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Cooperation Without Convergence: Border Carbon Adjustment and Heterogeneity of Climate Actions

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Abstract

Border Carbon Adjustment measures ("BCAs") were originally conceived to help solve a problem that arises when countries ask firms to internalize the costs of environmental depredation in an open economy. Environmental regulation raises costs to domestic producers who feel and are—both are relevant—disadvantaged vis-à-vis their foreign competitors subject to lower regulatory costs, in ways that impact economic competitiveness but also the effectiveness of the regulation itself, to the extent it is directed at a 'global commons' problem such as reducing greenhouse gas ("GHG") emissions in an attempt to mitigate climate change. However, BCAs create issues of their own. Among other problems, they may prejudge the recognition of climate actions and impose trade barriers based on that unilateral valuation. This in turn may alienate trading countries subject to such measures, leading to a logic of tit-for-tat retaliation. The disruption from environmental border measures can be exacerbated by the design and features of specific BCAs, while their level of trade-restrictiveness could be measured through the application of traditional international trade disciplines. In view of this, this paper examines a possible way forward that combines cooperation on trade policy without convergence on climate action—the 'climate mutual recognition' approach—, concluding that it bears the potential to address some of the most problematic impacts of unilateral BCAs while accommodating the legal and political constraints that define the current state of climate and trade governance.

Table of Contents

I. INTRODUCTION

After years of conceptual debate about the legal justifications and policy implications of border carbon adjustment measures ("BCAs"), they are finally—or almost—among us. On 14 July 2021, the European Commission unveiled its proposed Carbon Border Adjustment Measure ("CBAM"), which would essentially extend the European cap-and-trade system[1] to imports into the economic bloc for certain selected sectors, with some parts of the policy kicking in as early as 2023.[2]

Environmental border measures are a product of ramped-up ambitions and efforts in climate change mitigation. As countries put in place ever more stringent policies to reduce green-house gas ("GHG") emissions that cause global warming and climate change, there is increasing concern about the competitiveness implications to their domestic industries, as well as the actual effectiveness of those policies amid worries of "carbon leakage".[3] In this context, BCAs can serve

[1] The EU Emissions Trading Scheme ("ETS") is a cap-and-trade system regulating GHG emissions in the European common market. The system works through a cap being set on the total amount of certain GHGs that can be emitted by the industrial installations covered by the regime. Within the cap, installations buy (or receive) emissions allowances, which they can trade with one another as needed. After each year, an installation must surrender enough allowances to fully cover its emissions for the corresponding period, subject to fines in case of non-compliance (European Commission, EU Emissions Trading System (EU ETS). Access on May 10, 2022. Available at: https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en).

[2] European Commission, Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism" (2021/0214, July 14, 2021). Available at: https://ec.europa.eu/info/sites/default/files/carbon_border_adjustment_mechanism_0.pdf ("EC CBAM Proposal").

[3] These two concerns are in principle closely related: when the industry of a country assumes additional costs in order to lower GHG-emission levels and competing industries in other countries incur lesser (or zero) costs because the legal and regulatory regimes they are subject to do not require such reductions, this may affect geographical patterns of investment, production, and trade. If climate policy-induced changes in firms' relative costs result in a shift of economic activity to less carbon-constrained jurisdictions, then overall emissions are not reduced, but simply shifted to other countries (*see* Gabrielle Marceau, *The Interface Between the Trade Rules and Climate Change Actions*, 3, *in* DEOK-YOUNG PARK (Ed.), LEGAL ISSUES ON CLIMATE CHANGE AND INTERNATIONAL TRADE LAW. New York: Springer, 2016).

as a mechanism to equalize policy treatment of the embedded carbon content or climate change impact between foreign and domestic products.[4]

The trade impact of BCAs is likely to be significant, and it involves both the direct cost imposed on exports and the increased transaction costs associated with complex accounting, reporting, and verifying mechanisms that should accompany these measures. Accordingly, the prospect of unilateral BCAs has elicited strong reactions in different quarters, from countries calling "green protectionism" and seeing a possible assault on their market access benefits,[5] to organizations concerned with a disproportional impact on poor countries,[6] The rich academic literature on BCAs has also produced various proposals for dealing with these measures' consequences from an international trade perspective, ranging from the purely domestic—e.g., optimal policy design balancing trade restrictiveness and environmental effectiveness[7]—to the multilateral—e.g., launching negotiations on climate-related trade measures at the World Trade Organization ("WTO").[8]

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[4] Henrik Horn and Petros C. Mavroidis, *Border Carbon Adjustments and the WTO* (14 March, 2010), 2. Available at: https://cee.boun.edu.tr/sites/cee.boun.edu.tr/files/documents/CEE2013Conference/bcawto.pdf.

[5] Around the time the European Union unveiled its CBAM proposal, Brazil, China, India, and South Africa expressed their concerns about what they saw as discriminatory unilateral BCAs, in some cases even threatening future legal challenges (Nathalie Bernasconi-Osterwalder, Aaron Cosbey, *Carbon and Controversy: Why we need global cooperation on border carbon adjustment*, International Institute for Sustainable Development (May 18, 2021)).

[6] *See, e.g.*, Tim Gore, Eline Blot, Tancrede Voituriez, Laura Kelly, Aaron Cosbey, Jodie Keane, *What Can Least Developed Countries and Other Climate Vulnerable Countries Expect from The EU Carbon Border Adjustment Mechanism (CBAM)?* Joint report (IEEP, IIED, IDDRI, IISD, ODI), June 25, 2021. Available at: https://www.iisd.org/publications/europe-union-carbon-border-adjustment-mechanism.

[7] *See, e.g.*, Michael Mehling, Harro Van Asselt, Kasturi Das, Susanne Droege, and Cleo Verkuijl, *Designing Border Carbon Adjustments for Enhanced Climate Action*. American Journal of International Law, 113(3), 433-481 (2019); Aaron Cosbey, Susanne Droege, Carolyn Fischer, and Clayton Munnings, *Developing Guidance for Implementing Border Carbon Adjustments: Lessons, Cautions, and Research Needs from the Literature*, 13 Rev. Envtl. Econ. & Pol'y 3 (2019).

[8] *See, e.g.*, GARY CLYDE HUFBAUER, STEVE CHARNOVITZ, AND JISUN KIM, GLOBAL WARMING AND THE WORLD TRADING SYSTEM (Washington: Peterson Institute for International Economics, 2009).

Among the many issues BCAs raise, one particularly challenging concerns the comparison of different GHG emissions reduction policies. That is because BCAs will be introduced in a world where countries show significant divergence with respect to climate mitigation and decarbonization strategies. These strategies can be generally grouped in two categories: carbon pricing (i.e., a domestic carbon tax or cap-and-trade scheme) and command-and-control regulation (performance standards, positive incentives, subsidies).[9] While differences in countries' climate-related regulatory costs are the very premise for the policy case of introducing BCAs, this situation creates the problem of determining *what type* of climate policies a BCA would recognize for the purposes of cost adjustment at the border—a problem that is all too real in the case of the EU CBAM.

This paper will argue that the comparison of different climate policies is indeed one of the most challenging and important issues relating to the operation of BCAs. Further, it will be contented that any solution that is premised on a convergence of GHG emission regulations across countries relies heavily on wishful thinking and would be partially effective at best. Against this backdrop, this paper will explore one proposal that has been addressed in passing in the literature: the negotiation of a mutual recognition agreement ("MRA") between like-minded countries, which could serve as a platform for establishing equivalence on climate policies and reciprocity on trade sanctions.

Section II will examine the theory and practice of BCAs until this point. Section III considers the state of international climate cooperation and focuses on the uneasy relationship between the reality of climate policy and unilateral trade measures. Section IV explores the

[9] *See, generally,* Shuting Pomerleau and Ed Dolan, *Carbon Pricing and Regulations Compared: An Economic Explainer*, Niskanen Center, September 21, 2021. Available at: https://www.niskanencenter.org/carbon-pricing-and-regulations-compared-an-economic-explainer/.

'climate MRA' option as a solution for the problem of promoting cooperation on trade in a world of heterogenous climate actions. Section V concludes.

II. THE THEORY AND PRACTICE OF BORDER CARBON MEASURES

This section will take a closer look at BCAs, considering the market failures and policy objectives they seek to address as well as the issues these measures themselves raise. First, the section will examine the policy rationales that have been advanced to justify the introduction of environmental border measures. Next, it will analyze the first concrete proposal for a nation-wide BCA, the EU CBAM, highlighting the proposal's aspects that showcase some of the most challenging issues unilateral BCAs present.

II.1. The rationale behind BCAs

Much of the political debate on BCAs has focused on border measures applied to imports in conjunction with domestic carbon pricing instruments, such as a carbon tax or an emissions trading system.[10] However, BCAs could also theoretically be implemented through the extension to imports of other compliance obligations, such as relating to GHG emissions and energy efficiency standards.[11] Since border adjustments limited to imports will only affect the relative

[10] Mehling et. al. (2019), 442. In the case of a carbon tax, a BCA on imports would charge a covered imported good the equivalent of its carbon tax liability had it been produced domestically. In the case of an emissions trading system, a BCA would require the domestic importers or foreign exporters of a covered good to buy emission allowances side by side with the domestic producers of the same (or similar) good (Aaron Cosbey, Border Carbon Adjustment, *in* TRADE AND CLIMATE CHANGE: ISSUES IN PERSPECTIVE 19–20 (Aaron Cosbey ed., 2008).

