



Chapter 6

Viet Nam's Conditions for Sustained Growth to Become a High-Income Country: How to Escape from the Middle-Income Trap?

Tran Van Tho

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Introduction

The concept of the middle-income trap (MIT) was coined by Gill and Kharas (2007). This term refers to countries that have developed to a certain level of per capita income but remain stagnant after that stage. In fact, in the world's economic history, only a small number of countries have been successful in escaping the MIT. For this reason, the issue has stimulated theoretical research and policy-oriented studies.¹

Based on the classification of the World Bank, Viet Nam reached the *lower middle-income* level around 2008. Given the subsequent growth in the pre-coronavirus disease (COVID-19) period, and since the impact of the current pandemic has been relatively light, Viet Nam may reach the *upper middle-income* level in the mid-2020s.

According to the World Bank, in 2021, lower-middle-income economies are defined as those with a gross national income (GNI) per capita between \$1,086 and \$4,255; upper-middle-income economies are those with a GNI per capita between \$4,256 and \$13,205; and high-income economies are those with a GNI per capita of \$13,206 or more. In 2021, Viet Nam's gross domestic product (GDP) per capita was \$3,694, and its GNI per capita was \$3,560. If, in the next 4 or 5 years, the per capita GNI average annual growth is 5%, Viet Nam will reach the upper middle-income level (approximately \$4,300) in 2025 (if there is 4% growth, the year is 2027). Thus, moving from lower middle-income to upper middle-income will take 17 to 19 years for Viet Nam. For both Republic of Korea (henceforth, 'Korea') and Taiwan, it took 18 years; for China, it took 15 years (Tran and Karikomi, 2019).

The problem is whether Viet Nam will shift from the upper middle-income stage to high-income status by 2045. What are the conditions for Viet Nam to escape from the MIT and achieve sustained growth in the next 2 decades? This issue will be addressed in this chapter.

This chapter is composed of three sections.

The first section provides a theoretical framework for analysing the topic. The keywords will be sustained growth of productivity, structural transformation and international competitiveness. The second section will analyse the current structure and point out the problems of the Vietnamese economy. The third section will recommend policies essential for Viet Nam to avoid the MIT and achieve sustained growth towards 2045. The experience of Japan in the high-growth period (1955–73) and some other East Asian economies will be referred to in Sections 1 and 3.

¹ For example, Ohno, 2009; Tran, 2013; Hutchinson and Das, eds., 2016; Tran and Karikomi, 2019; amongst others.

1. Analytical Framework

This Section focuses on two theoretical issues which suggest a middle-income country adopt policies for sustained growth to a high-income country. These two issues are insights from development economics. This Section focuses on two theoretical issues which suggest a middle-income country adopt policies for sustained growth to a high-income country. These two issues are insights from development economics.

1.1. Input-Driven Growth vs TFP-Led Growth and the Middle-Income Trap

One of the most important theoretical points regarding the long-term slowdown of growth of a country is the difference between input-driven growth (or factor-driven growth) and total factor productivity (TFP)-led growth (sometimes, the terms investment-driven growth and innovation-led growth are used in place of these). This difference in the growth pattern has been applied to the argument on the MIT issue. It has been argued that a country falls into an MIT if it is not able to shift from input-driven growth to a TFP-led growth pattern. Gill and Kharas (2007:17) also pointed out that 'Strategies based on factor accumulation are likely to deliver steadily worse results, which is a natural occurrence as the marginal productivity declines.'

Economic development is the long-term growth of per capita income, which is reflected in the labour productivity growth. If, in the meantime, the quality of labour is supposed to be unchanged, its productivity is determined by the increase in the capital stock per worker (the capital deepening) and the rise of TFP. In earlier stages of development, the role of capital deepening or accumulation is more important, but in later stages, the growth of income per capita is increasingly attributed to TFP. The Solow growth model theoretically supports this.² It has also been empirically shown by the experience of advanced countries. For example, according to the estimates of the Japan Centre for Economic Research (1990), in the case of the US, the contribution of TFP to growth in 1889–1929 was 33% but rose to 78% in 1929–57. In the case of Japan, the contribution of TFP rose from 14% in 1889–1929 to 65% in 1955–75.

Given this theoretical argument and empirical facts, there has been a hypothesis that capital deepening or accumulation characterises the early stages of development, and the transition from such input-driven to TFP-led growth is essential for a country to grow to a higher level of development. In other words, the accumulation is attributed to the growth to a middle-income level. Still, without the transition to TFP-led growth based on innovation, the country may fall into an MIT. In this context, the argument of Krugman (1994) is famous. He asserts that the rapid growth of East Asian economies was not miraculous and may slow since the growth pattern was input-driven, not TFP-led.

² The Solow growth model is developed in Tran and Karikomi (2019), Ch. 2.

Though most economists and policymakers have supported this standing point in Viet Nam since the 2010s when many people called forth the change in the growth model,³ this chapter adopts a different view. First, the sources of TFP-led growth are not necessarily related only to innovation; institutional reforms also have a role. Reforms on factor markets, particularly capital markets, will contribute to the efficient use of capital and other factors and thus result in the rise of productivity. In fact, due to rapid institutional reforms, i.e. the transition from economic planning to a market system, in China and Viet Nam, the contribution of TFP was very large in the early stage of economic development (Perkins, 2013:62–3; Vu, 2013:147–9). The efficient work of factor markets is also important in the later stages of economic development.

Second, capital and technology are difficult to separate since, in most cases, technology is embodied in capital. The Japanese experience in the high-growth era (1955–73) showed that capital accumulation and innovation had been mutually stimulated and contributed to an average annual growth of 10% for nearly 20 years. This miraculous performance has transformed Japan from the upper middle-income level to a high-income industrialised country.⁴

In this regard, Perkins is insightful: 'In a sense, it is arbitrary to separate the contribution of productivity from the contribution of capital because *many sources of productivity increase typically require capital investment in new equipment.*' (Perkins, 2013:57, italics mine). Moreover, product and process innovations, in most cases, are realised only along with investment in new equipment.

The core point is the continued rise in productivity, which is attributed to the efficient use of capital and other factors, as well as technological progress. Misallocation of resources is the main factor for the small contribution of TFP. In the growth process of middle-income countries to high-income status, both accumulation and innovation are important. Institutional reforms on capital and other factor markets, therefore, are essential for increasing productivity.

1.2. Structural Transformation and the Middle-Income Trap

Another view on the MIT is the failure of countries facing the Lewis turning point in economic development. In the early phase, characterised as labour surplus, along with the move of low-wage labour from agriculture to the manufacturing sector, developing countries export labour-intensive products and reach a middle-income level. At the turning point, no cheaper labour is available, and the countries have to upgrade the industrial structure to higher value-added products. Without performing such structural transformation from labour-intensive industries to capital-, technology-, and skill-intensive products, the countries may fall into an MIT. In the context of international specialisation, such countries are in a position where they are unable to compete with low-cost countries but yet do not possess new and higher value-added industries that can compete with advanced countries.

³ See, for example, Dang Kim Son (2021, 2022).

⁴ In that period, Japanese firms were encouraged to invest in new equipment using the technology imported from Western advanced countries. The behaviour of firms was so active and impressive that the Economic White Paper in 1956 used the term 'investment called forth investment' to encapsulate it. Capital accumulation and product and process innovations were major factors accounting for the high growth of Japan in 1955–73. See, for example, Tran and Karikomi (2019, Ch. 6), Tran (2022).

To escape from the MIT, then, developing countries at the turning point should have industrial policies that encourage firms to invest in the higher value-added sector and invest in educational training for skilled human resources. In the context of international competitiveness, the structure of comparative advantage must be changed over time from labour-intensive industries (or low-skill-intensive) to capital-intensive (or medium-skill-intensive) and to technology-intensive (or high-skill-intensive) industries. This dynamic change can be illustrated in Figure 6.1, where the vertical axis shows the international competitiveness index (ICI) of an industry. The ICI (i) is defined as

$$i = (X-M)/(X+M)$$

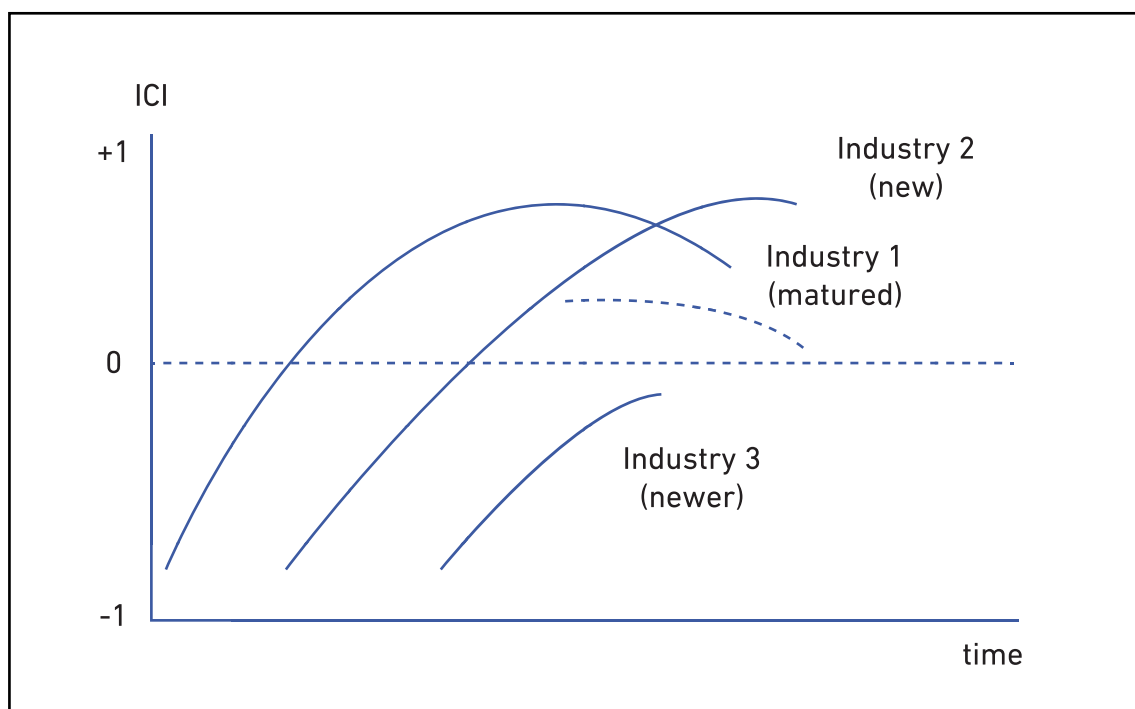
where X and M stand for the export and import values, respectively, of a product.

