

# Analyzing the Influence of China's Import and Export Trade on Economic Growth Based on Eviews

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**Abstract:** With China's reform and opening-up, import and export trade and economic development have achieved great success. Trade between countries has occurred frequently and the economic development environment has also improved. However, investment and exports are the main factors affecting China's economic growth, but underestimating the potential demand of Chinese consumers, that is, weakening the impact of import trade on economic growth. This paper analyzes the impact of import and export trade on economic growth through Eviews7.2 software and puts forward suggestions and countermeasures for import and export trade.

## 1. Current situation and problems of China's import and export trade development

### 1.1 The trade surplus continues to grow

Combining the data of China's import and export trade in recent decades, China has basically maintained a trade surplus since 1990. But then, the trade surplus grew rapidly. Referring to the annual data of the National Bureau of Statistics, taking the 2017 import and export trade data as an example, China's total import and export value is 27.79 trillion yuan, up 12% from 2016. Among them, exports were 15.33 trillion yuan, imports were 12.46 trillion yuan, and the trade surplus was 2.87 trillion yuan. The reason is that the ideas and policies of "re-exporting and light importing" are fundamental. Before the reform and opening up, China has been in a state of self-restraint and backward thinking. With the "going out" policy, export trade has greatly improved. Obtaining profits from foreign countries at a meager cost and large-volume exports ignores the importance of imports for the country. The long-term imbalance in import and export has led to a huge trade surplus. The trade surplus is a double-edged sword. While bringing economic benefits to the country, it will also have certain negative effects.

### 1.2 The structure of foreign trade is unreasonable

Among China's export trade products, although the proportion of industrial manufactured goods has steadily increased year by year, the proportion of high-tech products is not high. In addition, processing trade accounts for a large part of China's exports. Due to the irrational trade pattern, the limited contribution of trade to the growth of national wealth has made Chinese citizens more limited. The structure of the trade zone is caused by insufficient trade balance between the eastern and central and western regions. Due to the imbalance of long-term geographical development, the eastern region is much more active than the central and western regions. Therefore, it is difficult to coordinate and improve in a short time.

### 1.3 Trade friction continues to increase

A long-term trade surplus will put pressure on the appreciation of the Renminbi, which will easily lead to large-scale trade frictions and anti-dumping and countervailing duties on Chinese exports. Moreover, countries are exerting pressure on China's foreign trade to try to influence China's exports and economic development. Therefore, the existence of a long-term trade surplus is not good for China's global economic development.

## **2. Historical changes in China's import and export trade**

After the founding of China, China will no longer implement the previous policy of shutting down the country. China's total import and export trade has gradually increased, and China's economy has gradually developed. The "troika" that drives economic development is running, and the role of import and export trade is gradually released; especially with the change of foreign policy and the clear trade policy, the impact of import and export trade on economic growth is becoming more and more prominent.

### **2.1 After the founding of the People's Republic of China**

At the beginning of the founding of New China, the domestic economic situation was grim. The international imperialists such as the United States have adopted a policy of blocking and containing China's economic policies. What economic policies are adopted to restore and develop the national economy are related to the survival of the new regime. How to carry out foreign trade plays a vital role in economic development. Therefore, it is very important to actively establish and develop economic and trade relations with other democratic countries such as the Soviet Union while implementing the planned economy. In terms of export trade, important materials are first exported to the Soviet Union and Eastern European socialist countries. On the basis of equality and mutual benefit, do not do business with Western capitalist countries. The central government and governments at all levels must formulate detailed foreign trade plans and actively carry out economic trade with third world countries.

Obviously, for international and domestic reasons, the import and export trade during this period is not without, but is rarely, and is limited to import and export trade with various social ideology countries. However, the growth of import and export trade with these countries has indeed led to the gradual recovery of domestic and large enterprises and promoted the development of the national economy. These import and export trades have played an active role in restoring the domestic economy. Therefore, it can be concluded that the impact of China's import and export trade on economic growth at this stage is small and small, and the effect is small.

