response to COVID-19 and connecting and supporting businesses in their response to the pandemic, among other activities.<sup>43</sup>

<sup>42</sup> Interview with key informants, February 2022.

<sup>43</sup> VCCI to Launch Business Cooperation Council in Response to COVID-19.

## Workers and their organizations

#### **Workers**

Ensuring decent work in enterprises requires the cooperation of workers in complying with the provisions of labour law, labour regulations and provisions on occupational safety and health at the workplace. Building harmonious labour relations and social dialogue also requires the active participation and cooperation of both workers and managers. Analysis of worker skills, job quality and wages and social dialogue in the electronics industry suggests that workers need to improve their skills, especially soft skills and digital skills, as well as training on workplace cooperation and communication. For female workers, awareness of workplace sexual harassment and reproductive health problems should be strengthened.

#### Workers' organizations

Grassroots-level trade unions, including those in the electronics industry, are the representative organization of workers in enterprises. According to the 2012 Trade Union Law, grassroots-level trade unions participate in discussing policies and regulations related to the rights and interests of employees in enterprises and worker protection. Part D above on social dialogue showed the increasing trend of labour disputes and strikes in the sector and capacity gaps in various dimensions of industrial relations in enterprises. This suggests that more capacity-building activities for grassroots-level trade unions are needed.

The VGCL, as a central workers' representative organization, should develop and implement programmes to support capacity-building for grassroots-level trade unions and programmes to support workers in the electronics industry, as well as to coordinate with the Government to promote decent work in the electronics industry. The VGCL should also summarize the experiences of piloted multi-employer collective bargaining agreements in Trang Due Industrial Park with a view to expanding to other industrial parks.



#### ▶ Box 3. Viet Nam General Confederation of Labour and decent work promotion in the electronics industry

The Viet Nam General Confederation of Labour (VGCL) is a large socio-political organization of the working class, intellectuals and workers, which represents and protects the legitimate rights and interests of employees. The VGCL is a member of the political system and a member of the Vietnam Fatherland Front, which is the centre bringing together and acting in solidarity with the working class and labour force, and providing them with education, training and capacity-building opportunities. The VGCL participates in state management, socio-economic management, inspection and supervision of the activities of state agencies and economic organizations.<sup>44</sup>

Similar to VCCI, the VGCL participates in tripartite mechanisms such as the Industrial Relations Commission and the National Wage Council, and in the formulation and criticism of labour and social policies. The VGCL also implements a number of programmes to support employees with skills training, job creation, legal advice and job counselling. The VGCL and lower-level trade unions and their initiatives are important stakeholders in promoting decent work in the electronics industry.

During the COVID-19 pandemic, the VGCL decided to suspend payment of trade union fees for enterprises affected by COVID-19 until 31 December 2020 (Document No. 245/TLĐ of 18 March 2020), provided cash support to workers affected by COVID-19 (Decision No. 2606/QĐ-TLĐ of May 2021 and Decision No. 3749/QĐ-TLĐ of December 2021). The VGCL also directed grassroots-level trade unions to work together with enterprises to ensure that workers and union members in isolation due to COVID-19 continued to receive an income, and to apply the paid annual leave payment to make sure that the income of workers was not lower than the regional minimum wage as prescribed by law.

## Other international organizations and industry associations

International organizations and industry associations, based on their mandate and expertise, can partner and cooperate with other stakeholders along the supply chain to ensure compliance with codes of conducts and share information on compliance by enterprises to better understand where there are opportunities and challenges for decent work. Their engagement is mainly through private standards and codes of conduct and have become established practices for prominent brand firms that outsource production in Viet Nam. Their know-how, systems in place and many years of knowledge-gathering and information-sharing, monitoring of working conditions, and enforcement of compliance of codes of conduct should be harnessed for joint activities, partnerships and cooperation with the Government of Viet Nam and the ILO to promote decent work objectives in the electronics industry. The continuous information gathered by these stakeholders on decent work conditions should be shared and made publicly accessible to better understand where opportunities and challenges exist to improve policies and programmes that promote decent work in the electronics industry.

## The International Labour Organization

The International Labour Organization (ILO) assists its tripartite constituents in promoting the various aspects of the ILO Decent Work Agenda, and in particular the specific issues and challenges raised in this report and by ILO constituents. Included in this work is the promotion of the MNE Declaration, which makes recommendations on adherence to domestic law and international standards, equality in employment, training linked to employment, working and living conditions and industrial relations. The MNE Declaration provides guidance to all enterprises, both multinational and national, on how they can contribute to decent work and inclusive, responsible and sustainable labour practices (Goto and Arai 2017; ILO 2017).

The ILO aids and assists governments in the promotion and ratification of the ILO core Conventions and other important Conventions for the electronics industry. This includes the international labour standards on occupational safety and health, which in June 2022 became more prominent as ILO Member States added the right to a safe and healthy working environment to the fundamental principles and rights at work. Promoting occupational safety and health will be important, particularly on specific health risks in the electronics industry from exposure to radiation, cancer due to exposure to chemicals and other negative health outcomes from physical hazards, including air pollution, noise and vibration.<sup>45</sup>

The ILO has also been working with the Government of Viet Nam and other stakeholders on implementing Viet Nam's new industrial relations framework and will continue to do so in the future. As a long-term partner to the Government of Viet Nam, the ILO should carry out various programmes and activities to support the constituents by providing evidence-based information and capacity-building efforts to ensure timely implementation of the provisions of the 2019 Labour Code, in line with meeting decent work objectives.





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