[11] Mehling et. al. (2019), 442. One recent proposal in this direction is the "FAIR Transition and Competition Act" ("FTCA") bill introduced by U.S. Democrat legislators in July 2021. The bill proposes creating a tariff on imports from selected sectors that would reflect the "cost incurred by U.S. businesses to comply with laws and regulations limiting greenhouse gas emissions" (The FAIR Transition and Competition Act of 2021, S. 2378, proposed by Senator Chris Coons and Representative Scott Peters).

price of domestic and foreign goods in the imposing country, a BCA could also apply to exports, rebating the domestic carbon constraint through tax or regulatory relief.[12]

BCAs can be thought of as a competitiveness tool in climate change regulation. The demand for competitiveness provisions is economic in nature: as a matter of arms-length competition, industries affected by climate regulation at home will want to level the playing field by imposing equivalent costs on imports from countries with laxer environmental regulations.[13]

Even if the economic case for BCAs is one of the strongest, proponents' justification of these measures may place a greater emphasis on their environmental merit. The non-economic, environmental reasons for enacting BCAs may include:[14] (i) internalizing the social cost of carbon (the very premise for regulating GHG emissions in the first place); (ii) enabling wider and deeper emissions cuts within the regulating country; (iii) creating incentives for other countries to reduce emissions and decarbonize their economy; and (iv) preventing carbon leakage or 'emissions migration'.

Addressing carbon leakage has long been the major policy justification for BCAs,[15] and for good reason. The phenomenon has the potential of undercutting the effectiveness of carbon

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[12] Samuel Kortum and David Weisbach, *The Design of Border Adjustments for Carbon Prices*, 70 Nat'l Tax J. 421, 422 (2017), 422.

[13] Joost Pauwelyn, *Carbon Leakage Measures and Border Tax Adjustments Under WTO Law* (March 21, 2012), 3. Available at: http://dx.doi.org/10.2139/ssrn.2026879. Border adjustment is one among other possible approaches to addressing competitiveness concerns in connection with climate policies, which may also include measures to mitigate the costs imposed by an emissions trading scheme such as through the free allocation of tradable emission allowances, expanding the scope and coverage of a scheme or state aid, and measures establishing a similar carbon price through the conclusion of international agreements between countries (Harro van Asselt, Thomas Brewer, and Michael Mehling, *Addressing Leakage and Competitiveness in US Climate Policy: Issues Concerning Border Adjustment Measures* (March 6, 2009), 42).

[14] Pauwelyn (2012), 3-5.

[15] Madison Condon and Ada Ignaciuk, *Border Carbon Adjustment and International Trade: A Literature Review*, OECD Trade and Environment Working Papers 2013/06 (31 October, 2013). Available at: https://www.oecd-ilibrary.org/trade/border-carbon-adjustment-and-international-trade_5k3xn25b386c-en. The European Commission ostensibly frames CBAM as an environmental measure, claiming that it is proposed with the "overarching objective

abatement policies in countries with strong emissions reduction commitments, jeopardizing domestic support for ambitious climate policy.[16] On the other hand, whether and to what extent carbon leakage is actually taking place is the subject to debate. The large body of the existing theoretical (and, to a lesser extent, empirical) literature has not reached consensus on the approximate magnitude or even the sign of carbon leakage.[17]

Nonetheless, there is little question that the potential for carbon leakage exists.[18] Economists and experts are also still making progress in their understanding of this phenomenon and how to capture it on reliable, comparable models. A 2021 study from the International Monetary Fund ("IMF") calculated carbon leakage rates through the examination of policy-induced changes in country- and sector-specific energy prices, ultimately finding that carbon leakage can be "significant", with its magnitude depending on a country's size and openness to trade.[19]

Of course, the different policy rationales for imposing BCAs do not work in isolation, but rather mutually reinforce each other. This is particularly the case with respect to domestic stakeholders' perceptions about 'unfair competition' from less carbon-constrained exporters, and

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of addressing the risk of carbon leakage in order to fight climate change by reducing GHG emissions in the Union and globally" (CBAM EC Proposal, 3).

[16] Boris Karapinar and Kateryna Holzer, *Legal Implications of the Use of Export Taxes in Addressing Carbon Leakage: Competing Border Adjustment Measures*, 10 NZJPIL 15 (2012), 18.

[17] Florian Misch and Philippe Wingender, *Revisiting Carbon Leakage*, IMF Working Paper No. 2021/207 (August 6, 2021), 3. Available at: https://www.imf.org/en/Publications/WP/Issues/2021/08/06/Revisiting-Carbon-Leakage-462148.

[18] According to Mehling et. al. (2019), theoretical analyses suggest that leakage under unilateral climate action can be serious enough to outweigh the benefits of such action (*citing* Cary Coglianese & Jocelyn D'Ambrosio, *Policymaking Under Pressure: The Perils of Incremental Responses to Climate Change*, 45 Conn. L. Rev. 1411 (2008)). It should also not be discarded that the potential of carbon leakage could produce adverse impacts of its own, by leading to a "regulatory chill" effect that hinders the introduction of ambitious domestic climate policies that take a toll on local industry competitiveness.

[19] IMF (2021), 4. The IMF paper methodology broadened the narrow focus on changes in carbon prices that features in most of the existing literature, which could account for some underestimation of carbon leakage in previous studies.

governments' need to secure local support to continue on a decarbonization path. In this sense, the introduction of BCAs may be as much a product of policy coherence as of political necessity.

The pressure on governments to safeguard domestic manufacturing competitiveness through border measures may also be compounded by the actions of their trading partners in that direction. This logic seems to be in full display in the current geopolitical landscape: within a few months from each other, major trading nations like the European Union,[20] the United States,[21] the United Kingdom,[22] and Canada[23] have all expressed a willingness to consider or introduce BCAs, with Japan also reportedly considering a carbon border tax.[24]

As Tucker and Meyer (2021a) put it, BCAs seem to be "an idea whose time has come".[25]

[20] On 15 March 2022, the European Council reached an agreement on CBAM regulation, constituting an important step before it begins negotiations with the Parliament to reach a final design of the measure that will be put to a vote (*see* European Council, Council agrees on the Carbon Border Adjustment Mechanism (CBAM), Press release (March 15, 2022). Available at: https://www.consilium.europa.eu/en/press/press-releases/2022/03/15/carbon-border-adjustment-mechanism-CBAM-council-agrees-its-negotiating-mandate/).

[21] While then presidential candidate Joe Biden proposed a BCA of some kind during his 2020 campaign, more recently both U.S. Trade Representative Katherine Tai and special envoy for the climate John Kerry have expressed an openness to the idea (Andrea Shalal, USTR Tai calls for bold action to put climate at center of trade policy, Reuters (15 April 2021). Available at: https://www.reuters.com/business/environment/us-trade-chief-tai-says-climate-key-priority-trade-policy-2021-04-15/; Frank Jordans, Kerry says US examining carbon border tax, sees risk, Assoc. Press (18 May 2021). Available at: https://www.independent.co.uk/news/world/americas/us-politics/kerry-says-us-examining-carbon-border-tax-sees-risks-john-kerry-european-union-berlin-joe-biden-washington-b1849632.html).

[22] Camilla Hodgson, UK needs carbon import tax to meet emissions targets, say MPs, Financial Times, April 3, 2022. Available at: https://www.ft.com/content/e940e14f-085b-4ae3-b111-8c9baa4e0c4d.

[23] Canada announced in its 2021 Budget that it plans to develop BCAs as an element of the country's climate plan (Government of Canada Department of Finance, Budget 2021: A recovery Plan for Jobs, Growth, and Resilience (Ottawa: Department of Finance, 2021) at 176).

[24] Shiho Takezawa, Japan mulls carbon border tax for polluters, Nikkei, Bloomberg Tax (10 February 2021). Available at: https://news.bloombergtax.com/daily-tax-report-international/japan-mulls-carbon-border-tax-for-biggest-polluters-nikkei-says.

[25] Meyer, Timothy and Tucker, Todd, A Pragmatic Approach to Carbon Border Measures. World Trade Review (2021), Vanderbilt Law Research Paper No. 21-34 (June 2, 2021).

II.2. The EU CBAM proposal

The announcement of the EU CBAM proposal constitutes a watershed moment in the debate about environmental border measures. The European Commission first signaled the possibility of introducing a border adjustment measure in connection with its ETS in 2009,[26] and the expectation around this development has certainly propelled much of the academic and policy discussion around the subject. Unsurprisingly then, as soon as the European Commission's proposal was published, experts were quick to analyze its details, assess the expected impact to EU trading partners, and evaluate the measure's consistency with the EU's commitments under the WTO as well as other international rules.[27]

The EU CBAM is part of a much broader set of proposals the European Commission introduced in 2021 laying down the bloc's climate change policy agenda for the coming years—the "Fit for 55" package.[28] The package contains numerous proposals to revise EU legislation to align it with the bloc's updated climate goals.[29] In December 2021, the Presidency of the European

[26] Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC. These regulations concerned the second phase of the EU ETS (2008-2012), which foresaw that for "[e]nergy-intensive industries which are determined to be exposed to a significant risk of carbon leakage... an effective carbon equalisation system could be introduced with a view to putting installations from the Community which are at significant risk of carbon leakage and those from third countries on a comparable footing".

[27] For a critical assessment of CBAM specifically, *see*, *e.g.*, James Bacchus, *Legal Issues with the European Carbon Border Adjustment Mechanism*, CATO Briefing Paper (August 9 2021); André Sapir, *The European Union's carbon border mechanism and the WTO*, Bruegel (July 19 2021); Fredrik Erixon, *Europe's Carbon Border Adjustment Mechanism: Time to Go Back to the Drawing Board*, ECIPE Policy Brief 14/2021 (2 November 2021); Bernasconi-Osterwalder and Cosbey (2021); Gary Clyde Hufbauer, Jisun Kim, Jeffrey J. Schott, *Can EU carbon border adjustment measures propel WTO climate talks?*, Policy Brief, Peterson Institute for International Economics (November 2021).

