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COMBATING CLIMATE RECALCITRANCE: CARBON-RELATED BORDER TAX ADJUSTMENTS IN A NEW ERA OF GLOBAL CLIMATE GOVERNANCE

David A. C. Bullock[†]

Abstract: This article argues that carbon-related border tax adjustments (“CRBTAs”) can be used effectively to complement the compliance mechanisms of the Paris Agreement against a truly recalcitrant party. The soft enforcement mechanisms envisioned by the Paris Agreement—facilitative assistance and political or moral suasion—are unlikely to provide a sufficient response to a party that becomes truly recalcitrant. CRBTAs provide parties to the Paris Agreement with a hard-edged economic tool able to respond to a party that disavows the Paris regime. This article outlines the features of a CRBTA regime that would be lawful under the General Agreement on Tariffs and Trade and argues that the international political economy of the Paris Agreement supports the development of complementary CRBTA measures. By situating a proposed CRBTA regime in the multilateral context of the Paris Agreement, this article argues that it is possible to overcome the political hurdles that have restrained states from unilaterally adopting these measures. Finally, the Article posits that the Trump Administration has set the United States on a course of recalcitrance that has increased the likelihood that CRBTA measures may be deployed against the United States by other parties to the Paris Agreement.

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I. INTRODUCTION

There is a perplexing disconnect evidenced in the history of proposals for carbon-related border tax adjustments (“CRBTAs”): border tax adjustments designed to account for the effects of different states’ domestic climate policies.¹ While a sizable amount of literature has developed over the last two decades discussing the design and legality of CRBTAs²—mostly concluding that it is possible to fashion a measure that passes WTO muster—

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¹ Weber observes that the literature in this field adopts a range of terms in lieu of “border tax adjustment” (including “carbon equalization measures,” “border adjustment measures,” or “border carbon adjustments”) reflecting the possible misunderstanding that measures are limited to *taxes* applied *at the border*. In fact, other fiscal measures can be used, and measures are not always applied at the border. Nevertheless, in order to avoid further contributions to terminological soup, I use the term “border tax adjustments” in this article, flagging these limitations. See Rolf H. Weber, *Border Tax Adjustment – Legal Perspective*, 133 CLIMATIC CHANGE 407, 408 (2015).

² This literature is reviewed *infra* notes 83–87 and accompanying text.

no states have adopted these measures.³ Proposals for CRBTAs are frequently identified as a means for supplementing proposed *unilateral* domestic efforts to reduce greenhouse gas emissions in order to address environmental (carbon leakage) or economic (competitiveness) concerns. The association of CRBTAs with unilateral policy creates a nexus between academic and political proposals for CRBTAs and dysfunction in international climate governance negotiations. In the United States, for example, CRBTAs have been a regular feature of proposed climate change legislation, serving as a politically expedient answer to the competitiveness concerns of energy-intensive and trade-exposed industries,⁴ albeit without ultimate legislative success.⁵

In a world order characterized by sovereign nation-states, an effective multilateral agreement that addresses a problem of global concern like climate change requires a “‘thick’ global consensus” on the course to be taken.⁶ Global consensus has proved difficult to achieve, giving rise to arguments that CRBTAs should be used to support unilateral action on climate change. However, the reluctance of states to employ CRBTAs suggests that such measures may be an illusory alternative to consensus-based international

³ There are examples of subsidies being provided to trade exposed industries in a number of national emissions trading regimes, such as the European Union Emissions Trading Scheme. These subsidies take the form of free emissions unit allocation and engage the requirements of the Agreement on Subsidies and Countervailing Measures. *See, e.g.*, FELICITY DEANE, EMISSIONS TRADING AND WTO LAW: A GLOBAL ANALYSIS 134 (2015). These subsidies, while affecting trade, are not CRBTAs because they are not applied at the border. The subsidizing of participants of emissions trading regimes through the free allocation of emissions units is beyond the scope of this article, which focuses on border measures.

⁴ Ian Sheldon, *Is There Anything New about Border Tax Adjustments and Climate Policy?*, 93 AMER. J. AGR. ECON. 553, 553 (2011); BRIAN P. FLANNERY, CARBON TAXES, TRADE, AND BORDER TAX ADJUSTMENTS, RFF POLICY BRIEF NO. 16–02 (2016), <http://www.rff.org/files/document/file/RFF-PB-16-02.pdf>.

⁵ *See, e.g.*, Robert C. Means, *The Climate Policy Landscape*, 4 WAKE FOREST J. L. & POL’Y 319, 321 (2014) (outlining the history facing the Obama Administration’s attempts to enact climate change legislation including the Waxman-Markey Bill). Proposals to deploy CRBTAs in connection with unilateral emissions reduction policy are not limited to the United States. Similar proposals were also discussed in connection with the Australian Clean Energy Package and the European Union Emissions Trading System. *See, e.g.*, Felicity Deane, *The Border Adjustments of the Australian Clean Energy Package*, 17 INT’L TRADE & BUS. L. REV. 29 (2014); Harro van Asselt & Thomas Brewer, *Addressing Competitiveness and Leakage Concerns in Climate Policy: An Analysis of Border Adjustment Measures in the US and the EU*, 38 ENERGY POL’Y 42, 47–49 (2010).

⁶ Thom Brooks, *Climate Change Justice Through Taxation?*, 133 CLIMATIC CHANGE 419, 424 (2015). The idea of “‘thick consensus” can be contrasted with “‘thin consent” in that it involves normative and norm-making content that includes broader values concepts derived from outside international law. *See, e.g.*, Joost Pauwelyn, Ramses A. Wessel & Jan Wouters, *When Structures become Shackles: Stagnation and Dynamics in International Lawmaking*, 25 EUR. J. INT’L L. 733, 749 (2014). The normative content of “‘thick consensus” can have a transformative effect on non-law, giving it legal effects. *See* JOOST PAUWELYN, RAMSES WESSEL & JAN WOUTERS, *Informal International Lawmaking: An Assessment and Template to Keep It Both Effective and Accountable*, in INFORMAL INTERNATIONAL LAWMAKING 500, 534 (2012).

agreement. The effective implementation of CRBTAs, or other climate-focused trade measures, require a similar level of global consensus.⁷

While CRBTA proposals have been common in the context of unilateral climate change policy, they rarely feature in academic or political discussions of multilateral climate action.⁸ The absence of CRBTA proposals connected to multilateral instruments supports an argument that states view CRBTAs as a second-best option—normatively and practically—that requires overcoming no fewer obstacles than achieving multilateral agreement itself.⁹ This Article argues that CRBTAs can complement and support a multilateral climate governance regime such as the 2015 Paris Agreement¹⁰ when backed by the consensus demonstrated through the adoption of the Agreement. The argument made here diverges from the existing literature. It does so by situating CRBTAs alongside a multilateral climate change agreement in order to support the integrity of the regime created by the agreement itself, rather than to support domestic policy adopted in furtherance of it.¹¹

How can CRBTAs support the Paris Agreement? The answer lies in the soft compliance mechanisms of the Agreement embodying facilitative, non-punitive, and non-adjudicative features.¹² The Paris Agreement operates

⁷ PAUWELYN ET AL., *supra* note 6, at 534.

⁸ Trade measures have been used in multilateral environmental agreements, typically in the form of trade bans or quotas on particular goods. Examples include the Convention on the International Trade in Endangered Species of Wild Fauna and Flora, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the Montreal Protocol on Substances that Deplete the Ozone Layer. These measures have taken the form of quantitative restrictions on trade and are made possible by the limited original and application of the regulated goods, and their easy detectability and substitutability. The characteristics of greenhouse gases—ubiquitous and economically significant—make similar quantitative measures infeasible. See Duncan Brack, *The Use of Trade Measures in the Montreal Protocol*, in PROTECTING THE OZONE LAYER: LESSONS, MODELS, AND PROSPECTS 99, 103–04 (Philippe G. Le Prestre, John D. Reid & E. Thomas Morehouse, Jr. eds., 1998).

⁹ Brooks, *supra* note 6, at 420. Others have argued that CRBTAs are the second best option relative to the outright transnational integration of climate change policies. See Douglas A. Kysar & Bernadette A. Meyler, *Like a Nation State*, 55 UCLA L. REV. 1621, 1633 (2008).

¹⁰ Paris Agreement regarding the United Nations Framework Convention on Climate Change, opened for signature Apr. 22, 2016, T.I.A.S. 16-1104 [hereinafter Paris Agreement]; United Nations Framework Convention on Climate Change, Mar. 21, 1994, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

¹¹ The limited literature that has considered CRBTAs in connection with the Paris Agreement has focused on their ability to support domestic or regional climate action, rather than the Paris regime itself. See, e.g., Julien Bueb, Lilian Richieri Hanania & Alice Le Clézio, *Border Adjustment Mechanisms: Elements for Economic Legal, and Political Analysis* 3 (U.N. Univ. World Inst. for Dev. Econ. Research, Working Paper No. 20, 2016), <https://www.wider.unu.edu/sites/default/files/wp2016-20.pdf>; Susanne Droege et al., *The Trade System and Climate Action: Ways Forward Under the Paris Agreement* 40–44 (Oct. 2016) (working paper), <http://climatestrategies.org/wp-content/uploads/2016/10/Trade-and-climate-ways-forward-1.pdf>; FLANNERY, *supra* note 4.

¹² Christina Voigt, *The Compliance and Implementation Mechanism of the Paris Agreement*, 25 RECIEL 161, 161 (2016).

using a “push-pull” system of enforcement. Some states might be unable to achieve their nationally determined contributions (“NDCs”) because they lack the financial means or technological resources to do so. Facilitative assistance *pulls* underperforming states toward their contributions through the targeted provision of resources to states in need. Alternatively, states may show a lack of ambition in setting or meeting their NDCs, despite having the capacity, or historical or moral responsibility to do more. Other parties or non-state actors may form the view that such a state needs to try harder, and may exert political or moral suasion to *push* the state toward increased ambition. Both elements of the Paris “push-pull” model are, however, soft mechanisms. States do not face hard legal sanctions under the Paris Agreement for failure to comply with their obligations or to achieve their NDCs (which are not legal obligations under the Agreement).

The Paris Agreement’s soft enforcement mechanisms are likely to be lacking where a party to the Agreement becomes truly recalcitrant¹³—that is, unrepentantly breaches its obligations or acts in a way that evidences a clear disregard for, or implicit retraction of, its NDCs through its domestic policy or international actions.¹⁴ Since the election of President Trump, the United States’ conduct to undermine the Paris Agreement can be characterized as recalcitrant. This conduct is addressed in detail below.

A recalcitrant state, having made a political calculus to effectively abandon the Paris regime, is unlikely to be affected by political or moral suasion and is an unsuitable candidate for facilitative assistance. The international response to such a state must take a harder form to be politically salient. This Article argues that coordinated CRBTAs imposed by the parties to the Paris Agreement can support and complement the Agreement when faced with a recalcitrant party.

Part II begins with a discussion of the challenges to governing the climate and the states’ efforts to do so at the global level. The “global

¹³ In their assessment of human rights violations in the Democratic People’s Republic of Korea, Kirby and Gopalan use the term “‘recalcitrant’ states” as a synonym for states that are “rogue,” “renegade,” “outcast,” or “deviant.” See Michael Kirby & Sandeep Gopalan, *‘Recalcitrant’ States and International Law: The Role of the UN Commission of Inquiry on Human Rights Violations in the Democratic People’s Republic of Korea*, 37 U. PA. J. INT’L L. 229, 234 (2015). The term as I use it in this article emphasizes concepts of deviance, defiance and the renegade to convey a willful departure from the community expectations established in the Paris Agreement.

