Border Carbon Adjustment mechanisms and their (in)compatibility with WTO law

Giulia Petrachi*

Abstract: The paper focuses on Border Carbon Adjustment (BCA) measures and their legality vis-à-vis the World Trade Organization (WTO) law. As measures limiting international trade, border carbon adjustments can conflict with WTO law, either representing a discriminatory trade measure or a quantitative or qualitative restriction. Nonetheless, mitigation of climate change is becoming increasingly warranted, making scholars more and more concerned with solutions that allow to harmonize carbon reduction measures and international trade, being also beneficial to the international market. The paper analyses the role of BCA measures in the multilateral trade relations among states, examining which provisions of the General Agreement of Tariffs and Trade (GATT) may be incompatible with them. It also focuses on the anatomy of those incompatibilities, to investigate whether and how BCA measures could be framed in compliance with WTO law, analyzing the role of WTO case law and GATT's exceptions on the matter.

Keywords: Border Carbon Adjustments; WTO; GATT; Emissions; Climate change.

Table of contents: 1. Introduction. – 2. Border Carbon Adjustments. – 2.1. Competitiveness. – 2.2. Carbon leakage. – 2.3. Leverage. – 3. WTO incompatibility. – 3.1. Article I of the GATT. – 3.2. Article III of the GATT. – 3.3. Article XI of the GATT. – 3.4. Article XX and Environmental Exceptions. – 3.4.1. Tuna-Dolphin I Case. – 3.4.2. Tuna-Dolphin II Case. – 3.4.3. US-Tuna II (Mexico) (Tuna-Dolphin III Case) – 3.4.4. Shrimp-Turtle case. – 4. The Exceptions Applied to the BCA. – 4.1. Article XX (b). – 4.2. Article XX (g). – 4.3. The Chapeau to Article XX. – 5. Potential Ways Forward – 6. Conclusions.

1. Introduction

The increasing concerns related to climate change are driving most countries to pursue rigorous domestic action to address and mitigate climate change. These actions tend to revolve around the imposition of stricter norms on the production of goods and provision of services, regulating the emissions deriving from these activities. Nonetheless, it has proven to be a difficult process, since every measure has a potential effect on the production and marketability of domestic goods and services.

Furthermore, regulations on carbon emissions have a strong impact on a country's position in international trade, especially considering the current divergence among the provisions governments adopt regarding climate change mitigation strategies. Due to asymmetry in carbon emissions regulation, a country implementing higher carbon emissions standards could potentially find itself to be cut off from the international market. This would happen as a result of its market conditions being inconvenient for exporters, with damage to its own economy and overall negative or net zero impact for the environment.

Border carbon adjustments have repeatedly been argued as an efficient solution to handle the challenge of creating a balance between those divergent interests, effectively providing climate change mitigation.

---

*Giulia Petrachi has pursued a bachelor's degree in Comparative European and International Legal Studies at University of Trento, and she is currently attending the Joint Nordic Master's in Environmental Law program, an LLM organized among the three Scandinavian universities of Uppsala, Joensuu and Tromso. During her bachelor's degree, Giulia has spent a semester as Erasmus student at University of Vilnius (Lithuania).

The adjustments amount to a set of trade measures that would redress the balance between domestic producers facing costly emissions reduction policies and foreign producers facing comparatively lower carbon emissions standards. BCA measures inevitably affect international economic relations; therefore, they must be compatible with WTO law and not represent an obstacle to international trade. The compatibility (or incompatibility) of border carbon adjustments with WTO has represented a major topic among scholars in the past, in an attempt to reach a conclusive compromise or, perhaps, a design for adjustment measures that allowed the harmonization of two apparently contrasting interests.

The paper analyses the theory behind BCA measures, with the purpose of understanding why they could be beneficial in the current environmental circumstances. It also compares the measures with the evolution of the WTO and the way it deals with environmental concerns. Through the analysis of GATT's articles and WTO case law, the paper examines whether WTO law is truly incompatible with carbon adjustments, and evaluates if the recent evolutions in WTO case law could better allow for the institution of border carbon adjustments.

2. Border Carbon Adjustments

Through the last decades, the global community has witnessed the progressive growth of the international climate regime, recently culminating with the drafting and signing of the Paris Agreement, which imposes climate change mitigation in the form of an individualized set of obligations[1]. The doctrine of common but differentiated responsibilities[2] and the withdrawal of the United States of America have inevitably fragmented the international climate regime, which now comes with an expectation that different countries will be using different mitigation strategies, either because of their recognized

1. See Michael A. Mehling, et al., *Designing Border Carbon Adjustments for Enhanced Climate Action,* 113(3) American Journal of International Law, 433 (2019).

2. The principle of common but differentiated responsibilities (CBDR), encompassed in the majority of the international climate treaties, the Paris Agreement in particular, holds that states all have the same responsibility to protect the environment

economic and technological disadvantages or in reason of not being part to any international climate agreement[3].

While unevenness in mitigation strategies is inevitable, when asymmetric regulations interact on the international market, investments could be affected in a manner that is somehow negative for the environment: assets migrate to areas in which carbon emission standards are less burdensome, creating a progressive increase of carbon-intensive production[4]. It is clear that such an outcome is damaging both for the international economy and for the environment, potentially nullifying the effects of mitigation policies.

