Spring 4-29-2022

The Legality of the European Union's Carbon Border Adjustment Mechanism and the Limitations of World Trade Organization Rules on Effective Climate Action

Delaney Smith
University of Mississippi

THE LEGALITY OF THE EUROPEAN UNION'S CARBON BORDER ADJUSTMENT MECHANISM AND THE LIMITATIONS OF WORLD TRADE ORGANIZATION RULES ON EFFECTIVE CLIMATE ACTION

By Delaney G. Smith

A thesis presented in partial fulfillment of the requirements for completion of the
Bachelor of Arts degree in International Studies
Croft Institute for International Studies
Sally McDonnell Barksdale Honors College
The University of Mississippi

University, Mississippi

April 2022

Approved:

Advisor: Professor Antonia Eliason

Reader: Dr. Kees Gispen

Reader: Dr. Oliver Dinius

Abstract

In July 2021, the European Union proposed the creation of a carbon border adjustment mechanism, a trade mechanism that would levy a carbon price against imported goods. This mechanism, the first of its kind, has the potential to address weaknesses in the EU's existing domestic cap and trade system and create a financial incentive for other nations to reduce their carbon emissions. However, legal experts have raised concerns that this mechanism may violate the rules of the World Trade Organization. If another member state raises a complaint against the measure, the European Union will be forced to navigate the World Trade Organization's dispute settlement process to determine the legality of the measure. By examining similar trade measures defended under Article XX of the General Agreement on Tariffs and Trade, this thesis explores how such a dispute might play out. Ultimately, this thesis asks the question of whether the rules of the World Trade Organization are too narrow to allow for the kinds of trade measures needed to drastically decrease global carbon emissions and prevent further catastrophic climate change.

Table of Contents

List of Abbreviations

AB	Appellate Body
CBAM	carbon border adjustment mechanism
DSB	Dispute Settlement Body
DSU	Dispute Settlement Understanding
EC	European Communities
EFTA	European Free Trade Association
ENVI	European Parliament Committee on the Environment, Public Health and Food Safety
EU	European Union
EU ETS	European Union Emissions Trading System
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
IPCC	United Nations Intergovernmental Panel on Climate Change
MEA	multilateral environmental agreement
NDC	nationally determined contribution
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

Introduction

It is estimated that the global average temperature has warmed more than one degree Celsius over the past century, with roughly one-tenth of the globe warming more than 2C.[1] The effects of this human-caused warming are already being felt today. The frequency of extreme weather events such as heat waves, droughts, and heavy rainfall have increased globally, glaciers and sea ice are melting, and, as a result, sea levels have risen.[2]

At the 2015 United Nations COP21 summit, 196 countries became party to the Paris Agreement, a landmark legally binding international treaty which "aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty."[3] To do so, parties to the treaty commit to the common goal of limiting greenhouse-gas emissions in order to keep the global average rise in temperature below 2C compared to preindustrial levels, while also striving for the more ambitious goal of 1.5C.[4] Parties are required to set their own emissions reductions targets, known as "nationally determined contributions" (NDCs).[5] According to the Paris Agreement, NDCs should represent a given country's highest possible emission reduction ambition, while reflecting a given country's "common but differentiated responsibilities and respective capabilities, in the light of different

---

[1] Chris Mooney & John Muyskens, *Dangerous new hot zones are spreading around the world*, Washington Post (2019), https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-world/ (last visited Dec 10, 2021).

[2] Ove Hoegh-Guldberg et al., *Global Warming of 1.5 ºC: Impacts of 1.5°C of Global Warming on Natural and Human Systems*, IPCC 177 (2018)., Randal Jackson, *The Effects of Climate Change*, Climate Change: Vital Signs of the Planet , https://climate.nasa.gov/effects (last visited Dec 10, 2021).

[3] Paris Agreement to the United Nations Framework Convention on Climate Change, art. 2(1), Dec. 12, 2015, T.I.A.S. No. 16-1104.

[4] ibid, art. 2(1)(a)

[5] ibid, art. 4(2)

national circumstances."[6] NDCs are to be updated every five years, with successive NDCs becoming more ambitious over time, and with the ultimate goal of achieving net-zero carbon emissions by the middle of the century.[7] In November, 2021, the UN gathered again in Glasgow, Scotland at the COP26 to reaffirm the Paris Agreement's commitment to limiting warming below 2C. The decisions of this conference are codified in the Glasgow Climate Pact. Thus far, 130 countries have submitted new NDC targets, many of which are stronger than their original pledges.[8]

A 2018 report by the UN Intergovernmental Panel on Climate Change (IPCC) estimates that if global emissions continue at current levels, the average temperature will likely rise by 1.5C by just 2040. Under this report's least optimistic predictions, global temperatures could rise 4.4C by the end of the century under countries' currently proposed policies.[9] More conservative estimates still place warming at 2.7C.[10] According to the IPCC, just a 2C increase could mean significantly more droughts, habitat loss, extreme heat, poverty, and rise in sea level than a 1.5C increase.[11] For island nations threatened by rising sea levels like the Maldives, the difference between 1.5C and 2C is the difference between life and death.[12] Under the best case scenario, if

---

[6] ibid, art. 4(3)

[7] ibid, art. 4(9).

[8] CAT Climate Target Update Tracker, (2021), https://climateactiontracker.org/climate-target-update-tracker/ (last visited Dec 11, 2021).

[9] Adam Taylor & Harry Stevens, *2C or 1.5C? How global climate targets are set and what they mean*, Washington Post (2021), https://www.washingtonpost.com/world/2021/11/10/15c-2c-climate-temperature-targets-cop26/ (last visited Dec 10, 2021).

[10] Glasgow's 2030 credibility gap: net zero's lip service to climate action, Climate Action Tracker (2021), https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/ (last visited Dec 11, 2021).

[11] Melissa Denchak, *Paris Climate Agreement: Everything You Need to Know*, NRDC (2021), https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know (last visited Dec 10, 2021).

[12] Abha Bhattarai, *Maldives minister says efforts aren't enough: 'The difference between 1.5 and 2 degrees is a death sentence for us.'*, Washington Post (2021), https://www.washingtonpost.com/climate-environment/2021/11/13/cop26-glasgow-climate-deal/ (last visited Dec 10, 2021).

the NDCs proposed as a part of COP26 are fully implemented, the earth will warm an estimated 1.8C by the century's end. However, thus far, no single country has adopted short-term policies sufficient to achieve this goal, indicating that, without a radical change, NDCs will likely remain empty promises.[13] Furthermore, absent any enforcement mechanisms in the Paris Agreement, there is little that developing countries, which are most harshly affected by climate change, and countries that are on track to meet their NDCs can do to force others to play their part.

The failure of parties to meet the terms of the Paris Agreement thus far raises the question whether the United Nations Framework Convention on Climate Change and climate treaties in general are sufficient to address the urgent problem at hand. Instead of relying on these treaties alone, some have suggested that the world needs a reexamination of the rules that govern global economic activity – including the rulebook of the World Trade Organization (WTO), the intergovernmental body that regulates and facilitates 98 percent of all global trade.[14] In this vein, an idea that is growing in popularity is that, as the consequences of carbon emissions affect all people and the measures needed to adapt to a changing climate will be incredible expensive, companies should no longer be allowed to emit for free. In recent years, some countries have taken it upon themselves to act independently towards this goal and put a price on pollution by creating domestic cap-and-trade and carbon pricing schemes. While these systems have proven effective at reducing carbon emissions, they are limited to domestic industries and fail to limit emissions from imported goods.[15]

---

[13] Glasgow's 2030 credibility gap: net zero's lip service to climate action, Climate Action Tracker.

[14] Jessica F. Green, *Follow the Money*, 2021, https://www.foreignaffairs.com/articles/world/2021-11-12/follow-money (last visited Dec 11, 2021)., What is the WTO?, https://www.wto.org/english/thewto_e/thewto_e.htm (last visited Apr 13, 2022).

[15] How cap and trade works, Environmental Defense Fund, https://www.edf.org/climate/how-cap-and-trade-works (last visited Dec 11, 2021).

In July 2021, the European Union proposed a solution to this problem in the creation of a carbon border adjustment mechanism (CBAM), a trade measure which would put a price on the carbon emissions of products imported from abroad that is equivalent to the cost of emissions within the EU.[16] This measure has the potential to be an effective tool to reduce emissions within the EU while encouraging global cooperation in emission reductions, and has already inspired discussions of developing similar measures in other countries. However, despite the EU's efforts to comply with existing WTO rules, the CBAM and similar measures run the risk of violating the rules of international trade.[17]

Using the CBAM's potential violation of WTO rules as a case study, this thesis explores the question of whether current trade rules are too restrictive to allow for the kind of comprehensive policies needed to meet the Paris Agreement's goal of limiting global warming to below 2C to mitigate the effects of climate change. Ultimately, this thesis argues that, as the WTO espouses a commitment to sustainable development, an exception to the rules of global trade must be made for trade measures designed to reduce carbon emissions. While free trade should be protected, the global effort against climate change must take priority.

The first chapter of this thesis outlines the background and workings of the EU's carbon border adjustment mechanism and discusses similar measures proposed in other countries. The second chapter then explores the legality of this measure by examining exceptions to the General Agreement on Tariffs and Trade (GATT). The primary sources for this chapter are past WTO

---

[16] European Commission, *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a carbon border adjustment mechanism COM/2021/564 final* (2021), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0564 (last visited March 12, 2022).

[17] James Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*, Cato Institute (2021), https://www.cato.org/briefing-paper/legal-issues-european-carbon-border-adjustment-mechanism (last visited Dec 11, 2021).

dispute settlement cases involving trade measures aimed at environmental protection. After examining the legality of the CBAM, the third chapter of this thesis questions the WTO's current climate framework and proposes a few solutions to address the conflict between the global climate and regimes.

Chapter 1 - An EU Carbon Border Adjustment Mechanism

The European Union Emissions Trading System

In 2005, the European Union implemented the EU Emissions Trading System (EU ETS). The goal of the EU ETS was to create a financial incentive for domestic industries to reduce their greenhouse gas emissions and to encourage the development of greener production technologies. The EU ETS was the first emissions trading system of its kind and today remains the largest carbon market in the world. The system covers all 27 EU member countries, as well as all four of the European Free Trade Association (EFTA) countries: Norway, Iceland, Switzerland and Liechtenstein.[18]

The EU ETS functions as a 'cap and trade' system, in which the EU sets a 'cap' on the amount of greenhouse gasses that can be emitted domestically from certain sectors over a period of time. The EU then issues a fixed number of 'allowances' to companies, which correspond to the number of tons of carbon dioxide that a given company can emit for a calendar year. If companies emit more carbon dioxide than they are allowed, they must purchase extra allowances from companies that emitted less carbon and therefore have leftover allowances (hence the 'trade' part of 'cap and trade'). The system not only limits emissions from European companies to a fixed goal, but also incentivizes them to transition to cleaner technologies in the future. This is achieved by lowering the overall emissions cap over time, reducing the number of allowances that are distributed and driving up the price of allowances on the market place. The EU ETS currently covers the energy sector, manufacturing industry, and aviation sector, including airlines

[18] EU Emissions Trading System (EU ETS), European Commission, https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en (last visited Nov 11, 2021).

operating in the European Economic Area, which together account for approximately 40 percent of the EU's total emissions.[19]

Since its introduction, the ETS has been the cornerstone of the EU's climate change policy and has been relatively successful in reducing EU-wide carbon emissions. Between 2008 and 2016, it is estimated that the emissions trading system prevented more than 1.2 billion tons of carbon dioxide emissions, equivalent to 3.8 percent of total EU emissions compared to a world without the ETS.[20] Furthermore, since 2018, reforms to the ETS have caused the price of carbon emissions to rise drastically, with total emissions from the sectors covered by the system falling in step with the rising prices. Emissions from the regulated sectors fell by 8.7 percent in 2019.[21] As a part of the "Fit for 55" package, the European Commission has proposed tightening the emissions cap further and increasing the carbon price. There have also been talks of expanding the ETS to include the heating and transportation sectors, the latter of which would cover the high-emitting shipping industry.[22]

The EU ETS has also been an inspiration for other countries. Similar carbon markets are now operating or under development in Canada, China, Japan, New Zealand, South Korea, and the United States, which the EU hopes will all eventually be combined to create an international

---

[19] European Commission, *EU Emissions Trading System (EU ETS)*, Climate Action - European Commission (2016), https://ec.europa.eu/clima/policies/ets_en (last visited Sep 13, 2021).

[20] Patrick Bayer & Michaël Aklin, *The European Union Emissions Trading System reduced CO2 emissions despite low prices*, 117 PNAS 8804–8812 (2020).

[21] Paul Hockenos, *The EU's Emissions Trading System is Finally Becoming a Success Story*, Energy Transition (2020), https://energytransition.org/2020/11/the-eus-emissions-trading-scheme-is-finally-becoming-a-success-story/ (last visited Nov 10, 2021).

[22] Yuliia Oharenko, *Strengthening EU Emissions Trading Scheme to Back up Climate Ambitions*, IISD SDG Knowledge Hub (2021), https://sdg.iisd.org:443/commentary/guest-articles/strengthening-eu-emissions-trading-scheme-to-back-up-climate-ambitions/ (last visited Nov 9, 2021).

carbon market, as allowed for in article 6 of the Paris Agreement.[23] As of January 2020, Switzerland has become the first country to link its domestic carbon trading system with the EU ETS, providing an example for possible future integrations.[24]

Despite the relative success of the EU ETS in reducing domestic emissions, critics have argued that the price of allowances on the carbon market remains too low relative to the social cost of carbon emissions. Furthermore, the threat of carbon leakage has prevented the EU ETS from effectively reducing emissions from certain high-emitting sectors. Carbon leakage occurs when businesses transfer their production to countries with more relaxed regulations in order to avoid the costs of complying with domestic climate policies and to maintain their competitiveness on the global market.[25] This allows them to circumvent policies aimed at reducing emissions and puts businesses that switch to carbon efficient production practices at a competitive disadvantage. Furthermore, the increased transportation involved with moving an industry abroad and importing goods back into the original country can potentially be a large source of carbon emissions. Alternatively, complying with emissions standards could drive up the price of goods produced in the original country, leading consumers to turn to 'dirtier' imported products with lower price tags.[26] Overall, carbon leakage from the EU ETS could have the potential to raise global emissions even higher than they would be in a world without the

---

[23] EU Emissions Trading System: International carbon market, European Commission, https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/international-carbon-market_en (last visited Nov 10, 2021).

