

# Analysis of Status, Existing Problems and Countermeasures in the Development of Dual Circulation of China at Each Stage

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## Abstract

Accurately identifying evaluation indicators and evaluating the development performance of dual circulation of China at each stage, including the period after reform and opening up, entering into WTO, the global financial crisis and the Sino-US trade friction, is of great significance to analyze the development status of dual circulation in the whole China or some regions. In order to state the development of the dual circulation at each stage, this paper establishes an evaluating index system and analyzes relevant data from the perspectives of inner cycle and outer cycle respectively. The evaluation results show that: firstly, after reform and opening up, the development of China's dual circulation has gone through a process from "the outer cycle strengthens and the inner cycle weakens gradually" to "the inner cycle strengthens and the outer cycle weakens gradually"; secondly, at each stage, the change of China's economic development pattern has its era conditions and meets the needs of national development; thirdly, there are some advantages on China's economic development brought by the dual circulation of each stage but also with some problems; fourthly, in the development of the dual circulation, international trade has always been a well-developed part, while domestic trade has been a weaker one. According to the existing problems of each stage like imbalance, developing dual circulation in the future should pay attention to domestic reform, opening up and domestic-international coordination and so on at the same time.

## Keywords

China, Dual Circulation, Evaluating Index System, Empirical Analysis, Development Path

## 1. Introduction

In 2020, an idea of creating a new development pattern that domestic and foreign markets can boost each other with the domestic market as the mainstay was put forward by the Standing Committee of the Political Bureau of the CPC Central Committee. As a major decision made according to the changing political and economic situations at home and abroad, and a strategic adjustment based on the historical experience accumulated in the process of development, since it was proposed, dual circulation has gradually attracted attention and become a hot word with wide social concern. However, dual circulation is not a new concept. Since reform and opening up, the economic development of China has been centered on inner cycle and outer cycle, which presented different states and features in different periods. This research conducts an analysis on the development performance of dual circulation of China at each stage after reform and opening up, entering into WTO, the global financial crisis and the Sino-US trade friction, aiming at summarizing developmental experience and giving relevant suggestions for its further development in the future.

The research mainly consists of six sections. In the first three sections, basic information about the research paper including research innovation and the establishment of evaluating index system is introduced. For section four, it analyzes and summarizes the development status of the dual circulation in China from the perspective of inner cycle and outer cycle respectively, with indicators concerning trade, investment and financial. According to the results of analysis and the real status of dual circulation in China, existing problems of each stage and their causes are explained in section five. In the last section, the research results are summarized and suggestions for the future development of dual circulation in China are put forward.

## 2. Literature Review

### 2.1. Research on Dual Circulation

With the proposal of the new development pattern, dual circulation became a hot topic in academic and political circles. The current researches on dual circulation of China are mainly divided into qualitative researches and quantitative researches. To see from a whole, qualitative researches mostly focus on connotation and features (Yu, 2020; Yang & Yang, 2021; Lawrence, 2020), reason analysis (Dong & Li, 2020; Guo, 2020; Peng & Wei, 2020; Jiang & Meng, 2021; Xin, 2020; Wang, 2020) and implementation path (Pu & Yang, 2020; Cao, 2021; Shi & Zhou, 2021), while quantitative researches (Zhang, 2020; Lu, 2020; Xuan & Sun, 2020; Zhang et al., 2020; Huang & Ni, 2021; Liu et al., 2022) mostly discuss from the perspective of a single economic factor or use China's dual circulation as the research background. Up to now, researches on the development of dual circulation of China still have not formed a systematic theoretical study, and literatures concerning specific analysis on dual circulation with an evaluating index system are also very limited.

With literature review, it was found that relevant researches on dual circulation mainly focus on its definition, causes, measures and so on. It is still difficult to analyze quantitatively on the developmental status of dual circulation at each stage and direction of future adjustment with the lack of literatures studying the dual circulation from various perspectives by establishing an evaluating index system. The purpose of forming a new development pattern is to adapt to the internal changes of the society and also to cope with the intricate changes of international environment. However, the results of the actual implementation, the problems and weaknesses of the development at each stage and suitable developmental strategies for the future are still worthy to discover as there is insufficient research achievement concerning data analysis and problem-countermeasure analysis on the development of dual circulation. As a result, it is meaningful to have a further study on status, existing problems and countermeasures in the development of dual circulation of China at each stage.

## 2.2. Research Innovation

Different from paying attention to the introduction and realistic analysis of dual circulation, this research focuses on the developmental status of inner cycle and outer cycle of China at each period after reform and opening up, and tries to figure out some strategies for the future development of this pattern with related experience. By conducting an empirical analysis on dual circulation of China at each stage of the development process after reform and opening up, this research possibly brings some new thoughts and enlightenment, which may enrich the theories and research methods and provide reference for further researches. At the same time, using the statistics to evaluate and analyze the situation of economic development of China can be beneficial to find the direction for future development more accurately and thus to give more effective suggestions.

## 3. Determination of Index

Basing on the construction standards of an index system and the reference of a large number of literatures, this research divides the index system into 2 first-level indicators, 6 second-level indicators and 9 third-level indicators (see **Table 1**). With the definition of dual circulation and its focuses, the system consists of two parts, inner cycle and outer cycle, and tries to realize the research purpose of evaluating the developmental status of dual circulation in China at each stage. At the aspect of outer cycle, according to some literatures concerning the study of the level of opening to the outside world, its measurement is generally taken from the perspectives of international trade, international investment and international finance (Zhang & Kou, 2019), using indicators like degree of dependence on import and export, net flow of direct investment and foreign loan scale on behalf of each perspective (Liu et al., 2020; Wei & Li, 2020). Accordingly, some corresponding indicators are also listed from each perspective of trade, investment and finance to represent the situation of inner cycle (Zhang, 2020; Liu et al., 2022).

**Table 1.** Evaluating index system of dual circulation.

Destination Layer	First Grade	Second Grade	Third Grade	Data Source	
Developmental Status of Dual Circulation	Inner Cycle	Trade	Total Retail Sales of Consumer Goods to GDP	National Bureau of Statistics	
		Investment	Proportion of Domestic Funds to Total Fixed Asset Investment	National Bureau of Statistics	
		Finance	Growth Rate of Net Domestic Credit	World Bank	
	Outer Cycle	Trade		Import to GDP	World Bank
				Export to GDP	
			Degree of Dependence on Import and Export		
		Investment		Net Inflow of Foreign Direct Investment to GDP	World Bank
				Net Outflow of Outward Direct Investment to GDP	
		Finance		Total External Debts Stock to GDP	World Bank

## 4. Empirical Analysis

In this section, the research makes data analysis and description on the indicators at each aspect of trade, investment and finance from the perspectives of inner cycle and outer cycle. In this way, the development status of each stage as well as the historical progress and macro changes of the whole process can be summarized.

### 4.1. After Reform and Opening Up (1978-2000)

In a certain period of time after reform and opening up, the economic development pattern experienced a process from “inner cycle dominates the economy with a relatively limited outer cycle” to “the proportion of outer cycle keeps rising”, ending up with the outcome of outer cycle plays a more and more important role in pulling China’s economic development.

During the early period of New China, some western capitalist countries imposed sanctions like political isolation, economic blockade and military encircling on China. In order to survive, China had no choice but to implement a diplomatic strategy of “Leaning to One Side” and form an alliance with the Soviet Union. However, with the emergence of some conflicts of interest, the friendly relationship between China and the Soviet Union has gradually become tense, accompanied by the stagnate of exchanges in all aspects. As a result, China’s process of opening up to the outside world was negatively affected. Under the pressure put by America and the Soviet Union, China had to explore a path of independence and self-reliance for its development, thus forming a development pattern dominated by inner cycle. With the implementation of the First Five-Year Plan and Three-line Construction, the manufacturing system of China was gradually established, which laid a solid economic foundation for reform and opening up (Cao, 2021).

In 1978, facing the fact that people were still living in poverty and the production level was still relatively low, China’s government made a decision to carry

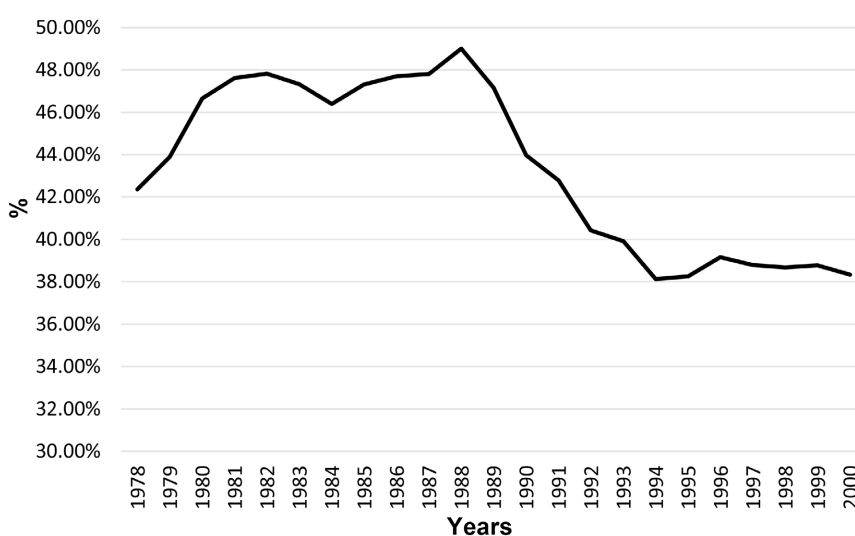
out the Reform and Opening-up Policy, which actually was an adjustment of the running pattern focusing on inner cycle, trying to promote the communication between China and other countries and also the development of outer cycle (Yang & Yang, 2021).

