



United Nations  
Office for South-South Cooperation

A large, busy textile factory with many workers at sewing machines. The workers are wearing various colored head coverings and aprons. The factory is filled with fabric and sewing equipment. The scene is viewed through a dark, triangular frame that points towards the center of the image.

# South-South Ideas

**From Trilemma to Triple Wins:  
Creating Synergies among Chinese  
Labour-intensive Manufacturers,  
Global Buyers and Low-wage  
Southern Countries**

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# **South-South Ideas**

From Trilemma to Triple Wins: Creating Synergies among Chinese Labour-intensive Manufacturers, Global Buyers and Low-wage Southern Countries

**February 2021**

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# Abbreviations and Acronyms

<b>ALP</b>	Average labour productivity
<b>DIDC</b>	Department of International Development Cooperation
<b>EIZ</b>	Eastern Industrial Zone
<b>FGP</b>	Flying-geese paradigm
<b>FOCAC</b>	Forum on China-Africa Cooperation
<b>GDP</b>	Gross domestic product
<b>GNI</b>	Gross national income
<b>GTP</b>	Growth and Transformation Plan
<b>INSE</b>	Institute of New Structural Economics
<b>LCU</b>	Local currency unit
<b>MDB</b>	Multilateral development bank
<b>ODI</b>	Overseas Development Institute
<b>PVH</b>	Phillips-Van Heusen Corporation
<b>SEZ</b>	Special economic zone
<b>TAL</b>	Textile, apparel, leather and related products
<b>UNIDO</b>	United Nations Industrial Development Organization

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# Executive Summary

Prompted by fast-rising wages, the graduation of China from labour-intensive manufacturing has opened up a golden window of opportunity for the other low-wage Southern countries to kick-start industrialization by attracting Chinese labour-intensive light manufacturing sectors. In this paper, we aim to diagnose challenges faced by Southern countries to seize the opportunity presented by Chinese industrial transfers to kick-start and speed up their industrialization process. We will then draw on China's development experiences to propose concrete policy recommendations on how to use special economic zones and triangular cooperation to better seize the opportunity from the perspective of new structural economics.

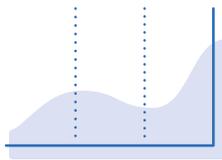
To successfully take advantage of this window of opportunity, host Southern countries need to resolve the following trilemma: (a) global buyers lack confidence in them to deliver high-quality goods on time; (b) Chinese labour-intensive manufacturers tend to be highly risk-averse when venturing into those uncharted investment destinations; and (c) low-wage Southern countries suffer from inadequate infrastructure and poor business environments. Drawing on development experiences of China from the perspective of new structural economics, this paper proposes to use the establishment of industrial parks as key leverage to turn the trilemma into triple wins among all the stakeholders and forge triangular cooperation. After reviewing the current state of industrial relocation, promising practical cases and the potential of industrial relocation from China, we propose concrete policy recommendations to help policymakers in partner Southern countries to better seize this great opportunity of industrialization enabled by China's industrial relocation.

In the midst of the Covid-19 pandemic, it is difficult to shy away from the damaging impacts that the pandemic is having on the world economy, global value chains and millions of lives around the world. Nonetheless, it is a matter of time before the pandemic will be kept under control and the collective efforts of the global community will help to combat it. The trend of international industrial transfers is irreversible and this crisis may even help to accelerate this process in the post-Covid-19 era, since multinational manufacturers are increasingly looking into diversifying the production bases as a shock absorber. While challenging, dynamic growth and economic structural transformation in Africa may finally be set in motion.

# Introduction

One of the key stylized facts about economic growth is that it is a relatively recent phenomenon. According to the historical data compiled by Maddison (1995), it took about 1,400 years for the world to double its income before the advent of the industrial revolution in the eighteenth century. The same process took 70 years in the nineteenth century and 35 years in the twentieth century. In the case of a few highly successful economies (e.g., China and Japan), the number of years required to double the income level is even less than 10.<sup>1</sup> It is indisputable that continuous structural change prompted by industrialization, a cheap energy supply, technological innovation and industrial upgrading is among the most important contributors in the era of modern economic growth.

While the global economy as a whole has much to celebrate, a large number of populous countries are being left behind during this process, in particular those countries in sub-Saharan Africa. According to the poverty statistics of the World Bank (2018), the number of people living in poverty in sub-Saharan Africa increased from 278 million in 1990 to 413 million in 2015 (an increase of almost 50 per cent in just 25 years).<sup>2</sup> The development prospects for sub-Saharan Africa seem to be dimmed in the future, since the continent is projected to experience strong population growth in the coming decades. This more somber perspective on the development prospects of sub-Saharan Africa is also in line with the work by the World Bank (2018) and Gill and Karakulah (2018). Moreover, industrialization opportunities seem to run out sooner and at much lower levels of income than those of the earlier industrializers (Rodrik, 2016).<sup>3</sup> The probable causes of this phenomenon can be linked to trade liberalization and the emergence of China as a global manufacturing hub as well as to the rise of labour-saving automation technologies, which tend to displace workers in manufacturing (Rodrik, 2016). Rapid advancement in labour-saving technologies is likely to continue, with both the constructive and destructive impact on the development prospects of industrialization in sub-Saharan Africa. The underlying rationale is that, owing to the displacement of workers from the workplace, the demand for labour is expected to decline, leading to deindustrialization in terms of employment in the manufacturing sector. In terms of output, while labour-saving technologies tend to feature higher productivity, they generally require more skilled workers for operation and highly skilled technicians for maintenance, neither of which is readily available in Africa or part of its comparative advantage.



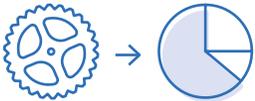
It took about 1,400 years for the world to double its income before the advent of the industrial revolution in the eighteenth century. The same process took 70 years in the nineteenth century and 35 years in the twentieth century.

1 According to the Commission on Growth and Development (2008) led by Nobel Laureate Michael Spence, 13 economies are found to have experienced growth of over 7 per cent per year for a sustained period of 25 years since the end of the Second World War.

2 The number of people living in poverty is measured according to the criterion of living on less than \$1.90 a day in 2015 (World Bank, 2018). In addition, the measure of poverty has also been expanded to include access to education and basic infrastructure. This expanded “multidimensional” view aims to reveal that poverty is a much broader and entrenched problem. Regardless of the poverty measure that one uses, the fact that poverty in sub-Saharan Africa has been aggravated significantly over time remains unchanged.

3 To be specific, Rodrik (2016) termed this finding “premature deindustrialization”.

Despite these development challenges,<sup>4</sup> industrialization opportunities for low-wage Southern countries, especially those in sub-Saharan Africa, are very much alive and remain promising (e.g., Gui-Diby and Renard, 2015; Tafirenyika, 2016). After 40 years of phenomenal economic growth and development, China gradually climbed the income ladder from the bottom to lower-middle-income country in 1999 and to upper-middle-income country in 2010.<sup>5</sup> According to Justin Yifu Lin, the former World Bank Chief Economist and Senior Vice-President, China will become a high-income country by 2025 and the world's largest economy by 2030.<sup>6</sup> A direct implication of this is that it would be an irreversible trend for China to lose most of its comparative advantages in labour-intensive manufacturing, and, as such, industrial upgrading to higher value-added economic activities is required to carry forward China's growth in the future. Meanwhile, the graduation of China from low-skilled labour-intensive manufacturing presents a historic window of opportunity for the other unindustrialized low-income countries (Lin, 2012a).<sup>7</sup>



The graduation of China from low-skilled labour-intensive manufacturing presents a historic window of opportunity for the other unindustrialized low-income countries

Given the abundant supply of low-cost labour, vast land and highly favourable trade arrangements with the world's largest consumer markets (e.g., the United States of America and the European Union), countries in sub-Saharan Africa are well positioned to take advantage of this window of opportunity by taking over low-skilled labour-intensive manufacturing from China. This would not only help the countries in sub-Saharan Africa to satisfy their growing demand for job creation but it could also assist the countries to finally kick-start the process of industrialization and embark on a sustained growth path. It is important to note that, given increased and continued economic downturn in the North, African economies have been gravitating towards emerging economies and the larger Global South more than the North in recent years. In particular, connections between China and Africa have become increasingly closer over the past 15 years through political summits, development assistance and the Belt and Road Initiative proposed by China. The ongoing industrial relocation sourced from China is expected to further strengthen the economic ties and cooperation with Africa. This relocation opportunity will also serve as an

4 According to the United Nations Industrial Development Organization (UNIDO) (2016), the other major challenges to Africa's industrialization include structural weaknesses (e.g., poor infrastructure and trade facilitation), slow regional integration, and absence of accreditation frameworks (p. 13).

5 The classification of different income groups was introduced by the World Bank in 1978 based on a measure of national income per person (i.e., gross national income (GNI) per capita). Currently, four different income groups are identified: low-income, lower-middle-income, upper-middle-income and high-income countries. The thresholds used to classify the income groups are not fixed but rather adjusted over time. According to the thresholds used in 1999, countries with a GNI per capita between \$756 and \$2,995 were considered as lower-middle-income countries in 1999. For 2010, countries with a GNI per capita between \$3,976 and \$12,275 were considered as upper-middle-income countries.

6 This is also cited by the news media: [http://www.xinhuanet.com/english/2019-01/22/c\\_137765045.htm](http://www.xinhuanet.com/english/2019-01/22/c_137765045.htm).

7 As China moves up the income ladder, it is inevitable that the country will encounter the so-called "middle-income trap". China's graduation from low-skilled labour-intensive manufacturing may help the country to avoid the trap, since it frees up space and resources for developing other higher value-added industries. However, this is only a necessary but insufficient condition. Whether China would be able to avoid/escape the middle-income trap will depend largely on whether China can successfully achieve industrial upgrading to higher value-added activities, such as high-end manufacturing and services. The newly released "dual circulation" development strategy is aimed precisely at unleashing and stimulating China's potential for industrial grading. Moreover, since China is likely to join the ranks of high-income economies by 2025, it seems that China is on the right track to avoid the middle-income gap.

iconic example of South-South cooperation defined by the United Nations,<sup>8</sup> since the establishment of production plants and factories in Africa by Chinese (private) enterprises will help to diffuse production knowledge and skills to the local community, which will help to foster Africa's industrial development and urbanization. Thus, industrial relocation enabled by China is a perfect channel through which South-South cooperation can take place.