¹⁴ Recalcitrance may also be exhibited by a state’s failing to become or remain a party to the Paris Agreement, depending on the circumstances of the state in question.

commons” nature of the climate system is problematic for both multilateral governance and the trade system. Part III proceeds to consider the regime governing border tax adjustments (“BTAs”) under the General Agreement on Tariffs and Trade (“GATT”) before assessing the challenges of developing and implementing a CRBTA. Part IV develops the argument that CRBTAs can be effectively deployed to supplement the enforcement provisions of the Paris Agreement in the case of a truly recalcitrant party. The argument is situated in the context of the contemporary international political economy of the international climate governance regime following the election of President Trump in the United States. This Article poses that the Trump Administration has set the United States on a recalcitrant course. The article concludes by highlighting a new role for CRBTAs as a complement, rather than an alternative, to multilateral agreement on global climate governance.

II. THE CHALLENGES OF GLOBAL CLIMATE GOVERNANCE

A majority of climate scientists have concluded that human activity since the industrial revolution has had an unprecedented effect on the global climate system.¹⁵ Industrial processes, transport, electricity generation, and intensified agriculture have contributed to increasing concentrations of greenhouse gases in the atmosphere and an increase in the Earth’s average surface temperature.¹⁶ The scientific consensus is that the rapid reduction of anthropogenic emissions of greenhouse gases is necessary in order to avoid dangerous interference with the climate system.¹⁷ Further increases in atmospheric greenhouse gases are likely to lead to increased surface temperature, rising sea levels, drought, desertification, more frequent and intense storms, and ocean acidification.¹⁸

The atmospheric system can be characterized as a “global commons”¹⁹: an open access resource that every person on earth can use as a sink to store the carbon dioxide and other greenhouse gases emitted as an incident of daily

¹⁵ See generally INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT (R.K. Pachauri & L.A. Meyer eds., 2014), <http://www.ipcc.ch/report/ar5/syr/>.

¹⁶ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS 13–14 (Thomas F. Stocker et al. eds., 2013).

¹⁷ *Id.* at 27–29.

¹⁸ *Id.* at 20–27.

¹⁹ For an early use of this description in connection with the climate, see generally WILLIAM D. NORDHAUS, *MANAGING THE GLOBAL COMMONS: THE ECONOMICS OF CLIMATE CHANGE* (1994); ORAN R. YOUNG, *INTERNATIONAL GOVERNANCE: PROTECTING THE ENVIRONMENT IN A STATELESS SOCIETY* (1994). The origin of the description of open access resources as “commons” can be traced to Garrett Hardin’s oft-cited article. Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968).

life in the industrialized world.²⁰ Managing the global commons presents a “super wicked” policy problem of unprecedented scale, cost, and complexity.²¹ The fraught efforts of the global community to develop and agree upon a regime to govern the climate system are a consequence of the complexity of the problem.²² The challenge of managing global climate change cannot be seen in isolation from other global challenges including the management of the international economic system²³ and public health.²⁴

A. *Initial Attempts at Climate Governance by International Agreement*

The global effort to manage the effects of human activity on the climate system is founded on the 1992 United Nations Framework Convention on Climate Change (“UNFCCC”).²⁵ The UNFCCC established a set of guiding principles toward the overall goal of avoiding dangerous anthropogenic climate change.²⁶ The Kyoto Protocol was the world community’s first attempt to implement action towards the goals established in the UNFCCC.²⁷ The Protocol established a strongly bifurcated model of obligations, embodying a strong principle of common but differentiated responsibilities.²⁸ Only countries listed in an Annex I to the Protocol—primarily developed countries—had obligations to reduce emissions.²⁹ Emissions reduction

²⁰ The commons nature of the atmosphere derives not only from its function as a sink for greenhouse gases but also from, for example, it being the source of breathable air (and the location for particulate air pollution) and an area for transportation using aircraft and the transmission of radio waves. *See, e.g.*, MARVIN S. SOROOS, *THE ENDANGERED ATMOSPHERE: PRESERVING A GLOBAL COMMONS* (1997). Nor is the atmosphere the only sink for greenhouse gases; other sinks include terrestrial systems (such as forests) and oceans. *See, e.g.*, Corinne Le Quéré, Michael R. Raupach, Josep G. Canadell & Gregg Marland, *Trends in the Sources and Sinks of Carbon Dioxide*, 2 *NATURE GEOSCIENCE* 831 (2009).

²¹ Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 *CORNELL L. REV.* 1153 (2009).

²² For detailed accounts of the early phases of international climate negotiations, see Joyeeta Gupta, *A History of International Climate Change Policy*, 1 *WIREs CLIMATE CHANGE* 636 (2010) (examining the history of international climate change process across five periods); Daniel Bodansky, *The History of the Global Climate Change Regime*, in *INT’L RELATIONS AND GLOBAL CLIMATE CHANGE* 23 (Urs Luterbacher & Detlef F. Sprinz eds., 2001).

²³ *See, e.g.*, Joseph E. Stiglitz, *A New Agenda for Global Warming*, in *THE ECONOMISTS’ VOICE: TOP ECONOMISTS TAKE ON TODAY’S PROBLEMS* 22 (Joseph E. Stiglitz, Aaron S. Edlin & J. Bradford DeLong eds., 2006).

²⁴ *See, e.g.*, A. Haines et al., *Climate Change and Human Health: Impacts, Vulnerabilities and Public Health*, 120 *PUB. HEALTH* 585 (2006).

²⁵ UNFCCC, *supra* note 10.

²⁶ *Id.* art. 2.

²⁷ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 *I.L.M.* 22 (1998).

²⁸ *Id.* art. 10.

²⁹ *Id.* art. 3(1).

obligations took the form of legally binding targets that were negotiated and agreed by the parties.³⁰

The United States played a leading role in the framing and negotiation of the Kyoto Protocol.³¹ However, the principle of differentiated responsibilities embodied in the Protocol made ratification of the agreement in the United States politically unachievable.³² Legislators were unwilling to risk domestic costs associated with emission-reduction actions when other major economies, like China, did not have emission-reduction targets under the agreement.³³ Nevertheless, the Protocol entered into force in 2005 following ratification by other major Annex I emitters: the European Union, Russia, and Japan.

It was clear that any post-Kyoto agreement needed to include the United States and China—the world’s two largest emitters—if the UNFCCC goal of avoiding dangerous anthropogenic climate change were to be achieved.³⁴ The prospects of a grand climate agreement appeared to be slim after the collapse of negotiations in Copenhagen, where the focus had been on agreeing to a post-Paris framework.³⁵ However, the compromises achieved at Copenhagen sowed the seeds for the new model eventually adopted at Paris.³⁶ Moreover, much of the blame for the failure at Copenhagen was attributed to China, and China came to regard the narrative around Copenhagen with frustration and

³⁰ *Id.* art. 4(1).

³¹ Michael Zammit Cutajar, *Reflections on the Kyoto Protocol: Looking Back to See Ahead*, 5 INT’L REV. FOR ENVTL. STRATEGIES 61, 63 (2004).

³² Byrd-Hagel Resolution, S. Res. 98, 105th Cong. (1997) (enacted).

³³ *See, e.g.*, Letter from President George W. Bush to Senators Hagel, Helms, Craig, and Roberts (Mar. 13, 2001), <https://georgewbush-whitehouse.archives.gov/news/releases/2001/03/20010314.html> (announcing that the United States would be formally withdrawing from the Protocol on the grounds that it “exempts 80 percent of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the US economy. The Senate’s vote, 95-0, shows that there is a clear consensus that the Kyoto Protocol is an unfair and ineffective means of addressing global climate change concerns.”).

³⁴ *See* G. Marland, T.A. Boden, and R.J. Andres, *Global, Regional, and National Fossil-Fuel CO₂ Emissions: Top 20*, CARBON DIOXIDE INFO. ANALYSIS CTR. (2009), <http://cdiac.ess-dive.lbl.gov/trends/emis/overview.html>.

³⁵ *See, e.g.*, William Boyd, *Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of a Post-Copenhagen Assemblage*, 32 U. PA. J. INT’L L. 457 (2009).

³⁶ Daniel Bodansky, *The Copenhagen Climate Change Conference: A Postmortem*, 104 AM. J. INT’L L. 230, 239 (2010) (observing that “the participating states did agree to a bottom-up process in which they will list their national actions internationally and subject their actions to some form of international scrutiny” and identifying this as one of the ways in which Copenhagen was a “potentially significant breakthrough” in international climate negotiations).

as a foreign relations disappointment.³⁷ Spurred by domestic concerns about environmental air quality and energy security, China enhanced its domestic emission-reduction efforts and began to take a more active leadership role on the international stage.³⁸ China's new interest in climate action culminated in a series of joint statements issued by the presidents of China and the United States. The presidents expressed their intentions to significantly reduce greenhouse gas emissions. At the same time, China announced a nationwide rollout of its emissions trading system pilots.³⁹ The joint China-United States statements were made in the shadow of the meeting of the conference of the parties in Paris and proved to be a key catalyst in producing the agreement ultimately reached.⁴⁰

B. *The Push and Pull of the Paris Agreement*

Paris produced a unique agreement designed to accommodate the special challenges of the global climate system by balancing three principles of effectiveness: participation, ambition and compliance.⁴¹ The balance manifested in a “hybrid” architecture, relying on self-determined state ambition through non-binding emissions reduction targets.⁴² The self-determined flexibility of the agreement was created by binding procedural obligations designed to encourage (rather than require) goal achievement, and to result in a progressive increase in ambition over time. The Paris regime can be contrasted with the strong, binding, “top-down” obligations of the Kyoto Protocol.⁴³ States appear to have been receptive to this new flexible governance model—the Agreement received a sufficient level of ratification

³⁷ Björn Conrad, *China in Copenhagen: Reconciling the “Beijing Climate Revolution” and the “Copenhagen Climate Obstinacy,”* 210 CHINA Q. 435, 453 (2012).

³⁸ See, e.g., Ross Garnaut, *China's Role in Global Climate Change Mitigation*, 22 CHINA & WORLD ECON. 2 (2014); Peter Christoff, *The Promissory Note: COP 21 and the Paris Climate Agreement*, 25 ENVTL. POL. 765, 771 (2016).

³⁹ Press Release, Office of the Press Secretary of The White House, U.S.-China Joint Announcement on Climate Change (Nov. 11, 2014), <https://obamawhitehouse.archives.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>; Press Release, Office of the Press Secretary of The White House, U.S.-China Joint Presidential Statement on Climate Change (Sept. 25, 2015), <https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/us-china-joint-presidential-statement-climate-change>.

⁴⁰ Daniel Bodansky, *The Paris Climate Change Agreement: A New Hope?*, 110 AM. J. INT'L L. 288, 293 (2016); Radoslav S. Dimitrov, *The Paris Agreement on Climate Change: Behind Closed Doors*, GLOBAL ENVTL. POL., Aug. 2016, at 9.

⁴¹ Voigt, *supra* note 12, at 161.

⁴² See Bodansky, *supra* note 40, at 301.

⁴³ *Id.* at 289–90.

to enter into force less than a year after negotiations were concluded.⁴⁴ Importantly, major emitting states including the United States, China and India were parties to the Agreement.

The Paris Agreement represents states' desires to coordinate their actions and signal a willingness to cooperate without formally binding themselves to achieve substantive targets. The legally-binding aspects of the Agreement are largely procedural, governing NDC-setting and communication, accounting, and transparency (monitoring, verification, and reporting).⁴⁵ The Agreement contains a "compliance mechanism" as part of its "enhanced transparency framework."⁴⁶ Enhancement comes in the form of the provision of support to parties and its account of their different capabilities. The transparency mechanisms are to be implemented in a "facilitative, non-intrusive, non-punitive manner, respectful of national sovereignty, and [are to] avoid placing undue burden on the Parties."⁴⁷ The compliance mechanism in Article 15 uses similar language, providing for an expert-based committee that serves a facilitative role and functions in a manner "that is transparent, non-adversarial and non-punitive."⁴⁸

Through its enhanced transparency and compliance mechanisms, the Paris Agreement is designed to move states toward their goals using a system of *pulls and pushes*.⁴⁹ The Agreement's regime of pushes and pulls trades in

⁴⁴ U.N. Secretary-General, Paris Agreement, Entry Into Force, U.N. Doc. C.N.735.2016.TREATIES-XXVII.7.d (Depositary Notification) (Oct. 5, 2016).

