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## Greenhouse Gas Regulation and Border Tax Adjustments: The Carrot and the Stick

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ARTICLE

GREENHOUSE GAS REGULATION  
AND BORDER TAX ADJUSTMENTS:  
THE CARROT AND THE STICK

M. BENJAMIN EICHENBERG\*

*“Some say the world will end in fire,  
Some say in ice.  
From what I’ve tasted of desire  
I hold with those who favor fire.  
But if it had to perish twice,  
I think I know enough of hate  
To say that for destruction ice  
Is also great  
And would suffice.”<sup>1</sup>*

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\* Ben Eichenberg obtained his JD from UC Hastings in 2008 and has spent the last year as a Fulbright Fellow at the Law School of the University of Oslo, where he just finished his Master’s degree in Public International Law—this Article originated as a Master’s thesis for that program. In February of 2010, Ben will present this work at the Public Interest Environmental Law Conference in Eugene, Oregon. Ben would like to thank his thesis advisor, Christina Voigt, for her wisdom and guidance; his Norwegian family, the Steens, and Brook Steens for taking him in and making him welcome in their lives; his father, Tim Eichenberg, for the inspiration; Professor Rory Little for the thorough edit and comments; all of his Oslo friends; his son Leo for being; the Fulbright Foundation; the University of Oslo; and, most of all, his wife Susie Meserve without whom . . .

<sup>1</sup> ROBERT FROST, FIRE AND ICE, *reprinted in* THE POETRY OF ROBERT FROST, at 220 (Edward Lathem, ed., Holt, Rinehart and Winston, Inc. 1969) (1923).

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***Border Tax Adjustment (BTA):** for imports, a BTA means a tax on goods entering domestic markets from abroad to balance tax burdens already imposed on domestic producers; for exports, a BTA means the remission of taxes usually imposed on domestic producers as a means of protecting the international competitiveness of such producers where their goods are solely destined for export to other countries.*

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## I. INTRODUCTION: BORDER TAX ADJUSTMENTS IN THE CONTEXT OF ANTHROPOGENIC GLOBAL CLIMATE CHANGE

Global climate change due to the emission of anthropogenic, or manmade, greenhouse gases (GHGs) has the most widely dispersed costs of any transboundary environmental problem that the international community has yet faced. In other words, it is a global public problem and thus provides few incentives for unilateral or individual mitigation.<sup>2</sup> This makes finding solutions difficult because international coalitions must face the problem of free-riders who benefit from reduced GHG concentrations at zero cost<sup>3</sup>—those who make the economically rational decision to let others reduce atmospheric GHG concentrations while they continue to build GHG-intensive economies. Free-riders contribute to a multitude of problems for international environmental agreements in general, and climate agreements in particular, by impacting the competitiveness of exports, raising equity issues between trading partners, and negatively affecting the overall effectiveness of environmental protection schemes generally and GHG emissions targets in particular. The basic incentives that encourage free-riding need to be addressed before global climate governance can become a reality.

Finding and implementing economic solutions to the problems of global climate governance is one of the few efficient and effective problem-solving methodologies currently available. Economic power in general affects the positions of states in multilateral or bilateral environmental negotiations and can have a profound impact on the outcomes of such agreements, whereas military power rarely has much impact or influence on outcomes.<sup>4</sup> Furthermore, much of the root causes of anthropogenic climate change occur as a result of economic development and markets that fail to properly encourage sustainable development—sustainable natural resource use is systematically

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<sup>2</sup> DAVID KERNOHAN & ENRICA DE CIAN, *Trade, the Environment and Climate Change: Multilateral Versus Regional Agreements*, in CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARD GLOBAL AGREEMENT 70, 75 (Carlo Carraro & Christian Egenhofer eds., 2007) (“Climate protection can be viewed as a global ‘public good’ which means that there are few incentives for unilateral mitigation . . . Hence, in order to be effective, climate change mitigation requires a global-cooperative solution.”).

<sup>3</sup> *Id.* “Free-riders” are actors who “benefit from having cleaner air at zero cost.” *Id.*

<sup>4</sup> For instance, “Japan and the Republic of Korea have accepted international agreements on drift-netting and whaling because they feared the loss of fishing benefits from the United States. And Japan succeeded in ensuring the support of some small nonwhaling nations for its prowhaling position by offering assistance to their fishing industries.” GARETH PORTER, JANET WELSH BROWN, & PAMELA S. CHASEK, GLOBAL ENVIRONMENTAL POLITICS 11 (2000).

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undervalued in modern market economies.<sup>5</sup> Likewise, environmental services, restorative ecosystem functions like water purification and flood control in wetlands, are utilized in irresponsible and unsustainable ways because economic markets fail to properly value such services.<sup>6</sup> According to Porter, Brown & Chasek,

One of the obstacles to effective international action for environmental conservation in the past has been a dominant social paradigm that justifies unlimited exploitation of nature. Despite the weakening of that paradigm and the apparent widespread recognition of an alternative sustainable development paradigm . . . the shift to this alternative social paradigm is far from complete. There are still some sectors of societies, particularly powerful political and economic institutions, where the traditional paradigm continues to exhibit extraordinary staying power.<sup>7</sup>

It is only rational to address a solution through the same economic channels that caused anthropogenic climate change in the first place.

Currently, most economies do not account for climate-change-associated costs incurred by GHG emissions.<sup>8</sup> Accounting for GHG emissions increases systemic economic efficiency by incorporating climate externalities and allowing market forces to perform regulatory functions, pushing economic actors to take into account the full costs of production.<sup>9</sup> Methods to address climate externalities are being considered or implemented in various places around the world and include GHG allowances, GHG permit trading schemes, and environmental taxes. Some of these measures have been considered or implemented in order to fulfill international obligations incurred under the United Nations Framework Convention on Climate Change (UNFCCC)<sup>10</sup> and its accompanying Kyoto Protocol.<sup>11</sup> Uncertainty about the future costs of such programs causes hesitation on the part of

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<sup>5</sup> *Id.* at 24.

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* at 32.

<sup>8</sup> Roland Ismer & Karsten Neuhoff, *Border Tax Adjustment: A Feasible Way To Support Stringent Emission Trading*, 24 EUR. J. LAW ECON. 137, 141 (2007).

<sup>9</sup> David G. Duff, *Tax Policy and Global Warming*, 51 CANADIAN TAX J. 2063, 2069 (2003), available at [www.ctf.ca/ctjindex/03ctj6.asp](http://www.ctf.ca/ctjindex/03ctj6.asp).

<sup>10</sup> United Nations Framework Convention on Climate Change, May 9, 1992, available at [http://unfccc.int/essential\\_background/convention/background/items/2853.php](http://unfccc.int/essential_background/convention/background/items/2853.php) [hereinafter UNFCCC].

<sup>11</sup> Kyoto Protocol to the United National Framework Convention on Climate Change, Dec. 11, 1997, available at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).

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regulators and instigates intensive lobbying by potentially affected industries, directly impacting the efficacy of GHG cost internalization measures.<sup>12</sup> Countries that have begun Kyoto implementation are especially sensitive to disparities between their own GHG reduction commitments and the lack of such commitments from non-Kyoto signatories.<sup>13</sup> Domestic businesses in many of the countries that have shown a commitment to reduce their GHG emissions are urging measures to ease competitive pressures from international competition with non-GHG regulated products.<sup>14</sup>

One solution to such disparities in GHG reduction commitments is for GHG-regulating states to use Border Tax Adjustments (BTAs) to protect domestic industries. BTAs in this context would tax imports to balance the costs faced by domestic producers for GHG regulations and would relieve exports of the costs of GHG-based domestic regulation. As pointed out by Gavin Goh, “[i]n the absence of harmonized domestic tax systems among trading partners, an objective of border tax adjustments is to ensure trade neutrality of domestic taxation and thereby preserve competitive equality between domestic and imported goods.”<sup>15</sup> The most significant obstacles to the use of BTAs are typically posed by free-trade agreements—and by far the most relevant restrictions to the use of BTAs come from the World Trade Organization (WTO) and the Global Agreement on Tariffs and Trade (GATT).<sup>16,17</sup> The goal of this Article is to show not only that there is room for BTAs as a complement to domestic GHG regulation under the law of the WTO, but that BTAs are a necessary component in the construction of a system of global climate governance.

BTAs are a common tool for governments interested in protecting domestic production from inexpensive imports.<sup>18</sup> The importing country simply assesses a tax at the border on whatever product it believes is

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<sup>12</sup> Economic modeling shows clear negative efficiency impacts for a partially implemented GHG scheme. Duff, *supra* note 9, at 2069.

<sup>13</sup> See THE WORLD BANK, INTERNATIONAL TRADE AND CLIMATE CHANGE: ECONOMIC, LEGAL, AND INSTITUTIONAL PERSPECTIVES 3 (2008).

<sup>14</sup> *Id.*

<sup>15</sup> Gavin Goh, *The World Trade Organization, Kyoto and Energy Tax Adjustments at the Border*, 38 J. WORLD TRADE 395, 398 (2004).

<sup>16</sup> General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55. U.N.T.S. 194 [hereinafter GATT].

<sup>17</sup> Ismer & Neuhoff, *supra* note 8, at 143; see also THE WORLD BANK, *supra* note 13, at 19, 29 (stating that some developing countries have proposed border taxes, and finding “some evidence” of such taxes “having negative impacts on trade flows” and “export competitiveness”).

<sup>18</sup> See, e.g., DUNCAN BRACK, MICHAEL GRUBB & CRAIG WINDRAM, INTERNATIONAL TRADE AND CLIMATE CHANGE POLICIES 76 (2000).

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undercutting domestic producers, thereby evening out market disparities.<sup>19</sup> Such adjustments work for exports as well—countries simply relax domestic taxes that would normally be applied if the taxed product were not destined for export. BTAs are usually limited to balancing indirect taxes (taxes applied either directly or indirectly to the product), as opposed to direct taxes, which are imposed directly on producers.<sup>20</sup> BTAs for the costs of GHG regulation would be indirect taxes—for example, fossil fuels are already subject to this kind of BTA in many countries.<sup>21</sup> On the other hand, BTAs related to production processes, such as pollution emissions, are quite rare.<sup>22</sup>

The destination principle of international trade holds that taxes should be applied at a particular product's final destination in order to avoid the inequity of double taxation or no taxation at all. In theory, BTAs follow this principle by taxing goods in the country of consumption (taxes are on imports rather than exports), allowing each country to pursue its own internal taxation scheme while competition in international markets occurs on a level playing field. Under the destination principle, in other words, taxes should not follow exported goods.<sup>23</sup>

Inexpensive imports can be the result of any number of market disparities, ranging from more advanced technology and production methods in the country of origin to higher labor costs in the importing country. Protectionism is the term used to describe measures designed to protect producers from such imports.<sup>24</sup> Historically, protectionism served to prop up domestic industry for the time required to become competitive in international markets.<sup>25</sup> However, protectionism also leads to conflict and economic inefficiency, and it is thus targeted for elimination by

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<sup>19</sup> Or even going so far as to disadvantage importers, thereby removing the import market in that product altogether—after all, the power to tax is the “power to destroy.” *M’Culloch v. Maryland*, 17 U.S. 316, 327 (1819).

<sup>20</sup> For example, social security taxes and payroll taxes would be considered direct taxes, while sales taxes, value added taxes, excise duties, and consumption taxes would be considered indirect taxes. *See, e.g., Goh, supra* note 15, at 399.

<sup>21</sup> *Id.* (citing Organization for Economic Cooperation and Development, *Economic/Fiscal Instruments: Taxation (i.e. Carbon/Energy), Annex I Expert Group on the United Nations Framework Convention on Climate Change, Working Paper No. 4*, 83, OCDE/GD(97)188).

<sup>22</sup> *Id.*

<sup>23</sup> Paul Demaret & Raoul Stewardson, *Border Tax Adjustments Under GATT and EC Law and General Implications for Environmental Taxes*, 28 *J. WORLD TRADE* 5, 6 (1994).

<sup>24</sup> *See* Donald H. Regan, *What Are Trade Agreements for? Conflicting Stories Told by Economists, with a Lesson for Lawyers*, 9 *J. INT’L ECON. L.* 951, 966 (2006).

<sup>25</sup> *Id.*

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numerous international agreements.<sup>26</sup>

Domestic environmental regulation can create market disparities that favor imports from countries without such regulations. This opens up the realm of regulatory protectionist measures.<sup>27</sup> Barriers to the entry of international producers into domestic markets are favored by both industry and environmentalists, meaning that political considerations often lead to the inclusion of such barriers despite their proven economic inefficiency when compared to other forms of environmental regulation.<sup>28</sup> In addition to political pressures, the companies most likely to be impacted by increased international competition control or influence many of the most important indicators of injury, such as profit margins and employment data, and are more likely to adjust their behavior at the margin in the hope that the sacrifice of some marginal profits in the short term will lead to large rewards from increased protectionist profits in the long run.<sup>29</sup>

BTAs for the costs of GHG regulations are intensely controversial because of sovereignty and equity concerns surrounding the imposition of environmental norms through coercive trade measures.<sup>30</sup> Less-developed countries tend to be tolerant of greater levels of pollution in their quest to develop their economies, and imposing one country's standards on another challenges the ability of the people of less-developed states to make critical development decisions.<sup>31</sup> As a result, there are no BTAs currently utilized by any regulatory or legislative

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<sup>26</sup> *Id.*

<sup>27</sup> See Michael P. Leidy & Bernard M. Hoekman, 'Cleaning Up' While Cleaning Up? *Pollution Abatement, Interest Groups and Contingent Trade Policies*, 78 PUB. CHOICE 241, 248 (1994).

<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 250.

<sup>30</sup> Goh, *supra* note 15, at 399; Goh adds that "some countries consider that action cannot be delayed until international consensus is attained and that unilateral responses might be justified." *Id.* at 400; Andrew Green lists potential constraints to sovereignty posed by the WTO in general: "(i) national treatment rules that limit the ability of states to introduce non-product related PPMs as well as, potentially, innocent regulatory distinctions; (ii) scientific evidence requirements to the extent they place hurdles in the path of states attempting to justify climate change action; and (iii) balancing rules that provide less deference to domestic regulatory decisions in the face of scientific uncertainty." Andrew Green, *Climate Change, Regulatory Policy and the WTO*, 8 J. INT'L ECON. L. 143, 187 (2005).

<sup>31</sup> Dominic Gentile summarizes the argument thus: "[D]eveloping countries argue that many of the global environmental problems that currently exist have been created by the developed countries, not themselves. They thus, it is those countries contend it is those developed countries that should bear the greatest burden in their resolution." Dominic A. Gentile, *International Trade and the Environment: What is the Role of the WTO?*, 19 20 FORDHAM ENVTL. L. REV. 1975, 23027-228, 230 (2009).

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system of climate governance.<sup>32</sup> Three of the primary complaints raised concerning BTAs for the costs of GHG regulation are (1) that an efficient methodology would be almost impossible to achieve, resulting in reduced economic efficiency, unreasonable transaction costs, and the potential for widespread systemic fraud;<sup>33</sup> (2) that BTAs for greenhouse gases would not be in conformity with various international trade regimes that favor free trade, primarily those of GATT and the WTO;<sup>34</sup> and (3) that BTAs are politically destructive because of their association with protectionist trade policies and their potential to destroy delicate negotiations toward cooperation on GHG emissions reductions.<sup>35</sup> These concerns will be covered in the sections to follow.

A. A RELATIVELY BRIEF OVERVIEW OF REGULATORY THEORY AS IT RELATES TO CLIMATE ISSUES, GREENHOUSE GASES, AND BORDER TAX ADJUSTMENTS

All of the world's economies produce GHGs to some extent, whether it is through automobiles, factories, energy generation, agriculture, or deforestation. With the increasing certainty of widespread destruction as a result of anthropogenic GHG production and resulting climate change, tensions worldwide are flaring over increasing demands for binding GHG emissions targets.<sup>36</sup> Under the Kyoto Protocol, states with developing economies are generally not expected to achieve specific GHG emissions reductions. The theory this arrangement was based on, known as "common but differentiated responsibility" (CBDR), was developed under international environmental law as an equity principle to balance the burdens of environmental protection.<sup>37</sup> Practically speaking, this has meant that developed economies agreed to

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<sup>32</sup> Paul-Erik Veel, *Carbon Tariffs and the WTO: An Evaluation of Feasible Policies*, 12 J. INT'L ECON. L. 749, 755 (2009).

<sup>33</sup> See, e.g., Slayde Hawkins, *Skirting Protectionism: A GHG-Based Trade Restriction Under the WTO*, 20 GEO. INT'L ENVTL. L. REV. 427, 429 (2008); ZhongXiang Zhang & Lucas Assunção, *Domestic Climate Policies and the WTO*, 27 THE WORLD ECONOMY 359, 380 (2004).

<sup>34</sup> See, Goh, *supra* note 15.

<sup>35</sup> Ismer & Neuhoff, *supra* note 8, at 139-40.

<sup>36</sup> For instance, at a recent meeting of the G8, developing countries and India in particular rejected calls for binding targets on emissions. Mark Landler, *Meeting Shows U.S.-India Split on Emissions*, N.Y. TIMES, July 19, 2009, available at [www.nytimes.com/2009/07/20/world/asia/20diplo.html?\\_r=1&scp=10&sq=india%20clinton&st=cse](http://www.nytimes.com/2009/07/20/world/asia/20diplo.html?_r=1&scp=10&sq=india%20clinton&st=cse).

<sup>37</sup> See UNFCCC, *supra* note 10, Preamble, Art. 3(1) ("The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.").

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pay for the entire conversion to a low-carbon world economy.

The agreement of developed countries to take on that responsibility was motivated by a number of important factors. Not only are developed and industrialized economies primarily responsible for anthropogenic atmospheric GHG concentrations—carbon takes approximately 100 years to cycle out of the atmosphere<sup>38</sup>—but these economies also have the ability to pay for climate-change mitigation and adaptation, while serious questions remain about whether developing countries have the ability to shoulder a more significant share of the costs than they have to date.<sup>39</sup> Mitigation is the effort to reduce atmospheric GHG concentrations.<sup>40</sup> Adaptation refers to efforts aimed at improving and protecting existing infrastructure under the assumption that certain climate-change impacts are unavoidable despite mitigation.<sup>41</sup>

Under CBDR, everyone shares the responsibility to take climate change into account, but the responsibility is differentiated according to each country's ability to pay. Thus, under the Kyoto Protocol developing economies were encouraged to restrain increases in GHG emissions, but they were not required to set binding emissions limits. Under the system eventually developed, climate-change-related development aid was earmarked for developing economies. This aid took a number of different forms, with strong financial incentives for wealthier nations, listed in Annex I of the UNFCCC and assigned specific GHG reduction targets under the Kyoto Protocol, to invest in low-carbon infrastructure in non-Annex I countries. Kyoto's Clean Development Mechanisms (CDM) even allow Annex I countries to meet their emissions targets by paying for low-carbon infrastructure enhancements in other countries. In essence, CDM is the carrot offered by the Kyoto Protocol to non-Annex I countries—if they play along with the agenda, there are significant

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<sup>38</sup> Dan Galpern, *Climate Change 101: Urgency and Response*, 23 J. ENVTL. L. & LITIG. 191, 198 (2008) (“A substantial share of any given emission burst of CO<sub>2</sub> decays within a century. However, approximately one-third remains after 100 years, and nearly one-fifth lingers after 1000 years. Accordingly, a significant share of current emissions will continue to warm the climate system for many centuries even if such emission levels are reduced in the near future.”).

<sup>39</sup> Some of the rationales behind the need for developing economies to emit GHGs, and thereby grow their economies more quickly, will be covered in greater depth a little bit later.

<sup>40</sup> UNFCCC *supra* note 10, Glossary of Climate Change Acronyms, available at [http://unfccc.int/essential\\_background/glossary/items/3666.php](http://unfccc.int/essential_background/glossary/items/3666.php) (mitigation is defined as “a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other “sinks” to remove greater amounts of carbon dioxide from the atmosphere.”).

<sup>41</sup> *Id.* (adaptation is defined as “[a]djustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.”).

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investment options for Annex I countries.

In a perfect world, such multilateral cooperation would be all that was required to accomplish international cooperation. The ideal solution is to simply sit everyone down and agree to a solution that equitably shares costs and benefits—conduct climate policy through negotiation rather than through unilateral measures. But the Kyoto Protocol has faced numerous problems, not the least of which was the initial refusal of significant Annex I countries like the United States and Australia to commit to binding GHG emissions targets. This poses serious legitimacy problems for the Kyoto climate regime and related emissions trading systems, because in order to be effective any system of climate governance must be binding upon the world's largest emitters. It also poses serious economic questions for Annex I Kyoto signatories. These countries face competitive disadvantages in international markets, because their economies are bearing the burden of GHG reductions while many of their competitors, like the United States and China, do nothing. With such market advantages comes the possibility of GHG-intensive industries moving to less-regulated countries—a process known as “carbon leakage.”<sup>42</sup> Such competitiveness concerns are a major stumbling block for countries considering taxes on GHG producing activities. Moreover, questions about the legality of BTAs for these types of taxes under international law, and especially under the law of the WTO, could dissuade countries from adopting such taxes in the first place.<sup>43</sup>

Indeed, concerns about competitiveness are some of the primary objections cited by the United States as the basis for its refusal to agree to binding emissions targets.<sup>44</sup> A strong theme in climate discussions concerns competitiveness in international markets and the perception that GHG regulation results in a competitive disadvantage for domestic industry.<sup>45</sup> GHG-based BTAs would address concerns about carbon leakage *and* concerns about competitive disadvantages and would lead to the introduction of more-effective domestic GHG regulations.<sup>46</sup>

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<sup>42</sup> Arjun Ponnambalam, *U.S. Climate Change Legislation and the Use of GATT Article XX To Justify a “Competitiveness Provision” in the Wake of Brazil—Tyres*, 40 *GEO. J. INT’L L.* 261, 264 (2008).

<sup>43</sup> See Demaret & Stewardson, *supra* note 23, at 63 (“[E]xisting [GATT] rules probably need to be modified for an alternative, more environmentally friendly approach to the adjustment of environmental taxes to be fully implemented without harming the international competitiveness of industries or giving rise to trade disputes.”).

<sup>44</sup> See Ponnambalam, *supra* note 42, at 264.

<sup>45</sup> Hawkins, *supra* note 33.

<sup>46</sup> See *id.* at 427-29; Zhang & Assunção, *supra* note 33, at 360.

i. *Domestic Regulatory Pressures and Trends and the Role That Border Tax Adjustments Could Play*

Energy production and other GHG-producing activities play a central role in all of the world's economies. The economic centrality of GHGs forces governments interested in reducing their emissions to make difficult policy choices.<sup>47</sup> Domestic policy is often shaped by powerful economic interests, especially the types of interests tending to be most affected by environmental regulation. Reductions in expected profits result in strong opposition from these types of interests.<sup>48</sup> Corporate, profit-driven entities tend to band together to form lobbying groups to influence representative governments. Some of the most effective lobbying groups are relatively small, due to the prohibitive cost of large-scale group organizing.<sup>49</sup> Therefore, legislation that results in a widely dispersed distribution of both costs and benefits, such as climate legislation, will be underrepresented in a legislative system where focused interest groups influence domestic legislators.<sup>50</sup> Smaller industry groups are highly motivated by research showing that measures involving carbon taxes or energy efficiency standards, two prominent options for GHG regulation, have statistically significant negative impacts on trade flows and thus on competitiveness.<sup>51</sup> For this reason, many of the smaller, more effective lobbying groups tend to oppose GHG regulation by accentuating specific economic concerns.

One prominent concern among Annex I countries is the risk of GHG regulation driving domestic industry to relocate their GHG-emitting activities, and the jobs that these activities create, to countries with less-stringent regulation while continuing to sell the same volume and type of product in domestic markets. As mentioned earlier, this process is known as "carbon leakage," and because of the global impact of carbon emissions, regardless of where the source of the GHG emissions is located, such leakage represents a significant efficiency

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<sup>47</sup> PORTER, ET. AL., *supra* note 4, at 113.

<sup>48</sup> *Id.* at 71. ("Corporations have worked to weaken several global environmental regimes, including ozone protection, climate change, whaling, the international toxic waste trade, and fisheries").

<sup>49</sup> See Nita Ghei, *Evaluating the WTO's Two Step Test for Environmental Measures Under Article XX*, 18 COLO. J. INT'L ENVTL. L. & POL'Y 117, 125 (2007).