As shown in figure 1, the rate of sub-Saharan Africa's industrialization measured by manufacturing valued added as a share of gross domestic product (GDP) is among the lowest in the world and has been declining over time. It has rebounded slightly since 2011, which coincides well with the timing of China's industrial relocation. Prior studies suggest that China's industrial relocation in labour-intensive manufacturing began in the early 2010s, and the vast majority of Chinese outward foreign direct investments (FDIs) in labour-intensive manufacturing flew to countries in Southeast Asia (e.g., Cambodia, Myanmar and Viet Nam), while only a few have landed on African soil (Chen and Li, 2019). A key factor that has significantly restrained Chinese investments from flowing into Africa is the presence of the trilemma: (a) global buyers of labour-intensive manufactured goods lack confidence in African countries to deliver high-quality goods on time; (b) Chinese labour-intensive manufactures are highly risk averse in venturing into remote and uncharted investment destinations; and (c) most countries in sub-Saharan Africa suffer from inadequate infrastructure and poor business and regulatory environments, which reinforce the lack of confidence of global buyers and the risk aversion of Chinese firms. While China is widely seen as "a flying dragon" with enormous industrial relocation potential (Lin, 2012a), this unique window of opportunity is unlikely to be seized or bear much fruit if this trilemma is not addressed. According to data compiled by the China Africa Research Initiative at the Johns Hopkins University School of Advanced International Studies, over half of China's outward FDIs in Africa are concentrated in the construction and mining sectors. The share accounted for by the manufacturing sector remains largely stable at 13-14 per cent (see fig. 2).

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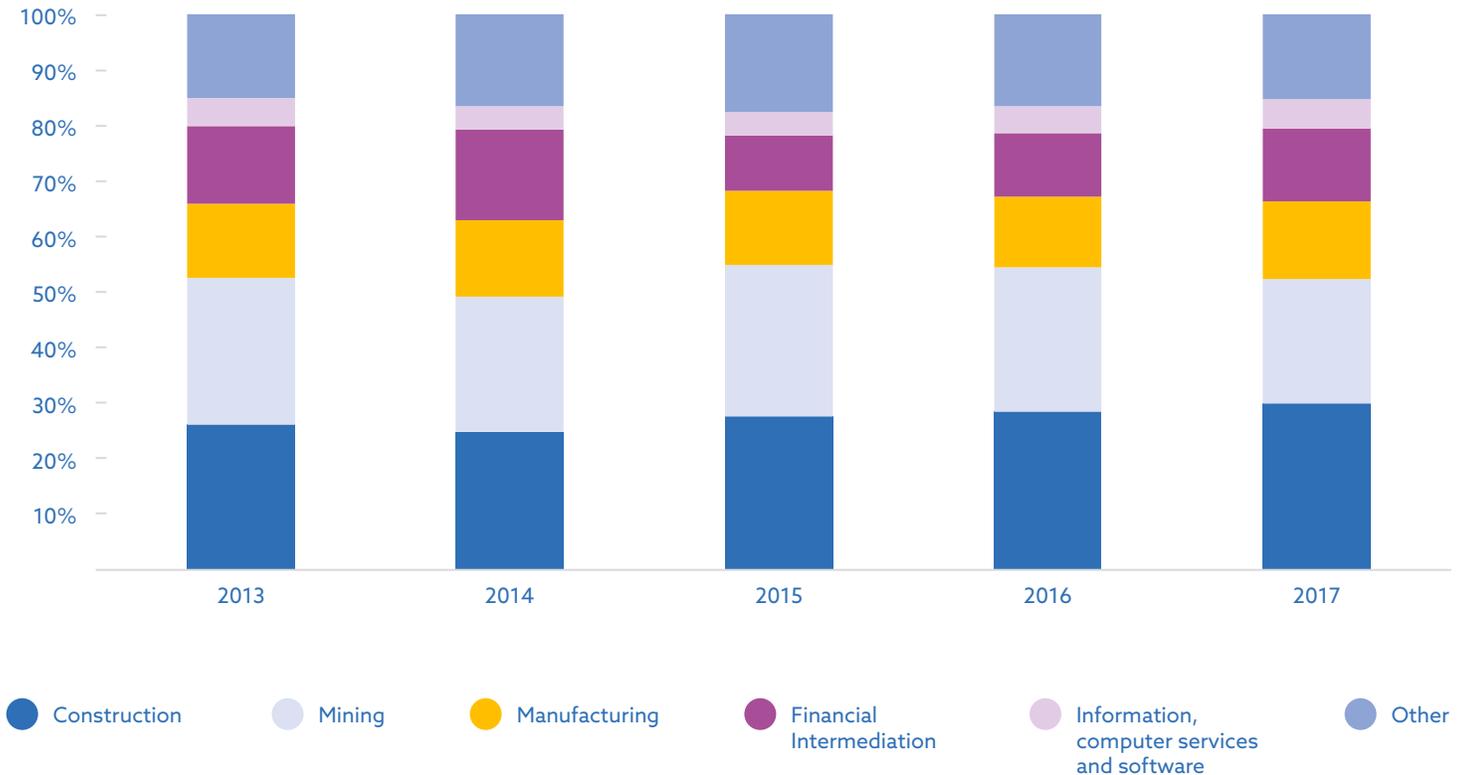
8 According to the definition provided by the United Nations, South-South cooperation refers to "a process whereby two or more developing countries pursue their individual and/or shared national capacity development objectives through exchanges of knowledge, skills, resources and technical know-how, and through regional and interregional collective actions, including partnerships involving Governments, regional organizations, civil society, academia and the private sector, for their individual and/or mutual benefit within and across regions. South-South cooperation is not a substitute for, but rather a complement to, North-South cooperation" (See Note by the Secretary General on the framework of operational guidelines on United Nations support to South-South and triangular cooperation (SSC/17/3, para. 9)). As the world's largest developing country, production knowledge and skills diffused by China through industrial relocation to the world's largest developing continent (i.e., Africa) is well suited to the notion of South-South cooperation.

**Figure 1: Evolution of the rate of industrialization in sub-Saharan Africa**



Source: World Development Indicators, 2019.

**Figure 2: Sectoral composition of China's FDI stock in Africa**



Source: China Africa Research Initiative, 2019.

This paper aims to shed some light on how to resolve the trilemma and turn it into triple wins through triangular cooperation, that is, (a) involvement of global buyers from the world's major consumer markets, such as the United States and Europe, (b) investments from Chinese labour-intensive manufacturers, and (c) host countries in Africa, in particular how the establishment of special economic zones or industrial parks can be used as leverage to attract foreign anchor firms to invest in host countries in Africa. The paper will also assess why the anchor firms, in turn, can help to boost confidence among the global buyers that goods sourced from these new locations can be delivered on time and be of high quality. In addition to discussing these issues from the theoretical perspective of new structural economics,<sup>9</sup> this paper also draws on practical case studies to illustrate how triangular cooperation has been forged in the past. The key messages of this paper are that the contemporary industrial relocation from China presents a unique window of opportunity for low-wage Southern countries, and that the industries that are involved in relocation are well in line with these countries' latent comparative advantages. Whether and to what extent the relocation potential can be realized depend largely on the facilitating role of host Governments.

The remainder of the paper is organized as follows. Section 2 starts by reviewing the past waves of international industrial transfers and explains why this new wave is different in the context of China. Based on data provided by the National Bureau of Statistics of China, this section also provides preliminary and complementary evidence on the current state of industrial relocation and the changes in the unit labour cost of Chinese manufacturing workers. Section 3 examines the response strategies of Chinese labour-intensive manufacturers in dealing with rising labour costs. In particular, it relies on first-hand survey data to explore how Chinese labour-intensive manufacturers have chosen between the strategy of relocation and automation in the face of rising labour costs. Section 4 elaborates on the trilemma that is preventing China's industrial relocation from achieving its full potential and reaching the African continent. It is proposed that the establishment of special economic zones or industrial parks can be used as leverage to turn the trilemma into triple-win cooperation between global buyers, Chinese labour-intensive manufacturers and low-wage Southern countries. Section 5 draws on practical cases to illustrate how triangular cooperation can be forged and the trilemma can be turned into triple wins. Concluding remarks and concrete policy recommendations are provided in section 6.

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<sup>9</sup> New structural economics was developed by Lin (2012b) and is widely seen as the third generation of development economics. It draws on the neoclassical approach to study the determinants of economic structure and advises Governments in developing countries to play a facilitating role in the development of industries in a market economy according to each country's comparative advantages.

# 1. Contemporary Industrial Relocation From a Leading Dragon

The very concept of “international industrial transfer” dates to the mid-1930s when it was first introduced by the Japanese economist Kaname Akamatsu. However, it did not gain much attention and popularity until the 1960s and gradually became widely known as the flying-geese paradigm or FGP (Akamatsu, 1962). The key rationale behind this paradigm is that, in the pursuit of sustainable growth and economic development, the leading country (i.e., the leading goose) starts to move away from labour-intensive manufacturing, in which it is losing its comparative advantage, to higher value-added capital-intensive manufacturing activities (i.e., upgrading from the production of consumer goods to capital goods). In the meantime, the follower goose seizes the window of opportunity of industrialization by emulating and taking over the production of lower value-added labour-intensive manufacturing from the leading goose. From the perspective of new structural economics developed by Lin (2012b), both development dynamics conform to a country’s own evolving comparative advantages, which are, in turn, determined by a country’s endowment structure at that specific point in time.

As shown in table 1, the world has already witnessed a multitude of international industrial transfers since the Second World War. A common observation is that all these transfers are led primarily by traditional labour-intensive manufacturing industries, such as textiles, apparel and footwear. This remains true, even after half a century, for the contemporary industrial relocation sourced from China. However, what makes this new wave of industrial transfers *unique* and particularly important compared with any of the preceding waves is that the size of this ongoing transfer is unprecedented in history, and the “disruptive” shocks brought about by modern technologies (e.g., automation) may significantly affect or even determine the relocation potential in the future.

**Table 1:** *International industrial transfers since the Second World War*

No	Time	Industry	Transferred from (home country)	Transferred to (host country)
1	1950s	Textile	United States	Japan
2	1960s	Textile, apparel	Japan	Asian Tigers
3	1980s	Apparel, footwear and household appliances	Asian Tigers	China
4	2010s –	Apparel and footwear	China	Southeast Asia/ Africa

Note: The Asian Tigers refer to China's Hong Kong Special Administrative Region, Republic of Korea, Singapore and Taiwan Province of China.

According to Lin (2012a), the number of manufacturing jobs exposed to relocation in earlier flying geese is put at 9.7 million from Japan and 2.3 million from the Republic of Korea. Given the size of the Chinese economy, the number of jobs exposed to relocation is significantly larger. As shown in table 2, the size of China's manufacturing employment reached its peak around 2013, with over 124 million people working in manufacturing. Since industrial relocation is driven mainly by labour-intensive industries, it is thus more informative and accurate to look at the shares that are involved in these sectors. Following the dichotomous split of industries between labour-intensive and capital-intensive as suggested by Qu, Cai and Zhang (2013), about 82 million workers were involved in labour-intensive sectors in 2010 (see appendix for the list of manufacturing industries classified as labour intensive). Thus the impact of the ongoing industrial relocation from China is likely to be far more profound than that of any of the preceding international industrial transfers. Rather than being a leading goose as portrayed by the FGP, China can be more aptly described as a leading dragon.

