

The Impact of Carbon Tariff on China's Export Trade and Its Countermeasures

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Abstract. At the same time of economic development, environmental issues have become a common problem faced by all of us. The global environment is deteriorating and the rate of warming is accelerating, seriously affecting people's daily lives. The carbon tariff proposed by developed countries is actually a new type of trade barrier and a barrier for trade protection in developed countries. Carbon tariffs have an inhibitory effect and deteriorating effects on terms of trade, which have a huge impact on China's export trade. This paper starts with the status quo of China's export trade, analyzes the impact of carbon tariffs, and finally puts forward corresponding countermeasures and suggestions from how the government formulates policies and how to manage enterprises, so as to promote the steady and healthy development of China's economy and take the road of sustainable development.

Introduction

Since the 20th century, the global economy has continued to develop, industrial output has been continuously improved, and people's living standards have become higher and higher. However, at the same time of economic development, environmental issues have become a common problem faced by all of us, and the global environment is deteriorating. Developing a low-carbon economy, advocating green environmental protection, energy conservation and emission reduction has become the development slogan of the global economy. However, due to the inconsistent level of economic development between developed and developing countries, it is unfair to developing countries to require the same level of emission reduction, and economic pressures in developing countries are high. Due to the slow economic development and the backward production mode, developing countries will inevitably emit a large amount of carbon dioxide, which will destroy the environment. Under this circumstance, developed countries impose carbon tariffs on high-carbon emissions products from developing countries, so that both imported products and domestic products bear the same emission reduction tasks and protect their interests. The carbon tariffs imposed by developed countries are ostensibly to protect the environment. In fact, they are aimed at reducing the impact of export products from developing countries on their own economies, protecting their industries, consolidating their world economic hegemony, competing for dominant rights, and leading the future world. This is the fundamental purpose and intention of their carbon tariffs. Therefore, carbon tariff is a new type of trade barrier and a barrier for trade protection in developed countries. The imposition of carbon tariffs violates the principle of "common and differentiated responsibilities" of developed countries and developing countries established by the Kyoto Protocol in the subsequent changes, and is contrary to the WTO's principle of free trade and MFN treatment. What is more serious is that it will disrupt the international trade order and trigger trade wars, thus affecting the development of the world economy. Although the current carbon tariff has not begun to be levied, but the slogan has become more and more loud, low-carbon emission reduction is imperative. Therefore, how China should deal with carbon tariffs and weaken its impact on the development of China's foreign trade is particularly important.

Economic Effects of Carbon Tariffs

Inhibition Effect of Carbon Tariff.

Most of China's export products are high-energy-consuming products, and carbon emissions are relatively high. Once the carbon tariffs imposed by developed countries, the prices of China's export products will increase, thus reducing the number of exports and the decline of exports, thus having a trade inhibition effect. As shown in Figure 1, the horizontal axis represents the number of export products, the vertical axis represents the export product price, the S_X line represents the export supply curve of China's products, and the D_M line represents the import demand curve of developed countries for China's products. Before the implementation of carbon tariffs, China's product exports are balanced with those of developed countries. The equilibrium price is P_E , the equilibrium quantity is Q_E , the export volume is $P_E \cdot Q_E$, and the international market reaches equilibrium. If the developed countries impose carbon tariffs, China's market price will fall to P_2 , and the importing country's price will rise to P_1 due to the tariff effect. As a result, the demand of developed countries will fall to Q_1 , so that China's export volume will decrease to Q_1 , and the export volume will decrease to $P_2 \cdot Q_1$, so we can find that the impact of carbon tariffs on China's export trade is very huge.

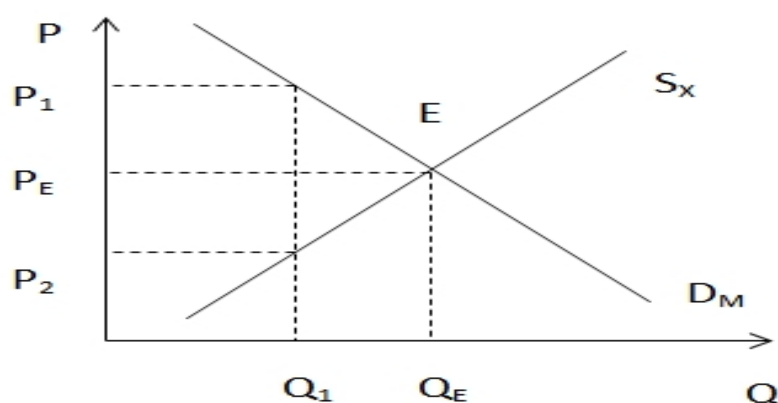


Fig. 1. Effect of carbon tariffs on trade size

Deterioration Effect of Trade Conditions on Carbon Tariffs.

