



Is it possible for Vietnam to become the next “World Factory”?

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Abstract. In history, many countries were called "world factories". The reason why they became "world factories" at that time could not be separated from relatively stable political environment, huge economic scale and market share, rich land resources, cost-effective labor costs, and the most important high-tech industries including full coverage of the supply chain network. It is these factors that make these countries become “world factories”. By summing up the main reasons why countries have always been the "world factories" and combining the current situation, this paper compares Vietnam with contemporary "world factory" China, and structurally analyzes whether Vietnam has the potential to become the world factory.

Keywords: world factory, Vietnam, China, manufacturing industry

1 Introduction

Although there is no clear definition of "world factory" in the economic category, in history, in addition to Britain, the "world factory" widely recognized also includes the United States, Japan and China. The main factors to become a world factory are these several aspects: economic scale, market share, labor cost, land resources, political environment, supply chain, new technology industry. These factors are mainly determined according to the world economic situation and national conditions at that time. In recent years, as a large number of factories have been transferred to Vietnam, the public opinion of "World Factory" has gradually emerged in this land. In fact, in less than half a century, Vietnam's economic performance has indeed amazed the world. This paper analyzes Vietnam's current situation from the aspects of labor cost, exports tariffs, land resources, and supply chain networks. This paper also compares Vietnam's performance with China's performance. According to the analyses, although Vietnam has won foreign investment because it has undertaken some simple processing industries from China, as well as good political situation and policy welfare, its core is not solid enough to replace China as a new "world factory".

2 History of "World Factory"

In 1847, in the Communist Manifesto, Marx and Engels wrote that "steam and machinery caused a revolution in industrial production". The term "world factory" actually originated from Britain, who was so called "The cradle of the modern industrial revolution". In the 19th century, after Britain's James Watt improved the steam engine, the industrialization process from manual manufacturing to mechanical manufacturing was triggered, which greatly reduced labor costs. The innovation of production technology and new corporate management improved the production efficiency of finished products, resulting in rapid development of the manufacturing industry. The rich natural resources in the Pennine Mountains provided Britain with a lot of raw materials. In 1860, thus, the output of iron and coal in Britain accounted for 53% and 50% of the world respectively; The UK's production of manufactured goods reached about 2/5 of the world's total, and its export volume reached about 1/5 of the world's total. This market share and export volume held an unshakable position in the world trade at that time [1]. Combined with the factors mentioned above, Britain became the "world factory" at that time.

Although there is no clear definition of "world factory" in the economic category, in history, in addition to Britain, the "world factory" widely recognized also includes the United States, Japan and China. Due to the excessive protection of Britain's own trade in the postindustrial era and the rise of tariffs, as well as being under the hotbed of a large number of overseas markets, cheap labor and large capital exports, its economy lacks competition and loses vitality, making enterprise technology and equipment obsolete. Thus, Britain was overtaken by the United States in half a century, and the United States became the second "world factory". The reason why the United States can replace Britain as the new "world factory" was that it continued the original success factors of Britain with its technological innovation and promotion of free trade. The United States attached importance to the development of the new economy, stimulated the innovation of transportation industries such as railways and automobiles, and sped up the circulation of capital. The United States also fully developed high-tech industries. At the end of the 1990s, its scientific research funds accounted for 40% of the world's total, bringing about nearly 40% of the world's GDP growth at that time. The United States strongly supported free trade and construction of systems, creating a good investment environment for capital, prompting a large number of international capital such as Europe to flow into the United States and becoming the center of the world economy [1].

