

# Research on the Construction of the Global Carbon Tariff System Under the WTO System

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## ABSTRACT

Against the backdrop of the European Union's "carbon border adjustment mechanism" proposal being questioned as a principled framework and considered as a possible new type of trade protectionism, unilateral carbon tariffs led by national or regional international organizations are facing resistance in the process of implementation. One of the ways to solve this problem is to construct a carbon tariff system under the World Trade Organization(WTO) system, using the multilateral negotiation mechanism and dispute settlement mechanism of the WTO, so that it can balance the global trade carbon emission governance and the distribution of trade benefits among countries. This paper proposes the features that should be included in the system design of this carbon tariff, i.e., there should be changes in the levy standard, tax rate and protection for developing countries. On this basis, the advantages of the carbon tariff under the WTO system are analyzed by comparing it with the current carbon tariff and the carbon tariff set by domestic legislation. Finally, the reasons why such a carbon tariff is not contrary to the WTO's objective of promoting global trade liberalization are explained based on past cases. Given the researches, this paper argues that the WTO carbon tariff should be introduced internationally, and that it has many advantages over the unilateral carbon tariff due to its integration with the WTO system.

**Keywords:** Carbon tariff, Multilateral negotiation, Dispute settlement mechanism, Environmental exception

## 1.INTRODUCTION

Due to the fact that the United States has withdrawn from the Kyoto Protocol made the agreement ultimately considered difficult to bring into force [1], and the implementation of the agreement by the remaining countries is uneven [2]. In 2007 French President Chirac proposed a carbon tariff, but the idea did not pass legislation. It was not until the American Clean Energy and Security Act of 2009 that the U.S. took the lead in imposing carbon tariffs on imports from countries that did not implement carbon reduction limits (although the Trump administration repealed them) [3]. On March 10, 2020, the European Parliament passed a resolution on carbon tariffs that did not have the force of law in order to safeguard the implementation of the Paris Agreement. The history of carbon tariffs shows that one of the main reasons for the creation of carbon tariffs is to guarantee compliance with climate treaties by all countries, especially high-emitting countries. Many climate-environmental treaties lack mandatory

safeguards and effective monitoring and regulation for member countries. Therefore strong methods are needed to sanction countries that negatively implement the treaties.

In this context, countries such as the United States, France, and Italy have established their own carbon tariffs. But these unilateral carbon tariffs have caused widespread controversy. Although scholars, represented by Daniel Gros, have argued that carbon tariffs are positive for reducing global carbon emissions [4]. However, some opponents still argue that carbon tariffs are essentially a new type of green trade barrier that countries with environmentally friendly technologies use to maintain their trade advantage [5]. Therefore, a system that can balance the benefits of controlling carbon emissions and the trade of carbon-emitting countries is needed, and it needs to largely compensate for the shortcomings of unilateral carbon tariffs. Based on this, this paper proposes a carbon tariff system under the WTO system, and makes a preliminary institutional design of this idea, which is considered to have positive

effects in terms of changes in levy standards, tax rates and protection for developing countries. The comparison between unilateral carbon tariff and WTO carbon tariff proves that the latter is more advantageous by using the WTO platform. However, it is undeniable that even a WTO-led carbon tariff would raise the existing tariffs, which may be contrary to the WTO's purpose of protecting free trade. This paper discusses whether the environmental exceptions of GATT and the preamble of WTO can be used to make the carbon tariff not contradict the spirit of WTO through interpretation.

## **2. DEFICIENCIES OF UNILATERAL CARBON TARIFF AND ADVANTAGES OF WTO CARBON TARIFF**

The establishment of carbon tariffs is still generally based on a unilateralist approach, i.e., the unilateral will to achieve the establishment of carbon tariffs. Countries such as the United States, France, Sweden, and Italy have all established their own carbon tariff acts based on this approach. However, this approach to carbon tariff legislation has been widely criticized. Because of developing countries' low level of economic development, the lack of new energy technologies, and the high cost of reducing carbon emissions, their exports of energy-intensive products will generally become the target of carbon tariffs. Based on this fact, Veenendaal and Manders argue that the imposition of carbon tariffs is unfair and discriminatory, and it is difficult to calculate the amount of tax and the implied carbon content of goods, which makes the products of developing countries suffer from unfair competition in the international market [6], and some scholars argue that whether a carbon tariff scheme is consistent with WTO rules depends crucially on the specific way the scheme is designed and the number of countries implementing it [7] [8]. However, the fact is that existing carbon tariffs have almost always been established by a few countries through domestic legislation, and a large number of exporting countries are often opposed to carbon tariffs due to their high dependence on foreign trade economies. Lewis combines some of the trade disputes and new energy policies of various countries and finds that the practice of carbon tariffs can lead to a form of environmental protectionism and that the impact of carbon tariffs on the ability of countries to transition to a low carbon economy is negative [9].