The term Border Carbon Adjustments (BCAs) defines a set of measures employed by a country's government to stabilize the costs incurred by domestic producers, who in general are subject to stricter national carbon pricing policies, with the comparative lower expenses of foreign producers, subject to lower carbon emissions standards[5].

BCAs may be framed in different species of measures. The most discussed design that a BCA measure could have is that of a border carbon tariff, actualized as a fee of a fixed amount on import imposed on products at the border, in order to cover the equivalent of the carbon tax imposed on domestically manufactured products, balancing the costs of foreign and internal production[6]. Another form of BCA measures is the establishment of an emission trading system, having importers acquire emissions allowances to participate in the domestic emissions market. Once introduced in the emissions allowances scheme, either the importer would have to purchase allowances in

---

and participate in mitigation of climate change, but because of different social, economic, and ecological conditions, states undertake different responsibilities.

3. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities*, 12 International Environmental Agreements: Politics, Law and Economics, 63 (2011).

4. See Frédéric Branger and Philippe Quirion, *Climate policy and the 'carbon haven' effect*, 5(1) WIREs Climate Change, 54 (2014).

5. See Sarah Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 65 (cited in note 3).

6. See Mehling, et al., *Designing Border Carbon Adjustments for Enhanced Climate Action* at 432 (cited in note 1).

the existing domestic market, or a separate marketplace for importers would be set up[7].

In their balancing role, BCAs are usually conceived to address three main matters: competitiveness, leakage, and leverage.

7. See Sofia Persson, *Practical Aspects of Border Carbon Adjustment Measures: Using a Trade Facilitation Perspective to Assess Trade Costs*, International Centre for Trade and Sustainable Development (2010) at 2, available at https://ictsd.iisd.org/themes/climate-and-energy/research/practical-aspects-of-border-carbon-adjustment-measures-using-a (last visited November 19, 2021).

2.1. Competitiveness

All measures employed to reduce carbon emissions affect the costs of production to a certain degree. Industries operating in a country that imposes strict carbon-reducing measures could find their expenses to be increasing either because of levies imposed by the domestic government over their production, or by the ulterior investments necessary to reduce their carbon emissions in the production process[8]. The internalization of the investment to protect the environment from production damage could be burdensome for the industries subject to carbon reduction emissions. Consequently, a country's imposition of carbon reduction measures over domestic industries could damage the competitiveness of domestic firms on the international market, that face a lighter burden in terms of taxation and carbon reduction[9].

The purpose of BCAs regarding competitiveness would be to redress the balance between domestic and foreign products, either by encouraging consumption of domestic products, made more convenient because of the increased price of imported goods, or by capitalizing through the fees on imports, that effectively represents a new form of revenue for the country's economy[10].

2.2. Carbon leakage

The term carbon leakage indicates the rise in carbon emissions that can be observed in a country with low carbon standards as a result of other countries adopting strict carbon regulations[11]. The phenomenon is caused by the loss in competitiveness of the industries in countries imposing higher carbon standards, which propels a relocation of investments and industries towards regions with more convenient

8. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 65 (cited in note 3).

9. See Peter Holmes, Tom Reilly and Jim Rollo, *Border carbon adjustments and the potential for protectionism,* 11(2) Climate Policy, 886 (2011).

10. See Aaron Cosbey, *Border Carbon Adjustment* (IISD 2008) available at https://www.iisd.org/system/files/publications/cph_trade_climate_border_carbon.pdf (last visited November 19, 2021).

11. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 65 (cited in note 3).

carbon emissions measures, the so-called "carbon havens"[12]. The relocation results in increased production in the areas with lower carbon standards, finally causing a spike in universal carbon emissions[13].

The effect of carbon leakage is a net zero positive for the environment and the climate, with carbon emissions possibly reaching on the long term a higher level, compared to the one before the enactment of carbon reduction policies[14].

To effectively address carbon leakage, BCAs should be preventing delocalization of companies by offsetting the benefits of moving industries to "carbon havens", improving instead the positives of investing in industries settled in countries implementing high carbon standards, alongside with increasing the interests of domestic investors in domestic production[15].

2.3. Leverage

BCAs measures could serve as a leverage to compel countries with lower carbon standards to pursue stronger emissions reduction policies[16]. If the BCA provided advantageous market conditions for producers generating elevated carbon emissions, in a manner that excluded producers from countries with lower carbon emissions standards, it would be persuasive for producers to pursue lower carbon emissions in the manufacturing of the products and for governments to include stricter carbon standards in their domestic policies[17].

12. See Branger and Quirion, *Climate policy and the 'carbon haven' effect* at 54 (cited in note 4).

13. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 66 (cited in note 3).

14. See Cosbey, *Border Carbon Adjustment* (cited in note 10).

15. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 66 (cited in note 3).

16. See *Ibid.*

17. See Cosbey, *Border Carbon Adjustment* (cited in note 10).

3. WTO incompatibility

As a measure influencing trade, BCA mechanisms have been argued to be potentially incompatible, or even in breach of WTO law[18]. In particular, scholarly opinion most often investigates the relation

18. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 75 (cited in note 3).

that could arise between BCA measures and Article I[19], Article III[20], and Article XI[21] of the GATT[22].

