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WTO Legality Analysis of the European Union's Carbon Border Adjustment Mechanism and China's Response

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Abstract: Now that the EU Carbon Border Adjustment Mechanism (CBAM) has entered into force and is entering a transition period, its compliance with WTO trade rules has been controversial. CBAM's differential treatment of goods from different origins based on their carbon content violates the GATT principle of non-discrimination and may result in WTO members being denied fair, just and equal treatment in international trade. CBAM is a tax on the carbon emissions of some specific imported goods, requiring high-carbon products imported into or exported from the EU to pay the corresponding amount of tax or refund the corresponding carbon emission quotas, thus affecting China's export trade. This study mainly utilizes literature research method and comparative research method. At the international level, analyze whether CBAM can meet the WTO legal requirements to construct international carbon tariff rules separately from the existing WTO rules, affecting the global environment and climate change issues. At the domestic level, the impact of CBAM on China's foreign trade is explored. China should adhere to multilateralism, strengthen international cooperation, continuously develop low-carbon technologies and improve the carbon trading market to cope with the impacts of CBAM. Thus, to the effect of safeguarding international interests and contributing to global development.

Keywords: CBAM, WTO rules, Carbon Tariff, International Trade, Environmental Protection.

1. Introduction

The transition period for CBAM is from October 1, 2023 to December 31, 2025, with carbon tariffs officially imposed on January 1, 2026, and fully implemented in 2034.Despite the EU's claim that CBAM is in line with WTO rules, its consistency with the WTO and multilateral climate agreements still needs to be examined. In the context of global climate governance and low-carbon transition cooperation, countries should prepare in advance, analyze the impacts of CBAM and formulate coping strategies, despite the fact that the EU has set a transition period of nearly two years for CBAM. This paper will explore the compatibility of CBAM with WTO rules and propose countermeasures for China, which is of great theoretical and practical significance.

With regard to the substance of CBAM, some scholars have argued that it essentially undermines the “common but differentiated principle” of global climate governance in addressing the issue of carbon leakage. On the one hand, giving developed and developing countries equal responsibility for carbon reduction; on the other hand, shifting the main responsibility for the occurrence of carbon

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leakage to developing countries [1]. On the issue of environment and trade, some foreign scholars have pointed out that the mechanism needs to be designed with full consideration of its potential impact on developing countries to ensure that these countries are not unfairly treated because of the dependence of their economies on fossil fuels, and that global climate action should be encouraged without violating the principles of the WTO [2]. Successful environmental policies should be integrated with trade rules to promote sustainable development, emphasizing the need for transparency and technical feasibility in the implementation of environmental measures to avoid unnecessary friction with trading partners [3].

With regard to the impact of CBAM on China, it has been argued that China is the primary target of the tax only for the products initially covered by CBAM, and that sectors (mining, metals) and countries (Russia, China, India) with higher carbon intensity and greater trade exposure will be affected to a greater extent [4]. In order to cope with the impact of CBAM, firstly China should speed up the process of domestic carbon market construction. China needs to use policy to strategically advance its carbon tax plan, promote new industrialization, and establish a green and low-carbon system for the industrial chain supply chain. At the same time, it is necessary to strengthen China-EU exchanges and cooperation and promote international multi-bilateral economic and trade cooperation [5].

This study concludes that CBAM can play a role in maintaining carbon leakage, mitigating climate change and protecting the global environment to some extent. But it is still essentially climate unilateralism and trade protectionism. It brings to developing countries harsher terms of trade and responsibilities for environmental protection that do not match the actual state of development of developing countries. The aim is to improve the EU's own competitiveness and its leadership in global climate governance.

2. Status of Development of CBAM

In exploring the current state of development of CBAM, the history and trends of its development are first discussed to grasp the evolution of the mechanism. Then, analyzing its main rules is the key to understanding how the mechanism works. Finally, exploring its purpose will reveal the EU's deeper motivations for implementing the mechanism.