<sup>50</sup> *Id.* at 126. Ghei points out the corollary as well: "[W]hen either the costs or benefits are only narrowly distributed, that is, a small group either bears most of the costs or garners most of the benefits, strong lobbying by that group will often increase the likelihood of passage of legislation that favors the interest group." *Id.*

<sup>51</sup> THE WORLD BANK, *supra* note 13, at 27-9.

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threat to domestic regulation aimed at climate change mitigation.<sup>52</sup> In other words, mandated domestic reductions in GHG emissions would result in little or no net global reductions in GHG emissions under a worst-case leakage scenario. Some estimate that emissions reductions in developed countries could be negatively impacted by as much as twenty percent by increased emissions due to leakage in developing countries.<sup>53</sup> Actual evidence of such leakage is fairly limited—thus concerns may be more theoretical than real—but because the costs of GHG regulation are expected to be so much higher than anything currently in place, these concerns remain prominent in many domestic regulatory decisions.

Disparities between the strength of GHG regulations also imply a threat to the competitiveness of developed economy industries.<sup>54</sup> Lax domestic GHG regulation gives energy-intensive industries an artificial market advantage, because the global economy does not require such industries to pay for the negative externalities of climate change. As Paul-Erik Veel explains, “[a]lthough it remains desirable for those countries that are relatively most efficient at producing a particular good to produce it, the notion of efficiency necessarily needs to include those externalities which arise as a result of that production.”<sup>55</sup> Again, actual evidence of competitiveness disparities is relatively limited, but concerns remain because of the high cost of anticipated GHG reductions.

According to the World Bank, debate over the negative impacts of GHG regulation on energy-intensive sectors has “derailed any efforts in the United States to impose a carbon tax, or in the EU to institute a common framework on energy taxation.”<sup>56</sup> Indeed, the political pressures brought by companies in the United States as a result of concerns about competitiveness are one of the primary reasons why the United States refused to sign the Kyoto Protocol.<sup>57</sup> Protectionist pressures lead Annex I countries to pursue GHG emission reductions in a manner that favors domestic over foreign producers.<sup>58</sup> This leads to inefficient economic performance and ineffective regulatory regimes. Because of the manner in which climate regulation has evolved, a developing trend in discussions of greenhouse gas regulation involves so-called “bottom up” climate regimes.<sup>59</sup> Bottom-up climate regimes involve regional and sub-

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<sup>52</sup> Veel, *supra* note 32, at 751-2.

<sup>53</sup> THE WORLD BANK, *supra* note 13, at 30.

<sup>54</sup> *Id.* at 30; *see also* Veel, *supra* note 32, at 752.

<sup>55</sup> *Id.* at 753.

<sup>56</sup> THE WORLD BANK, *supra* note 13, at 24.

<sup>57</sup> Veel, *supra* note 32, at 753.

<sup>58</sup> *See* Zhang & Assunção, *supra* note 33, at 360.

<sup>59</sup> *See, e.g.*, CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARDS GLOBAL

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regional negotiations and provide an alternative to what some view as the increasingly unlikely prospect of achieving a global climate agreement.<sup>60</sup>

The result of these regulatory pressures and trends is a system in need of methods to accurately measure and then fairly balance the interests of domestic producers, international trade, and environmental effectiveness. Concerns about carbon leakage, for instance, could probably be adequately addressed by carbon tariffs or BTAs.<sup>61</sup> BTAs, which rebate environmental taxes to companies upon export and add environmental taxes to imports, would significantly reduce pressures to provide tax exemptions or other efficiency inhibiting measures to domestic industry.<sup>62</sup> Indeed, the three primary obstacles to domestic GHG regulation—carbon leakage, competitiveness concerns, and considerations of political economy—would be addressed by the imposition of complementary BTAs to whatever form of GHG regulation domestic legislators or regulators decide upon.<sup>63</sup>

ii. *GHG Taxes, Especially Carbon Taxes, and the Role That Border Tax Adjustment Could Play*

By and large, attempts to implement broad-based taxes on carbon dioxide emissions from all aspects of society in some of the world's most developed economies have failed.<sup>64</sup> Such a carbon taxes would help correct for current climate externalities by raising the price of products that produce the main GHG, carbon dioxide. In spite of widespread failure to implement such taxes, the prevailing view among economists is that a carbon tax would be the most efficient and effective way to address anthropogenic climate change, especially as compared to certain types of energy taxes.<sup>65</sup> A carbon tax would be efficient because it would allow the market to determine efficient carbon emission reductions without the overhead of a bureaucratic regulatory agency.<sup>66</sup>

One prominent reason for failures to implement carbon taxes is the heavy impact such taxes are predicted to have on the competitiveness of energy-intensive products like steel and cement. In essence, such products will have a penalty assessed against them in the international

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AGREEMENT (Carlo Carraro & Christian Egenhofer eds., 2007).

<sup>60</sup> *Id.* at 1-2.

<sup>61</sup> Veel, *supra* note 32, at 1751.

<sup>62</sup> Goh, *supra* note 15, at 400.

<sup>63</sup> *See* Veel, *supra* note 32, at 751-52.

<sup>64</sup> Zhang & Assunção, *supra* note 33, at 376.

<sup>65</sup> *See id.*

<sup>66</sup> *See id.*; *see generally* Duff, *supra* note 9.

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marketplace as compared with products produced in countries that do not levy such taxes.<sup>67</sup> Levels for such taxes, especially where used as the primary means of GHG mitigation, are predicted to be high, although legal scholar David Duff points to studies in Sweden and Finland that show positive GHG reductions as a result of relatively modest GHG taxes.<sup>68</sup> Even the few countries that have successfully implemented carbon taxes have so far either exempted energy-intensive industry or cycled the taxes back into industry-protective grants and subsidies.<sup>69</sup> Therefore, potential losers under a system of carbon taxes commit significant resources to defeating such measures, even threatening to relocate production facilities as a result of increasing energy costs. This action is taken in spite of increasing evidence that current differences in environmental standards are not a significant factor in international competitiveness or in the relative price levels for different products.<sup>70</sup>

BTAs would allow regulators to apply a GHG-based tax to domestic producers without having to worry about adverse competitiveness effects because the penalty of higher energy costs would be removed. A BTA for carbon taxes applied to energy product imports and exports would be relatively straightforward under existing WTO rules, so long as there is no discrimination between like products, while a BTA on finished products would be more complicated.<sup>71</sup> WTO methodology and compliance will be covered in depth later, when WTO rules applicable to BTAs are addressed.

#### B. A RELATIVELY BRIEF ANALYSIS OF THE EQUITABLE ISSUES UNDERLYING THE CLIMATE CRISIS

A community standard or norm is emerging that says that reasonable reductions in GHG emitting activities are morally required.<sup>72</sup> World economic disparity in general presents stark equitable fallacies, and developing economies tend to be suspicious of environmental imperatives imposed by those not suffering a lack of basic human

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<sup>67</sup> Zhang & Assunção, *supra* note 33, at 377.

<sup>68</sup> Duff, *supra* note 9, at 2091; *see also* THE WORLD BANK, *supra* note 13, at 20 (“[A] carbon tax may significantly increase production costs, leading to lower profits, either through lower margins or through a reduction in sales (or both).”).

<sup>69</sup> *See* Zhang & Assunção, *supra* note 33, at 378; *see also* THE WORLD BANK, *supra* note 13, at 24.

<sup>70</sup> Zhang & Assunção, *supra* note 33, at 377-78; *see also* THE WORLD BANK, *supra* note 13, at 24 (noting that industries will migrate to other countries to avoid environmental taxes).

<sup>71</sup> *See* Zhang & Assunção, *supra* note 33, at 380.

<sup>72</sup> Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, 96 *GEO. L.J.* 1565, 1599-1600 (2008).

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necessities such as security, health care, and nutrition.<sup>73</sup> Trends in economic relations have not necessarily been getting better either. In 1970 the richest twenty percent of the world's nations controlled seventy percent of the world's gross domestic product.<sup>74</sup> By 1997 the richest twenty percent controlled eighty percent of the world's gross domestic product.<sup>75</sup> Therefore, it is not difficult reach the conclusion that those who both caused the problem to begin with and are most able to pay for a solution should be the ones to do so.

Environmental taxes in general are justified on moral grounds as furthering the "polluter pays" principle, found for example in Principle 16 of the Rio Declaration on Environment and Development: "National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment."<sup>76</sup> This principle approaches environmental resources from the perspective that such resources are commonly owned, and environmental taxes are means to assert common ownership and allocate the costs of environmental damage to those responsible.<sup>77</sup>

Another ethical rationale for environmental taxes, a transformative or educational rationale, has been suggested by Duff. Under this rationale environmental harms are viewed as consequences of economic development that can be minimized by changing attitudes and focusing attention on environmentally sensitive practices. Thus, the main purpose of environmental taxes, and by extension GHG-based BTAs, is "to encourage environmental awareness and shared responsibility for creating a better environmental future."<sup>78</sup> Thus, taxes and adjustments should target GHG-producing activity to the extent that doing so alters

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<sup>73</sup> See PORTER ET AL., *supra* note 4, at 3. One estimate states that basic health care and nutrition for everyone would cost approximately 13 billion dollars annually, four billion less than is spent on pet food in Europe and the United States.

<sup>74</sup> *Id.* at 177.

<sup>75</sup> *Id.*

<sup>76</sup> Rio Declaration on Environment and Development, Principle 16 (June 14, 1992), available at [www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&l=en](http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&l=en). There are many sources that cite and elucidate the "polluter pays" principle. The Rio Declaration is cited here as a representative and internationally accepted example.

<sup>77</sup> Duff, *supra* note 9, at 2069. Duff criticizes the "polluter pays" principle as being "inappropriately individualistic," pointing out that there are many segments of society that bear indirect responsibility for environmental degradation. *Id.* at 2077.

<sup>78</sup> *Id.* at 2070.

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established environmentally harmful attitudes and practices.<sup>79</sup>

Climate regimes, regulatory structures that aim to mitigate the impact of climate change, and binding GHG emissions targets, raise particular equity issues relating to GHG emissions allocation strategies. An accurate measurement of stress on the global environment must take into account both population and consumption, and by any reasonable measure consumption is growing more quickly than population.<sup>80</sup> Nonetheless, “the world’s leading emitters account for a strikingly large percentage of the world’s emissions. Indeed, the United States and China, by themselves, are responsible for about forty percent of the world’s total. Most of the world’s nations, including many poor countries, are trivial contributors.”<sup>81</sup> Furthermore, responsibility for anthropogenic climate change, and the suffering that will result, is disproportionately allocated between developed and developing economies. Some estimate that developed countries are responsible for as much as seventy percent of the GHGs in the atmosphere, while developing countries are responsible for only twenty-five percent and will suffer the most due to the locations of their population centers and their lack of resources to pay for costs related to adaptation to climate change.<sup>82</sup> GHG emissions represent what is known in economics as a large-group externality problem, a problem caused by the actions of a large group that have consequences external to the causal group, because the impacts of climate change are not felt as strongly by those who primarily caused the problem<sup>83</sup>—both because of the long life-cycle of carbon in the atmosphere (carbon currently causing climate change effects was emitted as much as 100 years ago) and because most of the largest emitting countries can afford to protect their populations from the worst impacts of climate change.

Border tax adjustment schemes raise some specific equity issues when applied by wealthy nations to strengthen environmental regulation. Countries that do not implement satisfactory environmental and tax regimes could be disadvantaged through lower export revenue. Energy

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<sup>79</sup> *Id.* at 2072.

<sup>80</sup> PORTER ET AL., *supra* note 4, at 2.

<sup>81</sup> Eric A. Posner & Cass R. Sunstein, *Should Greenhouse Gas Permits Be Allocated on a Per Capita Basis?*, 97 CAL. L. REV. 51, 59-60 (2009).

<sup>82</sup> Heather D. Shumaker, *The Economic Effects of the European Union Carbon Dioxide Emission Quota on the New Member States of the European Union: Can They Become Equal Economic Partners of the European Union While Complying with the 2008-2012 Quota?*, 17 PENN. ST. ENVTL. L. REV. 99, 110 (2008).

<sup>83</sup> Andrew Green, *You Can’t Pay Them Enough: Subsidies, Environmental Law, and Social Norms*, 30 HARV. ENVTL. L. REV. 407, 412-13 (2006).

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resources are not evenly distributed in the world, and some deem it unfair that the countries that of necessity burn more coal than oil and gas are penalized.<sup>84</sup> Additionally, there could be serious imperialistic overtones to a tax regime forcing poorer, raw-material-exporting countries to harmonize their internal tax structures with those of their primary export markets.<sup>85</sup> BTAs for environmental purposes go beyond the achievement of domestic policy goals by demanding that other countries value environmental concerns over economic growth and thus impinge the sovereignty of foreign nations.

Equity concerns such as these could play a significant role in international climate negotiations and have already forced the incorporation of equitable economic principles like “polluter pays” and CBDR into multilateral climate agreements. Historically, environmental protection in general and climate change prevention in particular have been seen as wealthy-economy agendas.<sup>86</sup> Incorporated into these agendas, in the opinion of many developing economies, is the desire to obstruct the ability of less-wealthy nations to develop their economies and so maintain developed economic dominance over the world’s natural resource wealth.<sup>87</sup> To the extent that trust plays an important role in multilateral negotiations, BTAs could damage the potential for consensus approaches if developing countries regard environmental protections as imperialist or protectionist policy delivery tools. After all, as explained earlier, BTAs have historically been used to do just this. This is one of the battles that the WTO will fight in its role as an arbiter of global free trade, and much rests on its ability to represent itself as an independent and objective source of law.

## C. THE UNFCCC AND THE KYOTO PROTOCOL

At the December 2007 United Nations Climate Change Conference on the island of Bali in Indonesia, participating nations adopted the Bali Roadmap (also known as the Bali Action Plan) as the beginning of a two-year process toward finalizing a binding agreement in 2009 in Denmark. While international climate regimes like the Kyoto Protocol, instituted as a result of the UNFCCC, do not require parties to impose trade restrictions as a condition of compliance, various mitigation mechanisms unilaterally implemented could be viewed as inconsistent

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<sup>84</sup> Goh, *supra* note 15, at 421.

<sup>85</sup> *Id.*

<sup>86</sup> PORTER ET AL., *supra* note 4, at 178.

<sup>87</sup> *Id.* at 179.

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with WTO law where they have some impact on trade.<sup>88</sup> While many call for changes to GATT that reflect environmental imperatives,<sup>89</sup> the reality of international law is that new climate-change measures must take into account the structure and goals of the WTO.<sup>90</sup> Article 3.5 of the UNFCCC states 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.”<sup>91</sup>

On February 16, 2005, the Kyoto Protocol, a result of the UNFCCC process, went into effect.<sup>92</sup> The Kyoto Protocol attempts to address climate change through the UNFCCC principle of “common but differentiated responsibilities” (CBDR), stating that “developed country Parties should take the lead in combating climate change and the adverse effects thereof.”<sup>93</sup> Annex I countries are generally committed to reducing their GHG emissions to around five percent below 1990 levels by 2012, while non-Annex I countries have no specific targets.<sup>94</sup> All signatories must report their GHG emissions levels and develop climate-change mitigation programs. The Kyoto Protocol does not dictate how GHG emissions reductions in Annex I countries are to occur, but rather establishes three “flexibility” mechanisms: (1) Joint Implementation, (2) the Clean Development Mechanism, and (3) Emissions Trading Systems.<sup>95</sup>

<sup>88</sup> See Anita M. Halvorsen, *UNFCCC, the Kyoto Protocol, and the WTO—Brewing Conflicts or Are They Mutually Supportive?*, 36 *DENV. J. INT’L L. & POL’Y* 369, 377 (2008).

<sup>89</sup> See, e.g. *id.* at 370 (“Nicholas Stern projected that if action is not taken now, it may cost 5-20% of global GDP each year from now to address climate change. . . . ‘Just as other financial institutions are addressing climate change, the World Trade Organization (WTO) needs to be working on how it can address climate change issues related to trade in a comprehensive manner.’” (quoting Nicholas Stern, *Stern Review: The Economics of Climate change*, [www.hm-treasury.gov.uk/media/3/2/Summary\\_of\\_Conclusions.pdf](http://www.hm-treasury.gov.uk/media/3/2/Summary_of_Conclusions.pdf))).

<sup>90</sup> There is “a general recognition by both regimes to respect the other’s mandate.” THE WORLD BANK, *supra* note 13, at 40; see e.g., CHRISTINA VOIGT, *SUSTAINABLE DEVELOPMENT AS A PRINCIPLE OF INTERNATIONAL LAW: RESOLVING CONFLICTS BETWEEN CLIMATE MEASURES AND INTERNATIONAL LAW* (2009).

<sup>91</sup> UNFCCC, *supra* note 10, Art. 3(5), May 9, 1992, available at [http://unfccc.int/essential\\_background/convention/background/items/2853.php](http://unfccc.int/essential_background/convention/background/items/2853.php).

<sup>92</sup> THE WORLD BANK, *supra* note 13, at 2.

<sup>93</sup> UNFCCC, *supra* note 10, Art. 3 ¶ 1.

<sup>94</sup> Kyoto Protocol to the United National Framework Convention on Climate Change, Article III ¶¶ 1-3, Dec. 11, 1997, available at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php). (outlining responsibilities of Annex I countries); see also Kyoto Protocol, Essential Background, at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).

<sup>95</sup> THE WORLD BANK, *supra* note 13, at 2; see also UNFCCC, *supra* note 10, The Mechanisms under the Kyoto Protocol, available at [http://unfccc.int/kyoto\\_protocol/mechanisms/items/1673.php](http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php).

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The GHG trading systems set up under the auspices of the Kyoto protocol, including the European Union Emissions Trading System, are projected to amount to a one-trillion-dollar market in emissions allowances by 2012—in other words, the largest single economic sector on earth. The goals set in Kyoto have both hard and soft law impacts, with targets and guidelines being adopted in practice even by non-signatories. However, the fact that the Kyoto Protocol leaves specific implementation strategies up to individual signatories passes responsibility to the WTO—through regulations concerning subsidies, BTAs, technical specifications and requirements, governmental procurement, and taxes—to govern the options countries have to fulfill their Kyoto obligations.<sup>96</sup> This is problematic because the WTO was created solely to facilitate free trade and is not always well-equipped to handle trans-boundary environmental disputes.

The Kyoto Protocol itself, though billed as an attempt at global climate governance, could perhaps be more readily described as a sub-global agreement. The continued refusal of major GHG emitters like the United States and China to commit to binding emissions targets contributes to this perception and draws into question the legitimacy of claims that the Kyoto Protocol is a global agreement.

D. DEVELOPMENT ECONOMICS: WHY DEVELOPING COUNTRIES NEED TO EMIT CARBON AND THE PRESSING NEED TO ADDRESS GHG OUTPUT FROM DEVELOPING ECONOMIES

Due to growth in population and gross domestic product, the majority of GHG emissions in the future will come from developing countries.<sup>97</sup> Developing countries are following the same carbon-intensive development path mapped out by the developed economies of the world. Currently, eighty percent of the world's population resides in developing countries that consume a little more than one third of the world's energy.<sup>98</sup> Seventy percent or more of global GHG emissions increases from 2020 to 2030 are projected to come from non-Annex I countries, with China alone contributing nearly twenty-five percent of that expected increase.<sup>99</sup> China's emissions have already overtaken those of the United States, based in large part on a strong dependence on

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<sup>96</sup> See Kernohan & De Cian, *supra* note 2, at 75.

<sup>97</sup> Shumaker, *supra* note 82, at 110.

<sup>98</sup> PORTER ET AL., *supra* note 4, at 4.

<sup>99</sup> THE WORLD BANK, *supra* note 13, at 46.

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coal.<sup>100</sup> Indeed, current GHG emissions reductions in developed countries are likely to be more than offset by emissions increases from developing countries.<sup>101</sup>

In addition to the need to catch up to the higher standards of living in more-developed economies—an imperative that is generally perceived to require ever-increasing carbon emissions—developing countries often regard the imposition of environmental standards on trade with suspicion. China, for instance, prioritizes economic growth over environmental concerns, especially when the goal is to prevent premature death from easily preventable causes like infant mortality and inadequate sanitation.<sup>102</sup> Environmental measures and protectionist interests that seek to exclude international competition from the domestic markets of wealthier nations often go hand-in-hand due to industry lobbying pressures and the apathy of environmental interests toward an optimal economic solution at the cost of environmental certainty.<sup>103</sup>

Worldwide GHG regulatory efforts must take into account developing economies to a much greater extent than has so far been the case. By about 2030, fifty percent or more of global purchasing power will reside in developing economies.<sup>104</sup> Additionally, GHG emissions estimates project that sometime between 2020 and 2030 developing countries will pass developed countries in GHG emissions from energy use.<sup>105</sup>

Many developing countries oppose the imposition of carbon tariffs or BTAs because they believe that GHG regulation will slow economic growth. One avenue for this opposition is the WTO—China, for instance, believes that BTAs and carbon tariffs would violate WTO rules.<sup>106</sup> The realities of development economics and the perceived need for increasing carbon emissions in developing economies means that any GHG-based border measure will almost certainly result in a WTO challenge.

## II. THE GENERAL AGREEMENT ON TARIFFS AND TRADE, THE WORLD TRADE ORGANIZATION, AND BORDER TAX ADJUSTMENT

The General Agreement on Tariffs and Trade (GATT) was originally enacted in 1947 as a part of sweeping international legal

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<sup>100</sup> *Id.* at 46-47.

<sup>101</sup> *Id.* at 47.

<sup>102</sup> See Posner & Sunstein, *supra* note 72, at 1582.

<sup>103</sup> See Ghei, *supra* note 49, at 131-32.

<sup>104</sup> THE WORLD BANK, *supra* note 13, at 3.

<sup>105</sup> *Id.*

<sup>106</sup> Veel, *supra* note 32, at 750.

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reforms instigated as a response to the Second World War. Nothing in GATT addresses, or was intended to address, many of the environmental concerns that so urgently demand the attention of the WTO today. GATT was originally intended to establish a system of international trade regulation through an International Trade Organization as a means to peaceably settle trade disputes. But such a regulatory body did not materialize, and GATT became a set of ad hoc guidelines for nations to resolve trade policy disputes—ad hoc because there was no enforcement mechanism.

Into this void stepped the World Trade Organization (WTO). Created in 1994 by the Marrakesh Agreement, the WTO has real enforcement powers based on the suspension of trade advantages secured under the Agreement. As of July 23, 2008, 158 countries are members of GATT.<sup>107</sup> The 1994 Marrakesh Agreement made 1947 GATT rules binding on all signatories, incorporating the basic structure of the original agreement as its foundation.<sup>108</sup> Essentially, this structure is founded on three principles: (1) the Most Favored Nation Principle, (2) the National Treatment Principle, and (3) the general elimination of quantitative restrictions.<sup>109</sup> These are collectively known as the substantive portions of GATT.

The Most Favored Nation Principle contained in Article I of GATT states simply that an importing country must treat all members of the WTO equally, as most-favored nations.<sup>110</sup> In other words, all products imported from member states must be treated the same regardless of their country of origin. For instance, the United States cannot place a special tariff on all products imported from France without also placing that tariff on all products imported from every member state.

The National Treatment Principle contained in the first paragraph of

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<sup>107</sup> World Trade Organization, Members and Observers, *available at* [www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/org6\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm).

<sup>108</sup> Throughout this Article I will refer to the provisions of GATT 1947 with the understanding that these same provisions appear in GATT 1994, unless otherwise noted. GATT 1994 must be read with GATT 1947.

<sup>109</sup> GATT, *supra* note 16, Art. I (General Most-Favored-Nation Treatment), Art. III (National Treatment on Internal Taxation and Regulation), Art. XI (General Elimination of Quantitative Restrictions).

<sup>110</sup> *Id.* Art. I ¶ 1 (“With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.”).

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GATT Article III states that all similar products must be treated the same, whether they are produced domestically or on foreign soil.<sup>111</sup> The purpose of this restriction is to protect the equality of competitive conditions by ensuring that protective domestic measures are not applied to domestic production.<sup>112</sup> Thus, GATT expressly warns in the second paragraph of Article III against applying unequal treatment “so as to afford protection to domestic production.”<sup>113</sup> Read together, the first and second paragraphs of Article III show that parties to GATT may apply charges to imported products, so long as those charges do not exceed charges already applied to domestically produced products.<sup>114</sup> A violation of the National Treatment Principle occurs when taxes on imported products are in excess of those on like domestic products.<sup>115</sup>

Finally, GATT’s underlying trade liberalization principles are reflected in the rule that quantitative restrictions on trade, or quotas, will be gradually eliminated over an indeterminate length of time. Rules addressing quantitative restrictions and prohibitions are generally set out in GATT Article XI.<sup>116</sup> GATT Article II requires member states to set maximum tariff levels.<sup>117</sup> As a corollary, countries are not allowed to

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<sup>111</sup> *Id.* Art. III ¶ 1-2. The National Treatment Principle states that: “[t]he contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.” *Id.* at ¶ 1. Additionally, “[t]he products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.” *Id.* at ¶ 2.

