

# THE WORLD TRADE ORGANIZATION AND CARBON MARKET CLUBS

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## ABSTRACT

*This article explores emission units as a linkage in climate clubs in the hope of making a remarkable difference in climate change mitigation. It analyzes emission units trading in the context of regional trade agreements as a novel, promising, and effective way to mitigate climate change. It then examines Article XX of the General Agreement on Tariffs and Trade (GATT) as a potential and encouraging remedy for the development of climate clubs. Specifically, it explores the scope of application of Article XX and investigates to what extent it can be applied to climate concerns. It then provides an analysis of climate-club measures according to the jurisprudence of the World Trade Organization on GATT Article XX.*

*This article concludes that, unless there is significant reform in the current laws, policies, and actions regarding climate change, the global levels of greenhouse gas emissions will continue to increase. As a response to this problem, many countries have enacted regulatory measures and economic incentives to mitigate climate change at the national level. One of them is emissions trading schemes, in which carbon has been given a price and the environmental externality of the industry is internalized with this pricing mechanism. However, these national-level carbon pricing mechanisms create the risks of carbon leakage, reduction of competitiveness of their industry, and free-riding in the countries that have no climate-change mitigation measures.*

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I. INTRODUCTION

While global attention is focused on fighting the COVID-19 pandemic, climate change remains a defining, long-term challenge that requires policies to create sustainable economies. This challenging task is increasingly gaining attention among policymakers worldwide since climate change is rapidly becoming a top priority in national politics, and international trade remains an essential part of the global economy. To address climate change, the international community created the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. It became the main forum of climate change negotiations, and in 1997 the Kyoto Protocol to the UNFCCC was adopted and set legally binding greenhouse gas emissions (GHG) reduction targets for industrialized countries. In 2019, many governments began the push for net-zero emissions with national targets and new policy strategies.<sup>1</sup>

If we look back at the development of emissions trading, in 2005, parties with commitments under the Kyoto Protocol accepted targets for limiting or reducing emissions.<sup>2</sup> To meet their emission-reduction targets with minimum adverse effects on their economies, the parties to the UNFCCC adopted the Paris Agreement on Climate Change.<sup>3</sup> This international treaty establishes the parameters of a new climate regime applicable to all states based on a system of nationally determined contributions (NDCs).<sup>4</sup> Similarly, the UNFCCC<sup>5</sup> introduced emission-

1. INT’L CARBON ACTION PARTNERSHIP, EMISSIONS TRADING WORLDWIDE: STATUS REPORT (La Hox Theur et al. eds., 2020).

2. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Annex B, Dec. 10, 1997, 2303 U.N.T.S 162.

3. Georgia Piggot, Peter Erickson, Michael Lazarus & Harro Van Asselt, *Addressing fossil fuel production under the UNFCCC: Paris and beyond* (Stockholm Env’t Inst., Working Paper 2017-09, 2017) [hereinafter UNFCCC].

4. NDCs are national climate plans in which the parties to the Paris Agreement must indicate, among other things, the mitigation pledges they intend to achieve. Such pledges are non-legally binding, but parties are obliged to implement domestic mitigation measures “with the aim of achieving” them.

5. The Kyoto Protocol is a protocol to the UNFCCC. It imposes legally binding commitments on certain parties to the UNFCCC to achieve GHG reduction targets. The US is the only country that did not ratify the Kyoto Protocol.

reduction policies that require foreign products to mirror the climate costs of their production processes or to favor domestic climate-friendly producers over foreign ones.<sup>6</sup> Accordingly, emissions trading schemes (ETS) have set a limit on the amount of emissions permissible for a company, thereby putting a price on emissions and stimulating emissions reductions.<sup>7</sup>

As the cornerstone of the European Union's (EU) climate change policies, the ETS was designed to ensure that states fulfill their commitment to reducing GHGs cost-effectively.<sup>8</sup> By creating transferable units, the ETS established a system where parties had an economic incentive to buy and sell emissions allowances and created the first international trading system for GHGs. However, these targets have created questions on how international trade rules may apply to the emissions trading markets. This is because emissions trading varies from country to country and has a range of different design elements.

Furthermore, issues related to emissions trading have not been raised in intergovernmental trade disputes at the World Trade Organization (WTO) to date.<sup>9</sup> The reason is that there is an absence of clear understanding of how environmental issues should be dealt with under the current WTO provisions, as there is a void of clear understanding between contracting members on how to manage the issues at the interface of environment and trade.<sup>10</sup> This void of clear understanding stems from the fact that the existing rules of the General Agreement on Tariffs and Trade (GATT) and the WTO do not address climate-change problems and policies.<sup>11</sup>

In addition, dealing with global climate change is an issue far more complex than any of the issues previously dealt with in WTO disputes. Despite that, rules for the allocation and trade of emission units may also constrain the import of energy products generated by fossil fuels' combustion.<sup>12</sup> Thus, such climate measures may encounter WTO rules that seek to guarantee non-discrimination and market access between the WTO's member states. Similarly, emission units will be subject to

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6. Christina Voigt, *WTO Law and International Emissions Trading: Is There Potential for Conflict*, 2 CARBON & CLIMATE L. REV. 54, 54 (2008).

7. See generally Niels B. Bekkhus & Karel Van Hecke, *The European Union Emission Trading Scheme*, 61 STUDIA DIPLOMATICA 115 (2008) (Belg.).

8. For an overview of the EU ETS, see *EU Emissions Trading System (EU ETS)*, EUROPEAN COMM'N, [https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets\\_en](https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en) (last visited Mar. 3, 2022).

9. See Marisa Martin, *Trade Law Implications of Restricting Participation in the European Union Emissions Trading Schemes*, 19 GEO. INT'L ENV'T'L. L. REV. 437, 445-46 (2007).

10. *Id.* at 456.

11. *Id.*

12. Voigt, *supra* note 6, at 54.

WTO provisions, should they be classified as goods. However, classifying emission units is a difficult task, as none of the WTO agreements explicitly addresses their trade.<sup>13</sup>

While there are some differences of opinion regarding the legality of WTO law on environmental issues, such as emissions trading units, there are nevertheless exceptions in the general structure of WTO law that allow outside, non-trade interests to be assessed and balanced against trade imperatives. For instance, GATT Article XX (b) and XX (g) provide space for shielding environmental measures from the strictures of GATT law, provided certain conditions are met. GATT Article XIV and the Enabling Clause both constitute an acknowledgment from the WTO members of the necessity to address other legitimate objectives within the organization while departing from certain established principles. Further, the General Agreement on Trade in Services (GATS) also contains an environmental exception in Article XIV, and so does the plurilateral Agreement on Government Procurement in Article XXIII. Similarly, most modern regional trade agreements (RTAs) contain provisions that echo the GATT's general exceptions on environment and conservation of exhaustible natural resources.<sup>14</sup>

With a view to bring states that contribute the least to the harmful effects of climate change into the global climate effort and catalyze national pledges, the Paris Agreement on Climate Change has been built and elaborated around a bottom-up structure, relying upon NDCs<sup>15</sup> set up according to particular national circumstances and priorities.<sup>16</sup> On this premise, states parties ought only to be held liable for their pledged contributions, despite potentially damaging climate change impacts on global environment, and extensively vulnerable states parties. Accordingly, although the Paris Agreement has gained in popularity compared to previous initiatives, its flexibility and lack of enforcement measures have failed to target GHG emissions effectively. It appears current NDCs are covering approximately one-third of the deep cuts required to meet the 2°C temperature

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13. *Id.*

14. RTAs, which are reciprocal preferential trade agreements between two or more partners, constitute one of the exemptions and are authorized under the WTO, subject to a set of rules. *See Regional Trade Agreements*, WORLD TRADE ORG., [https://www.wto.org/english//tratop\\_e/region\\_e/region\\_e.htm](https://www.wto.org/english//tratop_e/region_e/region_e.htm) (last visited Nov. 25, 2021).

15. *See* U.N. Framework Convention on Climate Change Draft Dec. 1/CP.21, Adoption of the Paris Agreement, U.N. Doc. FCCC/CP/2015/L.9/Rev/1, annex, art. 3 (Dec. 12, 2015).

16. *Id.* art. 4.3.

goal.<sup>17</sup> What is more, its support from major emitters has recently started plummeting with the withdrawal decision from the U.S., leaving remaining parties to consider less ambitious reductions and free-riding. In such context, strengthening national pledges' ambition is necessary to have a slight chance of reaching net-zero by mid-century.

Going further, however, consideration should be given to how additional ambition could be achieved by any other means than strictly relying upon fallible UNFCCC agreements. The key challenge lying ahead entails determining a balanced and suitable combination between existing climate treaties and complementary institutional modalities such as club-like arrangements.<sup>18</sup>

Despite its voluntary nature, according to William Nordhaus, the climate-club approach<sup>19</sup> relies on a top-down structure setting from the beginning with ambitious standards to reach important levels of abatement.<sup>20</sup> Following this approach, only states that have strong climate commitments could embark on a climate club and benefit from its exclusive goods such as preferential terms of trade or investment.

The practical sticking point between the general bottom-up approach to climate commitments and the voluntary club approach lies within the induced penalties that are imposed on non-members. There is no denying that climate clubs would embody a larger dimension, either in terms of participation or emissions reductions, when small trade penalties—intended as an economic impetus for joining a club structure—exist.<sup>21</sup> Doubts may arise as to whether the current climate regime would proceed with such incentive. Indeed, the framework for climate-change mitigation is already strictly regulated under the Paris Agreement, standing firmly for a facilitative and non-punitive process for implementation and compliance.<sup>22</sup> Therefore, NDCs are not subjected to any material sanctions for non-compliance, except for a peer-review mechanism.

Now is the time to determine whether the carbon-club approach could be conciliated with the bottom-up international climate regime.

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17. UNEP, *The Emissions Gap Report: A UN Environment Synthesis Report*, at 1 (2017).

18. THOMAS L. BREWER, HENRY DERWENT & ANDRZEJ BTACHOWICZ, WORLD BANK GROUP, CARBON MARKET CLUBS AND THE NEW PARIS REGIME v (July 12, 2016) [hereinafter WBG].

19. A climate club is understood as a coalition of countries that commits to strong steps to reduce greenhouse gas emissions and may have mechanisms to penalize countries that do not participate. See William Nordhaus, *The Climate Club: How to Fix a Failing Global Effort*, FOREIGN AFFAIRS, May/June 2020, at 10.

20. William Nordhaus, *Climate Clubs: Overcoming Free-riding in International Climate Policy*, 105(4) AM. ECON. REV. 1339, 1344 (2015).

21. *Id.* at 1346.

22. UNFCCC, *supra* note 3, art. 15.

Trade law could be touted as the solution to legitimize the existence of climate clubs and their direct implications on trade rules. In this sense, climate change law and trade law can be mutually supportive. Indeed, Article 3.5 of the UNFCCC is not only providing for states cooperation in fighting climate change but also averts from potential restrictions on international trade, leaving a window open for unilateral measures.<sup>23</sup> International cooperation falling short on providing satisfying results, states tend to resort to unilateral action, frequently in the form of trade measures.<sup>24</sup>

However, Article XX of the GATT could pave the way for the acceptance of concerted climate-related trade restrictions, amongst its general exceptions, so as to justify in the process the existence of climate clubs. It is thus essential to query whether relying on Article XX to legitimize climate clubs would remain nothing but a pipe dream, or rather a true way out of the climate stalemate.

After this introduction, Section II explores emission units as a linkage in climate clubs. Section III analyzes emission units trading and regional trade agreements. Section IV examines GATT Article XX as a potential remedy for the development of climate clubs. Specifically, Section IV.1 explores the scope of application of Article XX and investigates to what extent it can be applied to climate concerns, while Section IV.2 provides an analysis of climate-club measures according to the jurisprudence of the WTO on GATT Article XX.<sup>25</sup> Section V concludes the article.

## II. EMISSION UNITS AS A LINKAGE IN CLIMATE CLUBS

### A. *Climate Clubs*

#### 1. The Concept

As decision-making under the UNFCCC meetings and agreements has a limited ability to react to emergency and evolving conditions of climate change, the need for a new institutional arrangement has a high priority. Hereby, the concept of a climate club is offered as an alternative forum to the UNFCCC platform for the fight against climate

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23. See United Nations Framework Convention on Climate Change, May 9, 1992, 1771 U.N.T.S. 107, art 3.5.

24. Thomas Cottier & Tetyana Payosova, *Common Concern and the Legitimacy of the WTO in Dealing with Climate Change*, in RESEARCH HANDBOOK ON CLIMATE CHANGE AND TRADE LAW 9, 22 (Panagiotis Delimatsis ed., 2016).

25. For further analysis on common concerns more broadly, see generally Rafael Leal-Arcas, *Sustainability, Common Concern, and Public Goods*, 49(4) GEO. WASH. INT'L L. REV. 801 (2017).



change.<sup>26</sup> A climate club serves the purpose of forming a global carbon market with the integration and harmonization of climate mitigation policies across various jurisdictions. Participant jurisdictions to the club scheme will set the same level of targets and ambition in the climate negotiations, and consequently, they can more easily integrate their carbon markets.<sup>27</sup> A climate club can provide clearer certainty regarding the conditions and rules governing the mitigation efforts.<sup>28</sup> In order to incentivize the participation of countries in the club arrangement, the combination of trade-restrictive and liberalizing instruments can be employed for climate-mitigation purposes. Especially market-based tools, which can efficiently coordinate ambitious countries in their climate commitments and encourage other countries' mitigation efforts to enjoy the benefits of club membership. Under this new mechanism, emission reduction will be an incidental co-benefit to the economic benefits.<sup>29</sup>

Moreover, climate clubs will reduce the economic costs of abatement efforts of emissions and volatility of the carbon market compared to non-club prices.<sup>30</sup> A climate club will signal promising multilateral commitment for climate change, which can elevate international cooperation. The abatement activities as a result of club cooperation will improve environmental integrity, air quality, reduce fossil fuel dependence, and encourage low-carbon production facilities within the club members.<sup>31</sup>

## 2. Emission Units as a Linking Instrument

To incentivize membership, benefits of emissions reductions should be linked to excludable economic benefits, and one of them would be a common emissions trading system (ETS).<sup>32</sup> A comprehensive and

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26. See Nordhaus, *supra* note 20, at 1339; WILLIAM NORDHAUS, *THE CLIMATE CASINO: RISK, UNCERTAINTY, AND ECONOMICS FOR A WARMING WORLD* 244-58 (Yale Univ. Press, 2013); Robert Falkner, *A Minilateral Solution for Global Climate Change? On Bargaining Efficiency, Club Benefits and International Legitimacy*, 14 *PERSPS. ON POLS.* 87 (2015); Robert Gampfer, *Minilateralism or the UNFCCC? The Political Feasibility of Climate Clubs*, 16 *GLOB. ENV'T. POLS.* 62 (2016); Kenneth W. Abbott, *Strengthening the Transnational Regime Complex for Climate Change*, 3 *TEL* 57 (2014).

27. Currently, cooperation among countries is limited to informal dialog, information, and experience exchange. For example, the International Carbon Action Partnership (ICAP) creates a forum for sharing and evaluating best practices for mandatory cap and trade systems.

28. See generally Michael Mehling & Erik Haites, *Mechanisms for Linking Emissions Trading Schemes*, 9 *CLIMATE POL'Y* 169 (2009).

29. Nordhaus, *supra* note 20, at 254-255.

30. William Blyth & Martina Bosi, *Linking Non-EU Domestic Emissions Trading Schemes with the EU Emissions Trading Scheme*, 9 *OECD Doc. COM/ENV/EPOC/IEA/SLT* (June 17, 2004).

31. Hege Westskog, *Why should Emissions Trading be Restricted?*, 2 *CLIMATE POL'Y* 97, 99 (2002).

32. Matthew R. Zefferman, *Cultural Multilevel Selection Suggests Neither Large or Small Cooperative Agreements Are Likely To Solve Climate Change Without Changing The Game*, 13 *SUSTAIN SCI.* 109, 114 (2018).

enforceable climate club can be designed with direct linkages of different ETSs. Herein, the linkage in the climate club will be emission units. Under the climate club, all Members will be bonded with absolute emissions caps and have the option to trade the emission units among each other. With this arrangement, the emissions caps, flexibility, and structure of the ETS can be negotiated among a small number of like-minded countries and facilitate an easier negotiation platform. Within the common ETS, the trading of emission units among members are subjected to the same rules, freely traded among different systems, and can be valid for the compliance of mitigation obligations in each jurisdiction.<sup>33</sup> The key feature in designing a climate club is the coordination of legislation and rules governing each system through an international treaty, which is binding on the domestic ETS legislation in each member country.<sup>34</sup>

Emission units, issued in line with an abatement target, enable cost-effective compliance with climate club obligations through the allocation of units among members.<sup>35</sup> The limited number of units realize higher ambition for mitigation of climate change effects and support low-carbon technologies in production processes. It is offered as an intermediary step in the creation of a global carbon market, which has significant coverage of economic sectors and countries. The size of the ETS market can expand, and as a result, market liquidity will increase, and carbon prices become more stable compared to individual national systems<sup>36</sup> Furthermore, the possible objections to unilateral decisions on carbon-pricing can be avoided with an ETS of club countries, as unilateral measures might have market distortions and unfair competition effects, especially on developing countries.

The linking with the ETS requires agreement on the definitions of common characteristics of the system; design of the allocation scheme of the units; monitoring, reporting, and verification method; all kinds of technical designs and procedures for cooperation.<sup>37</sup> Non-club members will be

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33. ERIK HAITES & FIONA MULLINS, EPRI, LINKING DOMESTIC AND INDUSTRY GREENHOUSE GAS EMISSION TRADING SYSTEMS, INTERNATIONAL ENERGY AGENCY AND INTERNATIONAL EMISSIONS TRADING ASSOCIATION 12, 90 (2001).

34. Michael Mehling, *Bridging the Transatlantic Divide: Legal Aspects of a Link Between Regional Carbon Markets in Europe and the United States*, 2 J. SUSTAINABLE DEV. L. & POL'Y 46, 47 (2007).

35. ULRIKE WILL, CLIMATE BORDER ADJUSTMENTS AND WTO LAW EXTENDING THE EU EMISSIONS TRADING SYSTEM TO IMPORTED GOODS AND SERVICES 4 (Brill Nijhoff ed., 2019).

36. Richard B. Stewart, Michael Oppenheimer & Bryce Rudyk, *Building Blocks for Global Climate Protection*, 32 STAN. ENV'T. L.J. 341, 374 (2013).

37. See ROBERT STAVINS & JUDSON JAFFE, LINKING TRADABLE PERMIT SYSTEMS FOR GREENHOUSE GAS EMISSIONS: OPPORTUNITIES, IMPLICATIONS, AND CHALLENGES, INTERNATIONAL EMISSIONS TRADING ASSOCIATION (IETA) ES-1 (2007).

discriminated from the system as their climate commitments, the stringency of targets, design of linked ETS will have considerable differences compared to that of climate club members. As a result, the climate club system creates differentiated treatment among trade partners based on their membership status, which violates the non-discrimination principle of WTO law, namely the most favored nation (MFN) principle.<sup>38</sup> WTO law prescribes a carbon pricing policy that is non-discriminatory and does not have extra-jurisdictional effects.<sup>39</sup> However, the club scheme is based on exclusiveness, and its success can only be achieved if the non-members are prevented from enjoying the advantages of ETS linkages.

To decide on the violation of the WTO's MFN principle, we must first analyze whether the emission units are regulated under the WTO Agreements. The three main subjects that form the structure of the WTO Agreements are goods, services, and intellectual property. The design and characteristics of the emission units are likely to fall under the subjects of goods or services, and therefore, their governing agreements are GATT and GATS, respectively.

## B. Emission Units as a Good

### 1. The Characterization of the Units

Products are defined as commodities produced by labor, intellectual effort, or natural process that can be transported from place to place.<sup>40</sup> Greenhouse gas (GHG) emissions are produced by labor. Afterward, ETS gives them a price and makes them tradable. Emission units fulfill the purposes of accounting in the ETS, in which they are tracked and recorded through a registry.<sup>41</sup> Units represent a certain amount of energy or GHG consumed. They are transferable among facilities. Emission units are movable, digital, and have a unique property feature.<sup>42</sup> In this regard, they can be considered as intangible goods. The registry appoints them a unique serial number, which is how they can be traced among different holders.<sup>43</sup> Therefore, the number of units is limited and distributed to

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38. General Agreement on Tariffs and Trade art. I, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT].

39. *Id.* arts. I, III.

40. Appellate Body Report, *United States—Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, ¶ 58-59, WTO Doc. WT/DS257/AB/R (adopted Feb. 17, 2004).

41. Charlotte Streck & Moritz von Unger, *Creating, Regulating and Allocating Rights to Offset and Pollute: Carbon Rights in Practice* 10 CARBON & CLIMATE L. REV. 178, 179 (2016).

42. Erich Vranes, *Climate Change and the WTO: EU Emission Trading and the WTO Disciplines on Trade in Goods, Services and Investment Protection*, 43 J. WORLD TRADE 707, 717 n. 4 (2009).

43. Streck & von Unger, *supra* note 41, at 181.

the businesses within the jurisdiction that issues them. However, contrary to a regular product, the emissions system does not aim to make units valuable; instead, the savings of units are rewarded. Furthermore, the club issues units to facilitate the compliance of international obligations deriving from a climate club. Therefore, they function more as a means of payment than as an investment good.

## 2. Most-Favored Nation Principle

The different treatment to emission units from a non-climate-club jurisdiction is a restriction on the MFN principle under Article I:1 of the GATT. The principle requires that “any advantage, favor, privilege or immunity granted . . . shall be accorded immediately and unconditionally to the like product of all contracting parties.”<sup>44</sup> Article I:1 covers all types of trade restrictions on goods, such as tariffs, taxes, charges, or standards, and requires the extension of all possible advantages accorded to one member to all WTO member states. The differentiated treatment to emission units derives from the climate change policy and membership to a climate club, instead of the national origin of the emission units. However, the Appellate Body prohibited any *de jure* or *de facto* discrimination under Article I:1 of the GATT.<sup>45</sup> Targeting a specific country based on climate policy could give rise to allegations of discrimination, as it might be considered as *de facto* discrimination on the grounds of national origin.<sup>46</sup> Similarly, any exemptions for the countries that have climate measures would imply advantages within the meaning of Article I:1 and should be extended to other WTO Members. Therefore, the country’s membership in a climate club or carbon abatement system would not be a justifiable reason to apply differentiated treatment to emission units under the MFN principle.

The principle is applicable if three criteria are fulfilled cumulatively. These are: (i) an advantage, favor, privilege, or immunity accorded to the product of one country; (ii) the advantage should be granted immediately and unconditionally, (iii) to the like products of another country.<sup>47</sup>

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44. Appellate Body Report, *Canada—Certain Measures Affecting the Automotive Industry*, ¶ 79, WTO Doc. WT/DS139/AB/R, WT/DS142/AB/R (adopted June 19, 2000).

45. *Id.* ¶ 78.

46. Christine Kaufmann & Rolf H. Weber, *Carbon-Related Border Tax Adjustments: Mitigating Climate Change or Restricting International Trade?*, 10 WORLD TRADE REV. 497, 503 (2011).

47. GATT, *supra* note 38, art. I.1.

*a. Advantage*

The club members will make a regulatory distinction according to the origin of emission units. The climate club member's emission units are linked with each other, providing implied advantages to units of club members while discriminating against non-club members. This regulation has an extraterritorial effect since it is a unilateral measure to control emissions outside the jurisdiction of climate club members.