We can observe the development process of a manufacturing industry by examining the changes in its ICI. The typical trend of that index is traced in Figure 6.1. In the early stage of development, there are almost no exports and the domestic market is supplied mainly by imports, so the index is minus 1. With increasing import substitution, the index approaches 0, where there are almost no more imports, but exports do not start yet. If the international competitiveness of the industry is further strengthened, exports will continuously expand, and the index approaches 1, where there are almost no imports. In the case of deep intra-industry trade, the index is near the zero line.

Figure 6.1 also shows a successive catching-up process of many industries that have different factor intensities (a newer industry tends to be more skill-, capital-, or technology-intensive). The sustained growth of a country is realised if it can successfully shift the comparative advantage from a mature industry (Industry 1) to a new industry that is more skill-intensive (Industry 2) and prepare conditions to move to a newer industry (Industry 3). In cases where the country fails to continue that process, Industry 2 stands to lose comparative advantage earlier than anticipated (shown by the dotted line in Figure 6.1) due to the catching-up by later participants or other changes in the international markets, and the country is not able to generate newer industry (Industry 3).



Figure 6.1. Pattern of International Competitiveness of a Sustained Growing Economy



ICI = international competitiveness index.
Source: Author.

In the context of the increasing presence of global supply chains (GSCs) and global value chains (GVCs), the structural transformation is to upgrade to higher value-added parts of the value chain and/or to higher chains.

Since the 1990s, GSCs and GVCs have had an increasingly important role in economic development and international specialisation. As pointed out by Baldwin (2016:242), before 1990 or so, successful industrialisation meant building a supply chain at home. Still, today's developing countries can 'join international supply chains to gain competitiveness and grow rapidly because offshore production brings capabilities that would otherwise take decades to develop domestically.' In other words, instead of the sector level, developing countries may industrialise at the stage level, which is easier to gain international competitiveness.

Thus, developing countries may grow rapidly if participating in international supply chains. Success depends on the supply of qualified labour, the quality of soft and hard infrastructure, and the stability of the policy framework. In particular, in addition to the location advantage provided to attract foreign investment for participation in GSCs, improvement in the logistics to minimise transportation costs and to ensure timely delivery of parts and components is essential. The service-link cost (SLC), i.e. the cost of the connection amongst production units, domestic or international, is the main factor that determines the attractiveness for multinational firms to include a country in the GSCs. The

SLC includes not only monetary cost but also the cost of time delivery and the reliability of logistics (Kimura 2016:18). Inomata (2019) also emphasised that, in the era of GVCs, not only factor costs but transaction costs and organisation costs are also important in the determination of the location of parts of GVCs.

In the context of a successful transition from middle income to high income, it is necessary to emphasise one more point: in order to escape from the MIT, a developing country must expand and strengthen the capacity of participation in higher stages of the GSCs to produce higher value-added parts and components, and gradually participate in higher stages of GVCs such as R&D, design, and marketing. Continuing to offer better infrastructure, more skilled labour, and technological capabilities of local firms is essential for sustained growth. In that process, rapid changes in world technology and environment merit quick policy reactions.


In sum, three key terms are: productivity, structural transformation, and international competitiveness. Sustained productivity growth is essential for middle-income countries to transition to high-income levels. The way out of the MIT is increased *productivity* growth. The forces behind productivity growth are *structural transformation* to higher value-added sectors and/or to parts and components in the GSCs. Structural transformation is the result of many factors, such as the development of the factor markets, continuing improvement of infrastructure, supply of high-skill labour, promotion of R&D and proactive industrial policy to promote foreign direct investment (FDI), and local firms to invest in new industries and/or parts and components. Structural change results in a change of comparative advantage, which enhances the international competitiveness of a country over time. Innovation will be more important in a later stage of development when there is little room left for increasing productivity by structural transformation or inter-sector movement of production factors. Since it takes time for an innovation-related investment to generate results, policies on R&D activities should be emphasised from the middle-income levels.

2. Current Structure and Problems of the Vietnamese Economy

2.1. Growth Performance and Structural Changes

Thanks to the *Doi Moi* policy, after several years of trial and error, the Vietnamese economy has grown at a high rate since the early 1990s. During the period of about 30 years until 2019, the year before the impact of the pandemic, Viet Nam recorded an annual average growth of 6.5%. From 1990 to 2021, amongst major countries in Asia, Viet Nam's economic growth ranked second only to China with respect to purchasing power parity-based per capita GDP at constant prices.⁵ As noted earlier, Viet Nam attained a lower middle-income level around 2008.

⁵ In 1990–2019, the average growth rate of purchasing power parity-based per capita real GDP of Viet Nam was 5.4%, much lower than China (8.4%) but higher than major members of the Association of Southeast Asian Nations (ASEAN) and India (calculated from the World Bank World Development Indicators).



Major factors accounting for the relatively high growth have been the steady rise in capital accumulation, i.e. the increase in the capital stock per labour, which raises productivity, and the structural changes of the economy, which shift the production factors from low to high productivity sectors.

Capital formation has been promoted by institutional reforms, which stimulated investment by private local and foreign firms. As a result, the investment/GDP ratio increased rapidly, from about 15% on average from 1986 to 1992 to about 26% on average in the 1990s and to more than 30% since the early 2000s. In that process, the state sector has rapidly declined, and the role of the private sector and FDI have been increasingly important. By the 2010s, the state sector, the private sector, and FDI accounted for roughly 30%, 50%, and 20% of total investment, respectively.

Capital formation has been undertaken mainly in the industry and service sectors. Consequently, labour has moved there from agriculture, and the structure of GDP has changed accordingly. The share of the agriculture, forestry, and fishery sectors in total employment declined from 73% in 1990 to 49.5% in 2010 and 34.5% in 2019. During that period, the share of the secondary sector (mainly industry and construction) increased from 11.2% to 20.9% and 29.1%.

In this context, an important question is whether Viet Nam already passed or is approaching the Lewis turning point. In order to answer that question, we have to show whether and when the labour market tightens and workers' real wages begin to rise; so far, there are no studies on that issue. As noted, by 2019, the share of agriculture (including forestry and fisheries) in total employment had declined to 35%. From the experience of Japan, we may guess Viet Nam is approaching a turning point. In Japan, the share of agriculture in total employment in 1960 was 33% (Tran, 2022:63), and Minami (1970) empirically showed that the turning point in Japan happened in the early 1960s.

According to Ohno et al. (2021), in Viet Nam, wages are rising, and labour shortages have emerged in large cities, while workers still are plentiful in rural villages and remote areas; Hanoi and Ho Chi Minh City may have already crossed the turning point, but the rest of Viet Nam seems to still have a labour surplus. In fact, in industrial parks or export processing zones in Ho Chi Minh City, Hanoi, and their adjacent areas, firms encounter difficulties in recruiting workers. Problems include increasing wage pressure on low-skill workers and, at the same time, increasing difficulties in recruiting high-skill workers. This phenomenon stems from the distortion in the labour market and the supply shortage of skilled workers.

Finally, even though Viet Nam has shown a fairly good performance since the 1990s, unlike many East Asian economies that have been successful in economic development, the Vietnamese economy has not yet experienced a high-growth period defined as an annual average growth of about 10% over a period of more than 10 years. The absence of such a high-growth era may be mainly attributed to the manufacturing sector, which was not strong enough to trigger a more dynamic transformation for pushing the growth of the economy as a whole. This point will be discussed below.⁶

2.2. The Characteristics of the Current Stage of Industrialisation

Manufacturing is the most important and dynamic sector in any country in the development process from the low- to high-income stage. Compared to other sectors, such as agriculture and services, manufacturing is more productive and dynamic. The high growth of productivity in manufacturing can be achieved by raising capital stock by workers, introducing technology and expanding production to exploit economies of scale. Many manufactured goods also have high-income elasticities of demand. Moreover, moving labour from agriculture to manufacturing also enhances incentives for workers to acquire skills adapted to new tasks.