The WTO carbon tariff is fundamentally different from the unilateral carbon tariff in that it is finalized through multilateral negotiations rather than by the will of a single country, and each member country will compromise on its interests in order to promote the final implementation of the project so as to reach agreement on the tax rate and taxation standards, thus enabling countries to widely agree on the final proposal. Since

WTO is the most influential multilateral trade organization in the world, with 164 member countries and all major trading countries in the world are its members, it can play the role of a platform, so that each member country can negotiate multilaterally to build the WTO carbon tariff system together. On this basis, it is difficult for a country to defend its own interests by its own will alone, and in theory both developed and developing countries can express their demands and defend their interests. In this process, if a reasonable low-carbon technology introduction agreement can be reached between low-carbon technology holders and potential demanders, and multiple technologies introducing countries jointly pay a certain consideration to buy each other's technology, this will be able to avoid the new type of green trade protectionism caused by environmental technology powers through carbon tariffs, and also alleviate the problem of carbon leakage.

## **3. DESIGN OF WTO CARBON TARIFF SYSTEM**

Compared with the existing carbon tariff, the WTO's carbon tariff will be more "moderate" and "cautious" in terms of policy design because it is signed through multilateral negotiations. Specifically, it includes the following aspects.

### ***3.1. Carbon Tariff Rate***

The carbon tariff rate can be set according to the different requirements of each country and the content of the negotiations, but it must be based on the premise of necessity. "Necessity" means that carbon tariffs should be imposed only at a level that makes it impossible for exporters of high-carbon goods to profit from lower carbon emission levels, and not as an excessive penalty for exporters. One of the objectives of the WTO's carbon tariff is to eliminate the price advantage created by the difference in standards, and to urge enterprises in exporting countries to improve their carbon emission technologies while protecting the competitiveness of local enterprises in importing countries.

### ***3.2. Criteria for Levy***

Whether a certain commodity of a certain enterprise in a country is subject to a carbon tariff depends on whether the carbon dioxide emitted per unit of that commodity produced exceeds the domestic commodity carbon emission standard of the importing country. In other words, the WTO's carbon tariff is merely a proctor of carbon emission standards and technologies for enterprises, not a proctor of overall national emission levels. Of course, a country may deliberately raise its domestic standards to restrict the entry of foreign goods due to the leading position of its enterprises in carbon

emission technology. In this regard, the WTO Carbon Tariff Agreement should prohibit member countries from abusing the system, based on Article 2 of the TBT Agreement, which states that technical regulations should not restrict trade more than is necessary to achieve reasonable objectives, including: national security needs; prevention of fraud; protection of human health or safety; protection of animal or plant life or health; or protection of the environment [10], which allows an exporting country to file a lawsuit with the WTO Appellate Body and have a panel determine whether the country's standards are reasonable.

### **3.3. Protection of Developing Countries**

The WTO's carbon tariffs will protect the interests of developing countries to a certain extent. All countries that currently set up carbon tariffs are developed countries, while developing countries are mostly subject to policy constraints. In China, for example, according to the World Resources Institute (WRI)'s statistics on carbon emissions by sector, China's export sector has the highest carbon emissions contained in its exports [11]. This also means that once the carbon tariff is implemented, China's export goods will be hit harder and put huge pressure on China's exports. And according to a World Bank study, if the carbon tariffs are fully implemented, "Made in China" goods may face an average tariff of 26% in the international market, resulting in a 21% drop in export volume [12]. Therefore, in order to protect the trade of developing countries from the sudden and heavy blow, the WTO carbon tariffs should leave a certain exemption period for developing countries, during which some goods from developing countries should be exempted from carbon tariffs or reduced. And after the exemption period, developing countries can also enjoy a certain buffer period, during which the carbon tariff rate and the types of goods to be taxed gradually return to the general standard. The specific duration of the exemption period and buffer period will not be explicitly stipulated in the treaty, but will be agreed through multilateral negotiations, but the minimum and maximum periods should be limited respectively to prevent abuse of the rules. By setting exemptions and buffer periods, developing countries can have sufficient time to deal with the risks brought by carbon tariffs on commodity exports, and it is also conducive to the smooth adoption of carbon tariff agreements in multilateral talks.

## **4.POTENTIAL CONFLICTS AND RESOLUTIONS BETWEEN CARBON TARIFFS AND WTO**

Lewis argues that there is a fundamental conflict between the political economy supported by domestic renewable energy and the underlying principles of the global trading system that directly affects the ability of

countries to transition to a low carbon economy [13]. Indeed, the WTO's carbon tariff setting objectively raises the tariff rates of some goods in some countries through environmental technologies, and therefore risks defeating the purpose and objective of WTO tariff reduction. At the same time, since different tariffs are charged on the same type of goods from different countries, the WTO's carbon tariff may also be inconsistent with the most-favored-nation principle [14] and the national treatment principle [15] of the GATT. Based on the preamble of the WTO agreement, which shows the requirement of common sustainable development[16], and the "environmental exception" clause of GATT 20[17], carbon tariffs can exist as part of the WTO agreement, and their establishment is necessary and should be tolerated.