*b. Advantage Accorded Immediately and Unconditionally*

Any advantage, favor, privilege, or immunity given to a product of one state must extend to like products of all WTO Members. This means the application of any possible benefit, without a delay and without any further requirement that affects competitiveness.<sup>48</sup> If the emission units from the club and non-club jurisdictions are found to be like but are treated differently just because the WTO member is not a part of the climate club, the club membership will be a conditional advantage within the scope of Article I:1 of the GATT and restricts the application of the MFN principle.

*c. Like Products*

The like-products analysis derives from the Appellate Body decisions regarding the national treatment principle under Article III of the GATT. The four general criteria adopted in the likeness test are the following: "(i) the features, nature, and quality of the products, (ii) the end-uses of the products, the extent products are able to serve the same or similar end-uses, (iii) consumers' tastes and habits, the extent consumers perceive and treat the products as an alternative means of performing particular functions or satisfy demand, and (iv) international tariff classification of the products."<sup>49</sup>

*i. The Product Characteristics*

In order to compare the likeness of emission units that are deriving from different countries, several features come under scrutiny. Each ETS, in which the units are issued, is based on different key design features depending on the local context and government policy.<sup>50</sup> The key

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48. Appellate Body Report, *European Communities—Measures Prohibiting the Importation and Marketing of Seal Products*, ¶¶ 5.88, 5.90, 5.93, WTO Doc. WT/DS400/AB/R, WT/DS401/AB/R (adopted June 18, 2014) [hereinafter *EC—Seal Products*].

49. PETER VAN DEN BOSSCHE, *THE LAW AND POLICY OF THE WORLD TRADE ORGANIZATION: TEXT, CASES AND MATERIALS* 356 (Cambridge Univ. Press, 2005).

50. Peter Sopher, *Emissions Trading around the World: Dynamics Progress in Developed and Developing Countries*, 6 *CARBON & CLIMATE L. REV.* 306, 306 (2012).

point of the likeness analysis lies in the comparison of the club's unit system and non-club system structure's effect on the characteristics of the units.

Herein, the systems should be based on the same method, which could be cap-and-trade<sup>51</sup> or baseline-and-credit system.<sup>52</sup> The former approach imposes compliance obligations, whereas the latter one only supports voluntary action to create and reduce the price for emissions.<sup>53</sup> The international agreement that forms the climate club and creates the ETS sets a target for the maximum amount of emissions permitted within the club. This differentiates the product characteristics of units, since without sharing the same target with the club, non-club members could issue an excessive number of units, and the effectiveness of emissions reduction will be limited.

The emission units should be issued to represent the same amount of GHGs or energy per unit. The covered number of emissions and sectors will vary among different emission-units systems. For example, New Zealand's ETS covers land-based sectors, whereas the EU's ETS does not.<sup>54</sup> Moreover, which entities are required to hold units, and what standards and conditions will govern the issuance of units becomes relevant in the analysis of the unit's product characteristics.

The climate club is likely to have strict penalty mechanisms and an enforcement system in the case of non-compliance. Therefore, if the units from a non-club jurisdiction are found to be like products, a lax enforcement regulation could damage the club's system. For example, a penalty system in which the companies are exempted from further liability for their emissions above the cap if the penalty is paid will harm the stringency of the club scheme.<sup>55</sup> The facilities will prefer to hold units from a system that is governed with more flexible rules for the purpose of compliance with the club's ETS.

Furthermore, the consistency among the registries of the units is important.<sup>56</sup> Club members will have one registry that governs all the administrative aspects of the unit issuance, whereas non-club members' registries will work independently, and each will have separate rules of conduct leading to differentiation in the characteristics of the units.

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51. Under a cap-and-trade system, an overall emissions cap is set to achieve emissions reductions.

52. Under a baseline-and-credit system, carbon credits are issued for reductions of emissions against a business-as-usual baseline.

53. Streck & von Unger, *supra* note 41, at 178.

54. See Sopher, *supra* note 50, at 307.

55. Angelica P. Rutherford, *Linking Emissions Trading Schemes: Lessons from the EU-Swiss ETSs*, 8 CARBON & CLIMATE L. REV. 282, 287 (2014).

56. *Id.*

Another aspect is the option of banking.<sup>57</sup> Banking provides advantages, if the emissions prices are expected to increase, or as a hedge against future price increases. The consumers could prefer the unit that has a banking option, and this would result in an inflow from club jurisdictions to non-club ones.<sup>58</sup>

Product characteristics are also affected by the distribution of emissions allowances. For example, if the units are distributed based on grandfathering<sup>59</sup> or benchmarking<sup>60</sup> instead of an auction, the firms that participated in that ETS can generate profits. Free allocation of units is a core regulatory aspect to address competitiveness concerns.<sup>61</sup> The different allocation methods damage the comparability of the emissions control regulations and complicate the likeness analysis of units from different jurisdictions. Free allocation can be perceived as an implicit subsidy in a system where the units are auctioned,<sup>62</sup> whereas the club members who have an auction system will be at a competitive disadvantage.<sup>63</sup> Consequently, we could conclude that the characteristics of each unit are one of its kind, as they are subjected to a different set of rules and derive from varying political arrangements.

#### ii. *The End-Use*

Even though the design features are differentiated in each unit system, ultimately all units serve the purpose of emission abatement with a quantity-based market mechanism. However, since the emission reduction

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57. See Christian de Perthuis & Raphael Trotignon, *Governance of CO2 markets: Lessons from the EU ETS6* (Les Cahiers de la Chaire Economie du Climat Working Paper No. 07, 2013).

58. See Erik Haites, *Harmonisation between National and International Tradable Permit Schemes: CATEP Synthesis Paper*, at 5, OECD Doc. CCNM/GF/SD/ENV(2003)2/FINAL (Mar. 17-18, 2003).

59. In grandfathering, allowances are given out to operators for free on the basis of historic emissions. This approach is criticized as it is rewarding the higher emitters.

60. Benchmarking is used for the free allocation of the emission units. Benchmark is determined by the product-related GHG emission benchmarks and product performance. In this way, GHG intensive installations will receive fewer free units, compared to low-carbon installations. Moreover, the calculation of the benchmark can vary among different ETS jurisdictions. For example, in EU ETS, benchmarks are selected from the 10% most efficient installations in each sector. Consequently, inefficient installations need to purchase more units or reduce their emissions. EUROPEAN COMM'N, EU ETS HANDBOOK 40 (2015), [https://ec.europa.eu/clima/system/files/2017-03/ets\\_handbook\\_en.pdf](https://ec.europa.eu/clima/system/files/2017-03/ets_handbook_en.pdf).

61. TOBIAS HAUSOTTER, SYBIL STEUWER & DENNIS TÄNZLER, COMPETITIVENESS AND LINKING OF EMISSION TRADING SYSTEMS 46 (Benjamin Lünenbürger ed., Federal Environment Agency (Umweltbundesamt) (2010)).

62. *Id.* at 47.

63. See Rutherford, *supra* note 55, at 288.

will occur at different rates due to varying characteristic features of the units, it would be a more effective approach to evaluate the end uses as similar but not exactly the same.

*iii. Consumer Preferences*

Consumers of the emission units are businesses, financial institutions, and other regulated entities. The consumers in the club jurisdictions will prefer the club units to ensure compliance with the climate club scheme.<sup>64</sup> Otherwise, they face a risk of economic loss by way of penalties or re-purchase of units for ensuring compliance.<sup>65</sup> This shows us that consumers do not regard the units from different jurisdictions as like. Moreover, the club's emission units are one part of larger cooperation among countries, and they can address the climate change concerns more effectively. Therefore, the consumers sharing the ethical concerns of protecting natural resources and lowering GHG levels can direct their free choice to club emission units. In this way, they signal that the club and non-club units are not like in terms of consumer preferences.

*iv. Tariff Classification*

The emission units currently do not have a tariff classification and Harmonized System (HS) code.<sup>66</sup> HS Code, a six-digit harmonized code, is used by customs authorities around the world to identify products when assessing duties and taxes, which are called tariffs for imports. However, the effect of tariff classification in the likeness analysis is limited. This is because countries do not always use the same code to define products. Furthermore, the tariff lines are based on a very detailed analysis of each product and might assign different codes to products that are considered as like from the perspective of the other three criteria in the likeness analysis.<sup>67</sup> On the other hand, even though two products have the same tariff classification, they could still be considered as unlike products, if their product characteristics differ to a great extent.<sup>68</sup>

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64. See Voigt, *supra* note 6, at 56.

65. Sikina Jinnah, Emissions Trading under the Kyoto Protocol: NAFTA and WTO Concerns 78 (Dec. 2002) (M.S. thesis, University of Montana) (on file with Graduate Student Theses, Dissertations, & Professional Papers, University of Montana).

66. The Harmonized System is a standardized numerical method of classifying traded products.

67. For example, the alloyed and non-alloyed iron have very similar physical characteristics, end-use, consumer preferences and they are likely to substitute each other. However, they have been assigned different tariff lines. See Will, *supra* note 35, at 140.

68. See *id.* An example of it can be found in the Appellate Body Report, *Philippines—Taxes on Distilled Spirits*, ¶¶ 163–64, WTO Doc. WT/DS396/AB/R, WT/DS403/AB/R (adopted Jan. 20, 2012).



Different characteristics of the emission units from the club and non-club jurisdictions affect the value of carbon they represent.

*v. Competitiveness and Substitutability*

The Appellate Body can analyze their direct competitiveness and substitutability with the economic technique of calculating the elasticity of substitution.<sup>69</sup> What will be scrutinized is the effect of the measure that modifies the conditions of competition in the relevant market to the detriment of products from a non-climate club member.<sup>70</sup> The physical product characteristics will also shed light on the competitiveness analysis.<sup>71</sup> The primary market, which the emission units created, is the exchange of units among consumers.<sup>72</sup> As the club members harmonize their emission units in the primary market and refuse the recognition of units from non-members, market access is strictly restricted and competitiveness is affected.

*C. Emission Units as a Service*

1. The Characterization of the Units

The GATS covers all sectors except services supplied in the exercise of governmental authority. Services are non-physical, intangible, non-storable, and invisible.<sup>73</sup> The emission-units certificates are also intangible and benefit their holder by implying the right to emit and trade emission allowances. Units function as a decarbonization service for which investors need to pay.<sup>74</sup> The emission units as certificates could influence the trade of foreign environmental or financial services.

*a. Environmental Services*

Environmental services comprise (a) sewage disposal services, (b) refuse and disposal services, (c) sanitation and similar services, and

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69. See Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products (EC-Asbestos)*, ¶ 99, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001).

70. See Appellate Body Report, *Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef (Korea-Beef)*, ¶ 137, WTO Doc. WT/DS161/AB/R (adopted Jan. 10, 2001).

71. See Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products (EC-Asbestos)*, ¶ 119, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001).

72. See Jacob Werksman, *Greenhouse Gas Emissions Trading and the WTO*, 8 REV. EUR. COMMUNITY & INT'L ENV'T. L. 251, 254–55 (1999).

73. See Will, *supra* note 35, at 282.

74. See Glenn M. Wisner, *The Clean Development Mechanism versus the World Trade Organization: Can Free-Market Greenhouse Gas Emissions Abatement Survive Free Trade*, 11 GEO. INT'L ENV'T. L. REV. 531, 558 (1999).

(d) other environmental protection services not classified elsewhere.<sup>75</sup> The emission units can fall under the last category (d), as not falling under the specific characteristic listed in the GATS Schedule.

*b. Financial Services*

Financial services are “any service of financial nature offered by a financial service supplier of a WTO Member.”<sup>76</sup> Different types are listed in paragraph 5(a)(v)–(xvi) in the GATS Annex on Financial Services. For the sake of emission-units analysis, the following financial services might become relevant: derivative instruments including, futures and options,<sup>77</sup> transferable securities,<sup>78</sup> and a general category of other negotiable instruments and financial assets.<sup>79</sup>

Derivatives are distributed on a private law basis.<sup>80</sup> Even though private actors can trade the emission units among each other, units are not distributed on a contractual relationship.<sup>81</sup> For this reason, units cannot fall under the category of derivatives. Emission units represent a guarantee of a right to payment, they are transferable, and can be a medium of investment.<sup>82</sup> Therefore, emission units as a service can be qualified under transferable securities.<sup>83</sup> Furthermore, they can discharge debts and legacies, consequently falling under the category of financial assets.<sup>84</sup>

75. See GATS: General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Schedule of Specific Commitments 58–60, 1869 U.N.T.S. 183 (1994) [hereinafter GATS].

76. GATS, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex on Financial Services ¶ 1, 1869 U.N.T.S. 183 (1994).

77. See *id.* ¶ 5(a)(x)(C). Derivatives can be defined as an arrangement or instrument (such as a future, option, or warrant) whose value derives from and is dependent on the value of an underlying asset. Panel Report, *China—Certain Measures Affecting Electronic Payment Services*, ¶ 7.152, WTO Doc. WT/DS413/R (July 16, 2012).

78. See GATS Annex on Financial Services, *supra* note 80, ¶ 5(a)(x)(E). Transferable security is a document held by a creditor as a guarantee of his or her right to payment; a certificate attesting ownership of stock, shares, etc.; the financial asset represented by such a document, which is issued to investors to finance a business venture or a pledge of a financial or physical property to be surrendered in the event of failure to repay a loan.

79. See *id.* ¶ 5(a)(x)(F). Assets are “property owned by a person or company regarded as having value and being available to med debts, commitments or legacies”. They “can be converted into money” for the owner’s benefit and “can be purchased and sold on an open market.”

80. See Will, *supra* note 35, at 292.

81. James Munro, *Trade in Carbon Units as a Financial Service under International Trade Law: Recent Developments, Future Challenges*, 8 CARBON & CLIMATE L. REV. 106, 108 (2014).

82. *Id.* at 109.

83. See Will, *supra* note 35, at 292–93.

84. Munro, *supra* note 81, at 111.

If the emission units do not fit into one of the above categories, they can be analyzed within a general category, which is other negotiable instruments.<sup>85</sup> Emission units are easily transferable from one person to another and can be freely negotiated.<sup>86</sup> Units have the signature of the makers, which are government agencies.<sup>87</sup> However, units are registered to a system, hence they cannot be transferred as easily as cash, and they do not state an “unconditional promise to pay a specified sum of money on its face.”<sup>88</sup> In that case, it is difficult to categorize units as a negotiable instrument.<sup>89</sup> In conclusion, units are an intangible asset that pertains to financial matters such as utilization to avoid financial liability and can be traded in an open market system.<sup>90</sup> Thus, emission units are likely to be qualified under financial services, either as transferable securities, or any other financial assets.<sup>91</sup>

## 2. Most-Favored Nation Principle

The secondary market of the emission units is where the buyers and sellers trade financial instruments based on units for investment purposes. These financial instruments are subjected to the financial services provisions of the GATS and therefore, any advantages among club members need to extend to all WTO members regardless of their club membership.<sup>92</sup> The non-parties to the climate club do not take part in carbon abatement efforts equally with club members, and therefore, cannot benefit from the advantage of the recognition of their emission units in the club members’ system. Exclusion of a WTO member from the ETS of the climate club could result in allegations of market access

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85. WTO, SERVICES: ANNEX ON FINANCIAL SERVICES, ¶ 5(x)(F), [https://www.wto.org/english/tratop\\_e/serv\\_e/10-anfin\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/10-anfin_e.htm) (last visited Dec. 28, 2021). A negotiable instrument is a written instrument “that (1) is signed by the maker or drawer, (2) includes an unconditional promise or order to pay a specified sum of money, (3) is payable on demand or at a definite time, and (4) is payable to order or bearer.” Jinnah, *supra* note 65, at 59; Legal Information Institute, UCC § 3-104. Negotiable Instrument., CORNELL UNIV., <https://www.law.cornell.edu/ucc/3/3-104> (last visited April 28, 2022).

86. Panel Report, *China—Certain Measures Affecting Electronic Payment Services*, ¶ 7.154, WTO Doc. WT/DS413/R (adopted July 16, 2012).

87. See generally Felicity Deane, *Emissions Trading and the GATS Financial Services Provisions: A Case Study of the Australian Carbon Pricing Mechanism*, 13 J. INT’L TRADE L. & POL’Y 44 (2014).

88. See Jinnah, *supra* note 65, at 60.

89. FELICITY DEANE, EMISSIONS TRADING, AND WTO LAW: A GLOBAL ANALYSIS 117-18 (Edward Elgar Publ’g, 2015).

90. Munro, *supra* note 81, at 113.

91. In the EU, emission allowances have been uniformly classified as financial instruments under the 2014 revised Markets in Financial Instruments Directive (MiFID II). 2014 O.J. (L173/349) 152-53.

92. See Werksman, *supra* note 72, at 257.

restriction and violation of the MFN principle. MFN obliges that any advantage accorded to services and service suppliers should be extended immediately and unconditionally to the like services and service suppliers of any country. The concepts in this definition will be examined below in detail.

*a. Like Services*

Article I of the GATS mentions both services and service suppliers. Therefore, they are both relevant for the likeness analysis. Likeness does not require two services to be identical, but they need to be comparable or in a competitive relationship with each other.<sup>93</sup> The four criteria for the likeness of services are (i) the characteristics of the service and the service supplier, (ii) the end-use, (iii) the consumer preferences, and (iv) the modes of supply.<sup>94</sup>

*i. The Service Characteristics*

In terms of service characteristics criteria, the structure of the emission units is relevant. Units are issued within a system, which varies in terms of their size, design, features, and geographical scope.<sup>95</sup> This also affects the characterization of the units. Herein the emissions certificates could be:

- Mandatory, voluntary, or a combination of both, in which the participation can only be mandatory for the facilities that emit more than the agreed threshold.<sup>96</sup>
- Based on different caps and base years or use flexible caps.<sup>97</sup> The cap stringency determines the carbon price, and therefore, the scarcity of units is necessary to create price incentive.<sup>98</sup> Additionally, the demand for units by the participants, for whom the cost of reducing emissions is higher than purchasing units, increases the value per unit.<sup>99</sup> The comparable

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93. Appellate Body Report, *Argentina—Measures Relating to Trade in Goods in Services*, ¶¶ 6.23–6.26, WTO Doc. WT/DS453/AB/R (adopted May 9, 2016).

94. *Id.* ¶¶ 6.30–6.33.

95. Andreas Tuerk, Michael Mehling, Christian Flachsland & Wolfgang Sterk, *Linking Carbon Markets: Concepts, Case Studies and Pathways*, 9 CLIMATE POL'Y 341, 342 (2009), <http://dx.doi.org/10.3763/cpol.2009.0621>.

96. *See* Sopher, *supra* note 50, at 311.

97. Cap is the maximum amount of GHG emissions allowed to be emitted in the system. When it is combined with the trading element, the emissions abatement goal is achieved in a cost-efficient manner.

98. *See* EUROPEAN COMM'N, EU ETS HANDBOOK 23 (2015), [https://ec.europa.eu/clima/system/files/2017-03/ets\\_handbook\\_en.pdf](https://ec.europa.eu/clima/system/files/2017-03/ets_handbook_en.pdf).

99. *See id.* at 16.

caps are a sign of a comparable level of effort and signal the responsibility of the same amount of mitigation costs for the participant countries.

- Some systems employ cost-containment measures to create stable and low carbon prices by using the tools of offset and borrowing provisions<sup>100</sup> or price caps.<sup>101</sup> The discrepancy among systems in relation to these tools can affect the price of the units and ultimately their characteristics.
- The target can change from absolute targets to intensity targets in a unit system. In an intensity-based target, facilities are encouraged to increase their emissions, because if there is a lack of absolute targets, they will be given extra units for their increased output.<sup>102</sup>
- Different amounts of emissions reduction target per year can be determined.<sup>103</sup>
- The compliance period of the facilities can vary in the club and non-club jurisdictions.<sup>104</sup>
- The allocation method can vary among auctioning, free allocation, or a mixture of both.<sup>105</sup> The allocation method might have considerable effects on the legitimacy of the ETS in general.<sup>106</sup> The excessive number of free allocated units are considered as a subsidy and minimize the carbon-reducing effect of the system.
- The share of auctioned certificates might be different in a club and non-club members' system.<sup>107</sup> Moreover, the timing, administration, and auction design could be incompatible between the club and non-club units.<sup>108</sup> A weak auction

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100. High rates of borrowing from future commitment periods can harm the ambition for carbon emissions reduction targets. Moreover, future abatement costs will rise as the units will be scarce in the future.

101. See Tuerk, Mehling, Flachsland & Sterk, *supra* note 95, at 348.

102. See *id.* at 348.

103. See European Comm'n, *supra* note 98, at 19.

104. See Tuerk, Mehling, Flachsland & Sterk, *supra* note 95, at 347.

105. See *id.* at 347.

106. See M.J. MACE, ILONA MILLAR, CHRISTOPH SCHWARTE, JASON ANDERSON, DERIK BROEKHOFF, ROBERT BRADLEY, CATHERINE BOWYER & ROBERT HEILMAYR, FIELD, IEEP & WRI, ANALYSIS OF THE LEGAL AND ORGANISATIONAL ISSUES ARISING IN LINKING THE EU EMISSIONS TRADING SCHEME TO OTHER EXISTING AND EMERGING EMISSIONS TRADING SCHEMES 69 (2008).

107. "Auctioning is a transparent allocation method that" enables participants to purchase emission units at the market price by bidding. European Comm'n, *supra* note 98, at 28.

108. Auctioning will "ensure an open, transparent, harmonised and the non-discriminatory" market for the purchase of the units. *Id.*

- methodology could result in collusive behavior among bidders and consequently, a non-competitive carbon price in the market.
- The method of determining the free allocation and the timing of the allocation can diverge in different ETS.<sup>109</sup>
  - The allocation of units for free or via auctioning will vary according to sectors.<sup>110</sup>
  - The revenue from the sale of the emission units can be directed to different aims and institutions.<sup>111</sup> As being a novel source of income for the governments, it is important to divert the income to aims supporting further enhancement of climate change mitigation.
  - Different GHGs can be covered. Covered gases can include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, and SF<sub>6</sub>.<sup>112</sup> Alternatively, units might represent the energy consumed.
  - Covered and exempted sectors into the ETS may be mismatched.
  - The type and source of offset credits can change in the club and non-club system. This difference has the potential to affect the supply of emission units, and as a result, the prices are influenced.<sup>113</sup>
  - The emission units from the different systems might cover a non-identical time period.
  - Monitoring, reporting, and verification methods can be different in each system.<sup>114</sup>
  - Unit providers can be state or private entities. Moreover, the registry of the units and the operator of the ETS will differ and could use different approaches to monitor the system.<sup>115</sup>
  - The units are not linked to a multilateral treaty that forms the climate club. Therefore, their effectiveness can be limited. The multilateral treaty defines a common policy goal, abatement burdens, uniform standard for emission units, and all

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109. The two methods of free allocation are grandfathering and benchmarking. Free allocation lowers the cost of compliance and protects the global competitiveness of the sector. Therefore, it provides an advantage to the system in which it is employed. *See id.* at 40.

110. *See id.* at 24.

111. *See id.* at 35.

112. Sopher, *supra* note 50, at 312.

113. *See* Tuerk, Mehling, Flachsland & Sterk, *supra* note 95, at 348.

114. A credible method is essential in forming a linked, consistent, accurate, and transparent ETS. European Comm'n, *supra* note 98, at 82.

115. The registry of the units is an electronic accounting system that provides the calculation of the units issued, then the owner of the units and their transaction; and the relevant information about them. *Id.* at 129.

aspects of the ETS. Within the club system, standardized rules, procedures, and methodology will be used to ensure transparency and equal treatment for all market participants. Most importantly, burden-sharing will be equally distributed among the club members. The climate club will have strict regulations to minimize uncertainties and to incentivize compliance, as well as mechanisms to hold members accountable for non-compliance.<sup>116</sup> National systems are generally found to be time-consuming, complicated, and inadequately transparent. This creates uncertainty for companies who take part in the trade of units.<sup>117</sup>

These different characteristics of the emission units as services lead to the result that the characteristics of the club and non-club units are unlike.