[24] Council of the EU, *Linking of Switzerland to the EU emissions trading system - entry into force on 1 January 2020* (2019), https://www.consilium.europa.eu/en/press/press-releases/2019/12/09/linking-of-switzerland-to-the-eu-emissions-trading-system-entry-into-force-on-1-january-2020/ (last visited Nov 12, 2021).

[25] European Commission, *Carbon leakage*, Climate Action - European Commission (2016), https://ec.europa.eu/clima/policies/ets/allowances/leakage_en (last visited Sep 13, 2021).

[26] European Commission, *Carbon Border Adjustment Mechanism*, Taxation and Customs Union, https://ec.europa.eu/taxation_customs/green-taxation-0/carbon-border-adjustment-mechanism_en (last visited Nov 10, 2021).

trading system.[27] For this reason, it is of great importance that the EU prevents carbon leakage as much as possible.

Under the current system, the EU ETS prevents carbon leakage from occurring by allocating a number of free emissions allowances to industries deemed most at risk of carbon leakage. These are industries that are energy-intensive in their production practices and highly trade-exposed.[28] As companies in these sectors are allowed to emit for free, they have no incentive to move their production outside of the EU. At the same time, they have no financial incentive to reduce emissions. Under the revised EU ETS Directive, sectors at the highest risk of carbon leakage will receive 100 percent of their allowance allocations for free until at least 2030. To put pressure on sectors less exposed to carbon leakage to reduce emissions, all free allocations will be phased out completely between 2026 and 2030.[29] To further prevent leakage, the EU ETS also allows member states to compensate electricity intensive sectors through national aid schemes for increases in electricity costs that have resulted from the EU ETS. This leakage-mitigation strategy will continue to at least 2030, although member states must have their compensation schemes approved by the European Commission before any aid can be administered.[30]

While free allocations and compensation schemes for electricity costs prevent the creation of additional emissions from carbon leakage, they also allow industries to continue

---

[27] Charikleia Karakosta, *Carbon Leakage and Industrial Innovation*, Climate Policy Info Hub (2016), https://climatepolicyinfohub.eu/carbon-leakage-and-industrial-innovation.html (last visited Nov 12, 2021).

[28] ibid.

[29] EU ETS: Revision for phase 4 (2021-2030), European Commission, https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/revision-phase-4-2021-2030_en (last visited Nov 11, 2021).

[30] European Commission, *Carbon leakage*.

polluting for free and provide no incentive for emission reductions. The phasing out of these efforts, however, leaves the EU ETS in need of a new carbon leakage mitigation strategy.

The Carbon Border Adjustment Mechanism: A New Solution to Carbon Leakage

With the goal in mind of preventing carbon leakage from the sectors that will no longer be issued free allowances in 2026, the European Commission in July 2021 adopted a proposal that establishes a carbon border adjustment mechanism (CBAM) within the EU.[31] As a part of the new European Green Deal, the CBAM is intended to function as a solution to the problem of carbon leakage by creating a level playing field between products produced domestically and foreign imports. To prevent producers from leaving the EU to avoid rising carbon prices, the CBAM will put a price on the carbon emissions of imported products that mirrors the price that would have been paid had the products been produced within the EU. As member states of the EU ETS, the four EFTA countries will be exempt from import costs under the CBAM.[32] In a nutshell, the CBAM will function as a tax on imports which places a price on the carbon produced by imported goods.

Though the CBAM can be seen as an extension of the EU ETS, in its initial stages, the CBAM will not apply to all sectors that fall within the emissions trading system. Only the imports of electricity, cement, aluminum, fertilizer, iron, and steel will be subject to a carbon price in the measure's initial phase.[33] These sectors were chosen as their manufacturing processes are carbon intensive, making the domestic production of these products highly vulnerable to

---

[31] Proposal establishing a carbon border adjustment mechanism.

[32] ibid, annex II(1).

[33] Proposal establishing a carbon border adjustment mechanism, annex I.

carbon leakage. Together, these sectors account for 47 percent of industrial greenhouse gas emissions covered by the ETS.[34] The feasibility of imposing a border adjustment mechanism on these goods was also a factor in their selection.[35]

The CBAM in Practice

Like the EU ETS, the CBAM will operate through the purchase of certificates by importers, the price of which will be tied to the allowance certificate costs within the EU ETS. The price of certificates will fluctuate based on the weekly average auction price of EU ETS allowances expressed in euros per ton of carbon dioxide emitted.[36] Importers of goods in sectors covered by the CBAM will have to register and buy CBAM certificates through national authorities. These importers must declare by May 31st each year the total quantity and the related carbon emissions of the goods that they imported into the EU in the previous year. At this time, the importers will surrender the equivalent CBAM certificates, which would have been purchased from the authorities in advance.[37] Unlike the EU ETS, there will be no cap on the number of CBAM certificates available to importers.[38] This serves to maintain a consistent carbon price between the ETS and the CBAM, as well as a consistent price for operators from all countries.[39] Furthermore, if a foreign producer can prove that they have already paid for the

---

[34] Peter Chase & Rose Pinkert, *The EU's Triangular Dilemma on Climate and Trade*, The German Marshall Fund of the United States 6 (2021).

[35] Carbon Border Adjustment Mechanism: Questions and Answers, European Commission.

[36] Proposal establishing a carbon border adjustment mechanism, (21).

[37] ibid, art. 6.

[38] ibid, (22).

[39] ibid, art. 8.

carbon emitted in their production processes in the country of origin, the number of certificates required by the EU will be reduced to account for the price already paid.[40]

To reduce the number of certificates they must buy, importers will therefore naturally favor products produced with greener production technologies or in countries with their own carbon prices. This means that countries without a national carbon price or strong environmental regulations, such as Russia, China, and Turkey, will likely take the largest hit to their economies as a result of the CBAM.[41] For this reason, the CBAM could incentivize non-EU countries to adopt stronger production regulations and carbon prices of their own in order to remain competitive among EU importers.[42] The CBAM is therefore a unique opportunity for the EU to unilaterally encourage other countries to make good on their Paris Agreement commitments.

One challenge of the CBAM will be determining the amount of carbon embedded in goods produced outside of the EU. Under the CBAM, importers will be expected to provide the data used to determine the embedded emissions in the products that they import. This data must be collected using methods laid out in Annex III of the CBAM proposal and will be subject to verification procedures following its submission.[43] When emissions data for a given import is not available, EU importers will be able to use a list of default values on carbon dioxide emissions for different products to determine the number of necessary certificates.[44]

---

[40] ibid, art.9.

[41] Mehreen Khan, *EU carbon border tax will raise nearly €10bn annually*, Financial Times, July 6, 2021, https://www.ft.com/content/7a812f4d-a093-4f1a-9a2f-877c41811486 (last visited Nov 12, 2021).

[42] Carbon Border Adjustment Mechanism: Questions and Answers, European Commission, https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3661 (last visited Nov 12, 2021).

[43] ibid, art. 7.

[44] Carbon Border Adjustment Mechanism: Questions and Answers, European Commission.

Most revenue collected as a result of the CBAM will go directly to the EU budget. In the beginning, this revenue will largely go to the EU's COVID-19 recovery plan, which emphasizes investment in green technologies.[45] The text of the CBAM proposal states that while revenue generation is not an objective of the measure, the mechanism is estimated to raise above EUR 2.1 billion in the year 2030.[46] Others have estimated CBAM revenues to be much higher at nearly EUR 10 billion annually.[47]

The Future of the CBAM

While the full text of the regulation necessary to implement the CBAM is included in the EU's CBAM proposal, the CBAM will not be fully implemented until 2026. Between 2023 and 2025, there will be a transitional phase in which importers will have to report the total amount of emissions embedded in their goods without paying an adjustment price.[48] This period is intended to create a smooth transition for authorities and involved businesses, giving all involved parties time to prepare any necessary administrative infrastructure and to gain experience with the system. By the end of this period, authorities will evaluate how the CBAM is working, assess impacts of the CBAM, and discuss expanding the mechanism to other industries. One possibility would be to expand the mechanism to include "indirect" emissions from imports, which consist of emissions produced from the electricity used in the production of a given good.[49]

---

[45] Proposal establishing a carbon border adjustment mechanism, Explanatory Memorandum, (4).

[46] Proposal establishing a carbon border adjustment mechanism, (1.4.3).

[47] Khan, *EU carbon border tax will raise nearly €10bn annually*.

[48] Proposal establishing a carbon border adjustment mechanism, art. 32-35.

[49] ibid, (52).

Prior to the EU's CBAM proposal, the world's only carbon border adjustment was in the state of California. This system links with California's carbon pricing scheme, but applies only to electricity imported from other US states.[50] Since the European Commission announced the development of the CBAM, however, Canada has expressed interest in creating a similar mechanism to function with its domestic carbon market, though no concrete plans have been released.[51] Japan has expressed plans to create a domestic carbon pricing scheme that would also feature a border adjustment mechanism in the years to come.[52] Democrats in the US Senate have also proposed a similar carbon border tax, although the absence of a domestic emissions trading system or carbon price indicates that this proposal is unlikely to actually materialize.[53] Several US states have implemented or proposed their own carbon pricing schemes, but there has been no indication of plans for a system at the federal level.[54] As these proposals indicate a growing global interest in carbon pricing, an international carbon market could be on the horizon. For now, however, the EU still has a long way to go to prove to the world that carbon border adjustments should have a place in global trade.

---

[50] Stefan U. Pauer, *Including electricity imports in California's cap-and-trade program: A case study of a border carbon adjustment in practice*, 31 The Electricity Journal 39–45 (2018).

[51] Department of Finance Canada, *Exploring Border Carbon Adjustments for Canada*, Government of Canada (2021), https://www.canada.ca/en/department-finance/programs/consultations/2021/border-carbon-adjustments/exploring-border-carbon-adjustments-canada.html (last visited Nov 12, 2021).

[52] Kohei Okazaki et al., *Japan begins discussions on carbon pricing framework*, Nomura (2021), https://www.nomuraconnects.com/focused-thinking-posts/japan-begins-discussions-on-carbon-pricing-framework/ (last visited Nov 12, 2021).

[53] Alan H. Price et al., *Democrats Introduce Carbon Border Adjustment Legislation*, Wiley (2021), https://www.wiley.law/alert-Democrats-Introduce-Carbon-Border-Adjustment-Legislation (last visited Nov 12, 2021).

[54] Ben McWilliams & Simone Tagliapietra, *Carbon border adjustment in the United States: not easy, but not impossible either, Bruegel* (2021), https://www.bruegel.org/2021/02/carbon-border-adjustment-in-the-united-states-not-easy-but-not-impossible-either/ (last visited Nov 12, 2021).

Chapter 2 – Exploring the Legality of the CBAM within WTO framework

Opposition to the CBAM

Several countries have already expressed opposition to the CBAM proposal since its announcement, many of which are major trading partners of the EU. In a joint statement, the governments of South Africa, China, Brazil, and India expressed their "grave concern" about the measure, which they saw as discriminatory and against the principles of equity.[55] Similarly, Russia's economic development minister stated that the country is "extremely concerned by attempts to use the climate agenda to create new barriers" and believes that the new measure contravenes WTO rules.[56] A spokesperson for the Chinese Ministry of Ecology and Environment echoed the call that the measure goes against WTO principles.[57] Australia also expressed opposition, with Prime Minister Scott Morrison calling carbon tariffs "trade protectionism by another name," and U.S. Special Presidential Envoy for Climate John Kerry has met the measure with skepticism.[58]

For the EU, this wave of external opposition to the measure is likely unsurprising. As the CBAM is intended to put financial pressure on countries with weak emissions standards, some

---

[55] Joint Statement issued at the conclusion of the 30th BASIC Ministerial Meeting on Climate Change hosted by India on 8th April 2021, South African Government (2021), https://www.gov.za/nr/speeches/joint-statement-issued-conclusion-30th-basic-ministerial-meeting-climate-change-hosted (last visited Dec 23, 2021).

[56] Sam Morgan, *Russia warns EU against carbon border tax plan, citing WTO rules*, Climate Home News (2020), https://www.climatechangenews.com/2020/07/28/russia-warns-eu-carbon-border-tax-plan-citing-wto-rules/ (last visited Dec 28, 2021).

[57] Muyu Xu & David Stanway, *China says EU's planned carbon border tax violates trade principles*, Reuters, July 26, 2021, https://www.reuters.com/business/sustainable-business/china-says-ecs-carbon-border-tax-is-expanding-climate-issues-trade-2021-07-26/ (last visited Dec 28, 2021).

[58] Philip Blenkinsop, *Analysis: Europe faces skeptical globe with carbon border levy*, Reuters, July 5, 2021, https://www.reuters.com/business/sustainable-business/europe-faces-sceptical-globe-with-carbon-border-levy-2021-07-05/ (last visited Dec 28, 2021)., Justin Worland, *John Kerry on Border Carbon Tax: The U.S. Doesn't Want to Push Others Away*, Time (2021), https://time.com/6084078/john-kerry-border-carbon-mechansim-cbam/ (last visited Jan 8, 2022).

degree of international pushback is to be expected. Thus far, the countries speaking out most vocally in opposition to the CBAM are those mostly likely to be negatively impacted by the measure. For instance, Russia and China are the two largest exporters of goods that will be affected by the CBAM.[59] Brazil, South Africa, and the US will also see an impact on their iron and steel industries.[60]

Speaking to the European Economic and Social Committee in September 2021, Deputy Director-General of the WTO Jean-Marie Paugam stated that, in principle, "nothing in the multilateral trade rules precludes the implementation of an ambitious environmental policy by any WTO Member," provided that this measure is "not discriminatory or does not disguise primarily competitive or protectionist motives."[61] Paugam avoided directly passing judgment on the EU's CBAM, but stated that when determining its legality, "the devil will lie in the details" of the proposal.[62] He further stated that the proposed mechanism is "contentious and complicated in the WTO context" and that "the potential for trade friction is real."[63]

Although the text of the CBAM proposal states that the measure was developed with the intent of being WTO-compatible, as Paugam implied, whether this is actually true has yet to be determined.[64] The question of whether carbon border adjustments of any kind are WTO

---

[59] Gary Clyde Hufbauer, Jisun Kim & Jeffrey J Schott, *Can EU carbon border adjustment measures propel WTO climate talks?*, PIIE (2021), https://www.piie.com/publications/policy-briefs/can-eu-carbon-border-adjustment-measures-propel-wto-climate-talks (last visited Dec 17, 2021).