### **2.2 After the reform and opening up, join the World Trade Organization**

After the reform and opening up, the foreign trade system has undergone a series of reforms, including the decentralization of foreign trade management rights, the separation of management rights and ownership, and exchange rate integration, which has opened China to the outside world. The scale of opening up to the outside world continues to expand and the content continues to deepen, which is very helpful for China's economic development. The total volume of export trade has grown rapidly, the radiation area has been increasing, and the promotion of the domestic economy has been continuously enhanced, making China's economic growth rate world-famous. At this stage, China's import and export trade will give full play to the rich natural resources advantages of developing countries, exchange foreign exchange through agricultural products and mineral products, and then import industrial products that cannot be produced domestically, and achieve domestic supplementation. However, many development economists believe that it is not appropriate for developing countries to rely mainly on primary product exports to develop their own economies. Instead, they should try to find domestic self-sufficiency in industrial products. With the continuous deepening of the opening up, through the introduction of technology and equipment, we will vigorously develop our own manufacturing products industry, and replace the original finished products with the finished products produced by ourselves, so as to achieve self-sufficiency in domestic industrial products.

Therefore, the import and export trade during this period not only developed China's national industry but also gradually established an independent and complete domestic industrial system and national economic system. The impact of import and export trade on economic growth has increased and is of great significance.

### 2.3 After joining the WTO

After joining the World Trade Organization, the Chinese economy is more active on the international stage. The economic strength accumulated by reform and opening up has gradually increased, and the socialist market economy has increasingly exerted its enormous benefits, helping China to embark on the road of strengthening the country. Therefore, we must persist in reform and opening up and adhere to the development path of the socialist market economy.

The results of practice show that the import and export trade in this period has effectively improved the level of industrialization and the quality of manufactured products in China, and made the Chinese economy move toward high technology and high efficiency. Domestic production scale and employment scale have increased. China's foreign exchange reserves have grown to become the world's second-largest economy. The impact of import and export trade on economic growth is growing, and the impact is getting deeper and deeper.

Therefore, through the above analysis, we can know that the historical changes in China's import and export trade have had a profound impact on economic growth. It can be said that import and export trade has greatly promoted economic growth. The growth of China's import and export trade will promote economic growth and show a positive correlation.

### 3. Empirical Analysis of China's Economic Growth by Import and Export Trade

According to traditional economic theory, the indicator of economic growth can be calculated by the expenditure method, ie  $Y=C+I+G+X-M$ . From the equation alone, export  $X$  is the incremental factor of GDP, while import  $Y$  is the reduction factor of GDP. However, through the analysis of the actual situation below, it can be seen that both import and export will promote the realization of economic growth. [1]

This paper measures the size of China's economy by gross domestic product (GDP),  $X$  represents the scale of exports,  $M$  represents the scale of imports,  $T$  represents the total volume of imports and exports and establishes a model to conduct a clearer analysis of the relationship between the three.

#### 3.1 Establish a model

$LN(GDP) = \alpha + \beta LN(T) + \gamma$ , where  $\alpha$  is a constant term,  $\beta$  is a coefficient, and  $\gamma$  is a random error term. The regression analysis was performed on the above model using eviews7.2 software, and the analysis results were obtained:

Variable	Coefficient	Std.Error	T-Statistic	Prob
C	2.321348	0.297108	7.813155	0.0000
LN(T)	0.867751	0.026908	32.24840	0.0000

$$LN(GDP) = 2.321348 + 0.867751LN(T)$$

$$R^2 = 0.977443, R^2 = 0.976503, F = 1039.960$$

From the regression results, the model's coefficient of determination is about 0.98, and it can be judged that the model fits well. The t-statistic of the total import and export value is 32.2480, and the t-test passes. The F statistic is  $F = 1039.960$ , which is greater than  $F(1, 24) = 4.260$ , and the regression equation is significant. The positive T coefficient indicates that the total import and export volume has a positive impact on GDP, which is consistent with the actual situation and the economic test passed. Therefore, this regression model has certain economic significance, and the expansion of the scale of import and export trade will have a certain role in promoting China's economic growth.

#### 3.2 Establish a model:

$LN(GDP) = \alpha + \beta LN(X) + \gamma$ , where  $\alpha$  is a constant term,  $\beta$  is a coefficient, and  $\gamma$  is a random error term. The regression analysis was performed on the above model using eviews7.2 software, and the results were analyzed: [2]

Variable	Coefficient	Std.Error	T-Statistic	Prob
C	2.988665	0.279146	10.70644	0.0000
LN(T)	0.856067	0.026796	31.94800	0.0000

$$\text{LN (GDP)} = 2.988665 + 0.856067\text{LN(X)}$$

$$R^2 = 0.977026, R^2 = 0.76069, F = 1020.674$$

From the regression results analysis, the regression coefficient of the regression model is about 0.98, which can be judged to be a high degree of fitting. The regression model  $F = 1020.674$  is greater than  $F(1, 24) = 4.260$ , and the significance test passes. The t-test of the total export value is passed, and the coefficient is positive, which is in line with the actual situation. The expansion of the scale of export trade can directly increase the gross domestic product and promote domestic economic development.