#### 4.1.1. Inner Cycle

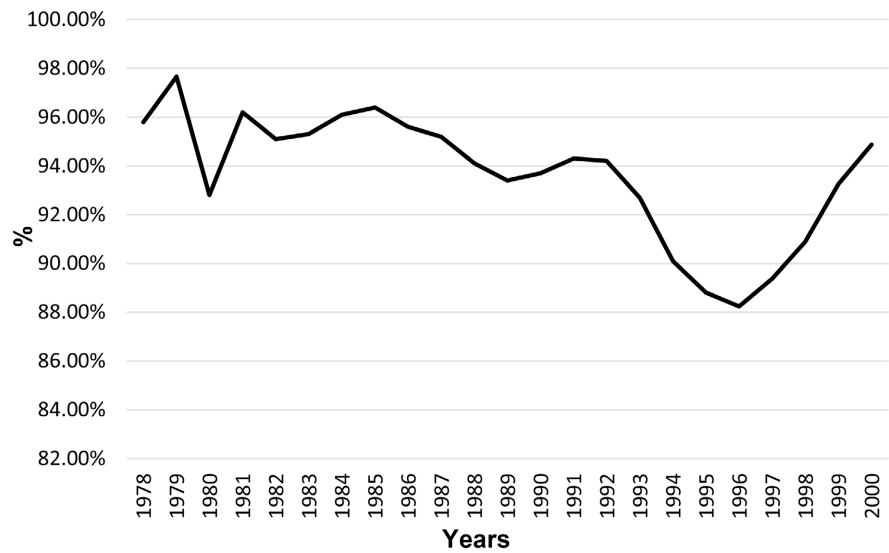
At the dawn of the reform process, the consumption level of the society has improved for a certain degree. From **Figure 1**, the index of Total Retail Sales of Consumer Goods to GDP increased significantly in the first five years of reform and opening up and reached a peak of 49.01% in 1988, which shows that inner cycle still played an indispensable role in China's economic development. After that, the index declined rapidly and reached a lower value of 38.34% in 2000, reflecting that the initial success of opening up was achieved and the effect brought by inner cycle on China's economy gradually weakened in the perspective of trade.

As a representative index of investment in inner cycle, Proportion of Domestic Funds to Total Fixed Asset Investment can reflect the development trend of China's economy in the period of reform and opening up. As shown in **Figure 2**, the value of the index experienced a process of first decline and then rise, reaching the valley of 88.24% in 1996 and returning to a high value again with the development of China's economy and the increase of social wealth. However, foreign capital remained occupying more than 5% of total fix asset investment until 2000, which still had a certain effect on the area of investment. In other words, there was still some room for the inner cycle of investment to improve.

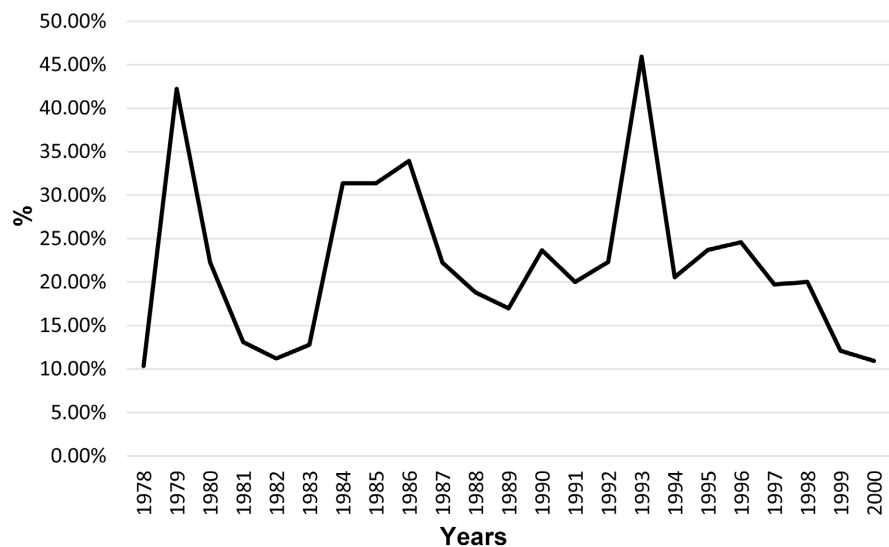
As can be seen from **Figure 3**, as a representative indicator of inner cycle in finance, Growth Rate of Net Domestic Credit fluctuated rapidly in the early stage of reform and opening up, with the lowest value of 10.35% and the highest value of 45.93%, indicating that the growth of China's domestic credit was not



**Figure 1.** Total retail sales of consumer goods to GDP. (Source: National Bureau of Statistics)



**Figure 2.** Proportion of domestic funds to total fixed asset investment. (Source: National Bureau of Statistics)

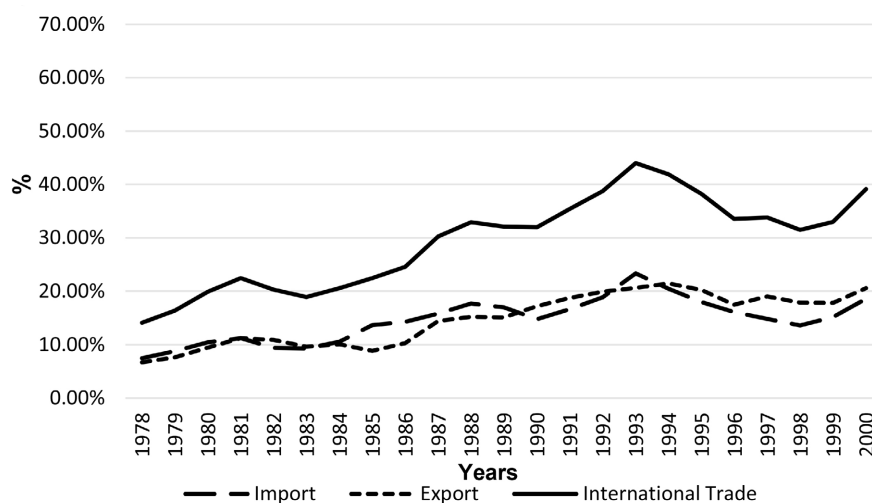


**Figure 3.** Growth rate of net domestic credit. (Source: World Bank)

stable in this period. From 1978 to 1994, the value of the index changed at a relatively high level and peaked the annual rate in 1993, and after 1994, the fluctuation of it gradually flattened and began to show a downward trend. To see from a whole, the financial market of China first developed rapidly and then slowed down its expansion, thus weakening the influence of inner cycle gradually.

#### 4.1.2. Outer Cycle

The corresponding indexes of outer cycle also show the features. From **Figure 4**, in the first five years of reform and opening up, namely 1978 to 1983, the Import Dependence and Export Dependence of China rose and fell. Though it seems that both the two indicators and also the Degree of Dependence on International Trade had a corresponding increase, the change was just gentle. Until 1986, the



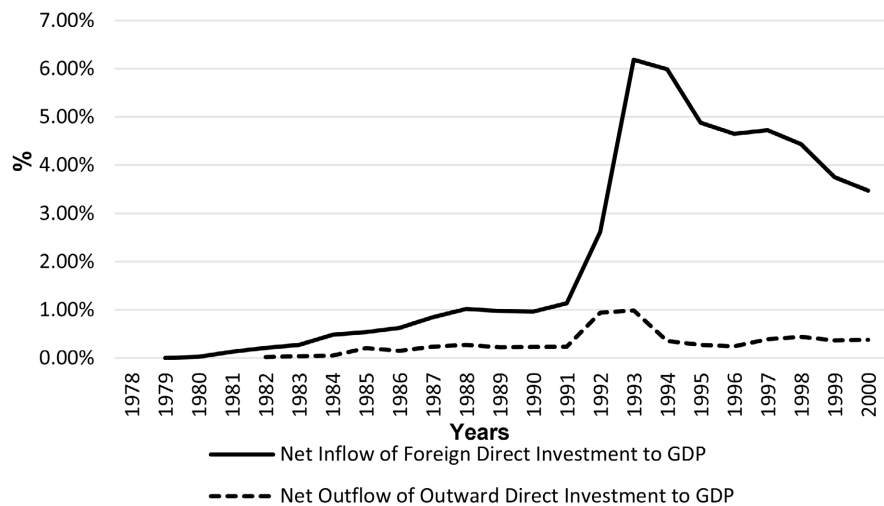
**Figure 4.** Degree of dependence on import and export. (Source: World Bank)

Degree of Dependence on Import and Export of China was close to 25%, which shows that the development pattern of China in this period was dominated by inner cycle and accompanied by relatively limited outer cycle. With the deepening of reform and opening up, outer cycle has gradually expanded and played an increasingly important part in China's economic development. To see from the perspective of trade, the outer cycle developed rapidly from 1983 to 1993 and once reached a high value of 44%, providing good conditions for the development of trade and economy.

From 1978 to 2000, the proportion of total exports and total imports to GDP increased gradually, respectively raised from 6.66% in 1978 to 20.57% in 2000 and from 7.44% in 1978 to 18.58% in 2000. During this period, the scale and volume of China's total import and export were expanding on the whole, and international trade was developing steadily.

