

# What Is the Driving Force of Future Development of International Trade in China?

Changhong Pei, Bin Liu, Ying Liu\*

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During over 40 years of rapid growth after China's reform and opening up, factor dividends have always been an essential basis for China's development of open economy. With China's economy entering into a new normal and the promotion of a new round of high-level opening up, China is gradually forming new competitive advantages in the field of international trade. Starting from factor dividends, this paper analyzes the advantages and trend of China's international trade in the past, and further analyzes the formation of China's new advantages in the field of international trade from four aspects. In the first place, as the digital economy is becoming the core force for the new round of industrial revolution, China's leading position in digital trade has become more evident, which leads to China's opportunity to exercise its discourse power and formulate new rules and pattern of global digital trade. In the next part, the Belt and Road Initiative (BRI) has opened up a new path for further international trade cooperation, improving the opening up pattern with the combination of sea and land, home and abroad, coastal and inland. Afterwards, the supply-side structural reform has entered a new stage, continually releasing institutional dividends, deepening the systematic reform. In the end, the huge demand of domestic markets and its growing potential have driven the utilization of domestic market effect, leading to the development of scale economy and the competitiveness of Chinese economy and enterprises. The formation of China's new advantages in global trade will further promote China's participation worldwide.

**Keywords:** digital trade, the Belt and Road Initiative (BRI), supply-side structural reform, domestic market effect

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## 1. Introduction

Starting from the Third Plenary Session of the Eleventh Central Committee of the CCP, China's economy has continued to grow for more than 40 years. After over

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40 years of reforming and opening up, the peaceful rise and the remarkable results have made China the world's second largest economy and the largest exporter of commodities. Meanwhile the theory of "China collapse" and "China threat" has been endless. Since the reform and opening up, China has been one of the fastest growing economies in the world, and the World Bank has called it "the fastest sustained expansion by a major economy in history".<sup>1</sup> China has now become the world's largest manufacturer, international trader and holder of foreign exchange reserves.

China has taken the factor dividend as the main support for the development of an open economy since its accession to WTO. In addition to population, land and other resources, the rapid growth of import and export trade has led the economy to an overall development. From the external environment point of view, uncertainties such as commodity price fluctuations and geopolitical tensions increased the pressure on international economic development. With the continuous spread of coronavirus pandemic, global economy is suffering the most serious blow since the great depression in 1930s. From the domestic perspective, however, with China's economic development entering into a new normal, which focuses on the symmetry of economic structure and sustainable development based on structural balance, its economy has shifted from high-speed growth to medium-to-high-speed growth, from factor and investment driven to innovation driven. In the first half of 2020, after experiencing short-term fluctuations affected by the epidemic, China's economic growth and foreign trade showed a V-shaped rebound, showing the effectiveness of national governance capacity and the resilience of economic operation. The conversion of new and old driving forces in China's international trade has already released strong impulses, and new forms of international trade have taken shape.

This paper analyzes China's competition advantages in international trade through the Porter diamond model, and illuminates four basic elements and two auxiliary elements in the current situation. According to Porter's diamond competition model, the influence of international competitive advantage mainly depends on four basic factors, which are production factors, demand conditions, supporting industries and peer competition of enterprises, and two auxiliary factors, which refer to government and opportunity. This paper holds that there is a reversal of factor intensity of production in China, which means the advantages of capital and technology factors have been formed and strengthened. The digital economy is providing competitive advantages for enterprises in the same and supporting industries. With BRI expanding the demand of the international market, the strong domestic market demand is also revealing great potential. The supply-side structural reform led by the government provides the institutional basis for the formation of new advantages. In addition, the economic anti-globalization and the reconstruction of global value chain system have presented a rare historical opportunity for the formation of China's new competitive advantages.

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<sup>1</sup> The World Bank in China. <https://www.worldbank.org/en/country/china/overview>.

## 2. Literature Review

What factors determine a country's competitiveness in the international market? Researches on this issue run through the development of economics. In the view of early mercantilism, wealth inflow is the main channel of development, which means countries should maintain the pattern of international trade surplus to accumulate wealth. The absolute advantage theory of Smith (1776) takes the absolute difference of labor productivity and production cost as the basis for countries to participate in the international market and obtain benefits. Ricardo (1817) inherited and developed Smith's theory, putting forward the theory of comparative advantage, and believed that all countries can find their own position in the international market and benefit from it. The infant industry theory popularized by List (1841) provides a way for developing countries to catch up with the advanced countries and cultivate their own industrial competitiveness. The factor endowment theory of Heckscher and Ohlin demonstrates the reasons for different comparative advantages among countries. Porter considers that the determinants of national competitive advantage include four basic elements which include production factors, demand conditions, supporting industries, peer competition of enterprises, and two auxiliary elements which refer to government and opportunities. The main sources of national competitive advantage are also different in different development stages.

When we focus on China, competitiveness in the international market has been continuously upgraded since the reform and opening up, with various characteristics at different stages. For a long time, China's competitiveness in the international has been based on its huge population and production factors, with export growth mainly depending on the comparative advantage of labor force (Lin, 2014). China's accession to the WTO has greatly promoted China's entry into the international market, with China's exports entering into a stage of rapid growth. While China's comparative advantage industries began to expand from labor intensive to capital and technology intensive industries which centered at processing and assembly for the most part, China's developing of global trade mainly depends on labor dividends in this period (Zhao, 2003). In the meantime, China's trade growth followed the extensive path of more quantity and less quality (Sheng and Wei, 2019). The growth of exports was divided into two modes by the New-new trade theory, including intensive marginal growth and extensive marginal growth. The former refers to the change of export scale of similar products, and the latter considered as the variation of export product types and markets. Amiti and Freund (2008) found that the trend of China's high export growth to the United States in 1992–2005 was basically dependent on the intensive part, and the contribution of the extensive marginal growth was less than 15%. This situation appears to be more prominent at multilateral level, with the contribution of intensive marginal growth to China's export growth reached 94.06%, which the expansion part accounted for less than 6% from 1995 to 2005 (Qian and Xiong, 2010). With further

subdivision, the intensive marginal growth could be split into the variation of product quantity and price. Li (2008) found that 76.6% of China's export growth in 1995–2004 came from the contribution of quantity growth, while the contribution of price growth only accounted for a small part. Studies even found that the export of a large number of low-quality enterprises has led to a decline in the quality of China's overall export products in the years after China's accession to the WTO (Yu and Zhang, 2017; Shi, 2014). Although from the perspective of product structure, with the increasing of the proportion of high-tech products in China's exports and the technical content of export products, China has ended up with an export basket that is significantly more sophisticated than what would be normally expected for a country at its income level (Rodrik, 2006). But Bas and Strauss-Kahn (2015) pointed out that the improvement of price and quality of China's export products after China's accession to the WTO is more due to the increase of investment in high-quality imported intermediate goods.