Another interesting observation to note from table 2 is that the decline of employment in textile, apparel, leather and related products (TAL) industries is greater than in the labour-intensive sector as whole, which in turn is greater than the decline in total manufacturing. While this piece of evidence is very preliminary and descriptive, it is well in line with the FGP (i.e., industrial relocation tends to be driven by labour-intensive industries, such as TAL) and China is in the midst of a structural transformation to higher value-added activities in the tertiary sector.<sup>10</sup> Taking these numbers at face value, they suggest that the employment of China's TAL industries declined from nearly 30 million in 2010 to less than 14 million in 2018 (i.e., a decrease of 53.8 per cent over just eight years). This decline can be seen as the total effect of industrial relocation to other countries and the reallocation of workers from TAL industries to other industries characterized by higher levels of labour productivity, such as capital-intensive manufacturing industries as well as the tertiary sector.<sup>11</sup>

10 While not explicitly shown in the paper, the level of employment in the tertiary sector in China has been increasing steadily over time (i.e., up from 296 million in 2013 to 359 million in 2018).

11 One could also argue that part of the decline may displace workers and lead to unemployment. However, according to the National Bureau of Statistics of China, the unemployment rate of urban units in China has decreased from 4.1 per cent in 2010 to 3.6 per cent in 2019. Thus, the decline of TAL employment is most probably the result of cross-border industrial relocation and the reallocation of workers to other industries.

**Table 2:** Number of manufacturing jobs and rate of growth in China, by different groupings

Year	Number of employees (in millions)			Rate of growth		
	Total manufacturing	Labour-intensive manufacturing	TAL*	Total manufacturing	Labour-intensive manufacturing	TAL*
2004	84.4	48.7	16.0			
2008	105.6	62.7	18.2	+25.1%	+28.7%	+13.8%
2010	120.6	82.1	29.7	+14.2%	+30.9%	+63.2%
2013	124.4	72.9	18.6	+3.15%	-11.2%	-37.4%
2018	121.1	64.9	13.7	-2.65%	-11.0%	-26.3%

\* Refers to textile, apparel, and leather and related products industries.

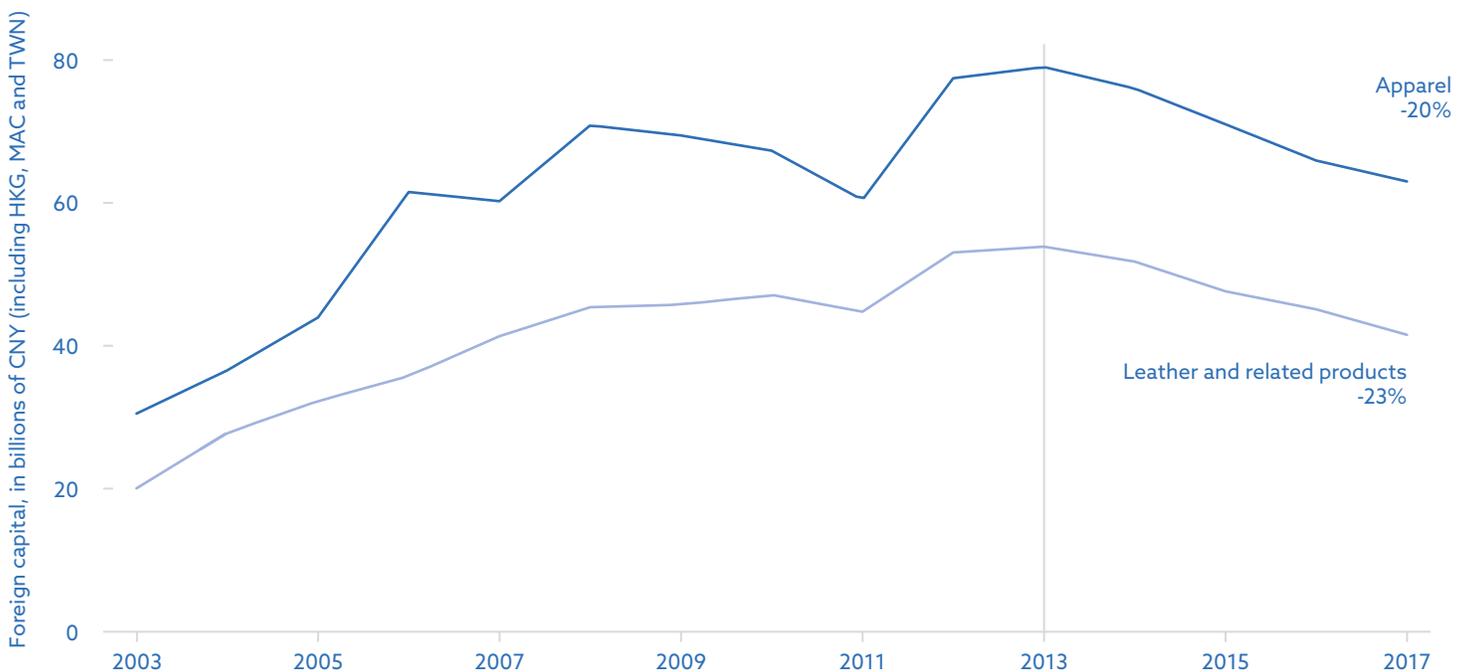
Note: Data for 2010 are derived from the 2010 China Population Census. For all the other years shown in the table, data are obtained from the China Economic Census conducted by the National Bureau of Statistics of China. Growth rates are calculated relative to data from the previous census. Detailed classification as to which industries are considered labour-intensive is shown in appendix.

As shown by various studies (e.g., Chen and Li, 2019; Xu and others, 2017), foreign-invested apparel and footwear enterprises have been the main drivers of China's industrial relocation; thus it seems plausible to get a quick sense of the scale of relocation by looking at the changes in the amount of foreign capital in these two industries. As shown in figure 3, the peak in the amount of foreign capital in apparel and leather industries occurred in 2013 and the amounts have been declining steadily since then.<sup>12</sup> By 2017, the amount of foreign capital had declined by 20 per cent for apparel and 23 per cent for leather manufacturing (the latter is comprised of footwear and other leather-related products). These numbers are in the same range as the estimates suggested by Chen and Li (2019), who found that the current scale of relocation from China ranges from 15 per cent for footwear to 25–35 per cent for the apparel industry.<sup>13</sup>

12 According to the National Bureau of Statistics of China, foreign capital is formed through investments by foreign investors, which is akin to FDI stocks.

13 A rigorous examination of the scale of China's industrial relocation is beyond the scope of this study. Numbers provided here should be seen as complementary evidence to prior studies that attempted to examine the scale of relocation (e.g., Chen and Li, 2019; Xu and others, 2017).

**Figure 3:** Amount of foreign capital in apparel and leather industries, 2003–2017



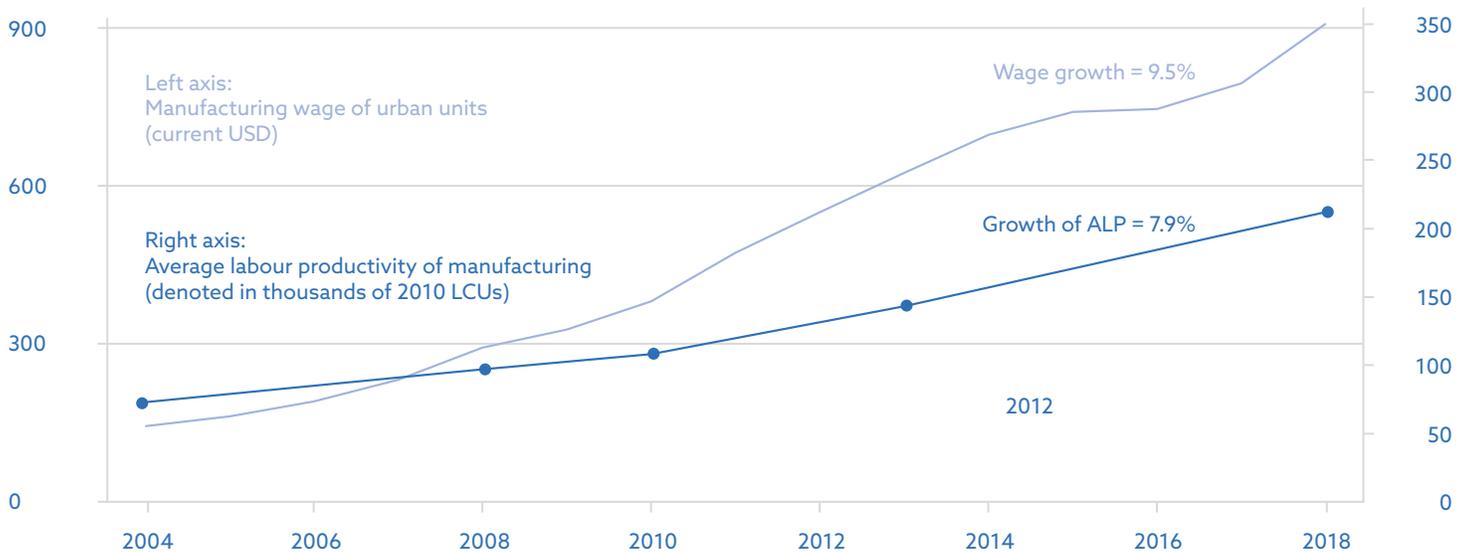
Source: National Bureau of Statistics of China, 2019.

Note: CNY refers to Chinese Yuan; HKG, MAC and TWN refer to Hong Kong, Macau and Taiwan, China respectively

Before proceeding, it is also helpful to shed some light on the determinants of China's ongoing industrial relocation. Among all the factors discussed in the literature, the most fundamental determinant is the rapid rise in labour costs. The underlying rationale is that the cost of labour accounts for a sizeable share of total production costs of labour-intensive sectors. According to an in-depth firm-level survey based on Chinese firms as well as other studies based on the United States apparel manufacturers (e.g., Chen and Li, 2019; Datta and Christoffersen, 2005), the share of the cost of labour in the total production cost typically is 30–40 per cent for clothing and footwear industries. Thus, these sectors are more sensitive to rising labour costs (e.g., wages) and prone to production relocation to other places characterized by lower wages and an abundant supply of low-skilled labour.<sup>14</sup> As shown in figure 4,

14 Other studies (e.g., Chen and Li, 2019) have also shown that the difference in tariff rates in entering the United States and European Union markets and the stringency of environmental protection regulations have played an important role in China's ongoing industrial relocation. While the importance of these factors is unequivocal, their role is not as fundamental as the surge in labour costs in driving labour-intensive manufacturers to relocate production abroad. Moreover, there is also evidence that industrial relocation has taken place within China (Qu, Cai and Zhang, 2013; Chen and Li, 2019). Moreover, China has seen significant reductions in pollution intensities from manufacturing in recent years. This reduction is due mainly to large improvements in production techniques driven by technology and regulations (Cole, 2019; Qu, Cai and Zhang, 2019). Manufacturing relocation to other parts of the world may help to reduce manufacturing pollution in China but only marginally, since labour-intensive manufacturing is the most prone to relocation but is generally much less polluting than other manufacturing industries. This also means that the relocation of labour-intensive manufacturing from China to low-wage Southern countries is unlikely to cause significant pollution. This is also in line with the evidence that we have gathered from extensive field research. Production technologies and machinery used in host countries are even more advanced than those used in China. New machines are generally more efficient and often more environmentally friendly. Thus, production relocation of labour-intensive manufacturing is less likely to create the same environmental issue as it did when labour-intensive manufacturing was moving from the "Asian Tigers" to mainland China in the 1980s–1990s.