⁴⁵ Daniel Bodansky, *The Legal Character of the Paris Agreement*, 25 RECIEL 142, 143 (2016); Sebastian Oberthür & Ralph Bodle, *Legal Form and Nature of the Paris Outcome*, 6 CLIMATE L. 40, 49 (2016).

⁴⁶ Paris Agreement, *supra* note 10, art. 13, 15.

⁴⁷ *Id.* art. 13(3).

⁴⁸ *Id.* art. 15.

⁴⁹ A regime of pushes and pulls, or "carrots and sticks," was also used in the Montreal Protocol on Substances that Deplete the Ozone Layer by combining sticks (trade restrictions on ozone depleting substances) and carrots (financial assistance and technology transfer). See ZhongXiang Zhang, *Multilateral Trade Measures in a Post-2012 Climate Change Regime?: What Can Be Taken From the Montreal Protocol and the WTO?*, 37 ENERGY POL'Y 5105, 5109 (2009). However, credible "sticks" come at a cost to those wielding them. While the experiences of the Montreal Protocol can provide opportunities for learning it cannot be taken for granted that "sticks" bear the same economic cost in different contexts. It is therefore necessary to consider the climate change regime separately from the Montreal Protocol in order to determine whether there is an economic case for the trade "sticks" proposed. See Scott Barrett, *Montreal versus Kyoto: International Cooperation and the Global Environment*, in GLOBAL PUBLIC GOODS: INTERNATIONAL COOPERATION IN THE 21ST CENTURY 192, 193 (Inge Kaul, Isabelle Grunberg & Marc Stern eds., 1999) (arguing that the different costs of implementing sticks means that the Montreal Protocol cannot simply be used as a template for international climate governance).

a currency of “political leadership, financial assistance and moral suasion.”⁵⁰ The enhanced transparency regime uses monitoring, reporting, and verification to identify states that are falling behind as a result of their capabilities. The information obtained through the transparency mechanism can be used to *pull* these states toward their NDCs by facilitating assistance in the form of targeted financial assistance, technology transfer, and opportunities for cooperation.

The enhanced transparency mechanism also serves an important informal enforcement function. Monitoring, reporting, and verification reveal performance, enabling the identification of states that show a lack of ambition in setting or meeting their NDCs, despite having the capacity or responsibility to do more. Other parties⁵¹ or non-state actors⁵² may form the view that such a state needs to try harder, and may exert peer pressure in the form of political or moral suasion to *push* the state toward increased ambition.⁵³ When a party is identified and denounced as out of line with community expectations, a burden is placed on domestic actors in the targeted state. Those actors are expected to bring their behavior in line with community expectations by becoming aware of an inadvertent failure to achieve those expectations,⁵⁴ accepting the normative legitimacy of that assessment,⁵⁵ seeking to avoid reputational harm,⁵⁶ or becoming accustomed to the expressed norms.⁵⁷

It should be noted that contrasting views exist on the scope and effect of many parts of the Paris Agreement.⁵⁸ Other, bolder interpretations of the

⁵⁰ Robert Falkner, *The Paris Agreement and the New Logic of International Climate Politics*, 92 INT’L AFF. 1107, 1124 (2016).

⁵¹ *Id.* at 1121.

⁵² Harro van Asselt, *The Role of Non-State Actors in Reviewing Ambition, Implementation, and Compliance under the Paris Agreement*, 6 CLIMATE L. 91 (2016).

⁵³ M. J. Mace, *Mitigation Commitments under the Paris Agreement and the Way Forward*, 6 CLIMATE L. 21, 36 (2016).

⁵⁴ *See, e.g.*, ABRAM CHAYES & ANTONIA HANDLER CHAYES, *THE NEW SOVEREIGNTY: COMPLIANCE WITH INTERNATIONAL REGULATORY AGREEMENTS* 22 (2009).

⁵⁵ *See generally* THOMAS M. FRANCK, *FAIRNESS IN INTERNATIONAL LAW AND INSTITUTIONS* (1995); T. Alexander Aleinikoff, *Transnational Spaces: Norms and Legitimacy*, 33 YALE J. INT’L L. 479, 489 (2008).

⁵⁶ Andrew T. Guzman, *A Compliance-Based Theory of International Law*, 90 CAL. L. REV. 1823, 1847 (2002).

⁵⁷ *See, e.g.*, Harold Hongju Koh, *Why Do Nations Obey International Law?*, 106 YALE L.J. 2599, 2646 (1997); Ryan Goodman & Derek Jinks, *How to Influence States: Socialization and International Human Rights Law*, 54 DUKE L.J. 621 (2004).

⁵⁸ Jorge E. Viñuales et al., *Climate Policy after the Paris 2015 Climate Conference*, 17 CLIMATE POL’Y 1, 1 (2017).

Paris Agreement have been advanced. Voigt and Ferreira,⁵⁹ for example, argue that the Agreement imposes substantive obligations on parties to take action to achieve their emissions reduction goals because under Article 4(2) “each party is committed to taking all appropriate and adequate climate measures in order to progressively achieve the objective of the Agreement.”⁶⁰ However, this argument overstates the effect of Article 4(2), which only requires parties to “aim at achieving the objectives of their contributions.” The difference between the requirements of the Paris Agreement and Voigt and Ferreira’s claim is subtle, but important. First, parties have only committed to using their highest possible ambition in their *goal setting* (that is, in setting their NDCs), not in their action.⁶¹ Second, the parties have committed only to achieve the “objectives” of their goals.⁶² The textual limitation of the parties’ obligation to achieve the “objectives” of their NDCs, rather than the achievement of the NDCs themselves, must be given meaning.⁶³ The better view is that Article 4(2) is not an obligation of result⁶⁴ and stops short of committing parties to actually achieve their contributions⁶⁵ or to implement specific domestic policies to that end.⁶⁶

C. *Recalcitrant Parties and CRBTAs*

The soft enforcement mechanisms of the Paris Agreement might work to push states that lack the capabilities needed to achieve their NDCs, or states that need to be pushed to meet community expectations but that are fundamentally on board with the global climate governance project. But what about parties that come to reject the regime established by the Paris Agreement and wish to walk away from their obligations and NDCs? Such a move is not without precedent. In the face of international protests, Canada opted to withdraw from the Kyoto Protocol when it became clear it would not meet its obligations.⁶⁷ More recently, President Trump has announced that

⁵⁹ Christina Voigt & Felipe Ferreira, ‘Dynamic Differentiation’: *The Principles of CBDR-RC, Progression and Highest Possible Ambition in the Paris Agreement*, 5 TRANSNAT’L ENVTL. L. 285, 302 (2016).

⁶⁰ Paris Agreement, *supra* note 10, art. 4(2).

⁶¹ *Id.* art. 4(3).

⁶² *Id.* art. 4(2).

⁶³ See Bodansky, *supra* note 45, at 146.

⁶⁴ Oberthür & Bodle, *supra* note 45, at 54.

⁶⁵ Lavanya Rajamani, *Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics*, 65 INT’L & COMP. L.Q. 493, 498 (2016).

⁶⁶ Bodansky, *supra* note 45, at 146 (arguing that the use of the word “pursue” and “aim” tell against any obligation to implement specific domestic mitigation measures).

⁶⁷ See Jane Matthews Glenn & Jose Otero, *Canada and the Kyoto Protocol: An Aesop Fable*, in CLIMATE CHANGE AND THE LAW 489, 489 (Erkki J. Hollo, Kati Kulovesi & Michael Mehling eds. 2012).

the United States will withdraw from the Paris Agreement on the basis that the terms of the agreement are unfavorable to the United States.⁶⁸

Formal withdrawal from the Paris Agreement is possible, but it is not a fast process. Article 28 of the Agreement provides that a state may withdraw at any time after three years from the date on which the Agreement entered into force, and such a withdrawal will take effect no earlier than one year from notice of withdrawal.

A state that does not wish to wait may take advantage of the flexible nature of the Agreement to “informally” withdraw by simply stepping back from its mitigation efforts and limiting or ceasing its constructive participation in the international process. The United States has announced that, despite having given notice of its withdrawal from the Paris Agreement, it will continue to participate in international climate change negotiations and meetings.⁶⁹ However, the State Department’s announcement on the subject was clear that the United States’ continued participation would be unabashedly for its own benefit, stating that its intent was “to protect U.S. interests and ensure that all future policy options remain open to the administration.”⁷⁰ Consistent with its avowed national interest, the focus of the United States’ delegation at COP23 changed from clean energy to emphasizing coal and nuclear power, and the events the delegation held at the COP reflected a focus on fossil fuel.⁷¹

A party to the Paris Agreement may exhibit its recalcitrance in a number of specific ways. It may unrepentantly breach its procedural obligations under the Agreement by failing to comply with monitoring, reporting, and verification requirements,⁷² or by failing to ratchet up its

⁶⁸ *President Trump Announces U.S. Withdrawal from the Paris Climate Accord*, WHITE HOUSE (June 1, 2017), <https://www.whitehouse.gov/articles/president-trump-announces-u-s-withdrawal-paris-climate-accord/>. A formal notice of withdrawal under Article 28 of the Paris Agreement has been deposited by the United States. See U.N. Secretary-General, United States of America: Communication, C.N.464.2017-TREATIES-XXVII.7.d (Depositary Notification) (Aug. 8, 2017), <https://treaties.un.org/doc/Publication/CN/2017/CN.464.2017-Eng.pdf>.

⁶⁹ Press Release, U.S. Dep’t of State, Communication Regarding Intent to Withdraw from Paris Agreement (Aug. 4, 2017), <https://www.state.gov/r/pa/prs/ps/2017/08/273050.htm>.

⁷⁰ *Id.*

⁷¹ See, e.g., *United States of America, MRI/NREL: The Role of More Efficient Fossil Fuels and Nuclear Power in Climate Mitigation*, U.N. CLIMATE CHANGE, <https://cop23.unfccc.int/event/united-states-of-america-mri/nrel-the-role-of-cleaner-and-more-efficient-fossil-fuels-and-nuclear-0>; see also Lisa Friedman, *Trump Team to Promote Fossil Fuels and Nuclear Power at Bonn Climate Talks*, N.Y. TIMES (Nov. 2, 2017), https://www.nytimes.com/2017/11/02/climate/trump-coal-cop23-bonn.html?_r=0.

⁷² Paris Agreement, *supra* note 10, art. 13.

NDC.⁷³ Alternatively, a party may exhibit an intention to abandon efforts to achieve its NDC through its words or actions, including: refusing to implement domestic policies to limit emissions, expanding emissions-intensive industries in a way inconsistent with the objective of its NDC, or undermining international processes and initiatives. A state's refusal to join or remain a party to the Agreement could also be treated as recalcitrance, depending on the circumstances of the state.⁷⁴ The crucial distinction between a party that is insufficiently ambitious and one that is recalcitrant is that the former remains committed to the objective of the Paris Agreement and the global climate governance project. No hard-and-fast criterion can be established to define recalcitrance. As will be seen, whether a state's behavior is recalcitrant is ultimately a matter to be assessed by the community of parties to the Paris Agreement.

The soft enforcement mechanisms of the Paris Agreement are ill-equipped to deal with recalcitrance, giving rise to potential problems for the integrity of the new global climate governance project. Major emitting states have repeatedly "shown themselves willing to accept a loss in international reputation when domestic economic priorities have been at stake."⁷⁵ On these occasions (such as the failure of the United States to ratify Kyoto, Canada's withdrawal from Kyoto, and the United States' withdrawal from Paris), it is important to observe that major emitters "not only chose domestic priorities over international concerns but actively challenged the idea of internationally agreed and legally binding emissions reduction targets."⁷⁶ Recalcitrance involves not only the elevation of domestic interests but an active challenge to the international project, making it unlikely that political or moral suasion will be effective to change the behavior of such a state. A more tangible and credible response is needed.

The remainder of the article argues that CRBTAs can be used effectively and legally as a response to recalcitrant parties under the Paris Agreement. In this way, CRBTAs can supplement the enforcement provisions of the Paris Agreement by providing a measure with a harder edge than those contained in the Agreement itself. The use of trade measures to support climate action fits within the international climate governance regime.