*ii. End-Use*

In terms of the end-uses, club and non-club units serve the purpose of lowering emissions with a market-based approach. However, the different structures of the unit system can affect the extent and scope of contribution to the aim.

*iii. Consumer Preferences*

For the consumer preferences, unit traders perceive club and non-club units to be substitutable to each other if they serve the same aim. This is because the flexibility and the lowest price of the system weigh more than the characteristics of the unit from the perspective of the consumers. However, in the case of non-recognition of the non-club units, the traders are left with no choice but to prefer club units for compliance purposes. Additionally, the environmental consciousness of consumers can direct them to choose units that are subjected to a more stringent set of criteria for carbon abatement. As a result, the consumer preferences will be directed to perceive units as unlike.

*iv. Modes of Supply*

Trade in services categorizes four different modes of supply of services. Mode 1 is a service that is transboundary without traders moving.<sup>118</sup>

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116. Britta Rennkamp & Andrew Marquard, *South Africa's Multiple Faces in Current Climate Clubs*, 24 S. AFR. J. INT'L AFFS. 443, 448 (2017), <https://doi.org/10.1080/10220461.2017.1421479>.

117. See European Comm'n, *supra* note 98, at 43.

118. GATS, *supra* note 75, art. I.2.a.

Mode 2 is also a transboundary service with the movement of consumers,<sup>119</sup> whereas in Mode 3,<sup>120</sup> suppliers of the firm or, in Mode 4, natural persons<sup>121</sup> need to move across the border to provide services.<sup>122</sup> The emission units are the electronic service and their service supplier is the relevant authority or registry of the ETS in each country. The service consumers are the facilities that need units to continue their productions; therefore, the units are traded among registries and facilities. Under the climate club arrangement, the units can be traded among suppliers and consumers from different jurisdictions. However, they do not need to move across borders to supply service of units. For this reason, the emission units can be categorized under supply Mode 1.<sup>123</sup> As both the trade of club and non-club units does not require any of the parties to cross borders, the two types of units belong to Mode 1 supply. Therefore, they are like in relation to modes of supply.

*v. Competitiveness and Substitutability*

Deriving from the explanations above, the characteristics of the units differ to a great extent. In terms of the end-uses, they are similar but not identical. The consumers also consider the services of the unit to be unlike. Whereas in the modes of supply, club and non-club units can be like services. Article II of GATS uses the broader term of likeness. The Appellate Body in the Argentina – Financial Services, recalled the likeness analysis under the GATT Article I and concluded that the word “like” is applicable to the products that are in a competitive relationship.<sup>124</sup> Therefore, the likeness is also a determination of the competitive relationship between emission units of club members and non-members. Because they compete in the same market and are substitutable, units of club members and non-members are found to be in a competitive relationship.

On the other hand, the Appellate Body indicated in the Argentina – Financial Services, that not all services or products in a competitive relationship are like, and the case-by-case analysis will be determinative in the likeness.<sup>125</sup> Therefore, if we take the characteristics as a more dominant criterion, since the structure of the whole emissions trading

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119. *Id.* art. I.2.b.

120. *Id.* art. I.2.c.

121. *Id.* art. I.2.d.

122. See Yi Wang, *Most-Favoured-Nation Treatment under the General Agreement on Trade in Services—And Its Application in Financial Services*, 30 J. WORLD TRADE 91, 94 (1996).

123. GATS, *supra* note 75, art. I.2.a.

124. Appellate Body Report, *Argentina - Measures Relating to Trade in Goods and Services*, ¶¶ 6.25-26, WTO Docs. WT/DS453/AB/R and WT/DS453/AB/R/Add.1 (adopted Apr. 14, 2016).

125. *Id.*



system is based on the characteristics and the nature of the units, we can conclude that the club and non-club units would be unlike. The design of ETS has significantly different features, ranging from the varying policy priorities, economic and legal structure, and international arrangements. Different coverage of sectors, auction format, emission reduction target, and type of target, such as intensity-based or absolute emissions caps affect the effectiveness of the system and the result of the achievement of the goals. Therefore, it would not be possible to consider units from different jurisdictions as like services. As climate clubs will be comprised by a group of countries that have clearly defined abatement goals, they are likely to tolerate a higher price of units and design a system that has stricter rules. This creates a huge discrepancy between the units from non-club jurisdictions as their sensitivity is more directed to economic concerns and competitiveness.

*b. Advantages Immediately and Unconditionally Provided and Treatment No Less Favorable*

If the emission units from the club and non-club countries are qualified as like services, they should have the same market access advantages.<sup>126</sup> The market access advantage should be provided as soon as possible and should not require the non-club member to pay compensation or any other extra charge.<sup>127</sup> However, within the climate club, the unitholder from non-club jurisdictions will not be able to trade the units they have with the club members' jurisdictions, as their units are excluded from the club schema. The climate club members will be the exclusive supplier of the emission units within their territories, which contradicts Article XVI:2(a) of GATS.<sup>128</sup>

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126. "With respect to market access through the modes of supply identified in Article I, each Member shall accord services and service suppliers of any other Member treatment no less favorable than that provided for under the terms, limitations, and conditions agreed and specified in its Schedule." General Agreement on Trade in Services art. XVI:1, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 U.N.T.S. 183, 33 I.L.M. 1167 (1994).

127. See Wang, *supra* note 122, at 96.

128. "In sectors where market-access commitments are undertaken, the measures which a Member shall not maintain or adopt either on the basis of a regional subdivision or on the basis of its entire territory, unless otherwise specified in its Schedule, are defined as: (a) limitations on the number of service suppliers whether in the form of numerical quotas, monopolies, exclusive service suppliers or the requirements of an economic needs test." GATS, *supra* note 75, art. XVI:2.a.

III. EMISSION UNITS TRADING AND REGIONAL TRADE AGREEMENTS

This section aims to analyze the relevance of specific WTO rules on the environment, with specific attention to climate change. In analyzing the issue, this section intends to incorporate RTAs as a useful tool to regulate emissions trading. The latter will be analyzed in line with WTO law. Factors such as border tax adjustments (BTA) will be considered as essential elements for emissions trading.

*A. Emissions Trading Under International Law: An Overview*

In the wake of frustrations over climate change and the slow pace of implementation of the UNFCCC and other agreements on climate change, several bilateral and plurilateral technological initiatives have been launched to deal with climate change.

After adopting the Paris Agreement on Climate Change, emissions trading systems became increasingly embraced as a cost-effective policy to reduce emissions through national and regional agreements.<sup>129</sup> Emissions trading among parties was firmly established by Article 17 of the Kyoto Protocol as a policy tool to reduce emissions of GHGs cost-effectively.<sup>130</sup> The Protocol introduced international emissions trading as a way for countries to meet GHG reduction commitments. Based on the Kyoto protocol, there are a limited number of carbon units that can be traded under the protocol, including assigned amounts of units

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129. There are two types of emissions trading. The first type is regulated markets, which trade carbon credits issued under projects under the Kyoto Protocol. These credits can be used for compliance purposes. In some cases, subject to rules about fungibility, credits from one scheme can be used for compliance in another. The other type of emissions trading is voluntary markets, which trade credits that are generated by activities and projects that are not approved or regulated under legal mechanisms. Carbon credits in this market are called voluntary emission reductions or verified emission reductions (VERs). Usually, VERs cannot be submitted to comply with the surrender obligation of a state or region's emissions trading scheme.

130. Article 17 of the Kyoto Protocol provides that countries with commitments under the Kyoto Protocol can acquire emission units from other countries with commitments under the Protocol and use them towards meeting a part of their targets.

Article 17 of the Kyoto Protocol reads: "The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading. The Parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article." See Kyoto Protocol to the United Nations Framework Convention on Climate Change art. 17, Dec. 11, 1997, 2303 UNTS 162 [hereinafter Kyoto Protocol].

(AAUs), removal units (RMUs),<sup>131</sup> certified emission reductions (CER),<sup>132</sup> and emission reduction units (ERUs).<sup>133</sup> After the Kyoto protocol ratification, the EU set up a climate change policy, a complex set of measures tackling all six GHGs listed under the UNFCCC.

While most emissions trading systems are national and regional in character, the system has expanded globally. To date, there are twenty-one emissions trading schemes in place, nine in active development and twenty-four under consideration.<sup>134</sup> The EU ETS system remains the world's most extensive system to combat carbon emissions. It operates in all twenty-seven EU countries "plus Iceland, Liechtenstein and Norway, limiting emissions from more than 11,000 heavy users of energy, including power stations, industrial plants, and airlines operating between ETS member countries."<sup>135</sup> Research has also shown that "the EU emissions trading system has helped to drive innovation in low-carbon technologies such as renewable power sources and energy efficiency, one of the original objectives of the system. Increased use of these technologies also helps to reduce greenhouse gas emissions."<sup>136</sup>

Furthermore, between 2008 and 2012, the EU ETS was responsible for ensuring industrial and power sites, with the largest emissions contributing to the EU achieving its commitments under the Kyoto Protocol.<sup>137</sup> Between 2012 to 2020, a single centralized cap covering the whole EU was set. The cap expected emission reduction by at least 1.74% each year up to 2020, and by 2.2% a year from 2021 onwards.<sup>138</sup> In December 2020, the European Council transmitted NDC submission on behalf of EU and its member states.<sup>139</sup> The submission contains an updated and enhanced target of at least 55% reduction in greenhouse

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131. These are carbon credits issued in respect of certain land use, land-use change and forestry (LULUCF) activities, such as reforestation.

132. These are emissions generated under Clean Development Mechanism (CDM) projects.

133. These are emissions generated under joint implementation (JI) projects.

134. See WILLIAM ACWORTH & CHRISTOPHER KARDISH, CARBON LEAKAGE AND DEEP DECARBONISATION REPORT: FUTURE PROOFING CARBON LEAKAGE PROTECTION, INT'L CARBON ACTION P'SHIP 9, (June 2020), [https://icapcarbonaction.com/system/files/document/icap\\_carbonleakagedeepdecarbonization\\_fullreport.pdf](https://icapcarbonaction.com/system/files/document/icap_carbonleakagedeepdecarbonization_fullreport.pdf).

135. See *How Do Emissions Trading Systems Work?*, GRAHAM RSCH, INST. ON CLIMATE CHANGE AND THE ENV'T (2018), <https://www.lse.ac.uk/granthaminstitute/explainers/how-do-emissions-trading-systems-work/>.

136. *Id.*

137. The EU ETS covers more than 40% of carbon dioxide emitted in Europe. The region's ETS covers industry sectors that consume large quantities of energy, such as power stations, refineries, iron and steel, cement and lime paper, aviation, ceramics just to name a few.

138. See *Climate Action Progress Report*, at 11, COM (2015) 576 final (Nov. 18, 2015).

gas by 2030.<sup>140</sup> The NDC submission shows that the EU is strongly committed to the Paris Agreement and its objectives, as the goal of the bloc is to become climate neutral by 2050.<sup>141</sup>

On the other hand, the World Bank's state and trends of carbon market reports that there are more than fifty implemented or scheduled carbon-pricing initiatives worldwide, which includes ETs in Switzerland, South Korea, New Zealand and some of the United States and Canadian provinces and other national-level emission allowances.<sup>142</sup> In November 2020, the International Carbon Action Partnership (ICAP) and Carbon Market Watch have advocated for increased linking of domestic emissions trading schemes.<sup>143</sup>

Following the United Kingdom's (the U.K.) decision to leave the EU in 2016, the country maintained the same stance on its role with the EU ETS. The U.K. set out the design of the new U.K. ETS, the first phase of which will run from 2021-2030 and is set to replace the EU ETS.<sup>144</sup> This could operate as either a linked or standalone ETS, as the U.K. remains flexible in considering a link with the EU ETS. Other jurisdictions that have established or are developing ETs including the U.S. under the Acidic rain program (ARP),<sup>145</sup> Tokyo Metropolitan Government Bureau of Environment: Tokyo Cap and Trade, China's emissions trading scheme,<sup>146</sup> New Zealand Emissions Trading Scheme, Chicago Climate Exchange, and a Federal Canadian Scheme, to name a few.

139. See *Submission to the UNFCCC on Behalf of the European Union and its Member States on the update of the nationally determined contribution of the European Union and its Member States*, at 9, 14222/1/20 (2020), <https://www.consilium.europa.eu/media/47652/st14222-re01-en20.pdf>.

140. *Id.* at 9.

141. *Id.* at 2.

142. See *State and Trends of Carbon Pricing*, WORLD BANK GROUP 9 (May 2018), <https://openknowledge.worldbank.org/bitstream/handle/10986/29687/9781464812927.pdf?sequence=5&isAllowed=y>.

143. See *Emissions Trading: International Law and Dispute Resolution*, BRIT. INST. INT'L & COMPAR. L. (Nov. 18, 2020), <https://www.biicl.org/events/11440/emissions-trading-international-law-and-dispute-resolution>.

144. *UK Emissions Trading Scheme*, SCOTTISH GOVERNMENT, available at <https://www.gov.scot/policies/climate-change/emissions-trading-scheme/>.

145. Established under Title IV of the 1990 Clean Air Act, the program sets a permanent cap on the total amount of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) emissions in the United States of America. See Ger Klaassen & Andries Nentjes, *Emission Trading for Air Pollution Control in Practice* 11-19, (Int'l Inst. for Applied Sys. Analysis Working Paper 95-21, 1995).

146. China launched its national ETS politically in 2017 and was set to start by 2020 but was still under development as of December 2020.

B. *The Relationship Between Emissions Trading Schemes and International Emissions*

1. Background

The Kyoto Protocol established mechanisms that help industrialized countries lower the costs of achieving their commitments to limit or reduce GHGs.<sup>147</sup> These mechanisms include the Joint Implementation, the clean development mechanism (CDM), and the International Emissions Trading. (IET).<sup>148</sup>

As it stands, emissions trading is a market-based system to reduce emissions of climate-damaging greenhouse gases. The market is based on the principle of ‘Cap-and-Trade’ and Baseline-and-Credit systems. According to the OECD, in a cap-and-trade system, an upper limit on emission is fixed, and emission permits are either auctioned off or distributed for free according to a specific criterion.<sup>149</sup> However, in most cases, most emission-allowance permits have not been distributed for free; in circumstances where the emission allowances are being allocated, they often include different allowances brackets.<sup>150</sup>

Nevertheless, emitters with high reduction costs can buy emission allowances and postpone their action, thereby complying with the GHG policy more cheaply than they otherwise would have been able to. One way to equalize emissions costs between domestic and foreign producers competing on the market of a country putting an ETS in place is to include imports in the ETS.<sup>151</sup> That means that importers will be obliged to surrender emissions allowances if they want to sell products from a sector covered by the ETS. Accordingly, governments can allocate or auction permits to companies. An emission permit allows flexibility, and regulated companies can trade permits with one another.

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147. See Kyoto Protocol, *supra* note 130, art. 6.

148. *Id.* art. 7.

149. OECD “*Interactions Between Emission Trading System and Other Overlapping Policy Instruments*” 2011, General Distribution Document, Environment Directorate, available at <https://www.oecd.org/env/tools-evaluation/Interactions%20between%20Emission%20Trading%20Systems%20and%20Other%20Overlapping%20Policy%20Instruments.pdf>.

150. This clearly violates the requirement in Article I:1 of GATT 1994.

151. There is, of course, a difference between ETS and International Emissions Trading (IET). Under IET, Annex I, countries under the Kyoto Protocol have the opportunity to purchase emission units from another country when they risk exceeding their reduction target. Whilst the ETS is not a Kyoto flexible mechanism in itself, it is an independent EU policy to reduce GHG emissions. The main difference between the two is the nature of the participating entities. In the IET, emissions trading occurs between countries, while under the ETS, trading occurs between private companies within the EU.

On the other hand, international cooperation on climate change has seen various efforts to facilitate emissions trading and linkages between carbon markets. The Kyoto Protocol and the subsequent Marrakech Accords have all played an essential role in linking the emission markets. Articles 3, 10 and 17 of the Kyoto Protocol established a foundation for international emissions trading and transfer of tradable permits between countries. Similarly, the Marrakech Accords have played a vital role in facilitating IET by providing a set of rules and procedures aiming to improve the process of trading emission permits across different jurisdictions.<sup>152</sup>

The development of ETS as an instrument to control GHG emissions has proven to be quite dynamic. Several linking proposals are currently on the table.<sup>153</sup> Several jurisdictions are also considering, or have already established, links between their systems. Linking enlarges the permit markets by connecting isolated regional emissions trading schemes.<sup>154</sup> In this context, it is argued that linkage between schemes may be unilateral where permits can only be transferred in one direction or bilateral where permits may flow in either direction. The primary goal of linking is to ensure full cost-efficiency, as linking schemes tend to favor low-cost abatement opportunities. In this respect, deployment of such schemes may be limited by the presence of discretionary quantity control systems such as WTO law.

Nevertheless, under the Paris Agreement, countries can pursue different options to ensure that international linking of ETSs is appropriately reflected in formulating and accounting for NDCs. The Agreement creates a framework for mechanisms that allows nations and sub-national actors to trade emissions. In October 2003, the Directive establishing the emissions trading schemes was adopted.<sup>155</sup> The Directive paves the way for linking the EU ETS with other countries' ETSs through mutual recognition agreements in order to increase the diversity of low-cost compliance options within community schemes leading to a reduction of the overall costs of compliance within the Kyoto Protocol, while improving the liquidity of the community market in the greenhouse gas emission allowances.<sup>156</sup>

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152. Dmitry Fedosov, *Linking Carbon Markets: Development and Implications*, 4 CARBON & CLIMATE L. REV. 202, 202-16 (2016).

153. Linking means one system's permit or other offset unit can be used, directly or indirectly, by a participant in another system for compliance. See Georg Grull & Luca Taschini, *Linking Emission Trading Schemes: A Short Note*, 1 ECONS. ENERGY & ENV'T POL'Y 115, 115-22 (2012).

154. *Id.* at 115-18.

155. Council Directive 2003/87 (EC).

156. Proposal for Council Directive of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within community and

For instance, in 2017, an agreement was signed between the EU and the Swiss Confederation on the linking of their greenhouse gas emissions trading systems.<sup>157</sup> In 2019, the Joint Committee established by the Agreement between the European Union and the Swiss Confederation on the Linking of their Greenhouse Gas Emissions Trading Systems adopted a Decision (Decision 2/2019) that amends Annexes I and II to the Linking Agreement.<sup>158</sup> Decision 2/2019 of the Joint Committee updates the Annexes that contain the various elements that ensure that the EU ETS and the Swiss ETS are compatible in accordance with Article 25 of the EU ETS Directive (Directive 2003/87/EC).<sup>159</sup> Pursuant to Article 25(1a) of Directive 2003/87/EC,<sup>160</sup> agreements should be concluded with third countries provided that the system in the other country is compatible, mandatory, and has an absolute emissions cap. The rule of thumb of this agreement is to ensure that the emissions caps are met, free allocation and methodologies are applied, as well as the use of international credits.

Concerning the free allocation of emissions allowances, the initial stage of emissions trading is free allocation of allowances, whereby the government distributes emission allowances to firms participating in an ETS.<sup>161</sup> The free allocation has been used to reduce the financial burden of an ETS, mainly for domestic firms. It is also used as a way of addressing competitiveness and carbon leakage concerns under existing national cap-and-trade-systems.<sup>162</sup> For instance, under the EU ETS

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amending Council Directive 96/61 of Oct 2003, 2005 OJ (L 275) 32 (EC), available at European Commission, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52001PC0581&from=EN>.

157. "The Agreement was signed in Bern on 23 November 2017. Following its approval by the EU and by the Swiss Parliament, it was ratified by Switzerland and the EU in December 2019 and entered into force on 1 January 2020. It is the first international treaty linking emissions trading systems anywhere in the world." See *Linking the Swiss and EU emissions trading systems*, FEDERAL OFFICE FOR THE ENVIRONMENT FOEN (Dec. 30, 2020), <https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/reduction-measures/ets/linking-swiss-eu.html#:~:text=The%20Agreement%20was%20signed%20in,systems%20anywhere%20in%20the%20world>.

158. Directorate-General for Climate Action, *Agreement on linking the emissions trading systems of the EU and Switzerland*, EUR. COMM'N (Dec. 9, 2019), [https://ec.europa.eu/clima/news-your-voice/news/agreement-linking-emissions-trading-systems-eu-and-switzerland-2019-12-09\\_en](https://ec.europa.eu/clima/news-your-voice/news/agreement-linking-emissions-trading-systems-eu-and-switzerland-2019-12-09_en).

159. *Id.*

160. Council Directive 2003/87 (EC) (establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61 (EC)). Available at L 275/32 Official Journal of the European Union, 25.10.2003, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003L0087>.

161. Ways of distributing emission allowances include free allocation or auctioning.

162. INGRID JEGOU & LUCA RUBINI, *THE ALLOCATION OF EMISSION ALLOWANCES FREE OF CHARGE: LEGAL AND ECONOMIC CONSIDERATIONS* 3, 6 (2011).

phase 3 (2013-2020), free allocation took account of product benchmarks, basing allocation on the most efficient operators' performance. This aimed to provide an incentive for efficiency gains (i.e., lower emissions per unit produced) at the operator level but may still allow an increase in emissions in the industrial sector if production levels increase.<sup>163</sup> The incentive negatively affected the state budget and creates the risks of windfall profits. In turn, the consistency of free allocation of allowances raised concerns with respect to the WTO subsidy and anti-dumping rules. However, only free allowances accessible to carbon leakage are subsidies; otherwise, free allowances accessible to all facilities subject to ETS are not subsidies.<sup>164</sup>

In relation to WTO rules provided under the Agreement on Subsidies and Countervailing Measures (SCM Agreement, ASCM), subsidies are defined as a financial contribution by a government or public body to an individual or business. This financial contribution can be in many forms, such as grants, loans, loan guarantees or tax breaks.

In the energy context, subsidies are classified into two categories: subsidies granted to energy producers and downstream industries, and investment subsidies.<sup>165</sup> Nonetheless, this section focuses only on subsidies granted to energy producers and downstream industries. In respect to the SCM Agreement,<sup>166</sup> there should be two conditions cumulatively applying to a situation in order for a subsidy to exist: (1) a financial contribution by a government or any public body within the territory of a member, *or* (2) any form of income or price support in the sense of Article XVI<sup>167</sup> where: a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees); (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits); (iii) a government provides goods or services other than general infrastructure, or purchases goods; (iv) a

163. See generally EUROPEAN COURT OF AUDITORS, THE EU'S EMISSION TRADING SYSTEM: FREE ALLOCATION OF ALLOWANCES NEED BETTER TARGETING (2020).

164. Dep't of Com. Notice A-428-847 (Dec. 11, 2020); Dep't of Com. Notice C-475-841 (Dec. 11, 2020).

165. This category includes direct payments that support production for instance deficiency payments and operating subsidies to producers as well as consumer subsidies); tax-related subsidies (exemptions from taxation, tax credits, etc.); policies that reduce costs of inputs (budgetary subsidies to energy inputs, price controls for inputs).

166. *Agreement on Subsidies and Countervailing Measures*, art. 1.1, January 1, 1995, GATT B.I.S.D., at 229 (1996) [hereinafter the SCM Agreement].