[28] European Commission, Fit for 55. Access on: May 10, 2022. Available at: https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/.

[29] Id. The proposals include updating the EU ETS (strengthening current provisions and extending the scheme's scope), but also developments with respect to emissions and removals from land use and forestry, renewable energy, energy efficiency, emission standards for personal vehicles, among other areas.

Council stated that CBAM "would serve as an essential element of the toolbox to meet the EU climate-neutrality objectives, in line with the Paris Agreement."[30]

CBAM is meant to act as a replacement for the mechanism currently in place to address competitiveness and carbon leakage concerns within the EU ETS. The EU has so far heeded to industry's calls for protection by handing out free emissions allowances to producers in sectors found to be at greater risk of carbon leakage, effectively exempting certain energy-intensive import-competing industries from having to comply with the ETS.[31] The European Commission therefore proposes phasing in CBAM at the same time as it phases out free allowances under the ETS.[32]

The CBAM is designed to mirror the EU ETS' functioning for imported goods. Therefore, importers of covered goods[33] must submit a CBAM declaration and surrender CBAM certificates each year to cover the embedded emissions in goods imported during the preceding year.[34] The number of CBAM certificates would be reduced to offset any carbon price (a carbon tax or emissions allowance) already paid in the exporting country,[35] as well as free allowances granted

[30] Council of the European Union, Fit for 55 package proposals (CBAM, ETD and SCF) - Progress report (2 December 2021). Available at: https://data.consilium.europa.eu/doc/document/ST-14574-2021-INIT/en/pdf.

[31] European Commission, Carbon leakage, Available at: https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/free-allocation/carbon-leakage_en.

[32] EC CBAM Proposal, Explanatory Memorandum, p. 4. The EC proposal provides that free allowances would be reduced linearly to zero over a 10-year period from 2026 through 2035.

[33] Although the proposal states that its goal is broad product coverage, the EC CBAM Proposal will initially apply in only five sectors that were considered at higher risk of carbon leakage: cement, electricity, fertilizers, iron and steel, and aluminum.

[34] EC CBAM Proposal, Article 6.

[35] EC CBAM Proposal, Article 9.

to like products under the EU ETS.[36] Alternative GHG emission regulations (i.e., not based on carbon pricing) cannot be credited against CBAM obligations.

The European Commission's proposal sets out detailed methodologies and rules concerning measuring, reporting, and verifying ("MRV") the amount of carbon embedded in the covered products. It is worth noting that there is no international consensus on methodology for accounting embedded carbon emissions. This area has seen considerable activity in the development of standards over the years, leading to an increasingly crowded field of competing accounting and reporting frameworks and calls for harmonizing different methodologies across sectors and countries.[37] CBAM's MRV requirements are also expected to impose significant administrative costs on foreign producers,[38] especially where the necessary expertise and capabilities for carbon accounting and reporting are not yet in place—i.e., most likely in Small and Medium Enterprises ("SMEs") and firms from developing and Least-Developed Countries ("LDCs").

Finally, the EC CBAM Proposal provides that embedded carbon emissions will be calculated by reference to "default values" when actual emissions cannot be adequately

[36] EC CBAM Proposal, Article 31. The proposal also states that third countries with a cap-and-trade system fully linked to the EU ETS through a bilateral agreement may be exempted from CBAM obligations (the same applies to third countries or territories covered by the EU ETS itself) (EC CBAM Proposal, 18).

[37] One initiative in this regard is the Coalition on Materials Emissions Transparency ("COMET"), a global network of companies, universities, multilateral institutions, and NGOs aiming to create a harmonized GHG emissions accounting methodology and attribution protocol (*see* https://www.cometframework.org). The Columbia Center on Sustainable Investment ("CCSI"), one of the members of the COMET network, frames the problem of non-harmonized GHG emissions accounting frameworks as follows: "[w]hile methods like life-cycle analysis and environmental product declarations exist, none use a verifiable, comparable, or widely adopted emissions reporting framework capable of sending supply chain signals" (CCSI, The Coalition on Materials Emissions Transparency (COMET). Access on: May 10, 2022. Available at: https://ccsi.columbia.edu/content/coalition-materials-emissions-transparency-comet).

[38] Elisabetta Cornago , Sam Lowe, *Avoiding the pitfalls of an EU carbon border adjustment mechanism*, Centre for European Reform (July 5, 2021). Available at: https://www.cer.eu/insights/avoiding-pitfalls-eu-carbon-border-adjustment-mechanism.

determined.[39] This may occur if either the foreign exporter fails to comply with measuring and verification requirements/procedures or the European importer fails to comply with reporting requirements/procedures. The proposal's annex clarifies that default values will, as a first option, be set as the average emission intensity of each exporting country and for each of the in-scope goods. Where no such data is available, however, default values will then be based on the average emission intensity of the 10 per cent worst-performing EU installations for that type of goods.[40]

The CBAM proposal in its current form, and particularly the features highlighted above, illustrate many of the issues unilateral BCAs raise from an international trade standpoint, which will be discussed in more detail below.

II.3. The trouble with unilateral BCAs

II.3.1. *International trade law*

A good place to start is the consistency of unilateral BCAs with WTO rules. Whiles this paper does not seek to engage in a detailed legal analysis of BCAs nor comment on the WTO-consistency of the EU CBAM, an overview of the main issues discussed in the literature[41] is necessary for both a complete understanding of the challenges these measures present and an assessment of possible solutions.

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[39] EC CBAM Proposal, Article 7.

[40] EC CBAM Proposal, Annex III, 4.1. As a first option (i.e., when the data is available), default values should be set as the average emission intensity of each exporting country and for each of the in-scope goods.

[41] *See, generally*, Henrik Horn & Petros C. Mavroidis, *To B(TA) or Not to B(TA)? On the Legality and Desirability of Border Tax Adjustments from a Trade Perspective*, 34 World Econ. 1911 (2011); Marceau (2016); Joel P. Trachtman, *WTO Law Constraints on Border Tax Adjustment and Tax Credit Mechanisms to Reduce the Competitive Effects of Carbon Taxes*, Resources for the Future Discussion Paper 16-03 (January 2016); Mavroidis and Horn (2010); Pauwelyn (2012); KATERYNA HOLZER, CARBON-RELATED BORDER ADJUSTMENT AND WTO LAW (Cheltenham, UK: Edward Elgar, 2014); Jennifer A. Hillman, *Changing Climate for Carbon Taxes: Who's Afraid of the WTO?*, Climate & Energy Policy Paper Series (July 2013); Christine Kaufmann & Rolf H. Weber, *Carbon-related Border Tax Adjustment: Mitigating Climate Change or Restricting International Trade?*, 10 World Trade Rev, 497, 498 (2011).

Trachtman (2016) provides probably the most didactic framework for assessing the consistency of BCAs with WTO rules, focusing on the General Agreement on Tariffs and Trade ("GATT").[42] A key question concerns the *form* a BCA assumes, the answer to which will determine which GATT disciplines will be engaged in the legal analysis. In this sense, if the BCA consists of a "charge on or in connection with importation" it will fall under GATT Article II:1, in which case such import charge cannot exceed the regulating Member's scheduled tariff commitments. If on the other hand the measure qualifies as an "internal tax", it must satisfy the non-discrimination requirements of Article III:2, which will differ depending on whether the imported and domestic products at issue are considered "like" (in which case imports must not be taxed "in excess" of domestic products) or "directly competitive or substitutable" (in which case imports must not be taxed dissimilarly to domestic products). Further, a BCA can take the form of a domestic regulation subject to Article III:4. In this case, the applicable standard requires that imported products are accorded "treatment no less favorable" than that accorded to 'like' domestic products.

It is not difficult to see how BCAs may be challenging to square with WTO rules. Firstly, the characterization of measures under WTO law is not trivial. In this sense, a regulating Member seeking to avoid the more stringent Article II obligations by labelling its BCA as an "internal" (as opposed to "border") measure may find it difficult to do so to the extent that the BCA is triggered by *importation* rather than any internal activity (e.g., sale, offering for sale, distribution or use).[43]

[42] BCAs may be analyzed under other WTO agreements, most notably the Agreement on Technical Barriers to Trade ("TBT") and the Agreement on Subsidies and Countervailing Measures ("ASCM"). For an analysis covering these and other aspects of WTO law, *see, e.g.,* Marceau (2016).

[43] According to the Appellate Body, a charge will constitute an "ordinary customs duty" subject to GATT Article II if it accrues "at the moment and by virtue of" importation (Appellate Body Reports, *China—Measures Affecting Imports of Automobile*, WT/DS339/AB/R, WT/DS340/AB/R, WT/DS342/AB/R, para. 161).

Further, even if a BCA qualified as an "internal" measure—either a tax/charge under Article III:2 or a domestic regulation under Article III:4—the question would remain as to whether WTO law allows "adjustment" at the border for environment-related measures. Prior experience of the multilateral trading system with border *tax* adjustment ("BTA") does not offer decisive guidance on this score, which basically comes down to whether process-related internal taxes and regulations (a category in which climate-related measures arguably fit) are eligible for border adjustment, or if adjustment—and Article III coverage itself—[44]is only available for measures regulating products 'as such'.[45]

Even if one moves aside the issue of border adjustment as unsettled under WTO law, the 'product v. production process' controversy is still relevant for the purposes of determining 'likenesses' under different WTO disciplines. Although the exact meaning and scope of 'like products' varies among different GATT rules (and may sometimes be accompanied by the laxer standard of "directly substitutable goods"),[46] a common critique is that these rules' traditional interpretation leaves little policy space for regulating Members to differentiate among products

[44] Trachtman (2016), 7.