**Figure 4:** China's manufacturing wage and average manufacturing labour productivity



Source: National Bureau of Statistics of China, 2019, and World Development Indicators, 2019.

the average wage of a Chinese manufacturing worker has been increasing at an annual rate of 9.5 per cent since 2004,<sup>15</sup> reaching over \$900 per month in 2018, whereas the compound annual growth rate of manufacturing labour productivity is 7.9 per cent over the same period. This implies that the growth rate of wages has outpaced the growth of average labour productivity by 1.6 percentage points per year, eroding China's cost competitiveness in labour and comparative advantages in labour-intensive manufacturing activities. Similar findings are also shown by Li and others (2014), who found that the stronger growth in wages relative to labour productivity has placed significant pressure on the survival of Chinese labour-intensive manufacturers. In addition, a study by Gan, Hernandez and Ma (2016) found that the increase in the minimum wage in China is significantly associated with the decline in Chinese exports and this negative effect is significantly stronger for labour-intensive manufacturers. While the issue of relocation is not discussed in Gan, Hernandez and Ma (2016), this piece of evidence seems to be perfectly in line with China's industrial relocation led by labour-intensive manufacturing firms.

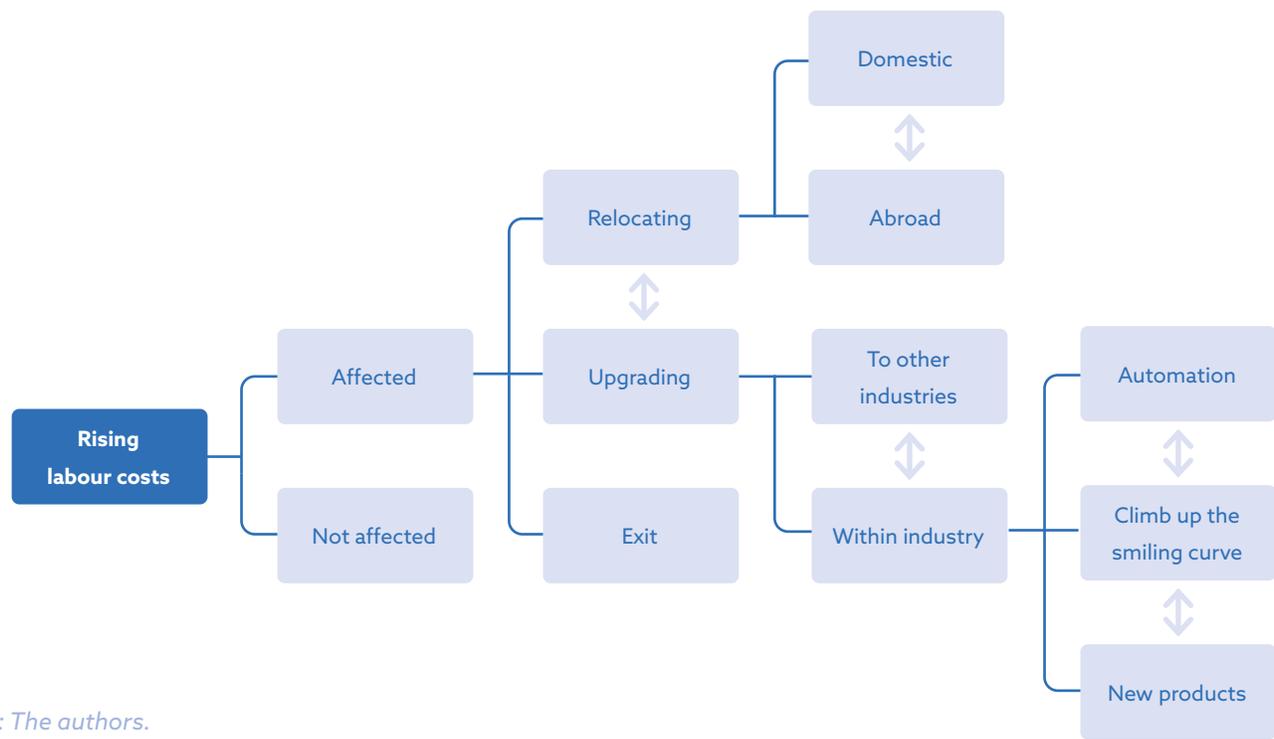
A closer look at figure 4 also reveals that the slope of the manufacturing wage curve has become somewhat steeper since 2016. This seems to imply that, as industrial upgrading and structural transformation continue advancing in China, the growth in the manufacturing wage may accelerate in the future, pushing more labour-intensive manufacturers to relocate production capacities abroad. In summary, the leading dragon took off in the early 2010s but the full relocation potential has yet to be realized. Moreover, it cannot be overemphasized that this unique window of opportunity enabled by industrial relocation from China has enormous implications for the other low-wage Southern countries, in particular those that are projected to experience rapid population growth in sub-Saharan Africa.

15 To ensure accuracy, the growth rate of the manufacturing wage is calculated based on the local currency unit (LCU) in constant 2010 prices and the consumer price index is used as the price deflator.

## 2. Response Strategies: The Window of Opportunity for Industrialization in Low-wage Southern Countries

While relocating production to places characterized by lower wages and an abundant supply of labour has been a popular strategy in the past, it may no longer be the most preferred strategy in the modern era. Thanks to the tremendous technological progress and the emergence of digital industries, labour-intensive manufacturers are now provided with more choices and strategies to cope with the pressure from rising labour costs. Figure 5 represents an attempt to map a list of all the possible strategies.

**Figure 5:** Mapping of firms' response strategies to rising labour costs



Source: The authors.

As shown in figure 5, when firms are confronted with rising labour costs, the immediate impacts on the firm can be categorized into two groups: one that remains unaffected (i.e., firms not taking any actions) and the other that is affected and will take actions to respond to the rise in labour costs. Firms in the latter group could either leave the market completely (i.e., exit), upgrade and/or relocate production to places fueled with an abundant supply of low-cost labour. It is important to note that the strategies of upgrading and relocating are not mutually exclusive and can be employed in tandem by the firm. In terms of the relocation strategy, the option boils down to relocating within a country's own territory to other cities or regions (i.e., domestic relocation) or across national borders to other countries. As for the strategy of upgrading, firms could choose to jump over to other (manufacturing or service) industries or upgrade within the same industry by (a) deploying more machinery and automation technologies in the production process so that the reliance on labour can be decreased and the negative shocks brought about by rising labour costs can be mitigated; (b) moving along the smiling curve of the value chain towards the two ends (e.g., start to specialize in design, research and development or marketing activities); and/or (c) producing differentiated (new) products through innovation. Again, all these upgrading strategies are not mutually exclusive. Firms may employ one or more strategies at the same time to cope with the rise in labour costs.



The tremendous progress in modern technologies has made this new wave of international industrial transfers without parallel.

As noted earlier, the tremendous progress in modern technologies (e.g., industrial robots) has made this new wave of international industrial transfers without parallel. Routine and repetitive tasks have been increasingly replaced and automated by machines and robots. This replacement can be widely seen in the automotive industry where the use of robotic arms is pervasive in production. According to a recent study by Acemoglu and Restrepo (2020), the introduction of industrial robots has a significant negative displacement effect across local labour markets in the United States. Now this automation trend seems to have found its way to transforming the traditional labour-intensive sectors that have been slow and unresponsive in adopting automation technologies (e.g., apparel and footwear).

In order to find out what the most pressing challenges faced by Chinese labour-intensive manufacturers are and how the latter have responded or would respond in dealing with those challenges, the Institute of New Structural Economics (INSE) and the Overseas Development Institute (ODI) collaborated on a pilot survey in 2017 covering a total of 640 labour-intensive manufacturers located in the Pearl River Delta region<sup>16</sup> and the Yangtze River Delta region<sup>17</sup> in China. With a response rate of 45 per cent, the firms covered in Xu and others (2017) were chosen according to the list of above-scale industrial companies included in the China Industrial Enterprises Database, which provides detailed company account data as well as a wide range of other financial information on firms. For conciseness, readers could refer to Xu and others (2017) for more details on the sampling strategy. In addition, the Pearl River Delta and Yangtze River Delta regions are among the pioneers in China's early industrial development in labour-intensive manufacturing as well as the regions that have