Capital accumulation starts in the manufacturing sector, which itself can transform by diversifying and upgrading, and the process will spur greater capital accumulation. That phenomenon appeared in Japan in the mid-1950s and was expressed by the term 'investment called forth investment' (see footnote 4). The process of capital deepening results in the rapid rise of labour productivity. Technological advances are more common in the manufacturing sector and have become one of the major sources of productivity growth.

In other words, manufacturing is the engine of growth of the economy in the catching-up process. The manufacturing sector's important role in economic development has been widely emphasised (ADB, 2020:94–96; Dinh Hinh, 2017:29–30, amongst others). As pointed out by ADB (2020:94), a key part of the success of East Asia is the rapid structural transformation of industry and manufacturing.

Looking at the case of Viet Nam, however, the manufacturing sector so far does not seem to have played a dynamic role. Several characteristics of Viet Nam's industrialisation at the current stage are summarised in the following subsections.



⁶ Focusing on productivity, Ohno, et al. (2021: xix) also noted that 'Viet Nam has not experienced a period of very rapid productivity increase that allows an economic take-off to high income....On an annual average, the labour productivity growth was 4.65% from 1991 to 2019. Any rapidly industrializing economy is expected to attain higher labour productivity growth than this within a quarter century. China, which had labour productivity similar to Viet Nam in 1990, raised it by 8.98% annually or 9.4 times by 2017. Thus, Viet Nam's past productivity performance was good but not spectacular.'

2.2.1. The Relatively Low level of Industrialisation

In post-*Doi Moi* Viet Nam, the manufacturing sector has also expanded, accounting for an increasing share in GDP and employment. The share of manufacturing value added in GDP rose from 12% in 1990 to 19% in 2005 and about 22% in 2019.⁷ In employment, the share of the manufacturing sector rose from 12% in 2005 to 13% in 2010 and 21% in 2019.

However, the manufacturing sector in Viet Nam so far has not shown a rapid expansion as experienced in other East Asian countries. In the case of countries that incurred successful economic development, the manufacturing sector as a share of GDP rose to more than 30% in the first half of the demographic dividend.⁸ It tended to decline in the latter half (Figure 6.2). But in the case of Viet Nam, as shown in Figure 6.2, the demographic dividend will terminate soon (in the 2020s). Still, the ratio of manufacturing value-added in GDP is much lower than the same ratio of other Asian countries in the corresponding period. Let us look at another indicator of the level of industrialisation. The manufacturing value-added per capita of Viet Nam has expanded since 1990, but in 2020, it was still much lower than the Philippines, a country which has incurred slow growth, and it was only one-fourth that of Thailand (Table 6.1).

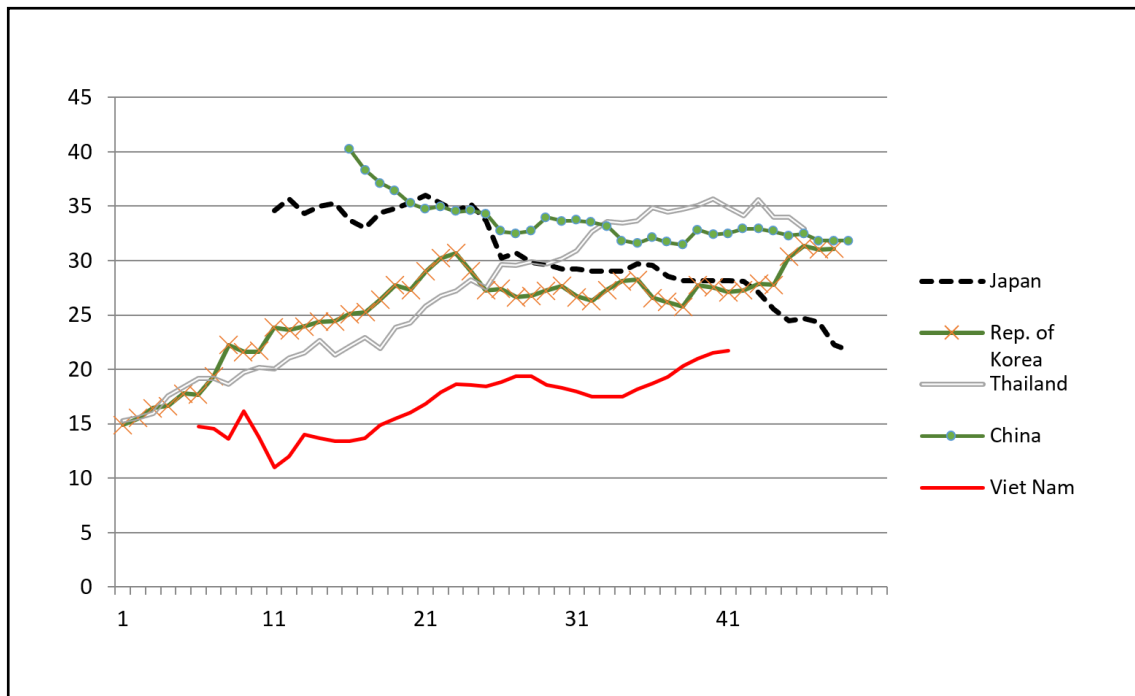
The low level of industrialisation is a major source of low productivity in the economy. According to Ohno et al. (2021), as noted earlier, China and Viet Nam had similar labour productivity in 1990, but by 2017 that of the former rose 9% annually, while Viet Nam's labour productivity growth was only 4.7% from 1991 to 2019. The productivity gap can be explained by the difference in the development of the manufacturing sector. In fact, China's ratio of manufacturing value added to GDP has been the highest amongst East Asian economies (ADB, 2020:96).



⁷ In 2010, the General Statistics Office of Viet Nam made an upward revision on the value of the real estate business, resulting in the expansion of the value-added of the service sector. Consequently, the share of the manufacturing sector (and agriculture) is smaller than the case without such revision. In 2010, the gap between the two cases in the manufacturing sector was 5 percentage points. Under the presumption that the gap has been almost unchanged in subsequent years, we have made an upward revision of the share of the manufacturing value added by 5 percentage points compared to the data in the Statistics Yearbook.

⁸Demographic dividend is a long stage in which the ratio of working people in total population continues to rise. This period lasts about 50 years. In the case of Viet Nam, that period starts in the early 1970s and ends in the first half of the 2020s (see Ozumi, 2007).

**Figure 6.2. Ratio of Manufacturing Value Added/GDP in the Period of Demographic Dividend
(% in vertical axis)**



Notes: Japan 1960-92, Rep. of Korea 1965-2013, Thailand 1968-2013, China 1980-2010, Viet Nam 1980-2020. Horizontal axis shows the number of years of demographic dividend.
Sources: Demographic dividend: Oizumi (2007), manufacturing value added/GDP: World B.

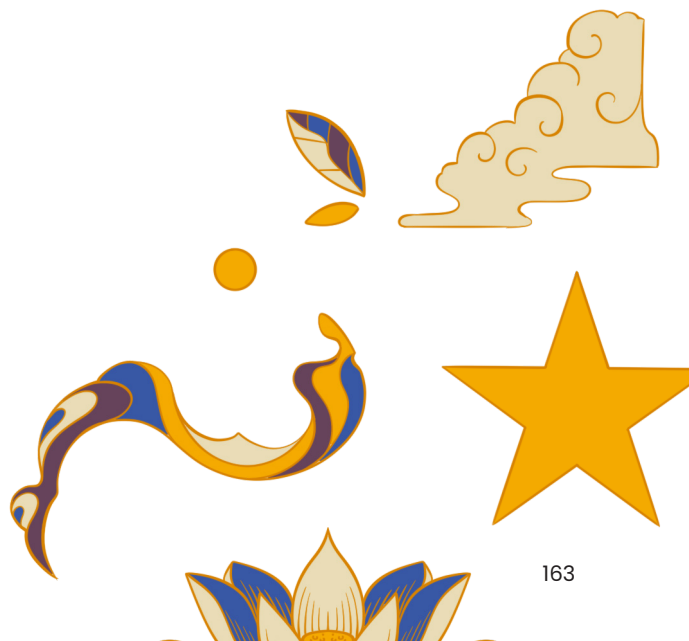


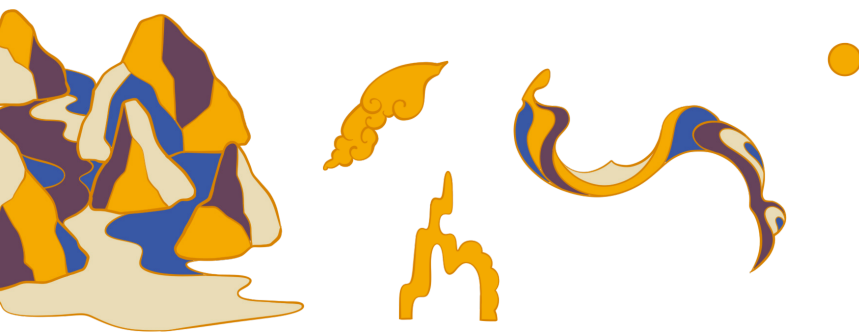
Table 6.1. Manufacturing Value Added per Capita in ASEAN and China (US\$)

	1990	2000	2010	2015	2020
Viet Nam	12	72	171	286	465
Philippines	221	271	486	598	583
Indonesia	151	205	688	699	769
Thailand	423	570	1,570	1,599	1,814
China	124	305	1,439	2,321	2,731

Note: ASEAN: Association of Southeast Asian Nations.

Source: Calculated from UNCTAD (United Nations Conference for Trade and Development) data.