⁷³ *Id.* art. 4(3).

⁷⁴ A state that has failed to sign or ratify the Agreement due to internal civil or political strife would not be properly viewed as recalcitrant. The objective of the Agreement is better advanced through efforts to provide states suffering internal disorder with facilitative assistance.

⁷⁵ Falkner, *supra* note 50, at 1122.

⁷⁶ *Id.*

Article 3(5) of the UNFCCC provides that “measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.” This explicit link to the language of international trade law, and the overlap between the parties to the Paris Agreement and the GATT, makes it necessary to examine the compatibility of a CRBTA under the GATT, which Part III of this Article proceeds to do. Part IV then draws the Paris Agreement and CRBTAs together to argue that the use of CRBTAs provide a feasible and effective response to recalcitrant parties to the Paris Agreement (including the recent recalcitrant behavior of the United States).

III. CARBON-RELATED BORDER TAX ADJUSTMENTS AND THE GATT

Some countries regulate greenhouse gas emissions more than others. Differences in domestic climate change policy give rise to what is known as “carbon leakage.” Carbon leakage is used to describe the movement of emissions-intensive production toward states with no regulation, or lesser regulation, of greenhouse gas emissions.⁷⁷ The term is also used to describe a fall in the price of fossil fuels as demand is reduced in states imposing carbon regulations, leading to an increase in fossil fuel use, and thereby emissions, in other states.⁷⁸

The pathology of carbon leakage is twofold, giving rise to both an environmental and an economic narrative.⁷⁹ First, it obscures real gains in emissions policy from those driven by transnational economic reorganization. The fear of carbon leakage was particularly pervasive under the Kyoto Protocol. The differentiation of parties into Annex 1 parties (which had binding emission reduction targets) and non-Annex I parties (which had no emission reduction targets) created incentives supporting a transfer of emissions-intensive industry from developed states to industrialized developing states. Economic reorganization associated with differential climate change policy creates illusory emissions reductions in carbon-regulated states by nominally reducing domestic emissions while continuing to consume carbon-intensive products imported from states that do not

⁷⁷ Mustafa H. Babiker, *Climate Change Policy, Market Structure, and Carbon Leakage*, 65 J. INT'L ECON. 421, 422 (2005).

⁷⁸ Joshua Elliott et al., *Unilateral Carbon Taxes, Border Tax Adjustments and Carbon Leakage*, 14 THEORETICAL INQUIRIES L. 207, 208 (2013).

⁷⁹ Cf. MICHAEL TREBILCOCK, ROBERT HOWSE & ANTONIA ELIASON, *THE REGULATION OF INTERNATIONAL TRADE* 661 (Routledge 4th ed. 2013) (asserting that these two arguments are in tension with the basic theory of comparative advantage in trade law).

regulate emissions. This environmental narrative has had particular resonance in Europe.⁸⁰

A second pathology hits domestic producers, who are forced to bear the costs of local emissions-reduction policies while competing with imported products produced in jurisdictions where manufacturers are not required to internalize the cost of carbon. This economic narrative has resonated most significantly in the United States, where legislators frequently have raised concerns about the need to safeguard domestic industries and jobs, and prevent freeriding by other major economies.⁸¹ It is this second pathology where the interface between the world trading system and climate policy can be seen most clearly as it bears particular political salience.⁸²

A CRBTA is classically viewed as a response to the economic and environmental pathologies of differential unilateral domestic emissions-reduction policies. The use of BTAs to resolve the effects of differential regulation are not new or limited to the environmental context.⁸³ The core logic behind a BTA is the principle of destination,⁸⁴ which provides that goods should be taxed in the country of consumption.⁸⁵ A leveling of the playing field may be achieved by applying a BTA to imports or exports. Imports may be taxed at the border to reflect the taxes charged in the importing country on like domestic products that are not replicated in the country of origin. Similarly, tax rebates or subsidies may be provided for exported goods to reflect the lack of equivalent taxes in the destination state.

A. *Assessing the Legality of CRBTAs under the GATT*

There is well-developed literature on the technical legal hurdles that a CRBTA regime would face under the GATT and other international trade

⁸⁰ van Asselt & Brewer, *supra* note 5, at 49.

⁸¹ *Id.*

⁸² See, e.g., Robyn Eckersley, *The Politics of Carbon Leakage and the Fairness of Border Measures*, 24 ETHICS & INT'L AFF. 367, 368 (2010).

⁸³ See Paul Demaret & Raoul Stewardson, *Border Tax Adjustments under GATT and EC Law and General Implications for Environmental Taxes*, 28 J. WORLD TRADE 5, 7 (1994). Examples of border tax adjustments can be found as far back as the 18th century, such as the Whiskey Act of 1791, which imposed a federal tax on distilled spirits but rebated it on exports of whiskey. The use of border tax adjustments became increasingly formalized into international agreements in the 19th century, enshrining their place in international trade law.

⁸⁴ *Report by the Working Party on Border Tax Adjustments*, ¶ 4, GATT Doc. L/3464 (Nov. 20, 1970).

⁸⁵ *Id.* ¶ 21.

regulations.⁸⁶ This literature has gone through a number of phases. Early literature developed shortly after the signature of the UNFCCC shifted focus to the pervasive problem of climate change and other global environmental challenges identified by the international community at Rio. In that context, proposals for border taxes were raised by a number of jurisdictions, including the United States, Japan, and the European Union.⁸⁷

Further literature developed in the context of the 1997 Kyoto Protocol, particularly in response to the United States' concerns about a lack of formal emission-reduction obligations on developing states⁸⁸ and its subsequent non-participation in the Kyoto regime.⁸⁹ The concept surfaced again in the context of the fraught negotiations toward a post-Kyoto governance regime.⁹⁰ For

⁸⁶ See generally, e.g., DANIEL C. ESTY, GREENING THE GATT – TRADE, ENVIRONMENT, AND THE FUTURE 168 (1994); Demaret & Stewardson, *supra* note 83; Marco Düerkop, *Trade and Environment: International Trade Law Aspects of the Proposed EC Directive Introducing a Tax on Carbon Dioxide Emissions and Energy*, 31 COMMON MKT. L. REV. 807 (1994); Markus Schlagenhof, *Trade Measures Based on Environmental Processes and Production Measures*, 29 J. WORLD TRADE 123 (1995); Christian Pitschas, *GATT/WTO Rules for Border Tax Adjustment and the Proposed European Directive Introducing a Tax on Carbon Dioxide Emissions and Energy*, 24 GA. J. INT'L & COMP. L. 479 (1995); Raymond Cléménçon, *Global Climate Change and the Trade System: Bridging the Culture Gap*, 4 J. ENV'T & DEV. 29 (1995).

⁸⁷ Pitschas, *supra* note 86, at 479–80.

⁸⁸ See, e.g., ZhongXiang Zhang, *Greenhouse Gas Emissions Trading and the World Trading System*, 32 J. WORLD TRADE 219 (1998); Aaron Cosbey & James Cameron, *Trade Implications of the Kyoto Protocol*, POLICY MATTERS (1999), http://search.iisd.org/pdf/2008/trade_imp_kyoto.pdf; Frank E. Loy, *On a Collision Course? Two Potential Environmental Conflicts Between the U.S. and Canada*, 28 CAN.–U.S. L.J. 11, 18 (2002) (noting the possibility of a Canadian border tax adjustment vis-à-vis the United States to account for the latter's non-participation in the Kyoto Protocol); THOMAS L. BREWER, INTERNATIONAL TRADE, THE WTO AND INTERNATIONAL CLIMATE AGREEMENTS (2003), http://www.esri.go.jp/jp/prj/int_prj/prj-rc/kankyou/kankyou14/02ceps.pdf.

⁸⁹ See, e.g., Frank Biermann & Rainer Brohm, *Implementing the Kyoto Protocol without the USA: the Strategic Role of Energy Tax Adjustments at the Border*, 4 CLIMATE POL'Y 289 (2005); Gavin Goh, *The World Trade Organization, Kyoto and Energy Tax Adjustments at the Border*, 38 J. WORLD TRADE 395 (2004). Much of this literature has focused on the ability to maintain the integrity of the European Union Emissions Trading System in the face of a fragmented international climate regime. See, e.g., Javier de Cendra, *Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law*, 15 RECIEL 131 (2006); Roland Ismer & Karsten Neuhoff, *Border Tax Adjustment: A Feasible Way to Support Stringent Emission Trading*, 24 EUR. J. L. ECON. 137 (2007); Harro van Asselt & Frank Biermann, *European Emissions Trading and the International Competitiveness of Energy-Intensive Industries: A Legal and Political Evaluation of Possible Supporting Measures*, 35 ENERGY POL'Y 497 (2007); Reinhard Quick, *'Border Tax Adjustment' in the Context of Emission Trading: Climate Protection or 'Naked' Protectionism?*, 3 GLOBAL TRADE & CUST. J. 163 (2008).

⁹⁰ See, e.g., GARY C. HUFBAUER, STEVE CHARNOVITZ & JISUN KIM, GLOBAL WARMING AND THE WORLD TRADING SYSTEM (2009); Ben Lockwood & John Whalley, *Carbon-Motivated Border Tax Adjustments: Old Wine in Green Bottles?*, 33 WORLD ECON. 810 (2010); M. Benjamin Eichenberg, *Greenhouse Gas Regulation and Border Tax Adjustments: The Carrot and the Stick*, 3 GOLDEN GATE U. ENVT'L L.J. 283 (2010); Jon M. Truby, *Towards Overcoming the Conflict Between Environmental Tax Leakage and Border Tax Adjustment Concessions for Developing Counties*, 12 VT. J. ENVT'L L. 149 (2010); Charles E. McLure, *The Carbon-Added Tax: An Idea Whose Time Should Never Come*, 3 CARBON & CLIMATE L. REV. 250 (2010); Kateryna Holzer, *Proposals on Carbon-related Border Adjustments: Prospects for WTO Compliance*, 4 CARBON & CLIMATE L. REV. 51 (2010).

example, a number of bills were put before the United States Congress that would have imposed various trade measures had they been enacted.⁹¹ For the most part, the literature on CRBTAs has recognized the possibility of creating a legal measure, while at times questioning the practical feasibility and the political or economic wisdom of such measures. CRBTAs should not be seen separately from the existing literature on BTAs.⁹²

The following subparts address the key legal hurdles facing a CRBTA under the GATT. First, the principle of national treatment requires that imported products be accorded no less favorable treatment than like domestic products. Second, the principle of non-discrimination precludes states using trade measures that discriminate on the basis of the national origin of a product. Finally, the GATT contains a number of justifications that preserve measures that would otherwise infringe primary obligations of the Agreement. A lawful carbon-related border tax adjustment must accord with the principles of national treatment and non-discrimination or fall within one of the justifications provided. These issues are considered in turn.

B. National Treatment

The requirement of national treatment under Article III of the GATT prohibits discriminatory conduct—parties treating imported products less favorably than “like” domestic products. Before considering the implications of the national treatment requirement further, it is first necessary to elaborate on the requirements of Article II of GATT, which provide a starting point for the imposition of BTAs on imported products.

Article II(1) places a ceiling on the level of import duties that may be imposed by requiring such duties to be no less favorable than those listed in the relevant schedule of concessions.⁹³ However, Article II(2)(a) provides that, notwithstanding these ceilings, a state is not prevented from imposing a charge that is “equivalent to an internal tax” in respect to either a “like domestic product” or “in respect of an article from which the imported product

⁹¹ Valentina Durán Medina & Rodrigo Polanco Lazo, *A Legal View on Border Tax Adjustments and Climate Change: A Latin American Perspective*, 11 SUSTAINABLE DEV. L. & POL'Y 29, 30–31 (2011). The proposed United States measures included the Lieberman-Warner Climate Security Act of 2008, the Climate Market Auction Trust and Trade Emissions Reduction System Act of 2008, and the American Clean Energy and Security Act of 2009.

⁹² Lockwood & Whalley, *supra* note 90, at 815.