However, due to the technology spillover of the United States, Japan learned from the United States and improved and innovated on this basis, making Japan surpass the United States in some aspects. For example, Japan's steel industry surpassed the United States in the 1970s and 1980s and became the world's largest steel exporter at that time. The "Japanese miracle" rose from the ruins of World War II. It took only 30 years for Japan to recover its economy, and its proportion in the global manufacturing GDP rose from about 2% to about 10%. Japan's manufacturing focus has shifted from heavy chemical industry to people's livelihood industry. While maintaining technological innovation, Japan has also improved its industrial structure and export structure and

therefore exported high-value products with high-level manufacturing technology. Around the 1980s, the Japanese media wrote that "in the manufacturing fields of textiles, steel, shipbuilding, household appliances, automobiles and semiconductors, the United States completely lost to Japan" [2]. Japan's export volume of most kinds of mechanical industrial products exceeded that of the United States and ranked first in the world, taking over the baton of "World Factory".

2011 was a milestone for China's manufacturing industry. The added value of China's manufacturing industry reached US \$3.51 trillion this year, surpassing the US \$3.02 trillion for the first time and becoming a well-deserved "world factory". From 1978 to 2018, China's GDP grew at an average rate of 9.4%, 6.5% higher than the world average in the same period. In 2018, China's manufacturing added value ranked first for 9 consecutive years, accounting for 28% of the global added value. China's global export trade of goods accounted for about 12% of the world's total, ranking first for ten consecutive years, consolidating its position as the "world factory"[3]. Since the reform and opening up, China has become the second largest economy in the world at a high speed, which is inseparable from the excellent guidance of the Party, who leads the people on the road of "common prosperity". After China successfully opened the channel of international trade through WTO in 2001, it joined the global industrial chain and participated in the world division of labor. China has made use of the open policy to create a good market environment and win the favor of foreign capital. China gave full play to its own advantages, and therefore attracted many excellent foreign enterprises, such as Samsung and Tesla, to invest and build factories by taking advantage of cheap land rent and low labor costs. At the same time, due to China's vast territory, rich natural resources, low prices of upstream raw materials and other advantages, a large number of processing industries were willing to take root there.

Through these examples of countries of "world factories", we can find that the main factors to become world factories are nothing more than several aspects: economic scale, market share, labor cost, land resources, political environment, supply chain, new technology industry, etc., which must be determined according to the world economic situation, national conditions and other major environments at that time.

3 Vietnam's performance

In recent years, as a large number of factories have been transferred to Vietnam, whether Vietnam can become a "world factory" has been discussed in this land. In fact, in less than half a century, Vietnam's economic performance has indeed amazed the world. Since the reform and opening up, the accession to the WTO, and the signing of the RCEP and CPTPP free trade agreements, Vietnam's GDP has grown at a high speed, with a growth rate of 3% in 20 years, and even surpassed China (World Bank data) in 2019-2020, becoming the fastest growing country in the world. On March 29 of this year, the Social and Economic Situation Report of the First Quarter of 2022 released by the Vietnam Bureau of Statistics showed that Vietnam's GDP in the first quarter of 2022 increased by 5.03% year on year, exceeding the growth data of 4.72% in the first quarter of 2021 and 3.66% in the first quarter of 2020. The industrial and construction

industries increased by 6.38%, contributing 51.08% to the GDP in the quarter; The service industry increased by 4.58%, accounting for 43.16% [4].

Vietnam, the world's 39th largest economy in 2021, has a relatively stable political situation, a free market economic system, cheap labor and other factors that attracted countless enterprises to build factories. However, can Vietnam really replace China and become the new "world factory" of the world? If Vietnam's GDP in 2021 (2.34 trillion yuan) is compared with that of various provinces in China, it would be between Shanxi (2.26 trillion yuan) and Guangxi (2.47 trillion yuan), ranking about 19th. The total GDP of a country is only equivalent to that of a province, and the economic scale of Vietnam is obviously not of the same order of magnitude as that of China. In terms of commodity exports, China will reach 336 million US dollars in 2021, while Vietnam will reach less than 34 trillion US dollars, only about 10% of China's.