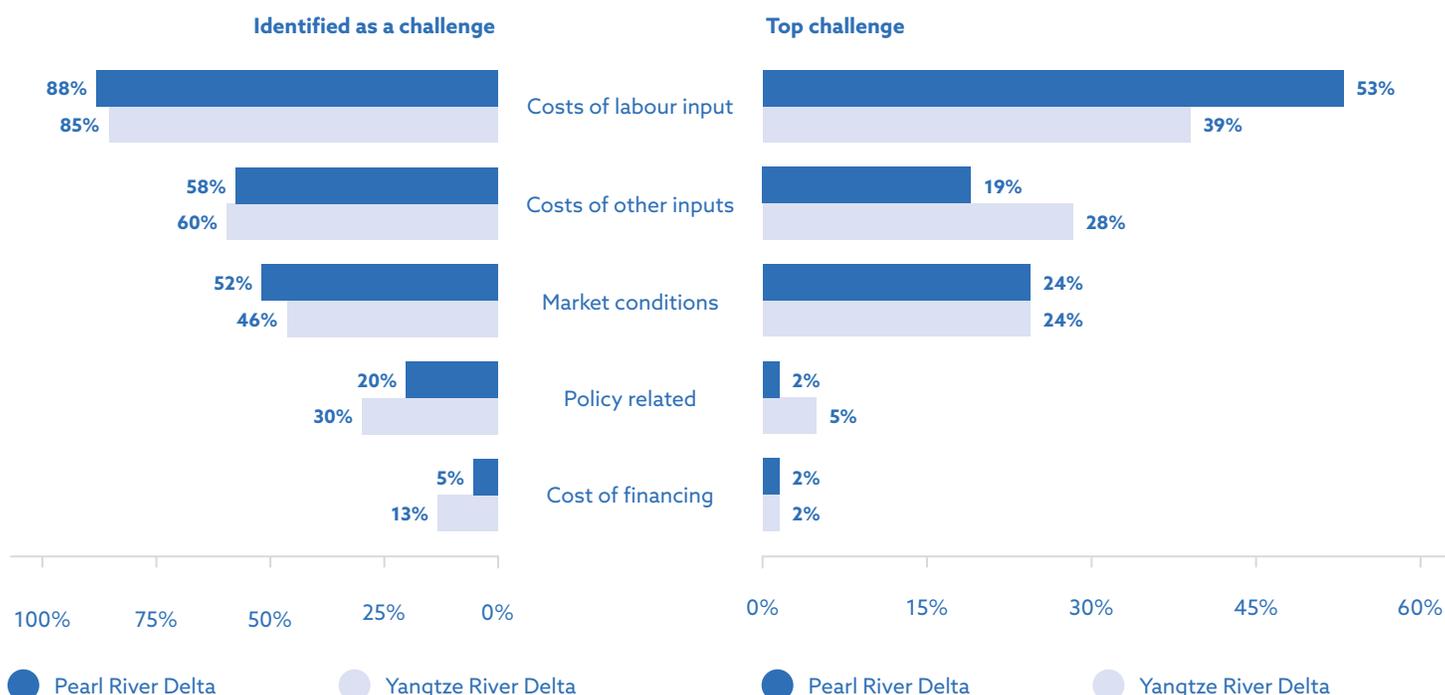
16 The Pearl River Delta region consists of Guangzhou, Shenzhen, Zhuhai, Foshan, Dongguan, Zhongshan, Jiangmen, and parts of Huizhou and Zhaoqing in southern China.

17 The Yangtze River Delta region is an economic region centred on the Yangtze Delta in China that encompasses Shanghai municipality and Jiangsu, Anhui and Zhejiang provinces in southeastern China.

experienced the most significant challenges from rising labour costs. As a result, these two regions have the greatest potential for industrial relocation and are the most relevant regions to cover in the survey.

A key finding from the firm-level survey is that rising labour costs were found to be the most pressing challenge faced by Chinese labour-intensive manufacturers. As shown in figure 6, over 85 per cent of the survey respondents identified rising labour costs as a key challenge confronting the firm, and more than half of the firms (53 per cent) from the Pearl River Delta region also reported rising labour costs as the biggest challenge. This share is somewhat smaller for firms from the Yangtze River Delta region (39 per cent) but most firms considered the increase in labour costs as their biggest challenge. Given the fact that the unit labour cost in China has been increasing rapidly in the past 15 years (see fig. 4), this finding conforms to the conjecture that Chinese labour-intensive manufacturers are affected most by the increase in labour costs. Next to the rising labour costs, the two other important challenges identified by the survey respondents were the rising costs of other inputs (e.g., utility costs) and changes in market conditions (e.g., shrinking market demand).<sup>18</sup> It should be noted that for ease of exposition, challenges of a similar nature were grouped into one category. For greater details on the specific challenges identified by the respondents, please refer to Xu and others (2017).

**Figure 6:** Challenges identified by the firms surveyed

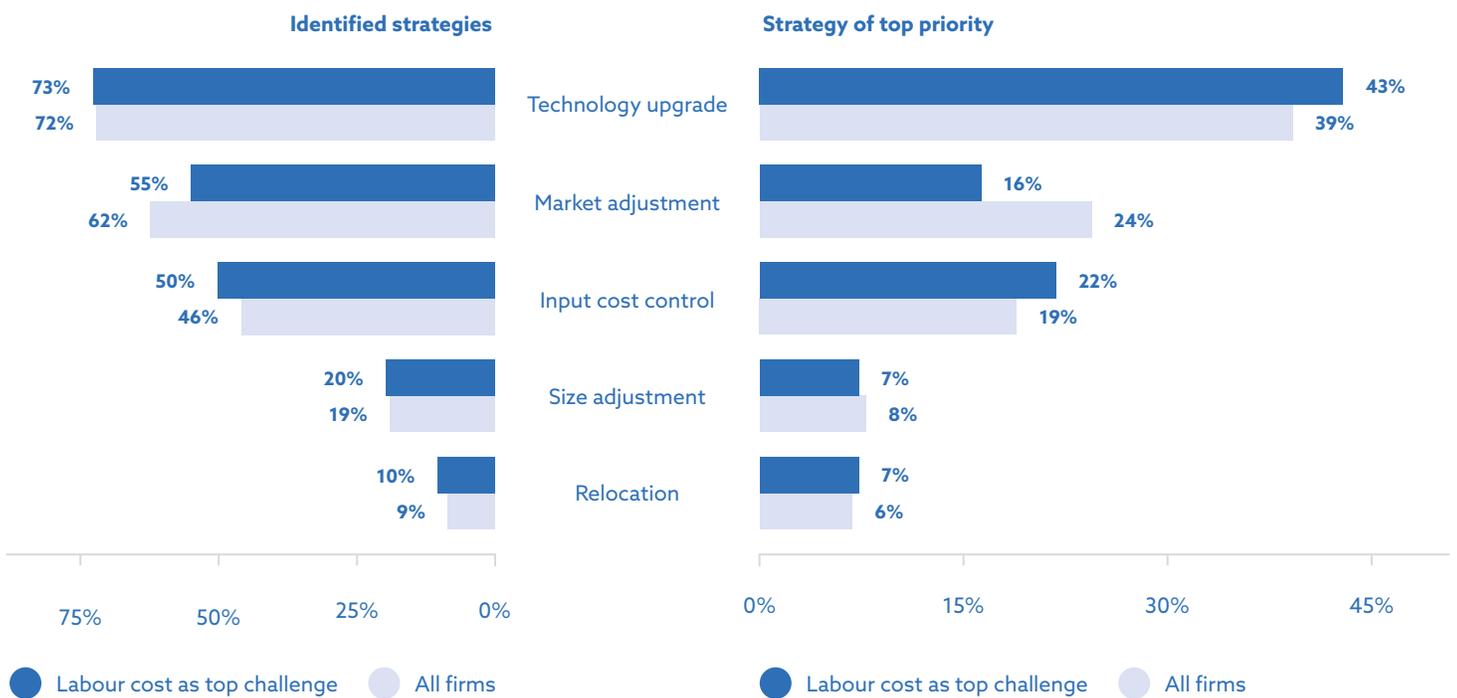


Source: INSE-ODI survey data collected by Xu and others (2017).

<sup>18</sup> Costs of other inputs include the rising cost of land, the rising cost of raw materials and components, and the rising cost of research and development (R&D) and design as well as the increase in utility costs (e.g., electricity and water). As for market conditions, they comprise declining market demand, increasing market competition, insufficient suppliers, and changes in the social and political environment.

The majority of the survey respondents indicated that technology upgrading (i.e., deploying more machines and automation technologies) was their most preferred response strategy. This holds true even if the sample of firms was restricted to those that considered rising labour costs as their biggest challenge (see the left panel of figure 7). Merely 6–7 per cent of the firms reported considered relocation as their top response strategy. This is an underestimation, however, due to an unavoidable selection bias in the sampling strategy, since it is very difficult, if not impossible, to survey firms that have already relocated to foreign countries. China’s industrial relocation has been in motion since the early 2010s but the pilot survey was conducted in 2017. Thus, the sample of firms could not cover those that had already been entirely relocated, leading to an underestimation of the extent of relocation. When we take a closer look at the sectoral level, an interesting empirical pattern emerges: for the footwear industry, for example, out of the 89 firms covered in the sample, 12 (i.e., 13.5 per cent) reported cross-border relocation as their top response strategy to rising labour costs.<sup>19</sup>

**Figure 7: Firms’ response strategies to the challenges**



Source: INSE-ODI survey data collected by Xu and others (2017).

19 For ease of exposition and without loss of generality, the response strategies of a similar type are grouped into one category akin to the grouping of identified challenges. For greater details on the exact response strategies reported by the firms, please refer to Xu and others (2017).



The window of opportunity for the other low-wage Southern countries to develop and attract labour-intensive manufacturing from China is likely to remain open in the next 10 to 15 years-

Despite the fact that the majority of the survey respondents reported technology upgrading as their most preferred response strategy to rising labour costs, the likelihood of large-scale automation in traditional labour-intensive sectors remains far-fetched. The fact that certain tasks or production procedures can be automated does not necessarily imply that they will be automated. The former is a technical consideration signaling a technology possibility frontier, while the latter is an economic consideration that also takes cost-benefit analysis into account. This point is best exemplified by the recent renunciation of the Speedfactory established by one of the world's largest and the most technologically advanced sportswear giant: Adidas. The Speedfactory was launched in 2016 and was aimed at producing shoes in Germany and the United States by utilizing state-of-the-art automation technologies. After over three years of operation, the Adidas experiment and adventure in automated factories have ended in failure. While the exact reasons are not disclosed by the company, it is almost certain that the ability to automate the production of shoes does not guarantee the ability to retain the same level of profitability when the supply of low-wage labour is widely present in other parts of the world. In China, manufacturers of footwear have also encountered difficulties in introducing automated production processes because of clients' frequently changing specifications and fashion styles.

Thus, the window of opportunity for the other low-wage Southern countries to develop and attract labour-intensive manufacturing from China is still open. In a recent study by Altenburg and others (2020), it is estimated that this window of opportunity is likely to remain open in the next 10 to 15 years. Nonetheless, countries with latent comparative advantages in labour-intensive manufacturing are strongly advised to act quickly and effectively before full production automation can change from being technologically feasible to economically viable.

### 3. Riding the Wave: From Trilemma to Triangular Cooperation

As labour costs keep on rising in China, it is an irreversible trend that China will lose its comparative advantage in labour-intensive manufacturing and many more Chinese labour-intensive manufacturers will relocate production capacity to countries characterized by an abundant supply of low-cost labour. This window of opportunity will not be shut yet by the rise of automation technologies, since it might be technologically feasible to automate the production of labour-intensive manufactured goods but it seems that there is a long way to go before such automation can become economically viable. Therefore, it is of great importance for those low-wage Southern countries to fully realize the potential of this golden opportunity and make rigorous efforts to take advantage of it such that the engine of industrialization and economic structural transformation can be set in motion.

There is ample evidence in the literature that, among those Chinese firms that have already shifted productions abroad, the majority went to countries in Southeast Asia, while a much smaller share has chosen to relocate to Africa (e.g., Brautigam, Tang and Xia, 2018; Chen and Li, 2019; Xu and others, 2017; Yang, 2016). More specifically, based on the China outward FDI database compiled by the Ministry of Commerce of China, Chen and Li (2019) estimated that close to 50 per cent of China's outward FDI in labour-intensive sectors went to Southeast Asian countries and about 10 per cent landed in Africa (e.g., Egypt, Ethiopia and Nigeria).