19. General Agreement on Tariffs and Trade (GATT) (1947), 55 UNTS 194 (1947), Art. 1 para. 1: "With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties".

20. GATT (1947), Art. 3 paras. 1, 2 and 4 ("1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production. 2. The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1. [...] 4. 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 provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product").

21. GATT (1947), Art. 11, para. 1 ("No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party").

22. See Madison Condon and Ada Ignaciuk, *Border Carbon Adjustment and International Trade: A Literature Review*, OECD Trade and Environment Working Papers, 19 (2013), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2693236 (last visited November 19, 2021).

3.1. Article I of the GATT

The first Article of the GATT sets out to eliminate border taxes or any other kind of advantages and favors that could discriminate among imports from WTO members' economies[23]. Such obligation seeks to avoid like products to be taxed in importation in a discriminatory manner[24].

For what concerns the relationship between this Article and BCA mechanisms, there exists a potential incompatibility, in that BCA measures could appear in the form of tariffs and charges on foreign products, which, by design, are imposed on foreign countries' imports and not on local products. The reason for this disparity lies in the necessity, for these charges or tariffs, to level the playing field between local products, implementing higher carbon standards, and foreign products, implementing lower carbon standards and therefore being introduced to the market with more favorable prices. While the disparity appears perfectly reasonable from the economic point of view, it cannot hold to the test of Article I, which explicitly requires non-discrimination[25].

Perhaps the concept of discrimination could be debated in terms of complessive consequent expenses considering that when a foreign importer implementing lower carbon standards presents a product on a State's market, the manufacturing of the product costed x and is therefore sold at price y, while the like product presented to the same market by manufacturers enforcing the higher carbon standards of their own State had cost of production x + c and is thus sold at price y + c, with c representing the costs of production with higher carbon standards. Consequently, the product manufactured in States with lower carbon standards has a lower price and is more palatable to buyers. On this basis, it could be argued that the discrimination is already in place prior to the tariffs imposed by BCA and the BCA serves as an equalizer, rather than a discriminatory measure.

23. GATT (1947), Art. 1 para. 1.

24. See Cosbey, *Border Carbon Adjustment* (cited in note 10).

25. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 65 (cited in note 3).

3.2. Article III of the GATT

Article III of the GATT regards national treatment on internal taxation and regulation, and the principle of non-discrimination[26].

Nonetheless, a conflict between BCA and Article III would only arise if the measures were to be found to discriminate among different importers, which should not be necessarily the case, for instance, if such measures were implemented equally on all the importers working with the same kind of good and enacting the same breaches or respecting the same compliances[27]. As a consequence, if the same BCA provision was applied on all like products and to all the States exporting like products to a third State, arguably the mechanism could not be considered in breach of Article III, since it would not possibly amount to a discriminatory measure[28].

3.3. Article XI of the GATT

Article XI covers the obligation to eliminate quantitative restrictions which in fact claims that parties to the Agreement should not institute prohibitions or restrictions other than duties, taxes, or other charges on the importation of any product coming from any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party[29]. BCA measures could result in breach of this Article if they were perceived as a prohibition on imports other than taxes or charges, therefore, it could be argued that BCA measures falling under the category of taxes or charges could not be deemed to be in breach of the Article[30].

3.4. Article XX and environmental exceptions

Article XX of the GATT regards exceptions and comprises a list of possible circumstances in which a measure, that has been determined

26. GATT (1947), Art. 3.
27. See Cosbey, *Border Carbon Adjustment* (cited in note 10).
28. See *Id.*
29. GATT (1947), Art. 11.
30. See Cosbey, *Border Carbon Adjustment* at 3 (cited in note 10).

to be in breach of any of the other articles of the agreement, could still be found legal[31].

BCA measures could find justification in the so-called "environmental concerns arguments", the clause providing exception for measures necessary to protect human, animal or plant life, or health[32], and paragraph g, regarding trade measures related to the conservation of exhaustible natural resources and are made effective in conjunction with restrictions on domestic production or consumption[33], which have been growing through recent case law and is encompassed by paragraph b. The two paragraphs have thus represented the launch pad for all the jurists seeking to enhance environmental protection in trade areas, or to conceal issues with environmental protection measures that were perhaps mis-implemented or ineffectively enforced.

The WTO Dispute Settlement Body expanded, on the applicability of the environmental concern arguments, for cases regarding breach of Article I and III with justifications related to environmental concerns[34]. Through the case law, it is possible to assess that the WTO bodies have progressively embraced the environmental arguments and oftentimes favored environmental justifications against the imposition of trade limiting measures. Appreciating this shift in mentality allows us to understand which interpretation would shape the application of BCA measures in the current judicial scenario.

The judgments that are the most useful for the observation and understanding of the process are those given during the Tuna-Dolphin saga and in the Shrimp-Turtle case.

3.4.1. Tuna-Dolphin I case

The first case in the Tuna-Dolphin saga[35] was initiated by the challenging of the US Marine Mammal Protection Act. The provision was

31. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 13 (cited in note 3).

32. GATT (1947), Art. 20 (b).

33. GATT (1947), Art. 20 (g).

34. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 13 (cited in note 3).