From the view of international direct investment, after reform and opening up, outer cycle in the field of investment also made a certain progress. To see in **Figure 5**, the two indicators of investment raised gradually from 1978 to 1991, and then both entered the stage of rapid climb in the following two years, among which the index of Net Inflow of Foreign Direct Investment to GDP soared from 1.14% in 1991 to 6.19% in 1993, reaching an increase of more than five times. Though with a weak economic strength, the index of Net Outflow of Outward Direct Investment to GDP also had a certain increase after a period of development, which increased from 0.02% in 1982 to 0.99% in 1993. From 1992 to 2000, the flow of international direct investment to GDP declined to some extent, but compared with the situation in the early stage of reform and opening up, there is still an improvement, which formed a good start for the future development of China's economy. Similar to the situation of trade, the proportion of outer cycle concerning investment increased at this stage.

In terms of international finance, the openness of China's financial market has also improved for a certain degree, which can be proved by the scale of total



**Figure 5.** Flow of direct investment to GDP. (Source: World Bank)

external debt. As can be seen from **Figure 6**, the proportion of Total External Debts Stock to GDP raised constantly in the early stage of reform and opening up and reached the peak of 19.36% in 1993. In the following seven years, the value of this index declined to a certain extent, from 19.36% in 1993 to 12.05% in 2000. However, compared with the original value of 2.96%, there was still a significant increase, indicating that China's opening to the outside world had achieved initial results during this period, with an expanding outer cycle in financial industry.

#### 4.1.3. Summary

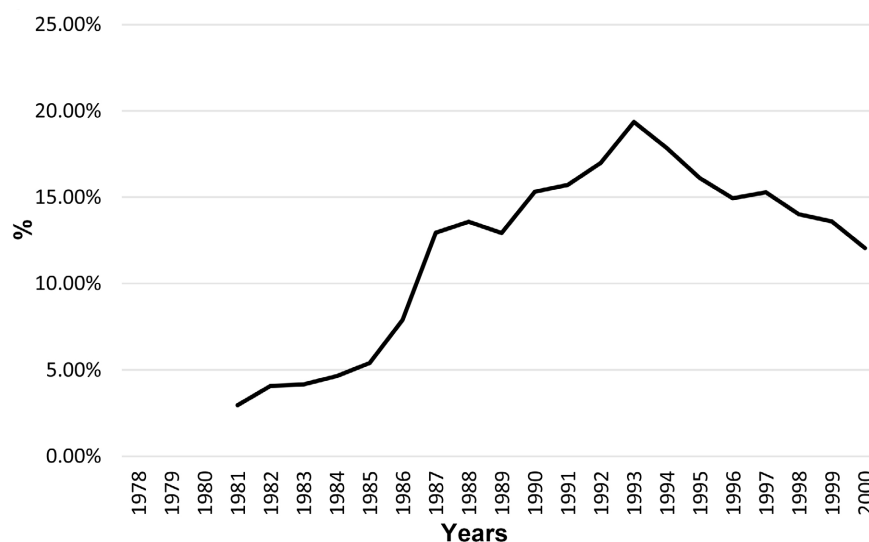
According to the analysis of each indicator, China's economy had a certain development in the early stage of reform and opening up. However, as this policy was still at a trial sub stage and the comments on it from other countries were also uncertain, inner cycle remained its important position. Then, with the continuous development of opening up, outer cycle played an increasingly important role in China's economic development. Throughout the whole period of reform and opening up, whether analyzing on trade, investment or finance, the proportion of outer cycle in China's economic development has been significantly increased, and the relationship between inner and outer cycles has continuously been adjusted.

#### 4.2. After Entering WTO (2001-2007)

After entering WTO, the outer cycle of China's economy has developed vigorously, forming a development pattern dominated by it.

In 2001, China successfully joined the WTO. From then on, China's integration to the system of economic globalization has been accelerating, and its interaction with the outside world has become more and more frequent. With a series of political contacts, economic interactions and cultural exchanges with other countries, China has gained the vitality of economic and social development





**Figure 6.** Total external debts stock to GDP. (Source: World Bank)

from the whole. At the same time, the acceptance of free economies represented by the United States, The European Union and Japan also made China to obtain the tension of institutional externality (Peng & Wei, 2020). In the favorable international environment, the outer cycle of China's economy was given a golden period for its development in this stage and began to flourish. In this way, the development pattern of economy dominated by outer cycle was gradually determined.

#### 4.2.1. Inner Cycle

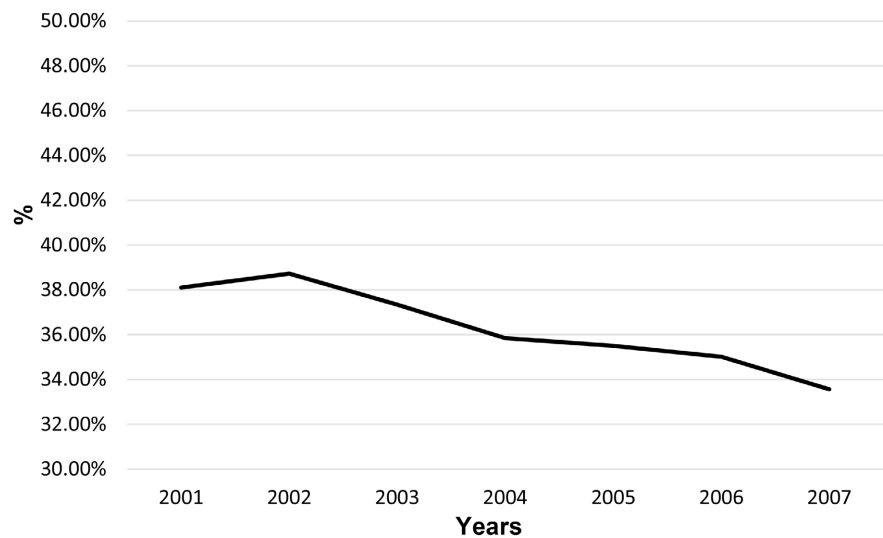
As shown in the figure of Total Retail Sales of Consumer Goods to GDP (Figure 7), from 2001 to 2007, the index presents a continuous downward trend, reducing from 38.10% to 33.56%. The amount of consumption on domestic products decreased, indicating that the proportion of inner cycle in the field of trade reduced as well as its influence on China's economic development pattern.

As for the situation of investment at the same stage, there is just a slight fluctuation from Figure 8. The Proportion of Domestic Funds to Total Fixed Asset Investment is at around 96%, in other words, foreign funds still occupied a certain proportion in the investment and inner cycle was unable to play an absolutely essential part for social investment of China.

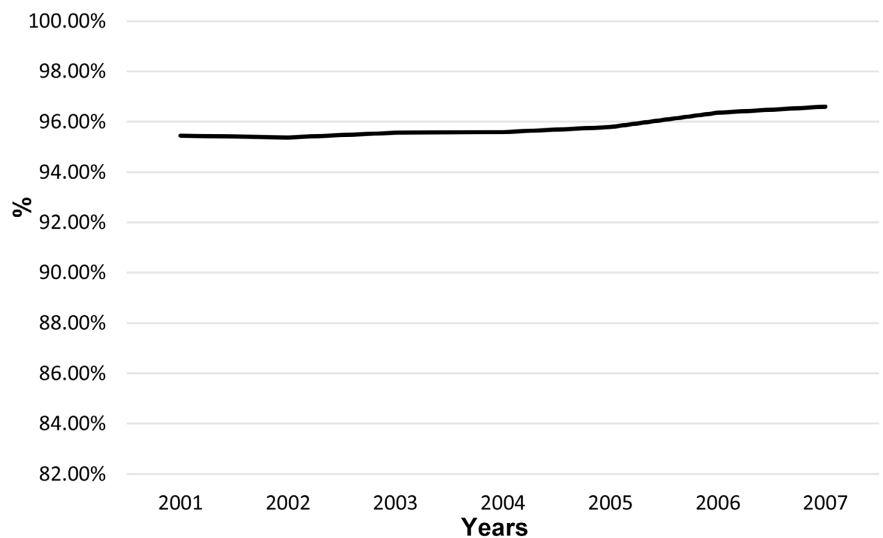
For the aspect of domestic finance shown in Figure 9, the Growth Rate of Net Domestic Credit has a certain variation. In the first two years after entering into WTO, the index rose from 13.6% to 27.99% but reached the valley of 8.79% by 2004, indicating that the growth of the domestic credit scale economic growth slowed down at this stage as well as the expansion of inner cycle in the area of finance.