2.1. History and Trends in CBAM

Since the launch of the European Union Emission Trading Scheme (EU ETS) in 2005, the EU has been concerned about carbon leakage and has been discussing carbon tariffs on imported products since 2007. In September 2020, the EU established the European Climate Law and initiated the process of establishing the CBAM. In July 2021, the CBAM legislative process was officially launched under the “fit for 55” package. CBAM goes into effect on May 17, 2023.It is expected that more industries and products will be included in CBAM's coverage in the future to achieve a wider range of carbon reduction targets. As global climate governance and cooperation deepens, the establishment of global carbon markets and carbon price volatility also affect the effectiveness of CBAM. International multilateral climate agreements and countries' economic and trade dealings may also create support or resistance to CBAM implementation.

2.2. Main Rules of CBAM

First, the transition period and entry into force of CBAM. During the transition period importers are required to submit quarterly reports to the European Commission and are not required to purchase or surrender certificates. After the transition period, the EU evaluates the effectiveness of this phase of

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CBAM implementation, formally levies the tax in 2026, and fully implements it by 2034, when the EU ETS free emission allowances will be phased out.

The second is the scope of application of CBAM. During the initial transition phase, CBAM applies to certain carbon-intensive imports, including cement, electricity, fertilizers, steel and aluminum. Because of the higher risk of carbon leakage in these carbon-intensive industries, the EU will decide whether to include more downstream products in the value chain according to the implementation effect, covering more areas step by step.

Third, the CBAM operational process. It requires the importer to first become a CBAM filer and provide basic information. The information includes the volume of each imported commodity, the total embedded emissions in the commodity, the number of CBAM certificates returned, and copies of various verification reports. Duty is then levied in the form of a certificate, which is based on the EU ETS quota price and cleared on an annual basis. Importers can also apply for a buy-back certificate.

2.3. Purpose of CBAM

Addressing carbon leakage was one of the reasons CBAM was established in the first place. From the point of view of environmental protection, carbon leakage will not reduce the carbon emissions of high-emission enterprises and will not be effective in slowing down global warming. From the point of view of the EU's own benefits, due to the strict carbon emission requirements for enterprises, it will lead to higher production costs for enterprises in this region, affecting the attractiveness of investment and employment, etc. However, when a global agreement on emission reduction is difficult to reach, CBAM is a better option as a unilateral measure. Overall, the purpose of CBAM has both its positive environmental protection and carbon leakage prevention aspects and the controversy of possible international trade conflicts and unfair treatment. Therefore, the concrete implementation and effects of CBAM need to be continuously observed and evaluated in practice.

3. Analysis of the Legality of CBAM under the WTO Framework

Assessing the legality of CBAM under the WTO framework requires an examination of its compatibility with the WTO core principles. First, explore the relationship between CBAM and the MFN principle. Second, analyze its consistency with the principle of national treatment. Finally, examine whether CBAM is compatible with the WTO's general exceptions clause. Through these analyses, we can more accurately assess the legal status of CBAM.

3.1. CBAM and Most-favored-nation Treatment (MFN)

The MFN principle, as one of the core provisions of GATT, is centered on ensuring equal trade relations among all contracting parties. The principle requires that any trade preferences, such as tariff reductions and exemptions, market access, granted by any party to a particular country or region must be extended to all contracting parties without discrimination. The CBAM mechanism deviates to some extent from the MFN principle.

First, to determine whether there is a violation of the MFN principle, it is first necessary to determine whether it is a “like product”. However, there is no definition of like products in the GATT, and the judicial practice of the WTO varies from case to case, so there is uncertainty in the determination of like products. From the point of view of carbon emissions from production, high-carbon and low-carbon products do not belong to the same kind of product, but may be recognized as the same kind of product in view of the nature of the product, its use and other factors. In this regard, if there is a case in the EU involving CBAM's differential treatment of high-carbon and low-carbon similar products, the burden of proving that they are not “like products” will be on the EU to prove that CBAM complies with WTO rules.

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Second, CBAM has special treatment for EU member states. The EU has designed the CBAM system in such a way that it considers products produced in its member States to be compliant with its carbon emission standards, while similar products from non-member States do not comply with the EU standards, and thus are required to fulfill a series of formalities. CBAM requires non-EU member states to purchase permits to offset excess carbon emissions, while the procedure is not required for trade in cement, electricity, fertilizers, etc., between EU member states [6]. In addition, the EU has exempted some countries and territories from the application of the carbon border adjustment mechanism, such as Iceland, Ireland, Norway and Liechtenstein. This also includes enclaves of some EU member States in various locations. They are exempted because their respective carbon markets are already connected to the EU carbon market or because they have assumed the same emission reduction obligations as domestic producers in EU member States [7].