As the international financial crisis in 2008 causing serious impacts on the world economy, the sharp contraction of external demand led to a sharp reduction in China's exports, among which the reduction of trade scale caused by the narrowing of intensive marginal growth accounted for 96.6% (Sheng and Lv, 2014). In the wake of the financial crisis, the growth rate of China's export slowed down while trade structure continued to optimize, with the proportion of high-tech products increasing, the share of private enterprises expanding and the diversification of trade market deepening. It cannot be ignored that Chinese entrepreneurship mentality is highly developed in world markets, especially in the digital economy (Langhammer, 2019). Relatively few Chinese firms engage in exporting, and those doing so, are on average, larger and more productive than their domestic counterparts (Alejandro and Fabrice, 2019). As China's domestic added value of export commodities rising and the supplying of intermediate inputs in the global production network enhancing, China has replaced Japan as the core of the East Asian value chain (Meng *et al.*, 2018). Meanwhile, based on China's overcapacities and overinvestment, the sustainability of China's investment and export-driven growth model has also been doubted, which might weakened China's bargaining position in the US-Chinese trade conflict and have tempted Chinese authorities to postpone the restructuring of the Chinese economy by providing low-interest credit (Gunther, 2019).

The reconstruction of China's international trade competitiveness has been going on for years with new opportunities and strategies, creating favorable circumstance for enterprises, providing new anchors and injecting new driving force for innovation-driven and high-quality developing of China's economy. In the meantime, obstacles still exist. The decrease of demographic dividend has led many enterprises to transfer to Southeast Asia and seek for cheaper labor. China urgently needs to explore new sources of driving force to ensure the sustainable and steady development of international trade.

### **3. Digital Trade and Artificial Intelligence Leading China's Industry Transformation and Business Upgrade**

As a product of the Internet era, digital trade is causing tremendous changes in the global value chain (GVC) system. The past two centuries have witnessed three main generic technologies with the following revolutionary effects: steam engine, electricity and internet. With the continuous improvement in internet algorithms, the machine can not only complete a specified task, as per to the given instructions, but also carry out machine learning, simulation and information interaction. Artificial intelligence (AI) has penetrated into various levels of industrial modules at present, deeply embedded in global production activities of R&D, production, transportation, exchange, marketing, etc., spawning a series of new technologies, new industries and new formats. Internet-based e-commerce has empowered SMEs at the edge of international trade traditionally with new competitiveness through internet, providing the advantage of backwardness for service trade by the possible separation of production and consumption of services from time and space.

#### *3.1. Reducing the Entry Threshold of International Market for SMEs*

The birth of digital technology has made it possible for a large number of non-high-productivity SMEs to enter the international market, challenging the hypothesis that "heterogeneity is mainly reflected in productivity differences" in the New-new trade theory. Melitz's article is the foundation of the New-new trade theory. It explains the situation in which enterprises choose between domestic production and export in a monopolistic competitive market. The classic hypothesis of this is the same demand function and different supply functions, with the difference only appearing in the cost function. It's undeniable that the enterprise heterogeneity of productivity, as the key factor for enterprises, has been proved to have a great impact on its export to a large extent, which has also been verified in many empirical literatures. However, enterprise productivity can explain neither the trade phenomenon of all countries, nor of internet technology applied to commercial transactions after the 21st century. Among the 40 million SMEs in China, 5 million of them focus mainly on international trade, accounting for more than 60% of China's total exports. The number of SMEs and individual merchants has accounted for more than 90% of newly registered enterprises on cross-border e-commerce platforms since 2011. The coexistence of numerous homogeneous production-oriented groups and multitudinous comprehensive service-oriented enterprises has created a supply chain that gains them competitiveness through social division networks formed by the high-speed internet, introducing them to the international market.

With the application of internet technology, production and exchange are significantly and efficiently connected, creating a reorganized form of social production, changing the organizational form of micro entities and market exchanges, which represents the

new advantage created after the weakening of China's advantages of labor factor. What more, consumers' preferences vary from product to product, along with the demand function changing at the same time. With the upgrade of the consumption structure, the global retail trade is booming with the demand of personalized, diversified, high-quality, internationalized goods and services. The differentiation, customization and high-frequency transaction offer an excellent opportunity for cross-border e-commerce of SMEs to create mass markets, build brand influence and improve bargaining power. Taking advantage of the strength of cross-border e-commerce, in terms of distribution speed, after-sales service, the superiority of SMEs such as flexibility, differentiated and small-scale production can be effectively played, so as to meet the demand of fragmented orders in the international trade and retail industry.

### *3.2. Expanding the Tradable Boundary of Services*

Baldwin (2006) vividly elaborated the process of globalization as the process of the two "unbundling". The first refers to the separation of producers and consumers spatially. The rapid development of transportation allows consumers to purchase products in any region worldwide. The second refers to the separation among producers spatially. The further decline in transportation costs has enabled producers in different regions to cooperate, making international production division possible. These two "unbundling" processes mainly occurred in the field of goods trade, while the third "unbundling" led by internet and big data currently mainly focuses on the spatial separation of producers and consumers in the field of service trade. In traditional trade theory, the production and consumption of trade in services occur simultaneously and are inseparable in time. Therefore, whether the service elements can be transmitted instantly from the producer to the consumer is the key to determine whether service is tradable or not. Internet provides a path for real-time transfer of service elements across regions, making remote transactions of services production and consumption possible, which enormously expands the trade boundary of services and chain of service production.

China's service trade has achieved rapid development in recent years. China's service import and export scale in 2018 reached a record high, with the export of services reaching 233.6 billion USD and the import reaching 525.8 billion USD, ranking first in growth rate in the world (See details in Figure 1). But compared with trade in goods, the development of China's service trade is relatively lagging behind with a shorter service chain. The competitiveness of China's service trade enterprises is still in an inferior position comparing to developed countries. In 2018, China's trade in services accounted for less than 15% of total trade, which is lower than that in the United States and far below the number of India (See details in Figure 2).

The development of the internet and e-commerce is conducive to giving full play to the advantage of backwardness of China's service trade, accelerating the technology transfer,

improving the learning ability of the enterprises. The learning effects and technology spillover effects caused by the internet have improved the catch-up ability of the latter. The development of digital technology in China has led to changes of transaction forms and constantly created new tradable service industry. For example, China's internet finance has fully developed its comparative advantages, with the rapid rise of the comparative advantage of the latter. Mobile payment such as WeChat and Alipay has gradually expanded into the international market and is becoming a new hot spot for service trade growth.

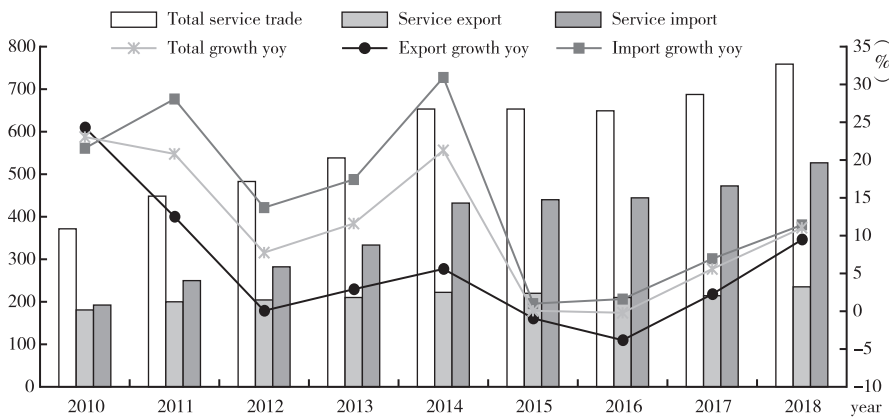


Figure 1. Changes in China's Service Trade (in billions of US dollars)

Source: Ministry of Commerce Business Data Center.