35. WTO Panel Report, *United States - Restrictions on Import of Tuna* (US-Tuna Dolphin I), WTO Doc. DS21/R - 39S/155 (September 3, 1991).

aimed at reducing the dolphin mortality rate, though, among other measures, the ban on all imports of fish from countries unable to prove to US authorities met a set of dolphin protection standards. The standards, as required in the act itself, posed on the importers the responsibility of maintaining the incidental killing of marine mammals below a determined number[36].

In addition, the Act contained a provision imposing an embargo of tuna products not simply over countries that were not in compliance with US standards, but on intermediary nations as well[37].

Mexico, alongside with other countries, had suffered the embargo from the US and therefore challenged the provision under the GATT, claiming that the US provision violated Article I, III, XI, and XIII of the GATT, and amounted to a discriminatory measure unrightfully limiting international trade[38].

In the first place, the Panel established by the WTO Dispute Settlement Body ruled that rather than breaching Article III, the US provision was in breach of Article XI and amounted to a quantitative restriction to import[39]. The argument then moved to examine whether the exceptions in Article XX applied on the breach, in particular paragraphs b and g.

The Panel formulated what became known as the "reasonableness argument", arguing that if the exceptions of Article XX could be used to allow a country to unilaterally impose its own environmental norms on another country through trade measures, then the GATT would stop being a multilateral trade agreement altogether, since only countries with the same regulations would be able to enter mutual trade, and that allowing such unilateral imposition would have represented a violation of the territorial sovereignty of a country[40].

The Panel also pointed out that, even if the US could invoke the exceptions for unilateral measures, the measures could only go insofar as they were necessary to achieve the determined aim. The term "necessary" was consequently defined in the judgment as "notwithstanding

36. See *Id.*

37. See Vanda Jakir, *The New WTO Tuna Dolphin Decision: Reconciling Trade and Environment?,* 9(1) Croatian Yearbook of European Law and Policy 143 (2013) at 145.

38. See US-Tuna Dolphin I (1991) (cited in note 35).

39. See *Id.*

40. See Jakir, *The New WTO Tuna Dolphin Decision* at 147 (cited in note 37).

the possibility to employ any alternative measures approved by the GATT"[41].

Based on what has been stated, the Panel ended with an initial tendency not to apply the exception clause based on the environmental concern argument, and a disposition to pursue primacy of freedom of multilateral trade and territorial sovereignty over exceptions for environmental protection.

3.4.2. Tuna-Dolphin II case

In 1992 the European Economic Community and the Netherlands brought complaints against the US on similar basis to the first Tuna-Dolphin case, challenging the imposition by the US Government of embargo measures on intermediary nations in the import of tuna products[42]. The argument of the Netherlands and the EEC was that holding intermediary nations to a high burden of proof in exporting a product they were importing themselves amounted to a quantitative restriction, and therefore was a violation of Article XI and Article III. The US Government appealed once again to the exceptions contained in Article XX (b) and (g)[43].

The Panel established by the WTO Dispute Settlement Body ruled that the embargo measures represented a breach of Article III and XI, and it concluded that the exception in Article XX (g) could not be applied, since the provision employed by the US on importation did not practically alter the status of dolphins' conservation[44]. Nonetheless, the court remarkably recognized that dolphins did amount to an exhaustible natural resource according to the definition of Article XX (g). The exception of Article XX (b) was determined inapplicable as well, based on the interpretation of the word "necessary" that had already been employed during the first Tuna-Dolphin case[45].

41. See US-Tuna Dolphin I (1991) (cited in note 35).

42. WTO Panel Report, *United States - Restrictions on Import of Tuna* (US-Tuna Dolphin II), WTO Doc. WT/DS29/P/R/ (June 16, 1994).

43. See Jakir, *The New WTO Tuna Dolphin Decision* at 148 (cited in note 37).

44. See US-Tuna Dolphin II (1994) (cited in note 42).

45. *Id.*

In conclusion, the Panel determined that other policy means should have been employed to ensure the protection of dolphins, however, provisions of this kind fell outside of the scope of the GATT[46].

3.4.3.US-Tuna II (Mexico) (Tuna-Dolphin III case)

The third and last case of the Tuna-Dolphin saga saw the resurgence of the dispute between the US and Mexico[47]. Following the Tuna-Dolphin I case, the Agreement on the International Dolphin Conservation Program (hereafter, AIDCP) entered into force in 1999, a legally binding multilateral agreement that regulates the protection of dolphins during tuna fishery. Among other provisions, the AIDCP set out a "dolphin-friendly" labelling scheme for all the products that could prove that they had not been obtained causing significant adverse impact on dolphin mortality[48]. Mexico brought a complaint against the dolphin friendly labelling scheme laid down by the AIDCP, claiming it created unnecessary obstacles to international trade and represented a breach of Article I and III (4) of the GATT[49].

The Panel seemed inclined to push the reasonableness argument in its judgment for the third time, but finally the decision turned in favor of the environmental concern argument[50]. The final reasoning of the Panel recognized that some asymmetry in environmental regulations was inevitable between trading states and that protection of the environment was one of the objectives of the GATT that was clearly asserted in the exceptions of Article XX[51].

46. *Id.*

47. WTO Appellate Body Report, U*nited States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products* (US-Tuna II (Mexico)), WTO Doc. WT/DS381/AB/R/ (November 20, 2015).