⁹³ General Agreement on Tariffs and Trade art. II(1), Oct. 30, 1947, 55 U.N.T.S. 194 [hereinafter GATT].

has been manufactured or produced in whole or in part.”⁹⁴ A BTA will normally adjust for indirect taxes (taxes levied on products) but not direct taxes (taxes levied on individuals, not products), the logic being that indirect taxes will usually be passed on to the consumer through the final purchase price.⁹⁵

In order to be lawful as an indirect product tax, there must be a “nexus” between the border tax and the product to bring the tax within the provisions of Article II permitting the imposition of border charges.⁹⁶ This nexus arises when the carbon tax on imports is directed at leveling the playing field between like products in the destination jurisdiction.⁹⁷ If the border tax was not connected to the domestic regulatory regime, the tax would be classified as “other duties or charges” under Article II(1)(b) rather than “internal taxes” under the notwithstanding provision in Article II(2)(a).⁹⁸

1. “Like Products” and Excess

The reference to internal taxes in Article II(2)(b) provision is expressly qualified by reference to the national treatment obligation in Article III(2). This provides that imported products “shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products.”⁹⁹ A similar test applies in respect to the exemption of exported products from domestic taxes where those products are destined for a jurisdiction that does not regulate emissions.¹⁰⁰ In *Canada – Certain Measures Concerning Periodicals*, the WTO Appellate Body broke this provision down into qualitative and quantitative elements.¹⁰¹ First, it is necessary to determine whether the

⁹⁴ *Id.* art. II(2)(a).

⁹⁵ de Cendra, *supra* note 89, at 138.

⁹⁶ Christine Kaufmann & Rolf H. Weber, *Carbon-Related Border Tax Adjustment: Mitigating Climate Change or Restricting International Trade?*, 10 *WORLD TRADE REV.* 497, 520 (2011).

⁹⁷ *Id.* at 520.

⁹⁸ de Cendra, *supra* note 89, at 141 (“The distinction between them is that duties and charges apply exclusively to imported products without being related in any way to similar charges collected internally on like domestic products.”).

⁹⁹ GATT, *supra* note 93, art. III(2).

¹⁰⁰ Marrakesh Agreement Establishing the World Trade Organization, Agreement on Subsidies and Countervailing Measures, Annex 1A, Apr. 15, 1994, 1869 U.N.T.S. 14; THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 229 (1999) (“[T]he exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy.”).

¹⁰¹ Appellate Body Report, *Canada – Certain Measures Concerning Periodicals*, WTO Doc. WT/DS31/AB/R (adopted Jul. 30, 1997); *see also* Appellate Body Report, *European Communities –*

imported and domestic products are “like” products. If so, it is then necessary to examine the quantitative question of whether the internal tax on imported products exceeds the tax on domestic products.

The first of the *Periodicals* elements—whether the products are “like”—poses the biggest hurdle to a lawful CRBTA. The extent to which the determination of likeness can take into account processes and production methods remains unclear in WTO jurisprudence. In particular, it is not clear whether different processes and production methods—whether incorporated into the final product or not—enable products to be treated differently (i.e. as *unlike* products).¹⁰² Nevertheless, it is possible to undertake an assessment of the parameters and considerations that factor into a determination on the question of likeness.

The WTO Appellate Body has compared the “likeness” criterion to an “accordion” which “stretches and squeezes in different places as different provisions of the WTO Agreement are applied.”¹⁰³ This indicates the contextual nature of the likeness assessment, which varies according to the circumstances of each case.¹⁰⁴ The initial guidance of the WTO’s working party on BTAs recognized the issue as one to be determined in each case, turning on criteria including: the end uses of a product in a given market; consumers’ tastes and habits; and the properties, nature, and quality of the product.¹⁰⁵ A related approach is to assess “likeness” according to the degree of product substitutability in a competitive market.¹⁰⁶ This accords with the overarching purpose of Article III(2), which is to require “equality of competitive conditions for imported products in relation to domestic products.”¹⁰⁷ The “conditions of competition” were a fundamental feature of

Measures Affecting Asbestos and Asbestos Containing Products, WTO Doc. WT/DS135/AB/R (adopted Mar. 12, 2001).

¹⁰² Kaufmann & Weber, *supra* note 96, at 520.

¹⁰³ Appellate Body Report, *Japan – Taxes on Alcoholic Beverages*, 21, WTO Doc. WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (adopted Oct. 4, 1996) [hereinafter *Japan – Taxes on Alcoholic Beverages*].

¹⁰⁴ William J. Davey & Joost Pauwelyn, *MFN-Unconditionality: A Legal Analysis of the Concept in View of Its Evolution in the GATT/WTO Jurisprudence with Particular Reference of the Issue of “Like Product”*, in *REGULATORY BARRIERS AND THE PRINCIPLE OF NON-DISCRIMINATION IN THE WORLD TRADE LAW: PAST, PRESENT, AND FUTURE* 13, 25–36 (Thomas Cottier & Petros C. Mavroidis eds., 2000); *see also Japan – Taxes on Alcoholic Beverages*, *supra* note 103, at 21 (“The accordion of ‘likeness’ stretches and squeezes in different places different provisions of the WTO Agreement are applied.”).

¹⁰⁵ *Report by the Working Party on Border Tax Adjustments*, *supra* note 84, ¶ 18.

¹⁰⁶ KOMMERSKOLLEGIUM, *CLIMATE MEASURES AND TRADE, LEGAL AND ECONOMIC ASPECTS OF BORDER CARBON ADJUSTMENTS* 12 (2009).

¹⁰⁷ *Japan – Taxes on Alcoholic Beverages*, *supra* note 103, at 16–17.

the decision of the WTO Appellate Body in the *Korea – Beef* case, finding that a measure modifying the conditions of competition in the relevant market amounted to less favorable treatment if it detrimentally affected imported products.¹⁰⁸

The second *Periodicals* element is a quantitative assessment of whether the border tax adjustment on imported products is “in excess” of the internal tax for like domestic products. The threshold of “excess” is an absolute one, meaning “even the smallest amount of ‘excess’ is too much” and enough to render the measure unlawful.¹⁰⁹ The strict restriction on the application of excess taxation has important design implications for a national government, requiring considerable caution when setting a BTA.¹¹⁰

2. Process and Production Methods

Article II(2)(a) permits the levying of taxes on any “article from which the imported product has been manufactured or produced in whole or in part.”¹¹¹ This raises the possibility of levying taxes referable to the energy used in the production process of an imported product,¹¹² a matter of importance to the possible scope of a CRBTA. However, a BTA related to production processes must accord with the national treatment requirement in Article III(2), which prohibits the application of any internal taxes, directly or indirectly, to imports in excess of those applied, directly or indirectly, to like domestic products.¹¹³ A challenge arises in the application of Article III(2) in the context of taxes referable to the processes and production methods of an imported product, as opposed to the product itself.¹¹⁴

¹⁰⁸ Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, ¶¶ 137–44, WTO Doc. WT/DS169/AB/R, WT/DS161/AB/R (adopted Dec. 11, 2000) [hereinafter *Korea – Beef*].

¹⁰⁹ *Japan – Taxes on Alcoholic Beverages*, *supra* note 103, at 23.

¹¹⁰ Weber, *supra* note 1, at 412 (“ . . . [A] national government should be cautious when determining the amount of the BTA, taking particular care of avoid levying a higher carbon tax on imported products than on domestic ones.”).

¹¹¹ GATT, *supra* note 93, art. III(2)(a).

¹¹² See, e.g., Demaret & Stewardson, *supra* note 83, at 18–20; Frank Biermann & Rainer Brohm, *Border Adjustments on Energy Taxes: A Possible Tool for European Policymakers in Implementing the Kyoto Protocol?*, 74 VIETRELAHRSHEFTE ZUR WIRTSCHAFTSFORSCHUNG 249 (2005).

¹¹³ GATT, *supra* note 93, art. III(2).

¹¹⁴ See, e.g., Charles E. McLure, Jr., *A Primer on the Legality of Border Adjustments for Carbon Prices: Through a GATT Darkly*, 4 CARBON & CLIMATE L. REV. 456, 460 (2011).

A distinction can be drawn between processes of product that are incorporated into a final product and those that are not.¹¹⁵ The *U.S. Superfund* case concerned the imposition of a tax on imported substances produced or manufactured using certain regulated chemicals.¹¹⁶ The BTA was set equal to the amount of domestic tax that would have been imposed on the incorporated chemicals in the domestic market.¹¹⁷ The GATT Panel allowed the application of border adjustment on ingredients physically incorporated into the manufactured substances.¹¹⁸ Of course, in this case, the chemicals constituted part of the chemical composition of the imported product. The application of BTAs referable to energy used in the manufacture of an imported product, but not forming part of the product itself, is the subject of academic controversy and remains unresolved in WTO jurisprudence.¹¹⁹

Kaufmann and Weber argue that the application of a BTA associated with energy consumption used in making a product is “questionable.”¹²⁰ They correctly observe that a BTA can only be applied to *products*.¹²¹ This must be so—an importing state has no jurisdiction to tax processes or methods of production in another state directly. They also observe, again correctly, that the application of a BTA requires an existing domestic tax. These two features, they argue, mean that “charges on imports which are not related to a domestic tax are not BTA under WTO law, and taxes which are not applied to products are not border-adjustable.”¹²²

However, there is no reason, in principle or in the text of Article III(2), to preclude the application of an adjustment referable to energy used in the manufacture of an imported product. Article III(2) includes taxes “applied, directly or indirectly, to like domestic products.” The reference to “indirectly” refers to taxes that are not applied to the products themselves but are associated with the product.¹²³ That a BTA must be applied *to a product* is of no moment. Article III(2) does not require the application of *like taxes*; it

¹¹⁵ Joost Pauwelyn, *U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law* 20–21 (Duke U., Nicholas Inst. for Env'tl. Pol'y Sol., Working Paper NI WP 07-02, 2007).

¹¹⁶ Report of the Panel, *United States – Taxes on Petroleum and Certain Imported Substances*, L/6175 (June 17, 1987), GATT BISD (34th Supp.), at 136 (1988).

¹¹⁷ *Id.* ¶ 5.2.8.

¹¹⁸ *Id.* ¶ 5.2.10.

¹¹⁹ See, e.g., *id.* at 20; Kaufmann & Weber, *supra* note 96, at 502–03; *Report by the Working Party on Border Tax Adjustments*, *supra* note 84, ¶ 15.

¹²⁰ Kaufmann & Weber, *supra* note 96, at 503.

¹²¹ *Id.*

¹²² *Id.*

¹²³ Pauwelyn, *supra* note 115, at 20.

simply provides that imported products should not be subject to internal taxes exceeding those applied to *like domestic products*. So, while Article III(2) requires an existing domestic tax, it is the burden of the tax, rather than its form, that is legally significant.

The text of Article III(2) does not prevent an importing country from applying a tax directly to an imported good representing the differential in production cost arising from taxes indirectly applied to like domestic goods through the taxation of energy used in their production and that are not imposed in exporting country. Article III(2) only requires that the burden of the tax on the imported product not exceed the burden on like domestic products.¹²⁴ This is consistent with the purpose of Article III(2), which is to permit the equalization of regulation regimes across jurisdictions so that no product has a competitive advantage simply because the exporting state does not regulate. Article III(2) relates to all taxes that might affect the competitiveness of a product. Accordingly, it is consistent with the text of Article III(2) and its purpose to include taxes on inputs to production, whether or not those inputs are directly incorporated into the product itself. Nevertheless, the issue remains controversial in WTO jurisprudence and it is difficult to predict how the question will ultimately be resolved.¹²⁵

3. Prohibition on Protection of Domestic Production

Finally, Article III(2) prevents states from applying internal taxes or charges to imported or domestic products in a manner contrary to Article III(1).¹²⁶ Article III(1) contains a general prohibition on protectionist internal regulation, providing that domestic taxes and regulations should not be applied so as to “afford protection to domestic production.”¹²⁷ In short, a BTA on an imported product must be equivalent to an internal tax on a like domestic product, and it must comply with the national treatment principle contained in Article III.

