Research on EU's Trade Deficit with China

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Abstract: While the scale of China-EU trade continues to expand, the EU-China trade deficit has remained high over a long period of time. China believes that the overall interests of Sino-EU trade cooperation are balanced. In order to maximize its own interests, the EU has implemented trade protection to resist China on the pretext of unbalanced interests. There are a lot of trade frictions between the two sides, which hinder the normal trade. How to correctly understand and actively respond to this trade problem, improve the trade environment, and obtain common interests will be issues that need to be resolved urgently. This article uses a lot of official statistics to analyze the reasons for the EU-China trade gap. The analysis shows that the EU's trade deficit with China is constantly widening on account of unbalanced market demand, international industrial transfer and foreign direct investment, the real exchange rate fluctuation between Euro and RMB, the different statistical methods and protectionism from the EU.

1. Introduction

With the increasingly close economic and trade exchanges between the two sides, while the scale of trade is expanding, there is a large trade balance. It leads to the rise of EU trade protectionism. The EU has adopted multiple unreasonable means to to prevent Chinese enterprises from exporting, and the trade frictions have intensified. Therefore, the study about the EU-China trade deficit is worthy of attention.

At present, the research on the influencing factors and countermeasures of the EU-Sino trade deficit starts late, and some research results have been achieved. Yunsheng Gao et al (2012) found that in the long run, when the Euro depreciates, the trade balance will be improved, but the exchange rate elasticity of various commodities varies greatly. The short-term equilibrium relationship was not significant. Guozhou Jiang et al (2013) proposed that the EU's per capita GDP had a marked role in promoting bilateral trade. Chinese per capita GDP had a remarkable impact on imports, but not significant impact on exports. WTO accession had no significant positive effect on bilateral trade. Huihui Deng and Zheng Sun (2013) argued that FDI had direct or indirect influence on China's trade gap through trade creation and trade substitution effect. Lei Zhang and Lin Xu (2013) argued that the traditional foreign trade statistical system could not reflect the substitution and inducing effect of international capital flows on international trade, and could not explain the substantive trade relationship behind international capital flows, which led to the exaggerated EU-Sino trade deficit. Fan Chen (2018) concluded that the increase of GDP could significantly increase trade volume, and the narrowing of income gap and the appreciation of RMB could help reduce the EU-Sino trade deficit.

To sum up, the current domestic research articles about the EU-China trade deficit are rare, mostly qualitative analysis. By using a large number of statistical data from 2002-2017 from the EU, the WTO and China, this article studies the reasons leading to the EU-Sino trade deficit, and attempts to explain this issue from a new perspective.

2. The Scale and Balance of Trade between China and the EU

In the course of rapid economic and trade development between the two sides, the scale of trade continues to expand and the gap between import and export trade is huge. From 2002 to 2008,

China joins the WTO, the EU expands eastward and deepens China-EU cooperation. China-EU trade increases at an average annual rate of 26.5%, from US $86.76 billion to $425.58 billion. At the same time, the EU-China trade deficit accelerates, rising from US $9.67 billion to a record high of US $160.18 billion, a nearly 17-fold increase in seven years. In 2009, affected by the global economic crisis, the EU imports to China drop significantly, with the total bilateral trade volume dropping 14.5% year-on-year to US $364.04 billion, and the deficit dropping 32.2% year-on-year to US $108.53 billion. In 2011 and 2012, the European debt crisis goes from spreading to worsening, seriously affecting the development of the European banking sector and the real economy of the Eurozone. The growth rate of Sino-EU trade slows down from US $567.21 billion to US $546.04 billion, down 3.7% year-on-year. The deficit drops 15.8 percent year-on-year to $121.93 billion from $144.83 billion. From 2013 to 2017, as the European debt crisis, the upgrading of China's industrial structure and the promotion of "One Belt One Road" cooperation, China's imports from the EU increase by 3.4% and its exports by 2.3% annually. Total trade volume fluctuates, rising from US $559.04 billion in 2013 to a peak of US $616.92 billion. During this period, the bilateral trade imbalance improved and the trade gap narrows significantly. The deficit as a percentage of total trade falls from a high of 26.0% in 2015 to 20.6% in 2017, reaching US $127.17 billion (Fig. 1).