<sup>112</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 97, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>113</sup> GATT, *supra* note 16, Art. III ¶ 1.

<sup>114</sup> *Id.* at ¶¶ 1-2.

<sup>115</sup> Goh, *supra* note 15, at 401-2.

<sup>116</sup> See Gentile, *supra* note 31, at 203 (“Article XI for the most part forbids the use, by a member country, of quantitative restrictions and prohibitions.”).

<sup>117</sup> GATT, *supra* note 16, Art. II ¶ 1(a)-(c) (“(a) Each contracting party shall accord to the commerce of the other contracting parties treatment no less favourable than that provided for in the appropriate Part of the appropriate Schedule annexed to this Agreement. (b) The products described in Part I of the Schedule relating to any contracting party, which are the products of territories of other contracting parties, shall, on their importation into the territory to which the Schedule relates, and subject to the terms, conditions or qualifications set forth in that Schedule, be exempt from ordinary customs duties in excess of those set forth and provided therein. Such products shall also be exempt from all other duties or charges of any kind imposed on or in connection with the importation in excess of those imposed on the date of this Agreement or those directly and mandatorily required to be imposed thereafter by legislation in force in the importing territory on

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subsidize most forms of exports.<sup>118</sup> Under this principle, the only permissible restrictions on trade would come to be duties, taxes, or other charges.<sup>119</sup>

These three principles further the WTO's philosophy of "ensuring a certain trade neutrality."<sup>120</sup> They also reflect the ideology of the WTO by encouraging the functioning of free-market principles in order to both prevent conflict and help establish an optimal international trading system. While these principles were not designed to limit the ability of states to set their own levels of environmental protection, the application of GATT rules tends to create effective limitations to domestic environmental agendas.<sup>121</sup>

Although GATT contained few environmental principles, the WTO has adopted a theoretical approach to climate change based on its stated goal to improve the welfare of the world's population by raising overall standards of living.<sup>122</sup> Standards of living are to be raised by expanding trade while respecting the restraints of limited resources and the principle

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that date. (c) The products described in Part II of the Schedule relating to any contracting party which are the products of territories entitled under Article I to receive preferential treatment upon importation into the territory to which the Schedule relates shall, on their importation into such territory, and subject to the terms, conditions or qualifications set forth in that Schedule, be exempt from ordinary customs duties in excess of those set forth and provided for in Part II of that Schedule. Such products shall also be exempt from all other duties or charges of any kind imposed on or in connection with importation in excess of those imposed on the date of this Agreement or those directly or mandatorily required to be imposed thereafter by legislation in force in the importing territory on that date. Nothing in this Article shall prevent any contracting party from maintaining its requirements existing on the date of this Agreement as to the eligibility of goods for entry at preferential rates of duty.").

<sup>118</sup> *Id.* Art. XVI ¶ 4 ("Further, as from 1 January 1958 or the earliest practicable date thereafter, contracting parties shall cease to grant either directly or indirectly any form of subsidy on the export of any product other than a primary product which subsidy results in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in the domestic market. Until 31 December 1957 no contracting party shall extend the scope of any such subsidization beyond that existing on 1 January 1955 by the introduction of new, or the extension of existing, subsidies.").

<sup>119</sup> *See id.* at Art. XI ¶ 1 ("No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.").

<sup>120</sup> Report of the Working Party, *Border Tax Adjustments*, ¶ 9, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf).

<sup>121</sup> *See* Gentile, *supra* note 31, at 202.

<sup>122</sup> *See* Halvorssen, *supra* note 88, at 375 ("The goal of the WTO is to improve the welfare of peoples by, among other things, 'raising their standard of living' and 'expanding the production of trade in goods and services, while allowing for optimal use of the world's resources in accordance with the objective of sustainable development seeking both to protect and preserve the environment and to enhance the means for doing so . . .").

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of sustainable development.<sup>123</sup> Indeed, “most countries that are more open to trade adopt cleaner technologies more quickly, and increased real income is often associated with increased demand for environmental quality.”<sup>124</sup> The preamble to the Marrakesh Agreement, after specifically mentioning sustainable development, states that signatories to the agreement seek “both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.”<sup>125</sup> The long-term effects of climate change will render these goals hollow window dressing if the WTO cannot adapt to the challenges posed to the world economic system by the dangers of anthropogenic greenhouse gas emissions and climate change.<sup>126</sup> In the end, the goals of the climate treaties and the goals of the WTO are the same, to promote the overall welfare of all human beings.<sup>127</sup>

Aside from GATT, there are some additional agreements (called “multilateral trade agreements” in the Marrakesh Agreement<sup>128</sup>) under the umbrella of the WTO that could impact the use of BTAs as a tool to balance domestic climate-change regulation. The Marrakesh Agreement states that, in cases of conflict with GATT, the provisions of these secondary, multilateral trade agreements will take precedence.<sup>129</sup> In 1994, the Agreement on Subsidies and Countervailing Measures (SCM Agreement) was signed by the 128 original WTO signatories in order to further define trade-distorting subsidies and associated

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<sup>123</sup> *Id.* at 375.

<sup>124</sup> THE WORLD BANK, *supra* note 13, at 9.

<sup>125</sup> Marrakesh Agreement Establishing the World Trade Organization, *available at* [www.wto.org/english/docs\\_e/legal\\_e/04-wto.pdf](http://www.wto.org/english/docs_e/legal_e/04-wto.pdf).

<sup>126</sup> Halvorsen, *supra* note 88, at 375.

<sup>127</sup> *Id.* at 379.

<sup>128</sup> The agreements listed in Annex 1A are the Agreement on Agriculture, Agreement on the Application of Sanitary and Phytosanitary Measures, Agreement on Textiles and Clothing, Agreement on Technical Barriers to Trade, Agreement on Trade-Related Investment Measures, Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994, Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994, Agreement on Preshipment Inspection, Agreement on Rules of Origin, Agreement on Import Licensing Procedures, Agreement on Subsidies and Countervailing Measures, and the Agreement on Safeguards. Marrakesh Agreement Establishing the World Trade Organization, *available at* [www.wto.org/english/docs\\_e/legal\\_e/04-wto.pdf](http://www.wto.org/english/docs_e/legal_e/04-wto.pdf).

<sup>129</sup> *Id.* at Art. XVI(3) (“Accordingly, contracting parties should seek to avoid the use of subsidies on the export of primary products. If, however, a contracting party grants directly or indirectly any form of subsidy which operates to increase the export of any primary product from its territory, such subsidy shall not be applied in a manner which results in that contracting party having more than an equitable share of world export trade in that product, account being taken of the shares of the contracting parties in such trade in the product during a previous representative period, and any special factors which may have affected or may be affecting such trade in the product.”).

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countermeasures.<sup>130</sup> The SCM Agreement provides that “the 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.”<sup>131</sup> This agreement also provides an Illustrative List of Export Subsidies that reinforce the distinction between direct and indirect taxes (addressed in more depth in following sections).<sup>132</sup>

The Agreement on Technical Barriers to Trade (TBT Agreement), also added in 1994, was instituted to ensure that technical regulations and product standards do not create unnecessary obstacles to international trade.<sup>133</sup> Technical regulations are defined as documents that define “product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory.”<sup>134</sup> This definition could easily include processes and production methods (PPMs) related to environmental conservation and energy usage.<sup>135</sup> The preamble to the TBT Agreement looks very similar to the chapeau of Article XX—a set of clauses that allow exceptions to the rest of GATT for certain enumerated reasons—with similar anti-discrimination language,<sup>136</sup> and it imposes an obligation on states to use the least trade-restrictive measure reasonably available to accomplish policy goals.<sup>137</sup> This requirement may imply a necessity test even broader than that required under GATT,<sup>138</sup> as will be discussed in

<sup>130</sup> Agreement on Subsidies and Countervailing Measures (1994), available at [www.wto.org/english/docs\\_e/legal\\_e/legal\\_e.htm#tbt](http://www.wto.org/english/docs_e/legal_e/legal_e.htm#tbt), [hereinafter SCM Agreement]; see also General Agreement on Trade and Tariffs, 33 ILM 1125 (Sept. 1994) (including SCM Agreement as part of GATT).

<sup>131</sup> *Id.* at Art. 1.1(a)(1)(ii) n.1; see also Gentile, *supra* note 31, at 204.

<sup>132</sup> Demaret & Stewardson, *supra* note 23, at 13.

<sup>133</sup> Agreement on Technical Barriers to Trade (1994), available at [www.wto.org/english/docs\\_e/legal\\_e/legal\\_e.htm#tbt](http://www.wto.org/english/docs_e/legal_e/legal_e.htm#tbt) [hereinafter TBT Agreement]; see also General Agreement on Trade and Tariffs, 33 ILM 1125 (Sept. 1994) (including TBT Agreement as part of GATT).

<sup>134</sup> TBT Agreement, *supra* note 133, Annex 1(1).

<sup>135</sup> See Andrew Green & Tracey Epps, *The WTO, Science, and the Environment: Moving Towards Consistency*, 10 J. INT'L ECON. L. 285, 300 (2007).

<sup>136</sup> The preamble to the TBT Agreement states, in relevant part, that

no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade . . .

See also Green, *supra* note 30, at 154.

<sup>137</sup> See TBT Agreement, *supra* note 133, Preamble (quoted above in note 136).

<sup>138</sup> Green, *supra* note 30, at 147-48.

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greater depth a little bit later on. However, because the TBT Agreement does not specifically address taxes and import duties, but is rather aimed primarily at mandatory technical standards, it is unlikely to have a direct impact on BTAs.

A. WORLD TRADE ORGANIZATION ENFORCEMENT MECHANISMS AND DISPUTE SETTLEMENT

Disputes between GATT member states before 1994 were decided by non-binding GATT Panels, while those decided after 1994 are first heard by a WTO Panel, with the possibility of appeal to the Appellate Body. Under the terms of the Dispute Settlement Understanding, these decisions become binding once adopted by the Dispute Settlement Body (DSB).<sup>139</sup> Such adoption is automatic unless the DSB is notified of a party's intent to appeal a Panel decision to the Appellate Body or unless there is a consensus vote against adoption by the WTO members voting in the DSB.<sup>140</sup> It is important to note that there have been some decisions that have not been adopted by the DSB, and that the status of these decisions can be more properly thought of as somewhat persuasive, if they have any impact at all, whereas decisions approved by the DSB tend to be more akin to binding precedent.

The DSB keeps "under surveillance the implementation of adopted recommendations or rulings," and states are required to furnish status reports concerning compliance.<sup>141</sup> States may request "[c]ompensation and the suspension of concessions or other obligations" if an adopted decision is not complied with in a reasonable period of time.<sup>142</sup> Ultimately, a decision adopted by the DSB could grant the plaintiff state permission to impose trade sanctions on the defendant state until the infraction is remedied.<sup>143</sup> Therefore, it should be evident that GATT infringements can be quite costly to offending states. Because of this, the enforcement regime of the WTO has been one of the most effective international courts in the world, and its decisions tend to be reliably

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<sup>139</sup> Understanding on Rules and Procedures Governing the Settlement of Disputes, Article II, (1994) [hereinafter DSU]; see also Marrakesh Agreement Establishing the World Trade Organization, available at [www.wto.org/english/docs\\_e/legal\\_e/04-wto.pdf](http://www.wto.org/english/docs_e/legal_e/04-wto.pdf); see also Jasper L. Ozbirn, *An Analysis and Synthesis of the Decisional Law Applying Article XX(g) of the General Agreement on Tariffs and Trade*, 21 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 371, 373 (2008).

<sup>140</sup> DSU, *supra* note 139, Art. 16 ¶ 4.

<sup>141</sup> *Id.* Art. 21 ¶ 6.

<sup>142</sup> *Id.* Art. 22 ¶ 1.

<sup>143</sup> Ismer & Neuhoff, *supra* note 8, at 143.

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adhered to.<sup>144</sup>

Before 1994, GATT panels issued several relevant opinions concerning Article XX exceptions, including *Canadian Tuna*,<sup>145</sup> *Canada—Herring and Salmon*,<sup>146</sup> *Tuna—Dolphin I*,<sup>147</sup> and *Tuna—Dolphin II*.<sup>148</sup> Though these opinions did not occur under the auspices of

<sup>144</sup> See Colm Patrick McInerney, *From Shrimps and Dolphins to Retreaded Tyres: an Overview of the World Trade Organization Disputes, Discussing Exceptions to Trading Rules*, 22 N.Y. INT'L L. REV. 153, 158 (2009).

<sup>145</sup> Report of the Panel, *United States – Prohibition of Tuna and Tuna Products from Canada*, L/5198 - 29S/91 (Feb. 22, 1982), available at [www.worldtradelaw.net/reports/gattpanels/ustuna.pdf](http://www.worldtradelaw.net/reports/gattpanels/ustuna.pdf). Canadian Tuna addressed an import restriction issued by the United States in response to seizures of its fishing fleets and arrests of American fishermen in Canadian waters. The United States claimed its restrictions were justified under U.N. law and therefore justified under Article XX(g). *Id.* at ¶ 3.7-3.10. The panel found that the chapeau of Article XX was probably met because it was possible that the discrimination by the United States was not arbitrary or unjustifiable, and that because the measures had been publically announced they were not disguised restrictions. *Id.* The panel found that the United States had not satisfied Article XX(g)'s requirement that measures be made in conjunction with domestic restrictions. *Id.*

<sup>146</sup> Report of the Panel, *Canada—Measures Affecting Exports of Unprocessed Herring and Salmon*, L/6268 - 35S/98 (Mar. 22, 1988), available at [www.worldtradelaw.net/reports/gattpanels/canadaherring.pdf](http://www.worldtradelaw.net/reports/gattpanels/canadaherring.pdf). This case challenged a Canadian export restriction on unprocessed herring and salmon, which Canada defended using Article XX(g) under the premise that Canada was trying to preserve fish stocks. The Panel concluded that the measure was not primarily aimed at conservation, but was instead aimed at protecting Canadian fish processing infrastructure and jobs, thus not qualifying for an XX(g) exception. See Orzborn, *supra* note 139, at 376; see also Ghei, *supra* note 49, at 135-36.

<sup>147</sup> Report of the Panel, *United States—Restrictions on Imports of Tuna*, DS21/R - 39S/155 (Sept. 3, 1991), available at [www.worldtradelaw.net/reports/gattpanels/tunadolphinI.pdf](http://www.worldtradelaw.net/reports/gattpanels/tunadolphinI.pdf). This case was initiated by Mexico in response to United States tuna import restrictions based in part on a requirement of compliance with United States regulations under the Marine Mammal Protection Act (MMPA), which sought to reduce incidental killing of dolphins by commercial tuna fishing. *Id.* at ¶ 2.3. The U.S. thus prohibited the import of yellow-fin tuna harvested with purse-seine nets unless the government with jurisdiction over the fishing operation had in place a program comparable to the MMPA and the average number of dolphins killed was comparable with the American fishing fleet. Orzborn, *supra* note 139, at 377. The GATT Panel agreed that MMPA rules violated Article XI and adopted the argument that there was a jurisdictional limit on Article XX(g) that “was intended to permit contracting parties to take trade measures primarily aimed at rendering effective restrictions on production or consumption within their jurisdiction.” *United States—Restrictions on Imports of Tuna*, ¶ 5.31, DS21/R - 39S/155. The Panel also found that MMPA rules were too unpredictable because the Mexican government would be unable to predict from year to year whether its program was in compliance with the MMPA. The Panel gave no substantial rationale based in the language of Article XX(g) or on GATT precedent for the conclusion that member states were not free to impose restrictions extraterritorially under an Article XX(g) exception, but this limitation has not subsequently been addressed by any other GATT or WTO decisional body, “which suggests that it probably no longer applies.” Orzborn, *supra* note 139, at 379. Additionally, *Tuna—Dolphin II* rejects *Tuna—Dolphin I*'s extraterritorial rationale.

<sup>148</sup> Report of the Panel, *United States—Restrictions on Imports of Tuna*, DS29/R (June 16, 1994), available at [www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf](http://www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf). The last case decided by a GATT Panel before the implementation of WTO provisions in 1994, was a combined challenge by the European Economic Community and The Netherlands of an intermediary country embargo enacted by the United States under a revised version of the MMPA. Again, *Tuna-Dolphin*

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the WTO and therefore lacked the enforcement mechanisms of the DSB, they have often been cited as precedent and should probably be considered persuasive, though not binding. Of additional interest is the impact that these decisions had in establishing the perception that the GATT panels exhibited an anti-environment bias. This perceived bias galvanized environmental organizations and protests around the world and may have pushed future WTO decisions in a more environmentally friendly direction. Now, there is some evidence of a shift from an older, pro-trade mentality to a more balanced approach that incorporates competing interests and views Article XX exceptions on an equal footing with the other, “substantive” provisions of GATT.<sup>149</sup>

#### B. BORDER TAX ADJUSTMENT UNDER THE LAW OF THE WTO

A BTA aimed at balancing the costs to domestic industry of GHG regulation would be considered a policy that restricts trade, because it limits international access to domestic markets and so must comply with the general provisions of GATT.<sup>150</sup> These provisions include the principles of nondiscrimination contained in the National Treatment and Most Favored Nation provisions of Articles I and III. There are, however, exceptions to these Articles, contained in Article XX, that would allow discrimination under certain prescribed circumstances.

According to the Report of the Working Party on Border Tax Adjustments, citing to the definition applied by the Organization for Economic Cooperation and Development (OECD), BTAs are defined

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*It* hinged on whether MMPA rules qualified for an Article XX(g) exception. The Panel found explicitly that “a policy to conserve dolphins was a policy to conserve an exhaustible natural resource,” *Id.* at ¶ 5.13. The Panel also found that Article XX(g) exceptions could apply extra-jurisdictionally; the Panel concluded however, that the embargo was not related to conservation because it was based on pressuring foreign governments into satisfying United States’ conservation goals of the United States. *Id.* at ¶ 5.24.

The panel also addressed process and production methods by stating that it was illegal under GATT to discriminate between domestic and foreign- like products based on production methods. *See* Halvorsen, *supra* note 88, at 376. Perhaps this case stands for the proposition that a measure cannot be primarily aimed at conservation if another country must change its law or policies in order to attain the conservation objective aimed at. *See* Ozbirn, *supra* note 139, at 380. It is important to remember, however, that the two *Tuna—Dolphin* decisions were never adopted by the parties, or by the GATT General Council, and that they do not have the status of a legal interpretation of GATT law. *See, e.g.*, the disclaimer at the top of the WTO’s home page for the cases, *available at* [www.wto.org/english/tratop\\_e/envir\\_e/edis04\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/edis04_e.htm). As future cases will show, trade measures aimed at coercing other countries into policy shifts have qualified as aimed at an appropriate conservation purpose.

<sup>149</sup> *See* McInerney, *supra* note 144, at 197-98.

<sup>150</sup> *See* Hawkins, *supra* note 33, at 431.

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as any fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products).<sup>151</sup>

In general, the Working Party in 1970 expressed its satisfaction with the overall trade neutrality of BTA rules and declined to recommend changes.<sup>152</sup>

For purposes of WTO law, BTAs should be treated as two separate regulatory regimes—one for exports and one for imports.<sup>153</sup> The Working Party pointed to GATT Articles II and III as particularly important with respect to imports and GATT Article XVI as important to exports.<sup>154</sup> Specifically, GATT Article II:2 says that, in spite of basic levels of customs duties established in Article II generally, states can apply “a charge equivalent to an internal tax,” or, in other words, a BTA, on the importation of any product.<sup>155</sup> Article III says that measures affecting international commerce cannot be applied so as to protect domestic production by discriminating against imported products.<sup>156</sup> GATT Article XVI expresses general disapproval for subsidies—especially where they have harmful repercussions for GATT members—

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<sup>151</sup> Report of the Working Party, *Border Tax Adjustments*, ¶ 4, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf). The Working Party also stated that the term “border tax adjustment” could be confusing and should instead be referred to as “tax adjustments applied to goods entering into international trade.” *Id.* at ¶ 5.

<sup>152</sup> *Id.* at ¶ 9.

<sup>153</sup> See *id.* at ¶ 7; see also OLE KRISTIAN FAUCHALD, ENVIRONMENTAL TAXES AND TRADE DISCRIMINATION (1998).

<sup>154</sup> *Supra* note 151, ¶ 7, L/3464.

<sup>155</sup> GATT, *supra* note 16, Art. II ¶ 2(a).

<sup>156</sup> *Id.* Art. III ¶¶ 1-4 (¶¶ 1-2 appear *supra*, note 111; ¶¶ 3-4 read “3. With respect to any existing internal tax which is inconsistent with the provisions of paragraph 2, but which is specifically authorized under a trade agreement, in force on April 10, 1947, in which the import duty on the taxed product is bound against increase, the contracting party imposing the tax shall be free to postpone the application of the provisions of paragraph 2 to such tax until such time as it can obtain release from the obligations of such trade agreement in order to permit the increase of such duty to the extent necessary to compensate for the elimination of the protective element of the tax. 4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.”).

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and instructs signatories to avoid the use of subsidies where possible.<sup>157</sup>

In *Japan—Alcohol*, Japan’s unequal taxation of shochu and vodka was challenged as a violation of Article III(2). The WTO Appellate Body, the highest decisional body countries can appeal WTO cases to, concluded that

[r]ead in their context and in the light of the overall object and purpose of the *WTO Agreement* . . . the words of the first sentence require an examination of the conformity of an internal tax measure with Article III by determining, first, whether the taxed imported and domestic products are “like” and, second, whether the taxes applied to the imported products are “in excess of” those applied to the like domestic products. If the imported and domestic products are “like products”, and if the taxes applied to the imported products are “in excess of” those applied to the like domestic products, then the measure is inconsistent with Article III:2, first sentence.<sup>158</sup>

It is important to note that there is nothing in Article III that requires importing countries to take the level of taxes applied domestically in the exporting country into account, as this would be inconsistent with the destination principle.

GATT Article III:1 “informs Article III:2, second sentence, through specific reference . . . [and] states that internal taxes and other internal charges ‘should not be applied to imported or domestic products so as to afford protection to domestic production.’”<sup>159</sup> According to Goh, the regulatory purpose and the intent of the measure or measures in question are therefore relevant to an examination under Article III(2). One of the dangers of affording such protection to domestic production is a double tax penalty where producers have already paid energy taxes at home, which could jeopardize competitive neutrality.<sup>160</sup> This would not be the case, however, if all countries followed the destination principle upon which the WTO is predicated.

The following sections will address the specifics of BTA import and export issues.

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<sup>157</sup> *Id.* Art. XVI ¶ 1.

<sup>158</sup> *Japan—Alcohol*: Appellate Body Report, *Japan—Taxes on Alcoholic Beverages* 11, 1996 WL 910779 (Oct. 4, 1996).

<sup>159</sup> *Id.* at 14.

<sup>160</sup> Goh, *supra* note 15, at 411-12.

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*i. BTAs for Exported Products*

GATT Article XVI:4 prohibits a subsidy for a product where the subsidy “results in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in the domestic market.”<sup>161</sup> Prohibited subsidies allow countervailing duties to be levied by the importing state up to the level of the prohibited subsidy under GATT Article VI:3. Specifically allowing BTAs for exports, Article VI:4 provides that such countervailing duties cannot be levied as a result of the exemption of exported products from taxes (or the refund of such taxes) on like products destined for domestic consumption in the country of origin.<sup>162</sup>

Article VI:4 of GATT makes it clear that exported products can be freed from domestic taxes through a BTA mechanism.<sup>163</sup> This principle tends to hold true in both GATT and European Community rules, where taxes on products, or indirect taxes, are usually eligible for adjustment, while taxes on producers, or direct taxes, are not.<sup>164</sup> This makes BTAs for exported products a relatively simple proposition for governments to institute with the assurance that they are not going to run afoul of WTO subsidy law.<sup>165</sup> These types of tax adjustments—remissions, really—do not qualify as subsidies at all.<sup>166</sup>

Domestic GHG regulations tend to address product inputs as well as final products, somewhat complicating the export BTA picture. The SCM Agreement permits the remission of taxes on prior stage inputs, including those inputs normally consumed during production such as

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<sup>161</sup> The rules on subsidies are a little bit more flexible for primary products, meaning mainly the products of fishing, forestry, agriculture, and mineral exploitation.

