THE KEY STONE IN THE CARBON TARIFF WALL: THE ALBERTA OIL SANDS AND THE LEGALITY OF TAXING IMPORTS BASED ON THEIR CARBON FOOTPRINT

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Can one nation, consistent with international trade law, tax imports or otherwise treat them differently based on the CO_2 emitted in another country during production of the import? This Article analyzes the General Agreement on Tariffs and Trade (GATT), relevant World Trade Organization (WTO) decisions, and the considerable amount of scholarship regarding Border Tax Adjustments (BTAs) and concludes that such treatment of imports is legally permissible.

In 2013, the European Union (E.U.) will vote on a proposed rule that seeks to classify crude oil coming into E.U. refineries based on "life-cycle greenhouse gas emissions," including CO_2 emitted during extraction. Canada, seeking to protect the crude being pumped from Alberta's massive bitumen deposits (the same crude that would feed the controversial Keystone XL pipeline), has threatened to challenge the legality of the proposed E.U. rule before the WTO. The proposed E.U. rule would have significant implications, as technological advancements have allowed for a new boom in oil extraction from unconventional sources such as bitumen in Alberta and shale in North Dakota. These new extraction techniques emit more carbon dioxide than conventional oil drilling. As such, the proposed E.U. rule would affect many nations' exports.

Perhaps more significantly, the proposed E.U. rule would be the first to base its treatment of an imported product on greenhouse gas emissions that occur in another country. In that sense, it implicates the oft-floated idea of broader BTAs pursuant to which a carbon-conscious nation would tax all imports based on the carbon consumed or greenhouse gases emitted during production. A production-based carbon BTA would provide a tool for carbon-pricing nations, which are frustrated by post-Kyoto climate negotiations, to begin taxing imports from nations such as the U.S. and China, both of which have not adopted carbon-pricing policies.

This Article concludes that both the proposed E.U. rule and a broader production-based carbon BTA are legally permissible. Prior

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analyses reaching a contrary conclusion (or, more commonly, reaching no conclusion at all as to the legality of a production-based carbon BTA) have created obstacles to the legality of such a system where none exist.

I. INTRODUCTION

On February 20, 2012, headlines from leading media outlets in England and Canada, in stories that were circulated globally, exclaimed: "Canada threatens trade war with E.U. over tar sands"[1] and "E.U. oilsands policy could spark trade complaint."[2]

What prompted these blunt and unlikely story lines? The uproar was caused by letters from Canadian officials threatening to file a claim with the World Trade Organization (WTO) should the European Union adopt a rule which treats crude oil derived from natural bitumen differently than conventional crude oil.[3]

The oil sands of Alberta, Canada, have bitumen in abundance.[4] According to the E.U. and the scientific analyses upon which it relies, the extraction process for bitumen results in significantly greater greenhouse gas (GHG) emissions than the extraction of conventional crude.[5] As such, the E.U. has proposed classifying oil sands crude and other unconventional petrol in a way that would make them far less attractive to E.U. refineries, and that would likely drive down the global prices for such oil.[6]

This Article considers the legality of the E.U.'s proposed rule under international trade law. Implications of the policy itself and a finding of permissibility under the General Agreement on Tariffs and Trade (GATT) are likely to be far-reaching. Imposing taxes or charges on imports—Border Tax Adjustments (BTAs)—based on carbon consumed or GHGs emitted during production of the import has long been proposed as a complement to national policies seeking to reduce GHG emissions.[7] The legality of such

1 Damian Carrington, *Canada Threatens Trade War with EU over Tar Sands*, THE GUARDIAN, Feb. 20, 2012, http://www.guardian.co.uk/environment/2012/feb/20/canada-eu-tar-sands (last visited April 10, 2013).

2 *EU Oilsands Policy Could Spark Trade Complaint*, CBC NEWS, Feb. 20, 2012, http://www.cbc.ca/news/canada/story/2012/02/20/oil-sands-crude-eu.html (last visited April 10, 2013) [hereinafter *EU Oilsands*].

3 The two pertinent letters were obtained by Friends of Earth Europe pursuant to a freedom of information request, and subsequently circulated to certain Canadian media outlets. Carrington, *supra* note 1; *EU Oilsands*, *supra* note 2.

4 Energy Res. Conservation Bd., *Learn About Energy Regulation: Oil Sands*, http://www.ercb.ca/learn-about-energy/oilsands (last visited April 10, 2013).

5 Carrington, *supra* note 1.

6 *Id.*; *see also infra* notes 22–25 and accompanying text.

7 For example, the American Clean Energy and Security Act, commonly referred to as the Waxman-Markey bill or "ACES," passed the U.S. House of Representatives in the summer of

BTAs has been the subject of considerable scholarly analysis, with no definitive answer emerging.[8] The E.U.'s oil sands proposal, although different from the commonly considered border "tax" or "charge," would be the first to actually implement a policy that bases an import's treatment on emissions in another country. With the development of unconventional crude booming worldwide, including in the U.S.,[9] the proposed E.U. rule could lay the groundwork for how such crude is treated on the global market. Moreover, the E.U. rule could foreshadow a much broader policy that is frequently proposed in conjunction with domestic climate change schemes: the imposition of carbon BTAs on *all* imported products from nations, most notably from the U.S. and China—countries that do not have a national carbon-pricing policy.[10]

What follows is an analysis both of the proposed E.U. rule and of a broader production-based carbon BTA. Both proposals seek to expand a carbon-pricing system beyond territorial boundaries in order to 1) influence

2009, though it has yet to become law. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009). The bill allows for BTAs in the form of "international reserve allowances" to cover imported goods from countries that have not undertaken adequate GHG reduction efforts. *See id.* §§ 766–768. The unenacted Senate bill, the American Power Act (Kerry-Lieberman), contains a virtually identical provision. For more detail on these proposed measures, see ANURADHA R.V., UNILATERAL CARBON BORDER MEASURES: KEY LEGAL ISSUES, ICRIER POLICY SERIES No. 2, at i, 4–6 (2011), *available at* http://www.icrier.org/pdf/Policy_Series_No_2.pdf. Although stated in broad detail, the directives governing the E.U. Emissions Trading System also contemplate establishing "an effective carbon equalisation system," which would place requirements on imports from nations that do not have comparable constraints. *Id.* at 7–8. On February 14, 2013, Senators Bernie Sanders (I-VT) and Barbara Boxer (D-CA) introduced the Climate Protection Act of 2013, which includes a BTA on carbon-intensive goods. S. 332, 113th Cong. § 101 (2013).

8 *See, e.g.*, KATERYNA HOLZER, PERSPECTIVES FOR THE USE OF CARBON-RELATED BORDER ADJUSTMENTS IN PREFERENTIAL TRADE AGREEMENTS 6 (2011), *available at* www.iadb.org/intal/intalcdi/PE/2012/09640.pdf (stating "the fact that [BTAs] are linked to production methods and not to products directly . . . makes their legality disputable"); Jason E. Bordoff, *International Trade Law and the Economics of Carbon Policy: Evaluating the Legality and Effectiveness of Proposals to Address Competitiveness and Leakage Concerns*, *in* BROOKINGS TRADE FORUM: CLIMATE CHANGE, TRADE AND COMPETITIVENESS: IS A COLLISION INEVITABLE? 35, 41–54 (Lael Brainard & Isaac Sorkin eds., 2009) (explaining why there is a "risk that a border adjustment would be illegal under World Trade Organization (WTO) law").

9 Leonardo Maugeri, *Oil: The Next Revolution: The Unprecedented Upsurge of Oil Production Capacity and What It Means for the World*, 8, 24–25, 41 (Harvard Kennedy Sch. Belfer Ctr. for Sci. and Int'l Affairs, Discussion Paper No. 2012-10), *available at* http://belfercenter.ksg.harvard.edu/files/Oil-%20The%20Next%20Revolution.pdf; Julie M. Carey, *How Unconventional Gas Is Supercharging the U.S. Economy*, FORBES, Dec. 13, 2012, http://www.forbes.com/sites/energysource/2012/12/13/how-unconventional-oil-and-gas-is-transforming-the-u-s-economy/ (last visited April 10, 2013).

10 *See, e.g.*, Richard Black, *Airlines and Tar Sands Proxy for Bigger Climate Battles*, BBC NEWS, Feb. 21, 2012, http://www.bbc.co.uk/news/science-environment-17112187 (last visited April 10, 2012) (noting that the E.U. is "taking its own steps outside the U.N. organization to reduce not only its own emissions, but those of other countries"); *China Carbon Debut Defies Emission Doubters*, BLOOMBERG, Oct. 12, 2012, http://www.bloomberg.com/news/2012-10-12/china-carbon-debut-defies-emission-doubters-energy-markets.html (last visited April 10, 2013) (discussing China's pilot carbon-pricing programs and the country's goal to establish a national emissions program by 2015).

carbon emission behaviors in other countries, and/or 2) minimize the competitive disadvantage to domestic producers in a nation that has such a system.

In the two preliminary Parts, this Article explains the proposals both for the E.U.'s treatment of tar sands oil and for a broader production-based BTA—one based on the carbon footprint of an imported product. The legal analysis in Part IV concludes, contrary to other uncertain academic analyses, that such policies would pass muster under international law. Nonetheless, despite the likely legality and effectiveness of these proposals, Part V identifies practical and political concerns that render an internationally negotiated approach preferable to the unilateral imposition of a carbon-based BTA.

II. THE EUROPEAN UNION'S OIL SANDS PROPOSAL

The E.U. and its member-states have been more aggressive than most in adopting policies that reduce GHG emissions. The E.U. Emissions Trading System (E.U. ETS), a multi-nation cap-and-trade program, has been in place for several years now.[11] Other nations adopting similar domestic policies have taken steps to link with the E.U. carbon market, and the E.U. has endeavored to broaden the influence of its emission reduction efforts.[12] Recently, it adopted an aviation emissions policy that requires all airlines arriving at or departing from E.U. airports to buy emission allowances as part of the E.U. ETS.[13] The E.U. continues to advocate for a post-Kyoto international treaty that sets binding and aggressive emission reduction commitments.[14] Its oil sands proposal would further expand the reach of the E.U. ETS.[15] Unlike some smaller nations, the E.U. is a large enough consumer market that it could affect behavior in other nations, including major emitters like the U.S. and China. In other words, the E.U. has the economic power to extend the reach of its emission reduction policies, and has shown a willingness to do just that.

As a way of meeting its commitments under the Kyoto Protocol, the E.U. has developed a separate emission reduction strategy for each sector of

11 *See* Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 Amending Directive 2003/87/EC So As to Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the Community, 2009 O.J. (L 140) 63 (improving and extending the E.U.'s allowance trading scheme for greenhouse gas emissions that was established in 2003).

12 *See* European Comm'n, *International Carbon Market*, http://ec.europa.eu/clima/policies/ets/linking/index_en.htm (last visited April 10, 2012) (stating that "the Commission and Australia announced agreement in August 2012 on a pathway for linking the E.U. ETS and the Australian emissions trading scheme" and that the "EU is pressing for the modalities and procedures" for a "new [carbon] market mechanism implemented in developing countries").

13 European Comm'n, *Reducing Emissions from the Aviation Sector*, http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm (last visited April 10, 2012).

14 European Comm'n, *The Future Global Framework*, http://ec.europa.eu/clima/policies/international/negotiations/future/index_en.htm (last visited April 10, 2012).