Due to the levy of carbon tariffs, exporting enterprises have chosen to reduce exports and switch to sales in the domestic market, resulting in oversupply in the domestic market and falling prices of export products, which eventually led to the deterioration of trading conditions. We can also use the curve to verify the deterioration of the terms of trade. As shown in Figure 2, the horizontal axis represents the export volume of a product in the exporting country, the vertical axis represents the import volume, the OA represents the supply curve of the exporting country before the carbon tariff, and the OB represents the importing country. The curve is provided. It can be seen from the figure that at E point, we can get the trade condition is OE ; when the tariff is imposed by developed countries, the tariff effect will increase the production cost. At this time, the curve will be moved to the right OA' . The equilibrium point is E' , and the terms of trade become OE' at this time; compared with OE and OE' , the number of imported goods exchanged for the same number of export commodities has decreased, so the terms of trade have deteriorated.

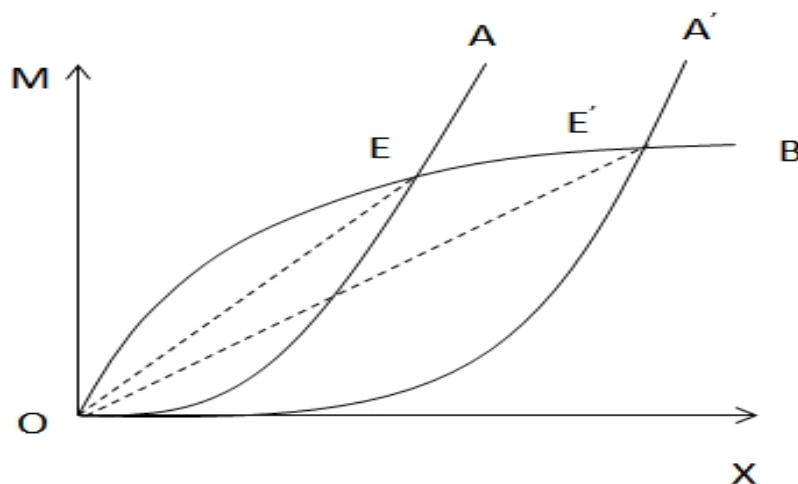


Fig. 2. Trade deterioration effect of carbon tariffs

The Impact of Carbon Tariffs on China's Export Trade

Carbon tariffs are a new type of trade barrier that is a means used by developed countries to pass on environmental costs and is therefore very unfavorable for developing countries. The collection of carbon tariffs will undoubtedly increase the export cost of Chinese enterprises and reduce the international competitiveness of products, thus affecting China's export trade. The impact can be analyzed in terms of export volume, export structure, export competitiveness, enterprise employment, and export environment.

Impact on China's Exports.

Most of China's export products are industrial manufactured products, and carbon emissions are very high. Therefore, once carbon tariffs are imposed, they will increase the international market price of export products, thereby weakening the international competitiveness of products and making them at a relatively disadvantaged position, affecting China's exports. As shown in Table 2 above, in 2013, China's total exports amounted to 220.090 billion US dollars, of which total exports of manufactured goods reached 21017.36 billion US dollars, accounting for 95.1% of total exports, of which machinery and equipment accounted for the largest proportion, accounting for 49.4% of industrial manufactured goods. Miscellaneous products accounted for 27.7%, and textile products accounted for 17.2%. Due to the large carbon emissions of these types of products, the carbon tariffs have caused their exports to drop sharply, and the total foreign trade exports have declined. According to a World Bank study, the implementation of carbon tariffs will cause China's exports to fall by 21%. According to experts, if developed countries implement carbon tariffs around 2020, if they are 30 US dollars per ton of carbon, it will lead to a decline of 0.715% in China's exports; if 60 US dollars per ton of carbon, the total exports will fall by 1.244%. Therefore, if the United States, the European Union and other developed countries levy carbon tariffs, it will have a huge negative impact on China's export trade.

Impact on China's Export Structure.

Before the carbon tariffs were levied, China's export structure was relatively stable, and industrial manufactured goods accounted for a relatively large proportion of export products, and primary products accounted for a relatively small proportion. After the carbon tariffs are levied, China's export structure will change. Those products with higher carbon emissions in the industrial manufactured goods industry will decline due to large carbon emissions, and the proportion will decline. Those green low-carbon products will export less due to carbon emissions. It will rise, the proportion will increase, and the structure of exports will change. The impact of carbon tariffs on China's manufacturing industry is also huge. Those traditional manufacturing industries, such as the steel industry and the smelting industry, consume too much energy, have large emissions, and are highly polluted. Therefore, they do not adapt to the trend of low-carbon economy and become the

target products of carbon tariffs. . If we do not develop a low-carbon economy and reduce carbon emissions, it will greatly affect the development of the manufacturing industry and threaten the status of the manufacturing industry.