4 Labor cost

Vietnam still has its advantages in terms of labor cost. One of the key points to attract foreign investment is the relatively cheap labor force in Vietnam. China, Vietnam, Mexico and other countries are LCCS (low cost purchasing countries). Only those countries with relatively stable political and economic environment, modern infrastructure and perfect legal system are considered as ideal purchasing countries. However, with the rising labor cost in China, the labor cost in the manufacturing industry will be as high as 6.5 dollars/hour in 2020, which is much higher than that in Vietnam at 2.99 dollars/hour. China's demographic dividend is shrinking, and Vietnam has begun to undertake a large number of factories overflowing from China, such as Apple, Samsung, Nike, etc.

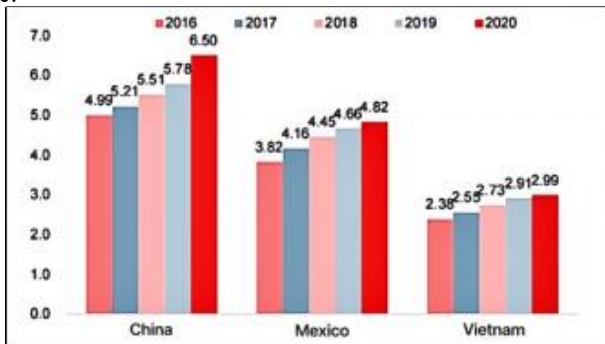


Fig. 1. (Labor costs in manufacturing in China, Mexico and Vietnam (USD/H))

Source: IHS Markit, CITIC Construction Investment.

However, with the rapid development of Vietnam, its labor cost is also increasing. In 2020, the monthly wage of manufacturing workers will be about \$250, which is ahead of Cambodia, Myanmar and other countries. When Vietnam's labor is no longer cheap, labor-intensive industries have turned their attention to other Southeast Asian

countries. Vietnam is no longer the only choice. Adidas, Uniqlo, ZARA and other textile industries have chosen Cambodian factories for processing. Although the labor cost in Vietnam is only about half of that in China, the general quality of Vietnamese workers is not as high as that of Chinese workers. Vietnam's skilled labor costs are not necessarily cheaper than China's. Training high-quality Vietnamese workers requires more expenditure, and it is also an additional management cost in terms of personnel, language, culture and other issues.

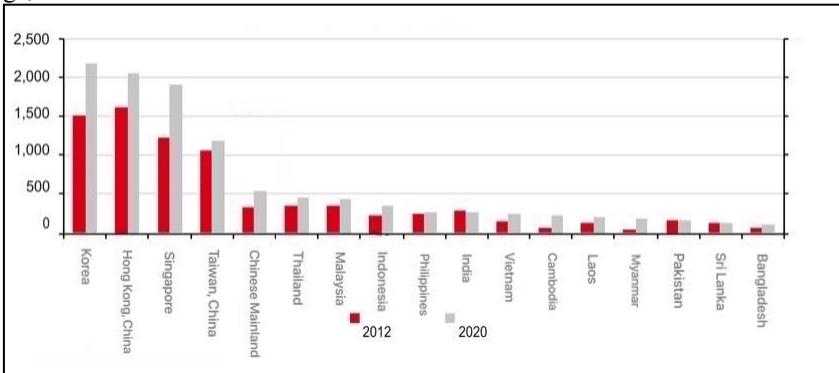


Fig. 2. (Monthly wages of manufacturing workers (USD))

Source: Japan External Trade Organization.

5 Export tariff and land resources

As Vietnam pursues a free-market economy and implements the "China+1" preferential policy, Vietnam has more opportunities. The low tariff or even zero tariff foreign trade environment is really attractive to foreign enterprises. After joining the tariff agreements such as RCEP and CPTPP, it is predicted that from 2020 to 2025, the average import tax rate of Vietnam will drop from 0.8% to 0.2%, and the export tax rate will drop from 0.6% to 0.1%. At the same time, the high tariffs caused by the Sino US trade war have caused many foreign investors to migrate from China to Vietnam. In the "China+1" policy, Vietnam always provides more favorable conditions for foreign investment than China does. Vietnam is relying on these measures to throw olive branch to foreign capital, so as to expand exports to drive Vietnam's rapid economic growth. In the first quarter of 2022, foreign enterprises' direct investment in Vietnam exceeded 10.8 billion US dollars, an increase of 88.3% compared with the first four months of last year.