15 *See supra* notes 3–6 and accompanying text.

its economy, including transportation.[16] Part of its transportation strategy is to get more energy out of a fuel for the same amount of GHG emissions.[17] Towards that end, it adopted the Fuel Quality Directive (FQD).[18] A 2009 Amendment to the FQD introduced a requirement to improve the energy efficiency of transport fuels.[19] Article 7a(2) of the FQD now requires fuel suppliers in each member state to reduce the life-cycle GHG emissions (the so-called "wells to wheels" emissions) of the total mix of fuels they supply by 6% below a to-be-determined 2010 baseline level by 2020.[20]

Implementing the FQD thus requires the E.U. to determine the life-cycle GHG emissions of the various fuels that may be used for transport purposes in the E.U. Importantly, "life-cycle GHG emissions" is defined in Directive 2009/30/EC as "all net emissions of CO_2, CH_4, and N_2O that can be assigned to the fuel (including any blended components) or energy supplied. This includes *all relevant stages from extraction or cultivation*, including land-use changes, transport and distribution, processing and combustion, *irrespective of where those emissions occur*[.]"[21] In other words, determining whether member states are sufficiently reducing GHG emissions from their transport fuels requires consideration of the GHGs emitted during extraction of the fuel, including the associated land use changes that cause emissions or reduce carbon sinks.

In February 2012, the E.U. proposed rules that attempted to quantify the default "wells to wheels" emissions of various fuel sources so that suppliers would have the information necessary to comply with their reduction obligations.[22] Each crude oil source would be assigned a value that reflects the amount of GHGs emitted in relation to the amount of energy the crude generates; the higher the number, the greater the greenhouse gas effect of a

16 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003, Establishing a Scheme for Greenhouse Gas Emission Allowance Trading Within the Community and Amending Council Directive 96/61/EC, 2003 O.J. (L 275) 32, 34.

17 *See* European Comm'n, *Fuel Quality*, http://ec.europa.eu/clima/policies/transport/fuel/index_en.htm (last visited Jan. 23, 2012).

18 Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998, Relating to the Quality of Petrol and Diesel Fuels and Amending Council Directive 93/12/EEC, art. 1, 1998 O.J. (L 350) 59, 60.

19 Directive 2009/30/EDC of the European Parliament and of the Council of 23 April 2009, para. 5, 2009 O.J. (L 140) 88, 95.

20 *Id.*; James M. Van Nostrand & Anne Marie Hirschberger, *New York's Roadmap for Reducing Greenhouse Gases in the Transportation Sector*, 2011 U. ILL. L. REV. 475, 488 (2011) (explaining the term "wells to wheels" in the context of life-cycle analyses). Article 7a(2) actually requires a 10% reduction of these life-cycle GHG emissions from the 2010 baseline standard, but 2% is based on how the fuel is supplied or on technological advances, and 2% must be met from credits purchased through the Kyoto Protocol's Clean Development Mechanism. Directive 2009/30/EC para. 5, 2009 O.J. (L 140) 88, 95.

21 Directive 2009/30/EC, para. 2 (emphasis added).

22 *Draft Commission Directive Laying Down Calculation Methods and Reporting Requirements Pursuant to Directive 98/70 (EC) of the European Parliament and of the Council Relating to the Quality of Petrol and Diesel Fuels*, Annex I, COM (2012) 0166 final (Feb. 23, 2012) [hereinafter *2012 Draft Commission Directive*], *available at* http://ec.europa.eu/transparency/regcomitology/index.cfm?do=search.documentdetail&XOvfOQKYHt67nl0gDR9EQ0pDU4MfDGIJHglKuEmrBsRhxbx1TISJ2Mfg5DtxY23N.

particular crude source. For instance, petrol from conventional crude received by E.U. refineries was assigned an emissions default value of 87.5.[23] Crucial to the Canadian oil sands dispute, petrol from natural bitumen, such as that found in the Alberta oil sands—commonly, if somewhat inaccurately, called "tar sands oil"—was assigned a default value of 107.[24] Other assigned values included 131.3 for petrol from shale oil, and 172 for petrol from coal-to-liquid.[25] What this means is that for E.U. refineries obligated to meet the emission-reduction goals of the FQD, crude oil derived from bitumen, shale oil, or coal would be far less attractive.

Canada has by far the world's largest known quantity of bitumen, located in its oil sands in Alberta.[26] In recent years, Canada has begun exploiting this massive amount of oil sands crude. Not surprisingly, it objected to, and lobbied hard against, the E.U.'s proposed rule.[27] While there are policy arguments and economic arguments against the proposed rule,[28] the focus here is on the legality of the E.U. proposal and its implications for other "border adjustments."

Canada's preliminary legal position has been framed in letters from its Natural Resources Minister and its Ambassador to Europe.[29] Initially, when the proposed rule was first announced in October 2011, Canada's Minister of

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23 *Id.* at 21. The default value is expressed in terms of grams of CO_2-equivalent emissions per megajoule of energy (gCO_2eq/MJ). *Id.* at 20–21.

24 *Id.* at 21.

25 *Id.* at 21.

26 ENERGY POL'Y RESEARCH FOUND., A PRIMER ON THE CANADIAN OIL SANDS 1 (2010), *available at* http://eprinc.org/pdf/oilsandsprimer.pdf; *see also* Energy Res. Conservation Bd., *supra* note 4.

27 Canada is not the only nation opposed to the proposed rule. Estonia, for example, has a large quantity of shale oil, so it too opposed the relatively higher default value assigned to unconventional fuels in the E.U. Draft Implementation. *See* Darren Campbell, *Canada Finds Eastern Allies in Fuel Directive Brouhaha*, ALBERTA OIL, Oct. 26, 2011, http://www.albertaoilmagazine.com/2011/10/in-its-fight-against-eu-fuel-directive-canada-finds-eastern-allies/ (last visited Nov. 18, 2012); *E.U. Stalemate on 'Dirty' Label for Fuel From Tar Sands*, N.Y. TIMES, Feb. 24, 2012, http://www.nytimes.com/2012/02/24/business/global/eu-stalemate-on-dirty-label-for-fuel-from-tar-sands.html (last visited Nov. 18, 2012); Barbara Lewis, *Update 2-EU Vote on Tar Sands Oil Delayed Until 2013*, REUTERS, Apr. 20, 2012, http://www.reuters.com/article/2012/04/20/energy-tar-idUSL6E8FK33620120420 (last visited July 24, 2012). The United States has also become a major producer of shale oil, especially from the Bakken Shale formation in North Dakota. *See* Brian Hansen, *North Dakota's Oil/Gas Boom to Get Even Bigger, Official Says*, PLATTS, Aug. 5, 2012, http://www.platts.com/RSSFeedDetailedNews/RSSFeed/Oil/3246174 (last visited Jan. 23, 2013). Although there has been little reporting of U.S. objections to the E.U. proposal, its shale oil producers would also be impacted by the shale oil default value. *See* Transport & Environment, *Background: Is Canadian Oil Being Unfairly Targeted?*, http://www.transportenvironment.org/what-we-do/dirty-oil-whats-problem (last visited Feb. 1, 2013) (noting that U.S. shale oil producers will receive the same default values as Canadian producers).

28 From a policy perspective, it could be argued that the rule would be unfair to Canadian oil and other carbon-intensive fuel sources. Similarly, on an economic level, the rule would arguably be an excessive administrative burden on struggling E.U. refineries and discourage long-term investment in unconventional sources of crude. *See* Lewis, *supra* note 27.

29 An October 2011 letter from Canada's Natural Resources Minister Joe Oliver to E.U. Energy Commissioner Gunther Oettinger, and a December 2011 letter from Canada's Ambassador to Europe David Plunkett to E.U. Commissioner for Climate Action Connie Hedegaard, are discussed in *EU Oilsands*, *supra* note 2, and Carrington, *supra* note 1.

Natural Resources, Joe Oliver, wrote to the E.U.'s Commissioner for Energy, Gunther Oettinger, objecting to it.[30] Minister Oliver objected on the basis that there simply was not a scientific basis for concluding that GHG emissions from oil sands crude were greater than those from conventional crude. While Canada professed transparency and accurate reporting of GHG emissions from its oil sands, Minister Oliver asserted that reporting of GHG emissions from crude oil in other countries was less accurate or lacking altogether.[31] Implementing a measure that did not accurately account for GHG emissions from other crude oil sources, Minister Oliver argued, "potentially violates the European Union's international trade obligations."[32] In addition, he made the not-so-veiled threat that, if "unjustified, discriminatory measures to implement the FQD are put in place, Canada will not hesitate to defend its interests."[33]

In December 2011, a letter from Canada's Ambassador to Europe, David Plunkett, to E.U. Commissioner for Climate Action, Connie Hedegaard, was even more direct in its threat of legal action: "If the final measures single out oil sands crude in a discriminatory, arbitrary or unscientific way, or are otherwise inconsistent with the E.U.'s international trade obligations, I want to state that Canada will explore every avenue at its disposal to defend its interests, including at the World Trade Organisation."[34]

While the language of the Canadian letters is blunt compared to usual diplomatic wordsmanship, it is also significant what the letters do not say. So long as the E.U.'s default values are based on sound scientific analyses of the actual life-cycle GHG emissions of the fuel sources, the letters suggest that Canada would have less of a basis for legal objection.[35] The scientific basis for the life-cycle GHG emission default values in the E.U.

30 *See* Press Release, Natural Resources Canada, Minister Oliver Objects to the European Union's Discrimination of Canadian Crude Oil (Oct. 23, 2011), *available at* http://www.nrcan.gc.ca/media-room/news-release/2011/3143.

31 *Id.* ("While Canada offers detailed data on GHG emissions from the production of crude oil, other oil producing countries often have less stringent oversight, are less transparent, or simply lack data concerning their oil sector's GHG emissions. We object to being treated less favourably than other crude oil sources simply because Canadian industry provides more detailed data on oil sands emissions. . . . Canada calls upon the European Union and its Member States to propose an effective implementing measure for the FQD, one which properly assesses all sources of crude oils used in Europe and ensures any differentiation is based on life-cycle GHG intensity.").

32 *Id.*

33 *Id.*

34 Carrington, *supra* note 1.

35 Press Release, *supra* note 30 ("Any proposed implementing measure that provides separate, more onerous treatment for oil sands derived crude oil relative to other crude oils *with similar or higher GHG emissions* intensities is discriminatory, and potentially violates the European Union's international trade obligations." Similarly, "[t]reating oil sands derived crude oil differently from other crude oils, *based on anything and other than actual GHG emissions intensity*, does nothing to further the FQD's goal of reducing GHG emissions in fuels.") (emphasis added). Likewise, Ambassador Plunkett's letter prefaces its threat of WTO legal action with "*if* [the EU rule is] discriminatory, arbitrary or unscientific." *See EU Oilsands*, *supra* note 2. The implication of both letters is that so long as the disparate treatment is based on actual life cycle GHG emissions, it would (or could) be justified.

proposal developed over several years of reports and public comment, culminating in a January 2011 peer-reviewed analysis out of Stanford University that analyzed upstream emissions of various crude oil sources.[36] For purposes of analyzing the legality of the 2012 Draft Implementation, it must be assumed that the default values are based on sound science. If they are not, the proposal would likely be seen as "unjustified" and impermissible under GATT.[37]

Two other details of the E.U. oil sands proposal vis-à-vis Alberta may prove significant in analyzing its GATT legality. The first is that, under the E.U. proposal, all fuel producers are given the opportunity to show that the actual emissions associated with the extraction and delivery of their products are less than the assigned default value.[38] Secondly, Alberta has its own GHG emission reduction policies. Beginning in 2007, all facilities in Alberta emitting over 100,000 tons of CO_2 equivalent per year were required to reduce their emissions intensity by 12% from 2003–2005 levels starting in 2007.[39] Emitters that fail to meet this target have the option of buying Alberta-based carbon offsets, or paying $15 per ton CO_2 equivalent into a fund that supports projects and technologies aimed at reducing GHG emissions in the province.[40] While oil sands facilities accounted for the second largest source of emissions in Alberta, the government claims that GHG emissions per barrel of oil from the oil sands were reduced by an average of 29% between 1990 and 2009.[41]

Although the oil sands proposal was scheduled for a vote in February 2012 and again in June 2012, intense lobbying by Canada (and by E.U.-based

36 *See* ADAM R. BRANDT, UPSTREAM GREENHOUSE GAS (GHG) EMISSIONS FROM CANADIAN OIL SANDS AS A FEEDSTOCK FOR EUROPEAN REFINERIES (2011), *available at* https://circabc.europa.eu/d/d/workspace/SpacesStore/db806977-6418-44db-a464-20267139b34d/Brandt_Oil_Sands_GHGs_Final.pdf. That analysis built on a number of studies (at least 13) compiled and synthesized in a report published by the Natural Resources Defense Council. *See* SIMON MUI ET AL., NATURAL RES. DEF. COUNCIL, GHG EMISSION FACTORS FOR HIGH CARBON INTENSITY CRUDE OILS (2010), *available at* http://docs.nrdc.org/energy/files/ene_10070101a.pdf. An Alberta-sponsored study suggests that the difference between life-cycle emissions between oil sands crude and conventional crude is not as great as the studies relied upon by the E.U. suggest. Shawn McCarthy, *Alberta Fires Back at Proposed EU Fuel Rules*, GLOBE & MAIL, June 18, 2012, http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/alberta-fires-back-at-proposed-eu-fuel-rules/article4105563/ (last visited Jan. 19, 2013).