The low level of industrialisation can be attributed mainly to the politically and economically unstable environment in the first half of the demographic dividend. Such a period of lost development, from the early 1970s to the early 1990s, stemmed from the war and the post-war socialist system, as well as the disadvantaged international environment.⁹ For these reasons, industrialisation actually started as late as the early 1990s. The share of manufactured value-added in GDP started to rise at around the 20th year of the demographic dividend (See Figure 6.2).



⁹ *Doi moi* started in December 1986, but the macroeconomic instability and adverse international conditions continued to the mid-1990s.

2.2.2. Increasing Participation in Global Value Chains as a Simple Assembly Factory

The Vietnamese economy has been increasingly integrated into the world since *Doi Moi*, particularly from around 2000. The trade dependence (ratio of the sum of exports and imports to GDP) rose from 60% in 1995 to 100% in 2006 and 180% in 2021. One more point is the increasing role of FDI in industrialisation. In recent years, FDI accounted for about 50% of industrial output and approximately 70% of exports. Consequently, Viet Nam's manufactured products have been increasingly knitted in GVCs. However, the quality of Viet Nam's participation in GVCs has been low so far.

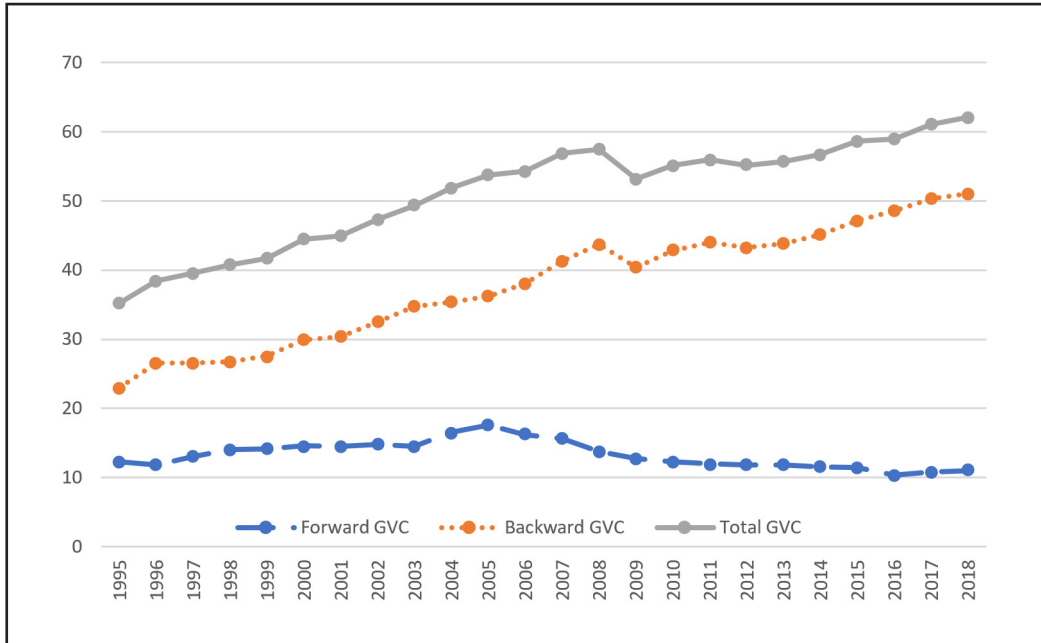
In Figure 6.3, the 'backward participation' in GVCs is the ratio of intermediate imports embodied in a nation's total exports, i.e. the participation via intermediate goods imported for the production of export products. 'Forward participation' is the ratio of value-added earned abroad in a nation's total exports. 'Participation in global value chains' is the sum of these two ratios.

Figure 6.3 exhibits a surprising trend regarding Viet Nam's participation in GVCs. Along with the progress in industrialisation, Viet Nam increasingly relied on the imports of intermediate goods such as parts, components, and semi-fabricated products. This has been reflected in the upward trends in backward participation. The low ratio of the forward participation suggests the weak ability of Viet Nam to supply value added to products made in foreign countries.

The rise in backward participation is strange but understandable. The development of the manufacturing sector and the increasing role of FDI have been inclined to machinery such as smartphones, which has been characterised as final processing and highly import-intensive. Such final processing is also labour-intensive. That is why, as shown in Figure 6.5, which appears later, the productivity of the FDI sector has declined since the mid-2010s.



Figure 6.3. Viet Nam's Participation in GVCs



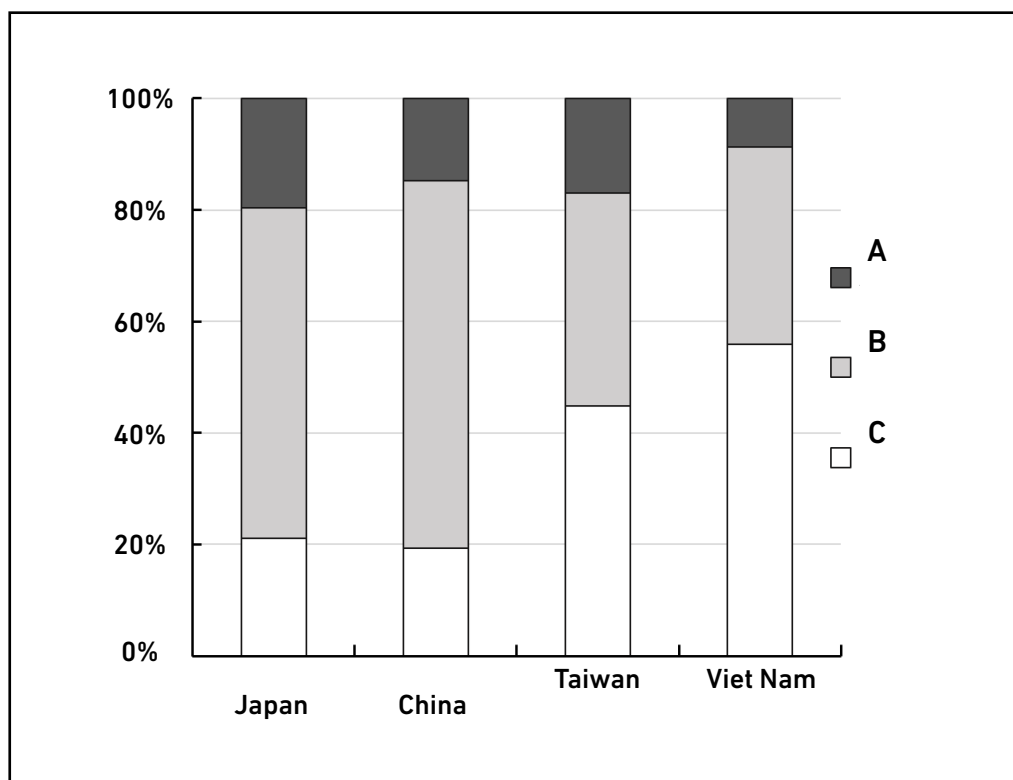
GVCs = Global Value Chains.

Source: Calculated from Organisation for Economic Co-operation and Development (OECD), Trade in Value Added Database.

Similar trends can be observed in Figure 6.4. Total exports of manufactured products are composed of three parts: immediate imported goods (C), domestically made intermediate goods, i.e. local contents (B), and value-added exported as inputs of the manufactured goods of importing countries (A). The case of Viet Nam in 2018 is compared with China, Taiwan, and Japan. In Viet Nam, the high share of imported intermediate goods and low share of value-added used in importing countries are noteworthy. These data again confirm the current characteristics of Viet Nam's industrialisation.



Figure 6.4. Structure of Value Added in Viet Nam's Manufactured Exports (2018)



Notes: A is share of value-added exported as inputs of the manufactured goods of importing countries. B is share of local contents of Viet Nam's exports. C is share of foreign inputs imported for production of export goods.

Source: Calculated from Organisation for Economic Co-operation and Development (OECD), Trade in Value Added Database.

In fact, in addition to the expansion in terms of output per capita (Table 6.1) and export value,¹⁰ Viet Nam's industrialisation has also largely changed in structure. For example, from 2000 to 2021, the share of information and communications technology (ICT)-related products in total exports rose from 4% to 40%. FDI by Samsung of Korea in the smartphone industry has played a leading role in such structural change. However, most ICT-related products made in Viet Nam so far are assembled of parts and components imported from Korea and China. This point can be confirmed by the changes in the structure of imports. ICT-related parts and components accounted for 35% of the total imports of Viet Nam in 2021, a substantial rise from 9% in 2000.

Looking at the trade pattern, we found out that Viet Nam relies on the US as an export destination, representing about 27% of total exports and nearly 40% of final consumer goods exports in 2020; further, the trade surplus with the US rose rapidly in recent years. On the other hand, Viet Nam is highly dependent on imports of intermediate goods such as parts, components, and semi-processed products from China and Korea, resulting in large trade deficits with these countries. In 2020, China

accounted for 32% of semi-processed industrial goods, 27% of parts, and 38% of capital goods imported into Viet Nam. Korea's shares were 16%, 36%, and 21%, respectively.

The two characteristics of industrialisation, i.e. the low share of manufacturing value added in GDP and the assembly structure, show that there has been so far limited growth of productivity and suggest a way to expand productivity for rapid growth in the future. The empirical study of Viet Nam's productivity from 1991 to 2019 by Ohno et al. (2021) showed that the productivity of the manufacturing sector rose substantially in the 1990s but turned stagnant in the 2000s and 2010s. This trend is strange but can be explained by the second characteristic noted above. We will return to this issue in Section 3.