3.2. CBAM and National Treatment Principle

The principle of national treatment ensures the same treatment between domestic and imported products, guaranteeing that imported products are treated equally in the importing country.

First, CBAM is levied as a domestic charge. The European Commission did not define CBAM as a levy when it was developed because it does not require the agreement of all EU member states. And the fee determination of CBAM needs to refer to the EU ETS, which can be credited against the carbon price and EU ETS allowances already paid in the country of origin, so there is no fixed rate. The European Commission considered compatibility with WTO rules when drafting CBAM, and the current program text of CBAM does not constitute a levy, but rather a domestic fee.

Second, CBAM treats imported products differently from domestically identical products. Article 3(4) of the GATT states that “The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.” The fact that CBAM requires an application for a certificate in order to enter the EU market proves that CBAM is a system that acts indirectly on the sale of imported products, and therefore satisfies the prerequisites of Article 3(4). Imported products should enjoy no less favorable treatment than that given to similar products in their own countries, which means that the EU's obligation to reduce emissions from other countries' products cannot be higher than the obligation to reduce emissions from the same products in their own countries. However, it is difficult for the EU to determine the carbon emissions from multinational products, so the EU has uniformly applied the reference to the EU market carbon price to determine the carbon price of imported products. This leads to foreign products are not calculated according to the national emission reduction obligation and market carbon price, which is unfair to foreign products, and this is lower than the treatment of similar products in the country.

3.3. CBAM and General Exception Clause

If the CBAM is contrary to the principle of MFN versus national treatment, the EU would need to demonstrate that the CBAM complies with Article 20 of the GATT to bring the CBAM into conformity with the WTO rules. The CBAM relates only to the content of Article 20(b)(g) and the preamble.

Article 20(b) of the GATT requires trade measures to be “necessary to protect human, animal or plant life or health”. In view of the current global development, many countries have stimulated economic growth at the expense of the environment, and excessive greenhouse gas emissions are contributing to global warming, which will threaten the survival and development of human beings

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and other living creatures. Therefore, in the context of the continued promotion of the European Green Deal and for the realization of carbon neutrality in 2050, the EU proposes CBAM to prevent carbon leakage, control carbon emissions and mitigate global warming. In addition, the EU ETS has experienced problems such as lack of incentive mechanisms and inefficiency in emission reduction. To a certain extent, the establishment of CBAM is also to make up for the shortcomings of the EU ETS, and the two are not interchangeable, so CBAM is a "necessary" measure.

Article 20(g) of the GATT requires that trade measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption." First, CBAM and the carbon emissions trading market in its territory have a mutually supportive and reinforcing role. Producers of steel, cement and fertilizers in the EU do not have to relocate their industries to other countries because they have to participate in the ETS market to produce in the EU. This allows the EU emissions trading market to effectively cover more industries, and the two work together effectively to enhance emissions reductions [8]. Secondly, today's global air pollution is increasing, clean air is becoming less and less available, and the increase in carbon dioxide content is also making the earth's atmosphere available for absorbing more carbon dioxide less and less. Unpolluted air and thin atmosphere are natural, valuable and will be exhausted. In summary, CBAM satisfies paragraphs (b) and (g) of Article 20.

The CBAM needs to be consistent not only with any of the exceptions under Article 20, but also with the preamble to Article 20. First, it must not constitute arbitrary and differential treatment. CBAM is constructed to address the differences between non-EU countries and the EU in terms of climate change response measures, particularly with regard to product-specific carbon emissions. It requires products from non-EU countries to compensate for carbon emissions in excess of EU standards by purchasing CBAM certificates when entering the EU market. At the same time, it allows importers to deduct the cost of carbon already paid in the country of origin from the fees to be paid. The design of the CBAM respects the diversity of national laws and does not oblige other countries to harmonize their legislation with that of the EU. This design reflects respect for the principle of sovereign equality of States and avoids unfair treatment of non-EU member States [6]. Secondly, it cannot constitute a disguised restriction on international trade and cannot be used for trade protectionism. As the main purpose of CBAM is to prevent carbon leakage, there are also many references to the competition of imported products in EU legislative documents, including discussions on the conditions of competition between the EU and other countries [9,10]. It shows that the role of CBAM for international trade competition is also of great concern. However, it is necessary to continue to observe the implementation of CBAM as to whether it actually creates protection for industries within the EU and restricts international trade.