<sup>162</sup> GATT, *supra* note 16, Art. VI ¶ 4 (“No product of the territory of any contracting party imported into the territory of any other contracting party shall be subject to anti-dumping or countervailing duty by reason of the exemption of such product from duties or taxes borne by the like product when destined for consumption in the country of origin or exportation, or by reason of the refund of such duties or taxes.”).

<sup>163</sup> GATT, *supra* note 16, Art. VI ¶ 4 states that “[n]o product of the territory of any contracting party imported into the territory of any other contracting party shall be subject to anti-dumping or countervailing duty by reason of the exemption of such product from duties or taxes borne by the like product when destined for consumption in the country of origin or exportation, or by reason of the refund of such duties or taxes.” Additionally, Note Ad for GATT Article XVI states that “[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.”

<sup>164</sup> Demaret & Stewardson, *supra* note 23, at 7.

<sup>165</sup> Ismer & Neuhoff, *supra* note 8, at 144-45; *see also* Green & Epps, *supra* note 135, at 293.

<sup>166</sup> GATT, *supra* note 16, Ad Art. XVI.

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energy, fuels, oil, and catalysts.<sup>167</sup> Roland Ismer and Karsten Neuhoff argue that GHG allowances or permits should qualify as prior stage inputs rather than as government services because the benefit of the GHG reduction program primarily benefits the wider community rather than individual businesses.<sup>168</sup>

One thesis of this Article is that costs related to the regulation of GHG-producing inputs such as energy or fuel oil are eligible for adjustment without being classified as a prohibited export subsidy.<sup>169</sup> In defining what can be classified as an export subsidy, the SCM Agreement states that “prior stage cumulative indirect taxes may be exempted, remitted or deferred on exported products even when not exempted, remitted or deferred on like products when sold for domestic consumption, if the prior stage cumulative indirect taxes are levied on inputs that are consumed in the production of the exported product.”<sup>170</sup> The SCM Agreement further explains that “[i]nputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain the exported product.”<sup>171</sup> A broad reading of the SCM Agreement would thus include most kinds of domestic GHG regulatory costs.

There are arguments for a more narrow reading of the SCM Agreement. There has been significant discussion concerning the above-quoted clauses in the SCM Agreement because these clauses appear to broaden the scope of BTAs, a conclusion that seems preposterous to some.<sup>172</sup> As noted above, the SCM Agreement allows “prior stage cumulative indirect taxes” for inputs consumed in the production process; “prior stage indirect taxes” are defined as “those levied on goods or services used directly or indirectly in making the product,” while “cumulative indirect taxes” are defined as “multi staged taxes

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<sup>167</sup> SCM Agreement, Annex 1(h) (1994), available at [www.wto.org/english/docs\\_e/legal\\_e/legal\\_e.htm#bt](http://www.wto.org/english/docs_e/legal_e/legal_e.htm#bt); Ismer & Neuhoff, *supra* note 8, at 144.

<sup>168</sup> *Id.* Ismer and Neuhoff also make the argument that free allocation of permits would reduce the overall effectiveness of a BTA by lowering the domestic cost of GHG regulations. *Id.*

<sup>169</sup> See Demaret & Stewardson, *supra* note 23, at 29 (noting that it has been argued that “specific taxes on energy, fuel or oil used in the production process should also be eligible for adjustment on the export of the final product”).

<sup>170</sup> SCM Agreement, Annex I: Illustrative List of Export Subsidies (h) (1994).

<sup>171</sup> *Id.* at Annex II n.61. This particular footnote has been the subject of quite a bit of debate, not the least of which involves a “gentlemen’s agreement” whereby countries agreed not to use this clause to adjust energy or carbon taxes. Demaret & Stewardson, *supra* note 23, at 30. While countries may follow such an agreement, there is no indication that a WTO decisional body would treat it as anything more than an interesting historical note. See *id.*

<sup>172</sup> See, e.g., BRACK ET AL., *supra* note 18, at 85-7.

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levied where there is no mechanism for subsequent crediting of the tax if the goods or services subject to tax at one stage of production are used in a succeeding stage of production.”<sup>173</sup> Common sense and the plain meaning of this definition, in spite of potential linguistic difficulties between the equally official French and English versions, should include BTAs for GHG inputs: GHG-producing activities are used directly or indirectly in making the products to which a GHG-based BTA would apply.

Thus, the main problem must be with the definition of “cumulative.” However, because taxes on GHG inputs must build upon one another in order to be effective, GHG-input taxes would occur at multiple stages in the production process—at the very least applying to inputs for energy and various raw materials. There is no proposed method for crediting succeeding stages of GHG-taxed production with the costs of the GHG taxes on previous stages, a process that would fit the definition of “cumulative” as it is used in the SCM Agreement. It seems likely that this language was purely designed to exclude Value Added Taxes—for which products are credited at each succeeding level of production—and is not applicable to GHG-related BTAs.

However broad the language in the SCM Agreement may appear to be, some still argue that the negotiators at the Uruguay Round were attempting to limit the application of BTAs to certain energy intensive exports from developed countries and had no intention of allowing BTA for energy taxes in general.<sup>174</sup> Because of these arguments, it is possible that a WTO decisional body will interpret “prior stage cumulative indirect taxes” narrowly to encompass only specific types of cascade taxes. Though this is the conclusion reached by the WTO Secretariat,<sup>175</sup> as well as by some commentators in this area, there has been no definite conclusion by a WTO decisional body that taxes on inputs not physically present in the final product cannot be adjusted for. Rather, such “original intent” arguments are not generally considered persuasive by international decisional bodies. Instead, international law adheres closely to rules of treaty interpretation that state that a “treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose,” as laid down in the Vienna Convention on the Law of

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<sup>173</sup> SCM Agreement, Annex 1 n.58.

<sup>174</sup> See, e.g., BRACK ET AL., *supra* note 18, at 86-87; Note by the Secretariat, *Taxes and Charges for Environmental Purposes – Border Tax Adjustment*, ¶ 76, WT/CTE/W/47 (May 2, 1997).

<sup>175</sup> Note by the Secretariat, *supra* note 174, ¶ 76.

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Treaties.<sup>176</sup> Only where the meaning of a treaty is ambiguous or obscure is recourse to be given to works relating to the preparation of the treaty and the original intent of the treaty's negotiators.<sup>177</sup> Indeed, as discussed below, in *United States—Superfund* a GATT Panel declined to distinguish a BTA on the basis of a physical incorporation standard and allowed export adjustment for chemicals that had been used in the production process but were not present in the final product. Though this case was decided before the SPS Agreement was instituted in 1994, it provides a precedent for a broader reading. Significantly, it also shows that a broader reading of the 1994 SPS Agreement, such as that in *United States—Superfund*, would *not* broaden the scope of GATT's subsidy regulations to include export BTAs for substances not incorporated into a final product.

*ii. BTAs for Imported Products*

The analysis of BTAs on imports has two parts. First, the National Treatment Principle, referred to earlier, states that foreign producers must be treated the same as domestic producers for like, competitive, or substitutable products.<sup>178</sup> This means that like products must be taxed similarly (though not necessarily identically).<sup>179</sup> It is a violation of GATT to protect domestic production through discriminatory taxation.<sup>180</sup>

A BTA measure must thus be relatively exact in the calculation of domestic charges to be applied to imports. In fact, the Working Party notes that “countries adjusting taxes, should, at all times, be prepared, if requested, to account for the reasons for adjustment, for the methods

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<sup>176</sup> Vienna Convention on the Law of Treaties, Art. 31(1), 23 May 1969, available at [untreaty.un.org/ilc/texts/instruments/.../conventions/1\\_1\\_1969.pdf](http://untreaty.un.org/ilc/texts/instruments/.../conventions/1_1_1969.pdf).

<sup>177</sup> *Id.* at Art. 32.

<sup>178</sup> See GATT, *supra* note 16, Art. III ¶ 2 (“The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products.”); see also GATT Art. III ¶ 1 (“contracting parties recognize that internal taxes and other internal charges . . . should not be applied to imported or domestic products so as to afford protection to domestic production.”).

<sup>179</sup> “A formal difference in treatment between imported and like domestic products is thus neither necessary, nor sufficient, to show a violation of Article III:4. Whether or not imported products are treated ‘less favourably’ than like domestic products should be assessed instead by examining whether a measure modifies the *conditions of competition* in the relevant market to the detriment of imported products.” Appellate Body Report, *Korea—Measures Affecting Import of Fresh, Chilled and Frozen Beef*, ¶ 137, WT/DS161/AB/R, WT/DS169/AB/R (Dec. 11, 2000), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds161\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds161_e.htm).

<sup>180</sup> See Ismer & Neuhoff, *supra* note 8, at 148-49.

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used, for the amount of compensation and to furnish proof thereof.”<sup>181</sup> Thus, a well-crafted BTA ties the calculation of border adjustments to the levels of domestic taxes, especially where domestic taxes can fluctuate over time.

Second, the Most Favored Nation Principle means any advantage with respect to border restrictions granted to an exporting country must also be granted to all exporters of similar, or like, products.<sup>182</sup> In other words, a BTA measure would have to apply equally no matter which country produced a particular product. This poses problems for BTAs that discriminate between importing countries on the basis of their GHG regulation, as many proposed BTAs do. Therefore, as will be discussed in greater detail later on, BTAs must either (1) be promulgated on the basis that products produced without GHG regulation are not like physically identical products produced with such regulation, or (2) specifically tax GHG emissions themselves as product inputs.

A GATT Panel decision, *United States—Superfund*, explains the requirements of Article III in the context of BTAs.<sup>183</sup> In order to fund the cleanup of hazardous waste sites, the United States imposed BTAs on certain chemicals and on products produced or manufactured using those chemicals.<sup>184</sup> The Panel concluded that the tax imposed by the United States was

imposed on the imported substances because they are produced from chemicals subject to an excise tax in the United States and the tax rate is determined in principle in relation to the amount of these chemicals used and not in relation to the value of the imported substance. The Panel therefore concluded that, to the extent that the tax on certain imported substances was equivalent to the tax borne by like domestic substances as a result of the tax on certain chemicals *the tax met the national treatment requirement of Article III:2, first sentence*.<sup>185</sup>

Thus the Panel concluded that GATT allowed import BTAs for product inputs subject to an internal tax.<sup>186</sup>

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<sup>181</sup> Report of the Working Party, *Border Tax Adjustments*, ¶ 17, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf).

<sup>182</sup> GATT, *supra* note 16, Art. I ¶ 1.

<sup>183</sup> Report of the Panel, *United States—Taxes on Petroleum and Certain Imported Substances*, ¶ 2.1, L/6175 - 34S/136 (June 17, 1987), available at [www.wto.org/english/tratop\\_e/dispu\\_e/gt47ds\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/gt47ds_e.htm).

<sup>184</sup> *Id.*

<sup>185</sup> *Id.* at ¶ 5.2.8 (emphasis added).

<sup>186</sup> Goh, *supra* note 15, at 412. *But see* Green & Epps, *supra* note 135, at 293 (agreeing that *United States—Superfund* contained too much uncertainty about whether chemicals were present in

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Which domestic charges can be applied to imports hinges on whether those charges are direct or indirect with respect to the producer.<sup>187</sup> The Working Party on Border Tax Adjustments decided “that there was convergence of views to the effect that taxes directly levied on products [not on producers] were eligible for tax adjustment. Examples of such taxes comprised specific excise duties, sales taxes and cascade taxes and the tax on value added.”<sup>188</sup> Additionally, “certain taxes that were not directly levied on products [but rather on producers] were not eligible for tax adjustment. Examples of such taxes comprised social security charges whether on employers or employees and payroll taxes.”<sup>189</sup> Thus, much of the debate surrounding BTAs revolves around the classification of the adjustment as either direct or indirect. GATT tends to follow the destination principle where indirect taxes are concerned and the origin principle (taxation of products where they are produced) where direct taxes on producers are concerned.<sup>190</sup>

Unfortunately, if not unsurprisingly, the Working Party did not address the kind of energy and other GHG-related inputs that a BTA targeted at climate change would encompass.<sup>191</sup> Indeed, the Working Party seemed to suggest that the whole direct/indirect distinction was economically inexplicable, stating that “the economic basis for such a clear distinction between indirect and direct taxes for adjustment purposes has not been demonstrated.”<sup>192</sup> Some of the Working Party concluded that the distinction was based more on the relative purpose of the tax—either the tax was directed toward internal consumption in keeping with the destination principle (indirect, and thus BTA eligible) or toward entrepreneurs’ profits and personal income (direct, and thus BTA ineligible).<sup>193</sup> This line of reasoning has borne little fruit in WTO and GATT decisions, however, even though the balance of opinion seems to hold that the structure of the market, business cycles, and other

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the final products to give the case strong precedential value where inputs are not apparent in the final product).

<sup>187</sup> Ismer & Neuhoff, *supra* note 8, at 146.

<sup>188</sup> Report of the Working Party, *Border Tax Adjustments*, ¶ 14, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf).

<sup>189</sup> *Id.*

<sup>190</sup> Demaret & Stewardson, *supra* note 23, at 8-9. Remember, the origin principle states that taxes should be applied where a particular good is produced, while the destination principle states that taxes should be applied where a particular good is sold.

<sup>191</sup> See, *supra* note 188, ¶ 15(a). In fact, the Working Party concluded that the importance of such taxes in the context of BTAs “was not such as to justify further examination.” *Id.* at ¶ 15. It appears that times have changed.

<sup>192</sup> *Id.* at ¶ 21.

<sup>193</sup> *Id.*

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economic conditions have more to do with what kinds of taxes get passed along to consumers than the direct/indirect classification.<sup>194</sup> Paul Demaret and Raoul Stewardson conclude that, for practical and administrative reasons, however, there is no real prospect of the distinction between direct and indirect taxes being abandoned in favor of a more accurate system of classification.<sup>195</sup> In spite of this balance of opinion, the apparent economic rationale now used to describe the distinction between direct and indirect taxation is that direct taxes are not passed along to consumers, while indirect taxes are.

A GATT Panel report in 1976, *United States—DISC*, reinforced the distinction between direct and indirect taxes.<sup>196</sup> The Panel in *United States—DISC* held that the refund by the United States of direct taxes on exports was a subsidy in violation of GATT obligations.<sup>197</sup> The 1994 SCM Agreement includes some relevant definitions in this context:

The term “direct taxes” shall mean taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property; . . . The term “indirect taxes” shall mean sales, excise, turnover, value added, franchise, stamp, transfer, inventory and equipment taxes, border taxes and all taxes other than direct taxes and import charges. . . .<sup>198</sup>

Ismer and Neuhoff argue that the wording of Article II “does not indicate that the clause actually seeks to disallow tax adjustment at the border,” leading them to conclude that the symmetric treatment of imports and exports warrants BTAs for things like energy inputs.<sup>199</sup> The argument for symmetric treatment is supported by its simplicity, by the Article I phrase “originating in or destined for,”<sup>200</sup> by the coherent and efficient application of the destination principle upon which GATT was based, and by its consequent avoidance of trade distortions such as double taxation and non-taxation.<sup>201</sup>

While it is at least somewhat accepted that BTAs are allowed for

<sup>194</sup> Demaret & Stewardson, *supra* note 23, at 15.

<sup>195</sup> *Id.* at 15-16.

<sup>196</sup> Report of the Panel, *United States Tax Legislation*, L/4422 - 23S/98 (Nov. 12, 1976), available at [www.worldtradelaw.net/reports/gattpanels/usdisc.pdf](http://www.worldtradelaw.net/reports/gattpanels/usdisc.pdf).

<sup>197</sup> *Id.* at ¶ 72.

<sup>198</sup> SCM Agreement, Annex I n.58 (1994), available at [www.wto.org/english/docs\\_e/legal\\_e/legal\\_e.htm#tbt](http://www.wto.org/english/docs_e/legal_e/legal_e.htm#tbt).

<sup>199</sup> Ismer & Neuhoff, *supra* note 8, at 146-47; see also Veel, *supra* note 32, at 774.

<sup>200</sup> OLE KRISTIAN FAUCHALD, ENVIRONMENTAL TAXES AND TRADE DISCRIMINATION (1998).

<sup>201</sup> Ismer & Neuhoff, *supra* note 8, at 147; see also Demaret & Stewardson, *supra* note 23, at

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taxes levied on physically incorporated inputs,<sup>202</sup> various commentators have come down on both sides of the question of how to classify adjustments for different kinds of non-physically incorporated GHG-related input taxes. The argument that energy inputs, for instance, cannot be adjusted for seems to revolve around the language of GATT Article II:2, which states that adjustments can be made “in respect of an article from which the imported product has been manufactured in whole or in part.”<sup>203</sup>

According to this argument, energy cannot be regarded as an “article” at all, especially not one from which a product has been manufactured. Rather, the word “article” should be applicable only to ingredients physically incorporated in the final product. However, this interpretation is open to debate, especially as the word “article” can mean a distinct member of a class of things, such as a unit of energy.<sup>204</sup> The French can also be translated in different ways, as “goods,” or maybe even as “commodities,” which under a modern understanding of trade could certainly include energy or other GHG-producing activities. All of this linguistic argumentation is merely by way of saying that, while WTO decisional bodies could use this sort of analysis to exclude so-called intangible production ingredients, they have not done so thus far and seem inclined, rather, to take the simpler expedient of allowing BTAs for all types of inputs.<sup>205</sup>

A WTO Panel implicitly addressed some issues related to BTAs for product inputs in *Argentina—Hides and Leather*.<sup>206</sup> The European Community brought a complaint against Argentina for a value-added tax of nine percent on imported leather products.<sup>207</sup> In its analysis the Panel concluded that “a determination of whether an infringement of Article III:2, first sentence, exists must be made on the basis of an overall assessment of the actual tax burdens imposed on imported products, on the one hand, and like domestic products, on the other hand.”<sup>208</sup> Furthermore, in supporting this conclusion, the Panel cited language

<sup>202</sup> See *supra* note 23, at 20; see also BRACK ET AL., *supra* note 18, at 84-85.

<sup>203</sup> GATT, *supra* note 16, Art. II ¶ 2. Or, from the French text, “une merchandise qui a été incorporée dans l'article importé.” *Id.*

<sup>204</sup> “article (är'tī-ekel) *n.* *Abbr.* art. “1. An individual thing in a class; item . . . 6. A particular part or subject; a point or specific matter.” HOUGHTON MIFFLIN COMPANY, *THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE* 74 (William Morris ed. 1978).

<sup>205</sup> See Green & Epps, *supra* note 135, at 292.

<sup>206</sup> Report of the Panel, *Argentina—Measures Affecting the Export of Bovine Hides and the Import of Finished Leather*, WT/DS155/R (Dec. 19, 2000), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds155\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds155_e.htm).

<sup>207</sup> *Id.* at ¶ 1.1.

<sup>208</sup> *Id.* at ¶ 11.184.

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from *Japan—Alcohol* stating that all tax burdens, including “indirect taxation by taxing the raw materials used in the product during the various stages of its production,” must be taken into account.<sup>209</sup> Because the Panel focused on “raw materials used in the product,” it implicitly acknowledged the possibility of BTAs on non-physically incorporated product inputs.<sup>210</sup>

There is a potential distinction to be made between product inputs and the byproducts of product manufacturing. Veel points out this distinction, noting that “emissions allowances in the [European Union Emissions Trading System] and the *Lieberman-Warner Bill* are not charges on ‘articles from which the imported product has been manufactured,’ but rather are charges on by-products of the manufacturing process.”<sup>211</sup> However, this is likely drawing too fine a distinction on a somewhat confusing aspect of WTO jurisprudence—especially when taken in conjunction with GATT Article XX’s investigation of the purpose of a given trade measure.<sup>212</sup> The technical wording of GATT Article II:2 can indeed be used to draw the distinction underlined by Veel, but the purpose of the sections in question is to allow countries to impose BTAs rather than to govern the purpose or policy behind any particular border measure (unlike GATT Article XX, which explicitly investigates the purpose of a trade measure). It did not matter why Argentina was taxing any particular leather input in *Argentina—Hides and Leather*, just as it does not matter why the European Union might decide to tax energy or any other raw material at a particular rate. What matters, rather, is that domestic products are not given better tax

<sup>209</sup> *Id.* at ¶ 11.183 (citing Appellate Body Report, *Japan—Taxes on Alcoholic Beverages*, ¶ 5.8, 1996 WL 910779 (Oct. 4, 1996)).

<sup>210</sup> See Green & Epps, *supra* note 135, at 293 (stating that *Argentina—Hides and Leather* “provides some support for BTAs on production inputs not incorporated in the final product”).

<sup>211</sup> Veel, *supra* note 32, at 774 (quoting GATT Art. II ¶ 2(a)).

<sup>212</sup> See GATT, *supra* note 16, Art. XX ¶¶ (a)-(i) (“Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination . . . nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: (a) necessary to protect public morals; (b) necessary to protect human, animal or plant life or health; (c) relating to the importations or exportations of gold or silver; (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement . . . (e) relating to the products of prison labour; (f) imposed for the protection of national treasures of artistic, historic or archaeological value; (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption; (h) undertaken in pursuance of obligations under any intergovernmental commodity agreement . . . (i) involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan. . .”).

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treatment than imported products, and the purpose to which that tax treatment is applied is mostly irrelevant.

Indeed, Gavin Goh concludes that “[e]nergy tax adjustments at the border would be permitted under Article III:2 so long as the ‘actual tax burden’ on with respect to taxes applied on inputs was not in excess of that on the like domestic good.”<sup>213</sup> The broad definition of overall tax burdens, he reasons, acknowledges that adjustments can be made for production inputs to finished products.<sup>214</sup> Goh cautions that the language of Article III:2 may support an alternate view—one that holds that only those taxes applied directly to the finished product, and not inputs to that product, can be applied to imported products. Specifically, the line “directly or indirectly” could apply

more to the manner of application of the tax, as opposed to the nature of the tax itself. To interpret the term ‘applied . . . indirectly, to’ products as including taxes applied on other products used in the production of the imported and domestic goods at issue would extend the term beyond its ordinary meaning.<sup>215</sup>

However, this argument seems to be contradicted by the 1970 Working Party.<sup>216</sup> In noting that there was some difference in the language used to describe taxes levied on imports and exports, the Working Party concluded that “differences in wording had not led to any differences in interpretation of the provisions . . . GATT provisions on tax adjustment applied the principle of destination identically to imports and exports.”<sup>217</sup> Goh’s argument consequently has been rejected as well by the majority of WTO decisional law and commentary.

If, contrary to the above analysis, a given BTA scheme is not in compliance with the substantive portions of GATT, it is possible that the scheme could be justified under GATT Article XX. Article XX

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<sup>213</sup> Goh, *supra* note 15, at 406.

<sup>214</sup> *Id.* However, Goh presents a counter-argument that would prohibit BTAs for PPMs by suggesting that the relevant basis of comparison between like domestic and imported products is actually the taxes applied to *final products* rather than the taxes applied to product inputs or manufacturing processes. The basis for this argument, however, is the wording of Article III:2—Goh claims that PPM taxes are “borne by” domestic products, while BTAs are “applied to” imported products, and that this distinction in the language of GATT leads to his final product distinction. *Id.* It seems unlikely that a WTO decisional body would reach so fine a distinction on the basis of ambiguous language when the WTO has yet to show any inclination to micromanage BTA measures to the extent suggested by Goh.

<sup>215</sup> *Id.* at 410.

<sup>216</sup> Report of the Working Party, *Border Tax Adjustments*, ¶ 10, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf).

<sup>217</sup> *Id.*

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exceptions are covered in depth later in this analysis, in sections II.C. and II.D.