Impact on China's Export Competitiveness.

The collection of carbon tariffs will lead to an increase in the cost of high-carbon emissions products. The price of exports to the international market will increase accordingly. The price advantage will be lost in domestic products and other countries' products, which will reduce the competitiveness of products and be in a disadvantaged position in the survival of the fittest. A study by the Academy of Social Sciences shows that the imposition of carbon tariffs will lead to an increase in China's export costs by at least 5% and a decrease in exports by at least 8%.

Impact on the Employment of Chinese Export Enterprises.

The imposition of carbon tariffs will undoubtedly have a greater impact on the employment of Chinese enterprises. Because China's industries are mostly labor-intensive industries, they rely mainly on cheap labor to gain competitive advantage. The implementation of carbon tariffs will force Chinese enterprises to upgrade their industries. Most enterprises are unable to upgrade their technology due to backward production technology, lack of funds, etc., and the pressure of survival has increased. Eventually, enterprises have been shrinking, employment has been decreasing, and workers are unemployed. Affect the employment rate in China. The increasing number of unemployed people will lead to a series of social problems, which is not conducive to the harmonious development of society.

Impact on China's Export Environment.

Once the carbon tariffs are imposed, it will directly lead to a decline in exports of high-carbon industries, and international trade frictions will increase. As a punitive tariff imposed by Western developed countries such as the United States and Europe on developing countries that have not undertaken emission reduction obligations, carbon tariffs will be imposed on all export products for a long time. As a result, China's high-carbon industry will become a "carbon tariff". The main target of the levy, which in turn became the target of trade friction. Over time, international trade frictions are increasing, and the export environment is deteriorating, which affects China's product exports.

China's Strategy and Recommendations for Dealing with Carbon Tariffs

As a developing country, China has a low degree of economic development. Export commodities are mainly low-end products with high carbon emissions and are affected by carbon tariffs. Through the above analysis, we can see that the carbon tariffs will increase the cost of export enterprises, reduce export profits, and reduce product competitiveness. At the same time, it will also have an impact on the structure of export products and the employment rate of export enterprises, affecting China's international image. In order to deal with carbon tariffs and solve these problems, the government and enterprises should take active actions and take corresponding measures to reduce the impact of carbon tariffs on foreign trade. The specific measures and suggestions are as follows:

Government Level.

1) Utilize national treatment, MFN status and special preferential treatment in the WTO system to strive for certain rights and interests for China

Article 20 of the general exception clause in the WTO stipulates that in some cases, member states may adopt trade restrictions based on environmental reasons. This provision gives the United States, the European Union and other developed countries the opportunity to take carbon for this reason. Tariffs come to get more benefits for yourself. We should judge the nature of this clause, test the validity and legitimacy of this measure, and use MFN and national treatment to require us to enjoy the same treatment as other countries and products of the importing country, while striving for a certain period of time according to special preferential treatment. During the transition period, it has won valuable time for China's industrial upgrading.

2) Actively participate in the formulation of relevant laws and regulations on carbon tariff collection and safeguard corporate interests

Regarding the formulation of the carbon tariff collection rules, we cannot passively sit still and should actively participate in it, understand in many ways, try our best to obtain favorable standards and carbon emissions for China, actively carry out environmental diplomacy, climate diplomacy, and create a good external environment. Through various legal channels to vigorously safeguard the interests of Chinese enterprises, weaken the impact of carbon tariffs, enhance China's export competitiveness, increase export profits, and defend the image of China's big country.

3) Impose a carbon tax on export products of certain high-carbon industries in China to prevent developed countries from collecting carbon tariffs.

Carbon tax and carbon tariff are very different. In order to cope with the impact of carbon tariffs, China can impose a carbon tax on high-carbon industries according to law. Since China has signed a double taxation agreement with Western developed countries such as the United States and the European Union, once China has If a carbon tax is imposed in the country, then the developed countries will not be allowed to impose carbon tariffs. In this way, on the one hand, we can promote the optimization and upgrading of the industrial structure of enterprises through carbon tax, and reduce carbon emissions from the source; on the other hand, we can also deal with the carbon tariff policy of developed countries, so as not to have a huge impact on China's foreign trade. These carbon tax taxes can help companies adjust their industrial structure, develop low-carbon technologies, and can also be used for environmental protection. Therefore, the domestic carbon tax is the most direct and effective way to deal with carbon tariffs.