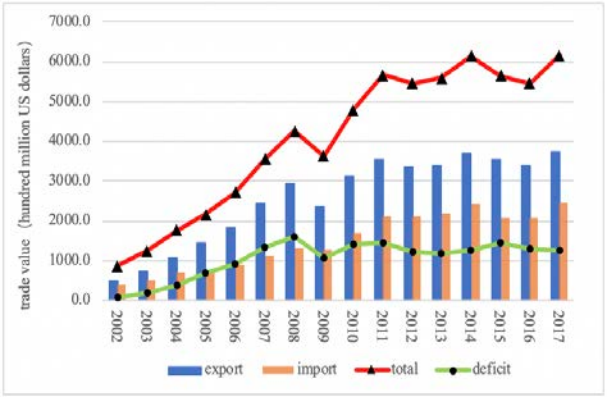

Figure 1. Development of China-EU Import and export trade from 2002 to 2017

3. Reasons for EU's Trade Deficit with China

3.1 Unbalanced Market Demand

China's long-term economic state of low consumption and excess of savings over investment has resulted in a large surplus of products after meeting domestic demand. On the one hand, it has led to strong need for export of enterprises; on the other hand, it has led to overcapacity of enterprises, reduced profits, lack of impetus for expanding production and innovation, and reduced import of means of production. Simultaneously, as Chinese disposable income is still at a low level, a large part of household income is used to meet basic living needs, and there is less need for the EU products. Accelerated industrialization and relatively insufficient consumption have led to a high dependence on exports. Relatively speaking, the Eu's overall consumption rate is relatively high in the world. The main member countries of the EU have maintained the development mode of low savings and high consumption for a long time. Moreover, the EU mainly imports low value-added necessities to China, which is less affected by residents' income and prices. The EU's import demand is strong, which widens the EU-Sino trade deficit. As shown in Figure 2, China's consumption rate fluctuates from 48% to 61% in 2002-2017, and the EU's consumption rate fluctuates from 76% to 80%. From 2002 to 2017, China's investment rate fluctuates between 36% and 48%, while the EU's investment rate fluctuates between 19% and 24%.

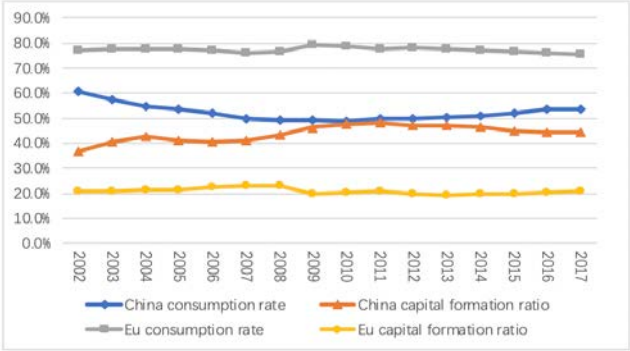

Figure 2. China-EU consumption rate and capital formation rate from 2002 to 2017

3.2 International industrial transfer and FDI

In order to gain competitive advantage, developed countries transfer the lower value-added links in the production process to developing countries through the division of labor in the global value chain. With the advantage of factor cost, China actively undertakes the industrial transfer from developed countries, becoming the last link of the whole production chain across many countries, processing and assembling raw materials and semi-finished products from various countries, and exporting the products made in China back to markets in Europe, America and other markets. Processing trade is located at the bottom of the production value chain, China has very little income, but in the process of trade balance statistics, it includes the total value of the final export products. Since 2000, China has formed a red supply chain that can be used for overseas enterprises to produce their own products. As can be seen from Table 1, China's trade surplus is mainly caused by processing trade, and other trade has been in a state of deficit. In 2006-2017, the balance of processing trade rises first and then declines in 2012, but it is always the largest. In 2012, the processing trade surplus reaches the peak value (US $381.61 billion), of which the processing trade surplus accounted for 96.2%, US $367.11 billion. In 2017, the surplus value of processing trade is US $327.59 billion.