167. Discussion on what constitutes income price support in the sense of GATT 1994 Article XVI.



government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of functions illustrated in (i) to (iii) above which would normally be vested in the government.<sup>168</sup>

It appears from this definition that for a financial contribution to qualify as a “subsidy” for the purpose of the SCM Agreement, it must be provided by the government or public body.<sup>169</sup> Whether there has been a cost to the government is irrelevant in this context. Instead, to qualify as a subsidy, a financial contribution or income or price support must confer a benefit.<sup>170</sup> For instance, it has been found that the ETS program that the EU characterizes as an environmental program provides an additional free allowance to companies that are on a leakage list. Thus, these additional allowances provided to companies on the carbon leakage list constitute financial contributions, as the installation companies were not subject to tax.<sup>171</sup>

In *Canada–Aircraft*, the WTO’s Appellate Body confirmed the Panel’s finding that a financial contribution had to make the recipient “better off” than it would have been before.<sup>172</sup> Based on that, under the free allocation, when allowances are distributed for free,<sup>173</sup> instead of exchanged for money, the allowances confer benefit to firms.<sup>174</sup> That alone meets Article 1.1(a) of the SCM Agreement. Nevertheless, these practices, in most cases, have not been found inconsistent with WTO law, except for when the preferential allocation of allowances is linked to export performance.

Moreover, under WTO law, subsidies are either prohibited or actionable.<sup>175</sup> Article 3 of the SCM Agreement explicitly prohibits the export of subsidies meaning subsidies that are contingent upon export performance or that are contingent upon the use of domestic over imported

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168. The SCM Agreement, *supra* note 166, at 229.

169. The term government includes the local and regional governments while the term public body does not cover all entities owned and/or controlled by the government by only those who possess, exercise, or are vested with governmental authority. *See* General Agreement on Tariffs and Trade art. 1.1, April 15, 1994, GATT B.I.S.D.

170. The SCM Agreement, *supra* note 166, art. 1.B.

171. Jesse Kreier, *Countervailing the EU’s Trading Scheme, Part 2*, INT’L ECON. L. & POL’Y BLOG (Dec. 17, 2020), <https://bit.ly/3h0WGBL>.

172. Appellate Body Report, *Canada – Measures Affecting The Export of Civilian Aircraft*, ¶ 1377 – 1439, WTO Doc. WT/DS70 (1999).

173. *See* Kateryna Holzer, *WTO law issues of emissions trading*, WORLD TRADE INSTITUTE (Apr. 2016), <https://boris.unibe.ch/84032/1/WTO%20law%20issues%20of%20emissions%20trading.pdf>.

174. LUCA RUBINI, SUBSIDIES FOR EMISSIONS MITIGATION UNDER WTO LAW, RESEARCH HANDBOOK ON ENVIRONMENT, HEALTH AND THE WTO 575-76, (Geert van Calster & Marie Denise Prevost eds., 2013).

175. *See* the SCM Agreement, *supra* note 166, art 2.

products. A prohibited subsidy does not have to be targeted to a specific industry. In relation to free allocation of emission allowances, the fundamental issue is that free allowances are usually available only to certain firms or industries, namely to those under significant risk of carbon leakage. Thus, the free allocation is likely to be viewed as a specific subsidy, and as such, could potentially be actionable.<sup>176</sup>

For instance, it has been found that the ETS program also provides for additional emissions allowances to specific company installations because of those installations being placed on the carbon leakage list.<sup>177</sup> These additional allowances are countervailable.<sup>178</sup> In addition, it has also been discovered that some ETS regulatory systems have established distinct rules for companies on carbon linkage lists and that these rules are designed for the companies on linkage lists not to incur full costs like other companies during the allocation of emissions allowances.

Such privilege includes the ability of the carbon linkage companies to claim a higher percentage of rebates compared to other companies. It is, however, very difficult for a country to bring a claim of subsidy if a complaining country itself does not have an ETS in place, as it would be difficult to claim that the free allocation of emissions allowances causes adverse effects to its domestic industries, which bear no emissions costs at all. Only countries with ETS stand a chance of bringing complaints claiming that their domestic industries are adversely impacted by imports from countries where emissions allowances are distributed for free.<sup>179</sup>

## 2. Linking Emissions Trading Schemes

Under present circumstances, linking of ETSs can be affected where and when emissions are reduced. Allowing allowances from one jurisdiction to be used for compliance in another jurisdiction enables GHG abatement to take place wherever it is cheapest.<sup>180</sup> Although allowances may be transferred in both directions, a difference in abatement

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176. Holzer, *supra* note 173.

177. Kreier, *supra* note 171.

178. However, the respondent parties state that the operator only receives the order to comply with the rules and obligations set by the system and thus such allowances are not accountable.

179. Currently there are very few countries, in which domestic producers bear emissions costs.

180. Lambert Schneider, Johanna Cludius & Stephanie La Hoz Theuer, *Accounting for the linking of emissions trading systems under Article 6.2 of the Paris Agreement*, INT'L CARBON ACTION P'SHIP (2018), <https://www.adelphi.de/en/system/files/mediathek/bilder/Accounting%20for%20the%20linking%20of%20ETSs%20under%20Art%206.2%20of%20the%20Paris%20Agreement%20-International%20Carbon%20Action%20Partnership%20ICAP.pdf>.

opportunities and costs across jurisdictions implies that there is a net flow of allowances from the jurisdiction with lower abatement costs to the jurisdiction with higher abatement costs.<sup>181</sup> Such differences in abatement options will inevitably affect the price of allowances within these systems, which might negatively affect the economy or likely create a challenge for one of the systems to be linked, essentially for countries with stringent price control measures. Similarly, when there is a change in any of the jurisdictions between any linking parties, the net flow allowance may also change.

When linking ETSs internationally, allowances can flow across international borders.<sup>182</sup> Consequently, this can change the level of emissions in the participating countries. The question is whether and how countries should account for such links. Countries could pursue different options to ensure that international linking of ETS appropriately reflects and observes the Paris Agreement rules. First, they could account for the linking of ETS as provided under Article 6.2 of the Paris Agreement. Second, countries with a linking agreement or a joint ETS could communicate a single NDC or communicate two targets in their NDCs (a common ETS target and separate targets for their non-ETS sectors). Third, countries could also decide not to account for the link where the shift in emissions from linking is very small in relation to the country's total emissions.<sup>183</sup>

Further, if a country has decided to link its allowances across international borders, allowances could either flow through two separate ETSs,<sup>184</sup> or allowances could flow through a joint ETS.<sup>185</sup> Article 6 of the Paris Agreement offers a voluntary cooperation framework for a mechanism that allows nations and sub-nation actors to trade emissions.

As long as countries can pursue different options to ensure international linking of ETSs, it is appropriate for those countries to observe the Paris Agreement. Article 6.2 of the Agreement establishes a framework for using "internationally transferred mitigation outcomes"

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181. *Id.*

182. *Id.*

183. *Id.*

184. *Id.* Two countries, or sub-national jurisdictions located in different countries, could establish separate ETSs and link their systems by mutually recognizing allowances from the other jurisdiction. Allowances can flow between accounts of the participating systems and thus across international borders. *See id.*

185. A group of countries, or sub-national jurisdictions, could participate in a joint ETS. In this case, allowances flow only between registry accounts within the joint ETS. If the ETS covers more than one country, these allowances can flow across international borders. *See id.*

(ITMOs) to achieve NDCs.<sup>186</sup> Linking ETSs is a crucial application of this framework. According to Article 6.2, a state can import mitigation outcomes (MOs) generated in the territory of another state (through its domestic policies or a bilateral agreement) and use these “foreign” MOs to meet its mitigation pledge under the Paris Agreement. The rationale for allowing such international transfers is to help parties meet their NDCs in a cost-effective way.<sup>187</sup> In other words, the Paris Agreement’s article forms a legal framework to allow the use of market-based climate change mitigation mechanisms and offers parties the opportunity to cooperate with one another when implementing their NDCs. Besides that, many emerging or planned systems (e.g., in the Republic of Korea, China, or Taiwan, to mention a few), meanwhile, are somewhat hesitant to engage in cross-jurisdictional linking, with some waiting for their respective systems to sufficiently mature before any linking, while considering or already having considered intra-national linkages of subnational markets.

### 3. Purpose of Linking Emissions Trading Schemes

The methods applied for linking emissions have already demonstrated positive changes in a few regions, such as the EU.<sup>188</sup> The EU ETS illustrates a unilateral approach under which other carbon markets must adapt to it. The scheme has created a general model for establishing carbon markets, allowing future linking and, at the same time, offering flexibility to consider the economic circumstances and priorities of other jurisdictions.

Most notably, the EU ETS is committed to achieving net-zero emissions at net-zero costs.<sup>189</sup> A cap-and-trade system, i.e., an ETS with a fixed cap, is progressively leveraged to support this type of goal by achieving an emissions reduction target by a specific time at minimum

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186. According to article 6.2 of the Paris Agreement, countries can also engage in “cooperative approaches” to transfer “mitigation outcomes” and use these internally transferred mitigation outcomes towards their NDCs. Nevertheless, the agreement does not define what “cooperative approach” is.

187. Isabella Alloisio, *Can emissions trading work without Article 6 of Paris Agreement?*, Jan 2020, <https://energypost.eu/can-emissions-trading-work-without-article-6-of-the-paris-agreement/>; Geraud de Lassus Saint-Genies, *Article 6.2 of the Paris Agreement*, page 1, CIGI Papers No. 200 November 2018, <https://www.cigionline.org/static/documents/documents/Paper%20No.200.pdf>.

188. *EU Emissions Trading System*, EUROPEAN COMM’N (Dec. 29, 2021), [https://ec.europa.eu/clima/policies/ets\\_en](https://ec.europa.eu/clima/policies/ets_en).

189. See generally PAOLO D’APRILE, HAUKE ENGEL, GODART VAN GENDT, STEFAN HELMCKE, SOLVEIGH HIERONIMUS, TOMAS NAUCLÉR, DICKON PINNER, DAAN WALTER & MAAIKE WITTEVEEN, NET ZERO-EUROPE; DECARBONIZATION PATHWAYS & SOCIO-ECONOMIC IMPLICATIONS (2020).

or zero cost. In December 2019, the European Commission announced the EU Green Deal: a new policy intended to accelerate GHG emissions reduction across the EU.<sup>190</sup> In achieving the European Green Deal, the Commission endorsed the intentions of reaching net-zero emissions by 2050 in line with the objectives of the Paris Agreement.

The interim target is to reduce at least 55% of emissions by 2030.<sup>191</sup> According to the European Environment Agency (EEA), the EU is on track to meet GHG-set targets as projected. The EEA report confirmed that the EU has a good tracking record of meeting its decarbonization targets.<sup>192</sup> For instance, when the EU signed the Kyoto Protocol in 1997, it committed to reducing its GHG emissions by 8% by 2012 during the first commitment period from 2008-2012.<sup>193</sup> In turn, it reduced emissions by 18%.

Further, the preliminary national estimates indicate that the EU-28 (including the U.K.) emissions fell by 3.6% (?) from 2018–2019. Accordingly, the latest EU statistics show that the region's emissions have fallen by 26% below 1990 levels and therefore on track to meet its 20% reductions of GHGs by 2020.<sup>194</sup> This highlights the results of effective climate policies implemented across the EU and the commitments set by the European Council in 2007 for the EU to become a highly energy efficient and low carbon economy by 2020.<sup>195</sup>

Furthermore, decarbonization requires additional complementary policies beyond carbon pricing. Funding to support the deployment and development of low-carbon technologies for industries is an example of a policy that targets both upstream and downstream. Upstream support focuses on research and development and other inputs to stimulate the supply of new technologies, while downstream support focuses on the diffusion of promising technologies. The market for low-carbon technologies in transport, buildings, and energy is far more advanced than in the emissions-intensive industry, owing to more concerted government

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190. European Commission, *Communication from the Commission the European Green Deal*, COM (2019) 640 final (Nov. 12, 2019).

191. Climate Action, *Paris Agreement*, EUROPEAN COMM'N, [https://ec.europa.eu/clima/eu-action/international-action-climate-change/climate-negotiations/paris-agreement\\_en](https://ec.europa.eu/clima/eu-action/international-action-climate-change/climate-negotiations/paris-agreement_en).

192. European Environment Agency, *Trends and Projections in Europe 2020 Tracking progress towards Europe's climate and energy targets*, ISSN 1977-8449 (2020).

193. See European Commission, *Kyoto Protocol*, MEMO 04/43 (Mar. 4, 2004).

194. The Paris Agreement to the United Nations Framework Convention on Climate Change art. 6.2, Dec. 12, 2015, T.I.A.S. 16-1104, [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf) [hereinafter *The Paris Agreement*].

195. Council of the European Union, *Presidency Conclusions*, 8/9 7224/1/07, 2007.

policies spanning decades.<sup>196</sup> With all these effective plans and efforts, already the social implications of emissions trading allowances have shown remarkable positive economic results, from capital re-allocation, employment to trade and productions and more positive results are projected.

Under present circumstances, linking emissions trading is the only serious candidate for introducing enforcement mechanisms to climate-change agreements, particularly decarbonization. One way of addressing this could be through climate clubs,<sup>197</sup> a proposal that has attracted many policymakers.<sup>198</sup> In achieving a sound working system, the clubs should contain attractive incentives such as minimum carbon tariffs for members and punitive measures to countries that would not obey the rules.<sup>199</sup> However, this would breach WTO rules against trade discrimination, unless it can be justified under the WTO's exception rules. Alternatively, another way of forming climate clubs without breaching WTO law is for the climate clubs to be regulated by regional trade agreements, which are permissible under the WTO law.

Based on the above, most modern RTAs contain provisions that echo the GATT's general exceptions on environment and conservation of exhaustible natural resources.<sup>200</sup> Whether RTAs can regulate emissions trading without discrimination or failure to with other WTO rules is an open question that we intend to address.

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196. Oliver Sartor & Chris Bataille, *Decarbonising basic materials in Europe: How Carbon Contracts for Difference could help bring breakthrough technologies to market*, IDDRI Study No. 06/19 (2019).

197. A club is a voluntary group deriving mutual benefits from sharing the costs of producing an activity that has public-good characteristics. See generally William Nordhaus, *Climate Clubs: Overcoming Free riding in International Climate Policy*, 105 AM. ECON. REV. 1339, (2015). The notion of a climate clubs refers to small groups of countries that share a strong commitment to climate change action and want to work together to achieve a transition to a decarbonized future. The agreement envisioned here centers on an "international target carbon price". The climate club concept was introduced by Professor William Nordhaus, who was awarded the Nobel Prize in Economics in 2018 for his pioneering work on integrating climate change into economics. He put an added spotlight on the idea that carbon clubs might be a policy path worth considering.

198. See Jon Hovi, Detlef F. Sprinz, Håkon Sælen & Arild Underdal, *Climate change mitigation: a role for climate clubs?*, PALGRAVE COMM'NS 2, 2-7 (2016); David G. Victor, *The Case for Climate Clubs*, INT'L CTR. FOR TRADE & SUSTAINABLE DEV. & WORLD ECON. FORUM (2015), [www.e15initiative.org/](http://www.e15initiative.org/).

199. See Gabriel Weil, *Incentive Compatible Climate Change Mitigation: Moving Beyond the Pledge and Review Model*, 42 WM. & MARY ENV'T. L. & POL'Y REV. 923, 939-49 (2018).

200. RTAs, which are reciprocal preferential trade agreements between two or more partners, constitute one of the exemptions and are authorized under the WTO, subject to a set of rules. See WTO, *Regional trade agreements*, [https://www.wto.org/english/tratop\\_e/region\\_e/region\\_e.htm](https://www.wto.org/english/tratop_e/region_e/region_e.htm) (last visited April 28, 2022).

C. A Club of Emissions Trading

1. The Concept

While it is easy to design potential international climate agreements, it is challenging to construct one that is effective and stable, as it is difficult to induce countries to join international agreements with significant reductions in GHG emissions. The Paris Agreement on Climate Change and the Kyoto Protocol have made significant efforts to construct international climate-change agreements that harmonize different countries' policies, thereby limiting or reducing GHG emissions. However, a country would need to use certain conditions or criteria for linking its emissions trading. Such conditions could be established unilaterally through the inclusion of the clause in the ETS legislation specifying the condition for acknowledging other countries' emissions allowances, or bilaterally/plurilaterally through the conclusion of a mutual recognition agreement (MRA) over the ETS-related issues with other countries.<sup>201</sup>

In the context of linked schemes, a balance needs to be found between leaving each government with sovereignty over its own system and providing linking partners adequate authority to influence those changes in linked systems that would materially affect their own system. Otherwise, when allowance prices are too high or too low, price uncertainty risks undermining cost-effectiveness. If allowance prices are too low, the economic incentives for emissions reduction becomes less appealing and insufficient in the long run.

While putting a price on emissions gives domestic companies an incentive to work and produce in an increasingly climate-friendly manner, harmonizing the price control mechanism from different jurisdictions is not an easy task. If one of ETS leaves some degree of discretion to the functioning of its price controlling mechanism, there is a risk of free-riding behavior.<sup>202</sup> Delegating the regulation of linked ETS to a supranational level would limit free-riding behaviors among members, and at the same time, it would reduce regulatory uncertainty.<sup>203</sup> On the other hand, the European Commission believes

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201. See generally James Chapman, *Linking a United States Greenhouse Gas Cap-and-Trade System and the European Union's Emissions Trading Scheme*, 11 VT. J. OF ENV'T. L. 45 (2009); see also Andreas Tuerk, Wolfgang Sterk, Erik Haites, Michael Mehling, Christian Flachsland, Hitomi Kimura, Regina Betz & Frank Jotzo, *Linking Emissions Trading Schemes*, CLIMATE STRATEGIES 2, 4-5, 36 (2009), <https://climatestrategies.org/wp-content/uploads/2014/11/executive-summary-linking-final-may-09.pdf>.

202. See generally Martin L. Weitzman, *For International Cap-and-Trade in Carbon Permits, Price Stabilization Introduces Secondary Free-Rider-Type Problems*, 74 ENV'T. & RES. ECON. 939 (2019).

203. See generally Tuerk, Mehling, Flachsland & Sterk, *supra* note 95.

that different price-control mechanisms for emissions allowances prices would lead to a competitive disadvantage and “carbon leakage”<sup>204</sup> if the EU’s trading partners do not price carbon in a similar way.<sup>205</sup>

In the meantime, the Paris Agreement and the Kyoto Protocol have established features designed to cut GHG emissions such as the international cap-and-trade system for emissions.<sup>206</sup> However, the Protocol is projected to accomplish little due to its designed incentive structure.<sup>207</sup> For instance, the Paris Agreement tries to limit free riding by having all countries as parties, while leaving actual policy design to countries operating under a “pledge and review” arrangement. To get the desired global result, one still has to act through one’s national government. Thus, “what is needed is a policy that can be adopted by individual nations without plunging them into unproductive economic pain and which can then evolve into a collective global policy that provides a consistent worldwide incentive to cut back carbon emissions.”<sup>208</sup> All that is required is that a global price floor be agreed and enforced by some coalition or “club” of nations (i.e., a climate club).

Prominent economists have supported this concept.<sup>209</sup> Arguably, all countries that sign up (thereby forming a coalition or “climate club”) agree on a price that is to be applied to the carbon emitted within their borders. Ideally, the club would be the entire global community, but smaller coalitions can implement the scheme, and there can even be several different coalitions, each with its own price. Secondly, each government within the club adopts policy measures to bring their internal carbon price up to that international price. They may employ a domestic carbon tax, or a tradable emissions permits scheme with a floor price

204. The term “carbon leakage” describes emissions occurring when European companies transfer their production sites to countries with less stringent emission reduction rules or when formerly domestically produced goods are replaced by more carbon-intensive imports. See ANDREI MARCU, CHRISTIAN EGENHOFER & SUSSAN ROTH, CARBON LEAKAGE: AN OVERVIEW, CEPS SPECIAL REPORT NO. 79 (2013); see also Kerstine Appunn, *Emission reduction panacea or recipe for trade war? The EU’s carbon border tax debate*, CLEAN ENERGY WIRE (Nov. 2020), <https://www.cleanenergywire.org/factsheets/emission-reduction-panacea-or-recipe-trade-war-eus-carbon-border-tax-debate>.

205. See Appunn, *supra* note 204.

206. *What is the Kyoto Protocol?*, UNFCCC, [https://unfccc.int/kyoto\\_protocol](https://unfccc.int/kyoto_protocol) (last visited April 28, 2022).

207. See Warwick J. McKibbin & Peter J. Wilcoxon, *The Economic and Environmental Effects of Border Tax Adjustments for Climate Policy*, in BROOKINGS TRADE FORUM 2008/2009 1, at 1-34 (2009).

208. Geoff Bertram, *William Nordhaus’s Climate Club Proposal: thinking globally about climate change economics*, 12 POL’Y Q. 23, 27 (2016).

209. See generally Peter Cramton, Axel Ockenfels & Steven Soft, *An International Carbon-Price Commitment Promotes Cooperation*, 4 ENERGY J. 69 (2015), <http://www.iaee.org/en/publications/eeeparticle.aspx?id=92>.



set at the agreed international price. Lastly, all countries within the club may impose a uniform tariff at their borders on imports from the rest of the world, both to incentivize others to join the club and as a means of restricting carbon leakage.

Out of the three components, the only thing that must be negotiated and agreed upon is the carbon price. It is easier to negotiate one price than in quantities – especially when the one price can be interpreted as “fair” in terms of equality of marginal effort, rather than negotiating a set of country-by-country quantitative emission targets.<sup>210</sup> This can be done through the form of each potential club member’s upfront price commitment, translating the agreed-upon price into domestic terms as well as imposing a meaningful cost or penalty on those who do not join the club, which provides the incentives for them to join. A key part of the club mechanism (and the major difference from all current proposals) is that non-participants are penalized. The penalty referred to here is uniform *ad valorem* tariffs on the imports of non-participants into the club region.<sup>211</sup>

Central to the climate-club proposal is border tax adjustments. Members of the club would impose a harmonized tariff to apply to all goods imported from non-participating countries. Non-membership would then encounter the carbon tariff whenever trading with countries in the club. The tariff would both restrict carbon leakage and provide the incentive for new members to join.<sup>212</sup>

Border tax adjustments are very important, as they reduce the increase in foreign GHG emissions from unilateral emission policies and the scheme is most likely to pass muster under current WTO law than other alternative forms of emissions trading linkage. However, it is essential to acknowledge that a border tax adjustment partially shifts emissions regulation from domestic production to domestic consumption. If all imports are charged a border fee that matches the taxes or allowance fees that would have been paid if produced domestically, then all domestic consumption is on equal footing.<sup>213</sup>

Moreover, a carbon-pricing club should have an inclusionary, rather than an exclusionary, aim and should pursue the global good, rather

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210. Martin L. Weitzman, *Internalizing the Climate Change Externality: Can a Uniform Price Commitment Help?*, 4 *ECON. ENERGY & ENV'T POL'Y* 37, 42 (2015).

211. See generally Howard J. Wall, *The Non-Equivalence of Specific and “Ad Valorem” Tariffs with Quality-Differentiated Goods*, 9 *J. ECON. INTEGRATION* 80 (1994).

212. William Nordhaus, *Climate clubs: Overcoming Free-riding in International Climate Policy*, 105 *AM. ECON. REV.* 1339, 1349 (2015).

213. Paul-Erik Veel, *Carbon Tariffs and the WTO: An Evaluation of Feasible Policies*, 12 *J. INT'L ECON. L.* 749, 752-53 (2009).

than just the self-interest of members. Nevertheless, it should use the same essential defensive tool of a common external tariff or other barriers against non-members to ensure there is a benefit to membership and a cost of defection from the club.<sup>214</sup> For instance, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPPA), a group of countries, formed an exclusive club with various market barriers to be overcome by non-members wishing to trade with the club. This emphasizes the role of club benefits as incentives for participation and compliance. For the benefits to be effective between members, they must be shareable among complying participants and excludable to non-participants and non-complying participants. Climate clubs' key issue is mutual agreements between smaller groups with more interests and common objectives achieving reductions in GHGs.