4. Impact of CBAM Implementation on China

Combined with the main purpose of CBAM's creation, it is both to protect the trade competitiveness of enterprises within the EU and to promote climate governance and carbon emission reduction on a global scale. Therefore, when analyzing the impact of CBAM on China, this paper will start from the trade perspective and the climate governance perspective.

4.1. The Impact of CBAM on China from a Trade Perspective

In the short term, CBAM will have the greatest impact on China's steel and aluminum exports. These products account for a high share of EU imports and may weaken their competitiveness in the EU market due to additional carbon tariff costs. In addition, enterprises trading with the EU are mostly in high-carbon and low-technology industries, and they need to purchase CBAM certificates at their own expense, which leads to higher export costs and lower profits, and enterprises will be less

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motivated to export. Enterprises are finding it difficult to make the low-carbon technology transition in the short term, and they face the dual challenge of increased costs and greater investment in research and development.

In the long run, CBAM may bring about a series of chain reactions. After the introduction of CBAM in the EU, other developed countries reacted quickly. Mutual recognition of carbon costs and mutual offsets and preferences among developed countries may facilitate the creation of global trade rules for trade in low-carbon products. The establishment of such global trade rules will greatly disadvantage exporting countries that are in the stage of development with high carbon emissions, weakening the price advantage of exporting developing countries and forming a low-carbon trade barrier between developed and developing countries.

4.2. Impacts of CBAM on China from a Climate Governance Perspective

As one of the countries actively responding to global climate governance, China has implemented strategic plans such as the “dual-carbon” goal. These programs are based on China's current development situation and future development goals, and are strategic and stable. The implementation of CBAM will, to a certain extent, interfere with the promotion of China's domestic low-carbon programs. Looking at the timeline of CBAM and China's “dual carbon” plan, China has announced that it is striving to peak its carbon emissions by 2030, and is working to achieve carbon neutrality by 2060. However, CBAM, which is expected to be formally introduced in 2026 and fully implemented by 2034, will run through China's “peak carbon” and “carbon neutral” phases. Moreover, in order to cope with the impacts of CBAM, China will need to take countermeasures, which will inevitably affect the normal development of China's “dual-carbon” program.

5. China's Response under CBAM

In facing the challenges posed by CBAM, China needs to develop appropriate response strategies. We will analyze China's strategies at the international level to safeguard national interests and promote global climate action. In terms of domestic strategies, we will explore how to guide the adjustment of industrial structure and technological innovation of enterprises through laws and policies. Through the implementation of these strategies, China will be better able to cope with the impacts of CBAM.

5.1. International Strategies

5.1.1. Guiding Global Climate Governance Values with the Concept of a Community with a Shared Future for Mankind

As an active participant in and contributor to global climate governance, China should uphold the concept of a community of human destiny, steer the direction of values in global climate governance, and demonstrate the responsibility and commitment of a major country. China should emphasize the importance of multilateral cooperation at the international level. It should promote countries to respond to climate change under the principle of common but differentiated responsibilities, and oppose any form of unilateralism and protectionist behavior, especially those that may harm the interests of developing countries. Countries should go beyond the traditional concept of national interests and establish a global partnership to jointly address global issues and achieve common development and prosperity. China could also help other developing countries realize low-carbon development in terms of green and low-carbon transition technologies and international climate governance experience.

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5.1.2. Reasonable Challenge to CBAM

China could question in international forums whether CBAM is the best way to address carbon leakage. Emphasize that developed countries should provide more technical and financial support to help developing countries improve energy efficiency and reduce emissions, rather than increasing trade costs through unilateral measures. China could also point out the impact that CBAM may have on developing countries' export industries and suggest that developed countries help developing countries improve their ability to cope with climate change, rather than protecting their industries through trade barriers.