Table 1. China's trade surplus from different trade methods in 2006-2017 (Unit: US $100 million)

Year	Trade surplus	Trade surplus caused by different trade methods		
		General trade	Processing trade	Other trade
2006	1774.7	831.4	1888.8	-945.6
2007	2622.0	1099.3	2492.6	-969.9
2008	2954.6	899.1	2967.8	-912.2
2009	1960.6	-40.9	2646.4	-645.0
2010	1831.0	-472.4	3229.0	-925.6
2011	1551.4	-903.4	3656.2	-1201.4
2012	2311.1	-338.1	3816.1	-1166.9
2013	2597.5	-221.6	3638.3	-819.1
2014	3824.6	941.7	3599.8	-716.9
2015	5945	2940.6	3507.9	-503.5
2016	5099.6	2304.2	3191.6	-396.2
2017	4225.1	1473.3	3275.9	-524.1

At the same time, Japan, South Korea and other newly industrialized countries and regions in East Asia transferred labor-intensive industries and low-tech processes to China. While China exports the final processed products to the EU, it also undertakes the export of these countries to the EU, which leads to the increase of the EU-Sino trade deficit. If you strip out the value of intermediate imports from abroad, the real trade deficit between Europe and China will fall significantly. In Figure 3, the EU-China trade deficit from 2006 to 2012 has the same overall trend as China's deficit with its East Asian partners. From 2013 to 2017, their overall trend of change is opposite. This is mainly due to the arrival of the world's fourth wave of industrial transfer, when

China's demographic dividend and resource advantages have gradually lost. With the rising cost of manufacturing industry, China begins to become an exporter of industrial transfer. Vietnam, Indonesia and other regions with lower labor and resource costs become the first choice for industrial transfer in China and other developed countries. Therefore, China has a surplus position with ASEAN in recent years. At the same time, developed economies have weakened after the financial crisis. They realize the risk of disengaging from the real economy, the important role of manufacturing industry in technology and employment, and the high-end manufacturing industry begin to flow back.

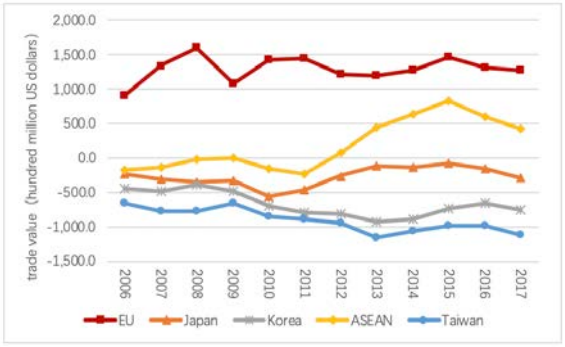

Figure 3. China's trade balance with the EU and Its East Asian trading partners from 2006 to 2017

As far as Sino-EU trade is concerned, on the one hand, through direct investment, transnational corporations establish branches and companies in China and bring advanced R&D capability, production technology and organizational management skills to China. The company can directly realize local production in China, sell locally or resell to the EU, so as to reduce China's import to the EU and increase its export. At the same time, the inflow of funds accelerates the industrial restructuring and the development of processing and manufacturing industries, which leads to the shift of some products from imports to domestic procurement, thus reducing Chinese imports. On the other hand, through technology diffusion or imitation, local Chinese enterprises make use of relatively cheap labor and resource costs to produce corresponding products. Then the products are sold to the EU in reverse, which increases China's exports and further aggravates the trade imbalance. As shown in Figure 4, FDI in China shows an overall upward trend. It has increased from 52.74 billion US dollars in 2002 to 136.32 billion US dollars in 2017. At the same time, the deficit has expanded from 9.67 billion US dollars to 127.17 billion US dollars. FDI tends to be consistent with the overall change of the EU-Sino trade deficit.