## 2. Are Emission Units Services or Goods?

Whether emission allowances can be defined as goods or services under WTO rules, the *US-Softwood timber Lumber* case casts light on this question.<sup>215</sup> The case was brought by Canada, which complained that the U.S. had imposed countervailing duties regarding certain softwood lumber imports from Canada. The U.S. considered that Canada's granting of tenure and licensing agreements to companies that included the right to harvest publicly owned timber was to be considered a provision of goods by the government, as per regulated by Article 1.1(a)1 of the SCM Agreement.<sup>216</sup> Canada argued that the government was not providing timber to companies but merely the right to harvest timber.

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214. Cramton, Ockenfels & Soft, *supra* note 209, at 51.

215. Report of the Panel, *United States – Measures Affecting Imports of Softwood Lumber from Canada*, SCM/162 (Oct. 27, 1993), GATT BISD (40th Supp.), 358 (1993).

216. Article 1.1(a)1 of the SCM Agreement reads:

For the purpose of this Agreement, a subsidy shall be deemed to exist if:

(a) (1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as “government”), i.e. where:

(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);

(ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)(1);

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

3. Emissions Trading Measures in Line with WTO Rules

When we consider possible mechanisms to combat carbon emissions, it is generally assumed that the most effective approach will be to impose trade sanctions on the highest polluters. However, potential obstacles with that proposal include the fact that most countries are constrained by their obligations under the GATT/WTO system, such as fair competition and predictability through binding and transparency. GATT Articles also set maximum tariff schedules (GATT Article II) and establish the principle of national treatment (GATT Article III), prohibiting discrimination between domestic and imported goods with respect to internal taxation and regulation. Any measures that violate the MFN<sup>217</sup> or national treatment<sup>218</sup> principles or that impose tariffs that exceed their GATT Article II schedules must be justified under an express exception.<sup>219</sup> Thus, the most straightforward way to trade carbon allowances that will comply with WTO law, and avoid the violation of Articles I, II, and III of the GATT, would be to design rules or to trade under a carbon or energy tax.

Depending on the issue, there are exceptions to WTO law provided under Article XX of the GATT. For instance, a general and permanent exception to the (MFN) principle under WTO law that permits trade benefits under climate clubs might be a policy option worth exploring by WTO members. This exception could constitute an incentives-based system that serves as a first step for countries to address climate change. However, it is unlikely that the initiatives proposed will be explored or negotiated at once. If the amendment related to the MFN provisions under the GATT is accepted, it would then require a unanimous decision by all members.

Regarding climate clubs, Nordhaus and Yang raised fundamental issues with the current international climate-mitigation models and identified the formation of climate clubs on the basis of introducing carbon border tax adjustments on emissions.<sup>220</sup> The proposal is ambitious and backed by detailed modelling. However, it is not without questions. The main question is whether a border tax adjustment addressing carbon emissions could satisfy requirements provided

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217. GATT, *supra* note 38, art. I.

218. GATT, *supra* note 38, art. III.

219. GATT, *supra* note 38, art. II.

220. See generally William D Nordhaus & Zili Yang, *A Regional Dynamic General Equilibrium Model of Alternative Climate Change Strategies*, 86 AM. ECON. REV. 741 (1996).

under Articles I, II, and III of the GATT 1994, and whether it would be deemed a border duty on imports or an internal tax.<sup>221</sup>

Similarly, several WTO members have questioned the legality of the carbon border adjustment tariffs/mechanism (CBAM). The members have argued that the CBAM should be designed and implemented in a manner that will recognize carbon-pricing systems that are in place in other countries (including at the sub-national level) while aligning with international obligations and standards.<sup>222</sup>

Under Article II of the GATT, each WTO Member bound itself to a certain maximum ceiling of tariffs on a product-by-product basis and in exchange for similar tariff reductions by its trading partners. According to WTO law, a carbon tax or emission allowance requirement on imports could be permitted if such a border adjustment does not discriminate imports against domestic products<sup>223</sup> and does not discriminate against imports from other countries.<sup>224</sup> This type of competitiveness provision could pass WTO scrutiny without any reference to the environmental exceptions in Article XX of the GATT 1994.

There are two trade measures that could be applicable against high-carbon imports in the fight against climate change. These include import restrictions in respect of locally emitted carbon and import restrictions regarding foreign emitted carbon.<sup>225</sup> Restrictions regarding locally emitted carbon usually bring imported products into the fold of domestic regulations on climate change, targeting the carbon they emit within the importing country. For as long as such restrictions do not discriminate imports against domestic products, nor between imports of different origins, these kinds of restrictions are accepted under WTO rules.<sup>226</sup>

On the other hand, import restrictions regarding foreign emitted carbon such as import bans, punitive tariffs, and anti-dumping duties are countervailing. These restrictions mostly violate WTO law, the prohibition in Article XI of the GATT which imposes the general elimination

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221. Joost Pauwelyn, *Carbon Leakage Measures and Border Tax Adjustments under WTO*, in RES. HANDBOOK ON ENV'T, HEALTH & THE WTO 16 (Geert Van Calster & Denise Prévost eds., 2013).

222. *Brexit, EU carbon border adjustment mechanism take centre stage at Market Access Committee*, WTO (Nov. 16, 2020), [https://www.wto.org/english/news\\_e/news20\\_e/mark\\_16nov20\\_e.htm](https://www.wto.org/english/news_e/news20_e/mark_16nov20_e.htm).

223. GATT, *supra* note 38, art. III.

224. GATT, *supra* note 38, art. I.

225. Trade restrictions such as tariffs, taxes, or emission regulations in respect of carbon emitted by imported products in their country (or countries) of production and/or during international transportation outside the importing country.

226. GATT, *supra* note 38, arts. I, III.

of all quantitative restrictions.<sup>227</sup> Once border adjustment of domestic climate legislation is permitted and it is applied on a non-discriminatory basis, there would not even be a need to go to the exceptions of GATT Article XX. As clarified by the WTO Appellate Body in *China—Auto Parts*,<sup>228</sup> border duties apply by virtue of the event of importation, whereas internal taxes are triggered by an internal factor, taking place within the customs territory. To be considered an internal tax, a carbon tax would need to be structured as an act of sale distribution or use of the imported product after clearing customs.<sup>229</sup> GATT Article III does not place any quantitative limits on “internal charges,” but contains the basic obligation that countries cannot treat imports less favorably than they treat their own domestic products.

Depending on whether a country were to impose a tariff on imports or rather frame the adjustment in the form of a tax, anti-dumping duty, technical regulation or carbon label, the WTO consistency of competitiveness provisions can vary substantially.<sup>230</sup> In *United States—Taxes on Petroleum and Certain Imported Substances*, Canada and the European Economic Community (EEC) challenged a U.S. tax on certain imported substances that were manufactured using feedstock chemicals that would have been taxed if sold in the United States.<sup>231</sup> The Panel asserted that a border tax adjustment on certain feedstock chemicals was inconsistent with the GATT because the pollution created in the production of the imported substances did not occur in the United States. The panel concluded that the tax adjustment rules of the GATT distinguish between taxes on products and taxes not directly levied on products; they do not distinguish between taxes with different policy purposes.<sup>232</sup> Whether a sales tax is levied on a product for general revenue purposes or to encourage the rational use of environmental resources is, therefore, not relevant for determining the eligibility of a tax for a border tax adjustment.

In a similar vein, alternatives, such as environmental dumping, have been suggested to frame additional custom duties on imports from countries that do not observe carbon restrictions. Arguably, an importing

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227. For more analysis on border tax adjustment on carbon markets in line with the WTO laws, see Section 4.4.

228. Appellate Body Report, *China—Measures Affecting Imports of Automobile Parts*, ¶¶ 158, 161, WTO Doc. WT/DS3/AB/R (Aug. 31, 2009).

229. Weil, *supra* note 199, at 947-48.

230. See generally Cramton, Ockenfels & Soft, *supra* note 209.

231. Report of the Panel, *United States—Taxes on Petroleum and Certain Imported Substances*, WTO Doc. L/6175 – 34S/136 (June 17, 1987), GATT BISD (34th Supp.), at 136 (1987).

232. *Id.* ¶ 5.2.4.

country that adopts binding carbon cuts should then have the right to impose anti-dumping duties, i.e., extra tariffs to offset the dumping up to the margin of dumping that would include the amount of the social cost of the carbon.<sup>233</sup> Doing so would correct the failure of governments to internalize the full cost of carbon-intensive products.<sup>234</sup> Provided the fact that dumping duties take the form of tariffs, they are, however, explicitly permitted under WTO law, regardless if the resulting tariff might exceed a country's maximum ceiling.<sup>235</sup> Usually, an import is considered to be dumped in a situation where the sale of the product's price is cheaper in the foreign market as opposed to the price in the exported country or market. Similarly, in carbon markets, for dumping purposes, export prices are not compared to carbon-restricted domestic prices or to an ideal market price that internalizes the social cost of carbon, but they are compared to normal prices in the country of export itself.

Further, countervailing duties have been assessed as an alternative form of additional tariffs on imports (border tax adjustments). With anti-dumping, the WTO explicitly permits the imposition of extra tariffs to offset a foreign subsidy, even if the resulting tariff exceeds a country's maximum ceiling.<sup>236</sup> In relation to carbon markets, this happens when a government fails to impose and collect a carbon tax or when a government forces local producers to internalize the full cost of carbon emitted. Under WTO rules, countervailing duties to offset subsidies by foreign governments can only be levied in case the subsidy is specific to an enterprise or industry or group of enterprises or industries. Not imposing a carbon tax is a country-wide policy and not likely to meet the specificity requirement. A country only has to convince the other WTO members that a competitiveness provision is only the extension of domestic climate policy applied on an equal footing to imports.<sup>237</sup>

#### 4. Border Carbon Adjustments (BCA) in Line with WTO Law

The relevant general rules of BCA can be found in Article I,<sup>238</sup> II,<sup>239</sup> III,<sup>240</sup> XI,<sup>241</sup> and XVI<sup>242</sup> of GATT. However, Article II of GATT regulates

233. Pauwelyn, *supra* note 221, at 14.

234. *Id.*

235. GATT, *supra* note 38, art. II:2(b).

236. The SCM Agreement, *supra* note 166, art. 1.1(b).

237. See generally Jeffrey A. Frankel, *Addressing the Leakage/Competitiveness Issue in Climate Change Policy Proposals*, 2008/2009 BROOKINGS TRADE F. 69.

238. GATT, *supra* note 38, art. I.

239. GATT, *supra* note 38, art. II.

240. GATT, *supra* note 38, art. III.

241. GATT, *supra* note 38, art. XI.

242. GATT, *supra* note 38, art. XVI.

tariffs applied on importations and is one of the few pathways that would allow introducing a specific WTO-compatible BCA design. The key WTO provision on border tax adjustments (BTA) is Article II: 2(a) of GATT which provides,

Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product: (a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic products or in respect of an article from which the imported product has been manufactured or produced in whole or in part.

Under this rule, members are permitted to impose an additional charge on imported products on entry into their customs territory as long as it corresponds to an internal tax or charge imposed on like domestic products.<sup>243</sup> The same applies to border carbon adjustments (BCA).

Similarly, more provisions on BTAs are covered under Article III:2 of GATT. The Article states that “imported products shall not be subject to any internal taxes or other internal charges in excess of those applied directly or indirectly, to like domestic products.” Article III:2 only applies to taxes on products. Read in combination, the GATT border tax rules create a scheme in which the WTO members are permitted to balance their internal tax burdens on imports to ensure that domestic goods remain price-competitive in international markets. Put differently, under the WTO’s border tax adjustment rules, a carbon or energy tax could be rebated on exports and imposed in an equivalent amount on like imports, ensuring a competitive advantage.<sup>244</sup>

Further, if a carbon tax applied to imports were judged to be triggered by virtue of the event of importation, GATT Article II:2(a) allows a WTO member to impose a charge equivalent to an internal tax in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced. To be border-adjustable, a tax must be applied to products, rather than producers as provided under Article XI of GATT.<sup>245</sup>

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243. GATT Article II Schedules of Concessions.

244. Warren H. Maruyama, *Climate Change and the WTO: Cap and Trade versus Carbon Tax*, 45 J. WORLD TRADE 679, 682 (2011).

245. “No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or

By definition, BCAs are trade-related policy instruments used to offset differences in the stringency of climate policies between trade partners.<sup>246</sup> They do so by imposing a tax or other regulatory measures on imports based on their carbon content and/or by exempting exports from domestic carbon constraints. However, only indirect taxes can be adjusted at the border.<sup>247</sup> Because only a few GATT and WTO disputes have dealt with BTAs, the main guidance of BTAs operations is the Report of the GATT Working Party on Border Tax Adjustments of 1970 working party.<sup>248</sup> The working party offers significant guidance usage of GATT rules on BTA if consensus is not reached.

A starting point in the analysis of the legality of BCAs in the context of WTO law is the determination of whether the requirement to surrender emissions allowances is a tax at all and, if it is a tax, whether it is an indirect tax compatible with WTO rules. These questions are essential since rules on border tax adjustments vary with the type of measure. When the ETS requirement is a tax and adjusted on the importation, it falls under GATT Article III:2. Accordingly, the tax burden for imports must be the same as for like domestic products.<sup>249</sup> On the other hand, when it is a domestic regulation when applied to imports, it falls under the provisions of GATT Article III:4, and hence, the treatment of like imported products may sometimes be different, but never less favorable.<sup>250</sup>

Furthermore, studies have considered emission allowances to be tax eligible for adjustment at the border.<sup>251</sup> Arguably, emissions allowance requirements can qualify as a tax even if emissions allowances are distributed for free, given that allowances always have an opportunity

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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 part.” See GABRIELLE MARCEAU & JULIA KUELZOW, JURISPRUDENCE ON THE SCOPE AND MEANING OBLIGATION 2 (Apr. 24, 2018), [https://www.wto.org/english/tratop\\_e/markacc\\_e/03\\_gabrielle\\_marceau\\_and\\_julia\\_kuelzow.pdf](https://www.wto.org/english/tratop_e/markacc_e/03_gabrielle_marceau_and_julia_kuelzow.pdf).

246. Kateryna Holzer & Nashina Shariff, *The Inclusion of Border Carbon Adjustments in Preferential Trade Agreements: Policy Implications*, 6 CARBON & CLIMATE L. REV. 246, 247 (2012).

247. Working Party Report, *Border Tax Adjustments*, WTO Doc. L/3464 (Dec. 2, 1970).

248. GATT, *supra* note 38, art. II.2(b).

249. Appellate Body Report, Dispute Settlement Reports, *Japan – Taxes on Alcoholic Beverages, Complaints by the European Communities*, WTO Doc. 124WT/DS11 (adopted 1996).

250. Appellate Body Report, Dispute Settlement Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT/DS161, WT/DS169, 1:5–58, ¶ 137 (adopted 2001).

251. Joost Pauwelyn, *US Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law*, (Nicholas Inst. For Env’t Pol’y Sol., Working Paper No. 702, 2007); Javier de Cendra, *Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law*, 15 REV. EUR. CMTY. & INT’L. ENV’T. L. 131, 136 (2006).



cost.<sup>252</sup> The key feature is the existence of payment to the government. For instance, in an auctioning, the government converts trade permits to taxation and decides to take all the revenues generated and recycle them into the economy.<sup>253</sup>

In relation to emissions trading, it means that importers will be obliged to surrender emissions allowances if they want to sell products from a sector covered by the ETS. This follows the principle of import-side border tax adjustment. Instead of taxes, however, adjustments will be the costs of emissions allowances. A core question is whether WTO rules permit border tax adjustment for carbon taxes. The answer to the question is yes, provided that the carbon tax does not discriminate in favor of domestic producers or favor imports from certain countries over others.

WTO rules also permit countries with carbon taxes to adopt non-discriminatory harmonizing tariffs, as these protect energy-intensive trade-exposed industries by eliminating the competitive advantage enjoyed by exports from countries that don't tax carbon emissions. These tariffs also create incentives for non-carbon taxing countries to adopt carbon taxes, since harmonizing tariffs represent revenue that the exporting country could collect by imposing its own carbon tax. With border tax adjustments, import fees are levied by carbon-taxing countries on goods manufactured in non-carbon-taxing countries. Opinions are divided on whether WTO law permits border tax adjustments for taxable inputs that are not physically incorporated into the final traded product. It is not clear whether an import tax could vary based on the amount of carbon dioxide emitted during a good's production.<sup>254</sup> WTO rules would have to be interpreted in a way that considers products not to be 'like' each other based on their carbon footprints.

Additionally, under WTO rules, rebates for exports and taxes on imports are equivalent and such rebates are not considered prohibited subsidies.<sup>255</sup> Put differently, rebating or exempting indirect taxes such

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252. According OECD, "tax" is defined as an "unrequited payment[] to the . . . government" or a compulsory contribution imposed by the government for which taxpayers receive nothing identifiable in return. See Revenue Statistics: Interpretative Guide 319 (OECD 2020), <https://www.oecd.org/tax/tax-policy/oecd-classification-taxes-interpretative-guide.pdf>.

253. Annie Petsonk, *The Kyoto Protocol and the WTO: Integrating Greenhouse Gas Emissions Allowance trading into Global Market Place*, 10 DUKE ENV'T. L. & POL'YFORUM 185, 211 (1999).

254. *Border Adjustments*, CARBON TAX CTR. (Dec. 11, 2021), <https://www.carbontax.org/issues/border-adjustments>.

255. GATT, *supra* note 42, arts. VI:4, XVI; see also the SCM Agreement, *supra* note 170, art. 3.1 n.1; GATT, Working Party on Border Tax Adjustments, L73464, Dec. 2, 1970, BISD 18S797, Annex I ¶¶ g, h (adopted on Dec. 2, 1970).

as the VAT on exports is permitted under GATT Articles VI and XVI and the SCM Agreement and is, therefore, not treated as an export subsidy, as long as the rebate or exemption rate is not greater than the rate at which the tax is levied domestically.<sup>256</sup>

Regarding indirect taxes, not every internal tax can be adjusted and imposed on imports. Only indirect taxes (taxes applied to products) can be adjusted at the border,<sup>257</sup> which is permitted by WTO rules.<sup>258</sup> The permissibility of border tax adjustments was first addressed by the working party, which concluded that, their convergence of views to the effect that taxes levied directly on products were eligible for tax adjustment.<sup>259</sup> This concept of taxes applied to products (i.e., indirect taxes) was adopted in *US-Tuna II (Mexico)*,<sup>260</sup> in which the panel concluded that, under the national-treatment principle of Article III GATT 1994, contracting parties may apply border tax adjustments with regard to those taxes that are borne by products, but not for domestic taxes not directly levied on products. The principle also applies to WTO subsidy rules. GATT Article VI:4 prohibits the application of countervailing (anti-subsidy) duties for rebates or exemptions upon exportation of taxes “borne by the like product.”<sup>261</sup>

Since only indirect taxes can be adjusted at the border, the following assesses the legality of border tax adjustments under WTO law and whether the ETS requirement to surrender emissions allowances can qualify as an indirect tax. According to the definition of direct versus an indirect tax in the SCM Agreement,<sup>262</sup> in more abstract terms, “direct

256. Richard Eglin, *Border-Adjustable Taxes under the WTO Agreements*, WHITE & CASE (Jan. 19, 2017), <https://www.whitecase.com/publications/alert/border-adjustable-taxes-under-wto-agreements>.

257. The availability of border adjustment only for indirect taxes follows from the text of the legal provisions of GATT, *supra* note 42, art. II:2(a), art. VI:4 and art. XVI. It is also confirmed by the GATT Working Party on Border Tax Adjustments GATT, Working Party on Border Tax Adjustments, *supra* note 237, at Annex I ¶ 14.

258. The WTO Agreement on Subsidies and Countervailing Measures defines indirect taxes as “sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges.” See generally Michael Daly, *The WTO and Direct Taxation*, Discussion Paper No. 9, WTO, n.15 (2005), [https://www.wto.org/english/res\\_e/booksp\\_e/discussion\\_papers9\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/discussion_papers9_e.pdf).

259. Working Party Report, *Border Tax Adjustments*, ¶ 14, L/3463 (Dec. 2, 1970).

260. Panel Report, *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R (adopted Sept. 15, 2011).

261. GATT, *supra* note 42, art. VI:4.

262. The term “direct taxes” means “taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property.” The term “indirect taxes” means “sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges.” TRISTAN R. BROWN,

taxes are those imposed directly on producers, who are also responsible for paying them.”<sup>263</sup> At the same time, it is largely recognized that these types of taxes indirectly affect products. In contrast, indirect taxes are imposed directly on products, also known as “consumption taxes.” Whereas producers are responsible for paying direct taxes, consumers are responsible for paying indirect taxes (with the producer typically collecting the tax from the consumer at the point of sale and passing it onto the government).

The logic behind the distinction between the two categories lies in the “destination principle,” which states that products should be taxed in the country of consumption.<sup>264</sup> Indirect taxes, by being attached to a product, can only be paid in the country of consumption. Based on this, carbon taxes can be classified as indirect taxes and thus, in principle, be adjustable.<sup>265</sup> In 1987, the trade body ruling in the *U.S.-Superfund* case argued that taxes or charges intended to curb pollution were no different from general revenue-generating taxes.<sup>266</sup>

On this view, if the ETS requirement is a tax when adjusted on the importation, it thus falls under GATT Article III:2, and accordingly, the tax burden for imports must be the same as for the like domestic products. If it is a domestic regulation, when applied to imports, it falls under the provisions of GATT Article III:4, and accordingly, the treatment of like imported products may sometimes be different but never less favorable. There is no consensus on whether the ETS requirement to surrender emissions allowances can qualify as a tax.

The key issue here is how broadly Article III:2 of GATT can be interpreted, and more precisely the terms “internal taxes applied indirectly to products.” The main concept of the carbon tax is to internalize the social cost of carbon in the ultimate price of products to give both producers and consumers an incentive to limit the use of carbon-intensive products and shift to greener energy. Based on that, a carbon tax is a tax applied at least indirectly to products. Nevertheless, as is the case of taxes and permissible border tax adjustments, not all domestic regulations

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REBATES, SUBSIDIES, AND CARBON REGULATION: THE ASCM AND CLIMATE POLICY 3 (2010), [https://works.bepress.com/tristan\\_brown/1/download/](https://works.bepress.com/tristan_brown/1/download/).

263. *Id.* at 4.

264. *Id.*

265. See the SCM Agreement, *supra* note 170, n. 58. A carbon tax imposed on products is arguably a specific excise tax and thus explicitly covered as an adjustable indirect tax. A carbon tax imposed on producers does not fall under any of the types listed under direct taxes; hence, even a carbon tax on producers would seem to be an indirect tax as it is other than direct taxes. See James Bacchus, *The Case for a WTO Climate Waiver*, in RELEVANT WTO OBLIGATIONS 6, 10 (Ctr. for Int’l Innovation, ed., 2017); Brown, *supra* note 262, at 4.

266. Report of the Panel, *United States-Taxes on Petroleum and Certain Imported Substances*, ¶ 5.2.8, L/6175 (June 5, 1987), GATT B.I.S.D. (34th Supp.), at 136 (1988).

can be applied to imports at the border.<sup>267</sup> Process measures, such as carbon regulations, that fall outside the scope of GATT Article III are presumed to be prohibited under GATT Article XI.<sup>268</sup> Article XI prohibits any kind of quantitative restrictions on imports. Under this Article, a member cannot have quotas or total bans on imported or exported products.