## C. GATT JURISPRUDENCE CONCERNING “LIKE” PRODUCT ANALYSIS

Products that are not considered either “like” or “competing” under the language of GATT Article III can be taxed at different rates without any danger of WTO repercussions. Thus governments often find it valuable to attempt to distinguish between products, especially when seeking to further other policy goals such as protecting the environment or human rights. For instance, an environmentally minded government may wish to tax organically produced bananas at a lower rate than bananas produced using standard agricultural practices, even though organic bananas may be competing with, or are “like,” regular bananas. Until recently, however, WTO decisional law has not tended to support distinctions drawn on the basis of production methods.<sup>218</sup>

Moreover, not just identical but also “competing” imported products are considered “like” for the purposes of GATT Article III. The Appellate Body’s ruling in *Asbestos* showed that the test for competitiveness should take place in an idealized marketplace where consumers have relevant information.<sup>219</sup> Also relevant is GATT Note Ad Article III, which states that a measure affecting imported competing products is inconsistent with Article III “only in cases where competition was involved between, on the one hand, the taxed product and, on the other hand, a directly competitive or substitutable product which was not similarly taxed.”<sup>220</sup> The important distinction here is whether a tax on imports tends to protect competing domestic products, whether or not those imports are taxed the same as like domestic products.<sup>221</sup>

The WTO adopted the definitive test for product likeness in *Japan—Alcohol*.<sup>222</sup> *Japan—Alcohol* concerned shochu and vodka, not identical

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<sup>218</sup> Indeed, Dominic Gentile concludes that “products produced in an environmentally unfriendly manner cannot be treated differently than products produced in an environmentally friendly manner on the sole basis of the difference in process or production method.” Gentile, *supra* note 31, at 7207. However, Gentile’s conclusion was largely based on the Panel decision in *Tuna—Dolphin I*, a decision that has been largely marginalized by later Appellate Body decisions, such as the *Shrimp—Turtle* series of cases. This will be addressed later on in this Article, when GATT Article XX(g) is discussed in detail.

<sup>219</sup> See Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 122, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm); see also Green, *supra* note 30, at 159.

<sup>220</sup> GATT, *supra* note 16, Note Ad Article III.

<sup>221</sup> Demaret & Stewardson, *supra* note 23, at 35.

<sup>222</sup> See Ismer & Neuhoff, *supra* note 8, at 146.

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products but nonetheless considered to serve the same end uses. Thus, the differential treatment of shochu and vodka served protectionist purposes.<sup>223</sup> In this case, the Appellate Body construed the language of GATT Article III:2 narrowly, considering the various characteristics of the products in each case.<sup>224</sup> According to the Appellate Body, likeness “must be determined by the particular provision in which the term ‘like’ is encountered as well as by the context and the circumstances that prevail in any given case to which that provision may apply.”<sup>225</sup> In the case of Article III, a somewhat precise (because it involves non-exclusive factors) six-factor test was set forth to determine likeness: (1) whether the two products share the same physical characteristics, (2) the similarity of the two products’ properties, (3) the functional likeness of the two products’ natures and qualities, (4) whether the two products have similar end uses in a given market, (5) consumers’ tastes and habits with regard to distinguishing the two products and willingness to substitute one for the other, and (6) the tariff classification of the products.<sup>226</sup>

Later cases showed that the size of the producer was irrelevant to likeness determinations, even if small foreign producers were given similar preferential treatment to small domestic producers.<sup>227</sup> In *United States—Malt Beverages Panel*, the Panel also implied that the origins of a product’s ingredients are not sufficiently distinctive to allow preferential tax treatment.<sup>228</sup> Whether products were being distinguished for protectionist purposes was, again, important to this decision.<sup>229</sup>

Where BTAs for GHG-related product inputs are concerned, the most obvious objects of a like-product analysis are final products rather than the raw materials used during manufacture.<sup>230</sup> Inputs such as energy and fuel do not tend to show up in the physical properties of the final product, making it difficult to classify products as unlike based solely on

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<sup>223</sup> Demaret & Stewardson, *supra* note 23, at 36.

<sup>224</sup> See Appellate Body Report, *Japan—Taxes on Alcoholic Beverages* 13, 1996 WL 910779 (Oct. 4, 1996).

<sup>225</sup> *Id.* at 12.

<sup>226</sup> *Id.* at 20-23; see also Ismer & Neuhoff, *supra* note 8, at 146; Report of the Working Party, *Border Tax Adjustments*, ¶ 18, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf) (stating that the determination should be based on “the product’s end-uses in a given market; consumers’ tastes and habits, which change from country to country; the product’s properties, nature and quality”).

<sup>227</sup> See, e.g., Report of the Panel, *United States: Measures Affecting Alcoholic and Malt Beverages*, ¶ 5.6, 1992 WL 799397 (Mar. 16, 1992).

<sup>228</sup> *Id.* at ¶ 5.22.

<sup>229</sup> See Demaret & Stewardson, *supra* note 23, at 38.

<sup>230</sup> Goh, *supra* note 15, at 407.

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GHGs emitted during production.<sup>231</sup> The only one of the criteria for distinguishing products, enumerated earlier, that might conceivably apply is consumer perceptions and differentiation. Most commentators, however, conclude that consumer differentiation on these grounds is unlikely to be argued and difficult to prove.<sup>232</sup>

*i. Environmental Process and Production Methods*

Distinguishing like or competing products on the basis of the process or production method (PPM) used to produce that product is another important arena where BTAs for GHG inputs will be tested. This is because GHG regulation tends to target the manner in which products are produced rather than specific final products, whereas GATT tends to focus on the final product. Thus, debate about whether GATT prohibits regulation on the basis of PPMs could be central to any discussion of compatibility between climate-centered regulation and the WTO.<sup>233</sup>

The TBT Agreement established regulations concerning PPMs.<sup>234</sup> Essentially, regulations on a product's specifications, such as size or weight, *are not* PPM-based regulations, while regulations concerning the methods used to make the product *are* PPM-based regulations.<sup>235</sup> PPMs are often distinguished by referring to them as either product-related or product-unrelated, based on whether the PPM regulation in question is related to the physical functionality of the product. One example of a product-related PPM regulation would be a measure requiring process-based sanitary conditions in the handling of imported meat products.<sup>236</sup> Non-product-related PPMs encompass measures addressing issues like labor standards and environmental protection. It is PPM-based regulations, and further, non-product-related PPMs, that tend to be the most controversial.<sup>237</sup>

<sup>231</sup> *Id.* at 407-08.

<sup>232</sup> *Id.* Goh points out that the regulatory creation of consumer differentiation may trigger WTO review of whether the regulation has a protectionist purpose, with the implication being that such purpose could invalidate an argument that imported products are not like domestic products. *See also* Hawkins, *supra* note 33, at 434.

<sup>233</sup> THE WORLD BANK, *supra* note 13, at 12.

<sup>234</sup> TBT Agreement, *supra* note 133.

<sup>235</sup> Steve Charnovitz, *The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality*, 27 YALE J. INT'L L. 59, 64-65 (2002) ("For example, a law prohibiting the landing of fish caught using a driftnet is a PPM. By contrast, a law prohibiting the sale of fish smaller than a prescribed size is not a PPM.").

<sup>236</sup> *See id.*

<sup>237</sup> *See* Goh, *supra* note 15, at 402 ("it is less clear whether Article III:2 permits border tax adjustments on a final product for taxes applied on inputs, such as energy, used in the production

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While BTAs in general are quite common, BTAs based on PPMs are rarer.<sup>238</sup> Most commentators believe that PPMs are irrelevant for likeness determinations under GATT Article III, and that the WTO judiciary shares this view.<sup>239</sup> If this is true, then PPM-based measures would need to qualify for one of the GATT Article XX exceptions in order to be WTO-compliant.

On the other hand, others have argued that *Shrimp—Turtle* opened the door for states to distinguish otherwise like products on the basis of process and production methods.<sup>240</sup> In *Shrimp—Turtle*, the Appellate Body upheld an import ban predicated on the level of environmental protection in shrimp-exporting countries.<sup>241</sup> In other words, the PPM used to produce the shrimp was held to be sufficient basis for trade measures. If this is so, products produced without GHG regulation could be distinguished from products produced with GHG regulation and taxed however a particular country wanted to, without running afoul of GATT Article I or III. In spite of the optimism surrounding *Shrimp—Turtle*, however, it is important to notice the complexity of PPM issues and the ease with which an open-ended reading of the “like product” language in the WTO agreements could be turned to protectionist purposes—and the wariness with which any WTO decisional body would confront the possibility of protectionist behavior. Also, *Shrimp—Turtle* involved GATT Article XX, which (as explained in detail below) gives a WTO decisional body more leeway to rein in disguised protectionist measures.

There have been some limited examples of PPM-based BTAs, such as a tax levied by the United States on ozone-depleting chemicals

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process”).

<sup>238</sup> BRACK ET AL., *supra* note 18, at 76.

<sup>239</sup> Ismer & Neuhoﬀ, *supra* note 8, at 148; *see also* Green, *supra* note 30, at 161-63 (“The general view has been that PPMs requirements based on the energy efficiency or emissions of the method of processing or production will not be found to comply with GATT.”); Zhang & Assunção, *supra* note 33, at 380 (“[i]t would appear that such BTA adjustments for imports on the basis of their MPPMs is in direct conflict with the GATT/WTO principles”); Green & Epps, *supra* note 135, at 292.

<sup>240</sup> *See, e.g.*, Halvorssen, *supra* note 88, at 376; *see also* THE WORLD BANK, *supra* note 13, at 12 (in *Shrimp—Turtle*, the WTO “may have opened the doors to the permissibility of trade measures based on PPMs”).

<sup>241</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, WT/DS58/AB/RW (Oct. 21, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm). In an effort to protect sea turtles, the United States issued regulations under Section 609 of the Endangered Species Act to require both domestic and foreign programs to prevent accidental sea turtle deaths as a result of shrimp-harvesting practices, primarily through the inclusion of Turtle Excluder Devices. *Id.* at ¶ 3. Countries that did not enact regulations at least as effective as the regulations in the United States at preventing sea turtle deaths could not import their shrimp into markets in the United States. *Id.* at ¶ 5.

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(ODCs). The ODC tax was instituted to accomplish obligations incurred by the United States under the 1987 Montreal Protocol, applied to chemicals proportionally to their ozone-depleting potential, and increased every year.<sup>242</sup> BTAs were applied to all products produced using ODCs, including ODCs used only for cleaning purposes and not present in the final product.<sup>243</sup> If actual consumption of ODCs was not reported, predominant production methods in the United States were used to estimate the tax for each particular product.<sup>244</sup> WTO approval of such taxes, and of the use of predominant production methods to determine tax levels, highlights an important methodology for the implementation of GHG-based BTAs.

Another example of a PPM-based BTA was a tax levied by the United States to fund the cost of hazardous waste cleanup. In *United States—Superfund*, a WTO Panel in 1987 decided a suit brought against the United States by Mexico, Canada, and the European Economic Community (EEC) because of taxes imposed on specific imported chemicals to further such cleanups.<sup>245</sup> The measure enacted by the United States, termed an environmental excise tax, included a tax on imported products based on the amount of domestically taxable chemicals used during production.<sup>246</sup> If relevant PPM information was not supplied by importers, the United States Treasury used predominant production methods employed in the United States to determine the rate of tax.<sup>247</sup> Because the tax was based on the process used to make the product rather than on the physical characteristics of the product itself, it represented a true PPM-based BTA.<sup>248</sup>

Citing the report of the Working Party on Border Tax Adjustments, the Panel in *United States—Superfund* held that

[w]hether a sales tax is levied on a product for general revenue purposes or to encourage the rational use of environmental resources, is . . . not relevant for the determination of the eligibility of a tax for border tax adjustment . . . The tax on certain chemicals, being a tax

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<sup>242</sup> BRACK ET AL., *supra* note 18, at 78.

<sup>243</sup> *Id.* at 79.

<sup>244</sup> *Id.*

<sup>245</sup> Panel Report, *United States—Taxes on Petroleum and Certain Imported Substances*, ¶ 1.1, L/6175 - 34S/136 (June 5, 1987), available at [www.wto.org/english/tratop\\_e/dispu\\_e/gt47ds\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/gt47ds_e.htm).

<sup>246</sup> *Id.* at ¶¶ 2.1-2.6.

<sup>247</sup> *Id.* at ¶ 2.4.

<sup>248</sup> BRACK ET AL., *supra* note 18, at 77.

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directly imposed on products, was eligible for border tax adjustment independent of the purpose it served.<sup>249</sup>

In other words, so long as the tax was applied to imports at a level not higher than equivalent charges applied to domestic producers, it was irrelevant that the BTA was aimed at environmental PPMs—the important point was that the tax adjustment was determined in relation to the amount of chemicals used.<sup>250</sup> This reasoning is especially important for analysis of GHG-based BTAs and the Most Favored Nation clause of GATT Article I because it is irrelevant that such BTAs are targeted at specific countries with weak GHG regulations. *United States—Superfund* shows that what is important is that the tax adjustment be calculated in respect to the amount of GHG produced.

According to some, *United States—Superfund* raised serious questions that might, in turn, apply to other PPM-based environmental regulation, such as a BTA for GHGs.<sup>251</sup> Little effort was made to specifically address the PPM issue in *United States—Superfund*, as the Panel lumped PPM-related taxes in with the other taxes at issue in the case. Another objection that has since been raised to the decision in *United States—Superfund* is that the requirement for foreign firms to provide commercial and proprietary information about the methods used to produce their products risked the exposure of sensitive information to competitors. Final objections to *United States—Superfund* include the danger of double taxation and the potential violation of “polluter pays” principles since foreign firms are being asked to pay for pollution that they did not necessarily cause.<sup>252</sup>

#### D. GATT ARTICLE XX EXCEPTIONS

Article XX of GATT and its ten subdivisions contain ten specific exceptions that allow measures that might otherwise violate one of the

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<sup>249</sup> *United States—Taxes on Petroleum and Certain Imported Substances*, ¶ 5.2.4, L/6175 - 34S/136.

<sup>250</sup> “The Panel accepted the US argument that GATT 1947 contemplated the possibility for border tax adjustments in respect of imported products that contained substances subject to an internal tax.” Goh, *supra* note 15, at 403-04.

<sup>251</sup> See, e.g., BRACK ET AL., *supra* note 18, at 77-81; Goh, *supra* note 15, at 404-15.

<sup>252</sup> Goh, *supra* note 15, at 404-05. It must be pointed out, though, that Goh portrays the “polluter pays” principle as an assumption that the polluter has already paid, a bit of a stretch considering the state of world environmental regulation. Later, Goh even contradicts his earlier caution when he states that a BTA on energy inputs would correspond to the “polluter pays” principle because polluters would be taxed irrespective of where their goods were produced. *Id.* at 415.

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articles of GATT. These exceptions generally address trade issues vital to the sovereignty of GATT member states or issues that are considered basic tenets of international human rights. There are two parts to an Article XX analysis: the subdivisions, and the chapeau,<sup>253</sup> or first paragraph.<sup>254</sup> For climate-related BTAs, only subdivisions (b) and (g) are directly relevant.<sup>255</sup> Relevant to environmental concerns, Article XX(b) states that GATT shall not interfere with measures “necessary to protect human, animal or plant life or health,”<sup>256</sup> and Article XX(g) excepts measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.”<sup>257</sup> The chapeau of Article XX has two basic requirements: (1) that “measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail,” and (2) that such measures not be “a disguised restriction on international trade.”<sup>258</sup> According to the Appellate Body in *Shrimp—Turtle*, the chapeau of Article XX “must be read by a treaty interpreter in the light of contemporary concerns of the community of nations about the protection and conservation of the environment.”<sup>259</sup> Though not explicitly applicable to the whole WTO, this language from *Shrimp—Turtle* can be read to imply that contemporary standards of interpretation should apply to all of the subdivisions of Article XX.<sup>260</sup>

*i. GATT Article XX(b)*

GATT Article XX(b) implicitly adheres to its own two-part structure: (1) making sure that the measure in question protects human, animal, or plant life or health; and (2) making sure that the measure is necessary. “Necessary” has been interpreted to mean that the trade

<sup>253</sup> “Chapeau” means “hat” or “cap” in French. [www.french-linguistics.co.uk/dictionary/englishfrench/](http://www.french-linguistics.co.uk/dictionary/englishfrench/).

<sup>254</sup> This two-step approach was applied by the WTO in *Reformulated Gasoline*, *Shrimp—Turtle*, and *Asbestos*, as will be described below. See also Ghei, *supra* note 49, at 119; Ismer & Neuhoff, *supra* note 8, at 149-50.

<sup>255</sup> *Id.* at 149; see also Goh, *supra* note 15, at 414; see also THE WORLD BANK, *supra* note 13, at 37.

<sup>256</sup> GATT, *supra* note 16, Art. XX(b).

<sup>257</sup> *Id.* Art. XX(g).

<sup>258</sup> *Id.* Art. XX.

<sup>259</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 129, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>260</sup> Goh, *supra* note 15, at 414.

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measure in question must be the least trade-restrictive measure possible under the circumstances.<sup>261</sup> To satisfy the second requirement, a series of factors must be weighed and balanced, including the importance of the common interests protected, the contribution of the trade restriction to the success of the protection, and the impact of the measure on trade flows.<sup>262</sup> According to the Appellate Body in *Korea—Beef*, the court may

take into account the relative importance of the common interests or values that the law or regulation to be enforced is intended to protect. The more vital or important those common interests or values are, the easier it would be to accept as ‘necessary’ a measure designed as an enforcement instrument.<sup>263</sup>

In *Asbestos*, a case that illustrates the successful application of an Article XX(b) exception, Canada challenged France’s unilateral ban on the import of all products containing asbestos.<sup>264</sup> France defended on the grounds that the ban was justified under the provisions of Article XX(b) as a protection of human health.<sup>265</sup> The Appellate Body upheld the measure, based on a WTO Panel’s finding “that the measure at issue is ‘necessary to protect human . . . life or health’, within the meaning of Article XX(b).”<sup>266</sup> The WTO Panel reasoned that France’s measure satisfied the chapeau of Article XX and was not discriminatory (and therefore not arbitrary or unjustifiable) because it treated all asbestos

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<sup>261</sup> See, e.g., Report of the Panel, *United States: Measures Affecting Alcoholic and Malt Beverages*, ¶ 5.52, 1992 WL 799397 (Mar. 16, 1992) (“It was incumbent upon the United States to demonstrate that . . . the discriminatory common carrier requirement for imported beer and wine is necessary to secure compliance with those laws. In the view of the Panel, the United States has not demonstrated that the common carrier requirement is the least trade restrictive enforcement measure available to the various states and that less restrictive measures, e.g. record-keeping requirements of retailers and importers, are not sufficient for tax administration purposes. In this regard, the Panel noted that not all fifty states of the United States maintain common carrier requirements. It thus appeared to the Panel that some states have found alternative, and possibly less trade restrictive, and GATT-consistent, ways of enforcing their tax laws. The Panel accordingly found that the United States has not met its burden of proof in respect of its claimed Article XX(d) justification for the common carrier requirement of the various states.”).

<sup>262</sup> Ismer & Neuhoff, *supra* note 8, at 150.

<sup>263</sup> While *Korea—Beef* is primarily addressing GATT Article XX(d) in this paragraph, the language and structure of XX(b) and (d) are closely enough related to enable us to draw precedential conclusions from the language in *Korea—Beef*. Appellate Body Report, *Korea—Measures Affecting Import of Fresh, Chilled and Frozen Beef*, ¶ 162, WT/DS161/AB/R, WT/DS169/AB/R (Dec. 11, 2000), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds161\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds161_e.htm).

<sup>264</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 1-3, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>265</sup> *Id.*

<sup>266</sup> *Id.* at ¶ 192(f).

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identically by banning it.<sup>267</sup> The Appellate Body agreed, stating that “it is undisputed that WTO Members have the right to determine the level of protection of health that they consider appropriate in a given situation.”<sup>268</sup> In so ruling, the Appellate Body in *Asbestos* held that there was no “reasonably available” alternative measure that would have been less trade-restrictive.<sup>269</sup> The Appellate Body said that in order to be “reasonably available,” the measure had to achieve *the same end* and be less restrictive of trade than a prohibition.<sup>270</sup>

The opposite conclusion was reached by a GATT Panel in *Thailand—Cigarettes*, where it was found that Thailand could not ban the import of foreign cigarettes for health reasons while allowing domestic manufacturers to sell cigarettes uninhibited.<sup>271</sup> Indeed, in that case, the presence of contradictory domestic and foreign policies was taken as evidence of a disguised restriction on international trade.<sup>272</sup> The key for an Article XX(b) analysis is whether the measure in question is actually necessary and whether there is another, less restrictive, trade measure that could reasonably be used instead.<sup>273</sup> In *Asbestos*, there was no measure other than a complete ban that would have allowed France to achieve its desired level of health protection.<sup>274</sup>

Moreover, it appears that in the Appellate Body’s opinion the more important the value a particular measure is trying to protect, the more leeway the measure has under Article XX(b).<sup>275</sup> Specifically, in *Asbestos* the Appellate Body said that “the objective pursued by the measure is the preservation of human life and health through the elimination, or reduction, of the well-known, and life-threatening, health risks posed by asbestos fibres. The value pursued is both vital and important in the

<sup>267</sup> Panel Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 8.228, WT/DS135/R (Sept. 18, 2000), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>268</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 168, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>269</sup> *Id.* at ¶ 169.

<sup>270</sup> *Id.* at ¶ 172.

<sup>271</sup> Report of the Panel, *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes*, DS10/R - 37S/200 (Nov. 7, 1990), available at [www.wto.org/english/tratop\\_e/dispu\\_e/90cigart.pdf](http://www.wto.org/english/tratop_e/dispu_e/90cigart.pdf).

<sup>272</sup> *Id.* at ¶ 81; see also Ghei, *supra* note 49, at 136.

<sup>273</sup> *Id.* at 147 (quoting *Asbestos* Appellate Body Report, at 172, 174).

<sup>274</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 168, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm); see also Ghei, *supra* note 49, at 147.

<sup>275</sup> Hawkins, *supra* note 33, at 436.

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highest degree.”<sup>276</sup> The implication is that the more important the values protected, the less leeway an alternative measure would have in a determination of that measure’s suitability.

More recently, the Appellate Body returned a decision in *United States—Gambling* that contributes to a discussion about what is considered more trade-restrictive than necessary.<sup>277</sup> Though *United States—Gambling* concerned the Global Agreement on Trade in Services (GATS), rather than GATT, the Appellate Body held that GATS Article XIV exceptions should be interpreted with GATT Article XX exceptions in mind, since the two Articles serve identical purposes within the larger frameworks of GATS and GATT.<sup>278</sup> The Appellate Body held that necessity was an objective standard to be independently assessed by a WTO decisional body, to which the characterization of a measure’s objectives and the effectiveness of the regulatory approach as evidenced by the texts of statutes, legislative histories, and governmental pronouncements, are relevant.<sup>279</sup> A weighing and balancing system was worked out based on (1) “an assessment of the ‘relative importance’ of the interests or values furthered by the challenged measure,” (2) “the contribution of the measure to the realization of the ends pursued by it,” and (3) “the restrictive impact of the measure on international commerce.”<sup>280</sup> Challenged measures should be compared to possible alternatives in light of “the importance of the interests at issue,” upon which evaluation the WTO decisional body will decide “whether another, WTO-consistent measure is ‘reasonably available.’”<sup>281</sup>

In *Asbestos*, the Appellate Body addressed the issue of scientific certainty under GATT Article XX by granting states a great deal of leeway.<sup>282</sup> The Appellate Body said that it would support the discretion

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<sup>276</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 172, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>277</sup> Appellate Body Report, *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/AB/R (Apr. 7, 2005), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds285\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds285_e.htm).

<sup>278</sup> *Id.* at ¶ 291 (“Article XIV of the GATS sets out the general exceptions from obligations under that Agreement in the same manner as does Article XX of the GATT 1994. Both of these provisions affirm the right of Members to pursue objectives identified in the paragraphs of these provisions even if, in doing so, Members act inconsistently with obligations set out in other provisions of the respective agreements”); see also McInerney, *supra* note 144, at 178.

<sup>279</sup> *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, ¶ 304.

<sup>280</sup> *Id.* at ¶ 306.

<sup>281</sup> *Id.* at ¶ 307.

<sup>282</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 177, WT/DS135/AB/R (Mar. 12, 2001), available at

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of WTO Panels in weighing available evidence to determine the facts of cases.<sup>283</sup> Additionally, the Appellate Body held that “a Member may also rely, in good faith, on scientific sources which, at that time, may represent a divergent, but qualified and respected, opinion.”<sup>284</sup> In other words, WTO members do not have to follow majority scientific opinions when setting health policies<sup>285</sup>—an important point in the context of climate-change discussions because of the range of timeframe assessments and the uncertainty surrounding exact damage impacts.<sup>286</sup> Though not reached in the context of other GATT Article XX exceptions, it seems likely that states will have the benefit of similarly wide discretion on issues of scientific certainty if the question arises in future cases.<sup>287</sup>

ii. *GATT Article XX(g)*

Under Article XX(g), the key considerations are (1) whether the measure in question addresses the conservation of an exhaustible natural resource, and (2) whether the measure has been made in conjunction with domestic restrictions. There are two sub-parts to an analysis of whether the measure addresses conservation: (a) the precise definition of a measure, and (b) the strength of the relationship between the measure and the legitimate conservation policy that the measure is aimed at.<sup>288</sup> In *Reformulated Gasoline*, the Appellate Body defined the measure in question as that portion of the United States Clean Air Act found to be in conflict with WTO law.<sup>289</sup> In *Shrimp—Turtle*, the Appellate Body handed down a similar ruling limiting the dispute to Section 609 of the United States Endangered Species Act.<sup>290</sup> Thus, the precise measure in question under Article XX jurisprudence will be any provision found to violate one or more of the substantive provisions of GATT.<sup>291</sup>

Having established the measure in question, WTO jurisprudence

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[www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>283</sup> *Id.*

<sup>284</sup> *Id.* at ¶ 178.