#### 4.2.2. Outer Cycle

Relatively, in terms of the trade index of outer cycle, the Degree of Dependence on International Trade of China once rose from less than 10% in 1978 to 64% in



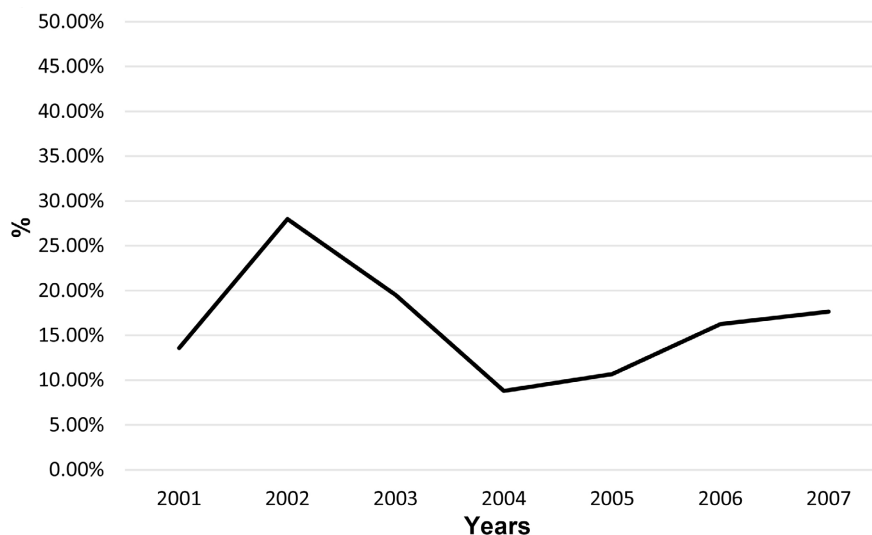
**Figure 7.** Total retail sales of consumer goods to GDP. (Source: National Bureau of Statistics)



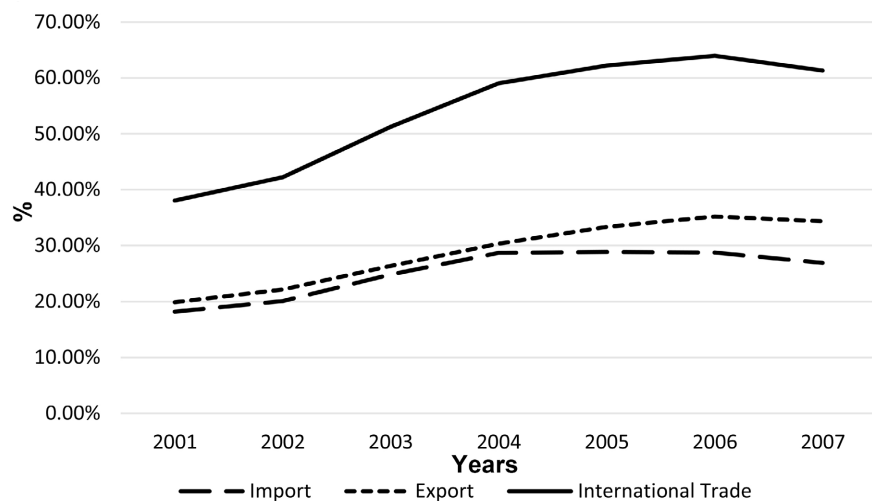
**Figure 8.** Proportion of domestic funds to total fixed asset investment. (Source: National Bureau of Statistics)

2006 after the accession to WTO. At this stage, China had more chances to participate in various economic activities in the global market and fully formed an export-oriented economic development pattern (Yang & Yang, 2021).

Since 2001, both the import volume and export volume of China have increased significantly, among which the rise of export was greater than the import, forming a gap between the dependence of export and import. To see on the whole from **Figure 10**, the three indicators of international trade remain increasing rapidly and reach the peak in 2006. By 2007, the proportion of export reached 34.38% and the proportion of import also increased to 26.93%, bringing the Degree of Dependence on Import and Export to 61.31%. At this stage, the outer cycle of trade continued to develop, which expanded the economic effect on China.



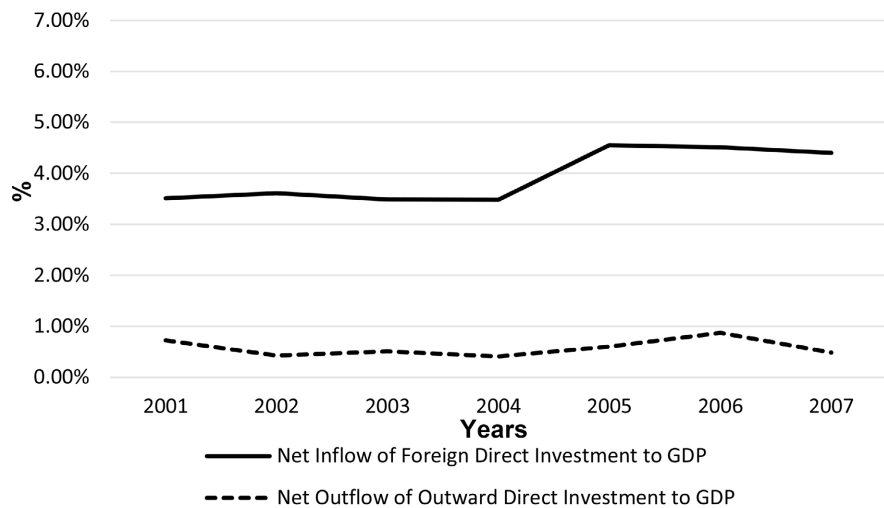
**Figure 9.** Growth rate of net domestic credit. (Source: World Bank)



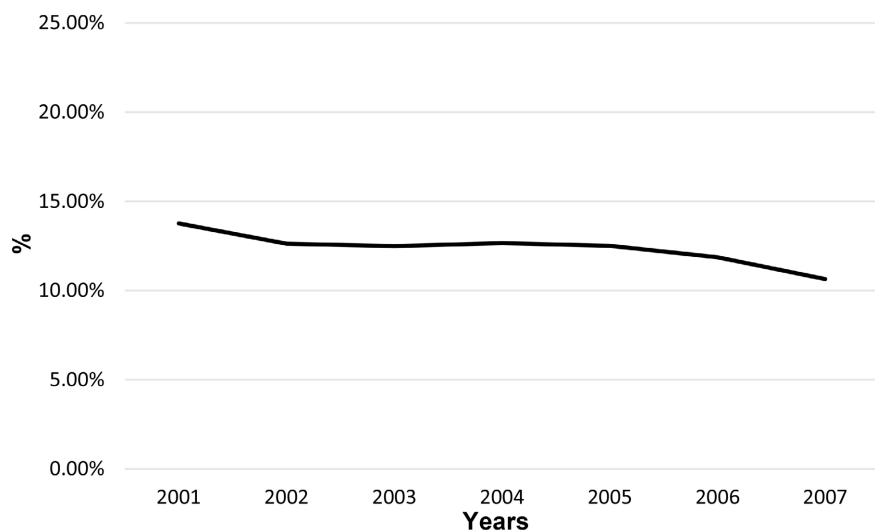
**Figure 10.** Degree of dependence on import and export. (Source: World Bank)

Similarly, international investment also made a certain contribution to the economic development of China (Shi & Zhou, 2021). As can be seen from **Figure 11**, from 2001 to 2007, the index of Net Outflow of Outward Direct Investment to GDP remains stable, fluctuating between 0.4% and 0.9% and reaching the peak of 0.87% in 2006. As for the Net Inflow of Foreign Direct Investment to GDP, inflow of foreign direct investment, its value increased from 3.51% to 4.40% in just a few years because of the support of preferential policy and the lowering of access threshold, which has attracted a large number of overseas investors or investment institutions to invest in China. Inner cycle played a dominant role in China's investment field at this period.

As an evaluating index of financial openness, it can be seen from **Figure 12** that the Total External Debts Stock to GDP maintains in a steady state from 2001 to 2007, fluctuating within 10% to 15%, which shows that the financial



**Figure 11.** Flow of direct investment to GDP. (Source: World Bank)



**Figure 12.** Total external debts stock to GDP. (Source: World Bank)

openness of China always remains at a certain level. Though the scale of outer cycle in finance had not shown a state of rapid expansion, it still occupied a certain proportion in this period and had a certain influence on China's financial market.

#### 4.2.3. Summary

After entering into WTO, China formed an export-oriented development pattern with large-volume import and export, being involved in the global industry chain by virtue of unique conditions like supportive policies, low factor costs and a broad market (Cao, 2021).

At this stage, China continued to deepen reform and opening up and build socialist marketing economy. The constant increase of trade openness and investment openness made the vitality of society release, allowing millions of Chinese people to take part in the production and trade around the world and enjoy

the fruits of development together (Peng & Wei, 2020). Although financial openness did not have a rapid growth, outer cycle still occupied a certain proportion in this area and brought some economic effects. In general, the effect of outer cycle on China's economy development was expanding while the effect of inner cycle was declining accordingly after entering into WTO.

### 4.3. After the Global Financial Crisis (2008-2017)

After the global financial crisis, China's economic development pattern transformed into a common development between inner cycle and outer cycle, which means that the status of inner cycle was enhanced again.

With the outbreak of the global financial crisis in 2008, each country in the world were negatively affected and hit for some degrees, thus the global market and the global economy. Facing the grave situation, various policies were implemented by governments to recover from the crisis. Affected by the trade protection measures of foreign countries, the total export of China dropped sharply. To overcome the difficulty, Chinese government poured money into the market to cope with the external changes as well as promote the formation of the development pattern that center on inner cycle (Yang & Yang, 2021).

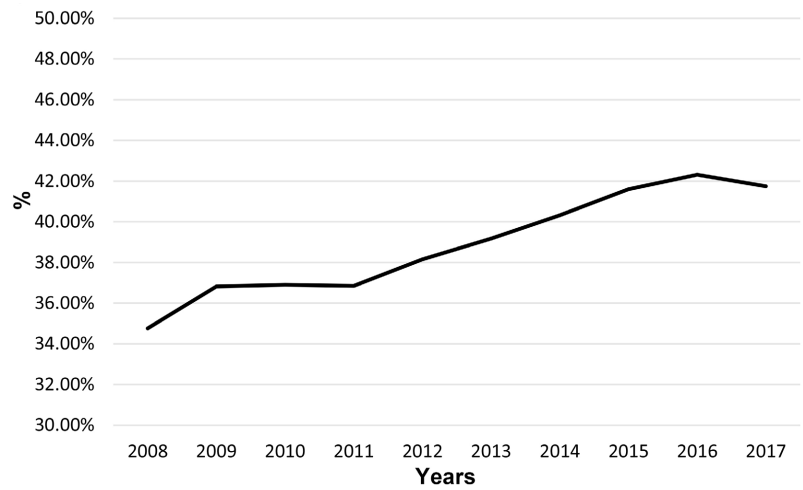
Based upon the interaction of internal and external factors, the government mentioned that China should promote the supply-side structural reform in different ways while expanding aggregate demand, bringing new vigor and vitality into the development of economy (Cao, 2021). From then on, China started to implement the strategy of boosting domestic demand to optimize the economic development pattern and reduce negative influence. With the impact of various factors, the importance of inner cycle gradually rose while the effect of outer cycle gradually decreased in this period.