[60] Chris Kardish et al., *Which countries are most exposed to the EU's proposed carbon tariffs?*, Resource Trade (2021), https://resourcetrade.earth/publications/which-countries-are-most-exposed-to-the-eus-proposed-carbon-tariffs (last visited Jan 23, 2022).

[61] DDG Paugam: WTO rules no barrier to ambitious environmental policies (2021), https://www.wto.org/english/news_e/news21_e/ddgjp_16sep21_e.htm (last visited Dec 17, 2021).

[62] ibid.

[63] ibid.

[64] Proposal establishing a carbon border adjustment mechanism, Explanatory Memorandum, 3.

compatible has been the subject of debate among legal scholars for years, with most coming to the conclusion that a mechanism's legality will depend on the specific details of its implementation.[65] With the level of opposition that the CBAM has faced thus far, it is very likely that at least one of the countries impacted by the measure will argue that it violates one or more trade rules and bring a claim against it to the WTO.[66] If so, the EU's CBAM would be the first carbon border adjustment challenged before the WTO and set a precedent for future measures.[67] If a complaint against the measure is launched by another member state, the CBAM would be subject to the WTO's dispute settlement process, the workings of which are briefly explained below.

The WTO Dispute Settlement Process

The dispute settlement process allows one or more states to take multilateral action against other WTO member states which they believe to be violating trade agreements or failing to meet legal obligations.[68] The rules that govern the multi-stage dispute settlement process are laid out in the Dispute Settlement Understanding (DSU) in Annex 2 of the WTO agreement.

When a dispute arises, the primary parties include the complaining country, the country that launches the dispute, and the responding country, which defends its disputed trade mechanism. The process is moderated by the WTO's Dispute Settlement Body (DSB), a special

---

[65] Joost Pauwelyn & David Kleimann, *Trade Related Aspects of a Carbon Border Adjustment Mechanism: A Legal Assessment*, 6 (2020).

[66] Hufbauer, et al. *Can EU carbon border adjustment measures propel WTO climate talks?*.

[67] Pauwelyn & Kleimann, *Trade Related Aspects of a Carbon Border Adjustment Mechanism*, 5.

[68] Understanding the WTO - A unique contribution, World Trade Organization, https://www.wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm (last visited Jan 23, 2022).

branch of the WTO's General Council that is made up of all WTO member states.[69] It is the job of this body to establish a panel of legal experts for every given case, as well as to accept or reject the findings of the panel or the results of an appeal. The DSB is also tasked with monitoring states' implementation of rulings and has the authority to allow for retaliation when countries fail to comply with rulings.[70]

Although the WTO's dispute settlement procedure is similar to that of a court, the organization states that the point of the process is not to pass judgment, but to encourage the discussion of the issue at hand between the parties, which will hopefully settle the dispute among themselves.[71] If states are unable to resolve a conflict during an initial consultation stage of the process, the case is handed over to a panel of experts for assessment. After a period of deliberation, the panel submits a final report that concludes whether a WTO agreement is violated by the disputed trade measure and provides suggestions as to how the measure may be altered to comply with rules. This report becomes an official ruling unless rejected by a consensus of the DSB, including the member in whose favor the ruling was made.[72]

At this point, either party can appeal the panel's ruling to the WTO's Appellate Body (AB).[73] Any appeals must be based on issues regarding legal interpretation rather than a reexamination of facts.[74] Once the AB's report has been adopted by the DSB, it must be

---

[69] ibid, art. 2, Mabel Shaw, *International Trade Law Research Guide: WTO & GATT Dispute Settlement*, https://guides.ll.georgetown.edu/c.php?g=363556&p=3915307 (last visited Jan 30, 2022).

[70] DSU art. 2, art. 16, and art. 17.

[71] ibid.

[72] DSU art. 16, Understanding the WTO - A unique contribution.

[73] ibid, art. 17.

[74] ibid, art. 17(6), Understanding the WTO - A unique contribution.

unconditionally accepted by the parties to the dispute.[75] Therefore, if the AB finds that a measure violates WTO rules, the member state responsible for the measure must promptly comply with recommendations to make the measure consistent with trade rules or risk the suspension of relevant concessions.[76]

Although a trade measure may eventually be found to violate trade rules, the WTO does not require responding states to halt the operation of disputed measures until a ruling has been made against it. This means that if a complaint is brought against the CBAM, the EU will still be allowed to implement the mechanism until an AB report finding the measure to violate rules has been adopted. With this in mind, the rest of this chapter outlines the WTO rules that complainants will likely argue that the CBAM violates and explores how a possible dispute brought against the mechanism might play out.

Legal challenges to the CBAM

Any complaint brought against the CBAM will likely concern the rules of the General Agreement on Tariffs and Trade (GATT), a WTO agreement that covers international trade in goods.[77] James Bacchus, a legal scholar at the libertarian think tank the Cato Institute, has written about the legal challenges to the CBAM that the EU can expect to encounter. Bacchus was twice chairman of the WTO's Appellate Body, making him one of the world's top scholars in WTO jurisprudence. In his assessment of the CBAM's WTO compatibility, he argues that the CBAM may be found to be inconsistent with one of several core GATT rules. While the terms of

---

[75] ibid, art. 17(14).

[76] ibid, art. 21-22.

[77] General Agreement on Tariffs and Trade, Oct. 30, 1947, 55 U.N.T.S. 154, 61 Stat. A-11 [hereinafter GATT].

the CBAM may be subject to change before its 2026 arrival, Bacchus predicts that any disputes raised over the CBAM are likely to concern its inconsistency with the GATT's "most-favored-nation" and "national treatment" rules.[78] In a nutshell, these rules mean that the CBAM must be proven to adhere to two principles of non-discrimination: non-discrimination between both domestic and foreign products, as well as non-discrimination between foreign suppliers.[79]

The most-favored-nation principle, outlined in Article I of the GATT, requires that all advantages granted to the imports of one WTO member must also be applied to all other WTO members.[80] The CBAM could violate this rule by discriminating between like products imported from different WTO member countries based on the intensity of their embedded carbon emissions.[81] The WTO however, provides no absolute definition of "like products." In the past, trade agreements have suggested that criteria such as "the product's end-uses in a given market, consumers' tastes and habits…, and the product's properties, nature, and quality" can be used in determining the similarity of products.[82] Any interpretations of the term, however, should be examined on a case-by-case basis, as "no one approach to exercising judgment will be appropriate for all cases."[83]

---

[78] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[79] Andre Sapir, *The European Union's carbon border mechanism and the WTO | Bruegel* (2021), https://www.bruegel.org/2021/07/the-european-unions-carbon-border-mechanism-and-the-wto/ (last visited Dec 31, 2021).

[80] CBT - Basic Purpose and Concepts - Most-Favoured-Nation Treatment, World Trade Organization, https://www.wto.org/english/tratop_e/serv_e/cbt_course_e/c1s6p1_e.htm (last visited Dec 28, 2021). Article I, Paragraph 1 of the GATT states that "With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties."

[81] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[82] Report of the Working Party on Border Tax Adjustments, BISD 18S/97 (18).

[83] ibid., WTO, Japan – Taxes on Alcoholic Beverages - Report of the Appellate Body (1 November 1996) WT/DS8/AB/R ('Japan – Alcoholic Beverages II') [21].

If a dispute were to arise, it could be difficult for the EU to justify treating two of the same product differently based on the "cleanliness" of their manufacturing processes (for example, imported steel produced in a blast furnace and steel produced using an electric arc process).[84] Joost Pauwelyn and David Kleimann note that past WTO rulings have defined products as "like" based on their competitive economic relationship in the marketplace, so products such as steel produced in two separate countries would likely be classified as like products irrespective of their respective carbon footprints.[85] According to Bacchus, the EU also runs the risk of violating the most-favored-nation rule if it uses the climate actions and environmental regulations of other WTO member states as the grounds for which imports will require the purchase of emissions certificates.[86]

The CBAM may also be inconsistent with the GATT Article III national treatment rule.[87] This rule requires that imported products must be treated as favorably as products produced domestically.[88] Although products imported under the CBAM will be subject to the same carbon price as products within the scope of the ETS, any free emissions allowances in the ETS that are not fully phased out before the implementation of the CBAM could put the measure in violation of this principle. Existing free allowances would provide double protection for European products and put imports at a disadvantage.[89]

---

[84] Chase & Pinkert, *The EU's Triangular Dilemma on Climate and Trade*, 13.

[85] Pauwelyn & Kleimann, *Trade Related Aspects of a Carbon Border Adjustment Mechanism*, 9.

[86] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[87] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[88] Glossary - national treatment, World Trade Organization, https://www.wto.org/english/thewto_e/glossary_e/national_treatment_e.htm (last visited Dec 28, 2021).

[89] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

At the moment, the EU is facing a great deal of domestic opposition to the CBAM from several interest groups such as Fertilizers Europe, Aluminum Europe, and EUROFER, the European Steel Association. These organizations are urging the European Commission to continue to issue free allowances within the ETS past the 2026 deadline.[90] As the efficacy of the CBAM remains untested, these firms have expressed fears that the loss of free emissions allowances would make them uncompetitive.[91] If the EU were to give in to these demands and continue the allowances, the CBAM would almost certainly be found to violate the national treatment rule. Sabine Weyand, head of the Commissions's trade department acknowledged that the EU would be unable to meet industry demands, stating "it is very clear that the moment you start phasing in CBAM, you have to start phasing out free allowances."[92]

Bacchus also argues that the free emissions allowances currently issued under the ETS may actually already be a violation of WTO rules, which place a limit on government subsidies where they "distort global trade." In recent years, 43 percent of all emissions allowances in the ETS have been allocated to domestic firms for free.[93] However, no WTO members have brought a claim against the EU for this aspect of the ETS thus far, and any future claims are unlikely to occur as long as the EU makes good on its claims to discontinue the issue of free allowances before the implementation of the CBAM.[94]

---

[90] Hufbauer, et al., *Can EU carbon border adjustment measures propel WTO climate talks?*, Kate Abnett, *Analysis: EU industry hands Brussels headache over carbon border levy*, Reuters, June 22, 2021, https://www.reuters.com/business/sustainable-business/eu-industry-hands-brussels-headache-over-carbon-border-levy-2021-06-22/ (last visited Dec 17, 2021).

[91] Hufbauer, et al., *Can EU carbon border adjustment measures propel WTO climate talks?*.

[92] Abnett, *Analysis: EU industry hands Brussels headache over carbon border levy*.

[93] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[94] ibid.

Finally, Bacchus argues that a third area of concern for the EU could stem from the CBAM applying charges on imported products that are in excess of the customs duties ceilings that the EU agreed to in its WTO schedule of commitments. He sees this violation as likely to occur, considering that the price of CBAM certificates will only rise over time as the EU tightens its climate regulations.[95] In response to a claim brought against the mechanism on this ground, the EU will likely argue that the CBAM is a requirement of an internal regulation as opposed to a border measure, and therefore is exempt from this rule. If this is found to be the case, the EU could allow the price of emissions certificates to rise over time without fear of exceeding their agreed upon ceilings on customs duties. However, as the obligation of importers to pay the price of emissions certificates is triggered "by virtue of the event of importation," Bacchus is skeptical of the CBAM's ability to pass as an internal regulation if brought into a WTO dispute.[96]

Justifications for the CBAM: GATT Article XX

Despite the fact that the CBAM may be found to violate one of several WTO rules, it may still be allowed to be implemented. Article XX of the GATT provides several exceptions under which trade measures that pursue specific purposes, such as measures "necessary to protect human, animal or plant life or health" (Art. XX(b)) and measures "relating to the conversation of exhaustive natural resources" (Art. XX(g)), but otherwise violate certain core GATT provisions may be justified.[97] As trade measures aimed at environmental protection often require some sort of discrimination between like products based on their production processes,

---

[95] ibid.

[96] ibid.

[97] GATT, art. XX.

Art. XX has proven to be greatly important for the defense of environmental regulations. For this reason, the article has been called a "guardian" of the environment.[98]

In order to justify a measure under Art. XX, a country must prove that the measure passes a "two-tiered" test. The first step a country must take is to prove that the goal of the measure falls within the scope of one of the article's subsections. The EU will likely argue that the CBAM falls under one of three exceptions, which have been used in past WTO cases to defend trade measures aimed at environmental protection. The following exceptions allow for measures:

> Art. XX (a): necessary to protect public morals;
>
> Art. XX (b): necessary to protect human, animal or plant life or health;
>
> Art. XX (g): relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;

To qualify under one of the above exceptions, the EU then must be able to prove with little doubt that the CBAM is either necessary to protect public morals, is necessary to protect human, animal or plant life or health, or relates to the conservation of exhaustible natural resources within EU territory.