### 3.3 Establish a model

$\text{LN (GDP)} = \alpha + \beta\text{LN(M)} + \gamma$ , where  $\alpha$  is a constant term,  $\beta$  is a coefficient, and  $\gamma$  is a random error term. The regression analysis was performed on the above model using eviews7.2 software, and the analysis results were obtained:

Variable	Coefficient	Std.Error	T-Statistic	Prob
C	2.870009	0.292183	9.822627	0.0000
LN(T)	0.878849	0.028418	30.92554	0.0000

$$\text{LN (GDP)} = 2.870009 + 0.878849\text{LN(M)}$$

$$R^2 = 0.975520, R^2 = 0.974500, F = 956.3890$$

From the regression model analysis, the model can have a coefficient of determination of 0.98 and good goodness of fit. The t-test of the total import amount was passed and the coefficient was positive. The regression model  $F = 956.3890$ , greater than  $F(1, 24) = 4.260$ , the significance test passed. The results of the model analysis are in line with the fact that the expansion of the scale of import trade can promote economic growth. [3]

This paper uses the estimation model to measure the impact of import and export trade activities on economic development. Through analysis, the following conclusions can be drawn: for every 1% increase in export trade in the short term, the economic growth is 0.86%, and for every 1% increase in import trade, the economic growth is 0.88. %. Import trade is more important for the economy than export trade, so in the long run, expanding imports can also promote economic growth. According to the traditional economic theory, as the import trade increases, the GDP will be lowered. But to put it another way, on the one hand, imports can make up for domestic supply vacancies to stimulate domestic consumers' consumption and investment. Due to the scarcity of resource supply, in a relatively closed economic system, the industrial structure will be forced to suffer from "wooden barrels". The constraint of the principle leads to a low level of equilibrium industrial structure. On the other hand, increasing imports can bring competitive pressure to domestic related industries, promote Chinese enterprises to improve product quality and innovation awareness, and the promotion of foreign advanced technology to promote China's economic growth is self-evident. [4]

## 4. Changes in China's import and export trade structure and countermeasures

### 4.1 Properly play the role of government and reduce the trade surplus

A moderate trade surplus is conducive to attracting foreign investment, but a long-term excessive trade surplus has an adverse impact on economic development. A notable feature of Chinese merchandise exports is excessive dependence on foreign markets. China should open up the domestic consumer market and expand domestic demand, so as to reduce the dependence on foreign exports.

### 4.2 Optimize the structure of export products

China's own international competitiveness is not high, and labor-intensive industries with low

added value will be phased out. In order to solve this problem, China should strengthen the research and development of new technologies and export goods from labor-intensive industries to capital-intensive ones. Technology-intensive industry transfer. Increase the added value of goods and enhance the protection of China's independent intellectual property rights.

#### **4.3 Strengthen personnel training and reserve, and improve trade protection policies**

Increase personnel training and familiarize with international market rules. The loss of talent is not only information and technology, but not limited to potential customers. Develop a special talent training program and learn from foreign mature management experience and theoretical knowledge to give full play to China's comparative advantages.

In order to protect China's domestic market and promote the steady development of domestic productivity, it is necessary to improve trade protection policies and grasp export subsidies, import tariffs and quotas. In addition, the protection trade policy should be moderate, which is more conducive to industrial restructuring, optimizing resource allocation, and eliminating unreasonable and backward industries.

### **5. Conclusion**

The impact of import and export trade on economic growth has become an important research topic in political economy. Most of the papers on the relationship between import and export trade and economic growth use the total import and export trade or the total volume of import and export trade to establish some complex mathematical models, most of which are empirical studies. This paper starts with theoretical analysis and considers China's economic policy and foreign trade policy, that is, the impact of historical changes in import and export trade on economic growth, as well as the volume of import and export trade, foreign trade dependence and import trade. At the same time, analyze the development of China's import and export trade. It can be concluded that the impact of China's import and export trade on economic growth is very significant. From a historical perspective, the profound changes in the import and export trade policy have even determined the extent of import and export trade. Since the reform and opening up, China's import and export trade has become more and more prosperous due to the entry of the WTO and the "Belt and Road" policy, and its impact on economic growth has increased, which will become more and more important.

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