#### 4.3.1. Inner Cycle

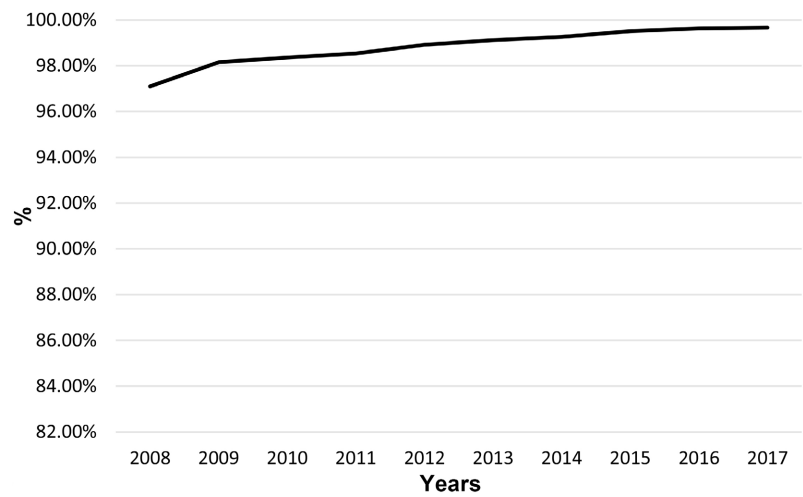
The trend of Total Retail Sales of Consumer Goods to GDP can be seen from **Figure 13**, which shows that the index presents a rising state from 2008 to 2017, increasing from 36.82% to 41.74%. More and more domestic goods were sold to Chinese consumers at this stage proves that inner cycle began to play a more and more important role in the development of trade in China.

As an index of inner cycle evaluating from the perspective of investment, Proportion of Domestic Funds to Total Fixed Asset Investment also shows a rising trend in **Figure 14**. By 2017, the value of it has reached 99.66%, which means the proportion of foreign fund in China's fixed asset investment market has been insignificant. Inner cycle played an essential part in the field of investment as well.

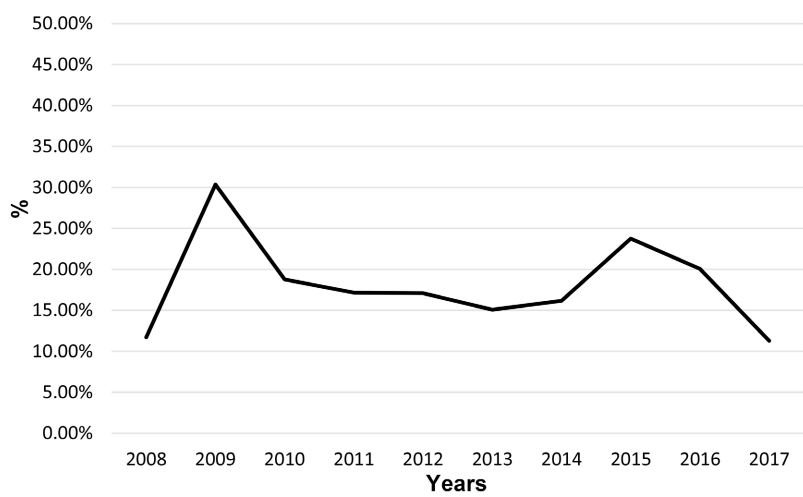
As shown in **Figure 15**, after the global financial crisis, the index of Growth Rate of Net Domestic Credit has a rapid increase, rising from 11.69% in 2008 to 30.37% in 2009. After that, the value remained at around 15%, stating that the scale of finance market in China expanded at a fast speed. It follows that the scale of inner cycle at the area of finance achieved a relatively rapid development in this period and the status of inner cycle constantly strengthened.



**Figure 13.** Total retail sales of consumer goods to GDP. (Source: National Bureau of Statistics)



**Figure 14.** Proportion of domestic funds to total fixed asset investment. (Source: National Bureau of Statistics)

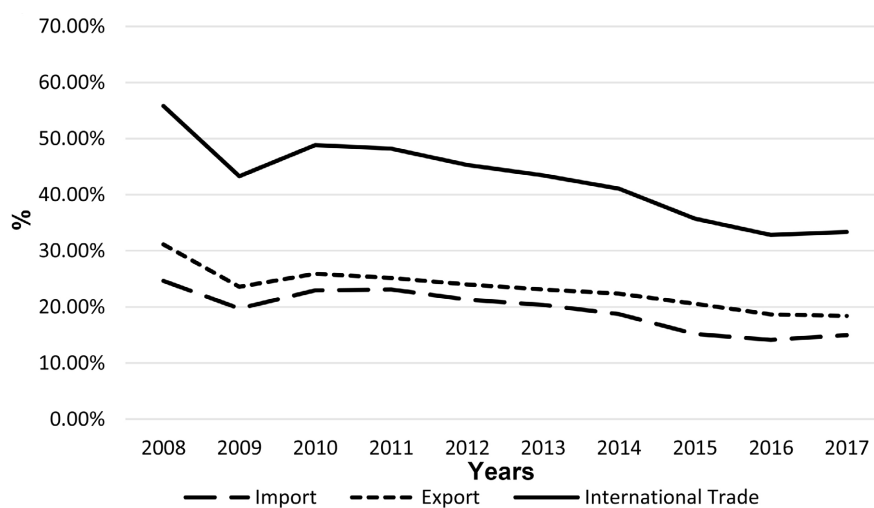


**Figure 15.** Growth rate of net domestic credit. (Source: World Bank)

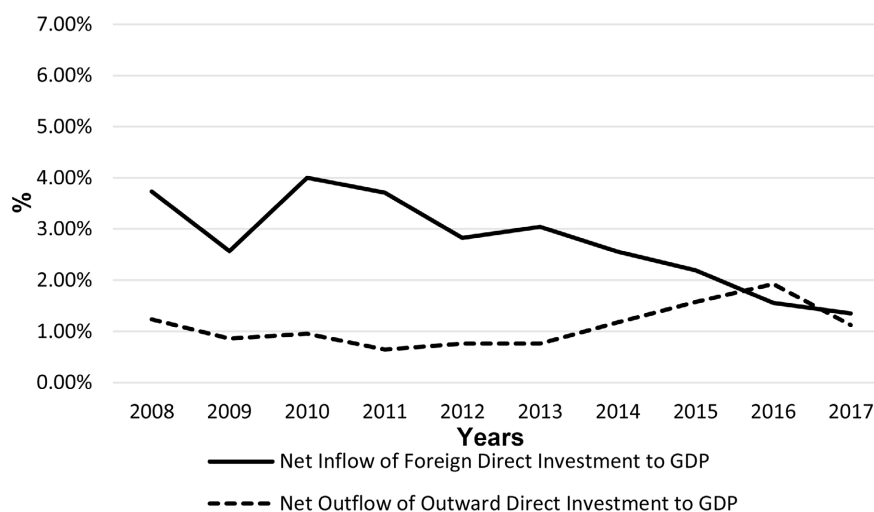
### 4.3.2. Outer Cycle

The evaluating indexes of outer cycle also prove the transition. After the global financial crisis in 2008, the longest period of anti-globalization since The Second World War arose (Pu & Yang, 2020). Because of the global recession, the three indicators of international trade dropped sharply within a short time. As can be seen from **Figure 16**, the value of Degree of Dependence on Import and Export decreases from 55.79% in 2008 to 43.27% in 2009. Though it shows a move upwards in the next few years, it still presents a trend of continuous decline overall. In 2010 and 2011, the Degree of Dependence on Import and Export was close to 50% but gradually decreased to 33.36 percent by 2017, which means that in the field of trade, the pulling function of outer cycle on China's economy weakened while the inner cycle became more important. China has entered a stage of economic development in which outer cycle and inner cycle coexist (Yang & Yang, 2021).

Similarly, **Figure 17** shows that the index of Net Inflow of Foreign Direct



**Figure 16.** Degree of dependence on import and export. (Source: World Bank)



**Figure 17.** Flow of direct investment to GDP. (Source: World Bank)

Investment to GDP declines sharply from 2008 to 2009 due to the negative impact of the global financial crisis, which drops from 3.73% to 2.57% within a year. In the following few years, though the index rises occasionally, its trend of decreasing is still obvious. Compared with its highest value of 6.19% in 1993, the index had a reduction of 4.84% and fell to 1.35% by 2017. In the same period, Chinese government took emergency measures in time to cope with the impact of the global financial crisis and stabilize the domestic market. With a series of adjustments, China gradually recovered from the crisis and continued its economic development. Since 2011, the Net Outflow of Outward Direct Investment to GDP has increased gently and reached the peak of 1.93% in 2016.