Carbon regulations could fall under the WTO agreement on Technical Barriers to Trade (TBT), since regulations that address “terminology, symbols, packaging, marking or labelling requirements” are covered by the TBT Agreement.<sup>269</sup> These requirements are covered as soon as they apply to a product, process or production method;<sup>270</sup> however, the rules are still the same: carbon regulations on imports must be non-discriminatory and not create an unnecessary obstacle to international trade.<sup>271</sup> At the same time, to ensure that a border tax adjustment does not discriminate against imports, it should incorporate two elements, namely (i) the possibility of foreign producers showing the actual emission released during the production process,<sup>272</sup> and (ii) when an importing industry does not want and cannot show its production

267. The members recognize that internal taxes and other internal charges, laws, regulations, and requirements affect the internal sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing, or use of products in specified amounts or proportion, should not be applied to the imported or domestic products to afford protection to domestic production. GATT, *supra* note 38, art. III, ¶ 1.

268. In the Tuna-Dolphin dispute, the U.S. ban on certain tuna captured in a way that risks killing dolphins was found to violate GATT Article XI and not justified under the environmental exceptions in GATT Article XX. According to the panel, regulation for taxes can only be adjusted at the border if they apply to the product, and not if they regulate the producer. In conclusion, the panel found that the regulation could not be adjusted at the border for imported tuna. Hence, GATT Article III did not cover the US tuna ban; instead, it fell under the violation of GATT Article XI. Even though the panel seemed to almost decide against border adjustment for carbon regulations, the panel reports were never adopted. *Mexico etc versus US: 'tuna-dolphin'*, WTO, [https://www.wto.org/english/tratop\\_e/envir\\_e/edis04\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/edis04_e.htm) (last visited Dec. 26, 2021).

269. “Technical regulation” is defined by Annex 1.1 of the TBT Agreement as a “document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory.” Agreement on Technical Barriers to Trade Annex 1 § 1.1(1), Apr. 15, 1994, 1868 U.N.T.S. 120 [hereinafter TBT Agreement]; see also Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 67, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001).

270. TBT Agreement, *supra* note 269, art. 2.2.

271. Charles Owen Verril, Jr., *Maximum Carbon Intensity Limitations and the Agreement on Technical Barriers to Trade*, 2 CARBON & CLIMATE L. REV. 43, 48-50 (2008).

272. See Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 27, WTO Doc. WT/DS2/AB/R (adopted May 20, 1996) [hereinafter *US—Gasoline*, Appellate Body Report].

process emission, the border tax adjusted country should assume that the imported product is using the best available technology.<sup>273</sup>

In *EC – Asbestos*,<sup>2</sup> the Appellate Body considered whether France’s ban on asbestos and products containing asbestos violated the TBT Agreement as a technical regulation that was more restrictive of trade than necessary.<sup>274</sup> The Panel decided it was not necessary to address whether the measure constituted “arbitrary or unjustifiable discrimination.” Besides, the Appellate Body chose not to rely on GATT Article XX. The Appellate Body relied, instead, on a judicious view that the substantive obligations of Article III:4 of the GATT were not violated. Additionally, the Panel looked at whether the measure can be justified under the chapeau of GATT Article XX. The chapeau analysis is applicable as a last measure to ensure that the GATT exceptions are not misused.<sup>275</sup> The chapeau analysis is not a test that evaluates the measure itself; it examines how the measure is applied.

Moreover, the GATT makes it “illegal” for members to enact laws that limit free trade based on environmental concerns, unless a GATT exception applies. For instance, the invocation of a GATT Article XX (b) exception has never been successful because most measures fail the “necessity” test.<sup>276</sup> The Appellate Body has not yet found a measure to fall within the human health exception. We argue that emissions trading could be expressed as WTO-permissible, crucially if the trading schemes do not discriminate some imports against other imports. This type of competitiveness provision could pass WTO scrutiny without any reference to the environmental exceptions in GATT Article XX.

Even if emissions trading may violate GATT rules, the violation may still be justified by the environmental exceptions in GATT Article XX. Such justification would then most likely center on whether, under the introductory phase of GATT Article XX, emission credit requirements or other regulations on imports were applied on a variable scale that considers local conditions in foreign countries. The overall analysis on

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273. Roland Ismer & Karsten Neuhoff, *Border Tax Adjustment: A Feasible Way to Address Nonparticipation in Emission Trading* 11 (Cambridge-MIT Inst. Working Paper No. 36, 2004).

274. Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, WTO Doc. WT/DS135/AB/R (adopted Apr. 5, 2001).

275. See Appellate Body Report, *US—Gasoline*, 20-21, WTO Doc. WT/DS2/AB/R (adopted May 20, 1996).

276. See generally Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, WTO Doc. WT/DS26/AB/R, WTO Doc. WTDS/48/AB/R (adopted Jan. 16, 1998). Under the necessity principle, the question is raised whether there are less intrusive means at hand to achieve the purpose of a measure. The principle of necessity requires that a no less restrictive measure which is equally effective be available.

the carbon market is that ETs are likely to violate several GATT and GATS obligations, but that virtually all violations can be justified on environmental grounds under general exceptions agreements.

The *US- Superfund*<sup>277</sup> case has promoted a series of still-unanswered questions that perplex the trading system, “including a lack of clarity on exactly what kinds of taxes are eligible for border adjustment under the WTO, [as well as] under what conditions are rebates applied to environmental, energy or climate taxes.”<sup>278</sup> Besides, there has been no definitive Appellate Body ruling adopted by the Dispute Settlement Body on the general permissibility of border tax adjustments. Additionally, GATT Panel reports do not establish when a tax is “borne by” a product, nor do they provide a definitive list of the taxes that are expressly eligible or ineligible for border adjustment. Stated differently, the underlying philosophy behind the GATT rules governing border tax adjustments was the ensuring of trade neutrality between imported and domestically produced goods.<sup>279</sup> It is this neutrality, not the identity of the taxpayer (or type of tax), that WTO rules on border tax adjustments seek to protect.

#### D. *WTO Rules Applicable to Environmental Policies and Measures*

##### 1. Scope and Coverage of the Rules on Environmental Issues

The protection and preservation of the environment are fundamental goals of the WTO. They are enshrined in the Marrakesh Agreement, which established the WTO and complements the WTO’s objective of reducing trade barriers and eliminating discriminatory treatment in international trade relations.<sup>280</sup> However, there is an absence of clear understanding on how environmental issues should be dealt with under current WTO provisions, as there is a void of clear understanding between contracting members on how to manage the environmental issues and trade interface. The existing GATT and WTO rules were not drafted to address climate change problems and policies, and to date, there has not been a dispute regarding environmental issues

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277. Report of the Panel, *United States—Taxes on Petroleum and Certain Imported Substances*, ¶ 3.1.8, L/6175-34S/136 (June 17, 1987) GATT BISD.

278. Scott Vaughan, *Carbon Without Borders: Can trade policy support ambitious climate action?*, INT’L INST. FOR SUSTAINABLE DEV. (Feb. 15, 2017), <https://www.iisd.org/articles/carbon-without-borders-can-trade-policy-support-ambitious-climate-action>.

279. Richard Eglin, *supra* note 260; *see also* Report by the Working Party on Border Tax Adjustments, ¶ 14, L/3464 (Nov. 20, 1970), GATT, [https://www.wto.org/gatt\\_docs/English/SULPDF/90840088.pdf](https://www.wto.org/gatt_docs/English/SULPDF/90840088.pdf).

280. *Trade and Environment*, WTO, [https://www.wto.org/english/tratop\\_e/envir\\_e/envir\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/envir_e.htm) (last visited Dec. 21, 2021).

raised within the WTO dispute settlement mechanism. Hence, WTO rules do not restrict the set of taxes and regulations that a nation may impose domestically on products to protect the environment but do require non-discrimination in applying such policies to domestic and imported products.<sup>281</sup>

Other possible options for overcoming this constraint are through GATT Article XX (g), which permits exceptions to the MFN principle concerning natural resource conservation by adding the preferential trade agreement to existing WTO provisions in accordance with Article XXIV, as well as through WTO members creating a new MFN exception that explicitly permits discriminatory climate club trade benefits. The latter is less likely to happen, as it will undermine the WTO rules on non-discrimination. This could also set off a series of potential violations to the WTO fundamental principles.<sup>282</sup>

Under the GATT general regime, various articles must be taken into account to avoid WTO rule violations. For instance, GATT Articles I, II,<sup>283</sup> and III are particularly important with respect to imports, and GATT Article XVI and the 1994 Agreement on Subsidies and Countervailing Measures (SCM) are important for exports.<sup>284</sup> The rules expressly require WTO members to treat foreign goods no less favorably than comparable domestic goods and are not based on quantitative restrictions. Moreover, WTO rules, including specialized agreements such as the Agreement on Technical Barriers to Trade (TBT)—which deals with products regulations—prohibit countries from maintaining technical regulations that restrict trade if their concerns can be addressed in a less trade-restrictive manner. TBT Agreement Article 2.2 recognizes the protection of the environment as a legitimate objective. Further, Article 2.5

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281. Under WTO law, non-discrimination is expressed in two principles in the GATT: first, the most-favored nation (MFN) principle, embodied in Article I of the GATT, requires contracting members to accord the same treatment to all contracting members. Second, Article III of the GATT covers the national treatment rule (NT), which demands that WTO members treat imported products no less favorably than like domestic products. Both articles are closely related to environmental issues, including matters that concern emission-trading units. GATT, *supra* note 38, art. 1, 3.

282. *Principles of the Trading System*, WTO, [https://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact2\\_e.htm](https://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm) (last visited Dec. 21, 2021).

283. Article II permits contracting parties to incorporate into their Schedules acts yielding rights under the General Agreement but not acts diminishing obligations under that Agreement. Report of the Panel, *United States—Restrictions on the Importation of Sugar and Sugar-Containing Products Applied under the 1955 Waiver and under the Headnote to the Schedule of Tariff Concessions*, ¶ 5.2, L/6631 (Nov. 7, 1990).

284. Stephanie Monjon & Philippe Quirion, *A Border Adjustment for the EU ETS: Reconciling WTO Rules and Capacity to Tackle Carbon Leakage*, 11 CLIMATE POL'Y 1212, 1214 (2011).

of the TBT permits the application of technical regulations if applied for environmental reasons per international standards.

Article 27.2 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) contains an environmental exception concerning patents. Members may exclude an invention from patentability when the prevention of domestic and commercial exploitation is necessary to protect human, animal, or plant life or health, or to avoid serious prejudice to the environment. Furthermore, Article 6 of the Agreement on Sanitary and Phytosanitary Measures (SPS) (which concerns food safety and animal and plant health) provides scope for environmental objectives to be followed and for necessary trade-related measures to be adopted. Article XI of the GATT establishes a prohibition on quantitative restrictions and seeks to prohibit such trade actions as quotas, embargoes, and licensing schemes on imported or exported products. The GATS also contains exceptions on environmental matters in Article XIV, as does the plurilateral Agreement on Government Procurement in Article XXIII. The intention of these provisions is to allow a departure from the strict application of trade principles such as MFN and National Treatment clauses in order to pursue the over-riding policy goals listed in Article XX of the GATT.

## 2. General Exceptions According to GATT Article XX

In so far as it applies, if contracting members are charged with violating any of the above principles/agreements, they have recourse to the GATT General Exceptions covered under Article XX of the GATT. The Article is a limited and conditional exception from obligations under other provisions of the general agreement. But the party invoking the exception must demonstrate that the restrictive measures are “necessary.”<sup>285</sup> According to Article XX(b), the measures accepted as “necessary” are those related to protecting human, animal, or plant life or health.

Article XX(g) allows contracting parties to take measures only to matters relating to protecting the conservation of exhaustible natural resources, provided that such measures are made effective in conjunction with domestic production or consumption restrictions. This implies that Article XX(g) covers measures that are “necessary” for the conservation of exhaustible national resources as well as a wide range of measures that impact the conservation of natural resources such as

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285. Report of the Panel, *Canada—Administration of the Foreign Investment Review Act*, ¶ 5.20, L/5504 (Feb. 7, 1984).



greenhouse gas emissions. In *United States—Restrictions on Imports of Tuna*,<sup>286</sup> the Panel considered that both GATT Article XX(b) and (g) were not limited to policies related to living things or resources located within the territory of the country introducing the policy, but they were nevertheless limited by the jurisdiction in general.

To assess the necessity element of a specific trade measure, such as protection of human, animal, or plant life or health, it must be considered if such objectives could be obtained on a non-discriminatory basis between countries where the same conditions prevail, or whether the measure is a disguised restriction on international trade as provided under the chapeau of Article XX. The provision seeks, among other things, to ensure that environmental measures are not applied arbitrarily and are not framed as disguised protectionism.<sup>287</sup>

However, to determine “necessity,” various concepts are usually used to make sure the measure is not more trade-restrictive than necessary and is proportional to the objective pursued. In other words, when deciding on Article XX of the GATT, the Panel usually follows three steps. The first step considers whether the policy protects human, animal, or plant life or health. This is an easy test to satisfy because the Panel does not examine the necessity of the measure but rather whether it protects the life and health of humans, animals, or plants. Once the Panel has concluded that the policy goal falls within subsection (b) of GATT Article XX, the necessity test review is conducted. The “necessity” test is not a test of whether the policy itself is necessary, but whether the measure is necessary to achieve a policy goal.

Finally, the Panel looks at whether the measure can be justified under the chapeau of Article XX. This was affirmed in *US—Gasoline*.<sup>288</sup> Here, the U.S. Environmental Protection Agency (EPA) had issued the Gasoline Rule to reduce vehicle emissions of toxic air pollutants and ozone-forming volatile organic compounds. The Rule mandated that all gasoline sold in the United States conform to minimum “cleanliness” requirements. Most American refineries were allowed to use the individualized baseline, while foreign producers were required to meet the general statutory baseline based on the quality of U.S. gasoline. Developing countries protested this act as discriminatory.

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286. Report of the Panel, *United States—Restrictions on Imports of Tuna*, ¶ 5.15, DS29/R (June 16, 1994).

287. See Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products—Recourse to Article 21.5 of the DSU by Malaysia*, WTO Doc. WT/DS58/AB/RW (adopted Nov. 21, 2001).

288. Panel Report, *United States—Standards for Reformulated and Conventional Gasoline*, ¶¶ 2.5-2.7, WTO Doc. WT/DS2/R (adopted Jan. 29, 1996) [hereinafter *US-Gasoline*]; *id.* § V.

The Panel ruled in favor of the developing countries despite differences in their process and production methods. The adjudicators found that the products were “like” goods under the WTO and in breach of the non-discrimination obligation of GATT Articles I and III. In this specific case, the United States tried to challenge the Panel’s decision based on GATT Article XX(b), which provides an exception for trade restrictions necessary to protect human, animal, or plant life or health. In light of the findings, the Panel concluded that the United States did not qualify for Article XX(g) deference; instead, it was ruled that the United States had been unnecessarily discriminatory, as the baseline established by the EPA was not consistent with Article III:4 of the GATT and could not be justified under paragraph (b), (d) or (g) of Article XX of the GATT. In addition, the Panel concluded that the chapeau of Article XX should not be applied so as to frustrate or defeat the legal obligations of the holder of the right under the substantive rules of the General Agreement. The exceptions are not to be abused or misused. In other words, the measures falling within the particular exceptions must be applied reasonably, with due regard both to the legal duties of the party claiming the exception and to the legal rights of the other parties concerned.<sup>289</sup>

Despite these exemption provisions concerning the environment and natural resources, only a few provisions are significantly considered in emissions trading schemes, such as national treatment and most-favored nation rules (Articles III and I of the GATT, respectively). The same is true of GATT Article XI on quantitative restrictions and Articles 2.2 and 2.5 of the TBT Agreement. Lastly, GATT Article XX and its chapeau are significant to emissions trading, as the provisions on general exemptions lay out several specific instances in which members may be exempt from GATT rules.

E. *Regional Integration and Emissions Trading: The Case of RTAs in the WTO Framework*

1. WTO Legal Framework

The lack of a global treaty that adequately addresses climate change has spurred countries worldwide to codify climate objectives through new and existing bilateral efforts. One effort that is gaining traction is

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289. Committee on Trade and Environment, *GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d), and (g)*, WTO Doc. WT/CTE/W/203 (Mar. 8, 2002).

the addition of climate-related provisions in RTAs,<sup>290</sup> wherein most countries are using the agreements to advance their citizens' wellbeing. RTAs, which comprise bilateral trade agreements, free trade agreements, economic partnerships, and other arrangements aimed at trade liberalization between countries, have grown substantially over the past decade. These agreements are negotiated, implemented, and resolved according to WTO rules.

In recent years, RTAs have been advocated as one way of securing trade liberalization between trading blocs, as they are considered less cumbersome to negotiate than multilateral trade agreements such as the WTO. Usually, RTAs happen to be between two or more governments and are reciprocal by nature. Examples of RTAs include the United States-Mexico-Canada Agreement (USMCA), the Central American-Dominican Republic Trade Agreement (CAFTA-DR), the EU, and the Asian-Pacific Economic Corporation. In addition, there are new trade agreements that have been concluded or are being negotiated, including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the European Union-Mercosur trade agreement, the Regional Comprehensive Economic Partnership, and, in Africa, the Tripartite Agreement between parties to the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Southern African Development Community (SADC), and the African Continental Free Trade Agreement (AfCFTA).<sup>291</sup> What aids the negotiations process in RTAs is that fewer parties share common values and interests compared to the multilateral trading system. In fact, as of 2016, all WTO members had at least one RTA in force.<sup>292</sup>

Under WTO law, RTAs are any reciprocal trade agreement between two or more partners, not necessarily belonging to the same region. The WTO has allowed countries to negotiate rules and commitments beyond the organization's multilateral system. Among the issues that have been allowed under RTAs are services, intellectual property, environmental standards, investment, and competition. In alignment with WTO rules, RTAs provide an additional layer of discipline in three notable ways, namely: (i) reaffirming WTO rules to make disciplines available to alternative mechanisms provided by RTAs, (ii) agreeing on provisions

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290. Sam Becker, *Leveraging Trade Agreements to Reduce Greenhouse Gas Emission in Accordance with the Paris Agreement* (2016) (senior thesis, Claremont Colleges) (on file with CMC Student Scholarship).

291. Dana Smillie, *Regional Trade Agreements*, WORLD BANK (Apr. 5, 2018), <https://www.worldbank.org/en/topic/regional-integration/brief/regional-trade-agreements>.

292. *Regional Trade Agreements*, WTO, [https://www.wto.org/english/tratop\\_e/region\\_e/region\\_e.htm](https://www.wto.org/english/tratop_e/region_e/region_e.htm) (last visited April 28, 2022) [hereinafter *Regional Trade Agreements*].

that deepen or expand multilateral commitments, and (iii) agreeing on provisions that define the scope of non-actionable subsidies between parties to the agreement.

Based on the WTO principle of non-discrimination, setting up a customs union or free trade area would, in theory, violate this principle. However, Article XXIV of the GATT, Article V of GATS, and Paragraph (2c) of the Enabling Clause for developing countries permit WTO members to execute RTAs if specific criteria are met. In this regard, GATT Article XXIV is most commonly viewed as an exception to the most-favored nation rule contained in GATT Article I, allowing a subset of members to liberalize trade between them without extending such liberalization to all other WTO Members. In *Turkey–Textiles*,<sup>293</sup> the Appellate Body confirmed the conditional right of WTO Members to form RTAs. In particular, the Appellate Body focused on the words “shall not prevent” as proof of the fact that “Article XXIV may, under certain conditions, justify the adoption of a measure which is inconsistent with certain other GATT provisions, and may be invoked as a possible defense to a finding of inconsistency.”<sup>294</sup> This applies in particular to emissions trading units as set out in Article 17 of the Kyoto Protocol, which allows countries that have emission units to spare, can acquire emission units from other countries with commitments under the Protocol and to use them towards meeting a part of their targets.

Certainly, RTAs and the WTO have become relevant tools for governing issues related to the environment and climate change, as the two share the common objective of trade liberalization.<sup>295</sup> After all, RTAs operate as an exception to the WTO system of rights and obligations. In relation to environmental issues, such as climate change, many RTAs contain chapters and articles that are environmentally specific.<sup>296</sup>

However, parties can elect to incorporate environmental objectives more broadly in their RTAs to promote an integrated approach for

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293. See generally Appellate Body Report, *Turkey–Restrictions on Imports of Textile and Clothing Products*, WTO Doc. WT/DS34/ABR (adopted Oct. 22, 1999).

294. *Id.* ¶ 45.

295. In 2006, WTO members agreed to implement a provisional mechanism to enhance the transparency of RTAs and understand their effects on the multilateral system. Under this process, members notify the WTO about their RTAs, which are then discussed by the wider WTO membership based on a factual presentation prepared by the WTO Secretariat. *Regional Trade Agreements*, *supra* note 292.

296. PETER DRAPER, NKULULEKO KHUMALO & FAITH TIGERE, SUSTAINABILITY PROVISIONS IN REGIONAL TRADE AGREEMENTS: CAN THEY BE MULTILATERALISED? (2017).

addressing environmental concerns in such agreements.<sup>297</sup> A more collaborative approach to trade exists within RTAs because of a smaller number of trading partners who can easily collaborate on adopting stringent policies and rules, including addressing gray areas in the WTO legal framework and inadequate coverage of environmental agreements. While the desire to increase market access certainly plays a crucial role in the establishment of RTAs, another factor influencing the formation of RTAs is the opportunity to make progress on issues that are not sufficiently addressed by the WTO agreements, such as the environment. Nevertheless, environmental provisions in RTAs have become far-reaching.

Early RTAs were merely replicating environmental provisions in WTO agreements. One of the first agreements enforced to address environmental issues was NAFTA (now replaced by USMCA).<sup>298</sup> Its negotiation coincided with a growing controversy about the relationship between trade and environmental policies. As a result, NAFTA contains unprecedented provisions to maintain and enhance health, safety, and environmental protection in nations that are party to the pact. In response to pressure for enhanced environmental protection, the parties negotiated the North American Agreement on Environmental Cooperation (the Environmental Side Agreement), which strikes a balance between the need to respect the rights of governments to exercise discretion in enforcing their laws and the need to provide a mechanism for addressing a party's persistent pattern of failure to enforce its environmental law.<sup>299</sup>

In the 1990s, the EU incorporated environmental sections with developing countries into its RTAs. Chile and Singapore in 2014 followed the same trend.<sup>300</sup> In 2006, the European Union adopted the Global Europe Strategy,<sup>301</sup> which solidifies the EU's environmental policies. During negotiations, the main concern for the EU was the need to address climate change as an unfair competitive behavior within environmental trade. After 2006, all EU trade agreements incorporated an

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297. Shunta Yamaguchi, *Greening Regional Trade Agreements: Subsidies Related to Energy and Environmental Goods* (OECD, Working Paper No. 2020/01, 2020).

298. RICHARD BARON & JUSTINE GARRETT, *TRADE AND ENVIRONMENT INTERACTIONS: GOVERNANCE ISSUES* (Amelia Smith ed., 2017).

299. See generally John J. Kim & James P. Cargas, *The Environmental Side Agreement to North American Free Trade Agreement: Background and Analysis*, ENV'T L. REP. (1993).

300. Economic Research and Statistics Division, *How Regional Trade Agreements Deal with Disputes Concerning Their TBT Provisions?*, WTO Doc. ERSD-2018-09 (Sept. 14, 2018).