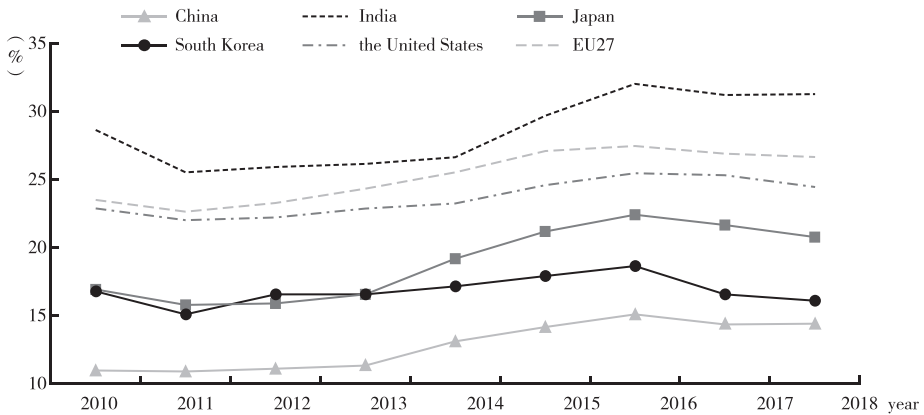


Figure 2. Share of Service Trade in Total Global Trade of Major Economies

Source: UNCTAD STAT, calculated by author.

### 3.3. Promoting Further Integration of Manufacturing and Services

During the centuries after the industrial revolution, technological advancement has promoted the specialized production of service and manufacturing, which has



separated the service industry, especially finance, telecommunications, distribution and transportation, from manufacturing. But service industry remains the indispensable support for manufacturing and manufacturing is the source of demand for the service industry. In the context of a new era of scientific and technological revolution, with the link of internet, the trend of a high-level convergence has presented itself. The boundary between service industry and manufacturing industry has gradually disappeared, with the industrial chain, supply chain and value chain deeply integrated in the meantime. Relying on a strong manufacturing base, China vigorously promotes the application of digital technology such as the internet of things, nanotechnology and cloud computing in manufacturing industry, and promotes the rapid integration of productive service trade and traditional manufacturing. Servitization of manufacturing and the manufacturing of service industry continue to accelerate.<sup>1</sup> According to the latest data from WIOD, the service level of China's manufacturing industry reached 45% in 2014, higher than that of India and Russia, close to the US level.<sup>2</sup> Service-oriented manufacturing industry can be extended through the upstream, middle and downstream value chain, which exerts the effects of increasing the types of service intermediate inputs, reducing the cost of management, improving the R&D and innovation capabilities of enterprises, expanding marketing channels and enhancing the export added value. The artificial intelligence represented by the shared economy such as the shared bicycles Mobike is the successful example of the deep integration of manufacturing and service.

According to the World Trade Report 2019, global service trade has surpassed the growth rate of goods trade at an average annual growth rate of 5.4% since 2005, and the contribution of developing economies to service trade has increased by more than 10%. Mainland China, South Korea, Hong Kong, Singapore and India account for more than half among the developing economies (See details in Figure 3). With the upgrade of digital technology, demographic changes, income increase, climate change, etc., the growth of service trade is of great potential. In the process of future international trade development, the deep integration of manufacturing and service industry will greatly enhance the depth and breadth of international trade.

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<sup>1</sup> Servitization of manufacturing refers to the process in which manufacturing enterprises change from manufacturing-oriented to service-oriented. There are two ways to realize service-oriented manufacturing industry. One refers to the service-oriented manufacturing input. That is, service elements play an increasingly important role in the total input of manufacturing industry. The other is service-oriented manufacturing output. That is, service products play an increasingly important role in the total output of manufacturing industry. Manufacturing of service industry refers to the increasingly important role of manufacturing factors in the input and output of service industry, such as the use of artificial intelligence in service industry.

<sup>2</sup> Data from WIOD Database. <http://www.wiod.org/release16>.



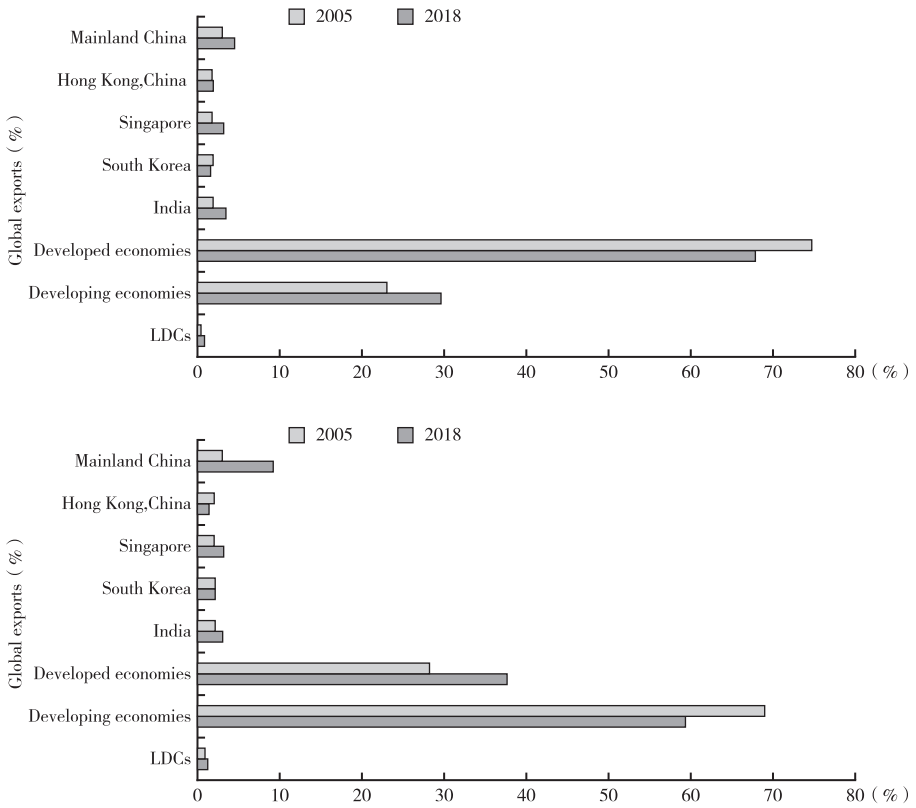


Figure 3. Global Share of Asian and Major Economies in Service Trade

Source: UNCTAD STAT, calculated by author.