37 *See* Press Release, *supra* note 30. For a discussion of the relevant GATT provisions and analyses; see *infra* Part IV.

38 *2012 Draft Commission Directive*, *supra* note 22; General Agreements on Tariffs and Trade art. 2:2, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT], *available at* http://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm; *see also* Transport & Environment, *Reducing Transport Fuel Emissions – Implementing the FQD*, http://www.transportenvironment.org/publications/reducing-transport-fuel-emissions-implementing-fqd (last visited Apr. 10, 2013). A detailed analysis of the claimed scientific basis for the assigned default values is well beyond the scope of this Article.

39 Specified Gas Emitters Regulation, A. Reg. 139/2007, pt. 2 (Can.), *available at* http://canlii.ca/en/ab/laws/regu/alta-reg-139-2007/latest/alta-reg-139-2007.html#history.

40 *See* Alberta Energy, *Oil Sands Facts and Figures*, http://www.energy.alberta.ca/OilSands/791.asp (last visited Apr. 5, 2013).

41 *Id.* (noting that utilities contributed to 40.5% of Alberta's GHG emissions in 2009 while "oil sands operations" contributed 37.1%).

oil companies like Shell and BP, which have significant interests in the Canadian oil sands) succeeded in delaying a final vote until early 2013.[42] The stated purpose for the delay was to allow for a full study of the impact that the rule would have on E.U. oil businesses and refineries.[43]

III. WHY BORDER TAX ADJUSTMENTS ARE PROPOSED IN CONJUNCTION WITH DOMESTIC CLIMATE POLICIES

Border tax adjustments have long been proposed in conjunction with domestic carbon pricing policies. This Part explains more thoroughly what BTAs are, how they theoretically address the primary objections to a domestic carbon pricing policy, and how they actually complement such a domestic policy and fill a gaping hole left by the failure of post-Kyoto international obligations.

A. What Are Border Tax Adjustments?

Border tax adjustments are not in and of themselves impermissible under international trade law; in fact, GATT specifically authorizes them so long as they are implemented in a non-discriminatory way. The definition of border tax adjustments used by the Organisation for Economic Cooperation and Development (OECD) and the WTO is:

> [A]ny 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*).[44]

Thus, BTAs can be levied with respect to imports or exports. For exports, they can take the form of a domestic tax rebate, such as when the product is exported to a nation that does not have a comparable tax. For imports, BTAs can consist of charges imposed on the imported product in an amount equal to the taxes or charges that a domestic producer of a similar product must pay.[45]

This Article is concerned with import BTAs—that is, the imposition of a tax or charge on imported products, corresponding to a tax or charge borne by similar domestic products.[46] Such BTAs are designed to level the playing field between domestic entities and foreign competitors by assuring that all

42 *See* Lewis, *supra* note 27.

43 *See id.*

44 *See* GATT Working Party, *Border Tax Adjustments*, ¶ 4, No. L/3464 (Dec. 2, 1970), *available at* http://www.worldtradelaw.net/reports/gattpanels/bordertax.pdf (emphasis added).

45 *Id.*

46 *See id.*; *see also* LUDIVINE TAMIOTTI ET AL., UNITED NATIONS ENV'T PROGRAMME & WORLD TRADE ORG., TRADE AND CLIMATE CHANGE 100, 132 n.169 (2009), *available at* http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf.

producers serving the market are paying the same amount under the pertinent government policy.[47] BTAs differ from typical border taxes (and import tariffs or excise taxes) because a permissible BTA is truly an "adjustment" of the charge on an import equal to the tax or charge that the domestic producer of a like product must pay.

It should be readily apparent that, by the above definition, the E.U. proposed rule is not technically a border *tax* adjustment. It is not a monetary charge on imports. The E.U. rule is not motivated by competitiveness concerns, but by the desire to extend the reach of the E.U.'s emissions reduction policy. As discussed in Part IV below, the fact that the E.U. rule is not a tax or charge requires a different legal analysis in a few important respects.

A straight carbon BTA could be imposed on imported fossil fuels based on their carbon content, so long as the charge is equivalent to that paid by domestic producers. Thus, some in the U.S. have proposed a straightforward carbon tax to be imposed not only at every wellhead or mine, but also at every port of entry.[48] As should be apparent from the GATT analysis in Part IV, there would be little question that such a carbon BTA would be permissible. The harder question is whether a BTA could be based, not on the carbon content of an import, but on the carbon emitted during production and transportation of an imported product. The focus of the legal analysis below is on the proposed E.U. rule, which attempts to account for emissions during production, and also on whether GATT would allow an even broader production-based carbon BTA.

Although it has not been definitively decided whether a BTA can be applied to a production input (like energy or carbon or GHG emissions) that is not physically incorporated into the imported product, the better reading of the GATT Articles and the WTO decisions thereunder is that such a BTA would pass legal muster under GATT.

B. Production-Based Carbon BTAs Address Competitiveness and "Leakage" Objections to Domestic Climate Policies

Two of the primary domestic policies for reducing GHG emissions are a carbon tax and a cap-and-trade system. In a carbon tax system, the tax is usually assessed directly on the fuel source at its first point of sale.[49] This encourages energy providers to produce less carbon-intensive energy, and encourages energy users to look for lower carbon fuels. In the simplest cap-and-trade system, entities that emit GHGs have to purchase allowances equivalent to their GHG emissions.[50] This too makes carbon-intensive energy

47 *Id.* at 100.

48 *See, e.g.*, JONATHAN L. RAMSEUR ET AL., CONG. RESEARCH SERV., R42731, CARBON TAX: DEFICIT REDUCTION AND OTHER CONSIDERATIONS 4–5 (2012); Reuven S. Avi-Yonah & David M. Uhlmann, *Combating Global Climate Change: Why A Carbon Tax Is A Better Response To Global Warming Than Cap And Trade*, 28 STAN. L. REV. 3, 32 (2009).

49 TAMIOTTI ET AL., *supra* note 46, at xvii.

50 *Id.*

more expensive and encourages the development of lower carbon fuels. Both systems put a price on carbon, thus "internalizing" the cost of climate damage to the particular transaction.

Even for those who believe climate change is a pressing generational challenge, there are two legitimate objections to a domestic policy that puts a price on carbon. First, there is no escaping the fact that such a policy makes energy more expensive for domestic industry—indeed, that is the goal of a carbon tax or a cap-and-trade system.[51] Domestic production costs will therefore be higher than those in other nations, which in turn puts domestic industry at a competitive disadvantage. The second concern is that such a policy encourages industry to relocate to nations that do not have carbon-pricing policies. These related concerns of competitiveness and "leakage" are legitimate challenges to adopting a carbon-pricing system.

As explained below, a production-based carbon BTA addresses these two objections to a domestic carbon pricing policy. By imposing a tax on imports equivalent to the additional costs domestic producers face, this levels the playing field and discourages producers from escaping to non-carbon-pricing nations.

1. Competitiveness

From the point of view of nations that have adopted carbon-pricing policies—among them, most E.U. nations, New Zealand, and more recently South Korea and Australia[52]—such policies have raised the domestic cost of energy and thereby placed domestic producers at a competitive disadvantage. Fossil fuel products as well as manufactured goods from these nations are more expensive, both domestically and globally, than they would be if they came from countries like China or the U.S. that do not have a comparable national policy. This is a legitimate concern—on purely economic terms, it is difficult to refute the point that if the U.S. imposes a price on carbon, it will be competitively disadvantaged compared to a nation (like China) that has no such policy.[53] More recently, Poland's Environmental

51 *See id.*

52 Sangim Han, *South Korean Parliament Approves Carbon Trading System*, BLOOMBERG, May 3, 2012, http://www.bloomberg.com/news/2012-05-03/south-korean-parliament-approves-carbon-trading-system.html (last visited Apr. 5, 2013). Even some so-called "developing nations," such as South Africa and Mexico, are moving towards carbon pricing systems. Cathy Lewis, *How South Africa's Proposed Carbon Tax Will Affect Business*, INT'L TAX REV., Apr. 1, 2012, http://www.internationaltaxreview.com/Article/3001242/How-South-Africas-proposed-carbon-tax-will-affect-business.html (last visited Apr. 10, 2013); Erik Vance, *Mexico Passes Climate-Change Law*, NATURE, April 20, 2012, http://www.nature.com/news/mexico-passes-climate-change-law-1.10496/ (last visited Apr. 10, 2013).

53 This competitive disadvantage argument has been the primary objection raised by government officials in the United States in opposing any Kyoto-like commitment. *See* CHRIS WOLD, DAVID HUNTER & MELISSA POWERS, CLIMATE CHANGE AND THE LAW 162 (2009); H. Sterling Burnett, *Russia, Japan, Canada Say Nyet to Kyoto Follow Up*, HEARTLAND, June 13, 2011, http://news.heartland.org/newspaper-article/2011/06/13/russia-japan-canada-say-nyet-kyoto-follow (last visited Apr. 10, 2013). Although it is mathematically impossible to challenge the underlying point that U.S. goods will be relatively more expensive if the U.S. begins to tax

Minister has advanced this argument in opposing stricter emission standards within the E.U. ETS, and Korean businesses have cited it in opposing a new domestic trading system.[54]

Since a BTA taxes imports based on the carbon used or emitted during production, it is not difficult to understand how such a policy logically addresses competitiveness concerns in both a cap-and-trade and a carbon tax system.[55] Being able to target the carbon emitted during the manufacture of a particular product is of obvious import in a nation whose policy imposes the domestic cost not on the fuel source, but on the GHG emitter, as many cap-and-trade systems do. For such nations, merely taxing imported fossil fuels does not counter the competitive disadvantage that domestic manufacturers face. The costs to domestic manufacturers are higher because their energy providers had to buy emission allowances, an expense that would be incorporated into the price of the energy paid by the

carbon, there are political responses of colorable merit. First, the U.S. bears greater historical responsibility than developing countries for elevated atmospheric CO_2 concentration, so some argue that it should bear a greater cost in reducing emissions (this logic also applies to the E.U., Japan, Russia, and other nations that industrialized in the 1800s and early 1900s). Second, the developed world got to where it is economically largely on the back of cheap fossil fuel, and some argue that developing nations should not be deprived of such an ascension. Finally, some have argued that the U.S. needs to act domestically before it could have any sway over China and other major developing economies that have resisted Kyoto-like binding emission cuts. NATHANIEL KEOHANE & PETER GOLDMARK, ENVTL. DEFENSE FUND, WHAT WILL IT COST TO PROTECT OURSELVES FROM GLOBAL WARMING? 4 (2008), *available at* http://www.edf.org/sites/default/files/cost-to-protect-ourselves-from-global-warming.pdf. The divide in the U.S. over whether it should make binding emission reduction commitments as part of an international treaty has become increasingly partisan and unsusceptible to compromise. *See* Joanna Zelman, *Democratic Party Platform: Climate Change Challenges and Other Environmental Issues Addressed*, HUFFINGTON POST, Oct. 4, 2012, http://www.huffingtonpost.com/2012/09/04/democratic-party-platform-climate-change-environment_n_1854579.html (last visited Apr. 10, 2013). Though some recent polls suggest that the public currently supports U.S. emission reduction commitments, the public opinion pendulum tends to swing back and forth, and reaching the two-thirds agreement of a divided Senate that is required to ratify a treaty seems Herculean in today's political climate. *See* Stephen Lacey, *Poll: Americans' Understanding of Climate Change Increasing With More Extreme Weather, Warmer Temperatures*, THINK PROGRESS, Feb. 29, 2012, http://thinkprogress.org/climate/2012/02/29/434563/poll-americans-understanding-climate-change-increasing-with-more-extreme-weather-warmer-temperatures/?mobile=nc (last visited Apr. 10, 2013).