C. *Non-Discrimination / Most Favored Nation*

A BTA on an imported product must not offend the most favored nation principle embodied in Article I(1). Under Article I(1), “any advantage,

¹²⁴ GATT, *supra* note 93, art. III(2).

¹²⁵ Weber, *supra* note 1, at 414.

¹²⁶ GATT, *supra* note 93, art. III(2).

¹²⁷ *Id.* art. III(1).

favour, privilege or immunity” granted to any party “shall be accorded immediately and unconditionally to the like product originating in or destined for” all other parties.¹²⁸ This principle requires a state to accord like privileges to any product originating in its state or destined for another state to like products originating in or destined for any other state.¹²⁹

The most favored nation principle ought not to be problematic for a CRBTA, which distinguishes on the basis of a state’s regulation of greenhouse gas emissions rather than the national origin of the product.¹³⁰ However, the WTO Appellate Body has taken a broad interpretation of Article I(1), prohibiting both de jure and de facto discrimination where measures do not on their face appear to discriminate on the basis of national origin.¹³¹ On this basis, Kaufmann and Weber argue that CRBTAs might be subject to challenge on the ground that they involve de facto discrimination on the grounds of national origin.¹³² They give the example of imposing measures on imports from a specific WTO member with carbon-intensive production methods.¹³³ The targeting of a measure against a specific party creates problems despite an ostensible environmental justification.

At first blush, a prohibition on de facto discrimination appears to be a significant hurdle for the application of CRBTAs against recalcitrant parties to the Paris Agreement. Such measures would be based on climate policy rather than national origin, but by targeting a specific state, they could give rise to allegations of discrimination. Ultimately, any contest about whether a BTA amounts to de facto discrimination on the basis of national origin will depend on the evidence in the particular case. It is likely to be easier to establish the legitimacy of a measure where it has a close nexus to conduct referable to obligations under the Paris Agreement or the measure exempts foreign producers that are taking appropriate action to reduce greenhouse gas emissions, even if their state is not. The UNFCCC and the GATT arguably point in the same direction.¹³⁴ Article 3.5 of the UNFCCC prohibits climate change measures that “constitute a means of arbitrary or unjustifiable

¹²⁸ *Id.* art. I(1).

¹²⁹ Appellate Body Report, *Canada – Autos*, ¶ 84, WTO Doc. WT/DS139/AB/R, WT/DS142/AB/R (adopted May 31, 2000) [hereinafter *Canada – Autos*] (“The object and purpose of Article I:1 supports our interpretation. That object and purpose is to prohibit discrimination among like products originating in or destined for different countries.”).

¹³⁰ Weber, *supra* note 1, at 412.

¹³¹ *Canada – Autos*, *supra* note 129, ¶ 78.

¹³² Kaufmann & Weber, *supra* note 96, at 503.

¹³³ *Id.*

¹³⁴ *Id.*

discrimination or a disguised restriction on international trade.” This aligns with the prohibition on discrimination in GATT and highlights the need for justification and rationality of any trade measures imposed in furtherance of climate action.

D. Justifications

The GATT provides a series of grounds that enable a state to justify trade measures that otherwise violate the provision of the Agreement.¹³⁵ These are exhaustively set out in Article XX. Two have particular relevance to environmental measures. Article XX(b) provides an exception for measures “necessary to protect human, animal or plant life or health.”¹³⁶ Article XX(g) excludes measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” These exceptions have been used to justify a range of national measures aimed at protecting human health and the environment, including measures related to the consumption of cigarettes, asbestos, the accumulation of waste tires, air quality, and the consumption of both renewable and non-renewable resources.¹³⁷ The exceptions also extend to measures-linked production processes in foreign countries.¹³⁸

The term “exhaustible natural resources” in Article XX(g) appears to be narrow and a product of the time of its drafting, when environmental issues had yet to garner much political salience. However, the WTO Appellate Body has construed Article XX(g) to have a wide ambit, encompassing both biological resources and environmental systems. Importantly, it is not limited to resources traditionally considered to be “non-renewable.”¹³⁹ The provision has been extended to cover depletion of stocks of fish, dolphins, and endangered turtles, which the Appellate Body has determined are no less exhaustible or finite than traditional non-renewable resources such as

¹³⁵ One area in which justifications have particular relevance in the present context is where a CRBTA is levied to address the burden of domestic command-and-control regulation (rather than domestic taxes) as a charge of this sort would be an “other charge” prohibited by Article II of GATT rather than a charge “equivalent to an internal tax . . . imposed the like domestic product.” See TREBILCOCK ET AL., *supra* note 79, at 687.

¹³⁶ GATT, *supra* note 93, art. XX(b).

¹³⁷ Kaufmann & Weber, *supra* note 96, at 512.

¹³⁸ HUFBAUER ET AL., *supra* note 90, at 60.

¹³⁹ See, e.g., Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WTO Doc. WT/DS58/AB/R (adopted Oct. 12, 1998) [hereinafter *U.S. – Shrimp*].

petroleum or iron ore.¹⁴⁰ The Appellate Body has taken the provision even further, holding that “a policy to reduce the depletion of clean air was a policy to conserve a natural resource within the meaning of Article XX(g).”¹⁴¹ By extending the provision to encompass clean air as a resource, the Appellate Body has left the door open to treat the atmospheric system as an exhaustible natural resource. It is likely that the Appellate Body would apply the provision in this way, by either treating that atmospheric system as a natural resource or by focusing on the effects of climate change on specific threatened plants and animals.¹⁴²

Article XX(b) is also applicable to justify measures protecting the environment. The WTO Appellate Body has an expansive interpretation of the provision, taking it beyond its text that connects it to the protection of human, animal or plant life or health. In *Brazil – Retreaded Tyres*, the Appellate Body held that Article XX(b) extended to the general protection of the environment.¹⁴³ It supported this interpretation by reference to the complexity of environmental problems, which require comprehensive policies “comprising a multiplicity of interacting measures.”¹⁴⁴ Measures to “attenuate global warming and climate change” were singled out as an example of a complex regulatory challenge.¹⁴⁵ Article XX(b) and (g) are likely to work in harmony in the context of measures that relate to climate protection.

The WTO Appellate Body will not scrutinize the policy choices of states, who retain discretion to determine their own policy goals and priorities.¹⁴⁶ To establish a justification under Article XX, it is necessary for the state imposing the impugned measure to establish that the measure was necessary by showing that it was indispensable or proportional. An indispensable measure is one that provides the only means of achieving a state’s desired policy objective.¹⁴⁷ If other measures could also achieve the

¹⁴⁰ *Id.* ¶ 128.

¹⁴¹ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, ¶ 6.37, WTO Doc. WT/DS2/R (adopted Jan. 29, 1996).

¹⁴² Kaufmann & Weber, *supra* note 96, at 512; Pauwelyn, *supra* note 115, at 35; KOMMERSKOLLEGIUM, *supra* note 106, at 14; Jochem Wiers, *French Ideas on Climate and Trade Policies*, 1 CARBON CLIMATE L. REV. 18, 24–26 (2008).

¹⁴³ Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WTO Doc. WT/DS332/R, (adopted Dec. 3, 2007) [hereinafter *Brazil – Retreaded Tyres*].

¹⁴⁴ *Id.* ¶ 151.

¹⁴⁵ *Id.*

¹⁴⁶ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, 28, WTO Doc. WT/DS2/AB/R (adopted Apr. 29, 1996) [hereinafter *U.S. – Gasoline*].

¹⁴⁷ *Korea – Beef*, *supra* note 108, ¶ 164.

policy objective, the chosen measure can be justified as proportional if no less restrictive measure is “reasonably available.”¹⁴⁸ The measure must be shown to make an actual contribution to the environmental objective and must not be overbroad.¹⁴⁹ Necessity is a flexible standard—a member gets to choose its “own level of protection”¹⁵⁰—but the threshold will be more readily demonstrated in respect to objectives of significant value or importance.¹⁵¹ The fundamental role of the climate system for the sustenance of human existence means it ought to be recognized as an interest of the highest order of significance. To this end, the WTO Appellate Body ought to allow states substantial deference when assessing the necessity of measures implemented in furtherance of climate policy objectives as spelled out in the 2015 Paris Agreement.

It is also necessary for a state to establish that the measure sought to be justified accords with the chapeau of Article XX. The chapeau prohibits the justification of measures that are protectionist, reflecting the core principles of international trade law.¹⁵² This ensures that the exceptions in Article XX are invoked in good faith, rather than to circumvent the substantive provisions of the GATT.¹⁵³ The prevailing approach of the Appellate Body first considers whether the measure is discriminatory vis-à-vis domestic producers or other states.¹⁵⁴ It then examines whether any identified discrimination is protectionist by assessing whether it is “arbitrary or unjustifiable” or whether it amounts to a “disguised restriction on international trade.”¹⁵⁵ The Appellate Body’s assessment is comparative and relative, as the relevant discrimination is “between countries where the same conditions prevail.”¹⁵⁶ In *U.S. – Shrimp*, the Appellate Body held that the “same conditions” went further than

¹⁴⁸ Report of the Panel, *United States – Section 337 of the Tariff Act of 1930*, ¶ 5.26, L/6439 (Nov. 7, 1989), GATT BISD (36th Supp.), at 345 (1989).

¹⁴⁹ Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, ¶ 290, WTO Doc. WT/DS363/AB/R (adopted Dec. 21, 2009).

¹⁵⁰ *Korea – Beef*, *supra* note 108, ¶¶ 162–64. A cost-benefit balancing exercise is not necessarily required. See Donald H. Regan, *The Meaning of ‘Necessary’ in GATT Article XX and GATS Article XIV: The Myth of Cost-Benefit Balancing*, 6 WORLD TRADE REV. 347 (2007).

¹⁵¹ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 172, WTO Doc. WT/DS135/AB/R (adopted Mar. 12, 2001).

¹⁵² GATT, *supra* note 93, art. XX.

¹⁵³ *Brazil – Retreaded Tyres*, *supra* note 143, ¶ 215.

¹⁵⁴ *U.S. – Gasoline*, *supra* note 146, at 22–23.

¹⁵⁵ *Id.* at 23.

¹⁵⁶ *Id.*

countries governed by the same international treaty regime to the substantive appropriateness of regulatory measures prevailing in exporting states.¹⁵⁷

The Appellate Body in the *Brazil – Retreaded Tyres* decision set out the test to be applied to determine whether a measure is “arbitrary or unjustifiable.”¹⁵⁸ A measure is “arbitrary or unjustifiable” where there is discrimination and “the reasons given for this discrimination bear no rational connection to the objective falling within the purview of a paragraph of Article XX, or would go against that objective.”¹⁵⁹ The “no rational connection” threshold is a high one that will rarely be established where a legitimate policy is implemented.

Finally, in *U.S. – Shrimp*, the Appellate Body found that the application of trade measures by the United States was unjustifiable because the United States had not negotiated with the complainant countries, but it had negotiated with other countries.¹⁶⁰ The United States had also failed to raise the issue of turtle conservation in a relevant multilateral environmental agreement forum and to ratify relevant treaties on turtle conservation.¹⁶¹ The Appellate Body subsequently reiterated that the complaining states should be given opportunities to negotiate international agreements “comparable from one forum of negotiation to the other.”¹⁶² The primacy of cooperative action was also recognized by the Appellate Body in *U.S. – Gasoline*, which criticized the United States for failing to pursue cooperative agreements.¹⁶³ The wide ratification of the Paris Agreement, and the argument advanced here that CRBTAs will be linked to recalcitrant states under that agreement, make it likely that justification will be established.

E. Towards a Lawful Measure

The preceding analysis demonstrates the contours required for a CRBTA measure that complies with the requirements of GATT. Such a measure would equalize the effects of emissions-reduction regulation on like

¹⁵⁷ *U.S. – Shrimp*, *supra* note 139, ¶ 165.

¹⁵⁸ *Brazil – Retreaded Tyres*, *supra* note 143, ¶ 227.