4) Promote industrial structure upgrading, especially high-carbon and high-energy-consuming industries

Three major characteristics of China's industrial structure: rough processing, high consumption, low-end products. Therefore, adapting to the development trend of low-carbon economy and optimizing and upgrading the industrial structure have become the top priority of China's economic development. First of all, technological innovation is a prerequisite for the upgrading of industrial structure. Through technological advancement, it promotes industrial restructuring, especially for high-carbon and high-energy-consuming industries, and transforms "high carbon" into "low carbon". Second, we must continue to intensify innovation, increase investment in innovation, and innovate old machinery and equipment, industrial structure, and industrial concepts to create new things. At the same time, it is necessary to gradually reduce the proportion of high-carbon industries in the national economy and increase the proportion of tertiary industries and emerging industries, such as modern service industries, solar energy, wind energy, and tidal energy industries. Due to low energy consumption, low emissions and light pollution, these industries are in line with the development trend of low-carbon economy and guarantee the smooth operation of China's national economy.

Corporate Level.

1) Vigorously develop low-carbon technologies, develop a low-carbon economy, reduce carbon emissions, and improve the competitiveness of export products

In order to solve the carbon tariff problem, the most fundamental thing is to develop a low-carbon economy and develop low-carbon technologies. In recent years, China's carbon emissions have increased year by year, and the growth rate is staggering. In 2013, it even reached 10 billion tons, indicating that China's rapid economic development is based on high carbon emissions and high energy consumption. Therefore, research and development of low-carbon technologies and development of low-carbon The economy is imperative. The government and enterprises should work together to develop low-carbon technologies: companies should establish development strategies, increase investment in human resources and capital, and train special talents for technology research and development. At the same time, they should introduce advanced low-carbon technologies and equipment from abroad. The road to carbon economic development; the government should formulate preferential and subsidy policies, vigorously support enterprises to develop low-carbon technologies, give technical talents and financial support, and help enterprises transform. Only in this way can we increase the competitiveness of export products and the added value of products, and take the path of sustainable development.

2) Establish a diversified export model, reduce dependence on foreign markets, and expand domestic demand

China's export trading partners are all over the world, but the data show that in recent years China's main export areas are the United States, the European Union, Japan and other developed countries, but these countries are preparing to impose carbon tariffs and implement strict carbon emission standards, which will have a major impact on China's export trade. . In order to deal with this problem, we can, on the one hand, establish a diversified export strategy, actively explore the market, especially in developing and emerging countries, increase exports to developing countries, and reduce dependence on developed countries; On the other hand, it is possible to expand domestic demand, actively explore the domestic market, reduce dependence on foreign markets, and use China's huge market to develop the economy. This will be a direct response to carbon tariffs.

3) Adjust energy consumption structure, improve energy efficiency, and use more clean energy

China's energy consumption in recent years is dominated by coal. Although coal consumption has declined in recent years, coal still accounts for about 70%, mainly relying on coal for industrial construction. High carbon emissions have become a basic feature of China's industrial development. In order to cope with carbon tariffs, we should change the energy consumption structure, develop clean energy sources such as solar energy, wind energy, and tidal energy, and reduce the use of traditional energy sources such as coal and oil to reduce carbon dioxide emissions. Continuously update technology and equipment to improve energy efficiency, reduce energy waste and environmental pollution, and take a sustainable development path.

4) Improve the structure of export commodities and increase the added value of export products

In recent years, the data show that China's main export products are high-energy-consumption industrial products such as textile products, machinery transportation equipment and chemicals. The carbon emissions are very large and become the “target products” of carbon tariffs, although in exchange for high export value. But at the expense of the environment, this is contrary to the sustainable development strategy established by China. Therefore, we need to improve the structure of export commodities and change to a low-carbon environment. We mainly export technology-intensive products, supplemented by the export of resources and energy-intensive products. Enterprises should increase technological innovation, develop high-tech industries, improve the competitiveness of export products, and expand high-tech industrial clusters; the government should subsidize preferential policies, help enterprises to technological innovation, encourage the export of technology products, and make China's export trade structure A fundamental change has taken place, the added value of export products has been increased, the export trade has been strengthened, and China's export trade has been in an invincible position, stimulating China's economic growth and promoting social harmony and stability.

All in all, although the carbon tariff has a great influence, it is imperative that the so-called soldiers will block the water and cover the land. As long as the government and enterprises work together, they can make a difference. I believe we can cope with the carbon tariff and use it to promote the stable and healthy economy of our country. Develop and follow the path of sustainable development.

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