The relatively low productivity of the manufacturing sector in Viet Nam is reflected in the small gap between its share of GDP and its share in total employment. The experience of East Asian economies showed that the share of 'industry' (which includes mostly the manufacturing sector) in GDP was much higher than that in total employment due to the high productivity of this category. For instance, in 1990–99, East Asia as a whole, the share of the industry (including manufacturing, mining, utilities and construction) in total employment was 24% and in GDP was 39% which was much higher (ADB, 2020:89–90). In contrast, the respective figures for Viet Nam in 2019 were 34.4% of GDP and 30.2% of employment. The gap was small. Looking only at the manufacturing sector of Viet Nam, we found that, in the same year, the GDP share was 21.5% and the employment share 20.7%.¹¹ Again the gap was negligible.

2.3. The Large Informal Sector and the Abundance of Micro and Small Firms

The Vietnamese economy is composed of three sectors, depending on the pattern of ownership: the state, non-state, and FDI. In 2019, the non-state sector accounted for 83.5% of total employment but only 42.7% of GDP (Table 6.2). These two figures suggest the low productivity of this sector. Figure 6.5 also confirms how low the productivity of the non-state sector is compared with FDI and the state sectors. Let us find the factors attributing to the low productivity of the non-state sector.

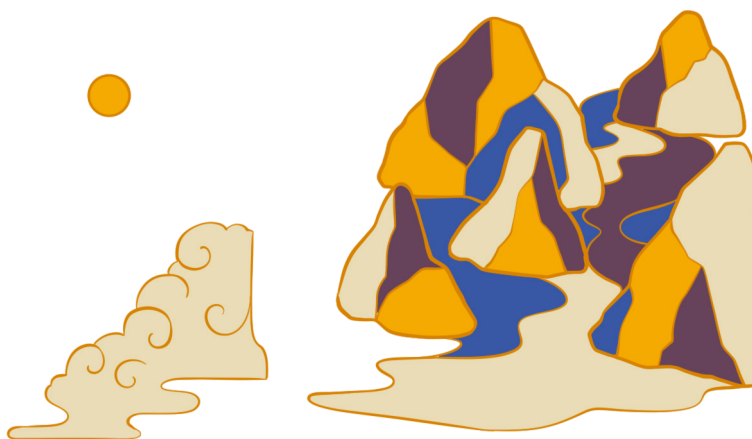
The non-state sector includes agriculture, which is characterised as the lowest sector in terms of productivity,¹² and the private local activities in manufacturing, service and other non-agriculture businesses (hereafter, these activities are shortly called the private group). As shown below, most parts of these private groups are characterised as informal, fragmented, and micro, small, and medium-sized operations.

¹⁰ Viet Nam has risen to become the largest exporter of ASEAN in 2021, and the share of manufactured products in total exports has risen from 21% in 1993 to 82% in 2011 and 95% in 2020.

¹¹ Based on the data in Statistical Yearbooks (Viet Nam).

Table 6.2 summarises the process and results of our estimates of the non-agriculture informal sector of the Vietnamese economy. On the left-hand side of the table (share in GDP), the non-state sector, as noted above, is composed of agriculture and the private sector group. Agriculture value-added is covered in 'collectives' and partially included in 'household'. By using the information on the GDP structure by activity, we have the share of agriculture (14.1%). Thus the share of the non-agriculture informal sector in GDP is estimated. On the right-hand side of Table 6.2 (share in labour), all firm sectors surveyed by the Ministry of Planning and Investment, reported in the *White Book on Vietnam Enterprises*, are considered formal businesses. By excluding agriculture and formal businesses, minus the share of state firms from total employment (2%, since it was already counted in the state sector), we get the share of the non-agriculture informal sector. Here are some additional notes on this estimate. First, the 'collectives' are entirely considered as those in agriculture, i.e. there are almost no collectives in service and other non-agriculture sectors. But this point does not influence the estimates of GDP share since collectives as a whole account for only a small share. Second, the state sector covers only non-agriculture. In agriculture, there are state farming organisations. If this point is adjusted, the labour share of the non-agriculture informal sector would be higher than 28.1%. In that sense, our result is somewhat underestimated.

According to this estimate, in 2019, the (non-agriculture) informal sector accounted for 28% of total employment and 19% of GDP. However, the ILOSTAT data from the International Labour Organization (ILO) show a much larger share of the informal sector in total employment. In 2021, the non-agriculture informal sector absorbed 23.5 million, which accounted for as much as 60% of total non-agriculture employment.



¹² According to the International Labour Organization, in 2021, 95% of farmers engaged in informal farming. Calculated from <https://ilostat.ilo.org/topics/informality>.

Table 6.2. The Estimated Informal Sector in Viet Nam (2019)

Share in GDP (%)			Share in GDP (%)	1,000	Share (%)
			Total (T)	54,659	100
Agriculture (A)	14.1		Agriculture (A)	18,831	34.5
Industry/construction	34.5		Industry/construction	16,452	30.1
Services	41.6		Services	19,349	35.4
State sector	27.1		State sector (S)	4,226	7.7
Non-state sector	42.7		Non-State sector	45,664	83.5
Collectives) (C)	3.6		FDI	4,768	8.7
(Private)	9.7				
(Household) (H)	29.4		Formal businesses (F)	15,152	27.7
FDI Firms	20.4		(State firms) (SF)	1,108	2
			(Non-state firms)	9,075	16.6
			(FDI firms)	4,969	9.1
Informal sector (I)	19		Informal sector (I)	16,450	28.1
$I = (H+C)-A$			$I = T-(A+S+F-SF)$		

GDP = gross domestic product, FDI = foreign direct investment.

Notes: Agriculture includes forestry and fishery. Informal sector excludes agriculture, forestry and fishery. See the text for more explanations.

Another component of GDP is 'product tax less subsidy', accounting for 9.9%.

Sources: Estimates basing on the data of Vietnam Statistics Yearbooks and The White Book on Vietnam Enterprises 2021.

Our data in Table 6.2 are underestimated, but the reason for the large share of ILO data may stem from a broad range that is covered in the non-agriculture informal sector. For example, it included formal employment with partial informal activities, unpaid trainees and volunteer workers.

The non-state firms within the formal businesses (the right-hand side of Table 6.2) are mainly composed of stock companies and limited liability firms. According to the *White Book of Vietnam Enterprises 2021*, from 2016 to 2019, on an annual average, micro, small, and medium-sized firms hired 1.7 million, 2.7 million, and 1.4 million employees, respectively.¹³ All these three types of firms hired 5.8 million employees, accounting for 10.6% of total employment. In a word, the share of the informal sector and the micro, small, and medium-sized firms in total employment rose to approximately 38.7% in 2019.

The analysis so far has shown that one of the striking characteristics of Viet Nam's economy is the existence of a large informal sector and a considerable number of micro, small, and medium-sized firms. Due to the very small scale of operations, they are poorly capitalised and consequently are not able to be equipped with new technology.¹⁴ According to the *White Book on Vietnam Enterprises 2021*, in 2019, capital stock by a worker in large firms was Vietnamese Dong (D) 470 million, while in micro firms and small firms, it was only D137 million and D220 million, respectively.

Because of the low level of capital accumulation, small firms are usually low in productivity. The study by Nguyen et al. (2022, Ch. 6) on the foodstuffs industry and electronics industry from 2011 to 2018 showed that the TFP of large firms was always greater than that of medium-sized firms, and the latter recorded a higher level of TFP than small firms.

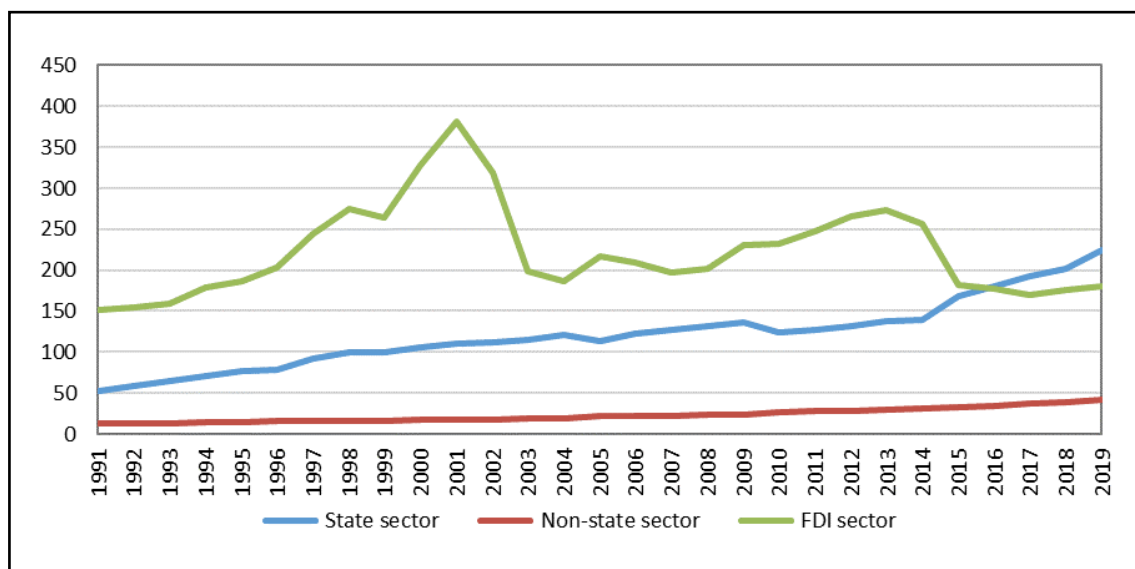


¹³ Micro, small, and medium-sized firms are defined as those that hire fewer than 10, from 10 to less than 100, and from 100 to less than 200 employees, respectively.