54 Poland's Environmental Minister, Marcin Korolec, "has also pointed to the rising level of emissions from developing nations, like India and China, an agreement that is not binding to all nations puts Europe at a distinct competitive disadvantage." Int'l Ctr. for Trade and Sustainable Dev., *Poland Vetoes EU Carbon-Reduction Roadmap*, BIORES, Mar. 19, 2012, http://ictsd.org/i/news/biores/128607/ (last visited Apr. 10, 2013); *see also* Han, *supra* note 52.

55 If competitiveness were the only concern, then an export BTA could achieve the same goals as an import BTA. Under an export BTA, a nation with a carbon pricing policy would provide some rebate or credit to its own exporters based on the additional production costs incurred as a result of domestic climate policy. However, while competitiveness is often the primary driver of a BTA, the primary driver behind domestic climate policy in the first instance is to reduce GHG emissions and the corresponding impacts of climate change. This is best achieved by an import BTA rather than an export BTA, because an import BTA encourages manufacturing countries to adopt a carbon-pricing mechanism while an export BTA simply relieves domestic producers of the costs associated with carbon-intensive manufacturing.

manufacturer. In contrast, a manufacturer in a nation that does not have an emission allowance system does not have that additional expense, and so can produce a widget at lower cost.

A nation with a straightforward carbon tax would also want a production-based BTA. In such a nation, domestic entities buy electricity and fuel for their operations domestically. Because domestic power companies are paying more for their combustion source based on its carbon content, domestic entities are incurring higher production costs as a result of domestic carbon taxes. By imposing a BTA that accounts for carbon used during production, importers and domestic entities are treated the same.

Thus, from a policy perspective, the most desirable BTA would be one that taxes not only imported fossil fuels on the basis of their carbon content, but also imported products based on carbon used or GHGs emitted during production. If a nation has a carbon pricing policy, then an important and necessary input in the manufacturing process, energy, becomes more expensive for the domestic producer; a BTA that reaches the carbon used or emitted during production of imports would be needed to level the playing field.[56]

2. Leakage

A related criticism of carbon-pricing systems is that domestic manufacturers can simply relocate to a nation that has no such system, produce their products free of the increased costs associated with carbon pricing, and sell the products back into the same domestic market. This is known as "leakage," because the hoped for emission reductions simply "leak" outside the system.[57] This criticism is leveled both by opponents who fear damage to the domestic economy (since the economy loses producers) and who question whether a carbon pricing system actually results in meaningful emissions reduction (since the relocated companies continue to emit).[58] Recently, for example, Poland cited concerns and evidence of leakage in refusing to agree to tighter E.U. emission rules, arguing that the rules would both harm the Polish economy and actually result in greater global emissions.[59]

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56 A unilaterally imposed BTA would not wholly eliminate the advantage of foreign producers within other foreign markets that do not have a carbon-pricing policy. For instance, there is no policy the E.U. could adopt that would level the playing field for E.U. producers competing against Chinese producers in, say, Venezuela, which does not have a carbon-pricing policy. The E.U. producers would still have higher production and transportation costs in such markets. That this competitiveness concern remains even after a carefully crafted BTA is one reason international negotiations continue to be a preferred route. *See infra* Part V.C.

57 TAMIOTTI ET AL., *supra* note 46, at 99.

58 *Id.*

59 The Polish Chamber of Commerce recently issued a report claiming that the E.U. ETS plan to reduce emissions by 80–95% by 2050 will actually lead to increased global emissions by increasing carbon leakage. Arthur Neslen, *Polish Businesses Launch Offensive Against EU Climate Policy*, EURACTIV, June 27, 2012, http://www.euractiv.com/climate-environment/polish-business-launches-offensi-news-513576 (last visited Jan. 21, 2013); *see also Poland Tries to Block EU Emission Goal*, WALL STREET J., Mar. 12, 2012, http://online.wsj.com/article/SB100014240

Efforts and proposals to limit the effect of leakage have generally focused on allocating free emission allowances to susceptible sectors, or exempting susceptible entities from the domestic tax or permitting scheme.[60] The problem with using these measures is that they result in fewer entities being subject to the emission reduction scheme. In order to prevent a handful of entities from relocating to a more favorable nation, these methods exempt entire sectors from meaningful reduction commitments.[61]

A better way to address leakage concerns would be through a BTA.[62] The incentive for a manufacturer to relocate exists only if the company's product is headed for a market that does not impose a BTA. Consider the E.U. ETS: a carbon BTA would combat leakage completely to the extent that a company relocates and wants to sell its product back into the E.U. market (or any other market that puts a price on carbon and makes a corresponding border adjustment). In much the same way that it would address competitiveness concerns, a production-based carbon BTA would significantly assuage leakage concerns related to domestic climate policies.[63]

52702303717304577277501277395044.html (last visited Jan. 21, 2013). This is because emitters will "leak" to nations that do not regulate emissions as strenuously as the E.U. *Id.*

60 *See* TAMIOTTI ET AL., *supra* note 46, at 98–100. For instance, to limit carbon leakage, Poland has proposed that its heavily coal-dependent power sector continue to receive free emission allowances as the E.U. ETS enters its third phase. *See* Adam Easton, *Poland's Dependence on Coal*, BBC NEWS, Apr. 23, 2012, http://www.bbc.co.uk/news/world-radio-and-tv-17813431 (last visited Jan. 21, 2013). The trade minister of Australia has advanced similar arguments in arguing for free allowances, rather than BTAs, as a way to protect carbon intensive domestic industry. *See* Matthew Franklin, *Labor slams 'Carbon Tariffs,'* AUSTRALIAN, Mar. 11, 2011, http://www.theaustralian.com.au/national-affairs/labor-slams-carbon-tariffs/story-fn59niix-1226019386239 (last visited Jan. 21, 2013). Korea too seems likely to opt for free emission allowances as part of its recently enacted trading system as a way to combat concerns over competitiveness and leakage. *See* Han, *supra* note 52.

61 *See* TAMIOTTI ET AL., *supra* note 46, at 99–100.

62 *See, e.g.*, CAROLYN FISCHER & ALAN K. FOX, RESOURCES FOR THE FUTURE, COMPARING POLICIES TO COMBAT EMISSIONS LEAKAGE: BORDER CARBON ADJUSTMENTS VERSUS REBATES (2009, rev. 2011), http://www.rff.org/rff/documents/rff-dp-09-02-rev.pdf (discussing various border carbon adjustment policies and recommending a full border adjustment as the most effective means of controlling emissions leakage); IAN MCGREGOR, SUBMISSION TO SENATE INQUIRY ON CARBON POLLUTION REDUCTION SCHEME, A BETTER APPROACH TO EMISSIONS-INTENSIVE TRADE-EXPOSED FIRMS in THE CARBON POLLUTION REDUCTION SCHEME (2006), *available at* http://climatechange.gov.au/en/government/submissions/cprs-green-paper/~/media/submissions/greenpaper/0131-mcgregor.ashx (last visited July 26, 2012) (arguing for Australia to adopt a BTA, and noting that such policies promote market competition and provide sufficient price signals to encourage reduced domestic consumption); Juan-Carlos Altamirano et al., BORDER ADJUSTMENT MEASURES AS INSTRUMENTS TO REDUCE EMISSIONS LEAKAGE (2010), *available at* http://infoscience.epfl.ch/record/161647/files/NCCRWP_Trade.pdf (noting that border adjustment measures used in conjunction with international trade law can successfully mitigate carbon leakage).

63 As with competitiveness concerns, the unilateral imposition of an import BTA would not entirely eliminate the incentive to relocate, as it would still be beneficial for a company whose products are headed for a country that does not have a border adjustment. *See supra* notes 56–57. The greater the number of developed, importing, consumer nations that enact a carbon BTA, the more successful such a system would be in combating leakage.

C. Production-Based Carbon BTAs Would Complement Domestic Climate Policies by Encouraging Reduced Global Emissions

While concerns over competitiveness and leakage are raised by those who are worried that a domestic carbon pricing system will harm the domestic economy, others oppose such a system because they feel that domestic carbon pricing policies have limited *global* climate benefits. They feel that unilateral action to reduce GHG emissions in a given developed country will have a limited climate change impact due to the rate at which emissions are increasing in major developing nations, especially China.[64] Recent emissions data support this contention, as emissions in the E.U. and the U.S. (historically, the two largest emitters) have actually decreased in recent years for a myriad of reasons, while global emissions continue to climb due to increases in China (currently the largest emitter) and the rest of the developing world.[65] This criticism is bolstered by the fact that developed nations continue to provide a market for cheap goods that are manufactured in other nations, like China, without regard to their carbon footprint, thereby actually encouraging greater emissions in those exporting nations.

A production-based carbon BTA would further the primary driver for such a domestic policy in the first place—reducing global GHG emissions and the threat of climate change—by incentivizing exporting countries to reduce their GHG emissions.[66] It is this desire to reduce global emissions, rather than concerns over competitiveness and leakage, that seem to be motivating the proposed E.U. rule.[67]

The consumer nations of the world possess significant as-yet-unused leverage over developing nations to encourage carbon emission reductions. If the E.U., for example, began imposing a carbon-based BTA not merely on oil sands crude but on all imports from nations like China that do not impose

64 The reality of GHG emission trends is that, even as they fall in developed nations, they are on the rise globally. *See* TAMIOTTI ET AL., *supra* note 46, at 5. This is because major developing nations—China, India, Brazil, etc.—are still catching up to the industrial growth that the U.S., Europe, Japan, and others experienced decades or centuries ago. *Id.* at 3–5. As then-presidential candidate Mitt Romney explained, it is called "global" warming for a reason—it is a global problem and there is only a limited impact that domestic policy can have. *See Obama and Romney Tackle 14 Top Science Questions*, SCI. AM., Sept. 4, 2012, http://www.scientificamerican.com/article.cfm?id=obama-romney-science-debate (last visited Apr. 5, 2013).

65 JOS G.J. OLIVIER ET AL., PBL NETHERLANDS ENVTL. ASSESSMENT AGENCY & EUROPEAN COMM'N JOINT RESEARCH CTR. TRENDS IN GLOBAL CO_2 EMISSIONS: 2012 REPORT at 12 (2012), *available at* http://edgar.jrc.ec.europa.eu/CO2REPORT2012.pdf.

66 *See* TAMIOTTI ET AL., *supra* note 46, at 100–01; KATERYNA HOLZER, CLIMATE ECONOMICS AT THE NCCR CLIMATE: PERSPECTIVES FOR THE USE OF CARBON-RELATED BORDER ADJUSTMENTS IN PREFERENTIAL TRADE AGREEMENTS 1 (2011), *available at* http://www.iadb.org/intal/intalcdi/PE/2012/09640.pdf.