Chinese labour-intensive manufacturers will relocate production capacity to countries characterized by an abundant supply of low-cost labour.

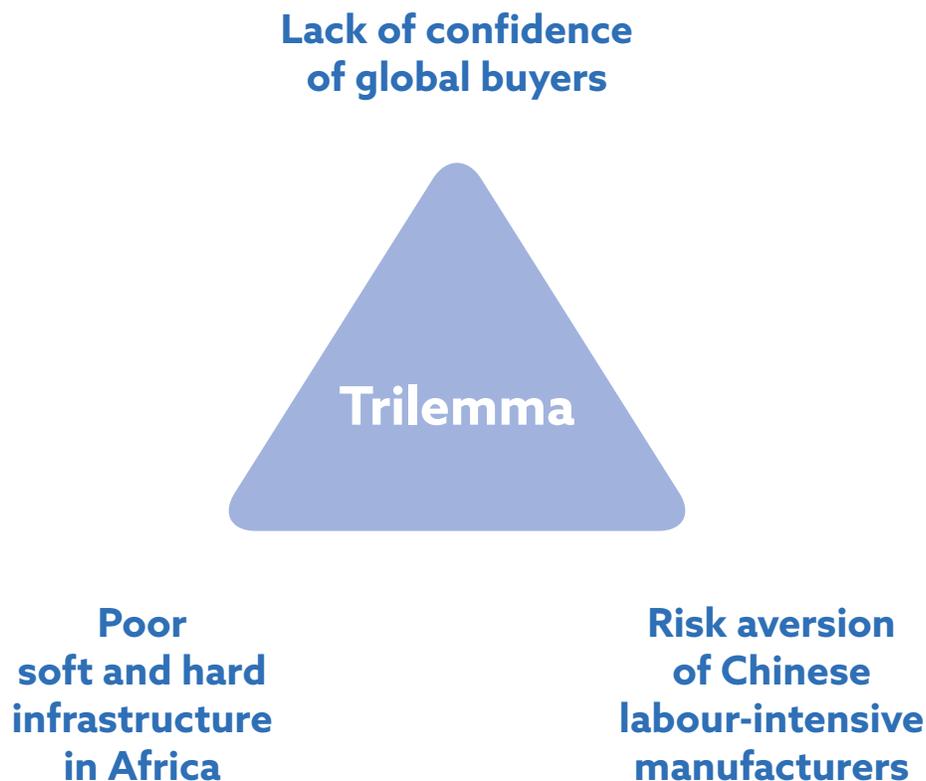
A key reason behind this relocation pattern can be attributed to the trilemma summarized in figure 8. Apparel and footwear products fall under the heading of “fast fashion goods”. Consumers’ taste and demand for these goods are fast-changing, and there is constant pressure for producers to respond to these changes quickly by delivering goods on time and of high quality. Thus, a key component of the trilemma is the lack of confidence on the part of international buyers that these fast-fashion goods that meet high-quality standards can be delivered on time. In terms of geographical proximity and closeness of historical business ties, Africa is also much more distant for Chinese investors. As a result, labour-intensive manufacturers from China tend to be highly risk averse when venturing into these uncharted investment destinations. The issue of risk aversion is further exacerbated by the fact that both soft (e.g., macroeconomic stability, social security, weak regulations) and hard infrastructure (e.g., supply of water and electricity, and reasonable road conditions) are inadequate or even absent in some African countries. These binding constraints have not only prohibited Africa’s own growth potential but also significantly hindered or fully exhausted the investment appetite of Chinese labour-intensive manufacturers.

In order to overcome this trilemma and turn it into triple wins, it is critically important that the first-movers challenge be overcome. First-movers (i.e., the first batch of labour-intensive manufacturers to set up factories in uncharted investment destinations) need to deal with the fear of the unknown. The chance of success is highly uncertain and all the risks are borne by the firm itself.

The experience of the first movers on the ground would generate extremely valuable information for other prospective entrants at no cost. Whether the first movers become successful or not, the fellow competitors could always learn a great deal from the experience of the first movers. This can be seen as a typical case of positive externality that is not internalized by the investing firm and where government intervention is urgently needed to restore the socially optimal outcome.

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**Figure 8:** *Trilemma in attracting industrial relocation to Africa*



Source: *The authors.*

One pragmatic solution for host Governments to overcome the first-movers challenge is to target anchor firms from China. These firms are generally large in size, are part of the global production networks and enjoy a good reputation internationally in delivering high-quality goods on time. Thus, instead of spreading the time and resources to attract a large number of smaller, labour-intensive manufacturers, the effort is likely to be more effective if the target can be restricted to attracting one or two anchor firms initially. It is always more difficult to coordinate the needs of a larger number of firms, while catering to the needs of just one or two anchor firms should be easier and much more feasible. Moreover, given the reputation of the anchor firm and the fact that it is part of global value chains, the attraction of anchor firms could also boost the confidence of international buyers, helping to resolve the trilemma. In addition, the success of the anchor firm could also generate a “demonstration effect”, which could serve as a significant stimulus, motivating other investors to follow suit, which may eventually lead to the formation of industry clusters in the region.

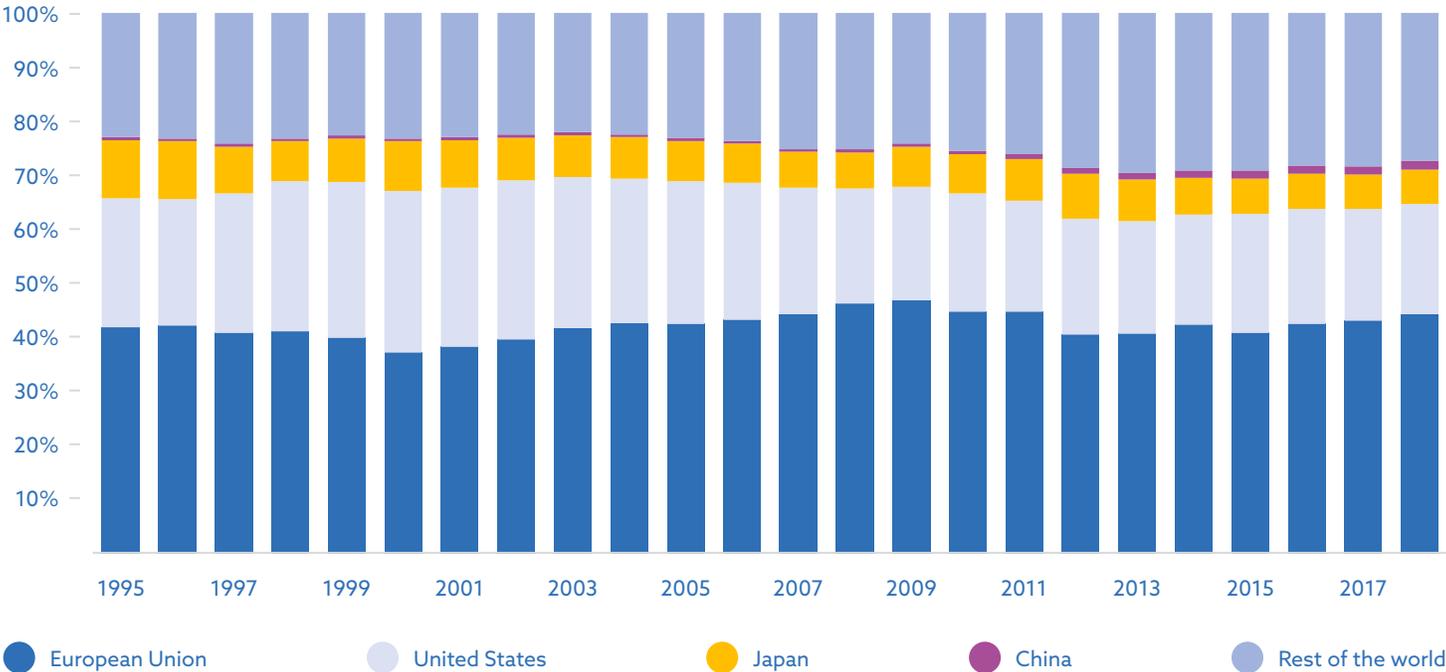
As noted earlier, most African countries suffer from nationwide poor soft and hard infrastructure and it is impossible to improve everything at once across the entire country. Thus, the establishment of a limited designated area, such as industrial parks or special economic zones (SEZs) is strongly recommended such that the (soft and hard) infrastructure required by the anchor firms can be provided to the greatest extent possible. Not only is the establishment of SEZs an important means of leveraging to turn the trilemma around but it is also the prerequisite before quick wins can be achieved in host countries. In setting up SEZs, the Governments can request development financing institutions to finance the much-needed hard infrastructure (access roads, warehouse, electricity, water, etc.) through long-term loans and support soft infrastructure development (policy regulations, one-stop-shop, etc.) through technical assistance. The involvement of these development financing institutions can significantly enhance the confidence of the first movers and other investors, as demonstrated in the case of Ethiopia.

If this triangular cooperation can be forged, the trilemma depicted in figure 6 can be turned into triple wins for all the stakeholders involved. Chinese labour-intensive manufacturers, for example, could increase their profit margins by reducing the production costs, enabled by the abundant supply of low-cost labour in Africa. For export-oriented manufacturers, the total costs of production can be brought down further because of the favourable tariff arrangements enjoyed by the African countries. For instance, under the African Growth and Opportunity Act enacted by the United States and the Everything but Arms initiative of the European Union, many countries in Africa are exempted from paying custom duties for their exports to the United States and the European Union. Taking footwear as an example, exports of shoes from China are subject to a 12 per cent tax upon entering the European Union market. By contrast, over 30 countries in Africa (e.g., Ethiopia, Senegal and Uganda) are entitled to tax exemption for footwear (European Commission, 2019). All other things being equal, this is a 12 per cent reduction in production costs (or the equivalent of a 12 per cent increase in the profit margin) for Chinese footwear manufacturers serving the European Union market.

From the perspective of the host countries, the relocation of firms from China can help to generate a significant number of jobs for the rapidly growing population in a region. In the meantime, it could also assist the host country to kick-start industrialization through the development of labour-intensive manufacturing. In addition, there is a large body of empirical studies showing that FDI not only brings in superior managerial skills and production knowledge but is also conducive to generating positive spillover effects through forward and backward linkages (e.g., Bwalya, 2006; Gorodnichenko, Svejnar and Terrell, 2014; Javorcik, 2004). Civil society in host countries can act as a key stakeholder to ensure that the relocated Chinese firms are aligned with national social and environmental standards while generating economic benefits for the host countries.

As shown in figure 9, the world’s major consumers of clothing are from the United States and Europe, accounting for two thirds of the world’s total imports of clothing.<sup>20</sup> The geographical proximity of Africa to Europe and the United States may even shorten the delivery time for shipping and serve the buyers more responsively than sourcing these goods from China or Southeast Asia, which are geographically more distant.