<sup>285</sup> *See id.*; *see also* Ismer & Neuhoff, *supra* note 8, at 150-51.

<sup>286</sup> Green, *supra* note 30, at 147.

<sup>287</sup> *See* Green & Epps, *supra* note 135, at 296.

<sup>288</sup> *See* Ozbirn, *supra* note 139, at 389-93.

<sup>289</sup> Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 1, 1996 WL 227476 (Apr. 29, 1996).

<sup>290</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 137, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>291</sup> Ozbirn, *supra* note 139, at 390.

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considers whether the measure is aimed at a legitimate conservation purpose. In *Canada—Herring and Salmon* a GATT Panel found that conservation cannot be merely incidental to the effects of the measure.<sup>292</sup> This interpretation was cited favorably by the *Reformulated Gasoline Panel*<sup>293</sup> and is also supported by the Appellate Body's requirement of "a close and genuine relationship of ends and means" in *Shrimp—Turtle*.<sup>294</sup> Essentially, the measure needs to be directly connected to the conservation policy.<sup>295</sup>

Next, the resource being protected by a measure must meet the criteria laid down by the Appellate Body for an "exhaustible natural resource." International law generally defines natural resources broadly—the 1972 Stockholm Declaration states that they consist of "air, water, land, flora and fauna and especially representative samples of natural ecosystems."<sup>296</sup> Natural resources have also been defined broadly by the Appellate Body in *Reformulated Gasoline* and in *Shrimp—Turtle*, as well as in other GATT and WTO Panel and Appellate Body decisions. For instance, such resources are not limited to the territory of the country that has imposed restrictions.<sup>297</sup> Furthermore, in *Reformulated Gasoline* the Panel's finding that clean air was an exhaustible natural resource was never appealed to the Appellate Body, which nonetheless stated that it was willing to accept the Panel's ruling.<sup>298</sup>

The Panel's interpretation in *Reformulated Gasoline* was backed by the *Shrimp—Turtle* Appellate Body's broad interpretation of "exhaustible natural resource" so as to include sea turtles because they

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<sup>292</sup> The Panel concluded that Article XX(g) contains a requirement that a measure be primarily aimed at conservation in order to be related to conservation—meaning that a measure primarily aimed at protecting Canadian fish processing infrastructure and jobs did not qualify for an Article XX(g) exception. Report of the Panel, *Canada—Measures Affecting Exports of Unprocessed Herring and Salmon*, ¶ 4.7, L/6268 - 35S/98 (Mar. 22, 1988), available at [www.worldtradelaw.net/reports/gattpanels/canadaherring.pdf](http://www.worldtradelaw.net/reports/gattpanels/canadaherring.pdf); see also Ozbim, *supra* note 139, at 376; Ghei, *supra* note 49, at 135-36.

<sup>293</sup> Panel Report, *United States—Standards for Reformulated and Conventional Gasoline*, ¶ 6.39, WT/DS2/R (Jan. 29, 1996), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds2\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds2_e.htm).

<sup>294</sup> *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 136, WT/DS58/AB/R.

<sup>295</sup> See Ismer & Neuhoff, *supra* note 8, at 151.

<sup>296</sup> Declaration of the United Nations Conference on the Human Environment, Stockholm Principle 2 (1972), available at [www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503](http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503).

<sup>297</sup> See, e.g., Report of the Panel, *United States—Restrictions on Imports of Tuna*, DS29/R (June 16, 1994), available at [www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf](http://www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf); see also Gentile, *supra* note 31, at 206-07.

<sup>298</sup> Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 4, 1996 WL 227476 (Apr. 29, 1996).

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were both exhaustible (even though renewable) and a natural resource (because so defined by other international agreements).<sup>299</sup> In its ruling supporting the actions of the United States in *Shrimp—Turtle*, the Appellate Body held that this broad interpretation of Article XX(g) was justified because the Article was not “limited to the conservation of ‘mineral’ or ‘non-living’ natural resources,” and “that ‘exhaustible’ natural resources and ‘renewable’ natural resources are [not] mutually exclusive” because so-called “renewable” resources are certainly capable of “depletion, exhaustion and extinction, frequently because of human activities.”<sup>300</sup>

The final analysis of Article XX(g) concerns whether the measure in question was made in conjunction with some kind of domestic regulation reaching the same subject.<sup>301</sup> According to Jasper Ozbirn, “XX(g) does not require the specific measure be the source of the domestic restrictions, but merely that the country enacting the measure be subject to similar [though not identical] regulations.”<sup>302</sup> This is supported by the Appellate Body’s reasoning in *Reformulated Gasoline* finding that identical restrictions would not violate GATT Article III:4; to treat Article XX(g) as though it required identical regulations would make the exceptions clause irrelevant—a result contrary to international treaty interpretation practice.<sup>303</sup> One way of looking at this is that the WTO requires the regulating country to have “clean hands” and avoid behavior inconsistent with its own stated goals.<sup>304</sup>

Some commentators believe that environmental and conservation purposes tend to be looked upon unfavorably by GATT and WTO Panels under Article XX exceptions.<sup>305</sup> On the other hand, some see the WTO’s role as one of facilitation, ensuring that measures that purport to be aimed at environmental goals are not disguised protectionist measures aimed at restricting trade and circumventing the WTO’s larger goal of economic prosperity through sustainable development.<sup>306</sup> Nita Ghei, for

<sup>299</sup> See Ismer & Neuhoff, *supra* note 8, at 151.

<sup>300</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 128, WT/DS58/AB/R, (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm). For more on *Shrimp—Turtle*, please see Appendix C.

<sup>301</sup> See Gentile, *supra* note 31, at 12 (“the key distinction is whether a border measure is backed up by some internal regulation”).

<sup>302</sup> Ozbirn, *supra* note 139, at 403.

<sup>303</sup> Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 13-14, 1996 WL 227476 (Apr. 29, 1996); see also Vienna Convention on the Law of Treaties, Art. 31 (May, 23 1969).

<sup>304</sup> See Ismer & Neuhoff, *supra* note 8 at 151.

<sup>305</sup> See, e.g., Ozbirn, *supra* note 139, at 373-74.

<sup>306</sup> See, e.g., Halvorssen, *supra* note 88, at 376-77.

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example, claims that the two-step Article XX analysis “has been quite effective in distinguishing between legitimate environmental standards and environmental standards that primarily function as non-tariff trade barriers.”<sup>307</sup>

*iii. The Chapeau of GATT Article XX*

The chapeau of GATT Article XX functions to prevent abuse of the exceptions it contains, based primarily on the principle of good faith.<sup>308</sup> In *Shrimp—Turtle*, the Appellate Body explained that the application of this principle “prohibits the abusive exercise of a state’s rights” and dictates that the assertion of such rights must be exercised reasonably.<sup>309</sup> This means that competing rights should not cancel each other out, but rather that the role of the court is to establish a “line of equilibrium” between competing interests such that the integrity of the balance of rights and obligations established by signatories to the WTO agreements is preserved. This line, the Appellate Body has held, can move depending on the specific measure at issue and the public policy goals the measure furthers.<sup>310</sup> More and more, the focus of chapeau analysis has centered on whether discrimination resulting from a challenged measure is reasonably related to the goals of the measure.<sup>311</sup>

Article XX is designed to allow justifiable violations of the other provisions of GATT while attempting to protect the integrity of GATT’s underlying economic philosophy by limiting the abuse of exceptions for protectionist purposes. The two primary requirements of the chapeau are that a measure not be arbitrarily or unjustifiably discriminatory, and that it not be a disguised restriction on international trade. The second of these requirements has been interpreted more simply than the first: in *Asbestos*, a WTO Panel found that in order for there to be disguise there had to be *intent* to disguise on the part of the country enacting the measure in question.<sup>312</sup> Therefore, this requirement is seldom invoked

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<sup>307</sup> Ghei, *supra* note 49, at 119.

<sup>308</sup> See, e.g., Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶ 224, WT/DS332/AB/R (Dec. 3, 2007), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds332\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds332_e.htm).

<sup>309</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 158, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>310</sup> *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶ 224, WT/DS332/AB/R.

<sup>311</sup> McInerney, *supra* note 144, at 198.

<sup>312</sup> Panel Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 8.236, WT/DS135/R (Sept. 18, 2000), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

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because it is so difficult to prove intent, and the enacting country must be found to have intentionally concealed the enactment of the measure.<sup>313</sup> In many circumstances, simple publication of the measure could be enough to satisfy this element of the chapeau.

The first requirement, that a measure not be arbitrarily or unjustifiably discriminatory, is more complicated. Two parts seemed to emerge from *Shrimp—Turtle*: (1) that measures be applied flexibly so that comparable levels of effectiveness or protection, as opposed to identical regulations, are allowed by importing states;<sup>314</sup> and (2) that there has been a prior good-faith effort to reach a multilateral or bilateral solution.<sup>315</sup> *Shrimp—Turtle* defined trade sanctions dependent on foreign environmental regulation as acceptable under WTO law so long as the measure was focused on the function and effectiveness of the protections implemented rather than the form.<sup>316</sup> In *Shrimp—Turtle*, regulations in the United States requiring equal effectiveness from foreign environmental regulation were legal under GATT, while regulations requiring identical legislation were not.<sup>317</sup> Nita Ghei concludes that

the greater the use of negotiation, and the greater the flexibility of the unilateral measure in achieving its desired end, the more likely the measure will pass WTO scrutiny. These conditions also diminish the probability that the measure is the result of rent seeking. The restrictions imposed by the WTO analysis increases the probability a unilateral measure is truly welfare-enhancing; that the measure truly protects the environment from damage, and not special interest groups from foreign competition.<sup>318</sup>

Similarly, at least one commentator has stated that good-faith negotiations toward multilateral environmental agreements would be enough to satisfy the chapeau.<sup>319</sup>

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<sup>313</sup> See Ozbirn, *supra* note 139, at 410.

<sup>314</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 166, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm); see also Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 14, 1996 WL 227476 (Apr. 29, 1996).

<sup>315</sup> *Id.*

<sup>316</sup> Ghei, *supra* note 49, at 148; Gavin Goh asserts that member states cannot discriminate between exporting countries merely on the basis of whether they have ratified the Kyoto Protocol—this supports the emphasis on function over form explained by Ghei. Goh, *supra* note 15, at 418.

<sup>317</sup> *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>318</sup> Ghei, *supra* note 49, at 150.

<sup>319</sup> See Green, *supra* note 30, at 179.

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In *Shrimp—Turtle*, the United States had regional agreements in place with some trading partners that allowed for specific local alternatives to the regulations spelled out in the United States Endangered Species Act.<sup>320</sup> This caused problems with GATT because some nations were being treated more favorably, implying arbitrary and unjustifiable discrimination. As demonstrated in *Reformulated Gasoline*, the WTO appears to favor multilateral over unilateral solutions to transboundary environmental problems.<sup>321</sup> Multilateral agreements appeared to play an influential role in the Appellate Body's decision in *Shrimp—Turtle Recourse Action*. Specifically, the Appellate Body pointed to the preference for, rather than the necessity of, multilateral agreements to address transboundary environmental problems under Principle 12 of the Rio Declaration on Environment and Development.<sup>322</sup> The Appellate Body concluded in *Shrimp—Turtle Recourse Action* that the prior good-faith effort at negotiation was sufficient to convince it that there had been no arbitrary or unjustifiable discrimination against countries without such agreements.<sup>323</sup> Thus, the chapeau was satisfied.

The most recent decision by the Appellate Body relating to the chapeau of Article XX (and the specific exception in Article XX(b)) came in the case of *Brazil—Retreaded Tyres*, a challenge by the European Commission of a Brazilian measure restricting imports of used,

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<sup>320</sup> *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>321</sup> Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 1996 WL 227476 (Apr. 29, 1996); Gentile, *supra* note 31, at 208-09.

<sup>322</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, ¶ 124, WT/DS58/AB/RW (Oct. 21, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm) (“a multilateral approach is strongly preferred. Yet it is one thing to prefer a multilateral approach in the application of a measure that is provisionally justified . . . it is another to require the conclusion of a multilateral agreement as a condition of avoiding ‘arbitrary or unjustifiable discrimination’ under the chapeau of Article XX. We see, in this case, no such requirement.”); Dominic Gentile considers the inclusion of multilateral environmental agreements like the Rio Declaration in recent decisions of the Appellate Body to be a significant break from the WTO’s history of avoiding the use of persuasive sources from outside of the WTO agreements: “This reliance on and reference to multilateral environmental agreements . . . in the context of a WTO dispute is especially noteworthy, and portends a new approach to the resolution of these types of disputes.” Gentile, *supra* note 31, at 223.

<sup>323</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, ¶ 121-122, WT/DS58/AB/RW (Oct. 21, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm). It is important to note here that the Appellate Body did not rule that unilateral environmental measures are per se inconsistent with the chapeau of Article XX. See Ghei, *supra* note 49, at 144. This potentially opens the door to upholding other unilateral environmental measures in WTO dispute proceeding, so long as market access is conditioned on effectiveness rather than adoption of identical environmental protections. *Id.*

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retreaded tires.<sup>324</sup> The Appellate Body found that the chapeau had been violated because the Brazilian measure allowed importers to use unlimited court injunctions to circumvent the import ban, which qualified as “arbitrary or unjustifiable discrimination.”<sup>325</sup> Citing *United States—Gasoline* and *Shrimp—Turtle*, the Appellate Body held that it was important to examine the cause of the discrimination and the rationale put forward to explain its existence.<sup>326</sup> The chapeau was also violated by an exception to the import ban that allowed imports from other South American countries under a separate treaty regime, leading to the conclusion that the Brazilian measure was both arbitrary and unjustifiable discrimination<sup>327</sup> and a disguised restriction on international trade.<sup>328</sup> Specifically, the Appellate Body had “difficulty understanding how discrimination might be viewed as complying with the chapeau of Article XX when the alleged rationale for discriminating does not relate to the pursuit of or would go against the objective that was provisionally found to justify a measure under a paragraph of Article XX.”<sup>329</sup>

E. QUALIFYING A GREENHOUSE-GAS-BASED BTA UNDER AN ARTICLE XX EXCEPTION

No case has yet come before a GATT or WTO panel that explicitly involved applying an Article XX exception to a measure involving BTAs. Therefore, it is necessary to extrapolate from available WTO and GATT precedent to craft an analysis supporting the use of BTAs that is consistent with past decisions. *Shrimp—Turtle* and *Asbestos* show that unilateral trade measures like BTAs can qualify for Article XX exceptions.<sup>330</sup> Both cases illustrate the successful application of Article XX exceptions, *Shrimp—Turtle* under Article XX(g) and *Asbestos* under Article XX(b).

<sup>324</sup> Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶ 1, WT/DS332/AB/R (Dec. 3, 2007), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds332\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds332_e.htm).

<sup>325</sup> *Id.* at ¶ 246.

<sup>326</sup> *Id.* at ¶ 226.

<sup>327</sup> *Id.* at ¶ 233.

<sup>328</sup> *Id.* at ¶ 239.

<sup>329</sup> *Id.* at ¶ 227.

<sup>330</sup> In *Shrimp—Turtle*, the Appellate Body did not rule that unilateral environmental measures are per se inconsistent with the chapeau of Article XX. This potentially opens the door to upholding other unilateral environmental measures in WTO dispute proceeding, so long as market access is conditioned on effectiveness rather than adoption of identical environmental protections. Ghei, *supra* note 49, at 144,147.

2010] *GREENHOUSE GASES AND BORDER TAX ADJUSTMENTS* 341*i. Greenhouse-Gas-Based BTAs and Article XX(b) Exceptions*

Under Article XX(b), a GHG-based BTA would have to be found to protect life or health and be the least trade-restrictive option available. Because global climate change is a transboundary problem that plainly threatens human, animal, and plant life and health, an import BTA should have no problem satisfying this first step. This is particularly true considering that under the Appellate Body's ruling in *Asbestos*, individual governments can determine at what level they wish to protect the health of their citizens.<sup>331</sup> Moreover, international recognition of anthropogenic climate change as a scientifically based threat has long been accorded the level of acceptance necessary for trade measures that address it to succeed under an Article XX(b) exception.<sup>332</sup>

BTAs on exports are more difficult to justify than BTAs on imports under this rationale because of the argument that the primary rationale for BTA export measures is to address competitive disadvantages faced by domestic industry rather than to directly prevent climate change. Relieving domestic producers of the cost of GHG-based regulations is a bit of a backwards approach to encouraging them to reduce GHG emissions. A rationale based on the prevention of carbon leakage—penalizing profits from international trade could have the effect of limiting carbon leakage if such profits sufficiently outweigh the cost of moving production facilities to unregulated countries—might be convincing enough to justify a BTA on exports, especially if it could be shown that there was some attempt at a balance between keeping domestic industry from leaving and regulating GHG emission, but such a conclusion is far from certain.

A WTO decisional body could move in one of two directions on this issue—either treating import and export BTAs as part of a single measure for the purposes of their Article XX(b) analysis, or treating them separately. Thus, analysis of what constitutes a measure for the purposes of Article XX—an issue addressed in *Reformulated Gasoline*—is necessary.

In *Reformulated Gasoline*, the Appellate Body stated that for an Article XX analysis a “measure” is simply that part of a rule or regulation that is found to be in conflict with Article III:4.<sup>333</sup> This leaves

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<sup>331</sup> Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 168, WT/DS135/AB/R (Mar. 12, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds135\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm).

<sup>332</sup> See Goh, *supra* note 15, at 414.

<sup>333</sup> Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 8, 1996 WL 227476 (Apr. 29, 1996).

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some limited discretion while establishing a narrow reading of what parts of a rule the WTO has authority to challenge. If export BTAs for GHGs fail to qualify for an exception standing alone, they could be included as part of the same measure as import BTAs. This is a result championed by Ismer and Neuhoff: under their symmetric treatment rationale, export BTAs could qualify for an exception on the weight of the arguments in favor of import BTAs.<sup>334</sup>

This debate may well encompass a distinction without a difference—as stated earlier, export BTAs are historically easier to justify under WTO jurisprudence than import BTAs anyway, and a WTO decisional body might simply not find a violation of the substantive portions of GATT where export BTAs are concerned. If a violation is found, a decisional body may find that export BTAs qualify for an Article XX(g) exception. Either of these options would render the above debate a purely academic exercise.

ii. *Greenhouse-Gas-Based BTAs and Article XX(g) Exceptions*

In order to qualify under XX(g), the purpose of a GHG-based BTA must be directly connected to a legitimate conservation policy for exhaustible natural resources and made in conjunction with domestic restrictions. This second requirement should be met because the amount of tax applied by a BTA must be calculated based on the costs of domestic regulation. As stated earlier, in order to be allowed as a BTA under GATT, border adjustments for imported goods must be tied to domestic tax levels such that imports do not suffer unjust discrimination.

For the first requirement, the WTO would have to determine that the GHG-based BTA was aimed at preventing climate change rather than at protecting domestic industry. A BTA for the costs of GHG regulation would raise the cost of energy-intensive products and consequentially encourage increases in energy efficiency and discourage carbon leakage—all of which should qualify as legitimate conservation purposes.<sup>335</sup> Based on the Appellate Body's ruling in *Shrimp—Turtle*, measures aimed at pressuring other governments to change their domestic policies can be legitimate (thus limiting, if not outright overruling, the GATT Panel's decision in *Tuna—Dolphin II*<sup>336</sup>).<sup>337</sup> It is

<sup>334</sup> Ismer & Neuhoff, *supra* note 8, at 150.

<sup>335</sup> Veel, *supra* note 32, at 777.

<sup>336</sup> The Panel in *Tuna—Dolphin II* concluded that the embargo was not related to conservation because it was based on pressuring foreign governments into satisfying the conservation goals of the United States—a murky line of reasoning based perhaps on a concept of causality not explicitly present in Article XX(g) itself. See Report of the Panel, *United States—Restrictions on Imports of*

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even possible that stating in a BTA measure's preamble that it was primarily aimed at preventing or redressing climate change would be enough, absent demonstrated mendacity, to convince a WTO decisional body that the measure was aimed at a legitimate conservation purpose.

This rationale, combined with those concerning carbon leakage described above, might be enough to obtain a XX(g) exception for a GHG-based export BTA as well. However, many questions remain concerning export BTAs and GHGs as product inputs, so whether they would qualify for any Article XX exception is uncertain. In the end, the question of whether the rebate of costs associated with GHG regulation is primarily aimed at conservation or protectionist purposes might well be decided against such a measure because the goal of protecting domestic industry is so central to the BTA concept. On the other hand, strong domestic GHG regulations could imply that the primary goal of BTAs is to protect GHG friendly industry rather than domestic industry. As stated above, however, an export BTA might not require an Article XX exception at all.

An exhaustible-natural-resources analysis would have to analyze GHG emissions as impacting exhaustible natural resources through climate change. Perhaps the closest available analogy to climate change is clean air, which was addressed in *Reformulated Gasoline* by a WTO Panel (though the Appellate Body did not reach the issue in its analysis).<sup>338</sup> In that case, Venezuela argued that clean air could not be an exhaustible natural resource because it was both renewable and regularly changed in quality.<sup>339</sup> In response, the Panel found that it made sense to interpret the term exhaustible natural resource "very broadly."<sup>340</sup>

The exhaustible-natural-resource requirement will not be an obstacle to a XX(g) exception for a GHG-based BTA.<sup>341</sup> Indeed, there has been no successful challenge to the use of an Article XX(g)

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*Tuna*, ¶ 5.24, DS29/R (June 16, 1994), available at [www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf](http://www.worldtradelaw.net/reports/gattpanels/tunadolphinII.pdf).

<sup>337</sup> It is important to note that the hypothesis that unilateral measures can be used to pressure foreign governments into policy changes has yet to be tested in the climate-change arena, with its unique problems of causation as a result of the cumulative impact of greenhouse gases.

<sup>338</sup> See, e.g., Veel, *supra* note 32, at 776.

<sup>339</sup> Ozbirn, *supra* note 139, at 386.

<sup>340</sup> *Id.* at 386-87.

<sup>341</sup> *Id.* at 388 ("It seems clear, based on the Appellate Body's broad construction in United States—Gasoline and its analysis in Shrimp-Turtle, that the element of 'exhaustible natural resources' will not be the biggest hurdle for a country to successfully argue that a measure is justified under XX(g)."); see also Veel, *supra* note 32, at 776 ("[g]iven that anthropogenic climate change is perhaps the predominant contemporary environmental concern, it seems likely [that this] criterion would be satisfied").

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exception on the grounds that the thing protected was not an exhaustible natural resource.<sup>342</sup> According to Ozbirn, “[t]his creates a general rule that anything that can be depleted is exhaustible, and what is a ‘natural resource’ must be interpreted as understood internationally at the time of the dispute.”<sup>343</sup> Veel agrees, saying that “it seems likely that an atmosphere without excessive amounts of CO<sub>2</sub> can be characterized as an exhaustible natural resource.”<sup>344</sup> Therefore, global carbon and other GHG concentrations could qualify as exhaustible natural resources under the meaning of Article XX(g)<sup>345</sup>—as could coastlines (lost to sea-level rise), fresh water, predictable rainfall and climate patterns, ice and glaciers, biodiversity and ecosystems, etc.<sup>346</sup> This conclusion is further supported by the Appellate Body’s interpretation of “natural resource” under Article XX(g) as dynamic—incorporating international norms from multilateral environmental agreements like the Kyoto Protocol.<sup>347</sup>

Some commentators claim that WTO member states will try to justify trade discrimination in the context of climate change through Article XX(g), based on an argument that the process and production measures used as a basis for discrimination are harmful to an exhaustible natural resource, namely the world climate system.<sup>348</sup> This is the danger various decisions of the Appellate Body have addressed under an analysis of the chapeau of Article XX, especially *Brazil—Retreaded Tyres* and *Shrimp—Turtle*, discussed in the next section.

iii. *Greenhouse-Gas-Based BTAs and the Chapeau of Article XX*

As previously stated, the two primary requirements of the chapeau are that a measure not be arbitrarily or unjustifiably discriminatory, and that it not be a disguised restriction on international trade. The Appellate

<sup>342</sup> See Ozbirn, *supra* note 139, at 388-89.