67 *See* TAMIOTTI ET AL., *supra* note 46, at 98–100. There is no suggestion, for example, that E.U. oil producers are at a competitive disadvantage due to the untaxed carbon emissions of oil sands producers in Canada. In fact, there is very little oil production in Europe. *See* INT'L ENERGY AGENCY, OIL MARKET REPORT: SUPPLY 23 (2011), *available at* http://omrpublic.iea.org/omrarchive/12may11sup.pdf. That the E.U. is not attempting to make "adjustments" with respect to other imported products strongly suggests that it is not yet taking BTA-related steps to protect its domestic manufacturers.

a price on carbon, Chinese manufacturers can either continue to sell to the E.U. or try to find new markets in nations that do not price carbon. If all nations that have a form of carbon pricing—primarily consumer nations—also imposed a carbon BTA, it is doubtful that China could find enough alternative markets to satisfy its export-based economy.[68] The fact is that China and other exporting nations will continue to desire access to the E.U. and other wealthy and developed markets.

Since China needs to continue to sell in places like the E.U., it can either allow Europe to collect revenue from Chinese manufacturers, or China itself can collect such revenue by adopting a domestic policy that imposes a price on carbon. Any rational nation would choose the latter. In other words, if a Chinese company wants to sell widgets in Europe, and Europe is collecting money from the import of a Chinese widget, China (as a rational, self-interested actor) would likely impose the tax on the domestically made widget itself, so that China rather than Europe collects the revenue.[69] In short, if consumer nations of the world begin to impose tariffs on imports from nations that do not place a price on carbon, this would put financial pressure on all nations and companies to reduce their carbon emissions.

There are many economic analyses that support the use of import BTAs as a way to reduce global emissions. Perhaps the most notable voice is that of Nobel prize-winning economist Joseph Stiglitz. In a provocative and widely cited article, Stieglitz argued that the failure of the U.S. and other nations to put a price on carbon actually amounts to a massive subsidy to domestic industry in those nations.[70] For Stiglitz, a BTA imposed by carbon-pricing nations would merely be a way to offset the subsidized advantage that nations like the U.S. enjoy.[71] He wrote:

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68 This would be especially and almost conclusively true if the U.S. joined the group of nations taxing the imports based on their carbon footprints.

69 It has been suggested that exporting nations will counter carbon-based import BTAs simply by giving rebates or credits to their exporters to cover that BTA amount, as a way to maintain the exporters' competitive advantage. *See e.g.*, Patrick Low et al., *The Interface Between the Trade and Climate Change Regimes: Scoping the Issues* 4 (World Trade Org., Working Paper No. ERSD-2011-1, 2011). While that would successfully undermine the leveling goal of BTAs between domestic producers and importers in the carbon-pricing nation, it would result in the exporting nation simply paying its exporters' BTAs, in effect transferring money from the exporting country through the producer to the importing country. This too does not seem like a desirable choice for the rational exporting nation. Another possible course for the Chinas of the world is to impose or collect a carbon tax only on exports headed to nations that have a BTA, on the theory that this would prevent the imposition of an import BTA by the importing country, but not on domestically consumed products. While the emission reduction incentive on Chinese manufacturers will thus be lessened, production in an export-based economy like China is largely standardized—as they adopt less carbon-intensive production methods for their exports, those methods will likely also be utilized for products headed only to domestic consumption.

70 Joseph E. Stiglitz, *A New Agenda for Global Warming*, ECONOMISTS' VOICE, July 2006, at 2.

71 *Id.*

> In most of the developed countries of the world today, firms are paying the cost of pollution to the global environment, in the form of taxes imposed on coal, oil, and gas. But American firms are being subsidized—and massively so.
>
> There is a simple remedy: *other countries should* prohibit the importation of American goods produced using energy intensive technologies, or, *at the very least, impose a high tax on them, to offset the subsidy that those goods currently are receiving.* Actually, the United States itself has recognized this principle. It prohibited the importation of Thai shrimp that had been caught in "turtle unfriendly" nets, nets that caused unnecessary deaths of large numbers of these endangered species. Though the manner in which the United States had imposed the restriction was criticized, the WTO sustained the important principle that global environmental concerns trump narrow commercial interests, as well they should. But if one can justify restricting importation of shrimp in order to protect turtles, certainly one can justify restricting importation of goods produced by technologies that unnecessarily pollute our atmosphere, in order to protect the precious global atmosphere upon which we all depend for our very well-being.[72]

In sum, not only do production-based carbon BTAs address the primary economic and political objections to a domestic carbon-pricing policy, they further the global emission reduction basis of such a policy. If developed nations such as those in the E.U. truly want to reduce global emissions, they need to realize that the consumer nations of the world possess an enormous amount of leverage over developing nations to influence carbon emission reductions. Imposing BTAs on imports from nations that do not place a price on carbon will uniquely incentivize those countries and their exporters to reduce their emissions (and/or to impose their own price on carbon) in order to avoid the imposition, or at least the full impact, of the BTA.

D. Carbon-Based BTAs Would Fill the Vacuum Caused by the Post-Kyoto Failure of International Climate Negotiations

After another largely uninspiring international summit in Qatar,[73] it has become increasingly unlikely that the international community will be able to reach a legally binding treaty that commits all nations to cuts in carbon emissions at levels recommended by the best scientific evidence. Technically, the meeting in Qatar was the 18th "Conference of the Parties" (COP-18, in U.N. parlance), convened annually pursuant to a 1992 treaty—the United Nations Framework Convention on Climate Change (UNFCCC)—whereby virtually all nations, including the U.S., agreed to take action to achieve the "stabilization of greenhouse gas concentrations in the

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72 *Id.*; *see also infra* Parts IV.D.2., IV.E. (discussing the *U.S. Shrimp-Turtle* decision referenced by Stiglitz).

73 United Nations Framework Convention on Climate Change, *Doha Climate Change Conference – November 2012*, http://unfccc.int/meetings/doha_nov_2012/meeting/6815.php (last visited Apr. 10, 2013).

atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[74]

The ultimate goal of the UNFCCC meetings is to negotiate an enforceable and effective plan that will reduce global carbon emissions to scientifically recommended levels.[75] This was the basis for the Kyoto Protocol, adopted at COP-3 in 1997.[76] That treaty, adopted and ratified by all developed nations except the United States, established national emission reduction targets designed to prevent dangerous climate interference.[77] The second-to-last developed nation holdout, Australia, ratified Kyoto in 2007,[78] and recently adopted a carbon tax that will morph into a cap-and-trade system in 2015.[79] The Kyoto Protocol was also ratified by most developing nations, including major emerging economic powers like China and India, although it established no binding emission targets for those developing nations.[80] However, the separate treatment of developing nations has consistently been used by politicians in the U.S., legitimately, as a primary reason why the U.S. would not agree to a Kyoto-like system.

The Kyoto Protocol commitment period—originally scheduled to expire at the end of 2012—was extended at the Qatar conference until 2020, although the extension applies to only thirty-seven nations representing about 15% of global emissions.[81] Domestic policies suggest that much of the developed world (arguably excluding the U.S. and Canada) remains committed to emission reductions.[82] The developed world

74 Convention on Climate Change art. 2, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107.

75 United Nations Framework Convention on Climate Change, *Looking Beyond 2012: The Durban Outcomes*, http://unfccc.int/essential_background/items/6825.php (last visited Apr. 10, 2013).

76 *See* Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, art. 2, ¶ 1a, U.N. Doc. FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998).

77 *See id.* at art. 3, ¶ 1, *Annex B*. In December 2011, Canada withdrew from its Kyoto obligations, joining the U.S. as the only developed countries not bound thereby. Ian Austen, *Canada Announces Exit From Kyoto Climate Treaty*, N.Y. TIMES, Dec. 12, 2011, http://www.nytimes.com/2011/12/13/science/earth/Canada-leaving-kyoto-protocol-on-climate-change.html (last visited Apr. 5, 2013).

78 *Australia Ratifies Kyoto Protocol*, N.Y. TIMES, Dec. 3, 2007, http://www.nytimes.com/2007/12/03/world/asia/03rudd-wire.html (last visited Apr. 10, 2013).

79 Josie Garthwaite, *Coal-Fired Australia, Buffeted by Climate Change, Enacts Carbon Tax Treaty*, NAT'L GEOGRAPHIC DAILY NEWS, Oct. 5, 2012, http://news.nationalgeographic.com/news/energy/2012/10/121005-australia-carbon-tax/ (last visited Apr. 10, 2013).

80 Lauren E. Schmidt & Geoffrey M. Williamson, *Recent Developments in Climate Change Law*, 37 COLO. LAW. 63, 64 (2008).

81 *See, e.g.*, Roger Harrabin, *UN Climate Talks Extend Kyoto Protocol, Promise Compensation*, BBC NEWS, Dec. 8, 2012, http://www.bbc.co.uk/news/science-environment-20653018 (last visited Apr. 10, 2013).

82 Canada's recent withdrawal from the Kyoto Protocol was based largely on the fact that it is now tapping the oil sands, making its ability to meet its Kyoto commitments virtually impossible. *See* Richard Black, *Canada Wins Few Friends on Climate*, BBC NEWS, Dec. 7, 2011, http://www.bbc.co.uk/news/science-environment-16075719 (last visited Apr. 10, 2013) (noting the incompatibility of "extensive tar sands development" with "adherence to the Kyoto Protocol" and connecting Canada's exploitation of oil sands with rumors of its withdrawal from the Kyoto Protocol). As different nations, including the U.S., begin identifying other

continues to bemoan the absence of the U.S. from a binding emission reduction treaty,[83] and the major developing economies continue to resist inclusion in any type of binding reduction system made necessary, they argue, by the prior emissions of the developed world.[84] Increasingly hardened positions staked out by various nations, often based on the political and economic climate of the particular nation, make compromise as to future binding commitments unlikely.

In the absence of an international treaty legally committing all nations—including the world's largest GHG emitters (China and the U.S.), biggest oil producers (such as Canada and Middle Eastern nations), and other major developing economies (such as Brazil and India)—to reduce their emissions, the developed nations that have domestic policies pricing carbon are competitively disadvantaged. Their policies have raised the price of fossil fuel, and thus the cost of doing business, in their nations. While those nations with carbon-pricing already in place would no doubt prefer a negotiated commitment by all nations to comparable emission reductions, the unlikelihood of such a result makes the unilateral (or collective) imposition of BTAs a viable alternative.[85]

IV. LEGAL ANALYSIS—BOTH THE E.U.'S FUEL QUALITY STANDARD AND A BROADER PRODUCTION-BASED CARBON BTA ARE LEGALLY PERMISSIBLE

There are no definitive WTO or GATT Panel decisions blessing the legality of a BTA aimed at reaching the carbon consumed or GHGs emitted during the production of an imported product. The better reading of GATT and the WTO decisions thereunder is that such a BTA would be permissible. The proposed E.U. rule also attempts to reach carbon emissions during production; though it implicates different provisions under GATT, it too should be permissible.

A. Pertinent GATT Provisions

The General Agreement on Tariffs and Trade (GATT) is a multilateral treaty regulating international trade. It was initially adopted in 1947, but was significantly modified with the establishment of the WTO in 1994.[86] For

unconventional plays, and the extraction techniques therefore begin to spread, it is foreseeable that other nations will follow Canada's lead. The geopolitics of energy, with new players becoming major producers, make it less likely that a post-Kyoto agreement can be reached.

83 *See Europe: U.S., China Must Match Climate Change Goals*, CNN, Dec. 7, 2009, http://articles.cnn.com/2009-12-07/world/copenhagen.climate.talks_1_climate-change-european-union-emissions?_s=PM:WORLD (last visited Apr. 5, 2013).

84 *See Developing Nations Push Rich on Climate Targets Ahead of Talks*, REUTERS, Nov. 21, 2012, http://www.reuters.com/assets/print?aid=USBRE8AK08220121121 (last visited Feb. 14, 2013) (noting that certain developing countries were advocating for the inclusion of the "common but differentiated responsibilities" principle).

85 *See* HOLZER, *supra* note 66, at 2.