If the CBAM is found to meet the terms of an exception, the next hurdle the EU will face will be proving that the mechanism is consistent with the rules of Art. XX's introductory paragraph, known as the chapeau. The chapeau states that the GATT shall not prevent the adoption or enforcement of measures that address the specified concerns, as long as these trade measures are not applied in a manner which "would constitute a means of arbitrary or

---

[98] Natalie Dobson, *Article XX GATT as guardian of the environment* 200–209 (2021), https://www.elgaronline.com/view/nlm-book/9781786436986/b-9781783476985-XI_23.xml?pdfVersion=true (last visited Jan 2, 2022).

unjustifiable discrimination between countries where the same conditions prevail" or are a "disguised restriction on international trade."[99] The defending member state must also prove that a less restrictive trade measure could not achieve the goal of the disputed measure as effectively.[100]

So as not to be seen as a disguised restriction on trade, the EU has been careful to make clear that the sole motivation for the CBAM is for reasons of protecting human health and the environment.[101] However, past rulings of the AB regarding the chapeau indicate other problems the CBAM may face. In *US – Shrimp*, the AB stated that member states cannot "require other members to adopt essentially the same comprehensive regulatory program, to achieve a certain policy goal, as that in force within the member's territory, without taking into consideration different conditions which may occur in the territories of those members."[102] In the case of the CBAM, this rule could provide grounds for other WTO members to complain that, as the cost of emissions certificates will be based off of those in the ETS and therefore reflect EU-specific supply and demand conditions, the measure is discriminatory.[103] Furthermore, the AB has condemned measures that have an "intended and actual coercive effect on the specific policy decisions made by foreign governments."[104] If the CBAM is found to discriminate between

---

[99] GATT, art. XX.

[100] Pauwelyn & Kleimann, *Trade Related Aspects of a Carbon Border Adjustment Mechanism*, 11.

[101] Chase & Pinkert, *The EU's Triangular Dilemma on Climate and Trade*, 10.

[102] WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products - Report of the Appellate Body (6 November 1998) WT/DS58/AB/R (US – Shrimp) [164]., Chase & Pinkert, *The EU's Triangular Dilemma on Climate and Trade*, 10.

[103] ibid.

[104] US – Shrimp (AB) [161].

imports based on whether the exporting country has a carbon pricing system, the CBAM could be difficult to justify before the WTO.[105]

In the March 2021 resolution "towards a WTO-compatible EU carbon border adjustment mechanism," the European Parliament specifically names the existence of Art. XX (b) and (g) as factors in their development of the CBAM, indicating that they anticipated the need to fall back on these exceptions even before the CBAM was fully developed.[106] Ultimately, the decision of whether the CBAM meets the requirements of the Art. XX exceptions and chapeau will fall on the specifics of the structure and application of the CBAM.[107] However, the panel and AB will rely on legal precedent to guide their decision. The rest of this chapter will now detail the past use of the Art. XX exceptions described above to justify trade measures aimed at environmental protection in order to examine their possible use in justifying the CBAM.

Article XX (b): measures necessary to protect human, animal or plant life or health

Art. XX (b) allows for the justification of trade measures proven to be "necessary to protect human, animal or plant life or health." To be justified under Art. XX(b), a trade measure must both "fall within the range of policies designed to protect human, animal or plant life or health" and be "'necessary' to fulfill the invoked policy objective."[108] To determine the actual objective of a trade measure, the panel examines "both the design and structure of a challenged

---

[105] Pauwelyn & Kleimann, *Trade Related Aspects of a Carbon Border Adjustment Mechanism*, 11.

[106] European Union: European Parliament, European Parliament resolution of 10 March 2021 towards a WTO-compatible EU carbon border adjustment mechanism (2020/2043(INI)), P9_TA(2021)0071.

[107] ibid.

[108] WTO, China – Measures Related to the Exportation of Various Raw Materials – Report of the Panel (5 July 2011) WT/DS394/R, WT/DS395/R, WT/DS398/R, ('China – Raw Materials (Panel)') [7.479]-[7.480].

measure."[109] The panel must ultimately decide that the measure's true intent is relevant to the exception and that the measure is necessary to achieve this goal.

In the past, countries have attempted to defend a wide range of trade measures under Art. XX(b). Policy objectives that these measures sought to achieve include banning products containing asbestos and reducing air pollution caused by gasoline consumption.[110] Through the deliberation of these dispute settlement cases, the terms of the article have been further defined. In *Thailand – Cigarettes*, for instance, the panel recognized that states are "clearly allowed…to give priority to human health over trade liberalization."[111] In the case *Korea – Beef*, the panel stated that "the more vital or important the common interests, the easier it would be to accept the measure as 'necessary'."[112] This idea was further clarified in *EC – Asbestos*, where the AB found that the elimination, or reduction, of the well-known, and life-threatening, health risks posed by asbestos fibers" was "both vital and important in the highest degree."[113]

A case in which Art. XX(b) was used to justify a policy objective aimed specifically at environmental protection is *Brazil – Retreaded Tyres.* In this 2006 dispute, the European Communities (EC) challenged a ban on the importation of retreaded tires implemented by Brazil, stating that the ban was disguised protectionism of Brazil's domestic tire market.[114] Brazil

---

[109] ibid.

[110] WTO, European Communities – Measures Affecting Asbestos and Asbestos-Containing Products - Report of the Appellate Body (5 April 2001) WT/DS135/AB/R ('EC – Asbestos') [172]., WTO, United States – Standards for Reformulated and Conventional Gasoline – Report of the Panel (20 May 1996) WT/DS2/R ('US – Gasoline (Panel)') [6.21].

[111] WTO, Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes (1990) GATT BISD 37S/200, ('Thailand – Cigarettes') [73].

[112] WTO, Korea – Measures Affecting Imports of Fresh, Chilled And Frozen Beef – Report of the Appellate Body (11 December 2000) WT/DS161/AB/R, WT/DS169/AB/R, ('Korea – Beef') [161].

[113] EC – Asbestos (AB) [172].

[114] WTO, Brazil – Measures Affecting Imports of Retreaded Tyres – Report of the Panel (12 June 2007) WT/DS332/R, ('Brazil – Retreaded Tyres (Panel)') [1.1].

justified the ban by stating that, as retreaded tires have a shorter lifespan than new tires, their importation ultimately leads to faster waste accumulation than that of new tires. They further argued that, although retreading and reusing tires reduces waste, a country only benefits from this process if it is retreading tires consumed within its territory, so "by retreading and exporting its tires, the European Communities reduces its own waste burden, not Brazil's."[115] Furthermore, as the burning of tires releases a number of pollutants, the disposal of waste tires requires special technology. Areas with large amounts of discarded tires easily accumulate water, creating breeding grounds for mosquitoes that carry diseases such as malaria and yellow fever in countries with warm climates like Brazil's.[116] For this reason, Brazil responded to the EC's claim by acknowledging that the ban was inconsistent with GATT rules, but sought to justify it under Art. XX(b) as a measure necessary to protect human life or health.

In their report on the dispute, the panel stated that, to justify the measure under XX(b), they must be certain that the measure provides a "material contribution to the achievement of its objective."[117] Member states cannot simply "establish the existence of risks to 'the environment' generally, but rather establish more specifically risks to animal or plant life or health."[118] At the same time, however, the panel rejected the EC's claim that the contribution towards the protection of life or health must be quantifiable or immediately observable.[119] Furthermore, in their report, the panel made their first-ever statement justifying measures related to climate

---

[115] ibid [4.21].

[116] Marie Wilke, *Litigating Environmental Protection and Public Health at the WTO: The Brazil-Retreaded Tyres Case* (2010), https://www.files.ethz.ch/isn/139109/case_brief_brazil_tyres_v51.pdf.

[117] WTO, Brazil – Measures Affecting Imports of Retreaded Tyres – Report of the Appellate Body (17 December 2007) WT/DS332/AB/R (Brazil–Retreaded Tyres) [150].

[118] Brazil – Retreaded Tyres (Panel) [7.108], [7.115].

[119] Wilke, *Litigating Environmental Protection and Public Health at the WTO: The Brazil-Retreaded Tyres Case.*

change, stating that "the results obtained from certain actions – for instance, measures adopted in order to attenuate global warming and climate change, or certain preventive actions to reduce the incidence of diseases that may manifest themselves only after a certain period of time – can only be evaluated with the benefit of time."[120]

Ultimately, although both the panel and AB acknowledged that Brazil's measure met the requirements of Art. XX(b), both parties found that the measure did not meet the requirements of the Art. XX chapeau because it failed to implement the measure in a non-discriminatory way.[121] However, despite this ruling, this case is still regarded as a landmark case for environmental policy.[122] Based on the precedent of *Brazil – Retreaded Tyres* and the other cases mentioned above, it is clear that a justification of the CBAM under Art. XX(b) is plausible. To defend its case successfully with this exception, the EU will need to clearly establish that, along with complying with the chapeau, in reducing global carbon emissions, the CBAM is necessary to protect human, animal or plant life or health.

Article XX (g): measures relating to the conservation of exhaustible natural resources

Art. XX(g) allows for measures found to relate to the conservation of exhaustible natural resources, as long as said measures are created "in conjunction with restrictions on domestic consumption or production."[123] In several cases in the past, including *US – Shrimp* and *US – Gasoline*, panels have been willing to "engage with evolving environmental norms" and proved

---

[120] Brazil – Retreaded Tyres (AB) [156].

[121] Brazil – Retreaded Tyres (Panel) [7.441], Brazil – Retreaded Tyres (AB) [258].

[122] Wilke, *Litigating Environmental Protection and Public Health at the WTO: The Brazil-Retreaded Tyres Case.*

[123] Dobson, *Article XX GATT as guardian of the environment.*

open minded to new interpretations of what constitutes an "exhaustible natural resource."[124] In the dispute *China – Rare Earths*, for instance, the panel found that policies justifiable under XX(g) are not limited to those just aimed at "preservation" and can instead include a "full range of policy considerations and goals" such as the sustainable use of resources.[125] The AB further noted in this dispute that the precise definition of "conservation" will vary depending on the exhaustible natural resource in question.[126]

The understanding of "exhaustible natural resources" was further expanded in the dispute *US – Shrimp*, in which the US defended a measure intended to protect endangered species of sea turtles using Art. XX(g). After finding that the most significant source of mortality for endangered sea turtles was accidents involving shrimp trawlers, the US created regulations in accordance with the Endangered Species Act of 1973 requiring the use of "turtle excluder devices" by all shrimp trawlers.[127] This rule was later expanded to ban the importation of certain shrimp products that were not fished with the use of turtle excluder devices in areas where sea turtles are likely to be found. In 1997, India, Malaysia, Pakistan, and Thailand brought a joint complaint against this ban, arguing that the measure violated several WTO rules.[128]

Remarkably, the AB agreed with the US that measures to protect endangered sea turtles would be permissible under Art. XX(g). Although, as argued by the complainants, living beings

---

[124] ibid.

[125] WTO, China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum – Reports of the Panel (26 March 2014) WT/DS431/R, WT/DS432/R, WT/DS433/R, ('China – Rare Earths (Panel)') [7.266].

[126] WTO, China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum – Report of the Appellate Body (7 August 2014) WT/DS431/AB/R, WT/DS432/AB/R, WT/DS433/AB/R, ('China – Rare Earths') [5.89].

[127] WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products - Reports of the Panel (6 November 1998) WT/DS58/R ('US – Shrimp (Panel)') [2.5]–[2.6].

[128] US – Shrimp (Panel) [1.1], [3.1].

are considered renewable resources, the AB recognized that they are "susceptible of depletion, exhaustion and extinction, frequently because of human activities" and therefore "just as 'finite' as petroleum, iron ore and other non-living resources."[129] The AB held that they "do not believe that 'exhaustible' natural resources and 'renewable' natural resources are mutually exclusive."[130] The AB report further states that the term '"exhaustible natural resources" must be read "in light of contemporary concerns of the community of nations about the protection and conservation of the environment."[131] Furthermore, the AB found that the generic term "natural resources" in Art. XX(g) is not "static" in its content or reference but rather "by definition, evolutionary."[132]

The US, however, lost the dispute after the circumstances of the ban were found to violate the Art. XX chapeau by arbitrarily discriminating between WTO member states.[133] The US had been providing technical and financial assistance in implementing the required regulations to some countries, while not affording the countries that filed the complaint the same advantages.[134] After the US made recommended changes to the ban, upon appeal the measure was found to comply with the rules of the chapeau and was justified under Art. XX(g).[135]

Along with *US – Shrimp*, another important environmental case that relied on Art. XX(g) is *US – Gasoline.* In this case, Brazil and Venezuela launched a complaint that the "Gasoline Rule" under the US Clean Air Act treated imported gasoline less favorably than domestic

---

[129] US – Shrimp (AB) [128].

[130] ibid.

[131] ibid [129].

[132] ibid [130].

[133] ibid [184].

[134] ibid [51].

[135] WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia (21 November 2001) WT/DS58/AB/RW, ('US – Shrimp (21.5 Malaysia)') [154].

gasoline.[136] This rule established baseline figures for gasoline sold within the US using different rules for domestically produced and imported gasoline, with the goal of "regulating the composition and emission effects of gasoline to prevent air pollution."[137]

In its report, the panel sided with the complainants, finding that the measure violated the Art. III:4 national treatment rule by affording more favorable sales conditions to domestic gasoline.[138] The US then sought to defend with measure under Art. XX(g), stating that clean air was an exhaustible natural resource, threatened by the air pollution that the "Gasoline Rule" sought to prevent. Venezuela argued against the use of this exception, stating that the original intent of Art. XX(g) was only to cover resources existing in finite quantities, such as coal and oil.[139] Surprisingly, the panel accepted the US's argument that breathable air can indeed be seen as an exhaustible natural resource and defended under Art. XX(g).[140] Despite this admission, however, the panel still found that the details of the measure constituted "unjustifiable discrimination" and acted as a "disguised restriction on international trade," violating the rules of the Art. XX chapeau.[141] The AB upheld this decision, but noted that this ruling does not "mean, or imply, that the ability of any WTO member to take measures to control air pollution or, more generally, to protect the environment, is at issue" and emphasized that members have autonomy

---

[136] US – Gasoline (Panel) [3.1].
[137] US – Gasoline (DS2), WTO Dispute Settlement: One-Page Case Summaries 1995-2020 11 (2021).
[138] US – Gasoline (Panel) [6.5].
[139] ibid [6.36].
[140] ibid [6.37].
[141] ibid [6.40].

in determining their own environmental measures as long as they recognize "the need to respect the requirements of the General Agreement and the other covered agreements."[142]

With *US – Shrimp* and *US – Gasoline* as precedents, the EU may find success in an Art. XX(g) defense of the CBAM. Just as the AB in both cases found that sea turtles and clean air, resources typically seen as renewable, can still be considered "exhaustible," the EU may be able to argue that the CBAM has been created in defense of another non-traditional, yet exhaustible natural resource – namely, "air at a livable temperature in a climate fit for human habitation" or a stable atmosphere, whose composition can be altered by the emission of greenhouse gasses.[143]

Article XX (a): measures necessary to protect public morals

Thus far, Art. XX(b) and XX(g) have served as the primary justifications for environment-related trade measures. However, in recent years, the possible use of Art. XX(a) for the defense of environmental measures has begun to be explored. This article allows for the justification of trade measures intended to protect against things considered to be a violation of a generally accepted moral concern of a member state.