301. Stephen Woolcock, *European Union Trade Policy*, in NEW PALGRAVE DICTIONARY OF ECON. ONLINE (2011).

environmental section addressing climate change, and more specifically, decarbonization. For instance, the revision of the Cotonou Agreement establishes cooperation in developing and participating in a carbon market, in integrating domestic climate change and development policy, and in providing financial and technical support for mitigation and adaptation technologies.<sup>302</sup>

The following considerations inform the rationale for including climate change provisions in RTAs:<sup>303</sup>

- Economic interests for forming emissions trading allowances, reducing the risks of emission leakage, as well as maintaining trade competitiveness among trading partners;
- Becoming cost-effective in the process of reducing GHG emissions. This could be done by liberalizing the trade of environmental goods and services, mutually recognizing and harmonizing regulatory standards, and disseminating technical information;
- It helps countries reduce emissions efficiently as they work as a team. Even though RTAs have incorporated provisions that deal with the environment, alternatives to the bilateral approaches require more actions and willpower by those who need to respond thoughtfully to climate change.

Regarding the above, several analysts have agreed that RTAs can potentially contribute to climate governance due to how they operate. The scope of applicable provisions under RTAs offers an opportunity for policy experimentation to craft and test climate provisions at a limited scale with like-minded countries. In addition, RTAs are uniquely positioned to address various measures at the intersection of trade and climate change, such as emissions trading and border tax adjustments. In practice, RTAs are considered a tool that can help set common rules for trade-related climate measures by aligning standards and regulations.<sup>304</sup>

## 2. RTAs and Climate Clubs

Following the EU's pioneering initiatives in advancing the climate-change objectives of the Paris Agreement through RTAs, the bloc could

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302. Cotonou Agreement art. 32A, Jun. 23, 2000.

303. See generally RAFAEL LEAL-ARCAS, CLIMATE CHANGE & INT'L TRADE, ch. 7 (2013).

304. See Jean-Frédéric Morin & Sikina Jinnah, *The untapped potential of preferential trade agreements for climate governance*, 27 ENV'T POL. 541 (2018).

intensify the review process of the existing RTAs.<sup>305</sup> The initiative could check the extent to which existing RTAs can support the implementation of NDCs, followed by forming a new cooperation or by renegotiating pre-existing rules with contracting partners, such as initiating the establishment of a climate club. While a review or a formation of a climate club within the existing RTAs may be a plausible proposition for actors seeking to take the lead on climate action, such as the EU, climate clubs could also build compromises that would be impossible in multilateral or bilateral forums where many countries with diverse interests participate.<sup>306</sup>

In this view, we argue that the review of pre-existing RTA rules may reconsider their climate dimensions and take corrective actions accordingly.<sup>307</sup> Overall, this option appears to be unlikely, at least in the short term. Instead, forming a side corporation-climate club could potentially work better, as the rules will not interfere with the pre-existing RTA provisions but rather become a part of an overall commitment to cooperate and strengthen enforcement of environmental laws in general under the RTAs. Complementary forms of international collaboration, such as climate clubs, are probably necessary to foster and mainstream the process of gradual and voluntary increase in nationally determined contributions.<sup>308</sup>

One way for countries to show that they take climate-change mitigation seriously is to treat it as a first-tier geopolitical issue. Thereby, countries could start by forming small clubs that would make it easier to negotiate among a small group of large countries (and major corporations) than among a large group of small countries. The gains from a successful club are sufficiently large that members will pay dues and

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305. KASTURI DAS, HARRO VAN ASSELT, SUSANNE DROEGE & MICHAEL MEHLING, *MAKING THE INTERNATIONAL TRADE SYSTEM WORK FOR CLIMATE CHANGE: ASSESSING THE OPTIONS* 32 (Claudia Delpero ed., 2018).

306. Beatriz Leycegui Gardoqui & Imanol Ramirez, *Addressing Climate Change: A WTO exception to incorporate climate clubs*, INT'L CTR. FOR TRADE AND SUSTAINABLE DEV. (May 2015), <https://e15initiative.org/publications/wto-exception-to-incorporate-climate-clubs/>.

307. For instance, when Democrats regained control of Congress in 2006, they renegotiated RTAs with Peru, Colombia, South Korea, and Panama to include provisions codifying the parties' commitment to a list of multilateral environmental agreements and creating a dispute settlement mechanism that could be used if one or more parties was not fulfilling its commitments. See Sikina Jinnah & Elisa Morgera, *Environmental Provisions in American and EU Free Trade Agreements: A Preliminary Comparison and Research Agenda*, 22 REV. EUR. COMP. & INT'L ENV'T. L. 324, 329 (2013).

308. Leonidas Paroussos, Antoine Mandel, Kostas Fragkiadakis, Panagiotis Fragkos, Jochen Hinkel & Zoi Vrontisi, *Climate clubs and the macro-economic benefits of international corporation on climate policy*, 9 NATURE CLIMATE CHANGE 542, 542 (2019).

adhere to club rules to gain the benefits of membership.<sup>309</sup> Nevertheless, the conditions for a successful club include the following: (i) a public-good-type resource that can be shared; (ii) a cooperative arrangement, including dues, that is beneficial for each of the members; (iii) the exclusion or penalization of non-members at a relatively low cost to members; and (iv) a membership that is so stable that no one wants to leave.<sup>310</sup> The same should apply to climate clubs. The economic benefits generated from environmental commitments should incentivize countries to subscribe to climate clubs. In contrast, there should also be punitive measures, such as trade sanctions, for members who do not comply with the club's rules.

#### IV. GATT ARTICLE XX AS A POTENTIAL REMEDY FOR THE DEVELOPMENT OF CLIMATE CLUBS

##### A. *The Scope of GATT Article XX and its Application to Climate Clubs*

As a starting place, it is worth mentioning that the GATT was initially enacted in the aftermath of World War II, with a view to encourage free international trade through the abolition of tariffs. Its underlying objective lied in the improvement of living conditions, the promotion of full employment, and the optimum use of natural resources. Hence, the Agreement was soon considered the early *jus commune* of globalization. Bearing this in mind, several exceptions had to be included to shield against abusive trade measures.

##### 1. Material Scope: A Larger Umbrella of Exceptions

###### a. *A Trade Measure Infringing GATT's Substantive Obligations*

First and foremost, a prerequisite was expected to proceed with the specific study of the exceptions found in GATT Article XX. This approach entailed spotting primarily a breach to GATT's substantive obligations.<sup>311</sup> To carry out this assessment, the first task implies looking at the different types of trade restrictions that climate clubs involve and then the principles embedded in WTO Agreements, particularly within GATT's provisions, to prevent any such restriction from impeding international trade.

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309. William Nordhaus, *Climate Clubs to Overcome Free-Riding*, 31 ISSUES IN SCI. & TECH. 27, 30 (2015).

310. William Nordhaus, *Climate Clubs: Overcoming Free-riding in International Climate Policy*, 105 AM. ECON. REV. 1339, 1340 (2015).

311. *EC—Seal Products*, *supra* note 48, ¶ 5.185.



The club theory presupposes the adoption of a plurilateral agreement, the purpose of which will be to achieve harmonized GHG emissions reductions. The favored channel to undertake such reductions would seek an international target carbon price or a quantity reduction target. Members that comply with reciprocal environmental standards set by the climate club (frequently linked to the carbon content of traded products) would benefit from exclusive trade advantages, such as the mutual recognition of members' emissions credits, assistance in building institutional capacity, or promotion of cross-border investment in low-carbon infrastructure.<sup>312</sup> Furthermore, the club functioning relies on the implementation of a range of climate policies, from cap-and-trade to carbon border taxes.

On the other hand, non-membership will have stiff consequences, non-participants being penalized either in the form of carbon duties taxing imports at the border according to their carbon content, or penalty tariffs, likened to a uniform tariff percentage of a sanctioning nature for emitting GHGs in the production country.<sup>313</sup> Implications on international trade are no longer being ignored. Substantive rights of other WTO members can easily be challenged, amongst which is the prohibition of tariffs on process and production methods (PPMs), but also the principle of non-discrimination, consisting of the most-favored-nation and national treatment principles. Exporting states' rights to market access must be properly weighed against the right of an importing country to pursue legitimate policy objectives, such as climate-change mitigation.<sup>314</sup> It is therefore essential to investigate the following: what are the rationales for GATT's cornerstone provisions, namely Articles I (Most-Favored-Nation Treatment), III (National treatment), and XI (quantitative restrictions regulations)? And how can club restrictions relate to the underlying principle of non-discrimination?

The contentious issue here is that climate-related trade restrictions imply revisiting enduring arguments on the legitimacy of the adjustment of taxes linked to PPMs in light of the principle of non-discrimination. It has repeatedly been pictured as a widespread violation of all three principles embedded in Articles I, III, and XI.<sup>315</sup>

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312. Nathaniel Keohane, Anne Petsonk & Alex Hanafi, *Toward a club of carbon markets*, 144 CLIMATIC CHANGE 81, 81 (2017).

313. Nordhaus, *supra* note 310, at 1348.

314. See generally Steve Charnovitz, *The WTO's Environmental Progress*, 10 J. INT'L ECON. L. 685 (2007).

315. See Report of the Panel, *United States—Restrictions on Imports of Tuna* (GATT Panel Report, DS21/R, Sept. 3, 1991, unadopted, BISD 39S/155).

Border taxes are no stranger to international trade law. Yet, an important nuance has always existed in the WTO border taxation scheme, namely only indirect taxes are eligible for adjustment according to the principle of destination.<sup>316</sup> On that basis, carbon-related border adjustment mechanisms (BAMs) imposed in connection with PPMs (also called non-related-product PPMs) pose severe challenges. In this scenario, importing states would put a price on the carbon content of the product, therefore adjusting a direct tax on PPMs. From this perspective, tariffs on PPMs could easily be found in violation of GATT substantive obligations.

But how do PPMs operate in the context of climate clubs? Border tax adjustment would certainly continue along the same trend line in the specific climate context. Generally speaking, PPMs requirements based on the energy efficiency or GHG emissions would be found to violate GATT's provisions just as much.<sup>317</sup> It is a serious thorn in the side of climate clubs, since their underpinning goal is to create a trade incentive to climate-change mitigation, through targeting GHG emissions released in foreign countries. As a result, this first restriction would be a significant hurdle to targeting carbon leakage. However, climate clubs' destiny is not sealed, since members applying carbon border adjustments could seek support under the general exceptions to GATT rules.<sup>318</sup>

*b. An Exhaustive List of Exceptions: Detailing Article XX(b) and (g)*

To examine whether WTO-inconsistent measures, such as carbon BAMs, could be justified requires a thorough examination of GATT Article XX, the only provision so far supporting legitimate public-policy objectives, including environmental protection.<sup>319</sup> In the face of climate-change mitigation, Article XX offers useful hints, providing that:

[N]othing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

...

(b) necessary to protect human, animal or plant life or health;

...

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316. Report by the Working Party, *Border Tax Adjustments*, ¶ 21, GATT Doc. L/3464 (Dec. 2, 1970).

317. See Gary Sampson, *WTO Rules and Climate Change: The Need for Policy Coherence*, in *INTERLINKAGES: THE KYOTO PROTOCOL AND THE INTERNATIONAL TRADE AND INVESTMENT REGIMES* (W. Bradnee Chambers ed., 2001).

318. See KATERYNA HOLZER, *CARBON-RELATED BORDER ADJUSTMENT AND WTO LAW* 293 (2014).

319. *Id.* at 146.

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption; . . .

Clearly, environmental protection features amongst the legitimate purposes that should be safeguarded in international trade. However, the decisive question here is whether Article XX was initially conceived to address climate-mitigation objectives. In fact, although climate concerns are not expressly mentioned in Article XX, they might fit into the broad and *evolutionary* terms of Article XX.<sup>320</sup> Indeed, climate change has not always been the tragedy of the commons, and GATT negotiators had surely not anticipated the consequences of climate change back in 1947, where weather imbalances remained fairly minor. Nevertheless, being aware of the establishment of the UNFCCC in 1992, it is surprising that trade negotiators had excluded any explicit reference to climate change in the text of GATT 1994.

*c. Stretching the Definition of Article XX(b) and (g) to Include Climate-Related Trade Restrictions*

*i. Integration of climate concerns in the definition of Article XX(b) and (g)*

Article XX(b) strictly mentions trade measures necessary for the protection of human, animal, and plant life and health. The question of the causality between climate change and the depletion of the natural environment no longer arises, since heat waves, floods, the emergence of tropical diseases, etc., have continued irreversibly impacting our global environment and human life.<sup>321</sup> Yet, never has the WTO Appellate Body applied Article XX(b) to transnational environmental concerns, such as potential club-related restrictions.<sup>322</sup> At this time, breaking the deadlock of Article XX(b) would probably require proving that the measure addresses domestic climate-change concerns and targets a localized protection of human, animal and plant life.<sup>323</sup>

Nevertheless, Article XX(g) is a whole different kettle of fish. Indeed, from the specific wording of the Article, several questions already emerge in relation to climate-related trade measures: first, is the climate an exhaustible natural resource? How does the measure relate

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320. Appellate Body Report, *US—Shrimp*, ¶¶ 129-30, WTO Doc. WT/DS58/AB/R (adopted Nov. 21, 2001).

321. Holzer, *supra* note 318, at 146.

322. Bradley J. Condon, *Climate Change and Unresolved Issues in WTO Law*, 12 J. INT'L ECON. L. 895, 919 (2009).

323. *Id.*

to climate protection? And are climate measures made effective? Although most questions would require careful examination of the WTO jurisprudence (below), climate measures seem, *prima facie*, to fall within the scope of Article XX(g). In fact, the Appellate Body and GATT panels have found clean air to count among exhaustible natural resources.<sup>324</sup> Consequently, climate change being caused by the GHG effect could easily be seen as a clean-air issue.<sup>325</sup> Besides, clean air being a borderless environmental issue, Article XX(g) might be relevant to transboundary relations, which raises the question of the extraterritorial application of Article XX.<sup>326</sup>

*ii. The Specific Treatment of Emissions Tradable Permits*

Our climate-club structure will explore ways to provide an exclusive market access to members' emissions trading schemes. Under these circumstances, to determine whether carbon trading would be subjected to WTO restrictions entails considering whether emissions credits enter the definition of a good under international trade law. Could emission units be treated as imported products? Goods being usually considered as "tangible or movable personal property other than money; (especially) articles or items of merchandise," emissions allowances would appear quite unconventional, being regarded substantially as a right to emit a certain amount of GHG.<sup>327</sup> Due to their peculiar characteristics, the status of traded emissions remains debatable, so there is a rather large grey area in respect to its direct effect on trade law.<sup>328</sup>

In fact, restrictions on the admittance of emissions allowances issued in other jurisdictions could constitute a direct breach of WTO non-discrimination rules. In any event, ETSs comprise a number of unique design features that could incidentally affect the fairly broad scope of international trade and would in the end have an import-restrictive impact on goods and services *per se*, either in the form of WTO-illegal subsidies, inappropriate dumping, or border carbon adjustment.<sup>329</sup>

With regards to subsidies and anti-dumping constraints, the focus can easily be shifted by phasing out the free allocation of emission units

324. See, e.g., *US—Gasoline*, Appellate Body Report, *supra* note 276, ¶ 8.

325. John M. Broder, *EPA Clears Way for Greenhouse Gas Rules*, N.Y. TIMES (Apr. 17, 2009), <https://www.nytimes.com/2009/04/18/science/earth/18endanger.html>.

326. Condon, *supra* note 322, at 918.

327. WTO, DISPUTE SETTLEMENT REPORTS 2002: VOLUME IX 3608 (2005).

328. Kateryna Holzer, *WTO law issues of emissions trading* 19 (World Trade Inst., Working Paper No. 2016/1, 2016).

329. *Id.*

handed over by governments. However, the issue is not clear cut for carbon BAMs, even when relying on the surrender of allowances instead of a proper tax levy. The most pressing question is whether those mechanisms can still be envisaged as a tax falling under Article III:2? And positively if they are portrayed as indirect taxes (adjustable)? Although some authors assimilated emissions allowances requirements to an indirect tax eligible for border adjustment,<sup>330</sup> in a more probable scenario, it is assumed that club members would find a pass-through in the letter and spirit of Article XX.<sup>331</sup>

Objective criteria such as the stringency of emissions caps,<sup>332</sup> or resilient use of government revenues (fund low-carbon projects) would certainly legitimize trade restrictions under Article XX.<sup>333</sup>

Nonetheless, a final point remains unresolved with respect to Article XX's scope of application: the question of its application to a cross-border club of carbon markets.

## 2. Geographical Scope: The Extraterritorial Application of Article XX to a Club of Carbon Markets

GATT's provisions have been formulated to block out abusive unilateral trade measures, enacted in the form of harmful trade protectionism. Unilateral initiatives have already succeeded at imposing national climate policy standards to foreign countries, having borne the consequences of those unilateral restrictions. Frequently, unilateral trade measures have intervened in response to proven transboundary environmental harm, on the one hand, and in accordance with Article XX, on the other. The same thinking pattern can be applied to international environmental law and WTO law, the right to sovereignty assuming, in either case, a balancing role.

### *a. The Environmental Law Approach Backs Up Climate-Clubs Initiatives*

The first occurrences of extraterritoriality concerns were highlighted in the context of international environmental law, before the adoption of GATT 1994.

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330. de Cendra, *supra* note 251, at 138.

331. Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶ 227, WTO Doc. WT/DS332/AB/R (adopted Dec. 17, 2007); *EC—Seal Products*, *supra* note 52, ¶¶ 299-300.

332. Jürgen G. J. Lefevere & Jacob David Werksman, *WTO Issues Raised by the Design of an EC Emissions Trading System under the Kyoto Protocol* (1999).

333. Holzer, *supra* note 318, at 19.

The *Trail Smelter* case appeared as a benchmark decision, opening up the possibility of triggering states' responsibility for transboundary environmental harm, in that case air pollution caused by industrial fumes.<sup>334</sup> Later, principle 21 of the 1972 Stockholm Declaration, which is a pioneer text in the preservation and enhancement of human interaction with the environment, struck a balance between states' sovereign right to exploit their own resources and their responsibility to not cause transboundary damage to the environment.<sup>335</sup>

The question of states' liability for transboundary environmental harm raises relevant questions in terms of non-compliance consequences. In fact, according to international environmental jurisprudence, even unilateral sanctions enacted as trade-restrictive measures would conceivably find legal justification.<sup>336</sup>

However and surprisingly, such an approach has not been replicated in international climate change governance. Despite being acknowledged as the greatest threat to humankind and the global environment, UNFCCC negotiating parties continue to exclude any reference to such no-harm principle,<sup>337</sup> leaving it out of the UNFCCC agreements.<sup>338</sup>

First of all, climate treaties have chosen to translate climate-change mitigation actions into strictly quantified emission limitation and reduction commitments,<sup>339</sup> which must be understood as substantially differing from states' responsibility to remedy the environmental harm caused, or cease its wrongful conduct under international environmental law.<sup>340</sup>

Moreover, although the Paris Agreement outlines the importance of loss and damages in the promotion of global climate action,<sup>341</sup> it has

334. U.N., REPORTS OF INTERNATIONAL ARBITRAL AWARDS: TRAIL SMELTER CASE (U.N. 2006), [https://legal.un.org/riaa/cases/vol\\_III/1905-1982.pdf](https://legal.un.org/riaa/cases/vol_III/1905-1982.pdf).

335. U.N. Conference on the Human Environment, *Declaration on the Human Environment*, A/CONF.48/14/Rev.1, at 5 (June 16, 1972).

336. Holzer, *supra* note 318, at 158.

337. The general trend in international climate-change governance is to give more weight to principles such as Common but Differentiated Responsibilities and Respective Capabilities, instead of relying on customary principles of environmental law. In fact, very rarely has states' liability been retained on the basis of the no-harm principle in climate litigation (due to difficulties of its application).

338. Alexander Zahar, *Mediated versus Cumulative Environmental Damage and the International Law Association's Legal Principles on Climate Change*, 4 CLIMATE L. 217, 227 n. 27 (2014).

339. Kyoto Protocol to the UNFCCC art. 3(1), Dec. 11, 1997, 2303 UNTS 148 (entered into force Feb. 16, 2005).

340. Benoit Mayer, *The Relevance of the No-Harm Principle to Climate Change Law and Politics*, 19 ASIA-PAC. J. ENV'T L. 79, 83 (2016).

341. Adoption of the Paris Agreement, *supra* note 11, annex art. 8.

thereafter specified that under no circumstances should this mention provide a basis for any liability or compensation.<sup>342</sup>

Nevertheless, there is no doubt that the no-harm principle is relevant to climate-change discussions, since its triggering is dependent upon the fulfillment of conditions such as cross-border environmental damage, causal link with national activities, and a failure to take reasonable measures to prevent such harm to occur.<sup>343</sup> Yet, the path taken by climate negotiators may be understandable regarding the difficulty that proving the satisfaction of previous conditions may represent. Climate change being by definition a global phenomenon, giving effect to transboundary damage in this context would highlight the concomitant responsibility of numerous states, but also the indirect nature of the climate impact, as well as a very remote causality between GHG emissions and environmental harms.<sup>344</sup>

The irreversible and borderless impacts of climate change necessarily imply setting a large transboundary framework for climate-change mitigation. In response, this context calls to consider concerted climate-clubs initiatives, enacting trade-restrictive measures, designed as to legitimize the protection of global environmental interests.

In addition, for matters of overall consistency between environmental, climate, and trade regimes, there is an absolute necessity to safeguard mitigation actions extraterritorially, for instance within the structure of a climate club. However, legal foundation for compliance is lacking in international climate law, and only time will tell whether any occurrence of the no-harm principle would ever be included in climate treaties. One thing is for sure: climate change is an area of environmental law in its own right in which the traditional no-harm principle would require adaptation so as to be flexible, while allowing states parties to take preventive measures, perhaps in the form of trade barriers. Climate conventions are not the only texts remaining silent with regards to transboundary environmental impact. Even though pre-GATT international trade law already considered extraterritorial reach, the potential application of general exceptions of GATT Article XX to cross-border initiatives remains to be scrutinized.

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342. UNFCCC Dec. 1/CP.21, Adoption of the Paris Agreement, ¶ 51, U.N. Doc. FCCC/CP/2015/10/Add.1 (Jan. 29, 2016).

343. Benoit Mayer, *State Responsibility and Climate Change Governance: A Light through the Storm*, 13 CHINESE J. INT'L L. 539, 552-54 (2014).

344. Mayer, *supra* note 340, at 91-92.

*b. The Potential for a Cross-Border Approach to Climate-Change Mitigation Under Article XX*

Non-product-related PPM measures were long regarded as compliant with states' rights to sovereignty, and were not therefore per se incompatible with WTO law.<sup>345</sup> While it is unclear whether a climate club setting trade restrictions jointly would be protected under Article XX of the GATT, it might reasonably be expected that, since a unilateral one-off approach to trade measures would be relevant in the case of transboundary harm, the scope of Article XX could equally be extended to climate-clubs initiatives.

To support this position, public international law long regarded consensual multilateral measures exercising an extraterritorial jurisdiction, through a state-to-state ETS or carbon border adjustment mechanisms, as more desirable than mere unilateral measures, which are often arbitrary.<sup>346</sup> There is an absolute necessity for club members to lay down their common standards in a multilateral agreement, instead of relying upon unilateral measures, consisting of isolated undertakings. It must be acknowledged, however, that the broader the participation and acceptance from major emitters, the more the guarantee of legitimacy for existing trade measures.<sup>347</sup> Hence, climate club members have every interest in making their club attractive in terms of exclusive advantages granted to participants.