48. See Elizabeth Trujillo, *The Tuna-Dolphin Encore: WTO Rules on Environmental Labelling,* (ASIL March 7, 2012) available at https://www.asil.org/insights/volume/16/issue/7/tuna-dolphin-encore-wto-rules-environmental-labeling (last visited November 19, 2021).

49. See US-Tuna II (Mexico) (2015) (cited in note 47).

50. *Id.*

51. See Jakir, *The New WTO Tuna Dolphin Decision* at 143 (cited in note 37).

3.4.4. Shrimp-Turtle case

In 1997, India, Malaysia, Pakistan, and Thailand carried a complaint against the US, that had imposed a ban on the import of specific shrimp, with the objective of protecting some species of turtle that had been listed as endangered species in the US Endangered Species Act[52]. The act required shrimp trawlers to use turtle excluding devices. Furthermore, in 1989 the US Government had passed a provision[53] that banned those shrimps harvested with a technology potentially harmful for turtles to be imported in the US unless the country had in place a regulatory programme and an incidental take-rate comparable to that of the US[54]. As a consequence of these measures by the US, the complainant States saw their biggest buyer suddenly exclude them from its market on the basis of turtle related concerns that, on the face of it, appeared preposterous and disproportionately damaging for the four countries economies[55].

After a first resolution of the WTO panel, that found the ban from the US to be incompatible both with Article XI and the exception of Article XX, the WTO Appellate Body clarified that member countries had, in consistency with Article XX (g), the right to take trade action if they had the purpose of protecting the environment[56]. The declaration of the WTO Appellate Body in the case openly clarified that environmental protection was naturally embedded in the norms of the GATT, and that exception from GATT's provision with the aim of protecting the environment was the prescribed path and not a deviation. While the decision was distancing the Appellate Body from the past "reasonableness" argument, it was cautious in reiterating the importance of the two parties undergoing negotiation before one could legitimately impose on the other unilateral environmental policies[57].

52. See United States Endangered Species Act (ESA), 16 U.S.C. §1531 et seq. (1973)

53. See United States An Act § 609 (Shrimp Imports), Pub L No 101–102, 103 Stat 988 (1989).

54. WTO Appellate Body Report, *United States Import Prohibition of Certain Shrimp and Shrimp Products* (US-Shrimp), WTO Doc. WT/DS58/AB/R/ (October 12, 1998).

55. US-Shrimp (1998) (cited in note 54).

56. See Jakir, *The New WTO Tuna Dolphin Decision* at 162 (cited in note 37).

57. See Jakir, *The New WTO Tuna Dolphin Decision* at 162 (cited in note 37).

In conclusion, the Appellate Body found the provisions aimed at protecting turtles to fall under the exception of Article XX, if they were applied without discrimination, in accordance with the requirements for provisional justification contained in the chapeau to Article XX[58].

The Tuna-Dolphin Saga ultimately resulted in the growing importance of the environment in the adjudication of the WTO bodies. What we can infer by the culmination in the decision of the Shrimp-Turtle case is that, despite the orientation of the WTO notoriously being towards trade interests, protection of the environment is inevitably gaining ground in the WTO agenda. This disciplinary attitude allows a different interpretative reading of the articles of the GATT, which assume now a new role in the international legal world: a more inclusive and encompassing position, in which the interests of the environment have larger consideration vis-à-vis other interests[59].

4. The exceptions applied to BCA

If BCA measures were to be found in breach of Article I, III, or XI of the GATT as observed in the previous chapters, they could still eventually be considered in compliance with WTO law by availing of the exceptions in Article XX. In particular, a good defence argument could be formulated in terms of the environmental concern rationale.[60].

4.1. Article XX (b)

For the exception of Article XX (b) to apply, the measure under scrutiny should be necessary to protect human, animal, or plant life or health[61].

The interpretation of the term "necessary" contained in Article XX (b) has been discussed by the WTO Appellate Body in several

58. See US-Shrimp (1998) (cited in note 54).
59. See Jakir, *The New WTO Tuna Dolphin Decision* at 162 (cited in note 37).
60. See US-Shrimp (1998) (cited in note 54).
61. GATT (1947), Art. 20 (b).

cases, chiefly in China-Publications and Audiovisual Products[62] and Brazil-Retreaded Tyres[63]. According to these judgments, in determining whether a measure was necessary a process of weighing and balancing of the benefits and disadvantages should occur, and the court should analyze a number of distinct factors relating both to the measure sought to be justified as "necessary" and to possible alternative measures that may be reasonably available to the responding member state to achieve its desired objective[64]. This criterion for interpretation should serve as a guideline during the design of a BCA measure, prescribing that the measure should be employed in a manner that does not impose excessive burden on imports in comparison with the benefits it brings to domestic production. Moreover, this interpretation of the definition "necessary" suggests lawmakers to cautiously weigh the instruments that could be employed to serve the desired objective.

In the US-Gambling case[65] the WTO Appellate Body declared that the process of weighing, and balancing should start with an assessment of the "relative importance" of the interests or values furthered by the challenged measures[66]. Supposing that BCA measures are imposed in an effective and proportioned manner, their aim should be that of mitigating carbon leakage, a phenomenon that has a strong impact on the environment. Mitigation of carbon leakage could be considered a purpose with high relative importance, since recent scientific studies have proven that its effects could be serious enough to outweigh the benefits of climate action[67]. Furthermore, if limitation of carbon leakage was considered to be a purpose with sufficiently high importance,

62. WTO Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products* (China-Publications and Audiovisual Products), WTO Doc. WT/DS363/AB/R/ (January 19, 2010).