¹⁵⁹ *Id.*

¹⁶⁰ *U.S. – Shrimp*, *supra* note 139, ¶ 172.

¹⁶¹ *Id.* ¶ 171.

¹⁶² Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products – Recourse to Article 21.5 of the DSU by Malaysia*, ¶ 122, WTO Doc. WT/DS58/AB/RW (adopted Oct. 22, 2001).

¹⁶³ Efforts to negotiate were required but they did not need to be successful. See *U.S. – Gasoline*, *supra* note 141, at 27–28.

products between trading partners. Any discrimination would need to be justified on the basis of different levels of emissions regulation rather than national origin. If compliance issues arose under the national treatment or non-discrimination provisions of GATT, a CRBTA could be saved by application of the exception in Article XX if it was transparent and followed best regulatory practices and standards.¹⁶⁴ The legality of any particular CRBTA measure would ultimately depend on assessment under WTO adjudication, but, as Hufbauer has observed, “[Appellate Body] rulings in previous cases . . . show considerable sympathy with environmental concerns and have increased the likelihood that trade restrictions in furtherance of GHG emissions controls would pass muster under WTO rules.”¹⁶⁵

The greatest challenge to designing a CRBTA regime is the “devilishly complicated” task of practical design and implementation,¹⁶⁶ issues that are beyond the scope of this article. The regime must account accurately for the differential treatment of emissions embodied in, or referable to, different products. Accurately identifying the level of emissions associated with different products can be challenging, and any assessment may be subject to challenge. The final Part of this Article addresses how CRBTAs can be used to complement the multilateral regime established by the Paris Agreement.

IV. MAKING CRBTAS A REALITY: THE INTERNATIONAL POLITICAL ECONOMY GLOBAL CLIMATE GOVERNANCE AFTER THE PARIS AGREEMENT

This Article began with the observation that there is a disconnect between the academic case for CRBTAs in support of unilateral climate change action and the absence of any example of such measures being deployed. One possible explanation is that states remain unsure of the legality of such measures and do not want to risk an adverse determination upon

¹⁶⁴ TREBILCOCK ET AL., *supra* note 79, at 690.

¹⁶⁵ *Climate Change: Competitiveness Concerns and Prospects for Engaging Developing Countries: Hearing Before the Subcomm. on Energy & Air Quality of the H. Comm. on Energy & Commerce*, 110th Cong. 5 (2008) (testimony of Gary C. Hufbauer, Peterson Institute for International Economics), <https://piie.com/publications/papers/hufbauer0308.pdf>.

¹⁶⁶ See, e.g., Aaron Cosbey & Carolyn Fischer, *International Guidance for Border Carbon Adjustments to Address Carbon Leakage*, in TOWARD A NEW CLIMATE AGREEMENT: CONFLICT, RESOLUTION AND GOVERNANCE 220, 220 (2014); AARON COSBY ET AL., A GUIDE FOR THE CONCERNED: GUIDANCE ON THE ELABORATION AND IMPLEMENTATION OF BORDER CARBON ADJUSTMENT (2012); Warwick J. McKibbin & Peter J. Wilcoxon, *The Economic and Environmental Effects of Border Tax Adjustments for Climate Policy*, in CLIMATE CHANGE, TRADE AND COMPETITIVENESS: IS A COLLISION INEVITABLE? 1, 23 (Lael Brainard & Isaac Sorkin eds., 2009).

challenge, or states may be unable to overcome practical challenges involved in the design of a lawful CRBTA. The disconnect might also be explained by the relatively small number of states that unilaterally have placed meaningful regulations on a significant proportion of their domestic greenhouse gas emissions.

The most plausible explanation, however, is political. The implementation of a unilateral BTA is likely to be poorly received by domestic interests within a trading partner state.¹⁶⁷ A BTA that is seen as illegitimate may provoke trade retaliation or legal challenge. The European Union fought such a fight when it enacted a directive requiring international commercial aviation arriving at or departing from an EU airport to meet obligations under its emissions trading system.¹⁶⁸ The EU's controversial leadership in the face of then-stagnant negotiations on international aviation emissions provoked a "chorus of complaints."¹⁶⁹ Retaliation was swift. Both China and the United States took domestic steps to allow their airlines to disregard the EU requirements, and China reacted directly by freezing an order to purchase an Airbus A330 aircraft estimated to be worth USD \$6 billion.¹⁷⁰ In the face of pressure, the EU ultimately chose to suspend its aviation directive.¹⁷¹

What reason is there to believe that political life can be breathed into a proposal to use CRBTAs to complement the enforcement provisions of the Paris Agreement? This Article argues that there are three reasons to believe that the use of CRBTAs against recalcitrant parties to the Paris Agreement is

¹⁶⁷ Initial proposals by the European Parliament (resolutions 2005/2049) to deploy "border adjustment measures" against the United States in response to its failure to participate in the Kyoto Protocol were not advanced in view of concerns about trading relations with the United States and the possibility of a successful WTO challenge. See THOMAS L. BREWER, *THE TRADE AND CLIMATE CHANGE JOINT AGENDA* 9 (2008). Moreover, most states prefer to be act and be identified as "multilateralists," with the exception of the willingness of the United States to act unilaterally in the international environmental governance realm in the case of international inaction. See Daniel C. Esty, *Unpacking the Trade and Environment Conflict*, 25 L. & POL'Y INT'L BUS. 1259, 1268–69 (1994).

¹⁶⁸ See generally Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, 2009 O.J. (L 8).

¹⁶⁹ Vicki L. Birchfield, *Coercion with Kid Gloves? The European Union's Role in Shaping a Global Regulatory Framework for Aviation Emissions*, 22 J. EUR. PUB. POL'Y 1276, 1286 (2015).

¹⁷⁰ *Id.*

¹⁷¹ However, as Birchfield observes, the Europeans had the last laugh. She argues that the leadership shown by the European Union, though unpopular, was the primary driver for the 2013 International Civil Aviation Organization (ICAO) resolution committing signatories to developing a global market-based measure to address greenhouse gas emissions from international aviation. *Id.* at 1290–91. An offsetting based market measure was ultimately adopted by ICAO in October 2016. See Uwe M. Erling, *International Aviation Emissions Under International Civil Aviation Organization's Global Market Based Measure: Ready for Offsetting?*, 42 AIR & SPACE L. 1 (2017).

likely to become politically feasible in the near future. First, the Paris Agreement represents a paradigm shift in the international status quo. Having broken through the “firewall” of the Kyoto Protocol, new political dynamics are emerging in the climate governance field that wield significant economic might. Second, the CRBTAs proposed in this Article are linked to the Paris Agreement. Associating CRBTAs with a multilateral agreement, rather than unilateral climate action, changes the dynamics of implementation. Finally, there has been a demonstrable shift in the international political discourse following the election of President Trump in the United States. President Trump’s announcement of the United States’ withdrawal from the Paris Agreement, the reduction of emissions mitigation policies, and the expansion of emitting activities have been met by international calls to utilize trade measures to maintain the integrity of the global climate governance project.¹⁷²

A. *A Paradigm Shift at Paris?*

The wide participation in the Paris Agreement¹⁷³ appears to signal a new paradigm of international climate governance. Most significantly, the Agreement broke down the “firewall” of hard differentiation established by the Kyoto Protocol. Under the Paris Agreement, developing and developed countries alike have pledged to work toward increasingly ambitious quantitative goals of emissions reduction. It is a mark of the unique design of the Paris Agreement that the developing world has taken on a truly active role in the global climate mitigation project without needing to disavow its claims of differential responsibility and capability. China has emerged as the head of this new non-Annex 1 presence and its contribution to the success of the Paris conference signals its active and constructive participation in multilateral international climate governance as the “new normal.”¹⁷⁴

Importantly, the Paris Agreement represents a model that has been able to “better align international climate *policy* with the realities of international climate *politics*.”¹⁷⁵ It deftly avoided the roadblocks that had plagued

¹⁷² See *infra* notes 184–186.

¹⁷³ The Paris Agreement provided that it would enter into force upon ratification by at least 55 countries producing at least 55% of the world’s greenhouse gas emissions. This occurred following the ratification of the European Union and the Agreement entered into force on Nov. 4, 2016. See Paris Agreement, *supra* note 10, art. 21.

¹⁷⁴ Isabel Hilton & Oliver Kerr, *The Paris Agreement: China’s ‘New Normal’ Role in International Climate Negotiations*, 17 CLIMATE POL’Y 48, 50–51 (2017); Yun Gao, *China’s Response to Climate Change Issues after the Paris Climate Change Conference*, 7 ADVANCES CLIMATE CHANGE RES. 235, 239 (2016).

¹⁷⁵ Falkner, *supra* note 50, at 1119.

international climate negotiations—legal bindingness and equitable burden sharing—while producing a well-subscribed agreement pointing in a positive direction.¹⁷⁶ It is, of course, far too early to assess whether the Paris Agreement has resulted in a new paradigm. It is unlikely that a single international conference or agreement can produce a paradigm shift.¹⁷⁷ Nevertheless, the Agreement has caused a directional shift¹⁷⁸ that builds on and continues a “new logic” of international climate politics focused on domestic action and international transparency.¹⁷⁹

The lack of political cohesiveness has been a major argument against CRBTAs.¹⁸⁰ However, the “new logic” of international climate politics has the potential to project a new political cohesiveness in favor of the international climate governance project. The legitimacy of the Paris regime—evidenced by significant state buy-in, particularly from major emitters and the developing world—emboldens the cooperation of states with a shared objective of emissions reduction.¹⁸¹ This political cohesiveness provides the foundation for the use of CRBTAs against recalcitrant parties. The Paris Agreement provides a new psychological status quo, making departures more challenging to justify.¹⁸²

The risk remains that states with major economies would follow a major economic power—like the United States—out of the Agreement, or that a CRBTA would prove to be illusory in its ability to alter the behavior of a recalcitrant state. After all, who has sufficient power to enforce a border tax adjustment, especially in the face of a major economic power (such as the United States or China) that simply refuses to pay?¹⁸³ The political power derived from the broad consensus reached at Paris provides the answer. Of course, the effective implementation of a CRBTA measure in support of the Paris Agreement will rely on the political consensus established at Paris surviving the delinquency of major players like the United States or China.

¹⁷⁶ *Id.*; see, e.g., Bodansky, *supra* note 40, at 316.

¹⁷⁷ Robert O. Keohane & David G. Victor, *Cooperation and Discord in Global Climate Policy*, 6 NATURE CLIMATE CHANGE 570, 574 (2016).

¹⁷⁸ Richard Kinley, *Climate Change after Paris: From Turning Point to Transformation*, 17 CLIMATE POL'Y 9, 9 (2017).

¹⁷⁹ Falkner, *supra* note 50, at 1117–20.

¹⁸⁰ Brooks, *supra* note 6, at 424.

¹⁸¹ The agreement has been signed by 194 states and the European Union. See Paris Agreement, *supra* note 10.

¹⁸² Arden Rowell & Josephine van Zeben, *A New Status Quo? The Psychological Impact of the Paris Agreement on Climate Change*, 7 EUR. J. RISK REG. 49 (2016).

¹⁸³ Brooks, *supra* note 6, at 424.

The argument here is that the new logic of international climate politics means it is now more likely than ever that the international climate governance project could survive a major defection. The same cooperative foundations underlying the Paris Agreement can be used to coordinate a trade-based response towards a recalcitrant party.

B. The Multilateral Context

A key feature of post-Paris international climate politics is a reinvigoration of the multilateral environment. This Article's proposal to link a CRBTA to a multilateral regime in the form of the Paris Agreement distinguishes it from traditional CRBTA proposals that are usually deployed to support unilateral action. To date, states have been unwilling to enact unilateral CRBTAs, appearing to view the potential costs of retaliation as greater than the trade effects of differential climate policy. Situating the measure alongside a multilateral agreement enables parties to coordinate more easily the implementation of CRBTAs and provides a baseline for when a CRBTA should be employed.