86 *See* GATT, *supra* note 38; General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187,

purposes of this Article, GATT is the most pertinent international agreement as to whether the E.U.'s classification system and other import charges are permissible.[87]

There are at least six GATT provisions implicated by the proposed E.U. rule and a production-based carbon BTA, and it is helpful to set them out here to understand how they all work together.[88]

> ARTICLE I:1 [Most Favored Nation principle]
>
> 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, favor, 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*.[89]
>
> ARTICLE II:2(a) [Permissible BTAs]
>
> 2. Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product:
>
> (a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the *like* domestic product or *in respect of an article from which the imported product has been manufactured in whole or in part*[.][90]
>
> ARTICLE III:1 [No disguised protectionism]
>
> *[I]nternal 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

33 I.L.M. 1153, *available at* http://www.wto.org/english/docs_e/legal_e/06-gatt.pdf (incorporating by reference the provisions of the 1947 GATT).

87 There are treaties other than GATT that can impact trade policies with respect to climate change, such as the Treaty on Subsidies and Countervailing Measures (SCM), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Agreement on the Removal of Technical Barriers to Trade (TBT). *See* WORLD TRADE ORG., HARNESSING TRADE FOR SUSTAINABLE DEVELOPMENT AND A GREEN ECONOMY 4 (2011), *available at* http://www.wto.org/english/res_e/publications_e/brochure_rio_20_e.pdf. Although a nation's climate change policies may implicate provisions of these other treaties, GATT will certainly be the focus when analyzing the E.U.'s proposed rule or a production-based carbon BTA. *See* Ronald A. Brand, *Sustaining the Development of International Trade and Environmental Law*, 21 VT. L. REV. 823, 830 (1997) ("The GATT system provides the framework for national and regional (e.g., European Union) trade regulation measures.").

88 GATT Article XI would be relevant if a nation considered banning or quantitatively restricting imports from countries that do not have a carbon pricing policy, but that is not the design of the proposed E.U. rule or of the type of BTA being considered in this Article. *See 2012 Draft Commission Directive*, *supra* note 22, at 3–5 (discussing the proposed E.U. rule).

89 GATT art. I, para. 1 (emphasis added).

90 GATT art. II, para. 2(a) (emphasis added).

> 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*.[91]
>
> ARTICLE III:2 [No overtaxing of imports]
>
> 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*. 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.[92]
>
> ARTICLE III:4 [National Treatment]
>
> 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, 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.[93]
>
> ARTICLE XX [Environmental exceptions]
>
> Subject to the requirement that such measures 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, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:
>
> . . . .
>
> (b) necessary to protect human, animal or plant life or health;
>
> . . . .
>
> (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption[.][94]

B. A Three-Step Legal Analysis

Whether the E.U. rule or a broader production-based carbon BTA can withstand a WTO challenge involves a three-step analysis. The starting point is whether the affected import is "like" a particular domestic product or one imported from other nations. If a particular import is *unlike* another product

91 GATT art. III, para. 1 (emphasis added).
92 GATT art. III, para. 2 (emphasis added).
93 GATT art. III, para. 4 (emphasis added).
94 GATT art. XX(b), (g).

(of whatever origin), then there is nothing in GATT that specifically prohibits treating the import differently.[95]

Secondly, while a finding that the products are "unlike" will largely end the inquiry in favor of the import measure, the converse is not true—a finding of likeness does not necessarily mean that the import measure is impermissible.[96] Rather, a challenge to the treatment of a particular import needs to show *both* that the import is "like" another product, *and* one of the following: the import is being denied an advantage or privilege being given to a like product, regardless of its origin; the import is subject to a charge in excess of what "like" domestic products have to pay; or the import is being treated "less favourably" than like products of national origin.[97]

Finally, if the affected import is like a comparable product, and the treatment of the import violates one of the foregoing GATT principles, the question then becomes whether the proposed rule or BTA can be justified under one of the exceptions in GATT Article XX.

The legal framework applied to the E.U. rule differs from that of a broader BTA in important respects. While the likeness analysis is the same, the E.U. rule does not impose a "tax" or "charge" on imports. Thus, the E.U. rule does not implicate GATT Articles II:2(a) or III:2, while a true BTA does. Moreover, the analysis under Article XX is different for the proposed E.U. rule than it would be for a true BTA. A production-based BTA is motivated by competitiveness concerns, which is not a listed Article XX exception; the proposed E.U. rule on the other hand can only be motivated by the desire to reduce GHG emissions.

What should be clear from the foregoing discussion is that there are no GATT provisions preventing a policy that taxes the *carbon content* of imported fossil fuels to the same degree that domestic fossil fuels are taxed at the mine or the wellhead.[98] The proposed E.U. rule and a production-based

95 The general anti-protectionist principle embodied in Article III would still prohibit treating imports a particular way solely to "afford protection" to domestic products, regardless of the likeness determination. GATT art. III, para. 1.

96 Some of the media accounts of the Canadian-E.U. dispute seem to miss this nuanced point by suggesting that the E.U. rule will be impermissible if oil sands crude is found to be "like" conventional crude. *See, e.g.*, Herman, L., Op-Ed., *The Ground War With Europe Over Alberta's Oil*, GLOBE & MAIL, Sep. 6 2012, http://www.theglobeandmail.com/commentary/the-ground-war-with-europe-over-albertas-oil/article549207/ (last visited Apr. 5, 2013) (suggesting that if two products are considered to be "like" goods under GATT, then they will automatically be considered "WTO-illegal"); *see also* Carbon Tax Center, *Borders* (May 14, 2012), http://www.carbontax.org/issues/border-adjustments (last visited Apr. 10, 2013). Some media accounts of a broader production-based carbon BTA that was proposed at the time of the E.U. ETS implementation made a similar error. *See e.g.*, Int'l Ctr. for Trade & Sustainable Dev., *Nairobi Climate Meeting Focuses on Future Climate Action, Adaptation Needs*, BRIDGES WEEKLY TRADE NEWS DIGEST, Nov. 22, 2006, *available at* http://ictsd.org/i/news/bridgesweekly/7809/ (suggesting that the only way to uphold such a BTA is if "WTO rules [are] interpreted in a way that considers products not to be 'like' each other based on their carbon footprints").

97 GATT art. I, art. III. para. 2, 4.

98 A GATT Panel considered a tax on U.S.-produced chemicals that caused pollution in the U.S. during production. Report of the Panel, *United States – Taxes on Petroleum and Certain Imported Substances* (*Superfund*), ¶ 2.3, L/6175 (June 17, 1987), GATT B.I.S.D. (34th Supp.) at 136 (1988), *available at* http://www.wto.org/english/tratop_e/dispu_e/87superf.pdf. The

carbon BTA, however, go further than this. They both seek to base an import's treatment, not on the carbon content of the imported product, but on the carbon consumed or the CO_2 emitted *in another country* during the production process.

The analysis below concludes that both the proposed E.U. rule and a broader production-based carbon BTA would be permissible under GATT. This analysis can be summarized as follows:

- Imported products—be they crude oil or widgets—are not "unlike" their counterparts of different national origin by virtue of the carbon consumed (or GHGs emitted) during the production process. As such, differential treatment cannot be based on this sometimes perceived distinction;
- The E.U. rule does not result in imports being accorded "less favourable" treatment than like products of national origin;
- A properly crafted production-based carbon BTA, imposed by a nation seeking to counterbalance the increased costs associated with a domestic carbon-pricing policy, does not result in impermissible charges against imports; and
- While an Article XX analysis is unnecessary in light of the previous two conclusions, the E.U. rule is far more likely than a production-based carbon BTA to satisfy the requirements of the environmental exceptions of GATT.

C. Products Are Not "Unlike" Based on Differing Carbon Footprints

If products are not "like" each other, then the specific GATT prohibitions are not implicated. Some have argued that tar sands crude is not "like" conventional crude such that disparate treatment is permissible.[99] These analyses would likely apply equally to widgets produced with a high carbon process versus widgets produced with a low carbon process.

challenged border measure imposed an equivalent tax on such chemicals when they were imported from other countries, and the Panel upheld the measure over E.U. objections. *Id.* ¶¶ 5.2.3, 5.2.4. While this border measure had the same level-the-playing-field basis as a production-based carbon BTA, it differed in one important respect. There, the basis for the equalizing border adjustment was a domestic tax applied directly to a finished product; the basis for a production-based carbon BTA is a domestically assessed cost on carbon that is consumed or emitted during production. *See id.* ¶¶ 5.2.4–5.2.7. Thus, while this *Superfund* measure has direct applicability to a tax based on the *carbon content* of an import (consistent with a domestic assessment), it does little to answer the question of whether a broader production-based carbon BTA is permissible.

99 *See, e.g.*, DÉFENSE TERRE, WTO IMPLICATIONS OF REPORTING MEASURES FOR TAR SANDS UNDER THE FUEL QUALITY DIRECTIVE (2011), *available at* http://www.transportenvironment.org/sites/te/files/media/2011%2006%20WTO%20and%20Tar%20Sands_FINAL.PDF (arguing that when end use, physical properties, tariff classification, and consumer tastes are considered, tar sands crude oil and conventional crude oil will not be considered "like products" under Articles I and III of GATT).

Analyses that reach these conclusions are, however, contrary to GATT jurisprudence and not persuasive.

In 1968, the GATT Council created a "Working Party" on Border Tax Adjustments to examine the provisions of GATT relevant to border tax adjustments, the practices of contracting parties in relation to such adjustments, and the possible effects of such adjustments on international trade.[100] The Working Party was charged with considering any proposals and suggestions that had been put forward and reporting its findings and conclusions.[101] The Report of the Working Party was adopted by the GATT parties in 1970.[102]

The Working Party recognized that the term "like products" was imperfect and had given rise to confusion.[103] The Working Party could not arrive at an "improved term," and instead articulated certain criteria that should be considered in determining, on a case-by-case basis, whether an import is "like" a domestic product.[104] WTO and GATT decisions have applied and given meaning to the Working Party's criteria. While it is still a case-by-case analysis and no factor is dispositive, it is now generally understood that the analysis should be informed by the following criteria: the product's end uses in a given market; the product's physical properties, nature and quality; the product's tariff classification; and consumer tastes and habits, which change from country to country.[105]

In one of the more informative decisions for the issues considered in this analysis, *United States – Taxes on Petroleum and Certain Imported Substances* (*Superfund*), the GATT Panel considered whether certain import measures imposed by the U.S. passed GATT muster.[106] The first *Superfund* measure imposed a tax on imported petroleum that was higher than that imposed on domestic petroleum.[107] The Panel found that the tax differential

100 GATT Working Party, *supra* note 44, ¶ 1.

101 *Id.*

102 *Id.* at pmbl. (stating that the report was adopted on December 2, 1970).

103 *Id.* ¶ 18.

104 *Id.*

105 *See* Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (*EC Asbestos*), ¶¶ 101–02, WT/DS135/AB/R (Mar. 12, 2001), *available at* http://ban.org/library/wto%20asbestos%20AB%20report%20-%20135abr_e.pdf; Appellate Body Report, *Japan – Taxes on Alcoholic Beverages II*, 20–21, WT/DS8/AB/R (Oct. 4, 1996), *available at* http://www.worldtradelaw.net/reports/wtoab/japan-alcohol(ab).pdf; Appellate Body Report, *United States – Standards for Conventional and Reformulated Gasoline* (*U.S. Reformulated Gasoline*), ¶ 6.8, WT/DS2/R (Jan. 29, 1996), *available at* http://www.wto.org/english/tratop_e/dispu_e/2-9.pdf.