### 3.4. Improving the Production Efficiency of Manufacturing Enterprises

In the traditional value chain system, the added value in upstream R&D and downstream marketing is relatively high in comparison with the manufacturing process which is the middle reaches. The conventional vertical specialization division mainly focuses on multi-node streamline production, as different countries occupy different positions in the global supply chain based on comparative advantages. In pace with the rise of cross-border e-commerce, the structure of global value chains has changed and the relevance between the upstream and downstream of the value chain has become flat. The intermediate trading links have been significantly reduced, and manufacturers are now directly connected to consumers.

The widespread use of artificial intelligence (AI) in manufacturing industry has greatly accelerated the production efficiency and changed the distribution of benefits in the system. Advanced manufacturing technologies such as AI are able to raise the added value of the mid-stream of the “smile curve” and then bring about “decentralization” in

the value chain system. The value chain is mainly composed of four parts: commodity flow, service flow, information flow and cash flow. The construction of information sharing mechanism and trust system is the core of achieving the efficiency singularity of each link of global value chain. Due to information asymmetry and lack of trust, the traditional value chain system dominated by multinational corporations cannot maximize efficiency, while AI can remarkably improve the efficiency and quality of information circulation and blockchain technology can solve the trust problem. The implementation of AI primarily depends on the application scenario. Although China is lack of leading edge in some critical technical fields, as world's largest AI application market with the largest population and manufacturing industry, China is endowed with absolute advantages in application scenarios. Guided by commercial applications, China has been developing at full speed in market-oriented application of AI.

Since 2010, demand for industrial robots has risen considerably due to the ongoing trend toward automation and continued technical innovations in industrial robots. In 2018, global robot installations increased by 6% to 422271 units, worth USD 16.5 billion (without software and peripherals). The operational stock of robots was computed at 2439543 units (+15%). This result came as a surprise because the main customer industries, automotive and electrical/electronics industry, had a difficult year and two of the main destinations, China and North America, have been starring in a trade conflict, spreading uncertainty to the global economy. In the manufacturing sector, the use of industrial robots in China has increased significantly since 2013, exceeding the developed economies of Europe and the United States, possessing the largest number of industrial robots used in manufacturing (See details in Figure 4). Although the growth rate in 2018 revealed a differentiated picture, the installations in China (154032 units; -1%) still far exceed the Republic of Korea (37807 units; -5%), Japan (55240 units; +21%) and the number of robots installed in Europe and the Americas combined (130772 units).<sup>1</sup>

The popularization of industrial robots in manufacturing industries will undoubtedly boost the production efficiency of enterprises and elevate the added value of manufacturing and processing sectors in the international division of labor, thus forming a new driving force in international competition of manufacturing export. Breakthroughs in disruptive technology will not only lead to reconstruction of global value chains, but will also help emerging economies to achieve "corner overtaking". China should firmly grasp the opportunity brought by the new scientific and technological revolution, comprehensively deepen reforms, remove institutional obstacles, enhance the accuracy and guidance of policy formulation and improve the efficiency of production factor allocation. Enterprises should seize the opportunity of reconstruction of business models in time, promote

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<sup>1</sup> Data from Executive Summary World Robotics 2019 Industrial Robots. <https://www.ifr.org/downloads/press2018/Executive%20Summary%20WR%202019%20Industrial%20Robots.pdf>.

the high integration of AI and scene innovation and draw support from the fourth technology.

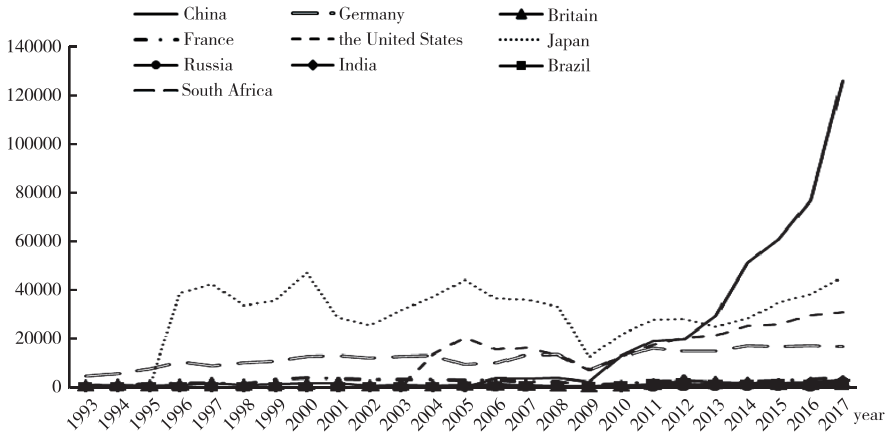


Figure 4. Time Trend of Installed Industrial Robots of Major Economies (units)

Source: International Robotics Federation, calculated by author.

#### 4. The Belt and Road Initiative Reshaping China's Economic Geography

In the post-crisis era, the global economy is still in the period of adjustment and rehabilitation, with excess capacity, deceleration of external demand, intensification of trade protectionism and trade frictions worldwide. In the face of intense changes that are taking place in the current international and domestic situation, the timely introduction of the Belt and Road Initiative (BRI) has provided a China plan for the internal and external linkage of China's open economy and the open world economy. In the new economic geography framework, Krugman (1991) brought the transportation cost into the theoretical analysis, emphasizing that transportation cost plays a key role in shaping international trade and interregional trade. BRI is building up the two-way circulation system of global value chain centered on China by taking advantage of its spatial location, creating a new path for regional economic growth.

##### 4.1. Midwest China in the Opening Up: Underachievers to Top Students

Since the reform and opening up, coastal cities have always been at the forefront of China's opening up to the outside world, while inland provinces of the central and western regions have always been subordinated, and most of them are located in the middle and bottom of the international industrial division. The direct cause of this result is that the coastal areas are endowed with advantages of international logistics which are not available for inland areas, such as convenient ocean routes, quality ports,

perfect maritime transport rules and preferential institutional arrangements. The initial endowment weakness of inland areas in terms of cost and time are obvious.

The construction of the China Railway Express (CR Express) under the BRI provides new ideas and new ways for Chinese inland enterprises to participate in international trade. The combination of CR Express and international ports has changed economic geography and equipped inland cities with conditions to match the coastal areas in international logistics. Compared with maritime transport and ports, the international land-ports have more in-depth functions of domestic economic radiation. Connected by the CR Express, the co-constructed logistics clusters and characteristic industrial zones by China and Europe have been gradually formed. Taking Xi'an land-port as an example, the radiation area of the CR Express includes Guizhou Province, Sichuan Province, western Hubei Province, western Hunan Province, western Inner Mongolia, and western Henan Province. The land-port free trade areas of Chongqing, Chengdu, Xi'an, Zhengzhou and Wuhan have been approved to be upgraded to the free trade pilot zone at the moment. The spatial mode created through CR Express helps to form a domestic value chain system centered on key cities and promotes network collaboration among international land ports, thus achieving the high integration of the regional value chain and the domestic value chains along BRI.