To be used to justify a trade measure, the member state must first establish that a given shared moral value actually exists. In the case *US – Gambling*, the first case in which Art. XX(a) was used to justify a trade measure, "public morals" were defined by the panel as "standards of right and wrong conduct maintained by or on behalf of a community or nation."[144] The content of

---

[142] WTO, United States – Standards for Reformulated and Conventional Gasoline – Report of the Appellate Body (20 May 1996) WT/DS2/AB/R ('US – Gasoline') [29]-[30].

[143] Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*.

[144] WTO, United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services - Report of the Panel (20 April 2005) WT/DS285/R ('US – Gambling (Panel)') [6.465].

these standards "can vary in time and space, depending upon a range of factors, including prevailing social, cultural, ethical and religious values."[145] The panel further clarified that member states "should be given some scope to define and apply for themselves the concepts of 'public morals' ... in their respective territories, according to their own systems and scales of values."[146] In the case *Colombia – Textiles*, the AB clarified that a contested measure must be both "designed" and "necessary" to protect the stated public moral concern to be justified under Art. XX(a).[147]

Although the original intent of this measure was likely to provide for the prohibition of things such as gambling and pornography, the use of this exemption has been expanded in recent years. The 2014 dispute *EC – Seal Products* opened the door for the use of XX(a) in the defense of future conservation-related trade measures. In this case, the EC sought to use Art. XX(a) to justify a ban on the importation and sale of seals and seal products within the EU. The EC claimed that the ban was introduced to "address the moral concerns of the EU public with regard to the welfare of seals."[148] The objective of this measure was to address two issues: "(a) the 'incidence of inhumane killing of seals;' and, (b) EU citizens' 'individual and collective participation as consumers in, and exposure to the economic activity which sustains the market for' seal products derived from inhumane hunts."[149]

---

[145] ibid [6.461].

[146] ibid.

[147] WTO, Colombia – Measures Relating to the Importation of Textiles, Apparel and Footwear – Report of the Appellate Body (22 June 2016) WT/DS461/AB/R, ('Colombia – Textiles') [5.67]., Dobson, *Article XX GATT as guardian of the environment.*

[148] WTO, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products - Report of the Panel (18 June 2014) WT/DS400/R; WT/DS401/R ('EC – Seals (Panel)') [7.274].

[149] ibid., Dobson, *Article XX GATT as guardian of the environment*.

Canada, one complainant in the case and a major exporter of seal products, argued that the ban was hypocritical, as "the animal welfare risks associated with seal hunts" were no higher than those "associated with slaughterhouses and other terrestrial wildlife hunts."[150] Therefore, "EU policies and practices with respect to animal welfare included a tolerance for a certain degree of animal suffering."[151] The AB, however, rejected Canada's argument, stating that member states are not required to "regulate similar public moral concerns in similar ways."[152] Ultimately, the AB agreed with the EU that a ban on seal products could be justified under Art. XX(a), but found several issues with the ban's exception for seals hunted by indigenous communities.[153] For this reason, like *Brazil – Retreaded Tyres*, *US – Shrimp*, and *US – Gasoline*, the AB ruled that the ban was "applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination" and therefore did not comply with the requirements of the Art. XX chapeau.[154]

While Art. XX(a) does not provide as straightforward of a path to justifying the CBAM as do Articles XX(b) and XX(g), the EU should not rule the exemption out as a possible defense. Because a "public moral" is such a subjective concept, panels in the past have proven wary of denying XX(a) defenses at the risk of being seen as overly intrusive. For this reason, the EU may very well be successful in creating a XX(a) defense that defines issues of climate justice brought about by climate change as at odds with the public morals of the EU. As evidenced by so many

---

[150] WTO, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products - Report of the Appellate Body (18 June 2014) WT/DS400/AB/R; WT/DS401/AB/R, ('EC – Seals') [5.196].

[151] ibid [2.30].

[152] ibid [5.200].

[153] ibid [5.338].

[154] ibid [5.338]-[5.339].

environment-related WTO disputes discussed in this chapter, the largest challenge to an Art. XX defense of the EU's CBAM may not come from proving that the measure falls within the scope of XX(b), XX(g), or XX(a), but from proving that the measure complies with the Art. XX chapeau. However, the terms of the chapeau may just be too narrow for ambitious measures like the CBAM to comply with.

Chapter 3 – The WTO and Climate Action

Sustainable Development and the WTO

The preamble of the GATT, originally written in 1947, states that the goal of trade liberalization can be articulated as "raising standards of living, ensuring full employment and a large and steadily volume of real income and effective demand, developing the full use of the resources of the world and expanding the production and exchange of goods."[155] This idea was further elaborated in the 1994 Marrakesh Agreement, which established the WTO as the successor to the GATT. Also known as the WTO Agreement, this agreement states in its preamble that all trade relations within the new WTO should be "conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development."[156]

Therefore, if preambular language is to be believed, the concept of using trade liberalization in the name of social welfare can be seen as the focus of the GATT since its creation. Furthermore, environmental protection, sustainable development, and the recognition of the differential abilities of developed and developing states to act thereon are primary objectives of the WTO. While these statements carry no actual legal weight, Antonia Eliason explains that

---

[155] GATT, pmbl.

[156] WTO Agreement: Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994) [hereinafter Marrakesh Agreement or WTO Agreement].

this preambular language "provides the first line of justification for using the WTO, both as a rule-making organization and as a dispute settlement body, in helping to ensure effective implementation of climate change mitigation and adaptation measures by WTO members."[157]

Outside of the WTO Agreement's preamble, the WTO's commitment to environmental protection is codified in the Art. XX exceptions of the GATT 1994. As explained in the previous chapter, the Art. XX(b) and XX(g) exceptions were designed with the intention of allowing for trade measures aimed at environmental protection and resource conservation that would otherwise violate WTO rules, provided that they are not found to be unjustifiably discriminatory nor a "disguised restriction on international trade."[158] As mentioned above, Art. XX(a), allowing for measures aimed at protecting public morals, has emerged as another possible pathway for the defense of environment-related measures. While the GATT Art. XX exceptions apply only to the trade of goods, Art. XIV(a) and XIV(b) of the General Agreement on Trade in Services (GATS) allow for similar protections to service sectors.[159] Together, these GATT and GATS exceptions serve as the sole pathway for member states to justify trade-related climate action.

While the agreements of the WTO define the rules of global trade, the framework of international environmental law is comprised of a number of multilateral environmental agreements (MEAs). If we are to view mitigating and adapting to climate change as core principles of sustainable development, then it is logical to view the goals of the Paris Agreement, the most significant MEA on climate change, as fundamental to achieving sustainable development.

---

[157] Antonia Eliason, *Using the WTO to Facilitate the Paris Agreement: A Tripartite Approach*, 52 Vanderbilt Journal of Transnational Law, 561 (2019).

[158] GATT, art. XX.

[159] Eliason, *Using the WTO to Facilitate the Paris Agreement: A Tripartite Approach*, 561.

Article 3.5 of the United Nations Framework Convention on Climate Change (UNFCCC), within the framework of which the Paris Agreement operates, states that "Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them to better address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade."[160]

However, despite WTO's commitment to the objective of sustainable development and the UNFCCC's requirement that parties adhere to the rules of international trade, a disconnect between the trade and climate regimes remains. The following section explains several ways in which the current WTO framework creates barriers to effective climate action.

Barriers to Facilitating the Paris Agreement

In "Sustainable Development as a Principle of International Law: Resolving Conflicts between Climate Measures and WTO Law," Christina Voigt writes that the relationship between MEAs that allow for restrictions on trade to achieve their objectives and WTO rules remains unclear.[161] The current WTO system, she explains, has a "deterring effect on ongoing multilateral environmental negotiations, which are becoming increasingly self-censoring in terms of trade restrictiveness."[162] Voigt refers to this deterring effect as the "chill factor."[163]

---

[160] United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

[161] Christina Voigt, Sustainable Development as a Principle of International Law: Resolving Conflicts between Climate Measures and WTO Law, 121 (2009).

[162] ibid, 122.

[163] ibid.

It should be noted that, while there are at least twenty MEAs that contain provisions that affect trade, there has not yet been a direct WTO challenge to a MEA provision.[164] These provisions are mostly product or commodity specific and often define the regulatory schemes for parties to the treaty to follow.[165] For instance, agreements like the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the Montreal Protocol on Substances that Deplete the Ozone Layer address the trade of endangered species, hazardous wastes, and ozone-depleting substances respectively, all of which are unlikely to have a large impact on the global economy.[166] The "chill factor" that Voigt describes has perhaps prevented the inclusion of more ambitious trade measures into MEAs.

This fear of butting heads with the rules of the WTO may also be why the Paris Agreement does not contain any direct trade provisions to enforce the reduction of global carbon emissions. While the Paris Agreement has been celebrated for its universality (being signed by nearly every country in the world) and binding nature, the agreement takes a more conservative approach to climate mitigation by calling for parties to pledge their own emissions reduction targets, known as nationally determined contributions (NDCs). The rapid scaling down of carbon emissions needed to achieve these NDCs will almost certainly require countries to adopt trade-affecting measures. As of 2017, around 45 percent of all pledged NDCs included a direct

---

[164] Charles Di Leva & Xiaoxin Shi, *The Paris Agreement and the International Trade Regime: Considerations for Harmonization*, 17 Sustainable Development Law & Policy 24-25 (2016).

[165] ibid, 25.

[166] Tracey Epps & Andrew Green, Reconciling Trade and Climate: How the WTO Can Help Address Climate Change (2010), 59.

reference to trade or trade measures.[167] As these trade measures are put into effect, the Paris Agreement will almost certainly result in friction with WTO rules that MEAs in the past have mostly been able to avoid.[168] In leaving parties on their own to figure out how to achieve their reduction targets without running afoul of trade rules, the Paris Agreement only shifts the burden of navigating a WTO dispute to its parties.

As mentioned in the previous chapter, trade measures aimed at environmental protection are particularly vulnerable to violating GATT rules such as the most-favored-nation and national treatment provisions. Often whether or not a measure violates these rules comes down to the definition of "like products," as measures aimed at reducing carbon emissions, like the EU's CBAM, differentiate between similar products based on the sustainability of their production methods.[169] However, as explained by the AB in case *Japan–Taxes on Alcoholic Beverages*, "[t]here can be no one precise and absolute definition of what is 'like'."[170] Determining likeness therefore involves an "unavoidable element of individual, discretionary judgment."[171] This essentially means that the legality of trade measures designed to encourage cleaner manufacturing processes is at the mercy of the panel or AB's interpretation of WTO provisions. While measures found to violate either the most-favored-nation or national treatment rule may still be justified under the Art. XX exceptions, the trouble with this system is that countries

---

[167] Clara Brandi, *Trade Elements in Countries' Climate Contributions under the Paris Agreement*, International Centre for Trade and Sustainable Development, vii (2017).

[168] Melissa Denchak, *Paris Climate Agreement: Everything You Need to Know*, NRDC (2021), https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know (last visited Feb 21, 2022).; Di Leva & Xiaoxin Shi, *The Paris Agreement and the International Trade Regime*, 25.

[169] Voigt, Sustainable Development as a Principle of International Law, 118.

[170] Japan – Alcoholic Beverages II (AB) [21].

[171] ibid.

seeking to implement such measures have no choice but to navigate the WTO's dispute settlement system, which is time-consuming and expensive.

Like the variable definition of "like products," the rulebook of what types of environment-related measures the panel or AB will and will not allow to be justified under Art. XX remains both complicated and vague. This is because the Art. XX(b), XX(g), or XX(a) have only been brought up in the WTO's dispute settlement process for the explicit purpose of environmental protection a limited number of times. This leaves a small number of trade measures defended under Art. XX to serve as a precedent for how to arbitrate emerging climate measures. Without a strong precedent, Voigt writes that "power and interest differences in the panels or the AB could easily produce divergent outcomes" in arbitration, leaving a wishy-washy record of what measures can stay and what must go.[172]

Furthermore, of the environment-related measures that have been defended in arbitration using these exceptions, most have been found not to comply with the rules of the Art. XX chapeau.[173] In fact, of the 48 attempts of members to justify measures under any of the GATT Art. XX or GATS Art. XIV "General Exceptions," only two have ever succeeded. As Daniel Rangel notes, "the impartiality of the legal system of any country in the world would be in question if nine out of ten disputes are won by the complaining party."[174] Furthermore, in the two cases that have succeeded – *US – Shrimp*, described in chapter 2, and *US – Tuna-Dolphin* – the measures in question were only allowed after the defending countries had adopted

---

[172] Voigt, Sustainable Development as a Principle of International Law, 121.

[173] Daniel Rangel, *WTO General Exceptions: Trade Law's Faulty Ivory Tower*, Public Citizen, 17, 21 (2022), https://www.citizen.org/article/wto-general-exceptions-trade-laws-faulty-ivory-tower/ (last visited Mar 12, 2022).

[174] ibid, 13.

recommendations laid out in previous dispute settlements.[175] No trade measure has ever been granted an Art. XX defense on first attempt.

As demonstrated by the lengthy and careful development process of the EU's CBAM, WTO member states looking to implement trade measures aimed at addressing climate change anticipate that claims will be brought against their new measures. The possibility of implementing any climate measure then necessitates navigating the WTO's dispute settlement process. The vague rules regarding "like products," as well as the lack of precedent and unsuccessful record of Art. XX defenses, leaves countries with no guarantee that their time will be worthwhile. This seemingly inevitable dispute resolution and uncertain outcome may discourage the development of innovative trade measures altogether, indicating that the WTO's "chill factor" may also discourage unilateral action.