**Figure 9:** World’s major importers of clothing, 1995–2018



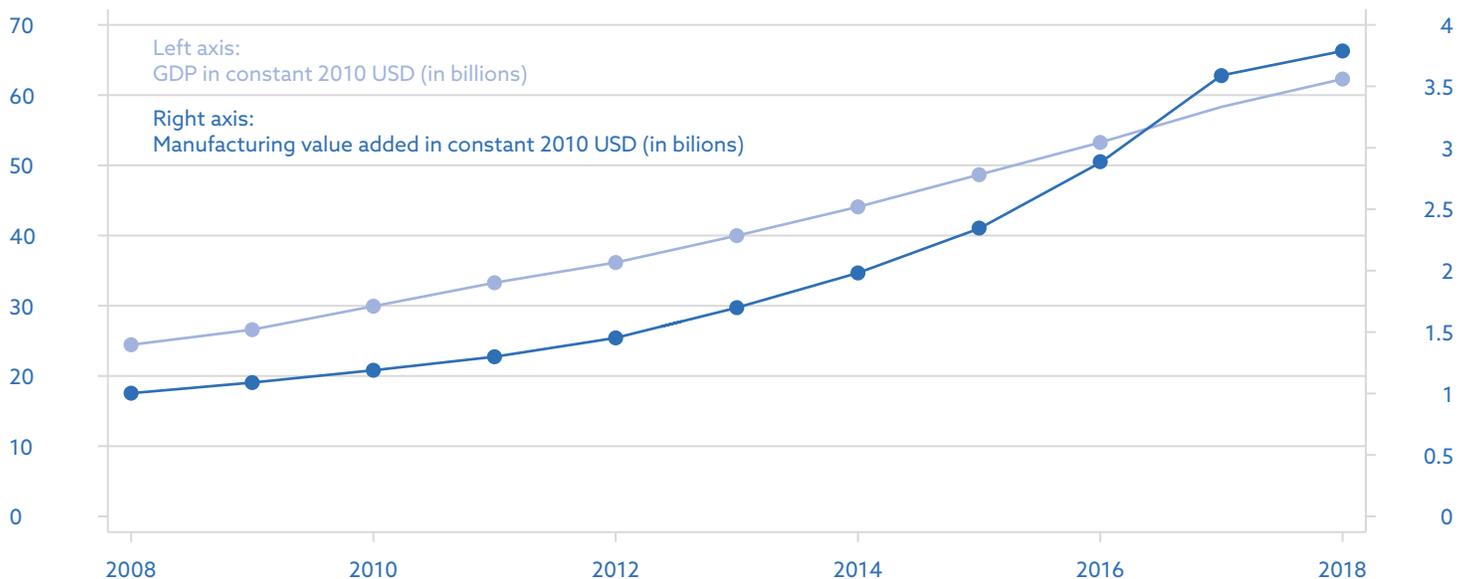
Source: United Nations Conference on Trade and Development, 2019.

<sup>20</sup> The same consumption pattern holds true for the other labour-intensive manufactured goods, such as footwear and toys.

# 4. Case Studies: Ethiopia and Beyond

A well-known example of how the trilemma has been turned into triple wins through triangular cooperation can be found in Ethiopia, which is considered one of the most successful low-wage Southern countries over the past decade. According to data compiled by the World Bank (2019), the growth of Ethiopia's GDP was close to 10 per cent annually between 2008 and 2018, and the growth of manufacturing value added even reached more than 14 per cent annually over the same period (fig. 10). The fact that the manufacturing sector has outperformed the aggregate economy in growth suggests that the fast development of the manufacturing sector has been a key contributor to the country's admirable economic performance. The rapid development of the manufacturing sector, in turn, is closely associated with Ethiopia's development strategies in giving priority to the development of sectors that are in line with its latent comparative advantages: an abundant supply of low-cost labour as well as hides, skins and processed leather.

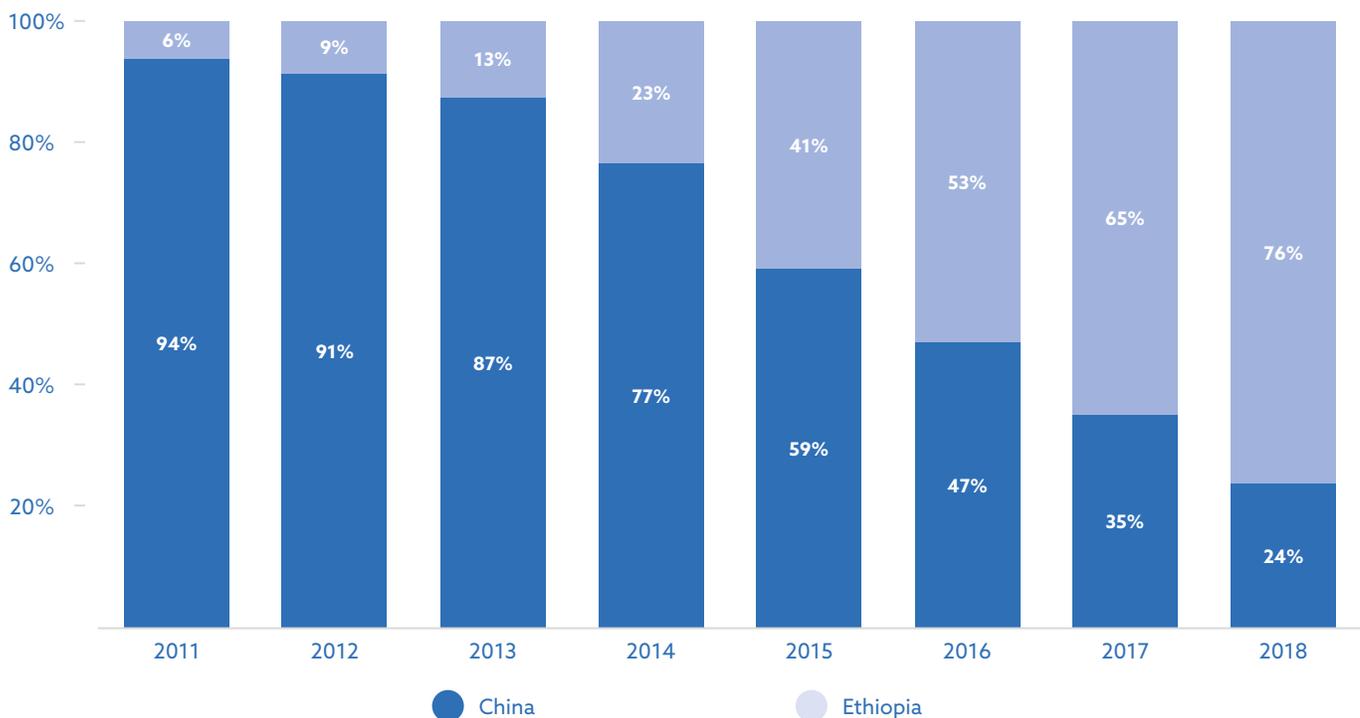
**Figure 10:** Ethiopia's GDP and manufacturing value added, 2008–2018



Source: World Development Indicators, 2019.

In order to set the country on a higher-growth path, the Government of Ethiopia launched the ambitious five-year Growth and Transformation Plan (GTP) in 2010. As part of the GTP, the Government placed a strong emphasis on attracting FDI and promoting exports of labour-intensive manufactured goods, such as leather goods, apparel and textiles. To show its commitment and fulfil the goals set out in the GTP, it was highly proactive in investment promotion and involved the top leadership in that process. Upon the recommendation of Justin Yifu Lin, then the World Bank Chief Economist and Senior Vice-President, the late Prime Minister of Ethiopia Meles Zenawi went to China in August 2011 on a business mission, inviting Chinese footwear manufacturers to invest in the Chinese-built and -owned Eastern Industrial Zone in Ethiopia. Such a proactive investment promotion effort by the top leadership quickly paid off. By October 2011, Huajian Industrial Holding Company Limited, a giant original-design manufacturer specializing in the production of high-end footwear for women, decided to relocate production to Ethiopia. In order to have a smooth transition in relocating production, Huajian recruited 86 local workers from Ethiopia and sent them to its manufacturing base in China for training. In less than three months after its investment decision, Huajian had already set up two production lines in Ethiopia, employing 600 local workers. By May 2012, Huajian had become the largest footwear exporter in Ethiopia and the number of local workers expanded very rapidly, reaching nearly 7,000 by the end of 2018. As shown in figure 11, the employment share of Ethiopian workers engaged in footwear production continued to increase over time. By 2018, the Ethiopian workers accounted for three quarters of Huajian's total labour employment. This can be seen as an iconic example of production relocation from China as well as the associated job-creation potential.

**Figure 11:** Changes in Huajian's employment shares between China and Ethiopia



Source: Authors' collection of data from field research.

Apart from proactive investment promotion by the top leadership, another key element of Ethiopia's success is the improvement of soft and hard infrastructure provided in the EIZ, which functioned as a "nest" for the pilot "bird". This view is also supported in a study by Moller and Wacker (2017), who found that public investments in infrastructure at the expense of restrained government consumption were the key driver of Ethiopia's fast growth. The great success of Huajian also quickly generated a snowball effect. In 2015, Ethiopia succeeded in attracting the world's second-largest apparel company, the Phillips-Van Heusen Corporation, to set up its production base and clusters of suppliers in the newly built Hawassa Industrial Park. As a flagship industrial park, the Government of Ethiopia aspires to utilize this park as leverage to transform the country into the manufacturing hub of the African continent by 2025 (Mihretu and Llobet, 2017).

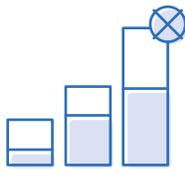
Since a larger-scale relocation is expected from China in the future,<sup>21</sup> there is a greater need for the presence of an enabler or facilitator to overcome the trilemma and help to turn it into triple wins. It can be summarized from the preceding discussions that the enabler should have the capacity to identify sectors in which a country has latent comparative advantages and then advise the host Government to prioritize development strategies such that limited resources can be allocated for their most efficient use and to generate the largest possible returns. In addition, the insights of industry-specific knowledge as well as the access to a large pool of companies with relocation potential are highly desired features of the enabler. This not only helps to reduce information asymmetry and keep all the stakeholders fully informed about business potential but also serves as a unique platform for linking the companies with the suitable target countries for production relocation.