#### *4.2. Sino-Centric Global Value Chain: Global Value Chain with Dual Circulation*

With the changing pattern of the international competition, a new trend that the global value chain of single circulation traditionally dominated by the developed countries has been changing. By virtue of the economic and trade status and the level of industrial development, and the status of the world's largest developing economy, China has gradually become the main bond between the developed economies and the less developed economies in Asia, Africa and Latin America. A new value chain system is now becoming concrete, a value chain system includes two value chain circulations: China and the developed economies, China and the developing economies.

With the two-way circulation system of global value chain centered on China, the concept of BRI further fits this pattern. Judging from the number of countries listed as the three most important source countries of foreign value added for export products, China has become an essential gravity center in the economy along the Belt and Road as of 2010 (Boffa, 2018). For China, BRI has opened up new growth potential and external complementary space from many aspects. First and foremost, most of the countries and regions along the BRI are resource-rich areas. Resources like mineral, oil and gas will help China dispel the current energy consumption constraint. Secondly, countries along the Belt and Road (B&R) are generally lagging behind in infrastructure construction, while China is bound in steel, cement and other industries. Through the BRI, the supply and demand of infrastructure construction can be effectively realized

in the countries and regions along the B&R. The multiplier effect of infrastructure construction can bring about several times the total social demand and national income of investment, all in all whether the infrastructure is perfect could be a critical basis for the sustainable and stable development of economy in long-term. Thirdly, based on the context of the demand growth slowdown in traditional developed countries, the BRI provides a new path for China's deep participation in the international trade with countries along the B&R, creating mass markets for China's exports.

#### *4.3. Higher Level of Integration: between Regional Value Chain and Domestic Value Chain*

The global value chain is a complete commodity production process which is divided into several stages due to the influence of globalization, where countries and regions undertake different parts of the production process in the light of their own advantages. Compared with global value chain, which distributes overall production globally, regional value chain arranges its production in a specific region. The initial requirement for the composition of the regional value chain is that each country or region need to be geographically adjacent or close, after which comes the second that countries or regions have to be complementary in the value-added link of various industries. The Silk Road Economic Belt and the 21st-Century Maritime Silk Road in the BRI connected precisely into one large area, making the regional value chain geographically achieved.

Bilateral trade between China and economies along B&R has been growing rapidly, especially economies in Southeast Asia, Northeast Asia and North Africa. The total amount of imports from China grows from 42.31 to 562.91 billion USD and exports to China increase from 35.17 to 704.58 billion USD (See details in Figure 5). The global value chain which used to be dominated by developed countries is inadequate to sustain China's current economic development. In this context, China's integration into the manufacturing value chain and global value chain provides a new way of thinking, that is, the formation of Sino-centric regional value chain of manufacturing industry.

Under the concept of BRI, China's opening up has been adjusted from the original eastward direction to bidirectional opening up towards both east and west, letting inland and border areas incorporated into the international market, especially the Eurasia economic circle, greatly expanding the breadth and depth of China's opening up to the outside world. The evolution of China's opening up conforms to the wave of global regionalism, highlighting the multiple interactions between internal and external, east and west, coastal and inland, industry and agriculture, realizing regional strategic cooperation, connecting China's coastal areas with inland areas, extending and even reshaping the domestic value chain system. China's position in the global value chain has gradually moved towards the role of the United States, Japan and the EU, getting more opportunities to engage in the high-end links of the value chain, which will further

promote the transformation and upgrading of China’s manufacturing industry and enhance China’s capability of independent innovation in the field of high-tech.

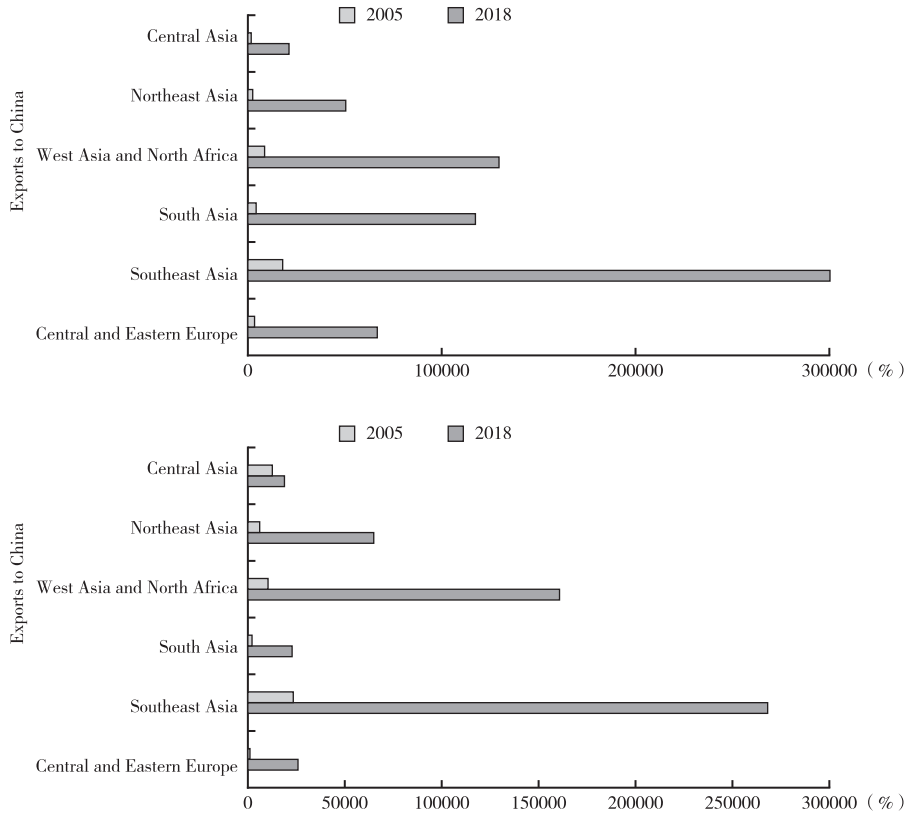


Figure 5. China’s Trade with B&R Economies (in millions of US dollars)

Source: Summarized by author based on the database of UNCTAD STAT.

#### 4.4. Improvement in Institutional Discourse: Regional Public Goods

Regional public goods refer to non-competitive and non-exclusive cooperation and benefits generated within a relatively limited geographical area (Sandler., 2010). The B&R public goods can be defined as serving the specific area or cross-region of the B&R where the arrangement, mechanism or system shared by countries within or between regions will be the cost (Huang and Dai, 2018). As the comprehensive national strength continues to increase, China’s willingness and actions to supply international public goods are increasingly active and its role during this process is transforming from participants to advocates (Liu, 2015).

BRI construction provides an open and inclusive platform for regional economic cooperation where China has been committed to promoting the creation of regional and

even global public goods, according to the golden principles of extensive consultation, joint contribution and shared benefits. To create the BRI public goods, with the concept of justice and benefit, China is seeking common interests with the countries along the B&R, resonating with policy ideas and complementing cooperation.