<sup>343</sup> *Id.* at 388. Ozbirn bases this conclusion on the statement of the Appellate Body that its task in deciding *Shrimp—Turtle* was to interpret the language of the chapeau, seeking additional interpretative guidance, as appropriate, from the general “context of international law.” *Id.* Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 158, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>344</sup> Veel, *supra* note 32, at 776.

<sup>345</sup> See Ismer & Neuhoff, *supra* note 8, at 151.

<sup>346</sup> For instance, Slayde Hawkins refers to “our climate resource” as an exhaustible natural resource. Hawkins, *supra* note 33, at 446.

<sup>347</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 130-1, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm); see also Green, *supra* note 30, at 183.

<sup>348</sup> See, e.g., Halvorssen, *supra* note 88, at 376.

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Body made it clear in *Shrimp—Turtle* that building flexibility into measures based on foreign regulatory efforts is the key to WTO compliance. Therefore, the design of a BTA for GHGs must focus border adjustment triggering conditions on the effectiveness of foreign GHG regulation rather than demanding that other countries institute identical systems of regulation.

BTAs for greenhouse gases would both have an impact on, and be impacted by, any number of regional trade agreements, not to mention individual negotiations over tariff rates and greenhouse-gas abatement measures. This raises a potential pitfall faced by BTA measures that treat different exporting countries differently, as witnessed by the conclusions of the Appellate Body in *Brazil—Retreaded Tyres*. But so long as these differences are not arbitrary or unjustifiable—in other words, so long as there is a comprehensive and rational system in place for assessing tax adjustments at the border—there is no reason why a GHG-based BTA must run afoul of this provision of the chapeau.

Care would have to be taken in circumstances similar to those in *Shrimp—Turtle*—where the regulating country has negotiated alternative agreements with some governments but not with others—to allow equal access to negotiated alternatives.<sup>349</sup> But as the Appellate Body stated in *Shrimp—Turtle*, only a good-faith effort at negotiation is necessary, not a resulting agreement.<sup>350</sup> According to Ismer and Neuhoff, the intensive negotiating history of climate summits and discussions would be more than enough to satisfy this requirement.<sup>351</sup> However, Goh cautions that mere “participation in multilateral negotiations does not by itself provide an importing Member *carte blanche* to impose trade restrictive measures such as energy tax adjustments,” asserting that importers have an obligation under Article XX to pursue negotiations.<sup>352</sup>

### III. PLANNED BORDER TAX ADJUSTMENTS RELATED TO GREENHOUSE GAS EMISSIONS

To date, there are no Border Tax Adjustments (BTAs) specifically targeted at greenhouse gas (GHG) emissions, nor are there any for

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<sup>349</sup> *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 172-3, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>350</sup> *Id.*

<sup>351</sup> See Ismer & Neuhoff, *supra* note 8, at 152. However, they note that this view is not universally held. *Id.* (citing Gavin Goh, *The World Trade Organization, Kyoto and Energy Tax Adjustments at the Border*, 38 J. WORLD TRADE 395 (2004)).

<sup>352</sup> Goh, *supra* note 15, at 417-18.

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energy inputs used in the production process.<sup>353</sup> However, there are several economic and regional sectors where BTAs have been proposed.<sup>354</sup> For instance, countries that apply domestic taxes to fossil fuels as a fiscal measure often apply a BTA to imports of like fuels.<sup>355</sup> Recently proposed climate legislation in the United States includes a “competitiveness provision” or “international reserve allowances” designed along the lines of a BTA.<sup>356</sup> Additionally, a report prepared for the Japanese Environment Agency suggests that BTAs might be advisable where products are exchanged with countries that do not take economic measures to protect the environment similar to those taken by Japan.<sup>357</sup> Finally, there are some proposals, published in academic circles, for economically feasible BTAs for greenhouse gases.<sup>358</sup> Because the evidence of the threat posed by climate change continues to grow, it seems likely that GHG-based BTAs will start cropping up in GHG-regulating states sometime in the near future.<sup>359</sup>

Some point out that companies in the United States enjoy a significant competitive advantage due to the lack of GHG regulation, and suggest that to the extent this disadvantages European Union (EU) companies, the EU should impose border tax adjustments equal to GHG costs faced by domestic producers to level the playing field.<sup>360</sup> In fact, there is increasing pressure from industrial producers in the EU to impose carbon tariffs in response to the failure of the United States to comply with Kyoto targets.<sup>361</sup> According to the World Bank, “the potential impact of such punitive measures by the EU could result in a loss of about 7 percent in U.S. exports to the EU,” with energy intensive industries suffering as much as a 30-percent loss.<sup>362</sup> These industries include heavy industrial sectors like the cement industry, aluminum manufacturers, and steel producers. Though there have been no

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<sup>353</sup> THE WORLD BANK, *supra* note 13, at 24.

<sup>354</sup> Goh, *supra* note 15, at 399.

<sup>355</sup> THE WORLD BANK, *supra* note 13, at 24.

<sup>356</sup> See, e.g., Lieberman-Warner Climate Security Act of 2008, S. 3036, 110th Cong. (as placed on the calendar of the Senate on May 21, 2008).

<sup>357</sup> Goh, *supra* note 15, at 400.

<sup>358</sup> See, e.g., Ismer & Neuhoff, *supra* note 8.

<sup>359</sup> See Green & Epps, *supra* note 135, at 291; Veel, *supra* note 32, at 776-777.

<sup>360</sup> See, e.g., Halvorssen, *supra* note 88, at 378; see also Goh, *supra* note 15, at 400; Green & Epps, *supra* note 135, at 287.

<sup>361</sup> THE WORLD BANK, *supra* note 13, at 12.

<sup>362</sup> *Id.* Though its use of the word “punitive” is clearly pejorative, it reflects commonly held free-trade principles that hold that limitations on trade are bad. The World Bank could have stated that such tariffs were fair or self-protective, had they approached the issue from a different point of view.

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documented results that support the perception that high energy taxes have a negative impact on economic competitiveness, serious efforts to reduce GHG emissions would almost certainly result in much higher energy costs than those imposed by normal energy taxes because such a large percentage of GHG emissions come from energy generation.<sup>363</sup> Higher costs are exactly what domestic industries are afraid of, and why BTAs would serve a valuable function facilitating GHG regulation.

A. SOME PRACTICAL ASPECTS OF BORDER TAX ADJUSTMENTS FOR GREENHOUSE GASES

There are a broad range of environmental taxes that could be used to restrict GHG emissions, including carbon taxes, energy taxes, and fuel taxes, and taxes on air emissions, chemical processes, feedstock chemicals, waste disposal, and water pollution. The wide range of these examples highlights the difficulties faced by regulators attempting to find a comprehensive body of international legal precedent to guide the design of BTAs. Where the item taxed is physically incorporated into a final product, such as feedstock chemicals into a final chemical product, the weight of WTO law stands behind allowing BTAs.<sup>364</sup> However, the law surrounding input or process taxes, such as air pollution, energy efficiency, waste disposal, and sustainable harvesting practices, is significantly more uncertain.<sup>365</sup>

It could be very difficult administratively to quantify the exact level of taxes appropriate for BTAs addressed to the costs of domestic GHG regulation.<sup>366</sup> So many different activities produce GHGs, and so many of those activities are taxed in one form or another that the complex practicalities of formulating fair BTAs in this context cause some to dismiss the prospect of a functional GHG-based BTA all together. These problems include such issues as identifying the carbon content of traded goods—especially where exporting countries have little incentive to cooperate or resent the imperialist overtones of border tax regimes—or where tracing the content of a particular GHG tax, such as a tax on the methane produced by cows being traced in proportion in the cow's meat, hide, hooves, etc.<sup>367</sup> Additional problems may arise because of the large

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<sup>363</sup> Goh, *supra* note 15, at 400.

<sup>364</sup> See, e.g., Report of the Panel, *United States—Taxes on Petroleum and Certain Imported Substances*, L/6175 - 34S/136 (June 5, 1987), available at [www.wto.org/english/tratop\\_e/dispu\\_e/gt47ds\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/gt47ds_e.htm).

<sup>365</sup> See Demaret & Stewardson, *supra* note 23, at 59.

<sup>366</sup> *Id.* at 32.

<sup>367</sup> See, e.g., Goh, *supra* note 15, at 422; see also Demaret & Stewardson, *supra* note 23, at

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range of energy production technologies in use and the difficulties faced by administrators attempting to set average levels based on predominant methods of production.<sup>368</sup>

If the calculation of GHG inputs for individual products is problematic, so too is the calculation of how much of a particular tax on product inputs is actually passed along to consumers. This is similar to our earlier discussion of the economic rationales for the direct/indirect tax distinction—such difficulties implicate an inherent risk of double taxation and other forms of trade inefficiency. However, some claim that by limiting tax adjustments only to inputs physically incorporated or present in the final product, this kind of inefficiency can be avoided.<sup>369</sup>

There is some flexibility in WTO rules where such practicalities are concerned. The Working Party on Border Tax Adjustments commented that some taxes presented difficulties in “calculating exactly the amount of compensation,” but that “it was administratively sensible and sufficiently accurate to rebate by average rates for a given class of goods.”<sup>370</sup> Predominant methods of domestic production, for instance, could be used to calculate the GHG content of imported products.<sup>371</sup> This, at least, presents one avenue for the practical design of a GHG-based BTA.

Additionally, information about things like energy inputs and efficiency should be readily available to product manufacturing firms. As Demaret points out, “a company which does not know such information is not in a position to ensure that it is using the most efficient and productive combination of inputs.”<sup>372</sup> Government requirements that such information be provided to regulators might not be as difficult to comply with as an initial glance at the problem implies, especially where providing such information is financially in the best interest of manufacturers. For imports, GHG certificates could be required to accompany products. Alternatively, assumptions could be made concerning predominant production methods, a strategy that survived

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32; Zhang & Assunção, *supra* note 33, at 380-81.

<sup>368</sup> See Goh, *supra* note 15, at 422, (citing Report of the Panel, *United States—Taxes on Petroleum and Certain Imported Substances*, L/6175 - 34S/136 (June 5, 1987), available at [www.wto.org/english/tratop\\_e/dispu\\_e/gt47ds\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/gt47ds_e.htm)).

<sup>369</sup> Demaret & Stewardson, *supra* note 23, at 32.

<sup>370</sup> In particular, the Working Party pointed to cascade tax systems: “For adjustment, countries operating cascade systems usually resorted to calculating average rates of rebate for categories of products rather than calculating the actual tax levied on a particular product.” Report of the Working Party, *Border Tax Adjustments*, ¶ 16, L/3464 (Dec. 2, 1970), available at [www.worldtradelaw.net/reports/gattpanels/bordertax.pdf](http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf).

<sup>371</sup> Zhang & Assunção, *supra* note 33, at 380-81.

<sup>372</sup> Demaret & Stewardson, *supra* note 23, at 33.

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GATT review in *United States—Superfund*.<sup>373</sup>

B. A PROPOSAL FOR AN ECONOMICALLY FEASIBLE BORDER TAX ADJUSTMENT

Ismer and Neuhoff have constructed a model BTA based on Best Available Technology (BAT) in order to avoid discrimination against foreign producers.<sup>374</sup> They claim that a “BTA scheme with reference technology levels set at BAT would . . . be admissible under WTO-rules.”<sup>375</sup> In order to arrive at this conclusion, Ismer and Neuhoff follow the view that products should be considered “like” regardless of production methods; they thus claim that the only way to successfully qualify such a BTA would be to use the lowest GHG related charge incurred by any domestic producer.<sup>376</sup> This charge should be assessed assuming that all components of a product have been manufactured using BAT<sup>377</sup> because it would be administratively prohibitive to determine a BTA for every product according to the amount of GHG its production actually emits.<sup>378</sup>

Estimates in this model would rely on calculation of the average amount of GHG generated by the production of raw materials. Ismer and Neuhoff concentrate on simplicity, suggesting that, at least in the beginning, certain thresholds be established to exclude raw materials that produce relatively low levels of GHG.<sup>379</sup> The burden of reporting quantities of basic materials consumed during production would lie with producers.<sup>380</sup> Electricity inputs would be addressed separately by compensating only for changes in overall price because of the interconnected regional nature of the world’s energy grids.<sup>381</sup> This model would conservatively calculate the GHG content of a product for the purpose of tax remissions, and the remission would be the same

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<sup>373</sup> *Id.*

<sup>374</sup> Ismer & Neuhoff, *supra* note 8, at 155.

<sup>375</sup> *Id.* at 152.

<sup>376</sup> *Id.* at 147.

<sup>377</sup> Ismer and Neuhoff define BAT as “the most effective and advanced stage in the development of activities and their methods of operations which indicate the practical suitability for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole.” *Id.* This, they argue, is the only really feasible way to calculate a BTA that would also be compatible with GATT Articles I and III ¶ 2. *Id.* at 148.

<sup>378</sup> *Id.* at 153.

<sup>379</sup> *Id.*

<sup>380</sup> *Id.*

<sup>381</sup> *Id.* at 154.

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regardless of how the product was actually produced.<sup>382</sup>

A BAT system has to set an appropriate level for its taxes and ensure that individual firms cannot define new BAT simply through the construction of a new facility. One solution for this problem is to define BAT through the market share a given technology holds and to ensure that the BAT standard covers several related products.<sup>383</sup> In fact, Ismer and Neuhoff recommend entrusting BAT determinations to an independent body informed by both domestic and foreign industry.<sup>384</sup>

Ismer and Neuhoff's model demonstrates that there are administratively efficient *and* economically feasible methodologies for instituting a BTA related to the costs of domestic GHG regulation. There are potential difficulties with a BAT model, like the practicalities of determining what the BAT actually is and the potential inherent in any such process for perverse economic incentives, for instance. Also troubling is the necessity for additional regulatory institutions that would make economic policy decisions about taxes on imports. Nevertheless, this remains a viable model and an answer to those who claim that the complexities of a BTA that would reflect GHG emissions overwhelm the potential usefulness of such a BTA.

### C. THE "COMPETITIVENESS PROVISION" IN PROPOSED CLIMATE LEGISLATION IN THE UNITED STATES

For many of the competitiveness, carbon leakage, and political economy concerns expressed in the opening section of this Article, the United States is considering what is referred to as a "competitiveness provision" in currently proposed climate legislation.<sup>385</sup> Essentially, this provision would be a BTA based on the costs to producers of GHG reductions. The proposed measures would apply only to goods manufactured in countries that are major emitters of GHGs and that have failed to implement sufficient emissions-reduction measures of their own.<sup>386</sup>

America's Climate Security Act of 2007<sup>387</sup> and the Low Carbon

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<sup>382</sup> *Id.* at 145.

<sup>383</sup> *Id.* at 143.

<sup>384</sup> *Id.* at 147.

<sup>385</sup> See, e.g., Lieberman-Warner Climate Security Act of 2007, S. 2191, 110th Cong. (as reported in the Senate on Oct. 18, 2007); Low Carbon Economy Act of 2007, S. 1766, 110th Cong. (as introduced in the Senate on July 11, 2007).

<sup>386</sup> Ponnambalam, *supra* note 42, at 265-66.

<sup>387</sup> Lieberman-Warner Climate Security Act of 2007, S. 2191, 110th Cong. (as reported in the Senate on Oct. 18, 2007).

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Economy Act of 2007,<sup>388</sup> though neither was passed into law, would have conditioned access to markets in the United States on the purchase of GHG emissions allowances, sometimes called “international reserve allowances,” or would have provided cash or securities equivalent to the purchase price of such allowances,<sup>389</sup> except where the exporting country had comparable GHG restrictions in place.<sup>390</sup> One commentator, Slayde Hawkins, believes that these provisions would have violated the nondiscrimination clauses of GATT Article I and III, because they differentiate between like products on the basis of GHGs produced during the production process (in other words, on the basis of PPMs). But Hawkins asserts that they would nevertheless qualify for exception under Article XX(b) and (g).<sup>391</sup> Hawkins claims that the chapeau of Article XX is satisfied by the preference of the American climate measures for negotiations and their acceptance of comparable action from trading partners rather than identical GHG reduction measures.<sup>392</sup>

The Lieberman-Warner Climate Security Act of 2008 demonstrates four areas of particular interest to a discussion of the practical foundations of a BTA related to domestic GHG regulation: (1) the definition of which goods are required to purchase internal reserve allowances—the equivalent of a BTA, (2) the criteria by which an importing country’s GHG regulations are evaluated to determine if that country’s goods will be required to purchase internal reserve allowances, (3) how a calculation of the cost of internal reserve allowances is to be arrived at, and (4) the methodology for calculating the number of internal reserve allowances that must be purchased.<sup>393</sup> These four mechanisms are integral to the practical analysis of a GHG-based BTA’s compliance with WTO law.

Covered goods are defined as primary products that directly or indirectly generate a substantial quantity of GHGs during manufacturing and are “closely related” to goods affected by the requirements of the

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<sup>388</sup> Low Carbon Economy Act of 2007, S. 1766, 110th Cong. (as introduced in the Senate on July 11, 2007).

<sup>389</sup> Veel, *supra* note 32, at 763. This provision for securities or cash equivalents was an alteration added in 2008. *Id.*

<sup>390</sup> Hawkins, *supra* note 33.

<sup>391</sup> *Id.* at 441-42. Hawkins further points out that “if a covered sector in a country without comparable GHG restrictions in place emits much more GHGs overall than the same sector in the U.S., ‘like’ products from the foreign country will be required to purchase many more GHG emissions allowances than their U.S. counterparts . . . . [F]oreign products in that situation face more onerous requirements under the program.” *Id.* at 443. This implies a violation of GATT Article III. *Id.* at 443.

<sup>392</sup> *Id.* at 448.

<sup>393</sup> Veel, *supra* note 32, at 763-64.

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Climate Security Act.<sup>394</sup> “Closely related” is probably equivalent to a like-product analysis under GATT and ensures that like goods are treated the same. One potential problem pointed out by Veel is that domestic producers that emit less than 10,000 carbon dioxide equivalents a year are exempt, while foreign producers are not party to this de minimis threshold.<sup>395</sup> However, this is a very low threshold and may not actually have a practical impact on imports.<sup>396</sup>

Covered goods are exempt from the requirements of the legislation if the exporting country is determined to have taken comparable actions to limit GHG emissions, has been identified by the United Nations “as among the least-developed of developing countries,” or whose share of GHG emissions fall below a de minimis threshold not more than 0.5 percent of total global emissions.<sup>397</sup> All of these criteria raise significant problems with GATT Article I:1’s Most Favored Nations clause<sup>398</sup> and would probably necessitate the use of an Article XX exemption. For the exemption to be available, the definition of comparable action must comply with the case law described earlier concerning arbitrary discrimination and comparable action in the *Shrimp—Turtle* series of cases. As Veel points out, the comparable-action requirement “imposes very few requirements on the form that a state’s actions must take in reducing greenhouse gases in order to be considered [comparable].”<sup>399</sup> This flexibility is of vital importance to compliance with GATT Article XX exemptions, since balanced and rational decision making plus the ability to negotiate are distinct components of the Appellate Body’s case law.

The price of international reserve allowances is established for each year at the most recent allowance auction and cannot exceed the market price of domestic allowances.<sup>400</sup> This ensures that the BTA does not

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<sup>394</sup> Lieberman-Warner Climate Security Act of 2008, S. 3036, 110th Cong., § 6001(5) (as placed on the calendar of the Senate on May 21, 2008).

<sup>395</sup> Veel, *supra* note 32, at 765.

<sup>396</sup> *Id.* at 765.

<sup>397</sup> Lieberman-Warner Climate Security Act of 2008, S. 3036, 110th Cong., § 6006(b)(2)(A-B),(c)(4)(B) (as placed on the calendar of the Senate on May 21, 2008).

<sup>398</sup> See Differential and More Favourable Treatment Reciprocity and Fuller Participation of Developing Countries, GATT Tokyo Round, Decision of 28 November 1979 (L/4903). However, exempting countries identified as least developed might qualify under the terms of the Enabling Clause, which allows developed countries to offer more favorable treatment to the developing economies without according like treatment to other WTO members. *Id.*; see also Veel, *supra* note 32, at 785-86.

<sup>399</sup> *Id.* at 767.

<sup>400</sup> Lieberman-Warner Climate Security Act of 2008, S. 3036, 110th Cong., § 6006(a)(3)(A-B) (as placed on the calendar of the Senate on May 21, 2008).

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exceed the tax assessed on domestic production and that it has been made in conjunction with domestic legislation, both WTO requirements for BTAs. Additionally, the proceeds from the sale of international reserve allowances is earmarked for climate-change adaptation efforts in “disadvantaged communities in other countries.”<sup>401</sup> This stipulation acts as an argument against claims of protectionist practices and militates for an interpretation of the legislation as possessing a significant nexus with conservation purposes.

The quantity of international reserve allowances required for each type of good is to be established through a general formula based on the GHG emissions produced by the manufacture of that good in the country in question and adjusted to take into account free allocation of domestic allowances, general GHG emissions from that particular industry sector, and the level of economic development in the exporting country.<sup>402</sup> Under this proposed legislation, the importation of all covered goods must be accompanied by written declarations of either excluded status or sufficient international reserve allowances to cover the goods.<sup>403</sup> The potentially dangerous aspect of this methodology is that the BTA is not assessed based on an approximation of the actual GHG emissions that result from the production of the covered good; rather, the BTA is assessed based on the total GHG emissions for certain types of goods in the exporting country. Thus, foreign producers are not treated identically to domestic producers, whose GHG tax is assessed based on actual emissions.<sup>404</sup> However, as stated earlier, domestic and foreign taxes do not have to be exactly the same, just roughly equivalent. In *Reformulated Gasoline*, Venezuelan producers were able to show that the methodologies for calculating domestic tax rates were more favorable than the methodologies for calculating tax rates for foreign products—importers assessed a GHG-based BTA would have to similarly prove that they were disadvantaged when compared with domestic producers. The question of whether the methodologies for calculating domestic and foreign GHG allowance requirements are roughly equivalent is a determination that will probably end up with the Appellate Body.

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<sup>401</sup> *Id.* at § 6006(a)(7).

<sup>402</sup> *Id.* at § 6006(d)(1)(A)-(B).

<sup>403</sup> *Id.* at § 6006(c)(1)-(2)(A)-(B).

<sup>404</sup> Veel, *supra* note 32, at 769.

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## D. POTENTIAL WEAKENING EFFECTS FOR ENVIRONMENTAL REGULATION FROM BORDER TAX ADJUSTMENTS

Subsidies can actually have a weakening effect on environmental regulation. As Andrew Green points out in his 2006 article, “a subsidy may lead to an ‘informational cascade,’ overcoming information constraints and potentially bounded rationality.”<sup>405</sup> Applying this analysis to BTAs, we can look at the possibility of a cascading effect as a result of market distortions from tax adjustments. In other words, people who might normally be inclined to purchase domestic products because of the perception that such products are produced in a more environmentally sustainable manner may no longer do so. Additionally, BTAs assume that people will buy the cheapest product available—otherwise it would not be so important to protect domestic industry from an influx of environmentally suspect cheap products. This line of reasoning could weaken a like-product analysis that was based on consumer preferences—consumers who assume that the environmental slate has been wiped clean by BTAs will be less likely to differentiate based on environmental practices.

Some worry that GHG-based BTAs may reduce incentives for exporting countries to regulate climate change themselves, or to strengthen such regulations, because of the potential of such regulation to disadvantage exports.<sup>406</sup> However, a BTA regime that took into account the GHG-regulation efforts of exporting countries—perhaps based on the model provided by *Shrimp—Turtle* so as to ensure that it would survive WTO review—would significantly reduce such worries. The Appellate body in *Shrimp—Turtle* held that it was necessary to strike a balance between the needs of other member states and the regulating state’s need to protect limited natural resources.<sup>407</sup> If a GHG-based BTA wishes to qualify for an Article XX exception it will probably need some sort of balanced treatment along the lines of the regulatory effort at issue in *Shrimp—Turtle*.

There is worry that environmental BTAs could have a distorting effect on international trade, threatening the principles of the 1992 Rio Declaration. The Rio Declaration, almost universally accepted as containing many of the guiding principles of international environmental

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<sup>405</sup> Green, *supra* note 83, at 429.

<sup>406</sup> See, e.g., Goh, *supra* note 15, at 405.