Making the promotion of triangular cooperation a core objective, the Department of International Development Cooperation (DIDC) of the Institute of New Structural Economics at Peking University can be considered as one such enabler. DIDC has been engaged in a multitude of consulting projects, aiming to forge triangular cooperation. For instance, in advising the Kaduna State Government of Nigeria to kick-start industrialization through the development of garment and footwear manufacturing as well as the attraction of Chinese manufacturers to invest and produce in Kaduna, DIDC worked closely with two leading industry associations from China – the China National Textile and Apparel Council and the China Leather Industry Association – and used their platforms to promote the business opportunities and investment potential of Kaduna State to the member companies of the association. This direct link can reduce information asymmetry to the greatest extent and help to boost the confidence of investors as well as global buyers. In the case of advising Uzbekistan on its early industrial development, DIDC also played a great facilitating role in expanding financing channels through triangular cooperation with the Asian Development Bank as well as other international development agencies.

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21 In a recent report by Chen and Li (2019), it was found that giant Chinese labour-intensive manufacturers that have relocated productions abroad in the past will continue to expand the scale of relocation in the coming years, and a number of new labour-intensive manufacturers (i.e., firms that invested and established factories abroad for the first time in 2019) are also planning to move productions abroad.

# 5. Conclusion and Policy Recommendations



There is already growing evidence that wages have been rising quickly among countries in Southeast Asia and the appeal of low-cost labour in the region is facing decline.

Since China will join the ranks of high-income economies by 2025, it is an irreversible trend that China will gradually lose most of its comparative advantages in labour-intensive manufacturing, and a larger scale of industrial relocation seems to be well on its way. There is ample evidence that countries from Southeast Asia have benefited tremendously from the ongoing industrial relocation from China, yet the size of their economies and labour force may seem far too small to accommodate the full relocation capacity of Chinese labour-intensive manufacturing. There is already growing evidence that wages have been rising quickly among countries in Southeast Asia and the appeal of low-cost labour in the region is facing decline. Given its abundant supply of low-cost labour, vast land area and highly favourable export tariffs, Africa is more suited than ever to develop and take over labour-intensive manufacturing from China. However, this relocation process is not automatic and would require the African Governments to be highly proactive in investment promotion and play a facilitating role in removing the constraints that are preventing them from attracting foreign investments.

According to the new structural economics proposed by Lin (2012b), it is of critical importance for low-income Southern countries to keep the transaction costs in check such that their latent comparative advantages can be turned into competitive advantages. In the end, a country's global competitiveness hinges on the summation of factor costs of production and transaction costs.

Owing to the lack of financial resources, it is impossible for the host Government to improve or overhaul the infrastructure across the entire country at once. Thus, it is strongly advised that the host Government should strategically utilize limited resources to improve soft and hard infrastructure in a geographically designated area, such as SEZs or industrial parks. After all, what matters most for the success of foreign firms is whether infrastructure and related policy support are provided in the limited area where firms operate. If the host Government is also short on financial means to establish a functioning SEZ or industrial park, asking for support from development finance institutions is encouraged. Development finance institutions (e.g., the World Bank Group, the African Development Bank and national development banks) and aid agencies could step in through the provision of patient capital and technical assistance. Unlike deposit-taking and profit-maximizing commercial banks, national development banks often rely on sovereign creditworthiness to issue long-term bonds in capital markets, which can help them to be better positioned to provide long-term industrial finance. Yet such a maturity-lengthening role entails the following: that Governments as owners of development banks have stronger credibility and that development banks be well-governed and have high monitoring skills and quality (Schclarek, Xu and Yan, 2019). Evidence also shows

that multilateral development banks (MDBs) are willing to finance risky projects that may not be financed by the private sector. MDBs can provide patient capital in risky projects because they have informational advantages regarding country risks and strong monitoring capacity, and they enjoy preferred creditor status to encourage risk-averse private capital to co-finance projects via syndicated loans (Gurara, Presbitero, and Sarmiento, 2020). Moreover, the eight major initiatives proposed at the 2018 Beijing Summit of the Forum on China-Africa Cooperation (FOCAC) are also well aligned with the endeavour of removing constraints in kick-starting Africa's industrialization.<sup>22</sup> For instance, for the first initiative, which focuses on industrial promotion, Chinese companies are strongly encouraged "to increase investment in Africa"... and "build and upgrade a number of economic and trade cooperation zones in Africa."<sup>23</sup> The Government of China encourages companies to "make good use of the China-Africa Development Fund, the China-Africa Fund for Industrial Cooperation and the Special Loan for the Development of African SMEs" [small and-medium-sized enterprises].

As for the improvement of infrastructure connectivity in Africa, the second initiative has mapped out a clear cooperation plan with the African Union. The Government of China will strengthen the support of "Chinese companies in participating in Africa's infrastructure development by way of investment-construction-operation or through other models, with [the] focus on enhancing cooperation on energy, transport, information, telecommunications and cross-border water resources."<sup>24</sup> On the basis of following multilateral rules and procedures, the Government of China is also committed to "support[ing] African countries in making better use of financing resources of the Asian Infrastructure Investment Bank, the New Development Bank, and the Silk Road Fund."<sup>25</sup>

Second, owing to the lack of confidence from international buyers that goods sourced from new locations can be delivered on time and be of high quality, it is advised that the host Government should aim to attract anchor firms, which are generally large in size, are part of the global production network and enjoy a good reputation internationally. Not only can these firms help to boost global buyers' confidence but, as found by Xu and others (2017), larger firms are also more inclined to relocate production abroad. Moreover, as the success of Ethiopia shows, a proactive investment-promotion effort involving the top leadership is very important. This is especially true in the case of Chinese firms, which are accustomed to having a close collaborative relationship with the local and national governments. The involvement of the top leadership could also function as a signal to the outside world that the current Administration is committed to fulfilling its promises, boosting confidence among all the stakeholders involved.

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22 Xinhua News Agency, Xi says China to implement eight major initiatives with African countries, 3 September 2018. Available at [http://www.xinhuanet.com/english/2018-09/03/c\\_137441563.htm](http://www.xinhuanet.com/english/2018-09/03/c_137441563.htm). Accessed on 13 October 2020.

23 People's Republic of China, Ministry of Commerce, "Elaboration on the eight major initiatives of the FOCAC Beijing Summit", 11 June 2020. Available at <http://english.mofcom.gov.cn/article/policyrelease/Cocoon/201809/20180902788698.shtml>.

24 Ibid.

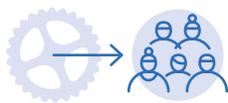
25 Ibid.

Third, the host Government is also advised to mobilize financial resources or devise policy instruments to compensate for the risks borne by the first-movers (i.e., the first firms to invest in a region). For instance, the host Government could exempt the first-movers from taxes in the first few years of operation or pay for the training costs of workers.

Fourth, as FDI tends to bring in more advanced production technologies and managerial skills as well as generate positive spillovers to other industries, the host Government is also advised to devise policies that could help to cultivate local entrepreneurship to the extent that more local firms can be established, thereby facilitating the formation of industry clusters.

Fifth, given the severity and pervasiveness of the COVID-19 pandemic, the global economy has suffered significant downturns and has been thrown into turmoil. Virtually all business activities around the world are suspended owing to the pandemic and cross-border investments have become all the more difficult. This is especially true for (Chinese) labour-intensive manufacturers that are export oriented, since major apparel and footwear brands are cancelling or postponing orders to cope with the collapse in sales. This implies that the pace of China's industrial relocation in labour-intensive manufacturing might slow down temporarily. Nonetheless, it is a matter of time before COVID-19 will be kept under control and be defeated. The trend of China's industrial relocation is irreversible and the China-Africa community with a shared future will come out even stronger when the pandemic is over.

Sixth, in the midst of the COVID-19 pandemic and the global economic slowdown, China has unveiled a new development strategy coined "dual circulation" in formulating its 14th Five-Year Plan (2021-2025). The essence of this strategy is that China will rely mainly on "internal circulation" - the domestic cycle of production and consumption, with a primary focus on technological innovation and industrial upgrading - for its development, supported by "external circulation". Embracing globalization will keep China's opening-up policy on track and deepen the country's participation in the global economy, contributing to economic transformation in China. This new development strategy may expedite China's industrial relocation of labour-intensive manufacturing to less developed Southern countries, since industrial upgrading to higher value-added activities will be central in this development plan, while industries losing their comparative advantage are likely to move out of China in tandem.



Industrialization opportunities are very much alive in the contemporary world despite the fact that the world has seen a protectionism and anti-globalization movement emerging in recent years.

In a nutshell, industrialization opportunities are very much alive in the contemporary world despite the fact that the world has seen a protectionism and anti-globalization movement emerging in recent years. Nonetheless, this will not affect China's industrial relocation to less developed Southern countries because China, as reaffirmed in China's new "dual circulation" development strategy, will continue to open up to the world and deepen cooperation with other countries, in particular the Global South. Since China will rely on industrial upgrading to higher value-added activities as the growth engine in the future, industrial relocation of labour-intensive manufacturing from China is likely to accelerate in the coming years. Low-wage Southern countries, especially those in sub-Saharan Africa, need to act quickly and effectively before

game-changing technologies (automation) can close this window of opportunity enabled by industrial relocation from China. Those potential host (Southern) countries may also need to compete among themselves in attracting China's industrial relocation. While an efficient market is key to development, a facilitating and able Government can play an indispensable role in mitigating binding constraints to turn the trilemma into triple-win collaboration in these current uncertain times.

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## Appendix

# Classification of labour-intensive manufacturing industries

Detailed classification of manufacturing industries	Labour-intensive
Manufacture of agricultural and non-staple foodstuffs	
Manufacture of food	
Manufacture of beverages	
Manufacture of tobacco products	
Manufacture of textiles	Yes
Manufacture of apparel	Yes
Manufacture of leather and related products	Yes
Manufacture of wood and products of wood and cork	Yes
Manufacture of furniture	Yes
Manufacture of paper and paper products	
Printing and reproduction of recorded media	
Manufacture of cultural, stationery and sports goods	Yes
Manufacture of petroleum-processing, coke and nuclear fuel	
Manufacture of chemical and chemical products	
Manufacture of pharmaceuticals	
Manufacture of chemical fibre	
Manufacture of rubber products	
Manufacture of plastic products	Yes
Manufacture of non-metallic mineral products	
Ferrous metal smelting and extrusion	
Non-ferrous smelting and extrusion	
Manufacture of metal	Yes
Manufacture of general-purpose machinery	Yes
Manufacture of special-purpose machinery	Yes
Manufacture of transport and communication equipment	
Manufacture of electrical machinery and equipment	Yes
Manufacture of communication equipment, computers and other electronics	Yes
Manufacture of instruments and metres	Yes
Artwork and other manufacturing	Yes
Processing and recycling of waste resources	Yes

**Note:** Industry classifications are based on the National Bureau of Statistics of China GB/T4754-2002, which is also the industry classification used by Qu, Cai and Zhang (2013) in distinguishing labour-intensive from capital-intensive manufacturing industries. While China has introduced two other revisions to industry classification (in 2011 and 2017), the difference is very small for those identified as a labour-intensive manufacturing industry.





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