106 Report of the Panel, *United States – Taxes on Petroleum and Certain Imported Substances* (*Superfund*), ¶¶ 3.1.1, 5.1.1, L/6175 (June 17, 1987), GATT B.I.S.D. (34th Supp.) at 3, 13 (1988). The criteria discussed in Panel or Appellate Body reports often exclude consumer tastes and habits, and focus only on the other three listed criteria. *See* Report of the Panel, *United States – Taxes on Automobiles* (*U.S. Automobiles*), ¶ 5.5, DS31/R (*not adopted*, Oct. 11, 1994), *available at* http://www.worldtradelaw.net/reports/gattpanels/us-autotaxes.pdf. Parties often argue that the "likeness" analysis is more results-oriented and that the key criterion in judging likeness under Article III should be whether the measure was applied "so as to afford protection to domestic production." *See id.*

107 *Superfund*, ¶ 2.2, L/6175.

between imported and domestic petroleum was inconsistent with the national treatment obligation of Article III:2.[108] The Panel applied the criteria articulated by the Working Party in 1970 in determining whether the products were "like," paying particular attention to "their end-uses in a given market."[109] The Panel concluded that, because the imported and domestic products (oil, gas, and related products) were "either identical or . . . serve[d] substantially identical end-uses," they were "like" products; thus, the imports could not be taxed at higher rates.[110]

This particular Panel conclusion was later bolstered by a decision in a dispute involving the E.U.'s treatment of asbestos.[111] The Appellate Body explained that the determination of "likeness" is essentially a determination of whether products compete in a given market.[112] If they compete, they are presumed to be like; if not, they must be unlike.

Most analyses conclude that varying amounts of carbon consumed (or CO_2 emitted) during the production process do not make physically similar and competitive products "unlike" for purposes of allowing greater charges on, or less favorable treatment of, imports.[113] When oil sands crude enters the E.U., there is little to distinguish it from conventional crude. It has the same end use—both are refined at E.U. facilities and pumped into automobile gas tanks. It has the same physical make-up—carbon content and GHG emissions from this point forward are virtually indistinguishable.[114] It has the same tariff classification once it is in the petrol form that crosses the borders.[115] Finally, the average consumer

108 *Id.* ¶ 5.1.12.

109 *Id.* ¶ 5.1.1.

110 *Id.*

111 *EC Asbestos*, ¶ 98, WT/DS135/AB/R.

112 *Id.* ¶ 99; *see also* Appellate Body Report, *Philippines – Taxes on Distilled Spirits*, ¶ 170, WT/DS396/AB/R, WT/DS403/AB/R (Dec. 21, 2011), *available at* http://www.worldtradelaw.net/reports/wtoab/philippines-distilledspirits(ab).pdf.

113 *See, e.g.*, Charles E. McLure, Jr., *The GATT-Legality of Border Adjustments for Carbon Taxes and the Cost of Emissions Permits: A Riddle, Wrapped in a Mystery, Inside an Enigma*, 11 FLA. TAX REV. 221, 292 (2011) ("It appears that differences in PPMs [process and production methods] do not make physically identical products unlike. In that case, BAs [border adjustments] could not be based on the carbon content of traded goods."); Low et al., *supra* note 70, at 4 ("[T]o the extent that the level of such a GHG-regulated additional tariff varies depending on the origin of the imported products (which is likely to be the case if such charges aim to offset differences in non-identical GHG regimes in each country of origin) such tariffs may be challenged as contrary to GATT Article I . . . which prohibits discrimination among imported like products.").

114 *See* BRANDT, *supra* note 36, at 4, 37 (showing emissions results for specified refinery mixes).

115 Tariff classification refers to nomenclature in the World Customs Organization (WCO). The E.U. provides tariff classifications using the WCO nomenclature for imported products each year. While at the feedstock level the tariff classifications for tar sands and conventional crudes differ, once tar sands have been upgraded to synthetic crudes (as they are prior to export), they share the same classification as conventional crudes. *See, e.g.*, Council Regulation (EEC) No. 2658/87 of 23 July 1987, 1987 O.J. (L 256); European Comm'n, Regulation No. 861/2010 of 5 Oct. 2010, 2010 O.J. (L 284) (amending Council Regulation (EEC) No. 2658/87).

pulling into an E.U. gas station likely just wants gasoline, regardless of how the unrefined crude oil was extracted.

The four likeness criteria also support the conclusion that the manufactured imported widget is "like" the domestic widget (or the widget from a third country) regardless of the carbon consumed (or GHGs emitted) when the widget was made.[116] Nothing in the carbon consumed or GHGs emitted in producing a particular product changes the product from the perspective of end uses, physical properties, or consumer preferences. So long as the products "compete" for consumers, they should be presumed to be "like."

Arguments suggesting that crude from oil sands is not "like" conventional crude, and thus can be treated differently without violating GATT, are weak. For example, the advocacy group Défense Terre tries to show that the products are unlike, but its analysis is falsely premised on comparing bitumen in the ground with conventional crude oil in the ground.[117] The relevant inquiry is whether the imported product is "like" some other relevant product when they cross the importing nation's borders, not whether their respective unassembled or pre-processed versions are "like" each other.[118] The language of GATT, as well as WTO decisions, shows that similar and competing products are "like" despite different carbon footprints during their production.[119]

116 *See* Low et al., *supra* note 69, at 6 (the four likeness criteria are "product characteristics, end uses, consumer preferences and tariff classification."); McLure Jr., *supra* note 113, at 292 ("It appears that differences in PPMs do not make physically identical products unlike.").

117 *See, e.g.*, DÉFENSE TERRE, *supra* note 99, at 2–5. Défense Terre describes itself as providing "law and policy analysis and advocacy to non-profit and public-interest entities in the United States, the European Union and beyond." *Id.* It was commissioned by the NGO "Transport & Environment" to analyze the proposed E.U. rule. Transport & Environment, *WTO Implications of Reporting Measures for Tar Sands under the Fuel Quality Directive*, Apr. 23, 2012, http://www.transportenvironment.org/publications/wto-implications-reporting-measures-tar-sands-under-fuel-quality-directive (last visited Apr. 10, 2013).

118 *See, e.g.*, Appellate Body Report, *China–Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, ¶¶ 163–64, WT/DS363/AB/R (Dec. 12, 2009), *available at* http://www.wto.org/english/tratop_e/dispu_e/363abr_e.pdf (discussing China's purported justifications for favoring domestic "sound recording distribution services," as opposed to foreign-owned distribution services); Low et al., *supra* note 69, at 4–9 (explaining the difficulties in determining "likeness" in the context of tariff schemes that differentiate similar products based on their respective production processes).

119 In contrast, when considering a more narrow energy tax applied to imports or a carbon tax applied to imported fossil fuels based on their carbon content, the affected imports should be found to be "unlike" their domestic counterparts so as to permit discriminatory treatment. Coal is not like petrol, and petrol is not like natural gas. Different end uses, different physical properties, different tariff classifications and different consumer preferences support the fact that it is acceptable to tax imported coal differently than domestic petrol or natural gas. A closer call is whether bituminous coal, for instance, is "like" anthracite coal, or whether their differing carbon content would render them unlike. Although that is not a question for the present analysis, this Article does provide the framework needed to analyze it.

D. Neither the Proposed E.U. Rule nor a Broader Production-Based Carbon BTA Results in Impermissibly Different Treatment of Imports

If, as the preceding section concludes, petrol from oil sands is "like" petrol from conventional crude, and competing widgets are also "like," despite different amounts of carbon consumed (or GHGs emitted) during production, then the GATT prohibitions kick in:

- [T]he import cannot be subject to charges greater than those imposed, directly or indirectly, on its domestic counterparts;[120]
- [T]he import cannot be treated less favorably than its domestic counterparts;[121] and
- [T]he import cannot be denied any advantages given to its counterparts, regardless of where they originate.[122]

1. Framing the Legal Debate

There are a number of scholarly legal analyses that have addressed both carbon-based BTAs generally and, more specifically, BTAs as a charge on imports for carbon consumed (or GHGs emitted) during production.[123] These analyses have, to date, resulted in no consensus as to their legality. Two of the most comprehensive articles synthesizing the considerable scholarship on carbon BTAs are a 2007 study by then–Duke law professor Joost Pauwelyn, and a 2011 article by tax specialist Charles McClure.[124] Unfortunately, rather than directly addressing the issue, both Professor Pauwelyn and Mr. McClure—like many analysts—conclude that the permissibility of a production-based carbon BTA under GATT is an open question.[125] Nonetheless, they both provide impressively researched insight into how such a BTA should be analyzed.

The basic argument *supporting* the legality of both the proposed E.U. rule and a broader production-based carbon BTA is fairly straightforward. The proposed E.U. rule places a default value on *all* crude based on life-cycle CO_2 emissions, regardless of where the fuel comes from. As such, the proposed E.U. rule does not treat imports differently and is not prohibited under Article III:4 of GATT. Similarly, a properly crafted production-based carbon BTA is

120 GATT art. III, para. 2.

121 GATT art. III, para. 4

122 GATT art. I, para. 1.

123 *See* McLure, Jr., *supra* note 113, at 232 n.15 (collecting scholarly research on the issue).

124 Joost Pauwelyn, *U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law* 41 (Duke Univ. Nicholas Inst. for Envtl. Policy, Working Paper No. NI WP 07-02, 2007), *available at* http://nicholasinstitute.duke.edu/climate/policydesign/u.s.-federal-climate-policy-and-competitiveness-concerns-the-limits-and-options-of-international-trade-law; McLure Jr., *supra* note 113. Charles McLure is a tax specialist and former Treasury Department official, now with the Hoover Institution at Stanford. *Id.* at 221. Joost Pauwelyn was a professor at Duke University and a former Legal Affairs Officer with the WTO's Appellate Body. Pauwelyn, *supra,* at 1.

125 Pauwelyn, *supra* note 124, at 41–44; McLure, *supra* note 113, at 283.

simply charging an amount equivalent to an indirect charge on a domestic product under a carbon tax or cap-and-trade system. As such, the assessments are equivalent, and the policy does not run afoul of Article III:2.

The contrary argument is premised on the idea that production-based BTAs are levied on production processes, while Articles II and III speak only to adjustments based on charges imposed on "products."[126] The Working Party specifically left open the question of whether process-related indirect taxes could be the basis for a proper border adjustment. Although charges imposed "indirectly" on domestic products can serve as the basis for a proper BTA, opponents argue that term does not encompass charges on production processes or taxes of general applicability.[127] Rather, border adjustments are permissible only for direct or indirect charges that are assessed on products themselves.[128] Thus, the argument continues, the fact that a domestic widget manufacturer has to pay more in payroll taxes or energy taxes does not provide a basis for assessing a charge against the imported widget. Opponents must also address the specific prescription of Article II:2(a).[129] They do this by urging that Article II:2(a) only permits BTAs based on domestic charges on articles that are physically incorporated into or embedded in the finished product.[130] While a domestic tax on a widget component can support a BTA against an imported widget, a domestic tax on GHGs emitted during the widget's production cannot.

It is the treatment of imports based on their "process and production methods" (PPMs) that is the focus of the legal analysis here.

2. Basing the Treatment of Imports on How They Are Produced Is Not Per Se Impermissible

That the E.U. rule and a production-based BTA are based on GHGs emitted or carbon consumed during production does not, on that basis alone, make the proposals illegal under Article III of GATT. Properly

126 *See, e.g.*, McLure Jr., *supra* note 113, at 292. Although McLure follows much of Pauwelyn's framework to a similar conclusion, namely that the legality of a production-based carbon BTA is uncertain, McLure's analysis is even more skeptical that a production-based carbon BTA would be found legal under the general trading provisions of GATT. *See id.*; Pauwelyn, *supra* note 124, at 19; *see also* HOLZER, *supra* note 66, at 3 (concluding that it is "unlikely" that a production-based BTA "will pass a test of non-discrimination against imports, which would imply violations of both Article I and Article III of the GATT"). McLure also worries that, with respect to this part of the legal analysis, the amount of such a BTA would be based on primary production methods or best available technology, which would not reflect the imported product's actual carbon content. McLure Jr., *supra* note 113, at 293. As discussed briefly in Part V.D., *infra*, this is a legitimate logistical concern, but it should not affect the legality of a properly crafted BTA.

127 *See* McLure Jr., *supra* note 113, at 238–39.

128 *See id.* at 250–51.