On the one hand, the preamble of the WTO agreement affirms that the WTO should seek measures that can protect the environment and promote trade liberalization under the premise of common sustainable development [18]. Carbon tariffs are a way to adjust trade for environmental protection purposes, and through their imposition, they show that the country has already achieved the environmental protection posture of energy-saving and emission reduction through carbon tax collection at home; they also force member countries to continuously improve the production methods and processes of their industrial products. Based on the fact that the role of carbon tariffs is superficially consistent with the goals of environmental protection and sustainable development, they should be generally regarded as consistent with the purposes of the WTO.

On the other hand, Article 20 of GATT 1994 stipulates that "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures"[19]. Subparagraph (b) and (g) also provide that "(b) measures necessary to safeguard human, animal or plant life or health; and (g) measures relating to the conservation of exhaustible natural resources, when such measures are taken in conjunction with restrictions on domestic life or consumption[20]. In Gasoline Standards, the WTO Appellate Body held that the analysis of whether a measure complies with Article 20 of GATT 1994 should be a two-step process: first, whether the measure meets the exceptions listed in Article 20, and then whether the measure meets the requirements of the introduction to Article 20 [21].

Concerning subparagraph (b), the direct purpose of the carbon tariff is to protect clean air, but such a measure is also subject to the so-called "necessary

measures" requirement. From the DSB's practice in the Korean Beef case, the necessary measures need to meet the following conditions: the importance of the public interest to be protected; the restrictive effect on international trade; and the absence of reasonable alternative measures [22]. The key to proving "necessity" is whether there are alternative measures that are less damaging to free trade. In fact, trade restrictive measures such as import bans, punitive tariffs, anti-dumping and countervailing duties, etc. are available for the protection of the atmosphere. In contrast, the WTO's carbon tariff is undoubtedly a more moderate and necessary measure among the above measures.

Regarding Subparagraph(g), in the Gasoline Standards case, Brazil and Venezuela argued that the new "Gasoline Rule" in the U.S. Clean Air Act as amended in 1993 (which applies a separate corporate benchmark to domestic refiners, while importers must apply the statutory benchmark ) violated the WTO's national treatment provisions and was inconsistent with the environmental exception in Article 20 of the GATT. However, the panel found that the U.S. measure fell within the scope of GATT Article 20(g), but not under the GATT Article 20 primer, and ruled against the United States [23]. That is, the DSB has recognized that clean air is an exhaustible natural resource, so the WTO's carbon tariff implementation is consistent with the protection of exhaustible natural resources.

The introduction to Article 20 of the GATT states that the measures in question must not constitute an unreasonable discrimination between Members in the same situation and a disguised restriction on international trade [24]. This article aims to ensure that the measures in question are bona fide. In the practice of the DSB, failure to make good faith efforts to conclude bilateral or multilateral agreements before seeking unilateral measures would constitute arbitrary or unreasonable discrimination[25]. However, the WTO's carbon tariff setting is multilaterally negotiated and put into effect with the acceptance and recognition of member countries, and therefore does not conflict with the quote.

## 5.CONCLUSION

As the UN Intergovernmental Panel on Climate Change warned in a report, without drastic action to eliminate greenhouse gas pollution, the Earth's temperature will rise by 1.5°C or more above pre-industrial levels in the next two decades. On the issue of trade-induced carbon emissions, those in the Paris Agreement are needed to discipline individual countries. At the same time, the existing practice of carbon tariffs does not show widespread support for carbon tariffs established by one country or regional organizations.

Current research on carbon tariffs has focused on the discussion of unilateral carbon tariffs, with few researchers linking carbon tariffs to the WTO. This paper proposes a carbon tariff under the WTO system, highlighting the close link between carbon tariffs and global trade on the one hand, and proposing solutions to the shortcomings of the current unilateral carbon tariff system on the other. The positive point of carbon tariffs under the WTO system is that they are established on the basis of a balance between the trade interests of all countries through the multilateral negotiation mechanism, and all the rules are determined based on the recognition of all parties.

After solving the problem of potential conflict between carbon tariffs and free trade, the inclusion of carbon tariffs in the WTO already has institutional flaws and risks. In addition to the conservative design of the system and the long negotiation cycle associated with multilateral negotiations, and considering the "suspension" of the WTO Appellate Body at the end of 2019, the shortcomings of the carbon tariff system under the WTO system do not only stem from the multilateral nature, but also from the institutional flaws of the organization itself that can be exploited by countries. Nevertheless, the WTO is still the most influential trade organization in the world, and using its great influence and existing system to set up carbon tariffs is a preferable solution to build carbon tariffs at present.

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