[45] The 1970 GATT Working Party that convened to consider and pronounce on the GATT-consistency of the Contracting Parties' practices with respect to BTAs concluded that "taxes directly levied on products" (such as excise duties and sales taxes) were eligible for tax adjustment (*see* BTA Working Party Report, para. 14). On the other hand, while the BTA Working Party Report found that border adjustment was not allowed for "certain taxes that were not directly levied on products" (such as social security charges and payroll taxes), it noted a divergence of views on the so-called "*taxes occultes*" (which included energy taxes) (*see* Mavroidis and Horn (2010), pp. 25-27). In a subsequent development, two GATT panel reports concerning the famous *Tuna – Dolphin* dispute found that "process" measures fell outside the scope of GATT Article III and should instead be considered prohibited under GATT Article XI as "quantitative restrictions". The reasoning followed by the panels was that internal charges and regulations under Article III can only be adjusted at the border if they "apply to the product as such", not if they regulate the *producer*, as production-related measures fell outside that provision's scope (*see* Pauwelyn (2012), pp. 31-32). However, both GATT reports remained unadopted, and thus have debatable interpretative value for present day purposes.

[46] *See generally* Henrik Horn & Petros C. Mavroidis, *The Permissible Reach of National Environmental Policies*, Journal of World Trade, Vol. 42, p. 1107, 2008; Research Institute of Industrial Economics IFN Working Paper No. 739 (2008).

based on how these are produced or any externalities they cause.[47] This aspect of WTO jurisprudence has been a major bone of contention among scholars,[48] and illustrates the limits of existing WTO law when applied in the context of climate change.

As indicated above, a BCA can still pass the GATT national treatment test if it is non-discriminatory—i.e., even if the carbon-efficient and carbon-intensive products were considered "like" or "directly substitutable", the measure would not violate GATT Article III as long as it did not accord less favorable treatment to imported products. The same is true for another fundamental GATT discipline and key aspect in the analysis of any BCA's consistency with WTO rules: the Most-Favored Nation ("MFN") principle. The MFN rule, enshrined in Article I of the GATT, requires that any "advantage, favour, privilege or immunity" granted to a Member be accorded, "immediately and unconditionally", to all other Members.

However, if non-discriminatory taxes and regulations offer a path to WTO-consistent BCAs in theory, this path may well prove to be a mirage.[49] Political economy and policy design constrains will often lead to the introduction of exceptions, variances, or differential treatment components within a measure, pushing away the prospect of WTO-consistency in the process. Indeed, there are countless ways in which a non-ideally designed BCA could raise challenges

[47] Karapinar and Holzer (2012), 24. As Marceau (2016) notes, 'likeness' in GATT/WTO is informed by the overarching WTO goal of trade liberalization and competition, which may account for the Appellate Body's predilection for assessing likeness based on a "consumer preferences" perspective, i.e., considering whether the imported and domestic products "compete" in the market (at 8-9).

[48] *See, e.g.*, Patrick Messerlin, *Climate and trade policies: From mutual destruction to mutual support*, World Trade Review, 11(1), 53-80 (2010). Trachtman (2016) offers a succinct critique of the Appellate Body's use of the "marketplace test" as the controlling criteria for a likeness determination under GATT Article III: "the question of whether products have a sufficient competitive relationship is a market-based determination, based on consumer perceptions. But consumers are, by definition, insufficiently sensitive to both consumption externalities and production externalities, and consumers also are victims of information asymmetries compared with producers. In economic theory, these are the reasons for regulation. So, the bases for regulatory distinctions, because they are by definition not included in consumer perceptions, are systematically excluded from the determination of "like products."" (at 11).

[49] Tucker and Meyer (2021a), 10-11.

under non-discrimination obligations, many of which are directly relevant in the context of CBAM: for instance, if the measure exempts certain countries and not others due to their development status or other policy rationale; if border adjustment is kept in place at the same time as other competitiveness mechanisms directed at domestic producers (i.e., double protection); if domestic producers benefit from features of a domestic cap-and-trade scheme not available to importers under the scheme's border adjustment tool (e.g., the right to trade emissions permits in private markets rather than having to buy them from the government; the ability pay spot prices daily rather than averages of past prices); if the measure recognizes certain types of climate regulation but not others for the purposes of offsetting the monetary/administrative obligations it imposes, among others.[50]

Finally, GATT-inconsistent measures can be justified through recourse to the general exceptions clause in GATT Article XX. While there is not much question that environmental border measures could fit into one of the article's subparagraphs[51] the real challenge, however, would be to satisfy the requirements of the *chapeau* of Article XX.

The *chapeau* establishes two standards regarding the application of measures for which justification under Article XX may be sought: first, there must be no 'arbitrary' or 'unjustifiable' discrimination between countries 'where the same conditions prevail;'[52] second, there must be no

[50] Many of these issues come from Tucker and Meyer (2021a, 10-11), *but see also* Bacchus (2021, 4), Hufbauer et. al. (2021, 8), and Erixon (2021, 17) raising similar concerns.

[51] The most likely bases for exception would be Article XX(b), for measures necessary to protect human health, or Article XX(g), for measures relating to the conservation of exhaustible natural resources, with a preference for the latter due to its less demanding standard (the measure must 'relate to' the attainment of the policy objective rather than be 'necessary' for its achievement) (*see* Mavroidis and Horn (2010), 33). Marceau (2016) opines that a Member could also arguably invoke the subparagraph (a) ("measures necessary to protect public morals"), as the survival of humans via GHG actions might be argued to be an action of public morals (at 15)

[52] While Members are allowed under Article XX to discriminate between countries-by affording preferential treatment to developing countries, for instance-, the Appellate Body has clarified that the discrimination must bear a rational

'disguised restriction on international trade.'[53] Although the content of these standards are different from the non-discrimination standards found in the GATT primary rules,[54] the same aspects of a BCA discussed above could pose difficulties for the regulating Member in the context of an Article XX *chapeau* analysis, which involves a consideration of whether less trade-restrictive measures were reasonably available to the regulating Member, as well as the challenged measure's contribution towards the achievement of its stated aim.[55]

This is another area of WTO case law that has attracted criticism for what some have seen as overly restrictive interpretations from panels and the Appellate Body.[56] In any case, of particular interest to our discussion on BCAs is the question, under the 'less trade-restrictive alternative' analysis, of whether a regulating Member made sufficient attempts to engage in "across-the-board negotiations with the objective of concluding bilateral or multilateral agreements" regarding the concern the challenged measure seeks to address.[57] Relatedly, the Appellate Body in *US-Shrimp* found that the "most conspicuous flaw" in the U.S. measure at issue—which banned imports of shrimp from certain countries were it was harvested in a manner

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connection to the objective within the purview of an Article XX paragraph (WTO, Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, para. 225).

[53] *See, e.g.*, WTO, Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, para. 150, *cited in* Trachtman (2016), 25.

[54] Id.

[55] Id., para. 171.

[56] As some have argued, the test developed by the Appellate Body over the years seems to require the challenged measures to display a "purity of motive" and an internal consistency that are difficult to reconcile with the reality of regulation, which invariably takes place through a political bargaining process that must accommodate different interests and demands among a number of stakeholders (*see, e.g.*, Harlan Cohen, *What Is International Trade Law For?*, American Journal of International Law, 113(2), 326-346 (2019)). Often cited cases that illustrate this critique are the *EC-Seals* and *US-Clove Cigarettes* disputes (WTO, Appellate Body Report, *European Communities - Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/AB/R, WT/DS401/AB/R (seeing exceptions as undercutting argument for seal fur ban); WTO, Panel Report, *United States - Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R (rejecting market realities as justification for clove cigarette exclusion)).

[57] Appellate Body Report, *US—Shrimp*, para. 166.

the United States considered posed a threat to sea turtles—was "its intended and actual coercive effect on the specific policy decisions made by foreign governments."[58] Conversely, the Appellate Body found no fault in the U.S. revised measure (challenged by the complaining Member in compliance arbitration proceedings)[59] due to the introduction of certain flexibilities in U.S. import regulation that allowed imports from countries that demonstrated policies of "comparable effectiveness" in dealing with the protection of turtles.[60]

The task of designing a WTO-consistent BCA thus presents many difficulties. As hinted above, many of these issues can be traced back to the fact that GATT and WTO rules were simply not drafted to address climate change problems and policies, what may lead to some "legal awkwardness".[61] In any case, if one considers that GATT disciplines in general are meant to safeguard competitive opportunities and forestall protectionism, the fact that designing a truly WTO-consistent BCA looks like an uphill battle is a testament to these measures' trade-distortive potential, and why they merit so much attention.

II.3.2. *International policy implications*

We now turn briefly to the policy implications of unilateral BCAs, considering some of the most salient consequences that can be expected as a result of these measures' introduction. Three

[58] Id., para. 161. This case raised the issue of the jurisdictional permissibility of regulating extraterritorial contingencies—such as migrating sea turtles or possibly GHG emissions produced in third countries)—, a discussion that may also be relevant for the analysis of the WTO-consistency of BCAs, under Article III as well as Article XX (*see, e.g.,* Mavroidis and Horn (2010), 46).

[59] Article 21.5 of the WTO Dispute Settlement Understanding.

[60] Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products* (Article 21.5), WT/DS58/AB/RW, para. 144.