Two benefits emerge by situating CRBTAs in a context in which states are more likely and able to act in concert. First, states are able to mitigate the risk of retaliation by acting as an economic bloc. This minimizes the risk of retaliation against any particular state and increases the likelihood that a recalcitrant state subject to a set of CRBTAs will either accept the imposition of the CRBTA or alter its behavior to return to the Paris framework. In this sense, the link between CRBTAs and the Paris Agreement resembles the idea of "coalitions of the willing" or "climate clubs" that have been proposed as a means to support multinational emissions reduction and technology transfer.¹⁸⁴

Second, the multilateral setting provides a check on determining whether a state is truly recalcitrant or merely underperforming. CRBTAs are not to be used against states that are failing to meet their NDCs through a lack of capability or a lack of ambition.¹⁸⁵ Those circumstances are within the

¹⁸⁴ See William Nordhaus, *Climate Clubs: Overcoming Free-Riding in International Climate Policy*, 105 AM. ECON. REV. 1339, 1341 (2015); Robert Falkner, *A Minilateral Solution for Global Climate Change? On Bargaining Efficiency, Club Benefits and International Legitimacy* 13–14 (Ctr. for Climate Change Econ. and Policy, Working Paper No. 222, Grantham Research Inst. on Climate Change and the Env't, Working Paper No. 197, 2015).

¹⁸⁵ This course is permissible under the so-called "enabling clause" of the GATT, which allows for differential and more favorable treatment of developing countries. GATT Secretariat, *Decision on*

contemplation of the Paris regime and can be addressed through its mechanisms of facilitative assistance and political or moral suasion. It is not appropriate for parties to use CRBTAs in circumstances that would undermine, rather than complement, the Paris regime. The unwillingness of states to impose unilateral CRBTAs provides a natural check on overuse. It is anticipated that a critical mass of states will need to be willing to impose a CRBTA before such a measure becomes politically and economically feasible. To establish this critical mass, it will be necessary for a bloc of states to come to the conclusion that a targeted state is recalcitrant rather than simply underperforming. The need for collective action to implement an effective regime of CRBTA measures ensures that there is a link between a genuine community assessment of the targeted party and the measure used.

C. *International Reaction to President Trump*

Support for a new role for CRBTAs in connection with multilateral efforts to reduce greenhouse gas emissions can be found in the international response to the rhetoric and policies of the new President of the United States. The United States has something of a dubious history in international climate change negotiations.¹⁸⁶ A charitable view of the Paris Agreement could offer a narrative of a renewed United States leadership (under the Obama Administration) in the international climate arena. A more cynical view could query whether the Agreement was instead a reflection of “two decades of obstruction by the US, using its power (and constrained by its domestic political circumstances) to undermine alternatives and drive other parties to an acceptance of its preferences and requirements.”¹⁸⁷ Regardless of motivation, the change in the direction of the United States’ domestic and international climate policy under the leadership of President Obama was significant, including the promulgation of the Clean Power Plan designed to substantially reduce energy emissions.

The election of President Trump in November 2016 appears to signal a return to United States indifference or obstructionism in the global effort to

Differential and More Favorable Treatment, Reciprocity and Fuller Participation of Developing Countries, L/4903 (Nov. 28, 1979), GATT BISD (26th Supp.), at 191 (1980).

¹⁸⁶ See, e.g., DEBORAH SAUNDERS DAVENPORT, *GLOBAL ENVIRONMENTAL NEGOTIATIONS AND US INTERESTS* 178–93 (2006) (arguing that the United States played a dubious role in international climate change negotiations between 1989 and 2005). Of course, the United States role in climate change negotiations has been punctuated by periods of constructive leadership, including in the run up to the 1992 UNFCCC.

¹⁸⁷ Christoff, *supra* note 38, at 780. See also Falkner, *supra* note 50, at 1117.

mitigate greenhouse gas emissions. President Trump ran on a platform that pledged to withdraw the United States from the Paris Agreement, revoke the Clean Power Plan, reinvigorate heavy industry and fossil fuel extraction, and reduce funding to the Environmental Protection Agency.¹⁸⁸ Early in his term, President Trump promulgated an executive order unwinding or revising many of the climate change policies of his predecessor, including the Clean Power Plan, seeking to revive the United States coal industry.¹⁸⁹ Delays to, or abandonment of, the United States mitigation pledges will make it unlikely that the overall objectives of the Paris Agreement can be achieved.¹⁹⁰ So far, this appears to be the course signaled by the United States—as noted, the United States delegation at COP23 pushed a fossil fuel agenda inconsistent with the principles and spirit of the Paris Agreement.

The international response to the Trump Administration's climate change proposals has been swift. Chinese President Xi Jinping has implored the United States to remain true to the "hard-won achievement" of the Paris Agreement.¹⁹¹ The talk of many of the United States' traditional allies—and major trading partners—has been more fighting. Rodolfo Lacy, Mexico's Undersecretary of Planning and Environmental Policy and Planning, acknowledged the possibility of a "carbon tariff" against the United States in order to "protect our environment and to protect our industries."¹⁹² Former French President Nicolas Sarkozy has called on Europe to impose a one to three percent tax on American imports if the United States withdraws from

¹⁸⁸ See, e.g., Chelsea Harvey, *Trump Has Vowed to Kill the Clean Power Plan. Here's How He Might – and Might Not – Succeed*, WASH. POST (Nov. 11, 2016), https://www.washingtonpost.com/news/energy-environment/wp/2016/11/11/trump-has-vowed-to-kill-the-clean-power-plan-heres-how-he-might-and-might-not-succeed/?utm_term=.9ec57d3fead7; Andrew Revkin, *Will Trump Scrap NASA's Climate Research Mission?*, PROPUBLICA (Dec. 12, 2016), <https://www.propublica.org/article/will-trump-scrap-nasas-climate-research-mission>. The Trump Administration has also reportedly considered withdrawing from the United Nations Framework Convention on Climate Change altogether, something that it could achieve within only one year. Valerie Volcovici & Alister Doyle, *Trump Looking at Fast Ways to Quit Global Climate Deal: Source*, REUTERS (Nov. 12, 2016), <http://www.reuters.com/article/us-usa-election-climatechange-accord-idUSKBN1370JX>.

¹⁸⁹ Exec. Order No. 13,783, 82 C.F.R. § 16093 (2017).

¹⁹⁰ Benjamin M. Sanderson & Reto Knutti, *Delays in US Mitigation Could Rule Out Paris Targets*, 7 NATURE CLIMATE CHANGE 92 (2017).

¹⁹¹ Anna Bruce-Lockhart, *Top Quotes by China President Xi Jinping at Davos 2017*, WORLD ECON. FORUM (Jan. 17, 2017), https://www.weforum.org/agenda/2017/01/chinas-xi-jinping-at-davos-2017-top-quotes?utm_content=buffer2fc3a&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer ("The Paris agreement is a hard-won achievement . . . all signatories should stick to it rather than walk away.").

¹⁹² Coral Davenport, *Diplomats Confront New Threat to Paris Climate Pact: Donald Trump*, N.Y. TIMES (Nov. 18, 2016), https://www.nytimes.com/2016/11/19/us/politics/trump-climate-change.html?_r=0 ("A carbon tariff against the United States is an option for us . . . [w]e will apply any kind of policy necessary to defend the quality of life for our people, to protect our environment and to protect our industries.").

the Paris Agreement.¹⁹³ Similar sentiments have been echoed by non-governmental organizations¹⁹⁴ and private sector actors.¹⁹⁵

The explicit reference to trade measures by actors within two of the United States' major trading partners (Mexico and the European Union) should not be dismissed as mere political rhetoric. It is possible that the statements are a credible signal of a shift in the new international climate politics paradigm following the Paris Agreement to a position that is not willing to tolerate United States recalcitrance. President Trump has taken a hostile stance on trade with Mexico, China, and Europe, which may add fuel to the fire of arguments in favor of the use CRBTAs in support of the Paris Agreement.¹⁹⁶ The Trump Administration should be wary of the possibility of CRBTAs, given that the United States appears to be challenging, or at least disengaging with, the global climate change project it agreed to at Paris.

Of course, it is not only the United States that should be wary of trade repercussions associated with its climate change policies—though at the time of writing it appears to be the only party overtly signaling the intent to step back from the Paris Agreement. It may be that the United States holds the course—although that seems unlikely at the time of writing—and that, instead, another major emitter like China or India seeks to deviate. In that case, the United States might be expected to lead the international charge to

¹⁹³ Benjamin Kentish, *Nicolas Sarkozy promises to hit America with a carbon tax if Donald Trump rips up landmark Paris climate deal*, INDEPENDENT (Nov. 15, 2016), <http://www.independent.co.uk/news/world/europe/donald-trump-us-carbon-tax-nicolas-sarkozy-global-warming-paris-climate-deal-a7418301.html> (“Donald Trump has said - we’ll see if he keeps this promise – that he won’t respect the conclusions of the Paris climate agreement. Well, I will demand that Europe put in place a carbon tax at its border, a tax of 1-3 per cent, for all products coming from the United States, if the United States doesn’t apply environmental rules that we are imposing on our companies.”).

¹⁹⁴ See, e.g., Media Release, Citizens’ Climate Lobby Can., *The Solution is Border Tax Adjustments Premier Wall* (Dec. 12, 2016), <https://canada.citizensclimatelobby.org/media-release-the-pan-canadian-plan-on-clean-growth-and-climate-needs-to-include-border-tax-adjustments>.

¹⁹⁵ In a Financial Times opinion piece, steel magnate Lakshmi Mittal called on Europe to enact a “carbon border tax” in order to maintain competitiveness. Lakshmi Mittal, *A carbon border tax is the best answer on climate change*, FIN. TIMES (Feb. 13, 2017), <https://www.ft.com/content/8341b644-ef95-11e6-ba01-119a44939bb6>.

¹⁹⁶ See, e.g., Veronica Stracqualursi, *10 times Trump attacked China and its trade relations with the US*, ABC NEWS (Nov. 9, 2017), <http://abcnews.go.com/Politics/10-times-trump-attacked-china-trade-relations-us/story?id=46572567>; Josh Boak, *Trump wants new NAFTA deal to cut trade deficit with Mexico*, PBS NEWS (Jul. 17, 2017), <https://www.pbs.org/newshour/politics/trump-wants-new-nafta-deal-cut-trade-deficit-mexico>; David Smith, *Trump escalates trade war rhetoric with threat to tax Europe-made car*, GUARDIAN (Mar. 3, 2018), <https://www.theguardian.com/us-news/2018/mar/03/trump-escalates-trade-war-threat-tax-eu-cars>.

implement a CRBTA given the popularity of trade measures in domestic political discourse around climate change policy.

V. CONCLUSION

This Article has argued that it is possible for states to develop and implement a CRBTA measure that complies with the provisions of the GATT, and that such a measure can be used to support the international climate governance regime created by the Paris Agreement. A CRBTA provides a harder edge to the moral and political suasion envisioned by the Paris Agreement without fundamentally departing from its underlying premise of self-determined common but differentiated responsibilities. It is important to reiterate that it is only envisaged that CRBTAs would be used against truly recalcitrant parties, those willfully failing to implement the domestic policies needed to achieve their NDCs. It would not be consistent with the Paris framework for trade measures to be used against parties that are struggling to achieve their goals as a result of a lack of capacity, or even those states that should simply be trying harder and doing better. The proposed use of trade measures would be rare. The need for a CRBTA to be adopted by a large number of parties in order to be effective acts as a natural check on their overuse.

The actions of the Trump Administration in the United States might provide an early opportunity for CRBTAs to be deployed in support of the Paris Agreement. President Trump campaigned on a platform that included renouncing the United States' obligations under the Paris Agreement and his administration has followed through on that pledge. While the limitations on withdrawal in the terms of the Paris Agreement might act as constraints on formal withdrawal from the Agreement, the United States might still be viewed as a recalcitrant party if it uses national policies to walk back its NDC or acts to undermine international processes. The actions of the United States, in the context of the "thick consensus" embodied in the Paris Agreement, have the potential to provide the first opportunity for states to deploy trade measures in support of the Paris Agreement.