Figure 4. FDI in China and the EU-Sino trade deficit from 2002 to 2017

3.3 Real Exchange Rate Change between Euro and RMB

When the real exchange rate of Euro against RMB rises, RMB depreciates. The relative price of Chinese goods is lower, and the demand of EU for them is increasing, which leads to the increase of China's exports. The relative price of the EU goods rises, China's imports decreases, the EU-Sino trade deficit increases, and vice versa. At the same time, substitutability of commodities is also a decisive factor affecting the EU's demand. China's exports to the EU have strong substitutability and high price elasticity of demand. Once the exchange rate changes, it will have an effect on the

overall level of EU imports. The EU exports are mainly high-tech and scarce energy products, which have low price elasticity of demand. The rise of the real exchange rate will not significantly reduce China's imports. As China's export is strong (Fig. 5, the export value curve is significantly higher than the import value curve), the reverse effect of the rise of the real exchange rate on the import volume is offset in the course of obtaining the deficit, resulting in the phenomenon that the relationship between the exchange rate and the reverse balance is inconsistent with the expectation. As shown in Figure 5, the change trend of the exchange rate of Euro/RMB from 2002 to 2017 is the same as the overall change trend of Sino-EU trade exports, but not inversely related to the change trend of imports, and different from the change trend of the trade deficit. In recent years, the rising trend of exchange rate may aggravate the trade deficit to a certain extent.

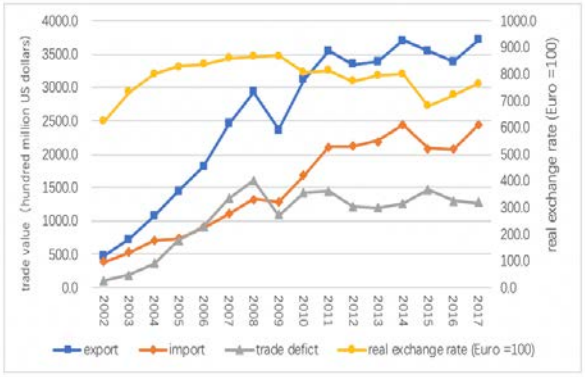

Figure 5. China-EU trade and the real exchange rate between the Euro and RMB from 2002 to 2017

3.4 Differences in Trade Statistics Methods

The EU statistics overestimates the EU-China trade deficit. The EU takes into account China's direct exports to the EU and China's exports via Hong Kong to a third country in its import trade statistics with China. As long as the products made in China are exported to the EU, they will be regarded as the EU-Sino trade import. China's statistics include only its direct exports to the EU. Meanwhile, the EU uses the CIF price to calculate the import trade volume from China, and uses the FOB price to calculate the export trade volume to China. As a result, loading and unloading, transportation, insurance and other costs are double included in the trade volume, widening the statistical gap. In addition, the EU rules of origin are 60% standard, while the rules of origin in China is 30% standard. Thus, 30%-60% of the value-added goods need to be fully included in China's exports to the EU. To some extent, this widens the Sino-China trade balance. Only according to the OECD and WTO trade value-added statistical method, can we truly reflect a country's profit in the value chain. As shown in Figure 6, the statistical gap has risen from 35.38 billion US dollars in 2002 to 72.36 billion US dollars in 2017.