[61] Marceau (2016), p. 4.

such possible implications stand out: trade diversion, adverse impacts to developing countries, and the potential for regulatory protectionism.

With respect to trade diversion, Messerlin (2010) warns that the introduction of BCAs might lead to a "dual world economy" to the extent that it creates incentives for a segregation of trade flows between "dirty" and "clean" goods.[62] The fault line in this dual world economy could be expected to follow the division between developed and developing countries, and exposes the problem of how the latter would be disproportionately affected by such environmental border measures.[63]

This situation raises problems from an environmental as well as a trade policy perspective. One of the cornerstones of the multilateral climate governance regime is the principle of 'Common but Differentiated Responsibilities and Respective Capabilities' ("CDRB"), which articulates the need for developed countries to recognize their historical and present contribution to climate change—as well as their position in terms of technological and financial resources—and take up the bulk of the responsibility for addressing it, with the opposite implications for developing

[62] Messerlin (2010), 65. Hufbauer et. al. (2021) raise the same concern in the context of CBAM, noting that the EU measure may simply encourage foreign firms to export to the bloc from their "cleanest", most carbon-efficient plants, while selling "dirty" products to their own domestic users or third countries (Hufbauer et. al., 2021, p. 1). Early studies on CBAM provide empirical evidence concerning the measure's potential for trade diversion: "A look at bilateral trade reveals that the European Union significantly increases intra-regional trade and all other regions reduce trade with the European Union, while often increasing trade with other regions. Thus, the CBAM has the equivalent effect as a tariff increase by a trading block, increasing intra-block trade and diverting trade of trading partners to other regions" (UNCTAD (2021), 20).

[63] *See, e.g.,* UNCTAD, *A European Union Carbon Border Adjustment Mechanism: Implications for developing* countries (14 July 2021), 20. Available at: https://unctad.org/webflyer/european-union-carbon-border-adjustment-mechanism-implications-developing-countries).

countries.[64] While this is not a trade policy concern per se,[65] it bears on the legitimacy of any unilateral BCA from the perspective of a regulating Member's trading partners, with the attending consequences in terms of trade frictions and legal challenges.

Another concern associated with the use of BCAs is the possibility of "regulatory protectionism,"[66] which can stem from either substantive regulatory requirements or from the mechanisms used by regulators to ensure compliance with substantive requirements.[67] Importantly, regulatory protectionism can result either from substantive regulatory requirements or from the mechanisms used by regulators to ensure compliance with substantive requirements, and may be as much the product of deliberate design as regulators' failure to appreciate the trade impact of their policies.[68]

Considering the 'deliberate design' hypothesis, Mavroidis and Horn (2010) draw a parallel between the MRV requirements of BCAs and rules-of-origin regimes contained in certain

[64] The CBDR principle was first introduced in Principle 7 of the 1992 Rio Declaration on Environment and Development, and has since featured prominently in all major international climate change conventions and agreements (Anastasios Gourgourinis, *Common but differentiated responsibilities in transnational climate change governance and the WTO: A tale of two 'interconnected worlds' or a tale of two 'crossing swords'? in* RESEARCH HANDBOOK ON CLIMATE CHANGE AND TRADE LAW. Cheltenham, UK: Edward Elgar Publishing (2016), 32).

[65] *But see* Marceau (2016, 19) noting that taking the development dimension into account in the design of BCAs would be consistent with the spirit of non-reciprocity and special and differential treatment provisions of the WTO, as well as the preamble of the Marrakesh Agreement.

[66] The expression is used as employed in Sykes (1999), which defined it as "cost disadvantage imposed on foreign firms by a regulatory policy that discriminates against them or that otherwise disadvantages them in a manner that is unnecessary to the attainment of some genuine, non-protectionist regulatory objective." (Alan O. Sykes, *Regulatory Protectionism and the Law of International Trade*, University of Chicago Law Review: Vol. 66: Issue 1, Article 1 (1999), 3).

[67] Id.

[68] Id. To the extent that WTO disciplines cover and seek to prohibit regulatory protectionism, there can be an overlap between this implication of CBAs and the legal arguments previously discussed. However, it is important to single out the issue of regulatory protectionism outside the context of WTO law to fully appreciate the impact of CBAs, especially considering the possibility that WTO rules do *not* capture and address regulatory protectionism stemming from such measures.

preferential trade agreements ("PTAs") between developed and developing countries.[69] Rules-of-origin are a necessary feature of trade agreements, acting as mechanisms to operationalize tariff preferences and prevent 'free-riding' from third countries. However, it is often recognized that rules-of-origin regimes have become extremely complex and administratively onerous, sometimes leading exporting firms in preference-receiving developing countries to deliberately enter the developed country market under the MFN rather than the preferential tariff rate in order to avoid the attending transaction costs.[70]

The inherent complexity of BCAs, particularly as it relates to the operation of MRV rules and requirements, thus raises valid concerns with respect to regulatory protectionism—whether deliberate or not.

Finally, an aspect that looms large in all policy implications discussed above is the prospect of increasing trade friction associated with the unilateral imposing of BCAs. The legal uncertainty surrounding BCAs and their potential for protectionism might spur legal action before the WTO Dispute Settlement Body ("DSB") and other fora; it could also cause countries to descend into a logic of tit-for-tat retaliation, with damaging consequences for global trade and cooperation.[71] Moreover, these developments would take place against an already shaken multilateral trading system, faced with a resurgence of unilateralism and a fractured membership.[72]

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[69] Mavroidis and Horn (2010), 13.

[70] Id. A further complicating circumstance on the issue of rules-of-origin is the lack of international harmonization or convergence between countries regarding these regime. Even though WTO Members negotiated the Agreement on Rules of Origin in 1994 they never succeeded in concluding a work program seeking the multilateral harmonization of rules of origin used for non-preferential trade.

[71] Scott Barrett, *Climate treaties and the imperative of enforcement*, 24 Oxford Rev. Econ. Pol'y 239 (2008), p. 245.

[72] *See, e.g.*, Borderlex Editor, Fighting against the odds: can the WTO recapture some momentum in 2022?, January 6 2022. Available at: https://borderlex.net/2022/01/06/fighting-against-the-odds-can-the-wto-recapture-some-momentum-in-2022/.

III. THE TRADE AND CLIMATE DIVIDE

There is an embarrassing paradox at the center of the controversy surrounding BCAs. On the one hand, environmental border measures are meant to address heterogeneity in climate action, seeking to alleviate the negative domestic impacts of uneven GHG emissions regulations between countries. On the other hand, heterogenous climate action is supported by and is consistent with the current multilateral climate governance regime, most notably the 2015 Paris Agreement.[73]

After the more "top-down" approach of the 1997 Kyoto Protocol—which contained emissions reduction targets and elected market-based solutions as the preferred path for decarbonization—[74]proved largely unworkable,[75] the Paris Agreement recognized in its approach to the 'nationally determined contributions' ("NDCs") that countries require substantial flexibility in choosing appropriate means to pursue decarbonization.[76] The Paris Agreement thus directs countries to fulfill their obligations "in the light of different national circumstances."[77] This reflects both differences in national capabilities as well as in domestic political and legal constraints countries may face.

In view of this, the unilateral thrust of BCAs might be seen as contravening the cooperative spirit of the international climate regime and infringing on other countries' flexibility to choose a

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[73] Paris Agreement to the United Nations Framework Convention on Climate Change (12 December 2015) TIAS 16-1104.

[74] *See* David Wirth, *The International Climate Regime.* In MICHAEL B. GERRARD, JODY FREEMAN & MICHAEL BURGER, GLOBAL CLIMATE CHANGE AND U.S. LAW (American Bar Association, third edition, *forthcoming* 2022), 8.

[75] Kyoto Protocol to the United Nations Framework Convention on Climate Change, 10 Dec. 1997, 37 ILM 22.

[76] Paris Agreement, Article 4.

[77] *See, e.g.*,, Paris Agreement, arts. 2.2 and 4.3. As Bodansky (2016) notes, how much latitude to give states in developing their climate change policies has been a perennial and fundamental issue during the evolution of the United Nations climate change regime (Daniel Bodansky, *The Paris Climate Change Agreement: A New Hope?*, 110 Am. J. Int'l L. 288 (2016), p. 300).

level of climate ambition that is consistent with their 'common but differentiated responsibilities and respective capabilities, in the light of different national circumstances'.[78]

At the same time, however, the need to scale up climate ambition is another recurrent theme of the Paris Agreement. It could then be argued that this goal could be furthered by the introduction of BCAs to the extent they help sustain and increase domestic climate ambition while also incentivizing other countries to take comparable action.[79] Indeed, encouraging ambitious climate action abroad is one of the express goals of the EU CBAM.[80]

Once again, the problem is *which* climate action a BCA would acknowledge for the purposes of equalizing regulatory costs between domestic and imported products. This is a very real problem in the case of the CBAM proposal, which recognizes (i.e., through offsetting CBAM obligations or allowing bilateral agreements exempting third countries from the measure's application) costs relating to carbon pricing mechanisms (i.e., carbon tax or cap-and-trade scheme) but *does not* recognize costs arising from command-and-control regulation (e.g., GHG emission standards).

In view of this, one could conclude that CBAM-style BCAs are premised on a convergence of countries' climate regulations (a) around the use of carbon pricing mechanisms (b). While the issue of convergence of climate actions itself is problematic in principle because of the reasons stated above, an assumption that countries should or could move towards carbon pricing as opposed to other decarbonization strategies raises issues of its own.

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[78] Article 4(3) of the Paris Agreement. *See also* Mehling et. al. (2019), 438.

[79] Id.