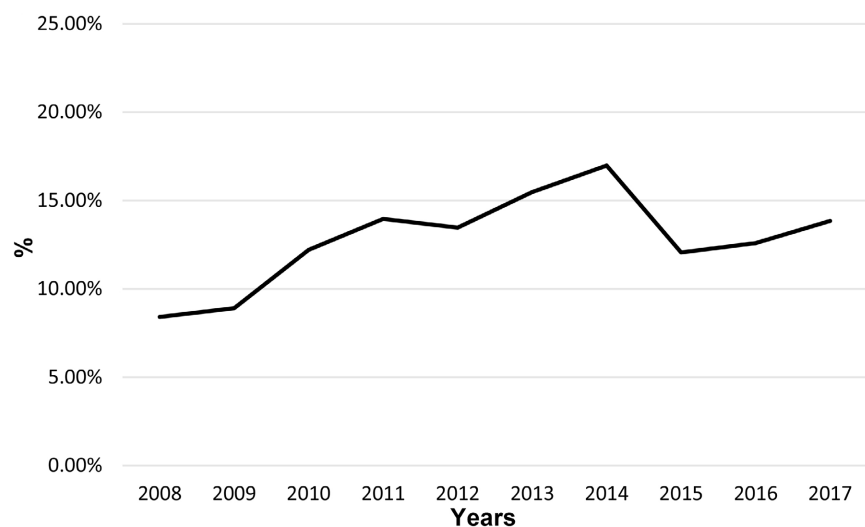
In terms of finance, it can be seen from **Figure 18** that the index of Total External Debts Stock to GDP declines for a certain degree at first after the global financial crisis and rates less than 10%, indicating that the outer cycle of China's economy shrunk in terms of finance at this stage. From 2010 to 2017, the proportion had a small rise and fluctuated around 15%. In this period, financial openness remained at a certain level and the outer cycle and inner cycle developed together.

#### 4.3.3. Summary

At the stage after the global financial crisis in 2008, the economic development of China gradually transformed from relying on outer cycle to relying on inner cycle and the status of inner cycle rose accordingly, which can be proved by the change of evaluating indexes. Chinese government actively adopted measures to adjust the economic development pattern, trying to balance the proportion of inner cycle and outer cycle, to solve the problems of economic imbalance and promote the development of China's economy.

#### 4.4. After the Sino-US Trade Friction (2018-2020)

After the Sino-US trade friction, the economic development pattern of China



**Figure 18.** Total external debts stock to GDP. (Source: World Bank)



was adjusted to leading by inner cycle again, and the status of outer cycle had a further decline.

In recent years, the rise of populism and trade protectionism in some western countries has brought great challenges and negative impacts on the development of economic globalization. Because of this, the growth rate of global trade dropped gradually. According to the report called *Global Trade Data and Outlook* published by WTO in 2019, the growth rate of global trade in 2018 was only 3%, which was far lower than expected (Pu & Yang, 2020). In fact, the international trade of China is also deeply affected by protectionism, which can be proved by the index of Degree of Dependence on Import and Export.

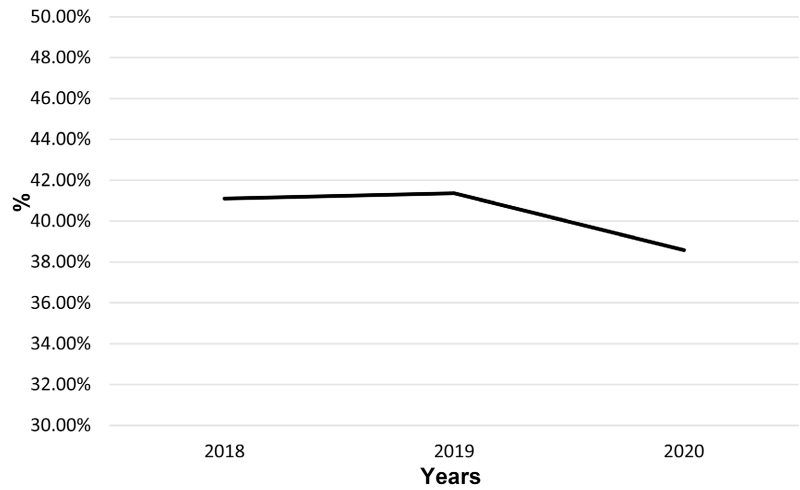
From provoking trade wars repeatedly to stirring up ideological conflict with COVID-19, the vitality of China's economic development was suppressed by the negative effects brought by such kind of disharmonious events led by American government (Peng & Wei, 2020). The development of Sino-US trade does have an important impact on China's economic development. By 2006, China became the second-largest trading partner of the United States after Canada. According to the latest data released by the US Department of Commerce, the trade deficit of the US increased to 763.6 billion US dollars in 2006, which was the fifth straight year to set a new record in this area. Among them, the Sino-US trade deficit increased by 15.4% to 232.5 billion US dollars, accounting for almost one third of the total amount (Business Time, 2007). The consumer market of the US has provided impetus for China to develop its outer cycle and obtain an outstanding achievement. However, the huge trade deficit has also made the United States dissatisfied, and the US government began to set barriers to restrict the normal trade between China and the United States. The Sino-US trade frictions have intensified since 2018. Under the influence of factors at home and abroad, China's economic development pattern continued to adjust to the direction of focusing on inner cycle from 2018 to 2020.

#### 4.4.1. Inner Cycle

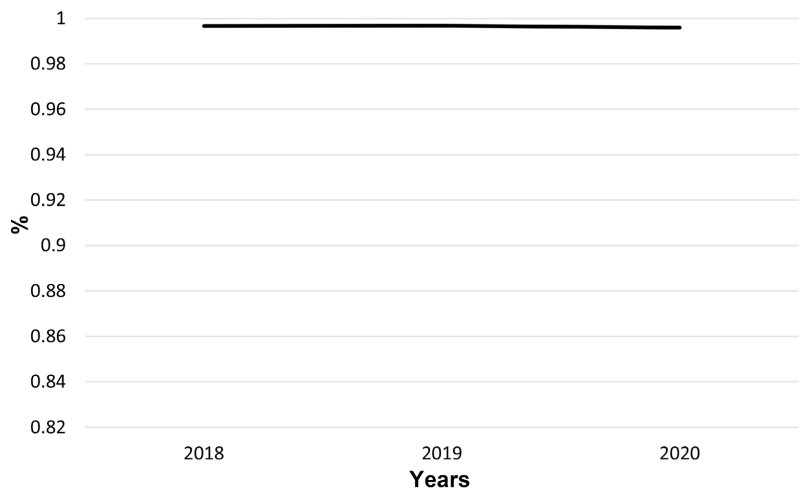
As can be seen from Figure 19, the index of Total Retail Sales of Consumer Goods to GDP once reaches 41.36%. Though social consumption decreased due to the impact of COVID-19, this proportion remained at around 40%, indicating that inner cycle was still playing an important part in stimulating the economic growth of China from the perspective of trade.

From Figure 20, as an indicator of investment in inner cycle, the value of Proportion of Domestic Funds to Total Fixed Asset Investment remains at a high level of 99% in this period, showing that foreign funds put into the investment of fixed asset in China were very limited. In this area, the proportion of inner cycle was far beyond the outer cycle, which had a large scale and occupied a dominant position.

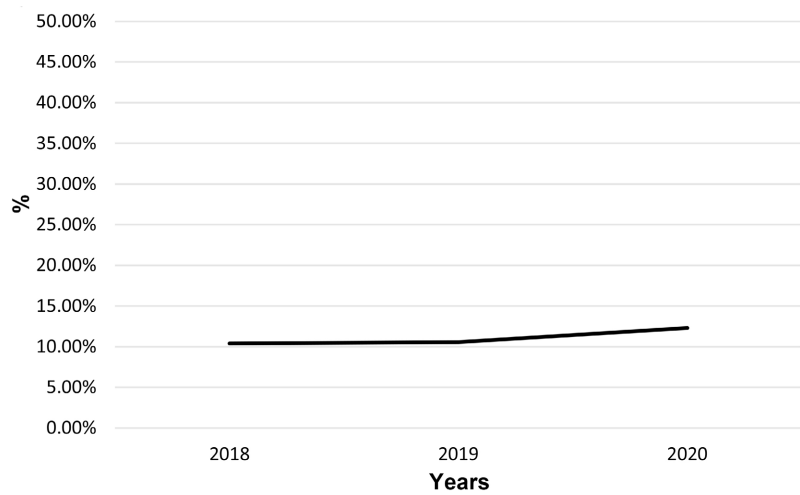
From the perspective of domestic finance, the scale of inner cycle in the financial industry was still expanding in this period, and the growth speed of it was also gradually improving. As can be seen from Figure 21, the Growth Rate of



**Figure 19.** Total retail sales of consumer goods to GDP. (Source: National Bureau of Statistics)



**Figure 20.** Proportion of domestic funds to total fixed asset investment. (Source: National Bureau of Statistics)



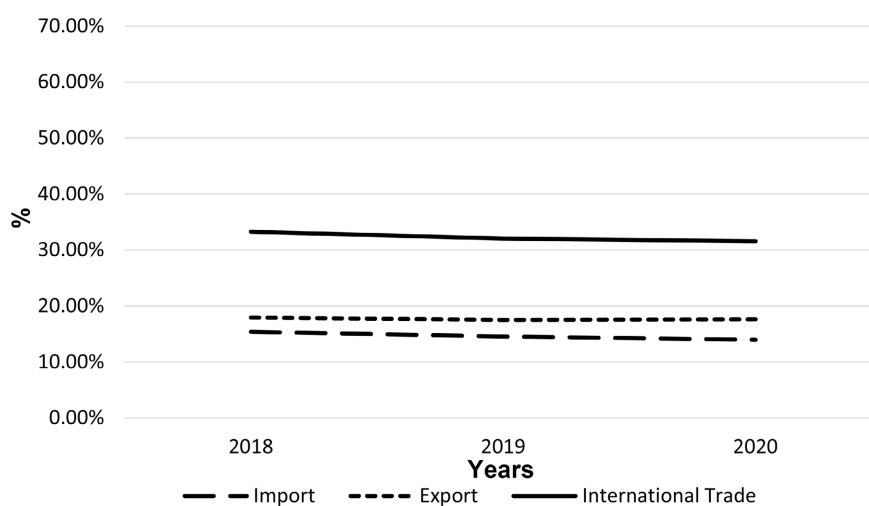
**Figure 21.** Growth rate of net domestic credit. (Source: World Bank)

Net Domestic Credit increases slowly from 2018 to 2020, reflecting that inner cycle occupied a higher proportion in the area of finance and had an increasing influence on China's economy as well.