63. WTO Appellate Body Report, *Brazil-Measures Affecting Imports of Retreaded Tyres* (Brazil-Retreaded Tyres), WTO Doc. WT/DS332/AB/R/ (December 17, 2007).

64. *Id.,* para. 156.

65. WTO Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services* (US-Gambling), WTO Doc. WT/DS285/AB/R/ (April 7, 2005).

66. WTO (2020), P. 49.

67. See Mehling, et al., *Designing Border Carbon Adjustments for Enhanced Climate Action* at 444 (cited in note 1).

it should still be proven a sufficient relation between the measure imposed and the aimed purpose.

4.2. Article XX (g)

Paragraph g of Article XX holds an exception for measures relating to the conservation of exhaustible natural resources that are made effective in conjunction with restrictions on domestic production or consumption[68].

To contextualize BCA measures in relation to WTO case law, a relevant interpretation can be found in the China-Rare Earths case[69]. In the judgement of the case, the Appellate Body decided that, for a measure to avail of the exception in Article XX (g), it is necessary to make a holistic assessment of the measure's component elements. A measure should pass the Article XX (g) test when it is demonstrated to have a close and genuine relationship of ends and means to the conservation of exhaustible natural resources and when it works together with restrictions on domestic production or consumption, which operate to conserve an exhaustible natural resource[70].

Furthermore, the Appellate Body stressed that the test should be applied on a case-by-case basis, through scrutiny of the factual and legal context of the given dispute, and that the assessment of the factual relation between the measure and conservation of natural resources should be made through an apposite panel of the Appellate Body. The panel has to analyze beyond the text of the measure and into its practical impact, alongside with the conditions of the market in which it operates[71]. However, the Appellate Body was careful to clarify throughout the China-Rare Earths case[72] that, differently from what already stated in the judgement of the US-Gasoline case[73], the

68. GATT (1947), Art. 20 (g).

69. WTO Appellate Body Report, *China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum* (China- Rare Earths), WTO Docs.WT/DS431/AB/R/, WT/DS432/AB/R/ and WT/DS433/AB/R/ (August 29, 2014).

70. *Id.*

71. WTO (2020), P. 50.

72. See China-Rare Earths (2014) (cited in note 69).

73. WTO Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline* (US – Gasoline), WTO Doc. WT/DS2/AB/R/ (May 20, 1996).

decision should not revolve excessively around the predictable effects of the measure[74].

For what concerned the words "relating to", as phrased in the Article, the Appellate Body clearly stated in the US-Gasoline case that the words should be taken as synonymous of "primarily aimed at"[75]. Moreover, in the Shrimp-Turtle case the Body suggested the necessity for an analysis of the "means and ends relationship" existing between the measure and the policy of natural resource conservation. The Shrimp-Turtle case also clarified the meaning of the term "exhaustible natural resources", stating that the definition should be interpreted according to contemporary concerns of the community of nations about the protection and conservation of the environment, stressing that the term should not be considered static, but rather evolutionary[76]. The Tuna-Dolphin II case also was extremely relevant as for the interpretation of "exhaustible natural resources", qualifying dolphins as such and thus clarifying that living creatures could as well be grouped under the definition[77], an aspect that could relate to BCA measures when considering the impact that climate change can have on biodiversity.

Furthermore, in the US-Gasoline case it was explicated that for a measure to be considered to have been made effective in conjunction with another measure with domestic effect, the interpretative key should be that of looking for something levelling the playing field, a sort of even-handedness in the imposition of trade restrictive measures[78]. Nonetheless, it must be remarked that this even-handedness should not be found in the equality of treatments, but rather in the intended aim of policy measures, and in the equal distribution of the burden of conservation[79].

Since adjustments measures are imposed in order to avoid the phenomenon of carbon leakage, this could work to represent a genuine connection between BCA measures and environmental protection,

74. WTO (2020), P. 50.

75. See US-Gasoline (1996) (cited in note 73).

76. See US-Shrimp (1998) (cited in note 54).US v. India, Malaysia, Pakistan, Thailand (1998).

77. US V. EEC and the Netherlands (1999).

78. See US-Gasoline (1996) (cited in note 73).

79. WTO (2020), P. 50.

once assessed that mitigation of climate change is a practice related to protection of exhaustible resources. The "exhaustible natural resources" definition could easily apply to BCA measures, since the evolutionary interpretation of the term proves stringent in the contemporary historical context, in which a progressive sensitization to the topic of climate change is occurring, alongside with the growing impact of climate change.

Furthermore, the interpretation of the Appellate Body in the China-Rare Earth case could be particularly applicable. Indeed, while the textual reading of a BCA measure cannot show an immediate relation to protection of natural resources, the practical application of said measure and its relation to the market in which it is applied appears to achieve that purpose, by way of imposing stricter environmental standards on trade measures.

The fact that the relevance of the predictable effect of the measure should be considered less important to the final adjudication could be detrimental to the argument for BCA measures, but for the most part that could represent a minor damage, if the BCA measures were designed to meet the other requirements.