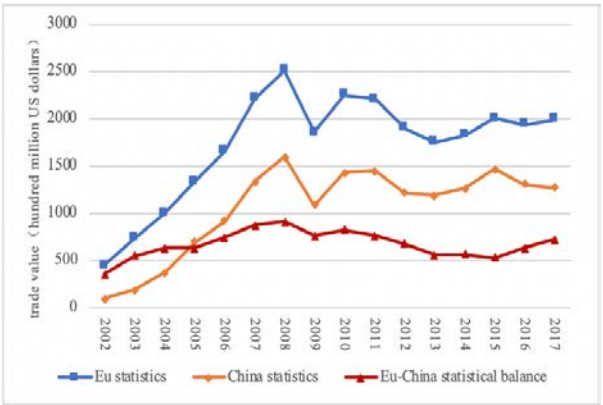

Figure 6. Statistical differences between China and the EU in the EU-Sino trade deficit from 2002 to 2017

3.5 Trade Protectionism in the EU

The implementation of trade barriers by the EU to China will lead to the rise of the export prices of relevant products of China. However, the price advantage has always been the core factor for Chinese traders to explore the EU market, and the decline of competitiveness has a strong impact on Chinese export enterprises. And the EU's trade protection has hindered the entry of Chinese products into the EU to a certain extent in the short term, protected the interests of appealing enterprises and industries, and eased its own trade deficit. But in the long run, the Chinese residents income is growing at nearly double speed. The Chinese market is vast and irreplaceable. Frequent the EU trade protection measures will lead to China's counter protection measures. It is difficult to seize China's development opportunities, resulting in a huge loss of EU exports, thus widening the Sino-EU trade balance. According to statistics, China has received 1475 trade relief measures worldwide from 2002 to 2017, 119 trade relief measures from the EU, ranking third after the United States (231) and India (206). This includes 93 counter-dumping cases (78.15%), 12 anti-subsidy measures (10.08%), 4 safeguard measures (3.36%) and 10 special safeguard measures (8.4%) (Table 2). The EU implements more subtle trade protectionist methods, for instance technological barriers and green barriers. The EU reports 1,226 technological barriers and 960 green barriers between 2002 and 2017. China has taken counter measures to deal with the EU discriminatory trade protection measures, and the mutual trade frictions have become increasingly fierce. From 2002 to 2017, there are 32 trade remedy measures taken by China to the EU, including 27 counter-dumping measures, making up 84.38%, 3 anti-subsidy measures, making up 9.38%, 2 safeguard measures, accounting for 6.25%, and 0 special safeguard measures. According to the WTO statistics, China's technical barriers and green barriers have reached 1323 and 1073 respectively from 2002 to 2017.

Table 2. EU trade friction cases against China in 2002-2017(Unit: Cases)

Year	The EU trade remedy measures against China				main barriers non-tariff	
	Anti-dumping	Countervailing	Safeguard	Special safeguard	Technical barriers	Green barriers
2002	4	0	1	0	17	45
2003	3	0	1	1	22	76
2004	9	0	0	0	34	93
2005	8	0	1	9	26	42
2006	12	0	0	0	45	48
2007	6	0	0	0	39	53
2008	6	0	0	0	78	49
2009	6	0	0	0	141	54
2010	8	2	1	0	82	60
2011	6	0	0	0	128	50
2012	4	3	0	0	126	67
2013	3	3	0	0	107	57
2014	4	1	0	0	92	81
2015	6	0	0	0	78	51
2016	5	1	0	0	110	55
2017	3	2	0	0	101	79
Total	93	12	4	10	1226	960

Conclusion

Through the analysis of the main factors affecting the EU-Sino trade deficit, we can find that it is a manifestation of the optimal allocation of global resources, and is determined by the economic development law of the country itself. The unbalanced market demand, the international industries transfer and FDI, the change of real exchange rate between the Euro and RMB, the different

statistical methods, and the EU trade protection are all important factors that bring about the EU-China trade deficit. Both sides should take an objective and rational view of the trade imbalance, not blame one of them for the responsibility, and jointly safeguard the long-term interests of both sides.

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