¹⁴ This point has been emphasised by Dinh Hinh (2013:27).

A substantial portion of the informal sector (28%) and of small and medium-sized enterprises (10.6%), combined with a large share of the agriculture, forestry, and fishery (34.5%) in total employment, resulted in Viet Nam's low productivity.¹⁵ The combined share of these three areas amounts to 73.1%, a dominating portion of the non-state sector (83.5%, Table 6.2). That is why the productivity of the non-state sector remains very low, and its growth has been low, as illustrated in Figure 6.5.

Figure 6.5. Viet Nam's Productivity by Ownership
(D million per worker at constant 2010 prices)



D = Vietnamese dong, FDI = foreign direct investment.
Source: Ohno et al., 2021.

The low level of industrialisation, the low grade of the participation in GVCs, and the structural characteristics of the Vietnamese economy suggest the directions of policies for raising labor productivity to achieve sustained growth.

3. Recommendations for Viet Nam's Escape from the Middle-Income Trap

This section will recommend policies for Viet Nam to escape from the MIT and achieve sustained growth to high income by 2045. Five major policies are necessary. Amongst these five policies, the first is the most fundamental and aims at expanding, deepening, and upgrading industrialisation. The remaining four policies are to enable the first policy.

¹⁵ The productivity of the agriculture sector (including forestry and fishery) is much lower than the industry and service sectors, as shown in Ohno, et al. (2021:16) and also reflected in its low share in GDP and very high share in employment (Table 6.2).

3.1. The New Stage of Industrialisation: Expanding, Deepening, and Upgrading

As noted, Viet Nam's industrialisation is still at a low level and has been characterised as concentrating on low value-added products, and highly reliant on imports of intermediate goods from China and Korea. Viet Nam also still participates in the low levels of GSCs.

Viet Nam should deepen and upgrade its industrial structure by substituting imports from China and Korea. In addition, the government should adopt a policy to facilitate the start-up of businesses so that local firms, including small and medium-sized enterprises (SMEs), can exploit opportunities of market and technology to invest in industrial production. In this context, a new FDI strategy, which has two elements, should be emphasised.

First, the government should introduce new FDI projects on a case-by-case basis, improve infrastructure, and offer incentives to encourage import substitution for high-tech components and other intermediate industrial products. In August 2019, the Political Bureau of the Communist Party of Viet Nam issued a resolution calling for a new FDI policy. The resolution emphasised the introduction of high-quality projects that produce high-skill, high-technology-intensive products. This resolution is timely but has not actually been implemented. Although Viet Nam's lack of a new FDI framework is partly due to the pandemic, more proactive policy and concrete initiatives are necessary to achieve the goals of new industrialisation.

Second, the policy should also encourage local firms to actively participate in the operation of FDI firms. In particular, vertical linkages between FDI operations and local firms are still weak, even though the problem was pointed out by observers many years ago (Dinh Hinh, 2013:9, amongst others).

This point is reflected in the weakness of supporting industries. In Viet Nam, the number of manufacturing firms amounted to about 110,000, which encompasses more than 35,000 SMEs,¹⁶ but, as shown in Table 6.3, at the end of 2018, there were fewer than 5,000 firms in supporting industries. Moreover, in electronics, the number of firms has been accounted for mostly by FDI. In a word, there is a large room for local firms to invest in supporting industries to participate in the GSCs of foreign firms investing in Viet Nam.

¹⁶ According to the *Statistical Yearbook 2020*, in Viet Nam there were 109,917 manufacturing enterprises (accounting for 16.4% of total 668,553 firms) which had business outcomes as of 31 December 2019. In manufacturing, the number of small firms (10 to 49 employees) was 26,343, and that of medium firms (50 to 199 employees) was 9,114.

Table 6.3. Number of Firms in Viet Nam's Supporting Industries (2018)

	Apparel and footwear	Plastics	Machinery	Electronics	Total
State-owned firms	9	7	14	1	31
Non-state firms	729	124	2,437	101	3,391
FDI	347	91	576	404	1,418
Total	1,085	222	3,027	506	4,840

Note: FDI = foreign direct investment.

Source: Viet Nam's Ministry of Industry and Trade (2022).

3.2. The Creative Destruction of the Informal Sector and Promotion of the Development of SMEs

According to the Law of Enterprises 2014, a household is a family-based business unit that has fewer than 10 workers and bears responsibility for business activities with their own assets. At the end of 2019, Viet Nam had nearly 5.4 million non-farm household establishments, which absorbed nearly 9.1 million workers. The respective figures for the manufacturing sector are 841,689 establishments and nearly 1.7 million workers.¹⁷ The average number of workers per establishment for all non-farm sectors was only 1.7 persons, and for the manufacturing sector, it was 2 persons.

Such a small scale of operation does not allow household enterprises to introduce technology and invest in more productive areas. Household enterprises also encounter various institutional barriers and disadvantages in access to capital and policies which are adopted for supporting SMEs. To raise the productivity of the economy as a whole, it is essential to transform household-based units into formal enterprises. In fact, the government has also adopted several policies for such purposes. The aim of such policies, however, has not been attained so far. Government Decision No. 35 in May 2016, for instance, be aimed at generating many new firms so that the country will have 1 million enterprises by 2020 (and 1.5 million by 2030), compared to 442,485 at the end of 2015, but the number at the end of December 2020 was only 811,535.

¹⁷ Data are from the *Statistical Yearbook 2020*. In Table 6.2, we estimated the workforce in the non-agriculture informal sector amounted to about 16 million. The non-farm business establishments mentioned above absorbed about 9 million. The rest of about 7 million can be viewed partially as those working in the establishments that were not covered in the survey, and partially as those who are individual street vendors, etc.

There are at least two problems hampering the transition of informal units into organised enterprises. First, the procedures for such a transition are complicated, and most individuals or family-based business units do not have the resources for the application. The complicated procedures are also aggravated by incapable and bureaucratic officials of local governments. Second, many household enterprises worry about the possibility of paying more tax as a result of modern and transparent accountancy after becoming a formal enterprise. According to the current system, a tax levied on the household is decided on the basis of a poll tax without considering the annual performance of business units. In addition, household entrepreneurs usually negotiate with local tax officials and share with the latter the part they can save by negotiation.¹⁸

To solve those problems, several policies are necessary. First, a policy is needed to simplify administrative procedures as well as to impose appropriate guidance and instruction upon local officials on the national policies that encourage the transformation of the household business to the company model. Second, a policy is needed to convince the household entrepreneurs of the advantages they will have after becoming formal companies and the benefit they will get would surpass the additional tax which may accrue. Third, effective policies to support SMEs, which will be discussed below, will have a demonstration effect on the household business units, which may recognise the benefits of becoming SMEs.

A process of creative destruction may be seen in these policies. Some informal business units which can access capital and support policies will hire more employees and procure capital to expand their businesses. Others will be merged to become SMEs. Finally, a part of household business units may be dissolved, and related people will look for new jobs offered by a growing number of emerging firms.

According to the *White Book of Enterprises 2021*, at the end of 2019, total SMEs (10 to fewer than 200 persons) absorbed 4 million of the workforce. If about half the informal business units (which have 9 million workers) are transformed into formal enterprises, the number of SMEs will expand fast. Combined with the existing 4 million, in total, about 8.5 million of labour will be absorbed by SMEs, accounting for about 24% of the non-agriculture working force in 2019. Effective policies for SMEs will therefore make substantial changes in Viet Nam's economy.

The reforms in the factor markets, which will be discussed below, will have positive impacts on the activities of SMEs. In addition, several policies which directly address SMEs should include the following:

First, the central and local government agencies in charge of SMEs should be more proactive to help them access capital, leased land, and technology for investment, as well as to help them to link with foreign firms. Second, the central government agency should have a research unit responsible for studying domestic and world markets and technology and the issues surrounding SMEs. The results

¹⁸ See Nguyen (2021) for details of the legal problems relating to the transition of household business units to formal enterprises. According to Dinh Hinh (2013: 27–28), the unclear government policy towards large private enterprises has also been amongst the reasons that discouraged household and small firms from growing.

of this research should be published in the form of a White Paper. The annual White Paper for SMEs is useful for these firms to cope with changes in markets and technology as well as in policies.

For firms which aim at higher value-added, and higher productivity, their activities require more capital intensity and a larger scale than the levels of micro and household enterprises. Along with the greater scale of the firms, which enables larger investment and easier technology adoption, combined with the support of policies, a substantial part of SMEs will be integrated into the GSCs and GVCs of FDI firms.¹⁹ Consequently, they can participate in the supporting industries and the GSCs/GVCs of multinational corporations. As a result, they will contribute to the expansion of the manufacturing sector and to the growth of productivity. The point that should be emphasised here is that both central and local governments should make clear the fundamental objective of industrialisation is not to create more SMEs but to make small enterprises become medium and to make medium enterprises become large in order to acquire more capital, knowledge, and skills to connect to and compete with foreign enterprises.