[80] EC CBAM Proposal, 17 ("While the objective of the CBAM is to prevent the risk of carbon leakage, this Regulation would also encourage the use of more GHG emissions-efficient technologies by producers from third countries, so that less emissions per unit of output are generated").

There is ongoing debate on the actual environmental superiority of the carbon pricing over the command-and-control approach as these have been deployed so far.[81] Even if the theory of carbon pricing makes for the most promising of decarbonization pathways,[82] experiences in different countries have shown that carbon pricing initiatives can be met with fierce opposition from different quarters.[83] Additionally, even when such measures manage to be introduced, pressure from aggrieved constituents continues to weigh down on regulators, in many cases leading to regulations being "watered down" through low carbon prices or extensive exemptions, for instance.[84] These factors, along with the urgency and time-sensitivity that characterize the climate change problem,[85] leads many to argue today that the politics of climate regulation can no longer be ignored in the discussion over policy design.[86]

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[81] For an illustration of the "carbon pricing debate" from a U.S. perspective *see* Matto Mildenberger & Leah C. Stokes, The trouble with Carbon Pricing, Boston Review (September 24, 2020). Available at: http://bostonreview.net/science-nature-politics/matto-mildenberger-leah-c-stokes-trouble-carbon-pricing; and the response Joseph Majkut, The Immediate Case for a Carbon Price, Niskanen Center (October 26, 2020). Available at: https://www.niskanencenter.org/the-immediate-case-for-a-carbon-price/.

[82] Not coincidentally, carbon pricing has been widely embraced and advocated by economists for decades (*see, e.g.*, Climate Leadership Council, Economists' Statement on Carbon Dividends. Available at: https://clcouncil.org/economists-statement/. Accessed on April 24, 2022). Mildenberger and Stokes (2020) credit this enduring appeal to the fact that carbon pricing provides "an elegant response to a complex problem."

[83] In France, for instance, a proposed carbon tax fueled the country's yellow vest movement in 2018, triggering the worst domestic riots since 1968 and the subsequent abandonment of the proposal; a similar effort was repealed in Australia in 2014, following an election in which the victorious candidate for prime minister campaigned on a promise to "ax the tax" (Tucker and Meyer, 2021b).

[84] Mildenberger and Stokes (2020), 7. Considering these constraints, it is therefore unsurprising that only around 20 percent of global emissions are currently covered by an explicit price on carbon, while price levels also tend to be significantly lower than the cost of compliance with other non-price carbon regulations (WORLD BANK, STATE AND TRENDS OF CARBON PRICING 2021. Washington, DC: World Bank (2021). Available at: https://openknowledge.worldbank.org/handle/10986/35620).

[85] *See, generally,* Intergovernmental Panel on Climate Change, Climate Change 2022: Impacts, Adaptation and Vulnerability, Summary for Policymakers, March 2022. Available at: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

[86] Commenting on the outcome of the 2021 UNFCCC Conference of the Parties ("COP") in Glasgow, historian Adam Tooze's noted that "[t]he drastic measures that might – at a stroke – open a path to climate stability are not viable in political or diplomatic terms. Like climate breakdown itself, this is a fact to be reckoned with, a fact not just about "politicians", but about the polities of which we are all, like it or not, a part." (Adam Tooze, The Cop26 message? We are trusting big business, not states, to fix the climate crisis, The Guardian, 16 November 2021. Available at: https://www.theguardian.com/commentisfree/2021/nov/16/cop-26-big-business-climate-crisis-neoliberal). This is

An assessment of the desirability and feasibility of international convergence around carbon pricing—and the two are very much intertwined—benefits from a closer look at the example of the United States. The U.S. federal government has unevenly and haltingly constructed a significant body of climate change law and policy over the past 50 years,[87] being aided by a number of willing states on the sub-national level. During this time, the United States has all but embraced a command-and-control regulation approach, largely relying on Cold War-era legislation such as the Clean Air Act and the Energy Policy and Conservation Act and the authority under these statutes to regulate GHG emissions and energy generation and consumption.[88]

On the other hand, market-based approaches to regulating GHG emissions have not featured prominently in U.S. climate policy to date, at least at the federal level.[89] When the Obama Administration tried to push an ambitious nation-wide carbon pricing scheme through Congress,[90] it failed to secure the necessary votes[91] even with significantly larger majorities in his first two

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also the starting point for Tucker and Meyer's proposal of a "green steel deal" as an alternative for countries' cooperation on trade and climate (Todd N. Tucker and Timothy Meyer. *A Green Steel Deal: Toward Pro-Jobs, Pro-Climate Transatlantic Cooperation on Carbon Border Measures*, Working Paper. New York: Roosevelt Institute (June 2021)).

[87] John C. Dernbach & Rachel A. Jones, *Evolution of U.S. Climate Law and Policy*, *in* MICHAEL B. GERRARD, JODY FREEMAN & MICHAEL BURGER, GLOBAL CLIMATE CHANGE AND U.S. LAW (American Bar Association, third edition, *forthcoming* 2022), 1.

[88] This is also a consequence to the fact any environmental initiatives face considerable deadlock in the U.S. Congress, which has not enacted a significant environmental legislation virtually since 1990 (Michael B. Gerrard, *Presidential Progress on Climate Change: Will the Courts Interfere With What Needs to Be Done to Save Our Planet?*, American Constitution Society, February 2021. Available at: https://www.acslaw.org/wp-content/uploads/2021/02/Presidential-Progress-On-Climate-Change.pdf).

[89] At present, 13 U.S. states have in place some sort of carbon pricing mechanism, with varying designs, purposes and coverages (*see, e.g.*, Sanjay Patnaik and Kelly Kennedy, Why the US should establish a carbon price either through reconciliation or other legislation, Brookings Institution (October 7, 2021). Available at: https://www.brookings.edu/research/why-the-us-should-establish-a-carbon-price-either-through-reconciliation-or-other-legislation/).

[90] American Clean Energy and Security Act, H.R. 2454, 111th Cong. § 304(a) & (b).

[91] Bryan Walsh, Why the Climate Bill Died, Time (July 26, 2010). Available at: https://science.time.com/2010/07/26/why-the-climate-bill-died/.

years in office than President Biden currently enjoys.[92] According to some views, the United States' pivot away from carbon pricing is also explained by the mixed record this approach has produced when crossing from the realm of theory into practice.[93]

Based on the above, coercive 'carbon pricing-oriented' BCAs could be criticized on two counts: first, because they may penalize countries that comply with their commitments under the Paris Agreement and pursue decarbonization policies in keeping with their national circumstances;[94] and second, because these measures place misguided expectation on international regulatory convergence around a particular set of climate mitigation policies, what is detached from the reality of climate politics. The logical development of these critiques is that the introduction and multiplication of CBAM-style BCAs could ultimately pull trade and climate policy further apart, at a moment when there is broad consensus that they should be better integrated.[95]

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[92] Tucker and Meyer (2021b), p. 10.

[93] *See, e.g.*, Tucker and Meyer (2021b); Mildenberger and Stokes (2020); DANNY CULLENWARD, DAVID G. VICTOR, MAKING CLIMATE POLICY WORK, (New York: Polity, 2020). In support of this perspective, one could argue that the United States has achieved considerable carbon-efficiency in certain industrial sectors without relying heavily on carbon pricing: a 2020 study by the Climate Leadership Council found that goods manufactured in the United States are 40% more carbon-efficient than the world average, with U.S. production presenting a carbon advantage over even EU producers in a number of sectors (Catrina Rorke, Greg Bertelsen, America's Carbon Advantage, Climate Leadership Council Report (September 12 2020). Available at: https://clcouncil.org/reports/americas-carbon-advantage.pdf).

[94] A possible rebuttal would be that CBAM-style BCAs do not significantly disadvantage command-and-control regulation countries to the extent that foreign producers are able to reflect their compliance with domestic climate regulations on the actual carbon-intensity of their products. However, this would assume a low cost of complying with the BCA's procedural components when the reality is that these costs could turn out to be quite significant, not to mention the disproportionate effects on SMEs and developing countries/LDCs. Additionally, the costs of compliance should be considered together with the costs for *not* complying with the BCA. In the EU CBAM Proposal, recall that the default embedded carbon content applicable in case of non-compliance with the MRV requirements corresponds to the EU's most carbon-intense production facilities for the sector concerned, which sharpens the measure's impact for those less resourceful exporting firms even if they are engaged in carbon-efficient production. In other words, the possibility that a BCA would work as intended and capture the carbon-efficiency of imports regardless of how that efficiency came about does not mean these measures would not constitute trade barriers in the technical meaning of the term.

[95] *See, generally*, Christophe Bellmann, Carolyn Deere Birkbeck, Marianne Kettunen, and Mahesh Sugathan, Trade and Environment at the World Trade Organization: State of Play and Entry Points, Forum on Trade, Environment and

Regardless of where one stands with respect to both these arguments, the facts at hand—that BCAs are here to stay and that climate action should remain heterogeneous for the foreseeable future—call us to address head-on the problem of comparing different climate actions in the context of unilateral BCAs.

IV. International Cooperation Over BCAs

The analyses in the previous sections indicate that a starting point for international policymaking with respect to environmental border measures should be a consideration of climate governance as *it is* and trade governance as *it might be*—not the other way around.[96]

Many of the solutions to the problems posed by BCAs explored in the literature appears consistent with this approach.[97] One set of proposals advocates legal changes at the WTO to generally accommodate BCAs and other climate-related trade policies. With varying degrees of political feasibility, these include negotiating new trade rules,[98] amending existing ones,[99] seeking a temporary waiver or "peace clause" for BCAs,[100] and adopting authoritative interpretations of relevant provisions in the GATT and other WTO Agreements.[101] Another more targeted approach

SDGs Policy Brief, April 2020. Available at: https://tessforum.org/media/2022/04/TESS-Policy-Brief-Trade-and-Environment-at-the-WTO.pdf.