Finally, among the purposes of BCA measures there should be levelling the playing field between domestic and foreign carbon policies, therefore, it could be assumed that the measures would satisfy the requirement for even-handedness in paragraph (g) and be deemed measures applied in conjunction with domestic restrictions to production and consumption. Arguably, paragraph (g) and BCA measures appear to have the same balancing aim for what concerns the relation between domestic and foreign products.

4.3. The chapeau to Article XX

The majority of the final adjudications in WTO case law relating to exceptions based on the environmental argument is strongly dependent on the chapeau to Article XX.

The requirements in the chapeau are considered to relate particularly to the manner in which a measure is applied, rather than to its formulation. Concurrently, the chapeau's role is to prevent a country

from imposing its rights on another state, according to the doctrine of *abuse de droit*.[80]

For an exception to apply, measures should not be enforced in a manner which would constitute either arbitrary or unjustifiable discrimination between countries with the same prevailing conditions, or a disguised restriction on international trade.

To analyze whether a BCA measure could be found in compliance with the chapeau, it is necessary to employ the test devised by the Appellate Body in the Shrimp-Turtle case[81]. In the first place, BCA measures should not amount to discrimination. To avoid that, the measures should be applied evenly on all the importers, and they should not be favoring domestic products over foreign products. The latter point could be justified by domestic producers having to face a higher burden during production, in comparison with foreign producers that had to comply with lower carbon standards, therefore proving domestic and foreign producers to be operating under similar conditions. Nonetheless, it is possible that designing a market condition in which importers from countries with more carbon restrictive policies are forced to face different charges than importers from countries with looser carbon standards, could be considered discrimination, depending on the interpretation of the remaining components of the chapeau.

Secondly, discrimination, if present, could be categorized as either arbitrary or unjustifiable as found by the WTO Dispute Settlement Body in the Tuna-Dolphin case after observation of the causes of said discrimination, and of the rationale put forward to explain its existence[82]. Accordingly, the rationale for a BCA measure should be that of reducing carbon leakage and enhancing competitiveness of domestic products, while it could be considered that the rationale of holding a leverage against other states imposing different carbon standards would arguably be in breach of the Tuna-Dolphin I test and finally have the measure be deemed illegitimate.

On the other hand, even BCA measures applied according to the principle of common but differentiated responsibilities, which would

80. WTO (2020), P. 69.
81. See US-Shrimp (1998) (cited in note 54).
82. See US-Tuna Dolphin I (1991) (cited in note 35).

purposefully act in a discriminatory manner, could be explained by the presence of different prevailing conditions[83].

Moreover, the potential difference of prevailing conditions should be assessed, according to the Appellate Body's adjudication in the EC-Seal Products case[84], by reference to the applicable subparagraph of Article XX under which the measure was provisionally justified and the substantive obligations under the GATT 1994 with which a violation had been found.

Finally, in US-Gasoline, the Appellate Body held that the concepts of "arbitrary or unjustifiable discrimination" and "disguised restriction on international trade" were related concepts which imparted meaning to one another[85]. Which measures would amount to disguised restriction on international trade is something to be interpreted in accordance with the objective of avoiding abuse or illegitimate use of the exceptions to substantive rules available in Article XX. Nonetheless, the provision does not seem to apply to the case of BCA measures as long as the BCA measures are proportionate to serving their purpose of climate change mitigation.

5. Potential ways forward

The pressing reality of climate change makes it paramount for governments around the globe to impose norms for mitigation, adaptation, and emissions reduction. Consequently, potential incompatibilities between climate change norms and international trade laws should be eased as much as possible, and, when necessary, designed and accommodated into mutual compatibility, in order to make the international market resilient to all the alterations caused by climate change.

---

83. See Joost Pauwelyn, *Trade Related Aspects of a Carbon Border Adjustment Mechanism: A Legal Assessment* (European Parliament Think Tank April 14, 2020) at 11, available at https://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_BRI(2020)603502 (last visited November 19, 2021).

84. WTO Appellate Body Report, *European Communities - Measures Prohibiting the Importation and Marketing of Seal Products* (EC – Seal Products), WTO Docs. WT/DS400/AB/R/ and WT/DS401/AB/R/ (June 18, 2014).

85. See US-Gasoline (1996) (cited in note 73).

BCA measures are instrumental in balancing mitigation of climate change and the economic interests of the states implementing emissions reduction laws. Indeed, it is important that states pursuing provisions for emissions reduction do not suffer an economic damage due to it, since it would make climate change mitigation provisions less palatable for countries all over the world. While scientific studies have proven that the benefits of accepting lower carbon standards are only short term, the possibility that the effort could be made useless due to carbon leakage is tangible[86].

Arguably, the line of reasoning of the Appellate Body in the third Tuna-Dolphin case encapsulates the issue perfectly. However, compared with the climate change regulations scenario, the reasoning applies in the opposite direction it was supposed to. In that case, the Body argued that international environmental regulations can be effective in protecting the planet only if they are enforced uniformly by all states involved in international trade.[87] Considering the specifics, it is clear that while local action was indeed the only effective solution in instance of biodiversity protection analyzed in the Tuna-Dolphin saga, the needed solution is completely different when addressing climate change, which is a global concern with a global impact, even when it comes from a local process. Therefore, the argument of the Body works in favor of promoting an international climate change mitigation regime, rather than in dismissing the singular individual attempts of countries in pursuing emissions reduction, or in delegitimizing the latter vis-à-vis WTO law.