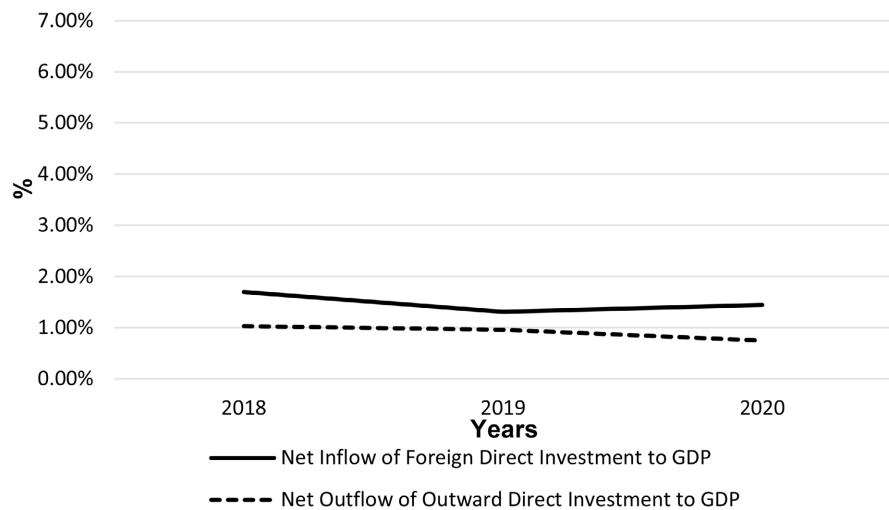
#### 4.4.2. Outer Cycle

As can be seen from **Figure 22**, the index of Export to GDP remains at about 17% from 2018 to 2020, while the Import to GDP falls from 15.37% to 13.96%, resulting in a decline of Degree of Dependence on Import and Export from 33.27% to 31.56%, which is a great difference from the highest value of 64% in 2006. The proportion of outer cycle in the economic development pattern of China gradually decreased in this period, the economic growth of China was driven more by inner cycle on the trade side. With a comparison, it can be seen that the import dependence decreased faster than the export dependence, indicating that China's consumer market began to accept more homebred products and the importance of inner cycle increased day by day. Although the export dependence maintained at a certain level in this period, there was still a big gap compared with the previous stages, which also shows a situation that the economic development of China was driven by inner cycle after 2018.

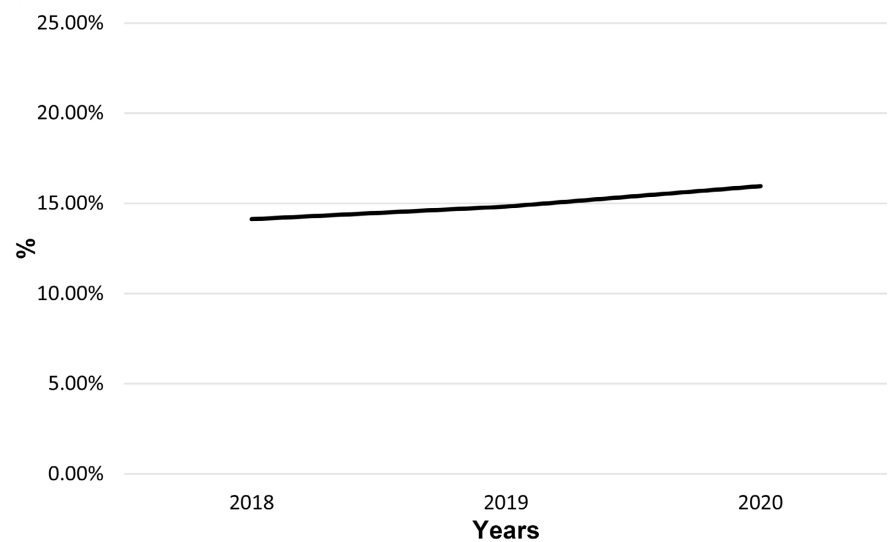
The change in the index of international direct investment can also reflect the situation of China's economic development. From **Figure 23**, both the indexes of Net Inflow of Foreign Direct Investment to GDP and Net Outflow of Outward Direct Investment to GDP show a trend of declining. Within two years, the Net Inflow of Foreign Direct Investment to GDP declined from 1.69% to 1.44%, while the Net Outflow of Outward Direct Investment to GDP declined from 1.03% to 0.75%. The decrease of the proportion of international direct investment to GDP indicates that the scale of investment interaction between China and other countries became relatively smaller and the impact of inner cycle of investment on China's economy was weakening in this period. Under the influence of anti-globalization, the growth rate of international investment was also declining.



**Figure 22.** Degree of dependence on import and export. (Source: World Bank)



**Figure 23.** Flow of direct investment to GDP. (Source: World Bank)



**Figure 24.** Total external debts stock to GDP. (Source: World Bank)

As an indicator of outer cycle concerning finance, as shown in **Figure 24**, the index of Total External Debts Stock to GDP keeps a stable state from 2018 to 2020, floating around 15%. The stabilization of this index indicates that the financial openness of China remained at a certain level at this stage, as well as the scale of outer cycle at the area of finance.

#### 4.4.3. Summary

At this stage, from the analysis of indexes on behalf of inner cycle, there were some achievements on the development of trade, investment and finance. As for the indexes of outer cycle, most of them shown a trend of declining or remaining at a certain degree, which made it difficult to rely on outer cycle to promote the development of China's economy. Thus, the development pattern was transformed into depending more on inner cycle, which also led to a further decline in status of outer cycle in the growth of China's economy after the Sino-US trade

friction.

## 5. Existing Problems

### 5.1. After Reform and Opening Up (1978-2000)

At the dawn of the reform process, China promoted its economic development and gained industrial progress by participating in various economic activities with developed countries. By virtue of the strengths of production factors like abundant labor force and cheap land, China vigorously developed labor-intensive industries, engaging in primary processing or deep processing of resources to fulfill the machining or trade need of other countries, thus promoting the development of industries and even the entire country (Yang & Yang, 2021).

However, as the participation of China in international division of labor in this phase was just simple processing trade, which had a proportion of more than 50% to the overall trade when peaked, it was still very difficult for China to gain a high added value or other economic benefits and achievement even with good results of the increasing economic interactions with other countries. At the same time, within a complex and changeable international environment, once China was resisted by others, it was easy to lose the autonomy of development and be in a passive position in international competition when the entire economy was driven only by simple processing (Guo, 2020). As the outer cycle of China's economy was still in the initial stage of development, benefits brought by this cycle were not high, and the autonomy and initiative of the development was very limited at this stage.

### 5.2. After Entering WTO (2001-2007)

With the proof of practice, implementing the export-oriented development strategy made the outer cycle of China's economy enter into a relatively rapid development stage and successfully realize a complete transformation from seller market to buyer market at the beginning of the 21st century. However, with the continuous development of productivity, China was facing an increasingly complex and changeable domestic and international situation. Especially after the determination of the goal to accelerate the establishment of an improved, moderately prosperous society, more and more problems were exposed in the process of continuing to put in practice the development strategy dominated by outer cycle, such as the negative impacts brought by pursuing for only short-term interests, the slow upgrading in industrial value chain and so on. All these problems brought great risks and uncertainties to the sustainable and healthy development of China's economy (Yang & Yang, 2021).

After the implementation of reform and opening up and the accession to WTO, China has accumulated a large amount of foreign exchange with processing and export, which helped solve some problems like the shortage of foreign exchange and national savings. Gradually, China has become a country with high foreign reserves and high savings and the nations in China have also become

wealthier. However, at the same time, this development mode also brought about problems like over-reliance on foreign countries and serious imbalance of domestic economy (Dong & Li, 2020), which made the economic development of China be at the state of being vulnerable to international market fluctuations, being disciplined in key technology fields, and being affected by great pressure of industrial structure adjustment.

### 5.3. After the Global Financial Crisis (2008-2017)

In 2008, the financial crisis swept the world, and the economic operation of many countries, especially western developed countries, was negatively impacted. China's government urgently invested four trillion yuan to help the market to recover, which also made the economic development gradually shift back to relying on inner cycle, thus improved the situation of economy.

However, pouring money into the market also brought a series of problems and hidden dangers and affected the normal operation of the economy, including an increase on possibility of inflation, a nimety of property bubbles and so on. These problems were easy to bring about economic recession and stagflation (An & Rao, 2010). Shifting to relying on inner cycle to boost economic development by investing a large amount of funds to the domestic market would be easy to cause the rise of market prices and bring inflation, in the case of money in circulation was excessive enough in the market. At the same time, part of the bailout funds also flowed into the real estate industry and led to a rise of housing price, which also brought more economic risks with the increase of property bubbles. All sorts of these problems affected the development of China's economy. The adjustment made by the government could help with promoting the economy to some extent, but the problems it brought also need to be considered seriously.