While this political chill may dissipate as more environmental measures pass through the dispute settlement system, our rapidly-warming world does not have decades to wait for the WTO to slowly carve out a climate rulebook one case at a time.[176] The WTO dispute settlement system moves slowly, with major cases often taking three years or more to pass through the system's various stages.[177] Addressing the challenge of climate change will inevitably require countries to conduct a major overhaul of existing domestic policies in the coming years. As countries implement necessary domestic policies to meet their NDCs, such as the implementation of cap-and-trade systems, internal pressure from domestic industries fearing loss

---

[175] ibid, 9, 4.

[176] James Bacchus, *The Case for a WTO Climate Waiver*, Centre for International Governance Innovation, 4 (2017).

[177] Gary Clyde Hufbauer & Jisun Kim, *The World Trade Organization and Climate Change: Challenges and Options*, Peterson Institute for International Economics, 10 (2009).

of competitiveness will mount, as will the risk of carbon leakage.[178] At the same time, as the Paris Agreement has no effective enforcement mechanisms, the political will of parties to meet their NDCs will inevitably wax and wane over time. To reduce emissions at the necessary rate to prevent catastrophic global warming, other member states will therefore need a legal means to create financial incentives or barriers to trade that will force their peers to fall into line.

Carbon adjustment measures like the EU's CBAM could solve both problems. As explained in chapter 1, the CBAM and similar measures are necessary to maintain the efficacy of domestic emissions trading systems like the EU ETS. At the same time, these measures offer a rare opportunity for countries to unilaterally encourage international climate action.[179] However, border measures will end up having "significant cross-border trade effects" and will therefore be tested in the WTO dispute settlement system.[180]

The AB has sometimes taken MEAs into account when interpreting WTO provisions in the past. For example, in *US – Shrimp* the AB references the 1982 United Nations Convention on the Law of the Sea among a number of other MEAs in their interpretation of the meaning of "exhaustible natural resources" in Art. XX(g).[181] They also cite the GATT preamble as grounds for their more lenient interpretation.[182] Therefore, it is possible that an AB would also be more lenient with finding measures that further the goals of the Paris Agreement to qualify from an exception under Art. XX (a), (b), or (g). However, this would not exempt border measures from the requirements of the Art. XX chapeau. The 96 percent failure rate of attempted Art. XX

---

[178] Bacchus, *The Case for a WTO Climate Waiver*, 5.

[179] Epps & Green, Reconciling Trade and Climate, 7.

[180] ibid, 11.

[181] US – Shrimp (AB) [130], Epps & Green, Reconciling Trade and Climate, 226.

[182] US – Shrimp (AB) [129].

justifications indicates that the requirements of the two-tiered test may just be too narrow to allow for measures developed in real-world circumstances.[183] If the CBAM is unable to be justified under Art. XX, there will be major implications for the future success of the EU ETS and the EU's ability to meet its Paris Agreement targets.

Furthermore, while the EU's CBAM is the first major trade measure of its kind to take effect, similar border measures are being developed in other countries, and more will come in the future as countries attempt to scale down emissions.[184] It is very likely that these countries will wait until the EU CBAM's fate has been determined to move forward with their own plans, possibly years down the line. An unsuccessful defense of the EU's CBAM would likely discourage other WTO member states from trying their luck in the dispute settlement system altogether. At the same time, a successful CBAM defense would not guarantee that other measures find the same success, as the details of new measures will be unique to the political circumstances in which they are created. Every one of these measures will have to move through the dispute settlement process, perhaps multiple times. Such a case load could overwhelm the already strained system, and, based on the record of past attempts, many or most of these measures will find the challenge posed by Art. XX to be insurmountable.

Although the WTO and the global economic system as it stands have been called into question for their incompatibility with the achievement of true climate justice and sustainable development, many legal scholars have pointed out that there is potential for the rules of international trade and environmental protection to be "mutually consistent, mutually supportive,

---

[183] Rangel, *WTO General Exceptions: Trade Law's Faulty Ivory Tower*, 13.
[184] ibid, 2.

and mutually reinforcing."[185] With this idea in mind, the next section of this chapter will discuss potential avenues the WTO could take to better allow for climate action, particularly the agenda of the Paris Agreement.

Rectifying Trade and Climate

Many solutions have been proposed to ease the restrictions that WTO rules place on climate measures, the detailing of which would warrant a thesis of its own. The rest of this chapter will therefore only explore two of the most sweeping and widely discussed possibilities: the adoption of a climate amendment to the WTO Agreements and the creation of a climate waiver. This section will not go into the technical details of such measures, but instead discuss broadly the concept and feasibility of an amendment or waiver.

A WTO Climate Amendment

In light of the challenges that the current WTO framework creates for the implementation of environmental measures, the most obvious and permanent solution would be to amend the text of the WTO agreements themselves to accommodate measures taken in the name of achieving the goals of the Paris Agreement.[186] Art. X of the WTO Agreement allows members to propose amendments to the provisions of multilateral trade agreements.[187] Depending on the content, a climate amendment could therefore be developed to clarify the legal uncertainty existing for climate measures under the current WTO system, as well as lighten the caseload of the dispute

---

[185] James Bacchus, *Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes*, E15 Expert Group on Measures to Address Climate Change and the Trade System – Policy Options Paper, 6 (2016).

[186] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 17.

[187] WTO Agreement, art. X(1).

settlement system.[188] Suggestions thus far include amending Art. XX of the GATT to explicitly allow for climate measures or measures taken in accordance with MEAs, as well as adding exceptions similar to those in Art. XX to the Agreement on Subsidies and Countervailing Measures to allow for green subsidies.[189] An amendment to the GATT could also be written to specifically allow for mechanisms like the CBAM.[190]

While a WTO amendment would be a powerful solution to the WTO's current problems, in reality, a radical change of this kind would be very difficult to achieve. To create an amendment, a WTO member must first submit a proposal to the Ministerial Conference, the highest decision-making authority in the WTO. The Ministerial Conference is composed of representatives of all WTO member states and typically only meets every two years.[191] After a proposed amendment is submitted, the Ministerial Conference must decide to submit the amendment to member states for acceptance either by consensus or, if a consensus has not been reached after 90 days, by a vote of at least two-thirds of the conference.[192] From there, an amendment generally takes effect after two-thirds of member states have ratified it, although some amendments may require ratification by all members.[193] This kind of broad support for a measure that would permanently alter the WTO rulebook would likely be incredibly difficult to achieve. Furthermore, any amendment that is passed would only be binding for the member

---

[188] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 17.

[189] Epps & Green, Reconciling Trade and Climate, 259-260., International Bar Association, *Achieving Justice and Human Rights in an Era of Climate Disruption* (2014), 166-167, https://www.ibanet.org/MediaHandler?id=0f8cee12-ee56-4452-bf43-cfcab196cc04.

[190] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 34.

[191] WTO Agreement, art. IV(1).

[192] ibid, art. X(1).

[193] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 17.

states that ratify it, with any states that choose not to ratify the amendment able to operate and bring disputes against measures that violate the unamended rulebook.[194]

Thus far, only one amendment to WTO law has been successfully implemented. This amendment, which makes permanent a decision on patents and public health to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), was adopted in 2005, but did not come into effect until 2017.[195] Even if a consensus could be reached to implement a climate amendment of this kind, a decade is far too long to wait for the issues within the current WTO system to be reconciled. While the idea of a climate amendment should not be thrown out entirely, it is clear that short-term solutions should also be explored.

A WTO Climate Waiver

Some legal scholars have proposed the creation of a climate waiver in place of an amendment. Waivers, allowed under Art. IX of the WTO Agreement, enable member states to lawfully take measures that might otherwise be found to violate the rules of WTO agreements for a specified period of time.[196] Unlike amendments, waivers become legally effective as soon as they are adopted by the Ministerial Conference and do not require ratification by members.[197] Once a waiver has been submitted, the Ministerial Conference has no more than 90 days to consider the request. If a consensus cannot be reached in this time period, a waiver may be implemented with the support of three-fourths of members.[198]

---

[194] ibid.

[195] World Trade Organization, *Amendment to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)*, https://www.wto.org/english/tratop_e/trips_e/tripsfacsheet_e.htm (last visited Feb 21, 2022).

[196] WTO agreement, art. IX(3), Bacchus, *The Case for a WTO Climate Waiver*, 22.

[197] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 18.

[198] WTO agreement, art. IX(3a).

According to the WTO Agreement, the Ministerial Conference may only grant waivers under exceptional circumstances, and the application of waivers must be subject to well-specified terms and conditions.[199] While Art. IX does not provide a definition of "exceptional circumstances," the precedent set by past waivers implies that a waiver is always granted when all necessary votes are obtained.[200] Even without this precedent, it is difficult to imagine that climate change would not be found to qualify as an "exceptional circumstance."

Waivers have several advantages that make them a more viable option than amendments. For one, there is an extensive history of individual member states and a handful of examples of groups of states using waivers to bypass WTO obligations.[201] Notable collective waivers granted in the past include the "TRIPS Waiver," which was later made permanent in the TRIPS amendment, and the "Kimberly Waiver," which justified actions taken against non-participant WTO members to suppress the trade of "blood" diamonds.[202] These waivers serve as a precedent for the creation of a climate waiver that would cover all WTO members.

Another advantage could come from the temporary nature of waivers. Unlike an amendment, a climate waiver would not change WTO agreements themselves, but present an opportunity for members to "to experiment by realigning relevant trade rules for the sole purpose of addressing climate change without in any way changing those rules."[203] Waivers are often

---

[199] ibid, art. IX(4).

[200] Bacchus, *The Case for a WTO Climate Waiver*, 22-23.

[201] ibid, 22.

[202] WTO, General Council, Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, Decision of 30 August 2003, WTO Doc WT/L/540 (2 September 2003)., WTO, General Council, Waiver Concerning Kimberley Process Certification Scheme for Rough Diamonds, Decision of 15 May 2003, WTO Doc WT/L/518 (27 May 2003).

[203] James Bacchus, *The Content of a WTO Climate Waiver*, Centre for International Governance Innovation, 3 (2018).

only granted for one year, and waivers exceeding one year must be reviewed annually. During this annual review, a simple majority can vote to extend, modify, or terminate the waiver.[204] While it is possible that this review period would make a climate waiver vulnerable to changing political interests, it also presents an opportunity to adapt the terms of the waiver to meet evolving concerns.[205] Furthermore, the Art. IX requirement that waivers include a termination date does not constrain a climate waiver to acting as a short-term solution.[206] The TRIPS waiver mentioned above contained a provision that it would only terminate when an amendment to WTO rules that would replace the provisions of the waiver takes effect.[207] A climate waiver could include a similar provision.[208]

Bacchus proposes the creation of a waiver from WTO obligations "for all trade restrictive 'climate measures' that are based on the amount of carbon used in making a product, and that are taken in furtherance of and in compliance with a UNFCCC climate agreement."[209] The core of such a climate waiver should allow for trade measures that "discriminate on the basis of carbon and other greenhouse gases used or emitted in making a product; fit the definition of a climate response measure as defined by the UNFCCC; and do not discriminate in a manner that constitutes a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade."[210] Such a waiver would apply to the trade of goods, but waivers could also be created in relation to services and intellectual property. A climate waiver could also contain

---

[204] WTO agreement, art. IX(4).
[205] Das et al., *Making the International Trade System Work for Climate Change: Assessing the Options*, 18.
[206] WTO agreement, art. IX(4).
[207] WTO, Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health.
[208] Bacchus, *The Content of a WTO Climate Waiver*, 3.
[209] Bacchus, *Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes*, 15.
[210] Bacchus, *The Content of a WTO Climate Waiver*, 1.

provisions to allow for the linking of emissions trading systems and encourage participation in an international carbon market.[211] Other possible provisions could prohibit fossil fuel subsidies and allow for subsidies for clean energy alternatives.[212]

While a climate waiver presents a more politically feasible solution than an amendment, it would likely still face challenges to implementation. As Art. IX requires that waivers must contain specific terms and conditions governing their application, the creation of a waiver would force the proposing party or parties to reckon with questions that both the trade and climate regimes have yet to address.[213] For one, the Paris Agreement and other MEAs have failed to define what qualifies as a climate "response measure" or the exact terms of an "inefficient fossil fuel subsidy."[214] A climate waiver would likely require precise definitions for these terms. Such a waiver would also need to provide a common approach to calculating and verifying emissions created in production processes.[215]

Achieving the three-fourths majority necessary to grant the waiver could also pose a challenge. In October 2020, India and South Africa proposed a TRIPS waiver to intellectual property rights protections for technologies relating to the prevention and treatment of COVID-19. Despite the fact that such a waiver would end once "widespread vaccination is in place globally, and the majority of the world's population has developed immunity," a number of high-income countries, including the United Kingdom, Japan, Australia, and multiple EU countries, have yet to support the waiver, citing concerns about the waiver's impact on the future

---

[211] ibid, 8-9.

[212] ibid, 10-11.

[213] WTO agreement, art. IX(4).

[214] Bacchus, *The Content of a WTO Climate Waiver*, 5-6, 10.

[215] ibid, 6.

of pharmaceutical innovation.[216] Unsurprisingly, a great deal of opposition has come from multinational pharmaceutical companies, whose lobbyists have likely had a hand in the lack of support from wealthy countries.[217] In the face of global calls to work together to end the pandemic, the proposed waiver remains stalled after more than a year of negotiations.[218]

If allowed under a waiver, CBAMs and similar measures would have a large impact on global trade. This makes it likely that lobbies for a number of industries would put up strong resistance to a climate waiver. If, as in the case of the COVID-19 waiver, these industries have enough sway over their country's government, a climate waiver could fail to gather the number of votes it needs.

As Voigt explains, "the WTO Preamble demands trade liberalization to be pursued only when it contributes to the objective of sustainable development."[219] Therefore, the WTO and the Conference of the Parties (COP) of the UNFCCC – the decision-making body responsible for the implementation of the Paris Agreement – must work together to reconcile climate and trade rules. Any further procrastination risks "the legitimacy and longevity of both the climate and trade regimes."[220] Furthermore, if the achievement of sustainable development is truly supposed to be at the heart of all WTO actions and agreements, the question arises of why trade measures seeking to further this objective, like the EU's CBAM, must rely on exceptions to the rules in the

---

[216] WTO, Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of COVID-19 – Communication from India and South Africa (2 October 2020) IP/C/W/669., Anthony D. So, *WTO TRIPS Waiver for COVID-19 Vaccines*, Johns Hopkins Bloomberg School of Public Health (2021), https://publichealth.jhu.edu/2021/wto-trips-waiver-for-covid-19-vaccines (last visited Mar 6, 2022).