[96] This takes a page out of Jean Jacques Rousseau's book, for whom any attempt to conceive of a sound political system should take "men as they are and laws as they might be" (Jean Jacques Rousseau, The Social Contract, Penguin, 3rd ed., 2004).

[97] *See, generally,* Kasturi Das, Harro van Asselt, Susanne Droege, and Michael Mehling, *Making the International Trade System Work for the Paris Agreement: Assessing the Options*, 49 Envtl. L. Rep. News & Analysis 10553 (2019).

[98] Id., Art. IX:3.

[99] Marrakesh Agreement Establishing the World Trade Organization, pmbl., Annex IA, 1867 UNTS 187, Art. X. Considering a different perspective, Mavroidis and Horn (2011) suggest modifying the product classification system used in trade negotiations—the World Custom Organization's Harmonized Commodity Description and Coding System—, in order to account for different processes and production methods and avoid some of the legal challenges concerning BCAs and GATT non-discrimination obligations (Mavroidis and Horn (2011) 1932).

[100] Id., Art. IX:3.

[101] Id., Art. IX:2.

suggests making BCAs themselves the subject of international trade negotiations, by establishing a dialogue or 'memorandum of understandings' setting out core principles and best practices to ensure these measures achieve their environmental objectives while avoiding protectionism.[102]

However, few proposals dedicate more than a few lines to the problem of comparing different climate actions.[103] Moreover, they do so under stylized, ideal scenarios that assume optimally-designed BCAs or the existence of the political conditions enabling ambitious trade negotiations. While such theoretical approaches undoubtedly yield valuable insights, the fast depletion of humanity's carbon budget and time itself[104] also warrant an analysis of alternatives more firmly grounded in current circumstances and trends, which have been explored in Section III above.

In view of this, this section will consider one option that resorts to a known instrument of the trade toolbox to squarely address the current scenario of carbon pricing-oriented BCAs and heterogeneity of climate actions: negotiating 'climate' Mutual Recognition Agreements ("MRA") to serve as frameworks for establishing equivalence on climate policies and reciprocity on trade

[102] *See, e.g.,* Bernasconi-Osterwalder and Cosbey (2021) and Sapir (2021).

[103] Hufbauer, Charnovitz, and Kim's (2009) proposal of a comprehensive multilateral 'Code of Good WTO Practice on GHG Emissions Controls' include rules on 'comparability assessments of foreign regulations.' These rules are: (i) comparability should be assessed by an international entity, such as the compliance committee of the UNFCCC; (ii) comparability should be determined at the most specific level possible—for example, comparing domestic and foreign firms, industries, and sectors; and (iii) border charges for non-comparability should be expressed in terms of ad valorem charges per unit of imports or exports (Hufbauer et. al. (2019) 108). Holzer (2014) explores a bilateral approach for international cooperation on BCAs, and suggests negotiating restrictions on the use of environmental border measures on PTAs. The author proposes that PTAs could, as a first option, act as a vehicle for harmonization of emissions abatement policies; alternatively, the PTA parties should negotiate products or sectors for which both countries pursue 'comparable action on climate change', determining based on the negotiation's outcome whether or not to apply trade restrictions on carbon-intensive products (Holzer (2014) 263, 291). Considering a domestic standpoint, Mehling, Van Asselt, Das, Droege, and Verkuijl (2019) suggest that BCAs themselves could include processes to assess comparability of climate actions. On the matter of *how* to undertake such comparability assessment, the authors consider referencing to countries' implementation of their NDCs as reported under the Paris Agreement; concerning *who* should perform the assessment, the authors consider the scenario where this is done by the regulating country unilaterally, in which case 'basic due process' may require, inter alia, an opportunity to appeal comparability findings (Mehling et. al. (2019) 469).

[104] Nicholas A. Robinson, *Road to Stockholm+50 (2022) and Beyond: Depleting Time Itself: The Plight of Today's 'Human' Environment*, 51 Env. Policy & Law 361 (2021).

sanctions. This section will thus explore whether such 'Climate MRA' approach could address the legal and policy implications of unilateral BCAs identified in Section II above, considering both the *substance* and *form* of a possible agreement along these lines.

IV.1. The Climate Mutual Recognition Approach: Substance

MRAs are a tool typically used in the context of promoting regulatory cooperation between countries on issues under the purview of the WTO TBT Agreement—standards, technical regulations, and conformity assessment procedures.[105] Recognition emerges as a higher-intensity form of trade integration in comparison to approaches such as non-discrimination.[106] Recognition is also a choice of law rule: it consists of a selection by the importing state of the rule of the exporting state, to the exclusion of the rule of the importing state. In this sense, this technique entails an agreement to compromise local regulatory autonomy, by accepting that the exporting state regulation is 'good enough'.[107]

Mutual recognition of conformity assessment procedures—i.e., relating to testing and certification on selected goods—is the most common technique countries use, as it is also the less costly in terms of compromising regulatory autonomy.[108] Mutual recognition of rules, on the other hand, is a more demanding approach, as it requires countries to accept the *substance* of each other's regulations.[109] However, recognition of rules rather than procedures allow the possibility of

[105] *See, generally,* PETROS MAVROIDIS, THE REGULATION OF INTERNATIONAL TRADE, Vol. 1, 2016, 430.

[106] Id. The evolution of countries' practice with respect to MRAs is thus a response to the limitations of these lowest-intensity forms of in addressing regulatory trade barriers (Correia de Brito, A., C. Kauffmann and J. Pelkmans, *The contribution of mutual recognition to international regulatory co-operation*, OECD Regulatory Policy Working Papers, No. 2, (2016) OECD Publishing, Paris, 10)

[107] Joel P. Trachtman, *Embedding Mutual Recognition at the WTO* (August 11, 2006), 782-783.

[108] Brito et. al. (2016), 16.

[109] Mutual recognition of rules is also usually associated with a higher demand for policing and enforcement of the 'regulatory bargain' struck (Brito et. al. (2016), 16-17).

establishing 'essential harmonization' between the negotiating countries, understood as a minimum level of regulation that protects countries' domestic regulation from being reduced in unacceptable ways.[110]

Considering the above, the first objective of a Climate MRA could be to provide a forum for the negotiating countries to assess and discuss the compatibility of their climate actions. This could be done on a sectoral basis, for instance. The purpose of this exercise would be to establish 'essential harmonization' between the parties with respect to regulation of GHG emissions, which would allow them to establish 'equivalence'[111] and thus remove climate-based trade barriers on a reciprocal basis.

Exactly how essential harmonization could be determined would the second objective of a Climate MRA. The basis for this assessment could vary between the political and the technical. Some have suggested that climate actions of different countries could be compared according to the number of emissions reductions they achieve.[112] On the other hand, such an exercise could be guided more generally by an evaluation of the level and execution of countries' climate ambitions (i.e., essential harmonization as compliance with the Paris Agreement NDCs). However, even the 'technical' approach that would seek to convert non-price-based policies to price-based equivalents raises both analytical and practical challenges,[113] which would likely require some

[110] Trachtman (2006), 786.

[111] Some scholars differentiate between 'equivalence' and 'recognition' noting that the first consists of a case-by-case determination (usually administered by a court) while the second corresponds to a legislatively (or treaty) determined rule (see Trachtman, 2006, 784). For simplicity purposes and also because it does not significantly alter the argument, we do not make this distinction here.

[112] Karapinar and Holzer (2012), p. 26. *See also* Marceau (2016), pp. 12-13.

[113] *See* Marceau (2016, p. 13), noting that, while it is possible to render different policy-imposed costs comparable by attaching values to all relevant elements in production and output pricing that are attributable to the policy intervention in question, "economic analysis cannot fully project the costs of a regulation or a standard without making simplifying assumptions".

level of political intervention. In any event, an MRA could bring institutional regularity to its parties' dialogue on 'trade and climate change' that would be useful to resolve any differences or grievances over comparison methodology.

A Climate MRA could also potentially address other challenging aspects of BCAs previously analyzed. For instance, such an arrangement could serve as a framework for harmonizing carbon measurement and accounting methodologies, thus reducing uncertainty and transaction costs for the parties involved.[114] Additionally, entering into an international agreement could help minimize BCAs' potential for regulatory protectionism. This could be achieved to the extent that countries' cooperation over BCAs removed these measures from a purely domestic context, considering that international agreements are a vehicle for the introduction of "proxies" to determine a government's regulatory intent—or 'cues for protectionism'.[115] In this sense, the analogy with rules-of-origin regimes previously analyzed illustrates how the absence of some degree of international coordination may lead to regulatory diversity that becomes a breeding ground for regulatory protectionism.

On the subject of WTO-consistency, the operation of a Climate MRA would seem to align with concerns featured in the WTO jurisprudence surveyed above, specifically with respect to GATT Article XX. Following the standard developed in the *US-Shrimp*, the prohibition on discrimination against "countries where the same conditions prevail" requires that measures be applied with "sufficient flexibility to take into account the specific conditions prevailing in *any* exporting Member."[116] Specifically, the Appellate Body directed regulating countries to refrain

[114] Bernasconi-Osterwalder and Cosbey (2021).

[115] BORIS RIGOD, OPTIMAL REGULATION AND THE LAW OF INTERNATIONAL TRADE: THE INTERFACE BETWEEN THE RIGHT TO REGULATE AND WTO LAW. Cambridge: Cambridge University Press, 2015.