Additionally, club structures for the implementation of climate-change mitigation have at the moment no competition in terms of multilateralism. Considering the continuing lack of framework for a global carbon market (previous Conferences of the Parties failing to provide a comprehensive rulebook for the implementation of climate commitments, especially with regards to "Internationally Transferred Mitigation Outcomes" under Article 6(2) of the Paris Agreement) in the context of the UNFCCC, regional club initiatives are the most efficient cooperation existing on the international scene and could become the norm.

Scrupulous attention should now be paid to the substantive content of Article XX, especially how it has applied to trade restrictions, with a view to legitimizing climate-change mitigation measures under the auspices of a climate club.

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345. CHRISTINE R. CONRAD, PROCESSES AND PRODUCTION METHODS (PPMs) IN WTO LAW: INTERFACING TRADE AND SOCIAL GOALS 275 (2011).

346. Holzer, *supra* note 318, at 161.

347. *Id.*



B. *Climate-Related Trade Measures Subject to the “Two-Tier Test” of Article XX*

The two-tier test contained in Article XX requires the defendant to prove first that the trade measure fits one of the sub-paragraphs under Article XX, and second, by reference to the introductory clauses, that it does not constitute “a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.”<sup>348</sup>

1. Proving a Degree of Connection Between Trade Measures and Climate Policy Objectives: Specific Objectives Under Article XX(b) and (g)

It is no surprise that a climate-related trade measure would seek legitimacy under Article XX(b) or (g). However, the application of those paragraphs is not subjected to the same conditions. Indeed, while Article XX(b) would rely on a necessity test similar to other legitimate objectives, Article XX(g) is built on a relating-to test, in pursuance of the letter of the Article.

a. *The Necessity Test of Article XX(b)*

To successfully complete the assessment of necessity, a number of distinct aspects must submit to a weighing and balancing test,<sup>349</sup> assessing in the first instance various relevant factors: the extent of the contribution of the policy to the achievement of the objective (effectiveness), and its trade-restrictiveness effect, in the light of the importance of the interests or values at stake (proportionality).<sup>350</sup> The WTO’s Appellate Body has recalled that the more crucial or important the interests and values at stake, the easier it is to acknowledge the contribution of the measure to achieve those ends.<sup>351</sup>

The interpretation of the panel in *Brazil–Taxation* has been a real boon for climate club initiatives. Indeed, the reduction of CO<sub>2</sub> emissions was scrutinized as an issue of high importance. The panel has reproduced the argumentation of the WTO’s Appellate Body in *Brazil–Retreaded Tyres*, to consider that “few interests are more ‘vital’ and

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348. *US—Gasoline*, Appellate Body Report, *supra* note 272, at 13.

349. See generally Appellate Body Report, *China—Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WTO Doc. WT/DS363/AB/R (adopted Jan. 19, 2010) [hereinafter *China—Audiovisual Products*].

350. *Brazil—Retreaded Tyres*, *supra* note 331, ¶ 156.

351. *EC—Asbestos*, *supra* note 69, ¶¶ 170-72.

‘important’ than protecting human beings . . . and protecting the environment is no less important.”<sup>352</sup> With the release of the 5th Annual Report of the IPCC and the adoption of the Paris Agreement on Climate Change, never has the climate threat been acknowledged as more critical. In all likelihood, such context would certainly pave the way for the introduction of climate-related trade restrictions that would make a contribution to climate-change mitigation and fight carbon leakage, regardless of their trade-restrictive effect.

Whether climate-change mitigation achievements are attributed to domestic ETSs could be called into question, considering the existence of competing policies such as the development of renewable energy, and energy efficiency targets. As credible evidence, economic surveys using EU Sectoral Emissions Data make a very strong case that the EU-ETS has had an important net impact on GHG emission cuts, suggesting that it “saved about 1.2 billion tons of CO<sub>2</sub> from 2008 to 2016, roughly 3.8% relative to total emissions over this period.”<sup>353</sup> Therefore, in most cases, doubts regarding the contribution of ETSs to climate-change mitigation have been allayed.

The question is more sensitive for border carbon adjustments. Indeed, hardly any state has ever experienced those mechanisms, usually appearing in the form of distant long-term policies. In such context, the WTO’s Appellate Body has been very clear and specifically considers that, because of measures adopted for climate-change mitigation “can only be evaluated with the benefit of time,” then the defendant could bring future “quantitative projections” into the debate.<sup>354</sup> Consequently, a club-structure resorting to inexperienced climate policies could easily provide evidence of contribution to climate-change mitigation.

Aside from the necessary justification assessing the effectiveness and proportionality of the measure,<sup>355</sup> a review of “possible alternative measures that may be reasonably available to the responding member” should be carried out.<sup>356</sup> In fact, even though the environmental aspiration is often considered to outweigh the potentially trade-restrictive effect of the climate measure, the applicant could still contribute elements to the discussion, seeking a “reasonable alternative” to the

352. Panel Report, *Brazil—Certain Measures Concerning Taxation and Charges*, ¶¶ 7.913-16, WTO Doc. WT/DS472/R (adopted Jan. 11, 2019).

353. Patrick Bayer & Michaël Aklin, *The European Union Emissions Trading System reduced CO<sub>2</sub> emissions despite low prices*, 117 PROC. NAT’L ACAD. SCI. 8804, 8805 (2020).

354. *Brazil—Retreaded Tyres*, *supra* note 331, ¶ 146.

355. Holzer, *supra* note 318, at 163.

356. *China—Audiovisual Products*, *supra* note 349, ¶¶ 239, 242.

restriction. Hence, the assessment will finally be layered with a suitability test<sup>357</sup> comparing the measure with less trade-restrictive alternatives, “providing an equivalent contribution to the achievement of the objective.”<sup>358</sup> There is no question of lowering the climate standards embedded in the measure, as the Paris Agreement requires parties to have the “highest possible ambition.”<sup>359</sup>

Nevertheless, why not revise a trade-restrictive measure whose impact on climate-change mitigation could be achieved otherwise? For instance, a climate club establishing a complete import ban on any good produced by non-members having lower climate standards might sound quite extreme, when importers can simply put in place border taxes or request the surrender of allowances. These are corrective mechanisms that are much less invasive, while still a disincentive for producers.

The stringency of the necessity test can be both a blessing and a curse for club members. Indeed, although Article XX(b) would secure the interests of non-members, preserving them from abusive penalties, climate club members could experience relative difficulty in proving the necessary character of their policies, which is why other avenues should be contemplated as means of defense.<sup>360</sup>

*b. The “Relating to” Test Under Article XX(g)*

There is a widespread belief that Article XX(g) would be more easily triggered to justify PPM-related measures or even carbon-related border adjustment mechanisms (BAMs), its scrutiny being relatively moderate.<sup>361</sup>

Climate concerns being henceforth integrated in the definition of natural resources, the assessment of “relating to” would explore whether trade measures are “primarily aimed at” the conservation of clean air.<sup>362</sup> This wording has been clarified to require that a “close and genuine relationship of ends and means” to the conservation of natural resources be established.<sup>363</sup> However, the nature of this relationship has not been spelled out. Therefore, proving that climate concerns are not merely a

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357. Holzer, *supra* note 318, at 150.

358. *Brazil–Retreaded Tyres*, *supra* note 331, ¶ 178.

359. The Paris Agreement, *supra* note 194, art. 4.3.

360. Joost Pauwelyn, *U.S. Federal Climate Policy and Competitiveness Concerns* 34 (Nicholas Inst. for Env't Pol'y Sol., Duke University, Working Paper No. 07-02, 2007) (Apr. 2007).

361. Kohei Saito, *Yardsticks for “Trade and Environment”*: *Economic Analysis of the WTO Panel and the Appellate Body Reports regarding Environment-oriented Trade Measures* 16 (Jean Monnet Working Paper No. 14/01, 2002).

362. *US–Gasoline* Appellate Body Report, *supra* note 272, ¶ 16.

363. Appellate Body Report, *China–Rare Earths*, ¶ 5.94, WTO Doc. WT/DS431/AB/R (adopted Aug. 7, 2014) [hereinafter *China–Rare Earths*].

smokescreen, the real purpose of which will be to restrict international trade, appears sufficient for Article XX(g) to kick in.

Nonetheless, analyzing the genuine relationship would require focusing on the design and structure of the measure, concurrently with the conditions of the relevant market, among which are the natural resource at stake, the market structure, the geographical scope of the market, and the interactions between foreign- and domestic-market players.<sup>364</sup> A climate club structure is based on solid trade rules (e.g., climate standards, ETS) and would usually bring together regional partners toward joint climate action. Along with the interpretation of Article XX(b), the Appellate Body equally gave weight to predictable effects arising out from the careful evaluation of design, structure, and market conditions surrounding the measure.<sup>365</sup> Based on these circumstances, climate clubs, whose ultimate goals are climate-change mitigation and the elimination of carbon leakage, would conceivably fall within the definition of Article XX(g).

What's more, another important condition can be found in the second limb of the Article, requiring measures to be made effective in conjunction with domestic restrictions. In this sense, trade measures applicable to foreign countries must operate jointly with the restrictions on domestic production or consumption.<sup>366</sup> There can be no doubt that participants to a climate club are enduring high levels of regulation, since they agreed to comply with a number of stringent climate standards. The very objective of climate clubs being to safeguard industries' competitive interests against carbon leakage, members would have necessarily imposed restrictions on their domestic production or consumption through carbon taxation schemes, or national ETSs. While the Appellate Body has not required that the burden of climate conservation be evenly distributed,<sup>367</sup> domestic restrictions must be real, all the more so when domestic consumption "accounts for a major part of the exhaustible natural resources,"<sup>368</sup> meaning, if club members are among major GHG emitters.

Henceforward, looking at the introductory clause of Article XX would entail examining the way the measure is applied, specifically

364. *Id.* ¶ 5.9.

365. *Id.* ¶¶ 5.99-5.100.

366. Appellate Body Report, *China-Raw Materials*, ¶ 356, WTO Doc. WT/DS394/AB/R (adopted Jan. 30, 2012).

367. *China-Rare Earths*, *supra* note 363, ¶¶ 5.133-5.134.

368. *Id.* ¶ 5.136.

whether it arbitrarily or unjustifiably discriminates against WTO members or restricts international trade.

## 2. The “Chapeau” as Anti-Abuse Check

The chapeau recalls that trade measures shall not be “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 . . . .” Such inclusion early in Article XX reflects a restrictive approach to GATT’s exceptions designed to prevent any abuse of the right to invoke exceptions and thus defeat substantive rules.<sup>369</sup> Therefore, not only is the manner in which the measure is applied important, but also its design, content, and nature will be relevant for the close examination under the chapeau.<sup>370</sup>

### *a. Sanctioning an “Arbitrary or Unjustifiable Discrimination”*

The requirement for non-discrimination is already mentioned under the GATT’s legal obligations (Articles I and III). Yet the exception clauses of the GATT are based upon identifying a discriminatory intent,<sup>371</sup> compared to the mere discriminatory effect set under substantive rules. Determining the rationale of the discrimination necessarily entails searching for the actual cause of the discriminatory treatment and establishing whether it bears relevant connection to the Article XX-related objective.<sup>372</sup> The immediate response challenge was to question to what extent different countries’ circumstances had to be considered.

Are exporting countries required to fully copy climate policies implemented under a climate-club structure? Are independent climate actions given any effect at the importing states’ borders? To what extent shall circumstances existing in different countries be taken into account? Most of these concerns have been dispelled following the U.S.-Shrimp case.<sup>373</sup> While the U.S. had initially required that exporting

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369. Donald M. McRae, *GATT Article XX and the WTO Appellate Body*, in *NEW DIRECTIONS IN INTERNATIONAL ECONOMIC LAW: ESSAYS IN HONOUR OF JOHN H. JACKSON* 232 (Bronckers & Quick eds., Kluwer Law International 2000).

370. Appellate Body Report, *US—Shrimp*, ¶ 140, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998).

371. Reinhard Quick & Christian Lau, *Environmentally Motivated Tax Distinctions and WTO Law. The European Commission’s Green Paper on Integrated Product Policy in Light of the ‘Like Product’ and PPM-Debates*, 6 J. INT’L ECON. L. 419, 439 (2003).

372. *Brazil—Retreaded Tyres*, *supra* note 331, ¶¶ 225-27.

373. *See generally US—Shrimp*, *supra* note 353.

countries “adopt essentially the same policy,” excluding the consideration of any “other specific policies . . . adopted for the protection and conservation of sea turtles,”<sup>374</sup> the import ban was eventually revised to allow for the adoption of a “program comparable in effectiveness.”<sup>375</sup> This last requirement was regarded as satisfying the Appellate Body’s test, leaving sufficient flexibility for exporting states in the application of the measure.<sup>376</sup> Applying such strategy in the context of PPMs or carbon BTAs is absolutely vital, first to avoid at all costs double taxation, but also to take heed of differentiation.

On the one hand, it would be rather inappropriate to impose a carbon BTA when producers are already paying emissions costs under an ETS, an export tax, or even an improved energy intensity target.<sup>377</sup> But performing a comparison between different emission reductions policies would obviously lead to substantial technical difficulties, especially when comparing price-based (carbon taxes, cap-and-trade systems) and non-price-based climate measures (e.g., renewable targets, bans).<sup>378</sup> Besides, drawing lessons from the Appellate Body’s reasoning in *US-Shrimp*, the US exempted exporting countries from surrendering emissions allowances when they had already taken comparable action nationally.<sup>379</sup> Therefore, participants to a climate club should adopt this same comprehensive approach, not only for the sake of compliance with the chapeau of GATT Article XX, but also for international diplomatic reasons.

One may wonder how the effectiveness of measures to achieve climate-change mitigation should be assessed. Should it be by reference to the percentage of GHG emissions reduction desired? Or by looking at countries’ NDCs? There is a need to build coherence around the climate-change and trade regimes. In fact, in climate-change law, particular attention has been attached to the guiding principle of “common but differentiated responsibilities and respective capabilities” (CBDR-RC), which takes on a new dimension in the context of unilateral trade measures.

Indeed, WTO Agreements have included differentiation concerns to some extent, calling for the preservation of the environment in a manner consistent with members’ “respective needs and concerns at

374. *Id.* ¶¶ 161, 163.

375. *Id.* ¶ 144.

376. *Id.*

377. Holzer, *supra* note 318, at 170.

378. See generally Patrick Low, Gabrielle Marceau & Julia Reinaud, *The Interface Between the Trade and Climate Change Regimes: Scoping the Issue*, 46 J. WORLD TRADE 485 (2012).

379. Holzer, *supra* note 318, at 170.

different levels of economic development.”<sup>380</sup> Although the chapeau of GATT Article XX usually targets measures where the same conditions prevail, the Appellate Body has also considered that the discrimination may take place “when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program.”<sup>381</sup> Inherently, domestic climate contributions cannot be the same according to the principle of equity, minding “specific needs and special circumstances of developing countries,”<sup>382</sup> which is why a unilateral measure excluding any account of national circumstances would constitute an unjustifiable and arbitrary discrimination. For this reason, solely relying on the publicity of states’ NDCs would not be sufficient to decide whether to trigger a border tax adjustment. The preferred avenue should involve looking at reaching a negotiated agreement between club members and their potential trading partners, agreeing on a definition of comparable efforts, and staying mindful of the level of development as well as historical and current GHG emissions.<sup>383</sup>

*b. Restrictions to International Trade: A Critical Assessment of the Trade-Restrictive Effects of Climate Clubs*

The formulation of the chapeau of GATT Article XX accurately depicts the relative confrontation between trade and climate change, as it perfectly echoes Article 3.5 of the UNFCCC. As James Bacchus states, “the truth is the economy and environment are one and the same, and they must be treated as one and the same in all international rules for global governance. The economic future cannot be separated from the environmental future, and vice versa.”<sup>384</sup> In fact, it would be misleading to regard climate and trade merely as two clashing features, when they have such an intimate and inextricable relationship. Doubts remain though as to whether both features could ever be reconciled.

There is a genuine opportunity for trade law to contribute to climate-change mitigation and the energy transition at large. Yet, it has stood as a major obstacle to mitigation progress. The WTO jurisprudence of Article XX resting on a case-by-case basis appears today somewhat

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380. Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter Marrakesh Agreement].

381. *US—Shrimp*, *supra* note 353, ¶ 165.

382. F.C.C.C Dec. 1/CP.21, *supra* note 342, preamble.

383. ZHONG XIANG ZHANG, ENCOURAGING DEVELOPING COUNTRY INVOLVEMENT IN A POST-2012 CLIMATE CHANGE REGIME: CARROTS, STICKS, OR BOTH? 6 (MPRA Paper No. 13174, 2009), [https://mpra.ub.uni-muenchen.de/13174/1/MPRA\\_paper\\_13174.pdf](https://mpra.ub.uni-muenchen.de/13174/1/MPRA_paper_13174.pdf).

384. James Bacchus, *The Content of a WTO Climate Waiver* (CIGI Papers No. 204, Dec. 2018), <https://www.cigionline.org/publications/content-wto-climate-waiver/>.

inappropriate to effectively tackle the climate crisis. Different multilaterally negotiated pathways have been suggested in order for trade rules to give a push to climate-change mitigation, from considering the free trade of green products, the application of carbon-related BAMs, and the clarification of environment-related WTO rules (Article XX), to fostering green technologies transfer and encouraging green subsidies.<sup>385</sup> However, neither UN climate negotiations nor WTO trade discussions have considered remedying this clashing situation, although it has long been acknowledged that trade liberalization has been considerably increasing GHG emissions, as a result of increased economic activity.<sup>386</sup>

Pending a long-term solution balancing trade and climate interests, the development of a climate club cooperative approach could be part of the response. Different trade policies options have nonetheless been highlighted to clear the way for prosperous club development, starting with the opportunity for an explicit reference to the climate challenge in trade rules.<sup>387</sup> Surely the preferred solution would require WTO members to assimilate climate measures taken pursuant to the Paris Agreement, to legitimate objectives protected under GATT Article XX, so far as consistent with Article 3.5 of the UNFCCC and the chapeau of Article XX.<sup>388</sup> Considering that Article 6 of the Paris Agreement urges « voluntary cooperation » in the pursuit of « higher ambition » through complementary “mitigation and adaptation actions,”<sup>389</sup> climate clubs would, beyond doubts, fall within the definition of a “climate measure” taken for the implementation of climate-change mitigation goals.

It is assumed, however, that the amendment of WTO obligations and provisions would be quite unfeasible under current circumstances, the decision-making process being generally practiced by consensus.<sup>390</sup> Another solution would hence need consideration: indeed, the content of WTO waivers being rather flexible in the alteration of trade rules, the adoption of a climate waiver would allow the realignment of trade rules with climate measures consistent with either the UNFCCC or a

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385. BEATRIZ LEYCEGUI & IMANOL RAMIREZ, E15 INITIATIVE, ADDRESSING CLIMATE CHANGE: A WTO EXCEPTION TO INCORPORATE CLIMATE CLUBS (May 2015), <https://e15initiative.org/wp-content/uploads/2015/09/E15-Climate-Leycegui-and-Ramirez-Final.pdf>.

386. WTO AND U.N. ENV'T PROGRAMME, TRADE AND CLIMATE CHANGE 50 (WTO-UNEP REP. 2009), [https://www.wto.org/english/res\\_e/booksp\\_e/trade\\_climate\\_change\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf).

387. JAMES BACCHUS, E15 INITIATIVE, GLOBAL RULES FOR MUTUALLY SUPPORTIVE AND REINFORCING TRADE AND CLIMATE REGIMES 10 (Jan. 2016), [https://e15initiative.org/wp-content/uploads/2015/09/E15\\_ICTSD\\_Climate\\_Change\\_report\\_2016.pdf](https://e15initiative.org/wp-content/uploads/2015/09/E15_ICTSD_Climate_Change_report_2016.pdf).

388. *Id.* at 16.

389. F.C.C.C Dec. 1/CP.21, *supra* note 342, art. 6.

390. Marrakesh Agreement, *supra* note 380, art. IX, ¶ 1.



climate club agreement without defeating those rules in essence.<sup>391</sup> Next to the development of climate clubs, such WTO climate waiver should promote trade disciplines on fossil fuel subsidies, an innovative approach to green subsidies, and a broadening of GATT Article XX to secure ambitious climate and environmental domestic policies.<sup>392</sup>

Despite bearing undoubted relevance to the intractable conflict between trade and climate concerns, those policy recommendations have today remained fairly impracticable. It seems that there is a crucial need to develop a pragmatic approach encouraging the flourishing development of club-related plurilateral initiatives before considering further multilateral negotiations.<sup>393</sup> On top of this, the WTO jurisprudence has maintained an extensive interpretation of the environmental exceptions under Article XX(b) and (g), as individual disputes arise.

## V. CONCLUSION

Unless there is a significant reform in the current laws, policies, and actions regarding climate change, the global levels of GHG emissions will continue to increase. As a response to this problem, many countries have enacted regulatory measures and economic incentives to mitigate climate change at the national level. One of them is the ETS, in which carbon has been given a price and the environmental externality of the industry is internalized with this pricing mechanism. However, these national-level carbon pricing mechanisms create the risks of carbon leakage, reduction of competitiveness of their industry, and free-riding in the countries that have no climate-change mitigation measures.

To eliminate these concerns, the structure of the climate club has been proposed. In the club regime, countries sharing the same environmental concerns form a unified regime in the realms of carbon pricing and regulations, and in exchange, they provide advantages to each other in the trade sector. Climate clubs can adopt several trade measures and market-based mechanisms to link their members. One of them is to harmonize ETS regimes among climate-club members. The recognition of the emission units of different club jurisdictions for compliance purposes and exclusion of non-club members units raises the issue of violation of the MFN principle. To assess the relevance of the MFN principle for the emission units, the units need to fall under one of the WTO agreements. In this article, emission units have been

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391. Leycegui & Ramirez, *supra* note 385, at 15.

392. Bacchus, *supra* note 387, at 1.

393. Leycegui & Ramirez, *supra* note 385, at 3.

analyzed as a good and a service respectively, in line with the GATT and GATS MFN clauses.

The key point in the MFN analysis is the determination of the likeness of the units of climate-club members and non-club members. Given that the characteristics of the emission units bear notable differences originated from the ETS that they are issued in, the club and non-club emission units are found not to be like products. This conclusion paves the way for further integration of the ETSs and the creation of climate clubs, which reflects the coalition of the willing for carbon abatement efforts.

Moreover, unshared trade benefits within climate clubs would constitute a potential violation of the WTO's core non-discrimination principles of MFN and national treatment, as provided under Articles I and III of GATT, respectively. However, equilibrium must be sought between further trade liberalization and combating climate change. To avoid such violations, the WTO members would have to explore alternative ways or adopt supportive climate policies. A more promising approach would be for WTO members to establish general permanent exceptions that allow preferential arrangement among climate clubs within the WTO.

Under Article XX of GATT (general exceptions), the existing WTO rules allow members to take action on climate change. Such a possibility exists within Article XXIV of the GATT 1994. Also, exceptions in the WTO regime, such as GATT Article XXIV and the Enabling Clause, could be a framework to design a climate club exception in the WTO. Both constitute an acknowledgement from WTO Members of the necessity to address other legitimate objectives within the organization while departing from certain established principles. Paragraph 2(c) of the Enabling Clause of the GATT provides that differential treatment could be accorded in regional or global arrangements among developing countries for the mutual reduction or elimination of tariffs and non-tariff measures on products imported from each other. The context in which these exceptions were negotiated and accepted can shed some light on the feasibility of a WTO exception for climate clubs.

In addition, emissions trading could also be governed by RTAs, which are permitted under WTO law, as the RTAs' climate-change measures and policies intersect with international trade in several ways. Through RTAs, it would be permitted to have exclusive trade benefits among club members without violating the WTO's core principle of non-discrimination.