Furthermore, the progressive inclusion and adaptation of the principle of common but differentiated responsibilities in recent climate change treaties demonstrates that regulating at the international level mitigation of climate change must be necessarily discriminatory to a certain extent. In this context, it is easier to understand why recent WTO rulings have repeatedly and harshly punished measures that could have a coercive effect on foreign governments' policies, especially for what concerns climate change policies vis-à-vis countries

86. See Mehling, et al., *Designing Border Carbon Adjustments for Enhanced Climate Action* at 49 (cited in note 1).

87. See US-Tuna II (Mexico) (2015) (cited in note 47).

that are not part of the Paris Agreement[88]. Apparently, this judicial tendency could collide with the leveraging function of BCA measures, which aims at impelling countries to pursue higher emissions standards. Nonetheless, through further consideration, BCA measures imposed by a country or set of countries should not be considered to constitute a punitive measure on the entire production of a good, but simply on the percentage of it that gets traded with countries that have higher carbon standards. Therefore, the fact that BCA measures could result in market conditions that are more convenient for countries implementing higher carbon standards is only a positive by-product, rather than a punitive measure on countries implementing lower carbon standards.

For what concerns the competitiveness argument, it becomes clear that both the WTO and BCA measures pursue the effectiveness of international trade. The similarity of purposes appears to make WTO law and BCA measures inevitably compatible and possibly even complementary. It similarly seems logical to consider the intended purposes of the three Articles that supposedly are incompatible with BCA measures, i.e. Article I on the most-favored nation principle, Article III on internal taxation, and Article XI on quantitative restrictions. Upon observation of said provisions, it appears that the provisions aim in particular at improving trade conditions for importing countries, especially for what concerns domestic products vis-à-vis imported products. This is diametrically opposed to the purpose of BCA measures, which intend to balance the conditions of domestic products in comparison with imported products. Furthermore, WTO law is inconsistent for what concerns balancing with border levies the costs of production of a service. For instance, it would appear form Article VIII that the costs of rendering a service could be considered in the imposition of a border fee[89]. Nonetheless, the judgments in the cases Tuna-Dolphin I and III insist that the process of production of a good should not be accounted for in determining the "likeness" of two products.

88. See Pauwelyn, *Trade Related Aspects of a Carbon Border Adjustment Mechanism* at 11 (cited in note 83).

89. GATT (1947), Art. 8, para. 1(a).

Furthermore, Article XXXVIII on joint action stresses that contracting parties shall collaborate in seeking feasible methods to expand trade for the purpose of economic development, through international harmonization and adjustment of national policies and regulations and through technical and commercial standards affecting production, transportation, and marketing[90]. The provision appears to encourage parties to implement measures to the effects of BCA measures, which fundamentally amount to an attempt at international harmonization of standards affecting production, all in the name of reconciling international multilateral trade.

The growing tendency of WTO case law to recognize environmental protection as a valid argument when in potential contrast with international trade could represent a starting point for the increasing acceptance of BCA measures, which would finally result in the measure being progressively less necessary due to their leveraging and balancing function[91].

6. Conclusions

International climate change agreements are progressively growing and becoming more comprehensive, propelling states to be more cooperative in their pursuit of climate change mitigation regulations. While this increasing cooperation projects an optimistic scenario in the future, it must be appreciated that the current situation is characterized by diverse efforts, with some states pursuing higher standards than others. This diversity impacts the international market, causing some states to lose their competitiveness in comparison with others pursuing lower emissions standards[92]. This phenomenon encourages delocalization given that the states with higher standards become less affordable for investors, but more so for importers, who could sell to higher standards countries products that have a remarkably lower

90. GATT (1947), Art. 38.

91. See Mehling, et al., *Designing Border Carbon Adjustments for Enhanced Climate Action* at 49 (cited in note 1).

92. See Davidson Ladly, *Border carbon adjustments, WTO-law and the principle of common but differentiated responsibilities* at 65 (cited in note 3).

production price in comparison with domestic products, that simply cannot compete.

Furthermore, it has been proved that the incidence of carbon leakage, a side effect of heterogeneous emissions standards, eliminates the benefits achieved by climate change mitigation regulations, causing the emissions to disproportionately migrate towards countries with lower emissions standards, where the production is more competitive.

All the regulatory unevenness can eventually lead to a race to the bottom that has no positive effect on the environment. In this context, BCA measures could become excellent instruments to avoid negative impacts on the environment and local economies.

Considering that BCA measures are trade restrictive measures, they have been criticized and scrutinized over their potential incompatibility with WTO law. This paper analyzed closely the text of the GATT, in order to review which Articles could be incompatible with the enactment of BCA measures at the international level, and which provisions of WTO law could instead justify their existence. From this analysis, it appeared clear that if BCA measures aspire to legitimately occupy a place in international trade law, they should be designed to not be discriminatory according to the definition of the most-favored nation principle, and they should be designed to be more closely related to their purpose of protecting the environment.

Conclusively, this paper appreciated the recent tendency of the WTO adjudicating bodies to accept the environmental protection argument in their case law and reckoned that this progressive trend could prove to be an asset in building reciprocal compatibility between WTO law and BCA measures.