Free Trade Agreements (FTAs) has important contributions toward Vietnam's export turnover. In 2007, the total import-export turnover was 111.3 billion dollars (in which export turnover was 48.5 billion dollars and import turnover was 62.7 billion dollars). In 2015, the total import-export turnover increased about 3 times, achieving 328 billion dollars (in which export turnover was 165.6 billion dollars and import turnover was 162.4 billion dollars). In 2019, the total import-export turnover reached

517.26 billion dollars (in which export turnover was 264.19 billion dollars and import turnover was 253.07 billion dollars). Moreover, FTAs help to enhance the business environment and institution, hence, Vietnam has opportunities to restructure toward the import-export system more balanced. Thanks to FTA, Vietnam has motivations to improve the investment environment, carrying on business toward transparency, safety for investors of all economic sectors.

Taking EVFTA as an example. This agreement was signed to address the demands of both parties. EU is a section occupying the large proportion of commercial relationships between Vietnam and the EU. This relationship rapidly and effectively developed, from 2000 to 2017, Vietnam-EU trade relation turnover increased more than 13.8 times, from 4.1 billion dollars in 2000 to 56.39 billion dollars in 2019, in which exports from Vietnam to EU soared 14.8 times (from 2.8 billion dollars to 41.48 billion dollars) and import from EU to Vietnam rose more than 11.5 times (from 1.3 billion dollars to 14.91 billion dollars). With EVFTA, Vietnam will deepen its relationship with the global economy, Vietnamese goods and services to the global value chains, pushing economic growth.

Although the current policy and environment can enable some foreign enterprises to move to Vietnam, Vietnam is inferior to China in terms of land resources. Vietnam has a land area of 32955600 square kilometers, but the plain area is less than 20%. Most of them are undeveloped or difficult to develop areas such as hills and forests [4]. Therefore, foreign investment is mainly concentrated in Ho Chi Minh City and other central areas with relatively complete infrastructure. A large amount of foreign capital has entered Vietnam, resulting in a shortage of land resources and congestion in transportation, raising the price of production factors and increasing the economic and time costs of enterprises. On the other hand, Vietnam, which is smaller than China's Yunnan Province, is extremely limited in the diversity of raw materials, and some materials are still highly dependent on imports from China.

Table 1. (Comparison of Export Tariffs of Textile Products among China, Vietnam and Cambodia)

Export tariffs	Knitted fabric	Knitted garments	Woven fabric	Woven garments
Tariffs on exports to the United States				
China	35%	29.5%~36.5%	20%	21.2%
Vietnam	10%	9.5%~16.5%	0%~2.8%	1.2%~9.4%
Cambodia	10%	9.5%~16.5%	0%~2.8%	1.2%~9.4%
Tariffs on exports to Japan				
China	7.8%	10.9%	5.6%~12.8%	9.1%~12.8%
Vietnam	0%	0%	0%	0%
Cambodia	0%	0%	0%	0%
Tariffs on exports to Europe				
China	8%	12%	0%	12%
Vietnam	0%	0%	0%	0%
Cambodia	0%	0%	0%	0%

Source: National Customs Statistics Bureaus, China Commerce Bureau

Table 2. (Sorting out tariff trade agreements Vietnam participated in from 2019 to 2022)