In the current global trading system, the characteristics of the multilateral trading system represented by the World Trade Organization are rule-oriented, and the formulation of unified trade rules constrains all members, which requires new members to meet the standards to join the system, which makes some countries and regions with large differences in economic developing level unable to participate in the division of international trade. The levels of development and geographic distribution of economies along B&R differ from one another (See details in Figure 6). BRI provides an inclusive platform for reciprocal cooperation and a steady stream of cooperation opportunities for all parties in the region and the compatible growth that BRI advocates has been reflected by the possible participation for all countries. Without united or rigid standards, countries integrated into BRI are able to enjoy the convenience and advantages brought by this platform. Meanwhile the benefit coming from this cooperation will be further growing with the increasing number of participants. In addition, although BRI mainly focuses on building a new pattern of cooperation and development for the countries along the B&R, during the construction process of BRI, the long-term and common interests will be developed in a unified direction, promoting national development in both economic and security dimension parallel.

Through policy coordination and abutment methods, China provides operative international trade governance public goods for countries and regions along the B&R, which explores and innovates forms of international regional cooperation and

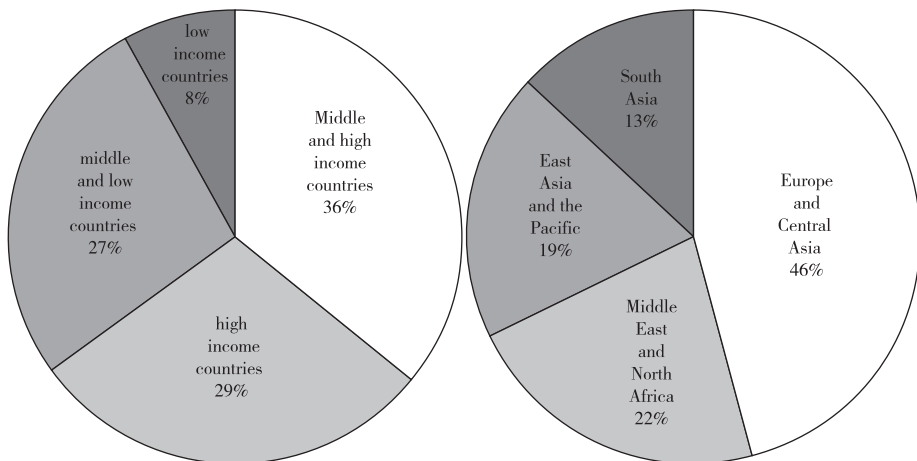


Figure 6. Income Type and Geographical Distribution of Countries and Regions along the BRI

Source: World Bank Database, calculated by author.



economic development strategy between China and other countries and regions, such as the Global Maritime Fulcrum (GMF) strategy of Indonesia and the Pasture Road strategy of Mongolia (Shen and Zhang, 2019). Combining the characteristics of publicity and positive externality, the BRI provides new ideas and solutions for international issues, which embodies the Chinese wisdom in the field of regional cooperation and the provision of international public goods, effectively enhancing China's institutional discursive power in the region and globally.

## **5. Supply-Side Structural Reforms Releasing Institutional Dividends Constantly**

Supply is the primary determinant in its relationship with demand, according to traditional economics of supply. Traditional economics of supply assumes that the focus of intervention in the economy shall be on the supply side, rather than the demand side. Therefore, the intervention measures proposed by traditional economics of supply are close to those of liberalism, such as anti-monopoly, deregulation, privatization and liberalization of economy. The previous mainstream economics emphasized only the research and policy guidance on the demand side, given the environment of supply, ignoring the role of the supply side. The new supply-side economics born in China in recent years has made up for the lack of supply side research in the field of economics. The demand of consumption, investment and export emphasized by the traditional demand side troika framework is connected to the supply of consumption, investment and export, which contains the supply side response and adaptation mechanism triggered by the demand side. In this regard, the optimization of related factor allocation and dynamic mechanism of institutional arrangements could be realized, while the rational supply management of the government could logically promote the effectuation of top-level design, further releasing the potential of micro entities, activating China's economic growth (Jia and Su, 2016).

### *5.1. Improving the Efficiency of Factor Allocation and Releasing the Vitality of Micro Entities*

Compared with the level of economic development, the upgrading of China's industrial structure has been relatively lagging behind for a long time. In the context of global economic slowdown, it is arduous to effectively respond to the current problem of insufficient demand and overcapacity by simple stimulation to the aggregate economy. Consequently, how to coordinate the allocation of factors and resources is crucial in the current economic development. The 2015 Central Economic Work Conference of China identified five priority tasks supply-side reform, namely "three go, one drop, one supplement", which includes cutting overcapacity, reducing excess inventory, deleveraging, lowering costs and strengthening areas of weakness (See details in Table

1). The supply-side structural reform is the key institutional innovation to improve the total factor productivity of enterprises, which liberalizes the economy from dependence on stimulus and boosts growth through unlocking potential productivity. On the basis of clarifying the objectives of supply-side structural reform, the practical path of reforms specifically includes three aspects: one is to correct the distortion of factor allocation and realize the transformation from factor-driven to innovation-driven; the second is to reform the administrative management system and realize the regulation transformation from government to market mechanism; the third is to promote industrial transformation and upgrading, and realize the transition from traditional industries to modern industries.

Table 1. Five Major Tasks of Supply-Side Structural Reform

Cutting overcapacity	Top of the five supply-side structural reform tasks. Solve the adverse situation of vicious competition caused by oversupply of products, and seek the methods of transformation and upgrading of production equipment and products.
Reducing excess inventory	Mainly to resolve the excess inventory in real estate. Expand effective demand, open up supply and demand channels, digest inventory, and stabilize the real estate market.
Deleveraging	Ameliorate the debt structure in the process of increasing production efficiency and promoting economic growth; increase the proportion of equity capital, gradually reduce leverage, prevent financial risk and promote sustainable and healthy economic development.
Lowering costs	Reduce institutional transaction costs of enterprises; streamline administration and delegating more power to lower-level governments to further transform government functions; reduce the cost of finance, logistics.
Strengthening areas of weakness	Strengthen the weakness in the construction of infrastructure, ecological and livelihood; consolidate sustained and healthy economic development and promote further opening up and scientific and technological innovation.

Source: Summarized by author.

The improvement of factor allocation efficiency is mainly embodied in de-capacity, de-stocking and improving weak links, while invigorating micro entities is primarily reflected in de-leveraging and cost reduction. De-capacity and de-stocking means removing capacity that is redundant, backward, inefficient or polluted through strict standards and effective government reforms, and providing space for new capacity. Enterprises with high energy consumption, high pollution, high waste and low efficiency occupy a large part in the overcapacity industries which offers room for supply-side structural reform to play its role in realizing the transformation and upgrading of enterprises. Improving weak links is to improve the supply level of enterprises, enhance the ability of independent innovation, upgrade product quality, and adapt to the goal of maximizing market competitiveness and efficiency. De-leveraging is put forward in view of enterprises with excessive financial debt, aiming at regulating the debt of enterprises and improving its financing structure. The goal of

cost reduction is to reduce the burden of enterprises, activate “zombie enterprises” and release corporate vitality.