### 5.4. After the Sino-US Trade Friction (2018-2020)

With the escalation of Sino-US trade friction, China took the inner cycle as its focus of economic development. Develop up to now, the domestic market of China has great potential, thus relying on inner cycle to promote the development of China's economy is workable. This can be proved by the fact that the GDP of China maintained a positive growth during this period, despite the declining proportion of outer cycle in China's economic development pattern and the negative impact of COVID-19.

However, although the degree of dependance on international trade of China has dropped substantially, compared with developed economies like the United States and Japan who have an average dependance value of around 20%, the degree of China was still on the high side due to the over-reliance on international market in the early stage (Yang & Yang, 2021). Therefore, China's economic development was easily affected by other countries. At the same time, there was a structural imbalance between supply and demand, which also affected the eco-

conomic circulation and the efficiency of China's economy development, leading to some problems like the motive force of economic development of China was weakened (Pu & Yang, 2020).

## 6. Conclusion and Suggestion

### 6.1. Conclusion

#### 6.1.1. General Condition

Generally speaking, from 1978 to 2020, the economic development pattern of China has experienced four stages from "inner cycle played a dominant role while outer cycle gradually developed" to "outer cycle dominated the development" to "inner cycle and outer cycle developed commonly" and finally to "inner cycle and outer cycle promoted each other with the leading of inner cycle". Among the four stages, outer cycle played its biggest role in the period after entering the WTO of China, while inner cycle had a highest proportion in driving the development of China's economy after the occurrence of Sino-US trade friction.

The difference of proportion at each stage was determined by a combination of domestic and foreign factors. With an open and inclusive international environment and supportive national policies leading to opening up, the influence of outer cycle can be relatively higher. On the contrary, with the deterioration of international relationship and national policies advocating mainly developing domestic market, the effect of inner cycle can be relatively higher.

#### 6.1.2. Coordination of Cycles

Analyzing each stage separately, the transformation of the economic pattern at each stage had its special times condition and met the need of national development. Generally speaking, good economic interactions with each other can benefit both the two countries, which shows the positive significance of developing the outer cycle. However, relying too much on outer cycle for development may easily lead to instability of domestic economy and be affected by external environment. Correspondingly, only relying on inner cycle to promote the development of economy may also cause some difficulties in releasing the vitality of social production development, resulting in low efficiency and slow growth.

Therefore, a country should facilitate a coordinated development of inner cycle and outer cycle according to its own economic situation and development level as well as the realistic condition of foreign market, so as to promote the efficient and healthy development of the domestic economy.

#### 6.1.3. Future Development

Different patterns of economic development formed at each stage have brought many advantages to China's economic development. But at the same time, there were also some problems existing at each period of the process. Analyzing these problems and figuring out a way to solve them is beneficial for China to maintain the sustainable and healthy development of economy in the future.

For some time to come, China should adhere to the construction of the new development pattern to achieve the status with a strong domestic market and a strong trading nation in a concerted way, focusing on the inner cycle. At this stage, China can further reduce the degree of dependence on international trade, shift the focus of economic development to relying on the domestic market, and utilize the potential of the inner cycle for development. To reach the goal, all walks of life in the society need to participate in the development together to solve the problem of imbalance of supply and demand, as well as to promote the normal development of outer cycle to contribute to China's economic development.

#### **6.1.4. Factor Comparison**

Throughout the development of the dual circulation, international trade has always been a sector developed well, while domestic trade was a weaker sector.

Since reform and opening up, by trading with other countries, China has obtained a large amount of foreign exchange, learned some advanced technologies, promoted the development of all walks of life, and improved the economic strength greatly. Besides, from simple processing to the development of independent technologies and brands, the quality of China's foreign trade was also constantly improving, having an essential effect on boosting the economy. As for domestic trade, it was a weak section in the process of development, which had a contradiction between market supply and demand. The difference between the growing demand of people in China for a better life and the available supply at present led to the failure to explore the huge potential of the domestic market and release the powerful functions of domestic trade in promoting the development of China's economy, which needed to be strengthened.

### **6.2. Policy Suggestion**

#### **6.2.1. Utilizing the Potential of Domestic Demand**

With the influence of various realistic factors such as COVID-19 and trade war, economic globalization is constantly being questioned, while the thought of anti-globalization is surging as well. Facing such a situation, it is necessary for China to pay more attention to the inner cycle and give full play to the driving role of it in the development of economy, in order to maintain the sustainable and healthy development of China. According to relevant statistics, China currently has a population of over 1.4 billion, 400 million middle-income groups and a total demand of nearly 100 trillion yuan (Guo, 2020), which shows the huge potential of China's domestic market. Utilizing the powerful functions of the domestic market needs to begin from making full use of the power of domestic demand.

From the perspective of domestic trade, in the future, China should not only implement a series of policies including promoting employment and encouraging business startups to further improve the income of the nations, but also perfect the social security system to let Chinese consumers have the ability and the



willingness to consume, which can give full play to the consumption potential and boost the economic development by expanding domestic demand. In terms of domestic investment, Chinese government needs to prevent the pour of funds into the industries of bubble economy, forming a false prosperity but damaging the long-term economic development. Relevant policies concerning the management and guarantee of investment should be improved to guide domestic investment to proceed in an orderly and efficient way and continue its contribution to the economy. For domestic finance, China's government should also pay attention to the management and guidance of financial market to ensure the credibility of banks and normal flow of the funds, so that the operation of domestic finance can also have positive effects on inner cycle. Through the adjustment and improvement of relevant systems, it is expected to continue the expansion of domestic demand, smooth the progress of inner cycle, and promote the development of China's economy in the future.

### **6.2.2. Deepening Supply-Side Reform and Industrial Upgrading**

From the view of Marxist political economy, social reproduction is a closed cycle formed by production, distribution, exchange and consumption. Any problem with one of these factors may affect the effective operation of the inner cycle. Production is the supply, the starting point of social reproduction, which plays an important decisive part in the cycle (Cao, 2021). Therefore, to promote the functions of inner cycle on the future development of China's economy, it is also important to pay more attention to the reform of supply-side and upgrading of industry.

The development of dual circulation should always adhere to the supply-side structural reform to improve the adaptability of supply structure to demand structure. As mentioned above, to explore the huge potential of domestic market, it is necessary to reform the supply to adapt to the changes of consumption upgrading, including strengthening the decisive role of market in resource allocation and the managerial role of government in normal operation with political and financial support. Similarly, on the production side, industrial upgrading and improvement of industrial structure also need to take into account. With a perfect industrial chain form, the space for industrial upgrading can be broadened, while the resource endowment of regional industrial chain can provide a breakthrough for the optimization and upgrading of industrial structure (Shi & Zhou, 2021). China's government should provide a guidance and some encouraging measures for industrial transformation and upgrading to promote the perfection of industrial chain and industrial structure system. At the same time, the construction and development of high-tech industries and other key areas should also be attached great importance to, thus providing strong impetus for the upgrading and innovative development of China's industries. The growth of production is a strong guarantee for the sustained and stable operation of inner cycle, driving the long-term development of China's economy.

### 6.2.3. Continuing to Further Opening Up

At the 40th anniversary of the founding of Shenzhen Special Economic Zone, China made a solemn promise that China will continue to further opening up to the outside world in the future. In the world context of a surge of anti-globalization, we should counter it with a higher level of openness (Cao, 2021). In the future, China needs to improve not only the extent but also the quality of opening up.

To Improve the extent of openness, China should not only maintain the belief of win-win cooperation, making efforts to develop sound international relationships with more countries, but also pursue opening up on all fronts, bringing the achievement and practical experience gained in opening up to inland areas. In this way, China can expand the breadth and depth of opening up and reduce differences in openness between different regions and countries. In terms of improving the quality of opening up, China should shoulder its responsibilities as a major country and actively put forward more cooperation initiatives such as the Belt and Road, Free Trade Zone and Economic Open Zone, so as to practically promote the development of international cooperation, share the fruits of opening-up with other countries and jointly contribute to the development of the world economy. By continuing further opening up, China can better develop its outer cycle and inject impetus and vitality into the development of economy while maintaining good relationships with other countries in the future.

### 6.2.4. Promoting Coordinated Development with Innovation

To promote the efficient development of China's economy, it is impossible to rely entirely on inner cycle or outer cycle, which has been proved by the experience throughout the course of history and the practical disadvantages brought by such kind of development pattern. Therefore, in order to achieve greater progress and better development effects, China needs to promote the coordinated development of both inner cycle and outer cycle in the future and makes full use of both domestic and international markets and resources to smooth the dual circulation (Guo, 2020).

In fact, the development of both inner cycle and outer cycle depends on the strong capabilities of technological innovation. For inner cycle, facing the reality of consumption upgrading and change in demand, all walks of life in China have to reform and transform through technological innovation to better meet the social need, giving play to the powerful role of domestic market to promote the economic development of China. As for outer cycle, with the continuous progress of scientific and technological revolution, innovation capability has become one of the competition performances of a country. Facing the situation that the level of science and technology of all countries nowadays is significantly improved, China needs to constantly make technological innovation, so as to give full play to its role in the global industrial chain, supply chain and value chain and increase the attraction to international cooperation, promoting the development of outer cycle. In general, China should promote the coordinated development of inner cycle and outer cycle as well as use innovation as a staunch force to make

progress in the future.

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## Conflicts of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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