3.3. Reforms of the Factor Markets

As shown in Table 6.2, the agriculture sector and the informal sector still account for a share as large as 35% and 28%, respectively, of the total workforce of the economy. Institutional market reforms for smoothing the migration of labour from agriculture to the manufacturing sector and on the capital market for helping SMEs (including those shifted from the informal sector) to access investment are essential.

3.3.1. Reforms of the Labour Market

As noted, in large cities, wages are rising, and a labour shortage has emerged, while workers are plentiful in rural villages and remote areas. Hanoi and Ho Chi Minh City may have already crossed the Lewis turning point, but the rest of Viet Nam seems to still have a labour surplus. Two factors behind that phenomenon are the insufficient supply of skilled labour and the distortion in the labour market. Along with the expansion of industrialisation, as discussed earlier, the demand for labour will rise further. If the current situation remains unchanged, the dualistic market structure, i.e. the shortage in the cities and surrounding areas and the surplus in rural areas, will be more serious. To solve this problem, in addition to the efforts in education and training, which will be discussed in the next subsection, reform in the labour market is essential. The most important point is to change the household registration (*ho khau*) system and to improve the living conditions of workers in industrial parks and other factories in urban areas. Under the household registration system, many workers

¹⁹ Many FDI firms have pointed out that they want to raise the local content of operations in Viet Nam and tried to find local suppliers but only a limited number of firms is qualified. Recently (July 2022), information from Panasonic Vietnam and Samsung Vietnam also confirmed that problem. Panasonic, operating seven factories in Viet Nam that assemble electronic consumer goods, still relies on 65% of imported parts and components. Samsung so far has set up six factories for assembling smartphones, and has tried to select potential local suppliers for providing them management and technical guidance. So far, 379 firms have been selected and offered guidance but only 51 firms have been able to participate into the supply chain of Samsung. Information was reported in *Tuoi tre*, 18 July 2022.

migrate from rural to urban areas to work, but they are still officially considered citizens in rural areas and thus do not benefit from urban services (education, medicine, etc.). The government should revise the household registration system to protect the right of those migrant workers.

On the living conditions of workers, the housing service should be emphasised. Apart from a number of workers living in dormitories provided by employers, most workers migrating from rural areas have to rent apartments in the villages adjacent to factories. Due to high living costs in the cities and surrounding areas, the real wages are low, so many workers tend to share a small apartment that has been designed for one or two persons. The housing conditions are thus very poor and not appropriate for keeping healthy. Local governments and firms should work together to improve the living conditions of migrant workers by building a sufficient number of dormitories or low-income houses for them.

The household registration system and housing problems tended to discourage rural labour from migrating to work in urban areas. In fact, every year, a substantial part of workers going home for New Year's holidays did not return to work and that accrued costs for firms to recruit new employees. The same problem happened during the pandemic in Ho Chi Minh City and its vicinity in mid-2021. If these two problems are solved, we can expect a smooth labour migration across geographic locations.



3.3.2. The Capital Market and SMEs' Access to Capital

In developing countries, limited access to financial institutions, mainly commercial banks, is usually a structural problem for SMEs because of the asymmetric information between banks and borrowers. This leads to high collateral and guarantee requirements and adds to transaction costs. For SMEs, poor access to finance is often a critical constraint to their growth.

The capital market in Viet Nam has developed gradually since the 1990s, but there is still much room for further reforms. In particular, SMEs are in a disadvantageous position in the access to capital needed for their investment, as reflected in many surveys. The most recent survey, conducted by the State Bank of Viet Nam in 2022,²⁰ also revealed that SMEs still encountered the following problems. First, commercial banks tended to prefer to lend to large firms, including state-owned enterprises (SOEs) and FDI firms, and disregard SMEs. Second, the procedures of application for borrowing are so complicated that many SMEs usually give up. Third, the funds that SMEs are able to borrow usually bears higher lending rates compared to funds provided to large firms.

From the experience of Japan, we may suggest the following measures. First, the government should set up a fund or a bank specialising in SMEs. This fund or bank should have professional staff that have a high capacity to review investment projects. The fund or bank should also have a department in charge of advisory and consultant services offered to SMEs in order to assist them in increasing the feasibility of an investment project. Second, Viet Nam should establish a system to offer certificates for consultants who can advise SMEs to improve their management and plan for investment projects as well as to help them prepare applications for borrowing funds.

3.4. Policy to Expand the Supply of Skilled Labour

Viet Nam has an abundant workforce and a young labour structure, but the human resources are still weak in quality. As reflected in the surveys on the activities of FDI firms or opinions of employers in both domestic and foreign firms, there has been a chronic and serious shortage of skilled workers.

According to a recent survey by JICA (2022), in 2020, the labour force that had 9 years or fewer of education accounts for as much as 61.2% of the total workforce. The workers who graduated from upper secondary school and those having technical and professional qualifications account for only 15.2% and 23.6%, respectively. It is also surprising that the share of workers that have not graduated from elementary school was 11.6%, a large figure.²¹

In addition, as pointed out by World Bank (2022), there is a lack of alignment between the skills of graduates and the skills that the market is demanding. While firms report difficulty in securing

²⁰ The results of the survey were documented in Can Van Luc ed. (2022).

²¹ For example, according to the recent survey conducted by the Viet Nam Chamber of Commerce and Industry and introduced at a forum in Hanoi on 15 July 2022, about 60% of the firms interviewed in the electronic industry replied that they are experiencing a shortage of skilled workers (*Saigon Giai Phong Online*, 15 July 2022).

employees with skills, the supply of most jobs is for unskilled or skilled manual workers. Insufficient public funding and a weak tertiary education system are also noticeable. Viet Nam spends less than many Asian countries on higher education; in 2019, Viet Nam allocated 0.6% of its GDP to higher and vocational training, compared to 0.86% in Malaysia. The poor quality of education in most private colleges and universities has also been widely recognised.

The expansion of the supply of skilled labour in order to push industrialisation and upgrade the industrial structure is thus an urgent task for Viet Nam. Viet Nam needs to allocate more resources for vocational and higher education and to reform its education system to improve quality.

On July 2020, the government announced a policy to revise the system of education and training, which included the expansion of immediate vocational courses, vocational elementary courses and specialised technical colleges. That policy is appropriate even though it was too late. The problem is how to quickly implement the policy to meet the rising demand for skilled workers. In addition, the expansion of science and technology faculties in major universities is also important for increasing the supply of engineers and managerial levels of human resources.

The efforts cited above, however, take time. The concurrent and quicker response is to connect the Vietnamese technical intern trainees efficiently in advanced countries, mainly Japan, with foreign and local firms which have plans to invest in higher value-added industrial products in Viet Nam. The number of Viet Nam's skilled labourers with internships in Japan amounted to 202,365 at the end of June 2021 (JICA, 2022). In addition, in Japan, there has been an increasing number of Vietnamese-specified skill workers who have an intermediate level of the Japanese language and passed exams in specific engineering fields. At the end of 2020, the number of specified skilled labourers amounted to nearly 15,700.

3.5. Strengthening Innovation Capability

In the next decade or so, the supply of skilled labour and institutional reforms for efficient allocation of resources will be major sources of productivity growth of Viet Nam's economy. At the same time, Viet Nam has to prepare for innovation-led growth for the 2030s and beyond. The development of science and technology requires much time to generate results. Therefore, efforts in R&D and promotion of science and technology should be emphasised from the present stage.

The Vietnamese government has reconsigned the importance of innovation for economic growth, but so far, the effort has not been sufficient. The R&D expenditure as a ratio to GDP rose from 0.44% in 2016 to 0.53% in 2019 (MOST 2021). Out of total R&D expenditure in 2019, the state sector, the local private sector, and FDI firms accounted for 47%, 40%, and 13%, respectively. Data from 2015 showed that the share of the local private sector rose substantially while that of the state sector declined. This trend is confirmed by the experience of advanced countries, such as Japan and Korea, in their development process. The government's major role turned from direct R&D activities to create institutions which encourage private firms to increasingly invest in R&D. In fact, the Viet Nam National Innovation Center was set up in October 2019 as a unit under the Ministry of Planning and Investment for supporting firms to undertake innovative start-ups.

Viet Nam's government appears to have set the right direction, and the policies so far can be recognised. However, to prepare an innovation-led economy for sustained growth in a high-income country, Viet Nam should scale up the level of R&D expenditure and other innovation-related indicators. The current level of R&D expenditure as a ratio to GDP is lower than most Asian countries in their lower middle-income development stage.²²

Viet Nam's ranking in the Global Innovation Index (GII) is quite high and has improved in recent years (WIPO, 2021), but the components of GI have a large room for improvement. In 2021, the ranking was 44 amongst 132 economies, higher than India (ranked 46) and the Philippines (51) and only one rank lower than Thailand (43). Viet Nam also ranked top in the group of lower-middle-income economies. These facts give the impression that Viet Nam's innovation capability is relatively strong. A closer look at the components of the GI, however, show a different picture. The GI is broken down into seven sub-indices, and each sub-index is composed of many elements. Viet Nam ranked high in high-tech exports (ranked 1), creative goods exports (11), and trade, diversification, and market scale (15), but such indicators do not necessarily reflect innovation capability. Many export products, such as smartphones, are considered high-tech, but as analysed in Section II, most of them are in the low levels of the GVCs. The high trade dependence and large market scale also do not directly relate to the innovation capability.