<sup>407</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, ¶ 149, WT/DS58/AB/RW (Oct. 21, 2001), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

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law, emphasizes the necessity of internalizing environmental costs and avoiding distortional effects to international trade.<sup>408</sup> Such worries might be assuaged by the ability of the WTO to adapt to international norms like those promulgated by the Rio Declaration. In *Shrimp—Turtle*, the Appellate Body found that the term “natural resource” was dynamic and could thus adapt over time to changing international norms.<sup>409</sup> The Appellate Body relied on international law to define the framework of GATT, so *Shrimp—Turtle* could stand for the proposition that GATT should be interpreted in light of prevailing norms of international law.<sup>410</sup>

The WTO Panel decision in *EC—Biotech* might limit the scope of this holding from *Shrimp—Turtle*. Even though *EC—Biotech* was never appealed to the Appellate Body, it was adopted by the Dispute Settlement Body. While acknowledging that “the mere fact that one or more disputing parties are not parties to a convention does not necessarily mean that a convention cannot shed light on the meaning and scope of a treaty term to be interpreted,”<sup>411</sup> the Panel in *EC—Biotech* distinguished *Shrimp—Turtle* on the grounds that the Convention on Biological Diversity and the Biosafety Protocol were not relevant to the interpretation of the WTO agreements in dispute.<sup>412</sup> When the ordinary meaning of the WTO Agreement is clear, the Panel found, WTO Panels are not obligated to rely on other rules of international law.<sup>413</sup> *EC—Biotech* did affirm, though, that the Vienna Convention on the Law of Treaties applies to WTO interpretations.<sup>414</sup> Again, the Appellate Body has not reviewed the conclusions of *EC—Biotech* and is under no obligation to adopt the legal conclusions of a WTO Panel, and this particular finding is not particularly detailed or thoroughly explained. Therefore, taking international norms and principles into account could still be necessary to survive WTO review.

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<sup>408</sup> Rio Declaration on Environment and Development, Principle 16 (June 14, 1992), available at [www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&I=en](http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&I=en).

<sup>409</sup> Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 130, WT/DS58/AB/R (Oct. 12, 1998), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds58\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds58_e.htm).

<sup>410</sup> *Id.* Indeed, the Appellate Body references the 1982 United Nations Convention on the Law of the Sea, The Convention on Biological Diversity, Agenda 21, the Resolution on Assistance to Developing Countries, and the Convention on the Conservation of Migratory Species of Wild Animals. *Id.*; see also Goh, *supra* note 15, at 419.

<sup>411</sup> Report of the Panel, *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, ¶ 7.94, WT/DS291/R, WT/DS292/R, WT/DS293/R (Sept. 29, 2006), available at [www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds291\\_e.htm](http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds291_e.htm).

<sup>412</sup> *Id.* at ¶ 7.95.

<sup>413</sup> *Id.* at ¶ 7.93.

<sup>414</sup> *Id.* at ¶ 7.92.

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## IV. THE RESULT OF BORDER TAX ADJUSTMENTS: THE STICK

Getting trade policy and environmental policy to mesh in an efficient way is tremendously important to the health of both the global economy and the environment. One of the underlying dysfunctions of environmental protection is that environmental regulation all over the world has been co-opted by domestic industry lobbyists, and most regulatory efforts are currently sculpted to favor domestic producers at a high overall cost to the effectiveness of environmental measures as well as to the international economic system. In 1994, Michael Leidy and Bernard Hoekman noted a disturbing tendency to reject the most efficient environmental regulatory regime in favor of less efficient options involving governmentally administered sector-specific protection from foreign competition.<sup>415</sup> Such choices result in more market-failure-inducing externalities and higher net societal costs for environmental protection. Leidy and Hoekman blame this tendency on a confluence of the interests of import-competing polluters,<sup>416</sup> environmental groups,<sup>417</sup> labor, and even foreign importers—all of whom are interested in the heightened trade restrictions likely to accompany inefficient environmental regulation.<sup>418</sup> In fact, Leidy and Hoekman suspect that there is an “endogeneity<sup>419</sup> of trade barriers to environmental regulations . . . [that] may influence interest-group preferences for alternative environmental policies.”<sup>420</sup> Nita Ghei also believes that “both legitimate environmental concerns and illegitimate protectionist rent-seeking can result in the use of environmental standards as trade

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<sup>415</sup> Leidy & Hoekman, *supra* note 27; *see also* Ghei, *supra* note 49, at 130-32.

<sup>416</sup> Leidy and Hoekman point out that the “[i]ndustries facing the highest pollution-abatement costs are among those most frequently seeking and receiving protection in industrialized countries.” *Id.* at 243. Examples include the Australian chemical industry and the American cement industry, among others. *Id.*

<sup>417</sup> *Id.* at 251. A regulatory approach is superior from the environmentalist’s perspective because quantity-based approaches guarantee reductions in pollution, while tax-based approaches do not. *Id.* at 251-52.

<sup>418</sup> *Id.* at 242.

<sup>419</sup> In an economic model, a parameter or variable are said to be endogenous when there is a correlation between the parameter or variable and the error term. Endogeneity can arise as a result of measurement error, autoregression with autocorrelated errors, simultaneity, omitted variables, and sample selection errors. For example, in a simple supply and demand model, when predicting the quantity demanded in equilibrium, the price is endogenous because producers change their price in response to demand and consumers change their demand in response to price. In contrast, a change in consumer tastes or preferences would be an exogenous change on the demand curve. In this case, the price variable is said to have total endogeneity once the demand and supply curves are known.

<sup>420</sup> Leidy and Hoekman, *supra* note 27, at 244.

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barriers.”<sup>421</sup>

Protectionist temptations are the danger that WTO jurisprudence sets out to protect against. In *Reformulated Gasoline*, for example, challenged trade measures had many of the features economists associate with inefficient environmental regimes of the type preferred by domestic industry as protectionist measures.<sup>422</sup> Therefore, it is important to analyze the policy implications of BTAs and the overall tendency for such instruments to be co-opted by protectionist interests so that these pitfalls can be avoided as much as possible.

The United States’ successful experiences with the accomplishment of conservation goals through its Superfund and ozone-depleting chemical (ODC) taxes show the utility of BTAs for achieving environmental policy goals.<sup>423</sup> Duncan Brack claims that without the ODC tax, industry in the United States would have been snuffed out by international competition because of the high tax levels imposed domestically without any certain reduction in ODC production.<sup>424</sup> Furthermore, the Superfund and ODC experiences show that taxes on embodied inputs are administratively feasible and lay out some possibilities for addressing concerns about taxes on GHG-producing product inputs.

BTAs can also play a role in circumventing systemic protectionist biases and avoiding many of the pitfalls pointed out in the preceding paragraphs. BTAs are a viable alternative to inefficient protectionist regulation because they address concerns about unfair trade advantages due to international competition from unregulated manufacturers without creating conditions favorable to domestic monopolies and cartel-like profits. While penalty taxes tend to be the most efficient instruments to achieve pollution abatement, firms prefer quantity regulation (with quotas assigned below minimum efficient scale<sup>425</sup>) because of the greater potential for cartel-like profits.<sup>426</sup> In order to ensure optimal economic efficiency, great care must be taken when crafting BTA measures, to avoid putting a greater regulatory burden on importers than is necessary to merely level the playing field. In this way, the WTO can act to

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<sup>421</sup> Ghei, *supra* note 49, at 131.

<sup>422</sup> The Appellate Body concluded that “the resulting discrimination must have been foreseen, and was not merely inadvertent or unavoidable.” Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, 20, 1996 WL 227476 (Apr. 29, 1996); *see also* Ghei, *supra* note 49, at 140.

<sup>423</sup> BRACK ET AL., *supra* note 18, at 79.

<sup>424</sup> *Id.*

<sup>425</sup> Leidy & Hoekman, *supra* note 27, at 247.

<sup>426</sup> *Id.* at 244.

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incentivize fair and balanced BTA measures by finding arbitrary discrimination where BTAs fail to meet this standard. So constructed, BTAs could be a vital tool to defuse pressures brought to bear by domestic industry and labor in support of quantity-based restrictions and protectionist measures.<sup>427</sup>

Unilateral trade measures aimed at protecting the environment have been acknowledged as acceptable under GATT by the Appellate body in cases like *Asbestos* and *Shrimp—Turtle*. Within limits, unilateral measures like BTAs can be used to prevent trans-boundary environmental problems like climate change.<sup>428</sup> After a thorough exploration of these limits, as has been so far compiled, what remains is to investigate the state of global climate governance and the role that BTAs can play in the effective pursuit of worldwide GHG reductions.

A. HARMONIZATION THROUGH BILATERAL AND MULTILATERAL TRADE AND ENVIRONMENTAL AGREEMENTS AND BOTTOM-UP CLIMATE REGIMES

Applying a climate-tax regime broadly across states would require treaties to harmonize the application of prior-stage environmental taxes.<sup>429</sup> Demaret points out that harmonization of specific taxes has posed tremendous difficulty in the European Union (EU), and that because of such difficulties it is unclear if such harmonization has any real potential in the international context.<sup>430</sup> Bilateral treaty regimes may offer more concrete chances of success, as demonstrated by the United States in *Shrimp—Turtle*. Indeed, as negotiations on multilateral environmental agreements intended to bind every country in the world show increasing signs of stagnation, it is important to understand the types of unilateral measures countries may turn to in an effort to avoid a loss of momentum in the effort to address anthropogenic climate change. Barbara Buchner and Carlo Carraro, for instance, prefer “a bottom-up, country-driven approach to defining national commitments. Instead of a top-down, international negotiation on national emission targets, each country would determine its contribution to a cooperative effort to curb GHGs and choose the partners with whom it intends to cooperate.”<sup>431</sup>

<sup>427</sup> *Id.* at 251.

<sup>428</sup> See Veel, *supra* note 32, at 771 (“[W]hile carbon tariffs may be permissible under current WTO rules, this result is by no means obvious and would potentially require a justification of their permissibility under Article XX(g) of the GATT.”); see also Gentile, *supra* note 31, at 208-09.

<sup>429</sup> Demaret & Stewardson, *supra* note 23, at 33.

<sup>430</sup> *Id.*

<sup>431</sup> Barbara Buchner & Carlo Carraro, *Regional and Sub-Global Climate Blocs: a Cost-*

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Indeed, Carraro and Christian Egenhofer believe that the near future of climate negotiations will result in several parallel agreements aimed at controlling climate change, backed up by domestic measures and policies implemented unilaterally or in conjunction with small groups of like-minded countries.<sup>432</sup>

Current trade and climate negotiations already result in the formation of regional coalitions and blocs of countries with similar interests, with coalitions forming between such blocs in order to secure special considerations.<sup>433</sup> Regional and sub-regional cooperation is gaining importance in international law with the proliferation of free-trade areas and customs unions. Indeed, most multilateral agreements begin as regional agreements of some kind.<sup>434</sup> Buchner and Carraro use the results from economic game-theory research to conclude that it is unlikely that all relevant countries will sign the Kyoto Protocol, resulting in the emergence of alternative climate blocs.<sup>435</sup> They point to potential cooperative agreements after 2012 resulting in, among other possibilities, (1) European Union-Russia and China-Japan climate blocs, with the United States perhaps pursuing climate policy under a NAFTA framework; or (2) a two-bloc coalition involving the United States with China and the European Union with Russia and Japan.<sup>436</sup> At the conclusion of their book of collected essays on the subject, Carraro and Egenhofer conclude that sub-global climate agreements are likely to emerge in the near future and to be effective at addressing atmospheric GHG concentrations more quickly than a global regime would.<sup>437</sup>

Domestic measures supporting such a regime would be designed to create powerful individual incentives for other countries in order to reduce the impact of free-rider problems. Trade measures could include

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*Benefit Analysis of Bottom-Up Climate Regimes*, in *CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARD GLOBAL AGREEMENT* 16, 17 (Carlo Carraro & Christian Egenhofer eds., 2007).

<sup>432</sup> Carlo Carraro & Christian Egenhofer, *Bottom-Up Approaches to Climate Change Control: Some Policy Conclusions*, in *CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARD GLOBAL AGREEMENT* 116, 120 (Carlo Carraro & Christian Egenhofer eds., 2007).

<sup>433</sup> Buchner and Carraro suggest, for instance, the division of countries into Annex I and non-Annex I blocs, the special emissions redistribution provisions secured by the European Union, and Australia's special provision on land use emissions as examples from the Kyoto Protocol. Buchner & Carraro, *supra* note 431, at 17.

<sup>434</sup> *Id.* at 17-18.

<sup>435</sup> *Id.* at 18-19.

<sup>436</sup> *Id.* at 21-28. This final scenario is the one that the authors deem most likely to occur because "it causes small welfare losses for the US and China and small welfare gains for the [EU with Russia and Japan], while leading to a considerably enhanced environmental effectiveness of climate policy." *Id.* at 28.

<sup>437</sup> Carraro & Egenhofer, *supra* note 432, at 119.

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BTAs, tariffs, or outright sanctions used as tools or weapons against countries that refuse to adopt GHG standards specified by regulating countries.<sup>438</sup> The overarching concept behind such measures could be to create a bottom-up approach to defining national GHG reduction commitments instead of investing time and resources only in the completion of an omnibus multilateral environmental agreement.<sup>439</sup>

Regional Trade Agreements (RTAs) offer another route for countries to pursue environmental trade agendas. Problems defining environmental goods and services would be less of a problem under an RTA, and supply-side capacities and technical assistance to developing economies would be easier to build into such agreements.<sup>440</sup> Often, controversial problems can be resolved more quickly at a regional level than at a global level, a lesson that climate negotiators would be wise to learn from the history of trade negotiations.<sup>441</sup>

## V. CONCLUSION

As Tom Athanasiou writes, “[t]here is no choice between climate protection and human development. We shall have both, or we shall have neither.”<sup>442</sup> And yet it is widely acknowledged that dramatic reductions in the emissions of developing economies are an absolute necessity for any long-term solution to rising atmospheric GHG concentrations.<sup>443</sup> This must be squared with the negotiating posture of the developing world, which firmly places economic development and the alleviation of poverty as top priorities.<sup>444</sup> As Athanasiou points out, developing economies would need to reach the peak of their carbon emissions by 2020 in order to achieve even a middle estimate of global climate safety, meaning that such carbon emissions would have to peak while the majority of the people in developing economies are still relatively quite poor.<sup>445</sup> To state it plainly, rich countries are going to have to provide the technology and finances needed to develop post-GHG economies.<sup>446</sup>

When addressing equity issues and climate change, it is important

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<sup>438</sup> See THE WORLD BANK, *supra* note 13, at 36.

<sup>439</sup> Buchner & Carraro, *supra* note 432, at 17.

<sup>440</sup> THE WORLD BANK, *supra* note 13, at 102.

<sup>441</sup> Carraro & Egenhofer, *supra* note 432, at 120.

<sup>442</sup> Tom Athanasiou, *After the Denial*, 15 HASTINGS W.-N.W. J. ENVTL. L. & POL’Y 23 (2009).

<sup>443</sup> *Id.* at 26-27.

<sup>444</sup> *Id.* at 27.

<sup>445</sup> *Id.* at 28.

<sup>446</sup> *Id.* at 31.

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not to get lost in discussions of distributive justice. As Eric Posner and Cass Sunstein point out, emissions reductions on the part of wealthy states are *not* the most effective method for transferring resources or evening out wealth disparities.<sup>447</sup> Furthermore, “the climate change problem poorly fits the corrective justice model, because the consequence of tort-like thinking would be to force many people who have not acted wrongfully to provide a remedy to many people who have not been victimized.”<sup>448</sup> Rather, practical analysis of the tools currently used by countries to address climate change is required to progress beyond current stalemates in the multilateral climate regulatory structure.

It is increasingly clear that multilateral climate negotiations are not having a significant enough impact on global climate-change mitigation and adaptation issues. One estimate finds that full compliance with the Kyoto Protocol would reduce global warming by a paltry 0.03° C by 2100.<sup>449</sup> The UNFCCC’s failure to institute explicit abatement targets for the primary developing country emitters of GHGs has severely compromised the environmental effectiveness of the Kyoto Protocol.<sup>450</sup> It is not economically rational to expect the United States, despite its undeniable responsibility for current GHG atmospheric concentrations, to shoulder as much as eighty percent of the costs of an ultimately ineffective multilateral agreement.<sup>451</sup> The two states most criticized for their failure to implement substantive GHG reduction targets are also the two states that emit the most GHGs: the United States and China.<sup>452</sup> This is no coincidence, as these two states are motivated by strong national incentives to free-ride and set unilateral environmental policy rather than participate in multilateral negotiations, making their refusal to adopt binding emissions targets economically rational.<sup>453</sup> Fragmentation in

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<sup>447</sup> Posner & Sunstein, *supra* note 72, at 1590-91; Posner and Sunstein admit, however, that “desirable redistribution is more likely to occur through climate change policy than otherwise, or to be accomplished more effectively through climate policy than through direct foreign aid.” *Id.* at 1591.

<sup>448</sup> *Id.* at 1592.

<sup>449</sup> *Id.* at 1575 (citing WILLIAM NORDHAUS & JOSEPH BONER, *WARMING THE WORLD* 91, 152 (2000)).

<sup>450</sup> Buchner & Carraro, *supra* note 431, at 16.

<sup>451</sup> See Posner & Sunstein, *supra* note 72, at 1611.

<sup>452</sup> The World’s 12 Largest GHG Emitters, CBC News (Dec. 24, 2009), available at [www.cbc.ca/world/story/2009/12/14/f-climate-dirty-dozen.html](http://www.cbc.ca/world/story/2009/12/14/f-climate-dirty-dozen.html). China leads the world’s GHG production with about 7,500 million metric tonnes of GHG emissions per year. The United States follows closely behind with just over 7,000 million metric tonnes. *Id.*

<sup>453</sup> Barbara Buchner & Carlo Carraro, *Regional and Sub-Global Climate Blocs: A Cost-Benefit Analysis of Bottom-Up Climate Regimes*, in *CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARD GLOBAL AGREEMENT* 16, 28 (Carlo Carraro & Christian Egenhofer eds., 2007).

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global climate governance is furthered as well by the fact that the EU and Japan have strong incentives to keep the United States out of the demand side of the market, because participation by the United States would increase EU abatement costs.<sup>454</sup> Finally, current large permit suppliers like Russia have strong incentives to keep potential competitors, such as China, out of the climate coalition for as long as possible.<sup>455</sup> Buchner and Carraro conclude that the current climate coalition structure involving cooperation between the European Union, Japan, and Russia is stable in terms of its economic incentives, though ineffective at actually reducing global GHG concentrations.<sup>456</sup> If multilateral climate negotiations continue along similar lines, which they give every indication of doing, and assuming that there will be continued increases in political pressure on governments to take substantive action, alternative climate change mitigation strategies must be investigated.

As global climate governance moves forward in the face of such intransigent forces, international actors will begin to focus more and more on strategies that can be effective at motivating cooperation from rational free-riders and other nonparticipants. Initially, GHG reduction schemes were instituted in the hope that other countries would soon follow with similar policies. In the absence of such action, GHG regulators are turning to import-restrictive measures as a means to balance competitiveness and leakage concerns.<sup>457</sup> In 2006 the French Prime Minister proposed the imposition of taxes on imports from countries that had not ratified the Kyoto Protocol, and in 2008 the President of the European Commission proposed that importers be required to obtain GHG allowances as required of European producers.<sup>458</sup> BTA provisions in proposed climate legislation in the United States, discussed previously, are another example of unilateral action to require importers to participate in domestic GHG regulation.

This more individualized and fragmented approach to global climate governance, which is fast becoming the norm, demands attention as a viable and helpful alternative to unpopular hierarchical power structures and overarching bureaucracies. Noriko Fujiwara and Christian Egenhofer conclude that “[t]he best we can expect from international negotiations would be policy coordination, not regulatory approximation.”<sup>459</sup> As

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<sup>454</sup> *Id.*

<sup>455</sup> *Id.* at 28-29.

<sup>456</sup> *Id.* at 29.

<sup>457</sup> Veel, *supra* note 32, at 758.

<sup>458</sup> *Id.* at 759.

<sup>459</sup> Noriko Fujiwara & Christian Egenhofer, *Do Regional Integration Approaches Hold Lessons for Climate Change Regime Formation? The Case of Differentiated Integration in Europe*,

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Christina Voigt points out, “fragmented normative structures” are not automatically indicative of failure in the arena of international law.<sup>460</sup> Therefore, bottom-up strategies such as regional agreements and domestic measures aimed at inducing international cooperation with unilateral emissions targets may represent the means to shore up crumbling top-down climate-governance frameworks; to those who believe the UNFCCC process is too slow, bottom-up methods represent viable alternatives to such frameworks. Buchner and Carraro conclude that “parallel bottom-up coalitions could be a first step toward global climate change control.”<sup>461</sup> Indeed, others have noted that integrating climate, economic, energy, and security policies into regional agreements represents an increasing trend, especially in action taken by the European Commission.<sup>462</sup> At the very least, regional climate negotiations can have a much bigger impact than global negotiations on the practical implementation of global climate goals.<sup>463</sup>

There are a number of potential positive impacts that BTAs could have on global climate governance, especially from the perspective of bottom-up climate regimes. BTAs would reduce the resistance of domestic industry to GHG regulation, allowing such regulation to be both stronger and more effectively enforced. By evening out import disparities, BTAs could also reduce the danger of carbon leakage. Additionally, the possibility of negotiated agreements with foreign states to mutually reduce GHG emissions would be enhanced by the addition of the carrot of BTA reductions (or the stick of BTAs remaining in place).<sup>464</sup> The World Bank conservatively estimates that such BTAs “could result in a loss of about 7 percent in U.S. exports to the EU. The energy-intensive industries such as steel and cement, which are the most likely to be subject to these provisions and thus would be most affected, could suffer up to a 30 percent loss.”<sup>465</sup> These kinds of trade impacts represent powerful incentives for free-riders to get on board with GHG reduction targets.

In the first section of this analysis, I detailed three primary

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in CLIMATE AND TRADE POLICY: BOTTOM-UP APPROACHES TOWARD GLOBAL AGREEMENT 42, 62 (Carlo Carraro & Christian Egenhofer eds., 2007).

<sup>460</sup> VOIGT, *supra* note 90, at 196.

<sup>461</sup> Buchner & Carraro, *supra* note 43, 1, at 31.

<sup>462</sup> Fujiwara & Egenhofer, *supra* note 459, at 43.

<sup>463</sup> “EU approaches are likely to remain tailor-made and differentiated with some adjustments on a case-by-case basis. Sub-global arrangements such as PCAs should therefore be used to widen the scope for possible trade-offs and facilitate issue linkages with climate change.” *Id.* at 61.

<sup>464</sup> See Hawkins, *supra* note 33, at 429.

<sup>465</sup> THE WORLD BANK, *supra* note 13, at 12.

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objections to the use of BTAs for GHG regulation: (1) the need to conform with WTO rules; (2) the difficulty of designing efficient methodologies; and (3) the fact that BTAs are unilateral measures representing protectionist trade policies, and as such are destructive to coalition based solutions to global warming. These objections have, I hope, been adequately addressed above. But I will attempt a concise summary in the following paragraphs.

1. BTAs have been used since the inception of GATT and will continue to be used to further a wide variety of policy goals well into the future. As detailed in the preceding sections, the intricacies of specific BTAs for GHG-based taxes and regulations have yet to become totally clear. But after parsing through much of the regulatory theory, case law, and international treaties that could impact the legality of such BTAs under the WTO, it seems clear that both the will and the means exist to institute such measures. Perhaps the better question is not whether a GHG-based BTA will be instituted, but how it can be designed so as to avoid numerous pitfalls.

2. Ismer and Neuhoff's proposed model, as well as the other suggestions in Section III, presents a wide range of potential solutions to the second problem. Methodologies reliant on predominant product production processes and average GHG emissions seem equipped to cope with the unique complexities of product GHG quotients. There is ample flexibility under GATT to allow the use of estimates of the GHG content of individual classifications of products without running afoul of GATT anti-discrimination provisions.

3. Environmentalism as a political ideology is more powerful today than ever before, and it has the potential to offset traditional game-theory cost/benefit thinking among consumers. If incentives were more balanced, consumers would tend to choose based on perceived environmental benefit. This may suggest inflated efficacy for BTA measures that level the playing field for domestic, low-carbon industry.

Finally, BTAs present the means to bring non-compliant states into line with larger market actors, especially in the context of international negotiation theory and the example of the Montreal Protocol. From this angle, GHG-based BTAs would be used to impact the public-policy choices of other states, along the same lines as the measure at issue in *Shrimp—Turtle*. To that end, it is vital that issues like carbon leakage, political impacts, wealth distribution, and developing economy incentives to participate in a low-GHG world economy remain the central components of domestic GHG-reduction measures.