5.1.3. Strengthening International Bilateral and Multilateral Cooperation

CBAM is essentially a trade protectionist measure of the EU's unilateralism. As for global environmental protection issues such as reducing carbon emissions and slowing down global warming, it should require more mutual cooperation and joint efforts by all countries in the world. In this regard, China can call for the implementation of CBAM to be accompanied by dialog and cooperation with trading partners, and more international multilateral cooperation to ensure consistency and fairness in global climate action. For example, Canada may choose to respond to CBAM by entering into a bilateral agreement with the EU. Canada has a Comprehensive Economic and Trade Agreement (CETA) with the European Union, which may provide Canada with some room for negotiation in dealing with CBAM. Canada utilizes existing trade cooperation frameworks to negotiate and mitigate the impacts of CBAM. China should also strengthen exchanges and negotiations with the EU on CBAM. For example, negotiate with the EU on the possibility of mutual recognition of carbon emission permits. This is because different carbon pricing mechanisms lead to different carbon prices paid for exported products, which may result in different standards for calculating carbon prices and complicated export procedures. Through exchanges and negotiations between the two sides, China can fight for its own interests and seek a cooperative solution acceptable to both sides, which will reduce the negative impact of CBAM on China.

5.2. Domestic Strategies

5.2.1. Utilizing Legal Guidance to Build a Carbon Emissions Trading Market

Some countries, such as South Korea, are considering adapting their domestic Emissions Trading Systems (ETS) to address CBAM. The development of Korea's carbon market has been divided into three main phases to strengthen the role and function of carbon market control by gradually expanding the coverage of industries and optimizing the method of quota allocation as a way to cope with CBAM. On February 4, 2024, the Chinese government promulgated the Interim Regulations on the Administration of Carbon Emission Rights Trading. This is the first specialized regulation in the field of China's response to climate change. For the first time, the carbon emission right market trading system was clarified in the form of administrative regulations. It is of great significance for China to realize the dual-carbon target and promote the green and low-carbon transformation of the whole society. In the future, the Chinese government should continue to play a guiding role in the construction and improvement of the domestic carbon emissions trading market. It should improve the administrative regulations on carbon emissions trading, sound the framework of the carbon emissions trading system, and clarify the trading mechanism, the way of allocating allowances, registration and the responsibilities of trading organizations.

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5.2.2. Utilizing Policies to Boost Business Development

The implementation of CBAM will, to a certain extent, force enterprises to develop green innovations.2024 On January 22, the National Voluntary Greenhouse Gas Emission Reduction Trading Market was launched. This is another important policy tool launched by China to help realize the dual-carbon target, following the national carbon emissions trading market. Its purpose is to encourage enterprises to take additional greenhouse gas emission reduction actions on their own volition, and after the emission reduction effect generated is quantified and verified by scientific methods, it will be sold through the market to obtain the corresponding emission reduction contribution revenue. The voluntary emissions trading market can mobilize a wider range of enterprises in the industry to voluntarily undertake GHG emissions reduction actions, and create huge green market opportunities to drive the whole society to participate in green and low-carbon development. The Chinese government can also help enterprises adopt low-carbon technologies and improve energy efficiency by providing support for technology research and development and financial subsidies.

6. Conclusion

The CBAM has come into force as a hard and fast rule for international trade between the EU and the rest of the world. Although it is seen as climate unilateralism and protectionism and may be contrary to the WTO's principles of most-favored-nation and national treatment, it is a highly complex design that takes into account respect for the carbon policies of other countries. However, as a highly complex design, it takes into account respect for the carbon policies of other countries and is in line with the WTO's conditions for allowing environmental exceptions. CBAM, as an environmental policy tool, aims to promote emission reductions through trade measures, and calls on countries to face the challenges of climate change and work together to promote a green and low-carbon future.

Aiming at the challenges of developing countries under CBAM, this study puts forward relevant countermeasures and recommendations based on China's perspective. It is argued that China should continue to strengthen the construction of a national carbon emissions trading market, uphold the principle of non-discrimination under the WTO multilateral system, and strengthen international cooperation with the EU and other organizations and countries. It should also continue to fulfill its international obligations to protect the global climate and environmental change and promote the building of a community of human destiny.

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