### *5.2. Strengthening the Basic Position of Competitive Policies and Promoting the Transformation of Industrial Policy from Differentiation to Inclusiveness*

Generally speaking, all the policies and measures adopted by the central or local governments to promote the development of certain industries in the country or region are defined as industrial policies. Industrial policy is a policy tool for developing countries to achieve economic growth and catch up with developed countries. The core issue behind this is the relationship between the government and the market, that is, how to coordinate market failures and government limitations. The supply-side structural reform emphasizes the adoption of reform methods to rationalize the relationship between the government and the market, optimize resource allocation, adjust the economic structure, and give full play to the four major elements which are labor, land, capital and innovation, improve total factor productivity, and provide effective supply to the market. This implies the significance of market competition mechanism and it emphasizes the importance of establishing an economic system with effective market mechanism, dynamic micro entities and appropriate macro control.

The current overcapacity problem is largely due to insufficient market competition caused by government intervention. China’s industrial policy began in the late 1980s. With the continuous development of the market economy in China, a relatively comprehensive and systematic industrial policy system has been established at present. The current selective industrial policy is gradually being replaced by the functional industrial policy, which leads to the question of how to make good use of industrial policies that could enhance the development of China’s economy under the new normal. The focus of the supply-side structural reform is to increase the institutional supply, further promote market-oriented reforms, transform government functions, establish the basic position of competitive policies, and promote the transformation of industrial policies from differentiation to inclusiveness, strengthen the independent innovation capability and competitiveness of enterprises and intensify supply efficiency of enterprise. In order to further improve the design of industrial policies, it is necessary to develop the industrial policies of specific sectors, such as innovative research on emerging industries and incentive measures for environmental protection and energy conservation, and gradually improve them into a long-term, comprehensive and universal mechanism.

### *5.3. Promoting Higher Degree of Integration between Domestic and International Institutions and Reducing Trade Frictions*

The world political and economic structure is undergoing profound changes with

the Doha Round being stagnant, the WTO dispute settlement mechanism facing a halt and the multilateral trading system facing serious challenges from unilateralism and trade protectionism. Based on this context, China's original opening up model of commodities and factors is not sufficient enough to cope with the limitations and challenges in the current development, which requires a new round of high-level opening up, including further opening up in various sectors and different levels.

Under the above background, domestic institutional reforms led by supply-side structural reforms have been continuously promoted, and the reform of domestic institutional mechanism will further boost the integration of domestic institutions with international rules. The new round of international economic and trade rules is concentrated on rules of origin, intellectual property protection, service industry opening, digital trade, environmental protection, competition policy and state-owned enterprises. The essence of China's new round of opening up is to build a system of domestic rules and institutions that link up with high-standard global economic and trade rules. While promoting the integration of rules domestic and abroad, China actively participates in the formulation and reform of international economic and trade rules, creating a legal, fair, liberal and transparent environment for cross-border goods, capital and personnel, and comprehensively improving the level of opening up. In the process of continuous supply-side structural reform, the industrial structure has been constantly adjusted and the domestic and international systems has been steadily integrated. Accordingly, the integration of domestic institutions with international rules will greatly reduce the institutional costs for enterprises to participate in international trade, reducing the uncertainty in trade frictions and international economic and trade environment, providing the institutional basis for building a good economic and trade environment.

## **6. Domestic Market Fostering New Advantages in China's Exports**

With the continuous advancement of globalization and international trade, the decline of domestic factor cost advantage has weakened China's traditional comparative advantage, while the continuing expansion of domestic market size provides a new source for the prolongation of China's economic comparative advantage. Through technological innovation, independent brand construction, products quality improvement and industrial structure optimization, the home market effect and consumption demand escalation originating from the domestic market assist the cultivation of new advantages in China's export.

### *6.1. Home Market Effect Improving the International Competitiveness of Enterprises*

Under the conditions of increasing returns and positive trade costs, enterprises tend to concentrate their production in regions or countries that have strong demand

and trade with other regions or countries in order to pursue scale economy and reduce transportation costs. Such a theory is equivalent to proving that the domestic market demand of an exporting country is an important prerequisite for its exports. The size of the domestic market of a specific product determines its potential advantage in export which is called the home market effects (Krugman, 1980). Starting from the local market of exporting countries, the size of their domestic market directly determines the effect of local market scale economy, which has a direct impact on the export competitiveness of domestic enterprises. The realization of scale economy and China's vast domestic demand have created new comparative advantages for China, which could bring significant positive effects to the productivity growth and technological progress of local enterprises (See details in Figure 7). In the environment of increasing domestic market demand and fierce competition, more and more domestic enterprises have gained growth, and thereby acquired strong ability of innovation and resource integration entering into the international market. In this way, local enterprises have come out of an extroverted developing mode of domestic-oriented commodities sold abroad, such as industries like communication equipment manufacturing, engineering machinery, household electric appliances.

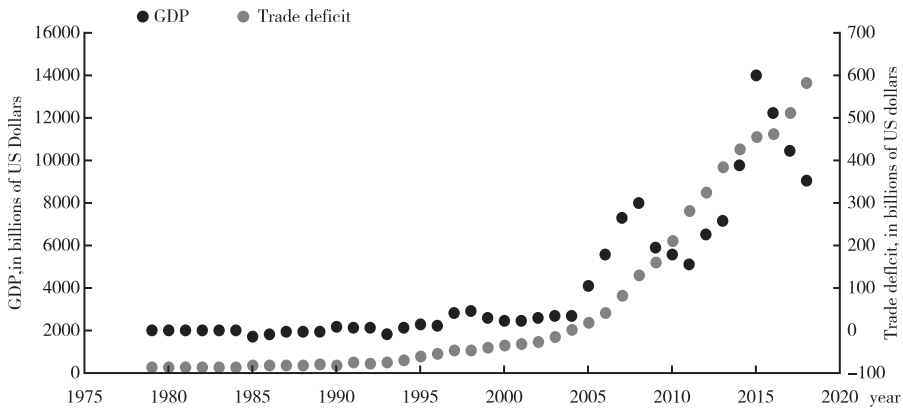


Figure 7. China's GDP and Trade Deficit

Source: World Bank Database, UNCTAD STAT.

The home market effect has not been obvious in the development of China's foreign trade in the past few decades which is mainly because that the huge demand from the external market complemented with China's domestic labor cost advantage. The comparative advantage formed by China's abundant labor force created trade forms such as processing trade, attracted a large number of FDI flowing into China. From reform and opening up to China's accession to the WTO and then to the international financial crisis, China's economic success typically owes to export-oriented model, while the huge demand potential of the domestic market has not been effectively

explored. With development of the fourth scientific and technological revolution so far, the high-tech industries that lead the future economic growth, such as semiconductor industry, have high scale economic barriers, which could be conquered upon China's mass local market. This has been embodied in the developing process of BeiDou Navigation Satellite System and large aircraft. In 2020, the supply capacity of medical materials in China has provided conditions to curb the outbreak of Coronavirus (COVID-19) pandemic, which established a unique global supply advantage in the short term, reflecting China's unique advantages.