[217] So, *WTO TRIPS Waiver for COVID-19 Vaccines*.

[218] Alan Beattie, *A Covid vaccine breakthrough bypasses the stale debate on patent waivers*, Financial Times, February 16, 2022, https://www.ft.com/content/27fada1a-1dcb-492c-a5ef-9d88a1d91b49 (last visited Mar 6, 2022).

[219] Voigt, Sustainable Development as a Principle of International Law, 118.

[220] Bacchus, *The Case for a WTO Climate Waiver*, 4.

first place. Perhaps a major overhaul of the rules of global trade that goes beyond the limits of the solutions described above should be considered. In the short term however, if both a climate amendment and climate waiver cannot be achieved, another solution must be found.

Conclusion

In December 2021, Mohammed Chahim, rapporteur of the Committee on the Environment, Public Health and Food Safety (ENVI) of the European Parliament, submitted a draft report including a number of proposed amendments to the text of the CBAM proposal. The objective of those amendments is likely to rectify several of the mechanism's potential inconsistencies with WTO rules.

As mentioned in chapter 2, the CBAM under the current proposal runs the risk of violating the GATT's most-favored-nation rule by considering the domestic emissions regulations of exporters in determining which imports require the purchase of CBAM certificates. To address this concern, the report recommends that no exemptions or reductions should be granted to imports based on the existence of implicit carbon pricing or other emission reduction policies in the exporting country.[221] Instead, only explicit carbon pricing should warrant any CBAM exemptions, and the Commission should meanwhile "engage in climate diplomacy and find ways to cooperate with trade partners on decarbonization policies, which should not replace the CBAM but instead exist next to it."[222] As previously mentioned, the EU could also violate the "national treatment" rule by continuing the issuance of free emissions allowances after the CBAM has been implemented. Chahim therefore proposes a faster timeline for the phase-out of free allowances, with the CBAM and free allowances coexisting for a shorter period.[223]

---

[221] Mohammed Chahim, DRAFT REPORT on the proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, amendment 7 (2021), https://www.euractiv.com/wp-content/uploads/sites/2/2022/01/CBAM-Informal-draft.pdf.

[222] ibid, amendment 7, 17.

[223] ibid, amendment 4,5.

Chahim also proposes that the Commission include that Art. XX of the GATT "allows World Trade Organization (WTO) members to implement measures that are necessary to protect human, animal or plant life or health, or natural resources" in the beginning of the proposal, indicating that the EU is prepared to defend the CBAM under either Art. XX(b) or XX(g).[224] Other proposed amendments could strengthen the chances of a successful Art. XX defense. For one, the report explicitly states that the CBAM is a "carbon leakage mechanism" necessary to replace the current leakage-reduction policy of issuing free allowances in order to support the reduction of emissions in the EU and that a primary purpose of the CBAM is to provide an incentive to third countries to reduce emissions.[225] Chahim further recommends that the CBAM includes the import of organic basic chemicals, hydrogen and polymers and is also applied to indirect emissions from the onset.[226] In broadening its scope, the report claims that the CBAM would closer mirror the scope of the EU ETS, as "coherence between the CBAM and the EU ETS are essential to respect the principles of the WTO."[227] By emphasizing the necessity of the CBAM to reduce global emissions and tying its rules more closely to those of the EU ETS, these amendments would support the EU's case that the CBAM falls within the scope of one of the Art. XX general exceptions.

Such amendments could also increase the chances that the CBAM meets the terms of the chapeau, the second tier of the Art. XX test. Chahim suggests a major overhaul of the proposal's decentralized system of regulation in favor of establishing a singular EU "CBAM authority" to

---

[224] ibid, amendment 2.

[225] ibid, amendment 5,6, 28, 29.

[226] ibid, amendment 8, 12, 13.

[227] ibid, amendment 8.

facilitate the registration of importers and sale of certificates.[228] Revenues generated by the CBAM would directly fund the operation of the CBAM authority, with remaining revenue going to the EU budget. Furthermore, an amount equivalent to the revenue of the CBAM should be provided by EU member states to support the decarbonization of manufacturing industries in least developed countries.[229] If adopted, this change could challenge any skepticism that profit is a motivation behind the measure, as well as further present the CBAM as in line with the EU's "objectives and international commitments…under WTO agreements and the Paris Agreement."[230]

Chahim's draft report is expected to be voted on by the ENVI committee this coming May.[231] Though the ENVI committee's final report will carry no legal weight of its own, it will likely influence the Parliament's position and shape the final text of the CBAM. The final terms of the CBAM are expected to be agreed upon before July 2022.[232]

In February 2022, two months after the release of this draft report, the Intergovernmental Panel on Climate Change released the second part of their sixth assessment report – a 3600-page document detailing the current state of scientific knowledge relevant to climate change. This report, which UN Secretary-General António Guterres described as an "atlas of human suffering and a damning indictment of failed climate leadership," indicates that the realities of climate

---

[228] ibid, amendment 53.

[229] ibid, amendment 88.

[230] ibid.

[231] Agnese Ruggiero, *CBAM: Exploring MEP Chahim's draft report*, Carbon Market Watch (2022), https://carbonmarketwatch.org/2022/02/24/cbam-exploring-mep-chahims-draft-report/ (last visited Mar 13, 2022).

[232] Possible Amendments to EU Proposed Carbon Border Adjustment Mechanism, GreenbergTraurig (2022), https://www.gtlaw.com/en/insights/2022/1/possible-amendments-to-eu-proposed-carbon-border-adjustment-mechanism (last visited Mar 13, 2022).

change are even bleaker than had originally been thought.[233] An increase of 1.5C in average global temperatures, the more ambitious goal of the Paris Agreement, will increase the frequency, intensity and severity of droughts, floods, heatwaves, and continued sea level rise, lead to widespread food insecurity, and create a high risk of extinction for up to 14 percent of terrestrial species.[234] These consequences will multiply with every fraction of a degree of warming. Furthermore, even a 1.5C increase could make the strategies that we have developed to adapt to climate change impossible or ineffective.[235] For example, we cannot plant trees in cities to alleviate urban heat if summers are too hot for the trees to survive, nor can we build seawalls to protect coastal communities from flooding if sea levels have risen too high. And yet, even the goal of keeping global warming below 2C will not be achieved under current emissions reduction pledges.[236]

With Chahim's suggested amendments, the EU's CBAM could become the first-ever trade measure to be successfully justified under one of the Art. XX exceptions of the GATT on the first attempt. If not, the EU will still have the opportunity to apply the recommendations of the Appellate Body, and the CBAM could very well be the third-ever measure to find success after another round of the dispute settlement process. A victory on any timeline would certainly be a victory for the EU and contribute to the global effort to reduce carbon emissions. However, an EU CBAM success would not change the fact that other countries looking to produce similar

---

[233] IPCC adaptation report 'a damning indictment of failed global leadership on climate,' UN News (2022), https://news.un.org/en/story/2022/02/1112852 (last visited Mar 15, 2022).

[234] United Nations International Panel on Climate Change Working Group II, *Climate Change 2022 Impacts, Adaptation and Vulnerability: Summary for Policymakers*, SPM.B.4.3, SPM.B.4.1 (2022).

[235] Kiley Price, *IPCC Report: Climate change could soon outpace humanity's ability to adapt*, Conservation International (2022), https://www.conservation.org/blog/ipcc-report-climate-change-could-soon-outpace-humanitys-ability-to-adapt (last visited Mar 15, 2022).

[236] IPCC adaptation report 'a damning indictment of failed global leadership on climate,' UN News.

measures will not have the same time and resources at their disposal as the EU to create measures that perfectly thread the needle of narrow WTO rules and, therefore, will likely not have the same success. Furthermore, a CBAM success would not change the fact that, as explained in chapter 3, the WTO's current exceptions-based framework for addressing environmental measures slows the development and implementation of trade mechanisms necessary to mitigate and adapt to climate change. For these reasons, Art. XX, a provision that has a 96 percent failure rate, should not be seen as a "guardian of the environment," and a legal framework that requires several rounds of a lengthy and costly dispute settlement process to allow for measures that seek to lessen the damage that globalized capitalism has done to our environment should no longer be seen as sufficient to address the world's needs.

The catastrophic consequences of human-caused climate change are no longer just a threat to future generations – they are here now, many are already irreversible, and they are going to get worse. As indicated by the IPCC report, the longer we wait to reduce emissions, the worse things will get, particularly for people in countries who did not cause climate change and who have historically only suffered as the result of global trade. The rules of the WTO, established in 1995, are no longer relevant to the world we live in today. The window of opportunity to preserve the habitability of our planet is closing. A rapid scale-down of global emissions is needed now, and the rules of the WTO must be altered to allow for it.

Bibliography

Treaties and Legal Documents

European Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a carbon border adjustment mechanism COM/2021/564 final (2021).

European Parliament, European Parliament resolution of 10 March 2021 towards a WTO-compatible EU carbon border adjustment mechanism (2020/2043(INI)), P9_TA(2021)0071.

General Agreement on Tariffs and Trade, Oct. 30, 1947, 55 U.N.T.S. 154, 61 Stat. A-11 [hereinafter GATT].

Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994) [hereinafter Marrakesh Agreement or WTO Agreement].

Paris Agreement to the United Nations Framework Convention on Climate Change, art. 2(1), Dec. 12, 2015, T.I.A.S. No. 16-1104.

Understanding on Rules and Procedures Governing the Settlement of Disputes, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401 [hereinafter DSU].

United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

WTO, General Council, Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health, Decision of 30 August 2003, WTO Doc WT/L/540 (2 September 2003).

WTO, General Council, Waiver Concerning Kimberley Process Certification Scheme for Rough Diamonds, Decision of 15 May 2003, WTO Doc WT/L/518 (27 May 2003).

WTO, Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of COVID-19 – Communication from India and South Africa (2 October 2020) IP/C/W/669.

Cases

WTO, Brazil – Measures Affecting Imports of Retreaded Tyres – Report of the Appellate Body (17 December 2007) WT/DS332/AB/R (Brazil–Retreaded Tyres).

WTO, Brazil – Measures Affecting Imports of Retreaded Tyres – Report of the Panel (12 June 2007) WT/ DS332/R, ('Brazil – Retreaded Tyres (Panel)').

WTO, China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum – Report of the Appellate Body (7 August 2014) WT/DS431/AB/R, WT/DS432/AB/R, WT/DS433/AB/R, ('China – Rare Earths').

WTO, China – Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum – Reports of the Panel (26 March 2014) WT/DS431/R, WT/DS432/R, WT/DS433/R, ('China – Rare Earths (Panel)').

WTO, China – Measures Related to the Exportation of Various Raw Materials – Report of the Panel (5 July 2011) WT/DS394/R, WT/DS395/R, WT/DS398/R, ('China – Raw Materials (Panel)').

WTO, Colombia – Measures Relating to the Importation of Textiles, Apparel and Footwear – Report of the Appellate Body (22 June 2016) WT/DS461/AB/R, ('Colombia – Textiles').

WTO, European Communities – Measures Affecting Asbestos and Asbestos-Containing Products - Report of the Appellate Body (5 April 2001) WT/DS135/AB/R ('EC – Asbestos').

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

WTO, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products - Report of the Panel (18 June 2014) WT/DS400/R; WT/DS401/R ('EC – Seals (Panel)').

WTO, Japan – Taxes on Alcoholic Beverages - Report of the Appellate Body (1 November 1996) WT/DS8/AB/R ('Japan – Alcoholic Beverages II').

WTO, Korea – Measures Affecting Imports of Fresh, Chilled And Frozen Beef – Report of the Appellate Body (11 December 2000) WT/DS161/AB/R, WT/DS169/AB/R, ('Korea – Beef').

WTO, Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes (1990) GATT BISD 37S/200, ('Thailand – Cigarettes').

WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia (21 November 2001) WT/DS58/AB/RW, ('US – Shrimp (21.5 Malaysia)').

WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products - Report of the Appellate Body (6 November 1998) WT/DS58/AB/R (US – Shrimp).

WTO, United States – Import Prohibition of Certain Shrimp and Shrimp Products - Report of the Panel (6 November 1998) WT/DS58/R ('US – Shrimp (Panel)').

WTO, United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services - Report of the Panel (20 April 2005) WT/DS285/R ('US – Gambling (Panel)').

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

WTO, United States – Standards for Reformulated and Conventional Gasoline – Report of the Panel (20 May 1996) WT/DS2/R ('US – Gasoline (Panel)').

Books

Epps, Tracey, and Andrew Green. *Reconciling Trade and Climate: How the WTO Can Help Address Climate Change*. Elgar International Economic Law. Cheltenham, UK: Edward Elgar, 2010.

Voigt, Christina. *Sustainable Development as a Principle of International Law: Resolving Conflicts between Climate Measures and WTO Law*. Vol. 2. Legal Aspects of Sustainable Development. Leiden: Brill | Nijhoff, 2009. https://doi.org/10.1163/ej.9789004166974.i-428.

Articles

Abnett, Kate. "Analysis: EU Industry Hands Brussels Headache over Carbon Border Levy." *Reuters*, June 22, 2021, sec. Sustainable Business. https://www.reuters.com/business/sustainable-business/eu-industry-hands-brussels-headache-over-carbon-border-levy-2021-06-22/.

Bacchus, James. "Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes." In *E15 Expert Group on Measures to Address Climate Change and the Trade System – Policy Options Paper*, 27. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum., 2016.

Bacchus, James. "Legal Issues with the European Carbon Border Adjustment Mechanism." Cato Institute, August 9, 2021. https://www.cato.org/briefing-paper/legal-issues-european-carbon-border-adjustment-mechanism.

Bacchus, James. "The Case for a WTO Climate Waiver." *Centre for International Governance Innovation*, 2017, 36.