[116] Appellate Body Report, *U.S.—Shrimp (Article 21.5)*, para. 149.

from using "an economic embargo to require other members to adopt essentially the same comprehensive regulatory program, to achieve a certain policy goal" as that of the implementing country "without taking into consideration different conditions which may occur" in other countries.[117] Therefore, a Climate MRA would enable countries to identify climate policies of "comparable effectiveness", removing the 'coercive' character of a unilateral BCA.

On the other hand, the Climate MRA alternative would present its own issues with respect to WTO-consistency. The main question here is whether the MRA would violate MFN under GATT Article I (i.e., discrimination against outsiders).[118] A key factor in this respect would be the extent to which an agreement would be open to third parties capable of complying with the 'essential harmonization' standard chosen as the basis for the MRA.[119]

Other possible issues posed by the Climate MRA alternative would be impacts to developing countries[120] and the possibility of detrimental regulatory competition (i.e., where accepting the exporting country's standards and rules ultimately jeopardized importing country regulators' ability to maximize the public interest.)[121] However, these matters could possibly be dealt with in a manner that leads to less trade distortion and restriction than under a under a 'coercive' BCA scenario where the regulating country does not seek mutual recognition with countries not aligned

[117] Appellate Body Report, *U.S.—Shrimp*, para. 164.

[118] MFN obligations imposed by the GATT and the TBT Agreement apply to MRAs as they do other trade measures, but within certain limits (*see* Joshua Zell, *Just Between You and Me: Mutual Recognition Agreements and the Most-Favoured Nation Principle*. World Trade Review 15: 1, 3–23 (2015)).

[119] Id., p. 22. Also, as a practical matter, the establishment of a MRA immediately defuses the tension and removes the prospect of litigation between the countries that are part of the arrangement.

[120] The issue here, as Trachtman recalls, relates to the material capacities of developing countries to enter into MRAs, increasing the risk that mutual recognition is established by developed countries in a way that disadvantages exports from poor countries (Trachtman (2007) 780).

[121] Id., p. 785.

on a particular decarbonization strategy.[122]

It should be noted that opening the door for mutual recognition of different climate actions would not necessarily impact the environmental effectiveness of BCAs. Considering that BCAs are largely a response to the problem of carbon leakage, it makes sense for BCAs to have a narrower focus on origins/sectors where leakage is actually a—potential or effective—concern, which will not include origins/sectors with comparable levels of climate ambition and efficiency but differing in emission control approaches.

In fact, cooperation on BCAs that is predicated on a convergence of *climate ambition* rather than *decarbonization approaches* could combine those elements of international climate and trade policy that proved most useful and effective throughout these regimes' development: the recognition of countries' right to determine and execute their ambitions according to national circumstances—as provided under the Paris Agreement—and the regulation of conditions of competition *across* rather than *within* markets, consistently with the concept of 'negative integration' that has formed the basic approach for regulating international trade since the GATT 1947.[123]

[122] With respect to impacts on developing countries, while this risk is certainly present in the context of the MRA, it would continue to exist and be arguably much more severe in the baseline 'coercive' BCA scenario. This is because a climate MRA as discussed here opens the door for recognition of climate actions based on their effects rather than format, making it easier for all countries—including developing and LDCs—to comply and participate. Additionally, the problem of detrimental regulatory competition, which is the basic challenge of any MRA, would have to be addressed between the MRA participants through a careful consideration of the 'essential harmonization' principle enshrined in the agreement.

[123]Mavroidis (2016), 39 ("…GATT is a "negative integration" contract: that is, its signatories were left essentially free to unilaterally define their domestic policies and were under no constraint at all to follow a particular antitrust, environmental, labor, or other kind of policy. All they promised by acceding to GATT was that, once they had decided on similar policies (if they did so at all), they would apply them in a nondiscriminatory manner to both domestic and imported goods that came under their purview").

IV.2. The Climate Mutual Recognition Approach: Form

As noted before, to ensure consistency with WTO rules, a Climate MRA should ideally be open to all countries able to comply with the 'essential harmonization' standard chosen as the basis of an agreement. It is important to note, however, that comparability assessment under such an MRA would not be automatic or all-encompassing: it could thus admit differently placed countries and serve as a framework for trade partners to sort out the sectors and products where different emissions abatement policies present 'comparable effectiveness' and others where they do not, thus attracting the imposition of trade barriers. Therefore, even though an arrangement along these lines would naturally involve 'like-minded' countries at first, there is nothing to prevent this from being a plurilateral or even a multilateral effort.

As such, the ideal forum to host such negotiations would be the WTO.[124] An obvious candidate is the WTO's Committee on Trade and Environment, which is already place to countries' debates on their BCA plans.[125] Another option could be the Trade and Environmental Sustainability Structured Discussions, a process launched by some WTO members in 2020.[126] Engagement at the WTO over a Climate MRA furthering countries' cooperation on trade measures without convergence on climate policies could prospectively even evolve to a plurilateral agreement under Annex 4 of the WTO Agreement (which would still require consensus among all WTO Members pursuant to Article IX.9 of the WTO Agreement) or a Joint Statement Initiative ("JSI") such as the ones launched at the 2017 WTO Ministerial Conference in Buenos Aires.

[124] *But see* Charnovitz (2021) arguing against the WTO as a venue for international cooperation on trade and environment and advocating the suitability of the UNFCCC (Steve Charnovitz, *A Better Transatlantic Agenda on Trade and Environment*, Jean Monnet Network on Transatlantic Trade Politics Policy Brief, December 2021).

[125] Bernasconi-Osterwalder and Cosbey (2021). The Committee on Trade and Environment was established in 1994 and is open to the entire WTO membership, as well as some international organizations with observer status.

[126] Id.

In any case, it seems more likely that negotiations on a Climate MRA would be launched bilaterally at first and outside the auspices of an international organization. This alternative also has its benefits.[127] Importantly, this option's feasibility is signaled by recent developments in US-EU cooperation over trade and climate policy, most notably the signature of the 'green steel deal' ("Green Steel Deal") between the two trade partners in October 2021.[128]

The deal marked the resolution of a long-standing dispute between the United States and the European Union over steel and aluminum products, which followed the Trump Administration's decision to impose Section 232 'national security' tariffs on worldwide exports of these products to the United States.[129] More than the immediate solution to an irritant in US-EU trade relations, the Green Steel Deal is interesting for its inclusion of a commitment for the two economies to negotiate a broader arrangement for the steel and aluminum sectors by 2024. Such future agreement is projected as a 'global' arrangement for addressing carbon-intensity and market-distortion in these sectors, and should probably include cooperation/harmonization over carbon accounting and reporting methodologies[130] as well as some sort of a common external tariff applying to non-parties.[131]

In this sense, the idea of a 'global steel deal' advanced by the United States and the European Union may be far-reaching to the extent it represents a concrete—albeit rough—blueprint for

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[127] Holzer (2014) 264.

[128] USTR, Joint US-EU Statement on Trade in Steel and Aluminum *and* Announcement of Actions on EU Imports Under Section 232, October 31, 2021. Available at: https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/october/joint-us-eu-statement-trade-steel-and-aluminum ("US-EU Joint Statement").

[129] Id. The Green Steel Deal puts in place a 'tariff-rate quota' system to manage the trade in steel and aluminum products between the United States and the European Union.

[130] *See* US-EU Joint Statement.

[131] Jennifer Hillman and Alex Tippett, A New Transatlantic Agreement Could Hold the Key to Green Steel and Aluminum, Blog post, Council on Foreign Relations, November 19, 2021. Available at: https://www.cfr.org/blog/new-transatlantic-agreement-could-hold-key-green-steel-and-aluminum.

international cooperation on climate and trade matters between countries that adopt different approaches to reducing GHG emissions.[132]

V. CONCLUSION

The time of BCAs has come, and the international trading community needs to decide how to deal with them.

While BCAs can be construed as a necessary complement to countries' ambitious climate mitigation policies, these measures also come with the prospect of potential protectionism and trade-distortion. As such, they risk further straining trade relations that are already fraught. This is an undesirable outcome that should be avoided from both a trade and a climate governance perspective.

This situation calls for some level of international cooperation over BCAs. Furthermore, effective cooperation on trade measures should be premised on a clear-eyed reading of the current state and foreseeable trends in climate politics. Such a reading reveals a scenario of significant heterogeneity with respect to GHG emission regulation strategies, which is consistent with the main tenets of the Paris Agreement.

In view of this, this paper considered a possible way forward that combines cooperation on trade policy without convergence on climate actions— negotiating 'climate' MRAs to serve as

[132] In a webinar about the 'green steel deal' hosted by the Roosevelt Institute in March 2022, Jane Flegal, a senior official with the White House Office of Domestic Climate Policy, offered a view that frames the agreement precisely in this way: "…one of the things that we see as central to the global arrangement is that it helps to establish a kind of new norm and climate and trade, of measuring what matters, which is the emissions embedded in these goods. Much of the conversation about climate and trade to date has focused on the sort of requirement of explicit carbon pricing. And in our view, that's not and really cannot be the case. The climate issue is just far too urgent to require uniform global policy instruments to make progress, and I think that's consistent with the Paris Agreement…" (*see* Simon Lester, Prospects for the Green Steel Deal, blog post, International Economic Law and Policy Blog, March 24, 2022. Available at: https://ielp.worldtradelaw.net/green-steel-deal/).

frameworks for establishing equivalence on climate policies and reciprocity on trade sanctions. As the analysis developed in the paper shows, the Climate MRA approach bears the potential to address some of the most problematic impacts of unilateral BCAs, while also accommodating the legal and political constraints that define the current state of climate and trade governance.