### *6.2. Demand Escalation Inducing Supply-Side Innovation and Development*

Ever since the reform and opening up, demographic factors have played an important role in China's foreign trade development. The large population base has provided ample cheap labor for Chinese companies and laid a solid foundation for the successful implementation of the export-oriented economic development strategy. With the development of China's manufacturing industry and industrial upgrading, the demographic dividend advantage has gradually weakened, but the huge population advantage has gained a new way to seal a place in the economy. The huge volume of domestic market has made the growth and development of domestic enterprises have the incomparable scale advantages of other economies. This advantage is expected to become the cornerstone of Chinese enterprises and economic competitiveness.

Over the past few years, China's domestic factor costs, especially labor costs, have been increasing, while the global market hasn't recovered from the financial crisis. The driving mode of China's foreign trade has changed fundamentally according the whole picture. China's rapid economic growth over the past 40 years has contributed to the rise of the largest emerging market in the world, where the middle-income and high-income groups gradually becoming the core strength of the consumer market owing to the continuous of income level. With the unprecedentedly abundant resources of information in the digital age, consumers' understanding and requirements for goods and services have become pluralistic, which will lead to more attention on the quality of goods, shopping experience and other diversified needs, turning into one of the main trends in the current Chinese consumer market. The requirement of demand level urges enterprises to adjust their position in the industrial chain through market mechanism, optimizing the industrial structure, improving the effectiveness in the division of labor. In the process of meeting the changing market demand, domestic enterprises have naturally created stronger export competitiveness and upgraded their export products and trade models.

## **7. Conclusion and Enlightenment**

Combined with the above analysis, this paper puts forward the following points.

Firstly, e-commerce has become an indispensable pillar of China's foreign trade development, perfecting laws and regulations of e-commerce and actively participating in the negotiation in WTO and multilateral rules of e-commerce rules are crucial for China to seize the leading edge of China's electronic business. Secondly, the Belt and Road Initiative is beneficial to China's foreign trade and the development of stable and diversified investment, therefore how to deepen cooperation and exchanges with the countries along the B&R should be emphasized. Thirdly, China's reform and opening up has achieved spectacular success, while the future reform and development remain arduous. Facing the new era of institutional reform after the supply-side structural reform, China's reform shall be more systematic and comprehensive, promoting institutional innovation and providing new impetus for China's economic and social development. Fourthly, making full use of the huge and growing domestic market shall be one of the essential elements of future development. With the huge domestic market, promoting the development of scale economy will enhance the future competitiveness of Chinese enterprises.

## References

- Amiti, M., & Freund, C. (2008). An Anatomy of China's Export Growth. World Bank Policy Research Working Paper, No.4628.
- Baldwin, R. E. (2006). Multilateralising Regionalism: Spaghetti Bowls as Building Blocs on the Path to Global Free Trade. *World Economy*, 29, 1451-1518.
- Baldwin, R. E., & Venables, A. (2011). Relocating the Value Chain Offshoring and Agglomeration in the World Economy, Department of Economics. University of Oxford, Discussion Paper Series ISSN 1471-0498.
- Bas, M., & Strauss-Kahn, V. (2015). Input-Trade Liberalization, Export Prices and Quality Upgrading. *Journal of International Economics*, 95 (2), 250-262.
- Boffa, M. (2018). Trade Linkages between the Belt and Road Economies. World Bank Policy Research Working Paper, No.8423.
- Gunther, S. (2019). China's Overinvestment and International Trade Conflicts. *China & World Economy*, 5, 37-62.
- Huang, H., & Dai, L. T. (2018). Public Goods of the Belt and Road Initiative and the Major Country Diplomacy with Chinese Characteristics. *Pacific Journal (Taipingyang Xuebao)*, 26 (8), 50-61.
- Jia, K., & Su, J. C. (2016). The Supply-Side Reform. *Management World (Guanli Shijie)*, 3, 1-24.
- Krugman, P. (1991). *Geography and Trade*, MA: MIT Press.
- Lin, J. Y. (2014). Industrial Policy Revisited: A New Structural Economics Perspective.



- China Economic Journal*, 7 (3), 382-396.
- Liu, Y. C. (2015). From Participant to Leader: China's Identity Change in the Provision of International Public Goods. *Pacific Journal (Taipingyang Xuebao)*, 23 (9), 76-86.
- Melitz, M. J. (2003). The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity. *Econometrica*, 71 (6), 695-725.
- Meng, B., Xiao, H., Ye, J. B., & Li, S. T. (2018). Are Global Value Chains Truly Global? A New Perspective Based on the Measure of Trade in Value-Added. IDE Discussion Paper, No.736.
- Ohlin, B. (1933). *Interregional and International Trade*. MA: Harvard University Press.
- Pei, C. H., & Liu, B. (2019). The Dynamic Energy Conversion of China's Foreign Trade and the Formation of New International Competitive Advantages. *Economic Research Journal (Jingji Yanjiu)*, 5, 4-15.
- Porter, M. (1990). *The Competitive Advantage of Nations*. ME: Free Press.
- Qian, X. F., & Xiong, P. (2010). The Dual Margin of China Export Growth and Its Determinants. *Economic Research Journal (Jingji Yanjiu)*, 1, 65-79.
- Rodrik, D. (2006). What's So Special about China's Exports? *China & World Economy*, No, 1-19.
- Sandler, T. (1998). Global and Regional Public Goods: A Prognosis for Collective Action. *Fiscal Studies*, 19 (3), 221-247.
- Shen, M. H., & Zhang, Z. Y. (2019). Mechanism Construction of the Belt and Road Initiative and the Construction of Inclusive International Economic Governance System. *Expanding Horizons (Xin Shiye)*, 3, 108-114.
- Sheng, B., & Wei, F. (2019). Review of China's Foreign Trade in the Past 70 Years and Its Prospects. *Finance & Trade Economics (Caimao Jingji)*, 10, 34-49.
- Sheng, B., & Lv, Y. (2014). Re-Etimation of Dual Margins of China's Trade Based on Micro-Trade Data During 2001-2010. *Journal of International Trade (Guoji Maoyi Wenti)*, 11, 25-36.
- Shi, B. Z. (2013). The Product Quality Heterogeneity of China Firms' Export: Measurement and Facts. *China Economic Quarterly (Jingjixue Jikan)*, 13 (1), 263-284.
- Yu, M. J., & Zhang, R. (2017). Estimating China's Manufacturing Export Quality: Pitfalls and Remedy. *China Economic Quarterly (Jingjixue Jikan)*, 16 (2), 463-484.
- Zhao, W. D. (2003). On Comparative Advantage of China's Manufacture Industry Under New Worldwide Division Structure. *China Industrial Economy (Zhongguo Gongye Jingji)*, 8, 32-37.