Bacchus, James. "The Content of a WTO Climate Waiver." *Centre for International Governance Innovation*, no. 204 (December 2018): 24.

Bayer, Patrick, and Michaël Aklin. "The European Union Emissions Trading System Reduced CO2 Emissions despite Low Prices." *Proceedings of the National Academy of Sciences* 117, no. 16 (April 21, 2020): 8804–12. https://doi.org/10.1073/pnas.1918128117.

Beattie, Alan. "A Covid Vaccine Breakthrough Bypasses the Stale Debate on Patent Waivers." *Financial Times*, February 16, 2022. https://www.ft.com/content/27fada1a-1dcb-492c-a5ef-9d88a1d91b49.

Bhattarai, Abha. "Maldives Minister Says Efforts Aren't Enough: 'The Difference between 1.5 and 2 Degrees Is a Death Sentence for Us.'" Washington Post, November 13, 2021. https://www.washingtonpost.com/climate-environment/2021/11/13/cop26-glasgow-climate-deal/.

Blenkinsop, Philip. "Analysis: Europe Faces Sceptical Globe with Carbon Border Levy." *Reuters*, July 5, 2021, sec. Sustainable Business. https://www.reuters.com/business/sustainable-business/europe-faces-sceptical-globe-with-carbon-border-levy-2021-07-05/.

Brandi, Clara. "Trade Elements in Countries' Climate Contributions under the Paris Agreement." *International Centre for Trade and Sustainable Development*, March 2017, 60.

Canada, Department of Finance. "Exploring Border Carbon Adjustments for Canada." Government of Canada, August 5, 2021. https://www.canada.ca/en/department-finance/programs/consultations/2021/border-carbon-adjustments/exploring-border-carbon-adjustments-canada.html.

Climate Action Tracker. "CAT Climate Target Update Tracker," November 12, 2021. https://climateactiontracker.org/climate-target-update-tracker/.

Climate Action Tracker. "Glasgow's 2030 Credibility Gap: Net Zero's Lip Service to Climate Action," November 9, 2021. https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/.

Chahim, Mohammed. "DRAFT REPORT on the Proposal for a Regulation of the European Parliament and of the Council Establishing a Carbon Border Adjustment Mechanism." European Parliament Committee on the Environment, Public Health and Food Safety, December 21, 2021. https://www.euractiv.com/wp-content/uploads/sites/2/2022/01/CBAM-Informal-draft.pdf.

Chase, Peter, and Rose Pinkert. "The EU's Triangular Dilemma on Climate and Trade." *The German Marshall Fund of the United States*, September 2021, 13.

Council of the EU. "Linking of Switzerland to the EU Emissions Trading System - Entry into

Force on 1 January 2020," December 9, 2019. https://www.consilium.europa.eu/en/press/press-releases/2019/12/09/linking-of-switzerland-to-the-eu-emissions-trading-system-entry-into-force-on-1-january-2020/.

Das, Kasturi, Harro van Asselt, Susanne Droege, and Michael Mehling. "Making the International Trade System Work for Climate Change: Assessing the Options." *Climate Strategies*, July 2018, 58.

"DDG Paugam: WTO Rules No Barrier to Ambitious Environmental Policies." World Trade Organization, September 16, 2021. https://www.wto.org/english/news_e/news21_e/ddgjp_16sep21_e.htm.

Denchak, Melissa. "Paris Climate Agreement: Everything You Need to Know." NRDC, February 19, 2021. https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know.

Di Leva, Charles, and Xiaoxin Shi. "The Paris Agreement and the International Trade Regime: Considerations for Harmonization." *Sustainable Development Law & Policy* 17, no. 1 (2016): 15.

Dobson, Natalie. "Article XX GATT as Guardian of the Environment." In *Elgar Encyclopedia of Environmental Law*, 200–209. Edward Elgar Publishing Limited, December 2021. https://www.elgaronline.com/view/nlm-book/9781786436986/b-9781783476985-XI_23.xml?pdfVersion=true.

Eliason, Antonia. "Using the WTO to Facilitate the Paris Agreement: A Tripartite Approach." *Vanderbilt Journal of Transnational Law* 52 (May 2019): 545–75. https://doi.org/10.2139/ssrn.3209858.

Environmental Defense Fund. "How Cap and Trade Works." Accessed December 11, 2021. https://www.edf.org/climate/how-cap-and-trade-works.

European Commission. "Carbon Border Adjustment Mechanism: Questions and Answers." Text, July 14, 2021. https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3661.

European Commission. "Carbon Leakage." Climate Action - European Commission. Accessed November 12, 2021. https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/free-allocation/carbon-leakage_en.

European Commission. "EU Emissions Trading System (EU ETS)." Accessed November 11, 2021. https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en.

European Commission. "EU Emissions Trading System: International Carbon Market." Accessed November 11, 2021. https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/international-carbon-market_en.

European Commission. "EU ETS: Revision for Phase 4 (2021-2030)." Accessed November 11, 2021. https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/revision-phase-4-2021-2030_en.

Green, Jessica F. "Follow the Money," December 3, 2021. https://www.foreignaffairs.com/articles/world/2021-11-12/follow-money.

GreenbergTraurig. "Possible Amendments to EU Proposed Carbon Border Adjustment Mechanism," January 24, 2022. https://www.gtlaw.com/en/insights/2022/1/possible-amendments-to-eu-proposed-carbon-border-adjustment-mechanism.

Hockenos, Paul. "The EU's Emissions Trading System Is Finally Becoming a Success Story." Energy Transition, November 9, 2020. https://energytransition.org/2020/11/the-eus-emissions-trading-scheme-is-finally-becoming-a-success-story/.

Hoegh-Guldberg, Ove, Daniela Jacob, Michael Taylor, Marco Bindi, Sally Brown, Ines Camilloni, Arona Diedhiou, et al. "Global Warming of 1.5 ◦C: Impacts of 1.5°C of Global Warming on Natural and Human Systems." *IPCC*, 2018, 177.

Hufbauer, Gary Clyde, and Jisun Kim. "The World Trade Organization and Climate Change: Challenges and Options." *Peterson Institute for International Economics*, September 2009, 17.

Hufbauer, Gary Clyde, Jisun Kim, and Jeffrey J Schott. "Can EU Carbon Border Adjustment Measures Propel WTO Climate Talks?" PIIE, November 3, 2021. https://www.piie.com/publications/policy-briefs/can-eu-carbon-border-adjustment-measures-propel-wto-climate-talks.

International Bar Association. "Achieving Justice and Human Rights in an Era of Climate Disruption." London, 2014. https://www.ibanet.org/MediaHandler?id=0f8cee12-ee56-4452-bf43-cfcab196cc04.

Jackson, Randal. "The Effects of Climate Change." Climate Change: Vital Signs of the Planet. Accessed December 10, 2021. https://climate.nasa.gov/effects.

Karakosta, Charikleia. "Carbon Leakage and Industrial Innovation." Climate Policy Info Hub, June 21, 2016. https://climatepolicyinfohub.eu/carbon-leakage-and-industrial-innovation.html.

Kardish, Chris, Mattia Mäder, Mary Hellmich, and Maia Hall. "Which Countries Are Most Exposed to the EU's Proposed Carbon Tariffs?" Resource Trade, August 20, 2021. https://resourcetrade.earth/publications/which-countries-are-most-exposed-to-the-eus-proposed-carbon-tariffs.

Khan, Mehreen. "EU Carbon Border Tax Will Raise Nearly €10bn Annually." *Financial Times*, July 6, 2021. https://www.ft.com/content/7a812f4d-a093-4f1a-9a2f-877c41811486.

McWilliams, Ben, and Simone Tagliapietra. "Carbon Border Adjustment in the United States: Not Easy, but Not Impossible Either | Bruegel," February 11, 2021. https://www.bruegel.org/2021/02/carbon-border-adjustment-in-the-united-states-not-easy-but-not-impossible-either/.

Mooney, Chris, and John Muyskens. "Dangerous New Hot Zones Are Spreading around the World." Washington Post, September 11, 2019. https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-world/.

Morgan, Sam. "Russia Warns EU against Carbon Border Tax Plan, Citing WTO Rules." Climate Home News, July 28, 2020. https://www.climatechangenews.com/2020/07/28/russia-warns-eu-carbon-border-tax-plan-citing-wto-rules/.

Oharenko, Yuliia. "Strengthening EU Emissions Trading Scheme to Back up Climate Ambitions | SDG Knowledge Hub | IISD." *IISD SDG Knowledge Hub* (blog), October 5, 2021. https://sdg.iisd.org:443/commentary/guest-articles/strengthening-eu-emissions-trading-scheme-to-back-up-climate-ambitions/.

Okazaki, Kohei, Masaki Kuwahara, Takashi Miwa, Masaki Motomura, and Juichi Wako. "Japan Begins Discussions on Carbon Pricing Framework." Nomura, March 2021. https://www.nomuraconnects.com/focused-thinking-posts/japan-begins-discussions-on-carbon-pricing-framework/.

Pauer, Stefan U. "Including Electricity Imports in California's Cap-and-Trade Program: A Case Study of a Border Carbon Adjustment in Practice." *The Electricity Journal*, Special Issue: Energy Policy Institute's Eighth Annual Energy Policy Research Conference, 31, no. 10 (December 1, 2018): 39–45. https://doi.org/10.1016/j.tej.2018.11.005.

Pauwelyn, Joost, and David Kleimann. "Trade Related Aspects of a Carbon Border Adjustment Mechanism: A Legal Assessment." European Parliament, April 14, 2020.

Price, Alan H., Timothy C. Brightbill, Christopher B. Weld, Erik C. Baptist, and Theodore P. Brackemyre. "Democrats Introduce Carbon Border Adjustment Legislation." Wiley, July 21, 2021. https://www.wiley.law/alert-Democrats-Introduce-Carbon-Border-Adjustment-Legislation.

Price, Kiley. "IPCC Report: Climate Change Could Soon Outpace Humanity's Ability to Adapt." Conservation International, February 28, 2022. https://www.conservation.org/blog/ipcc-report-climate-change-could-soon-outpace-humanitys-ability-to-adapt.

Rangel, Daniel. "WTO General Exceptions: Trade Law's Faulty Ivory Tower." Public Citizen, February 4, 2022. https://www.citizen.org/article/wto-general-exceptions-trade-laws-faulty-ivory-tower/.

Ruggiero, Agnese. "CBAM: Exploring MEP Chahim's Draft Report." *Carbon Market Watch*

(blog), February 24, 2022. https://carbonmarketwatch.org/2022/02/24/cbam-exploring-mep-chahims-draft-report/.

Sapir, Andre. "The European Union's Carbon Border Mechanism and the WTO | Bruegel," July 19, 2021. https://www.bruegel.org/2021/07/the-european-unions-carbon-border-mechanism-and-the-wto/.

Shaw, Mabel. "International Trade Law Research Guide: WTO & GATT Dispute Settlement." Accessed January 30, 2022. https://guides.ll.georgetown.edu/c.php?g=363556&p=3915307.

So, Anthony D. "WTO TRIPS Waiver for COVID-19 Vaccines." Johns Hopkins Bloomberg School of Public Health, May 10, 2021. https://publichealth.jhu.edu/2021/wto-trips-waiver-for-covid-19-vaccines.

South African Government. "Joint Statement Issued at the Conclusion of the 30th BASIC Ministerial Meeting on Climate Change Hosted by India on 8th April 2021," April 8, 2021. https://www.gov.za/nr/speeches/joint-statement-issued-conclusion-30th-basic-ministerial-meeting-climate-change-hosted.

Taylor, Adam, and Harry Stevens. "2C or 1.5C? How Global Climate Targets Are Set and What They Mean." Washington Post, November 10, 2021. https://www.washingtonpost.com/world/2021/11/10/15c-2c-climate-temperature-targets-cop26/.

UN News. "IPCC Adaptation Report 'a Damning Indictment of Failed Global Leadership on Climate,'" February 28, 2022. https://news.un.org/en/story/2022/02/1112852.

UNFCCC. "Glasgow Climate Pact | UNFCCC." Accessed March 15, 2022. https://unfccc.int/documents/310475.

United Nations International Panel on Climate Change Working Group II. "Climate Change 2022 Impacts, Adaptation and Vulnerability: Summary for Policymakers," February 27, 2022.

"US – Gasoline (DS2)." *WTO Dispute Settlement: One-Page Case Summaries 1995-2020*, 2021, 11.

Wilke, Marie. "Litigating Environmental Protection and Public Health at the WTO: The Brazil-Retreaded Tyres Case." International Centre for Trade and Sustainable Development (, September 1, 2010. https://www.files.ethz.ch/isn/139109/case_brief_brazil_tyres_v51.pdf.

Worland, Justin. "John Kerry on Border Carbon Tax: The U.S. Doesn't Want to Push Others Away." Time, July 26, 2021. https://time.com/6084078/john-kerry-border-carbon-mechansim-cbam/.

World Trade Organization. "Amendment to the Agreement on Trade-Related Aspects of

Intellectual Property Rights (TRIPS).” Accessed February 21, 2022. https://www.wto.org/english/tratop_e/trips_e/tripsfacsheet_e.htm.

World Trade Organization. “CBT - Basic Purpose and Concepts - Most-Favoured-Nation Treatment - Page 1.” Accessed December 28, 2021. https://www.wto.org/english/tratop_e/serv_e/cbt_course_e/c1s6p1_e.htm.

World Trade Organization. “Glossary - National Treatment.” Accessed December 28, 2021. https://www.wto.org/english/thewto_e/glossary_e/national_treatment_e.htm.

“What is the WTO?” Accessed April 13, 2022. https://www.wto.org/english/thewto_e/thewto_e.htm.

“WTO | Understanding the WTO - A Unique Contribution.” Accessed January 23, 2022. https://www.wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm.

Xu, Muyu, and David Stanway. “China Says EU’s Planned Carbon Border Tax Violates Trade Principles.” *Reuters*, July 26, 2021, sec. Sustainable Business. https://www.reuters.com/business/sustainable-business/china-says-ecs-carbon-border-tax-is-expanding-climate-issues-trade-2021-07-26/.