On the contrary, Viet Nam's low rankings in some critical components should be considered problematic. For example, Viet Nam ranked 79th in human capital and research, 90th in tertiary education, and 79th in the infrastructure of information and communication technologies. Substantial improvement in such fields should be the focus of innovation-related policies.

Amongst the five policies discussed above, the second and the third are important for the next 10 years or so in order to push the transformation of resources from low to highly productive areas. The fourth policy is the presumption for facilitating the rural workforce to move to the industrial sector on the one hand and to upgrade the industrial structure itself on the other. The fifth policy is essential to prepare for sustained growth in a later stage, e.g. from the 2030s, when there is little room left for structural transformation as a source of rising productivity.

²² For example, the R&D expenditure/GDP ratio for Korea in 1977 and China in 1996 was 0.6% when they were in lower middle-income level. The figure for Korea rose to 2.4% in 1996 and that for China rose to 1.4% in 2004 and 2% in 2011. Figures are taken from Tran (1986) for Korea in 1977, and from Huang (2016) for other cases.



3.6. Upgrading the Structure of Comparative Advantage

If five groups of policies previously recommended in this section are adopted and implemented, the structural transformation in the manufacturing sector, the formalisation of the informal sector, the efficient allocation of capital and labour, the upgrade of the quality of labour, and the innovation capability of Viet Nam will be progressed and strengthened. As a result, capital accumulation will be expanded in a more efficient direction and will stimulate the adaptation of technology. The capital deepening and the efficiency created by structural transformation and by institutional reforms in the factor markets will result in rising productivity.

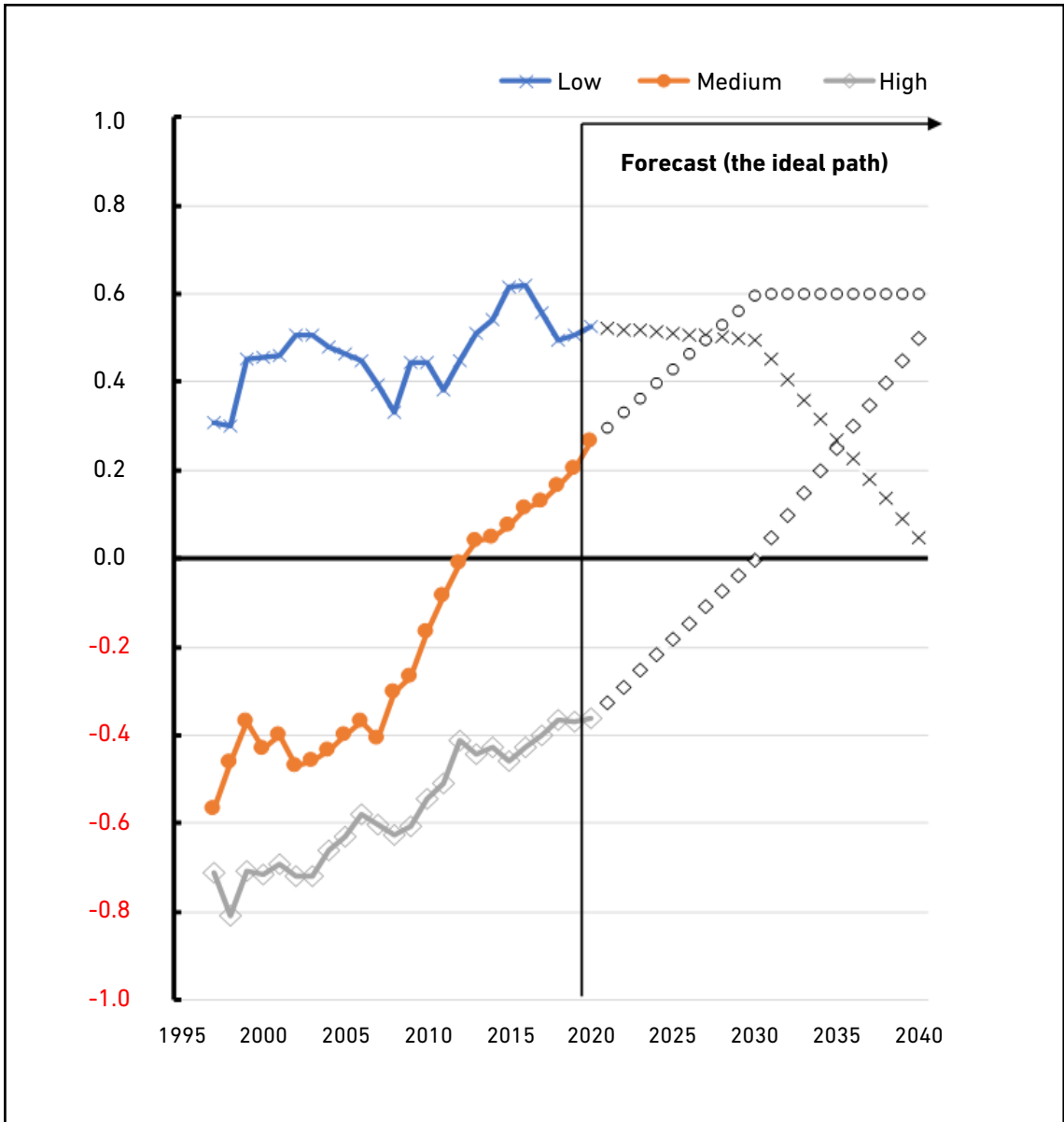
From a global perspective, the structural transformation and sustained growth of productivity will keep Viet Nam competitive in international markets. This is a condition for Viet Nam to avoid the position, discussed in Section 1, where the country is unable to compete with low-cost countries yet is not able to compete with advanced countries. That condition is illustrated in Figure 6.6. The concept of the ICI is the same with Figure 6.1. The definition of low-, medium-, and high-skill-intensive products is based on the structure of revealed comparative advantage (RCA) of manufactured trading products of advanced countries. The products that have an RCA of less than 0.5 are considered a low skill, and products that have RCA from 0.5 to less than 1 are medium. Products that have an RCA of 1 and greater are highly skill-intensive.²³

In Figure 6.6, by 2020, Viet Nam has gained a comparative advantage in low-skill-intensive products and has been increasingly competitive in medium-skill-intensive goods, while recording a large deficit in the trade of high-skill-intensive fields. Figure 6.6 also shows the ideal path of Viet Nam's structure of comparative advantage for the next 2 decades. The dynamic changes in the direction to continue to upgrade the structure of international competitiveness are essential. In the first 10 years or so, i.e. the period until the early 2030s, the competitiveness of medium-skill-intensive products should be increasingly strengthened and gradually replace the position of low-skill products. In that process, the position of high-skill-intensive products will be improved, and the trade balance will turn into a surplus. In the 2030s, the low-skill-intensive products began to lose the comparative advantage, and the competitiveness of the products using medium-skill labour entered the matured phase. In that process, the high-skill-intensive products must be increasingly the leading exporting sector.

The ideal path for the future, illustrated in Figure 6.6, is the condition for Viet Nam in the international context to escape from the MIT and continue to achieve sustained growth in a high-income economy. The policies suggested in this chapter are expected to bring about such an ideal path.

²³ See Tran and Karikomi (2019) Ch. 8 for detailed explanations.

Figure 6.6. Changes in the Structure of International Competitiveness and Scenario for the Future Path



Notes: The curves show international competitiveness index (ICI) of low, medium, and high skilled intensive products. For definition of ICI see the explanation in Figure 6.1.

For definition of low, medium, and high skilled intensive products see the text.

Sources: Until 2015: Tran and Karikomi (2019), updated for 2020 by Karikomi, using UN *Comtrade Database*. Forecast by the author.

4. Concluding Remarks

Sustained productivity growth is the key factor in escaping from the MIT. Structural transformation, or the shift of resources from low- to high-productivity sectors, is the driving force behind the enhancement of productivity and the long-term preservation of international competitiveness. In that process, capital accumulation and technological progress are both important, even though their relative role may be different, depending on the phase of development. Growth of productivity is also promoted by the creative destruction in the structure of firms and business units, which results in expanding the scale of firms that can adopt technology and undertake efficient capital accumulation. Institutional reforms in the factor markets to enhance the efficient allocation of capital and labour, emphasis on the supply of highly skilled labour, and strengthening of innovation capabilities are essential for enabling the structural transformation process.

Viet Nam has enormous room for increasing productivity, given the current low industrialisation level and its low value-added final assembly production, the surplus labour in agriculture, and the existence of a large informal sector. This chapter suggests five major policies to exploit the current potential for sustained growth of productivity: (a) scaling up the industrialisation along with upgrading and deepening the industrial structure; (b) facilitating creative destruction of the informal sector and promotion of the development of SMEs; (c) undertaking institutional reforms to improve the factor markets so that capital and labour can easily move to higher productivity sectors; (d) strengthening education and training for increasingly supplying high-skilled labour to meet the demand for a high level of industrialisation; and (e) strengthening R&D activities both at the government and firm levels, including policies to encourage FDI and local firms to invest in process and product innovations. From an international perspective, the structural transformation and sustained growth of productivity will keep Viet Nam always competitive in international markets.

With the policy recommendations outlined in this chapter, we anticipate that Viet Nam will have the potential to break free from the MIT and achieve continuous growth on its path to becoming a high-income country by 2045.



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