Signing time	Tariff agreement	Participants	Content
2019/1	CPTPP	Japan, Canada, Australia, New Zealand, Singapore, Brunei, Malaysia, Chile, Mexico, Peru, Vietnam	Vietnam will enjoy 78% - 95% tariff concession granted by CPTPP member countries, and the final tariff concession will reach 98% - 100% after the transition period.
2020/8	EVFTA	EU, Vietnam	Vietnam's tariffs on 71% of EU exports and EU's tariffs on 65% of Vietnam exports were immediately exempted; The 99% tariff in bilateral goods trade will be gradually reduced until it is eliminated.
2021/5	UKVFTA	Britain, Vietnam	Britain will eliminate 99.2% tariff items six years after the agreement comes into force; Correspondingly, after the agreement came into force, Vietnam immediately abolished 48.5% of the tariff items, and the number of tariff items canceled increased to 91.8% six years later, and 98.3% nine years later.
2022/1	RCEP	Vietnam, Brunei, Cambodia, Laos, Singapore, Thailand, China, Japan, New Zealand, Australia	RCEP stipulates that all member states will eliminate more than 90% of the tariff on goods within ten years, and the tariff on major products will reach zero when the agreement comes into force.

Source: official websites of relevant national and regional governments, CITIC Securities Research Department

6 Industry and supply chain network

As Vietnam has joined the global division of labor, it has become one of the links in the industrial chain. In recent years, it seems that a large number of foreign enterprises have entered Vietnam, and some industries have also moved from China to Vietnam. In fact, as Professor Shi Zhan of the Foreign Affairs College said in his book, this is an "overflow" [5]. China has transferred its surplus low-end production capacity to Vietnam. These labor-intensive processing industries are no longer China's goal. China's

development direction will change from "Made in China" to "Made in China intelligently", and vigorously develop high-tech and core industries. In terms of industrial system, China is the country with the most complete industrial categories in the world, and has the most complete industrial system in the world. In contrast, Vietnam is highly dependent on China's upstream due to its lack of industrial sectors. In addition, due to the restrictions of the free market economy, it is impossible to develop high-tech industries such as heavy chemical industry and form a relatively independent and complete supply chain network in Vietnam. In 2021, the added value of China's manufacturing industry will be about 31.4 trillion yuan, ranking first for 12 consecutive years (Chinese government website). However, Vietnam has just exceeded 120 trillion dong, which is totally different from China in terms of structure and production capacity.

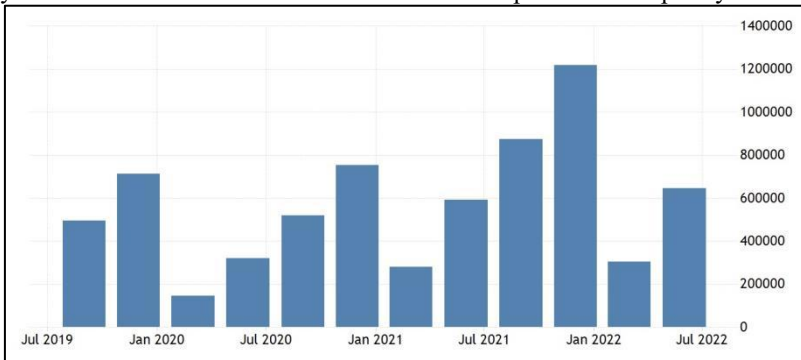


Fig. 3. (Vietnam's manufacturing value-added (VND))

Source: General Statistics Office of Vietnam, tradingeconomics.com.

7 Conclusion

With the rapid development of manufacturing industry, countries like Vietnam, which rely on labor-intensive industries, have less and less population dividend and land dividend. However, the relatively weak supply chain has become increasingly tense due to the lack of core technology. Once cost is no longer Vietnam's advantage, the highly mobile, low-cost labor-intensive manufacturing industry will inevitably migrate to other countries driven by profits, just like migratory birds. Although Vietnam has won foreign investment because it has undertaken some simple processing industries from China, as well as good political situation and policy welfare, its core is not solid enough to replace China as a new "world factory". At present, Vietnam is also encountering difficulties. If it wants to break through the bottleneck, it can learn from China's development process. It must adhere to the principle that scientific and technological innovation is the primary productive force, make rational use of its own conditions, and combine national conditions to achieve mutually beneficial and peaceful development with the world.

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