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

130 *See* McLure Jr., *supra* note 113, at 243–44,

considered, a border measure based on some aspect of production can be consistent with Article III if it is not designed to disadvantage foreign production and it is not an attempt to recoup a tax of general applicability such as payroll or social security taxes.

Article III:2 only prohibits charges on imports that exceed charges imposed, "directly or indirectly," on like domestic products.[131] There is no mention in Article III of production processes or the like.[132] If a domestic tax amounts to a charge imposed "directly or indirectly" on a product, regardless of whether its amount is calculated with reference to some aspect of the production process, it *can* be the basis for a BTA that is not prohibited by Article III:2.[133]

There are various examples of import BTAs being based on domestic taxation of some aspect of manufacturing or production. In discussing the phrase "directly or indirectly," the Working Party specifically recognized that cascade taxes and value added taxes (VATs) are permissible bases for BTAs.[134] These are both domestic taxes assessed at different stages of production. A cascade tax is one added at each stage of the production and distribution process up to the final point of sale, with each assessment incorporating the taxes assessed at prior stages of production. A VAT is also remitted at each stage of the production process, but only in the fractional amount representing the addition to the product's value at each particular stage. The Working Party found that both cascade taxes and VATs are "directly levied on products" and, as such, are "eligible for tax adjustment."[135]

WTO and GATT decisions give meaning to the term "indirectly" in Article III:2. In the *Superfund* decision, a domestic tax assessed on feedstock chemicals was found to be a charge "indirectly" assessed on substances that were made from the chemicals.[136] In *Mexico – Taxes on Soft Drinks*, a domestic tax on soft drinks with certain sweeteners was a charge imposed "indirectly" on the sweeteners.[137] Similarly, in *Philippines – Taxes on Distilled Spirits*, a domestic tax on distilled spirits made from unlisted raw

131 GATT art. III, para. 2.

132 For McLure, the fact that Article III addresses only BTAs based on charges against "products" supports the notion that BTAs cannot be based on production-related charges. *See* McLure Jr., *supra* note 113, at 292. However, Article III, unlike Article II, paragraph 2(a), is prohibitive in nature. If Article III instead listed the permissible BTAs and did not mention production processes, then McLure's concern would be more compelling.

133 At least one analysis concludes that the term "indirectly" was intended to allow BTAs to account not only for taxes "on the product as such, but on the processing of a product." J. ANDREW HOERNER, INT'L INST. FOR SUSTAINABLE DEV., THE ROLE OF BORDER TAX ADJUSTMENTS IN ENVIRONMENTAL TAXATION: THEORY AND U.S. EXPERIENCE 7 (1998), *available at* http://rprogress.org/publications/1998/BTA_1998.pdf. This is consistent with, though not necessarily compelled by, the WTO/GATT decisions discussed below. *See infra* notes 135–71 and accompanying text.

134 McLure Jr., *supra* note 113, at 248.

135 GATT Working Party, *supra* note 44, ¶ 14.

136 *Superfund*, ¶¶ 2.4–2.6, L/6175 (June 17, 1987), GATT B.I.S.D. (34th Supp.) at 136 (1988), *available at* http://www.wto.org/english/tratop_e/dispu_e/87superf.pdf.

137 Panel Report, *Mexico – Taxes on Soft Drinks*, ¶¶ 8.42–8.45, WT/DS308/R (Oct. 7, 2005).

materials was a charge imposed "indirectly" on the raw materials.[138] As such, each of these domestic measures *could* support a BTA on imports that did not exceed the internal charges imposed on "like" domestic products.[139]

Although the measures in all these disputes involved physical items used during production rather than the production methods themselves, this distinction is legally insignificant for purposes of understanding Article III:2. The point is that these were all found to be charges imposed "indirectly" on the relevant products for purposes of the first sentence of Article III:2. In fact, the tax at issue in *Mexico – Taxes on Soft Drinks* went even further, as it also taxed the *distribution* of the soft drinks containing certain sweeteners, so it was NOT limited to a tax on a physical item used to make the end product.[140] Even the tax on the *distribution* of soft drinks containing certain sweeteners was found to be a charge applied "indirectly" to those sweeteners, like beet sugar.[141] It is a small step to analogize that a tax on the *production* of energy based on carbon consumed or GHGs emitted should be considered a charge applied "indirectly" to widgets made with that energy. Thus, the rationale of these judicial decisions supports the conclusion that a BTA can be based on increased production costs associated with a domestic carbon-pricing policy.

Finally, in both *United States – Import Prohibition of Certain Shrimp and Shrimp Products* (*U.S. Shrimp-Turtle*) and *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products* (*U.S. Tuna-Dolphin*), the measures at issue were solely directed at the production methods, as both sought to prohibit access to the U.S. market based on how shrimp and tuna, respectively, were caught.[142] These decisions have less relevance to the meaning of Article III:2, because they involved import bans rather than tax adjustments, and both were analyzed under the environmental exceptions of Article XX. Nonetheless, they both support the legality of a border measure based solely on how a particular import is produced.

Tying these decisions and the Working Party report back to the language of Article III:2, the key inquiry is whether a domestic carbon-pricing policy is a charge imposed "indirectly" on a product that is manufactured using carbon-based energy. If so, a BTA could be assessed

138 Appellate Body Report, *Philippines – Taxes on Distilled Spirits*, ¶ 170, WT/DS396/AB/R, WT/DS403/AB/R (Dec. 21, 2011), *available at* http://www.worldtradelaw.net/reports/wtoab/philippines-distilledspirits(ab).pdf.

139 The measures in *Mexico – Taxes on Soft Drinks* and *Philippines – Taxes on Distilled Spirits* were ultimately found to have the impermissible effect of favoring domestic production. Panel Report, *Mexico – Taxes on Soft Drinks*, ¶¶ 8.61, 8.63; *Philippines – Taxes on Distilled Spirits*, ¶ 7.186. The purpose of their discussion here is simply to better understand what is meant by the term "indirectly" in Article III:2. *Id.* ¶ 7.8.

140 *Mexico – Taxes on Soft Drinks*, ¶¶ 8.46–8.50.

141 *Id.* ¶ 8.50.

142 Appellate Body Report, *U.S. Shrimp-Turtle*, ¶ 42, WT/DS58/AB/R (Oct. 12, 1998); Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products, Recourse to Article 21.5 of the DSU by Malaysia*, ¶¶ 147–48, 150, 153, WT/DS58/AB/RW (Oct. 22, 2001); Appellate Body Report, *U.S. Tuna-Dolphin*, ¶¶ 186, 224, 226, WT/DS381/AB/R (May 16, 2012).

against imports of a like product in an amount that does not exceed that indirect charge. The Working Party report laid out the two ends of the spectrum of what qualifies as a charge imposed "indirectly" for purposes of Article III:2.[143] On one end of the spectrum, the Working Party recognized that taxes directly levied on domestic products—such as retail taxes, sales taxes, cascade taxes, and VATs—could also be imposed on imports. On the other end, it determined that certain taxes levied on non-products—such as social security charges and payroll taxes—were not subject to adjustments.[144] The Working Party could not find consensus, however, on whether process-related indirect taxes, including taxes on energy, could be the basis for a permissible BTA.[145] Both the E.U. rule and the broader production-based carbon BTA fall into the latter category of process-related indirect taxes—charges or different treatment based on the process-related criterion of carbon used or GHGs emitted during production.

The Working Party listed a tax on energy as an example of a "tax occulte."[146] Taxes occultes, in turn, are defined as "consumption taxes on capital equipment, auxiliary materials and services used in the transportation and production of other taxable goods."[147] Commentators understandably perceive legal uncertainty from the Working Party's statement: "It was generally felt that while this area of taxation was unclear, its importance – as indicated by the scarcity of complaints reported in [connection] with adjustment of taxes occultes – was not such as to justify further examination."[148] Considering the Working Party report as a whole, however, it actually supports a properly designed BTA based on increased production costs caused by a product-centric domestic policy.

What most analysts overlook is the Working Party's recognition that, to the extent taxes occultes are subject to border adjustments, it is in countries that have a cascade tax.[149] And the Working Party specifically found that cascade taxes *are* a proper basis for a BTA.[150] Thus, conclusions that can be drawn from the Working Party report as a whole include:

- Taxes on energy are taxes occultes;
- Taxes occultes are rarely collected by BTAs, except in countries imposing a cascade tax;
- Cascade taxes are eligible for tax adjustments at the border; and
- Therefore, while there may be uncertainty as to whether taxes occultes generally can be adjusted at the border, to the extent that they are collected as part of a cascade tax on a given product, they are subject to a legitimate BTA.

143 GATT Working Party, *supra* note 44, ¶ 14.
144 *Id.*
145 *Id.* ¶ 15.
146 *Id.*
147 *Id.*
148 *Id.*
149 *Id.*
150 *Id.* ¶ 14.

Obviously, a carbon tax (or the required purchase of an emission allowance in a cap-and-trade system) is not identical to a cascade tax or a VAT. But, for purposes of assessing the legality of adjusting for them at the border, it is difficult to discern a meaningful difference. They are all assessed upstream, and are only indirectly incorporated into the cost of the finished product. If domestic widgets are subject to upstream cascade or value added taxes, then BTAs can indisputably be assessed against imported widgets in the equivalent amount. It is difficult to understand why the same rationale does not support a BTA based on the upstream pricing of carbon or CO_2 emissions.

In *Mexico – Taxes on Soft Drinks*, the Panel gave some meaning to the examples provided by the Working Party and explained that, by the term "indirectly," there must be some connection between the tax and the products it affects.[151] Harkening back to the Working Party's reasoning that social security and wage taxes do not have any connection to the product itself, the Panel explained that Article III:2 "requires some connection, even if indirect, between the respective internal taxes or other internal charges, on the one hand, and the taxed product, on the other."[152] Because "the burden of the tax can be expected to fall, at least in part, on the products containing the sweetener," the tax on soft drinks applied "indirectly" to such sweeteners, like beet sugar.[153] Even more analogous to a production-based carbon BTA, the internal distribution tax applied to soft drinks with certain sweeteners was "indirectly" assessed on beet sugar under Article III, though the connection between the tax and the affected products was even "more remote."[154]

It seems clear that a domestic carbon-pricing policy has some nexus to products that require a significant amount of energy, or at least fossil fuels, for their production. The burden of such a policy will fall on energy-intensive products. Thus, a domestic carbon tax or cap-and-trade system amounts to a charge "indirectly" applied to the domestically manufactured widget. A production-based carbon BTA is an attempt to apply that internal carbon-pricing policy "directly" to the imported widget. Thus, the only question is whether the BTA is "in excess" of the increased domestic costs associated with the carbon pricing policy, or whether it is an impermissible attempt to protect domestic manufacturing from competition.

3. A Properly Crafted Production-Based Carbon BTA Does Not Result In Charges "In Excess Of" Internal Charges Under Article III:2

Article III:2 prohibits imposing a charge on imports "in excess of those applied, directly or indirectly, to like domestic products." It is this "in excess" language that snagged the Mexican soft drink tax. The tax impermissibly favored cane sugar, a uniquely domestic product. While soft

151 Panel Report, *Mexico – Taxes on Soft Drinks*, ¶¶ 8.42–8.45, WT/DS308/R (Oct. 7, 2005).
152 *Id.* ¶ 8.42.
153 *Id.* ¶¶ 8.44–8.45.
154 *Id.* ¶¶ 8.46, 8.50.

drinks sweetened by cane sugar were found to be "like" soft drinks that used other sweeteners, such as beet sugar, the Mexican tax was imposed only on soft drinks that used sweeteners other than cane sugar. Because less than 1% of sweeteners imported into Mexico were cane sugar, and Mexico did not produce beet sugar, the situation was "*in effect* one where imported products are subject to taxes in excess of those applied to like domestic products."[155]

Similarly, the taxing system in the Philippines favored distilled spirits where the alcohol was derived from certain designated raw materials, including sugar cane.[156] Again, particular types of spirits were found to be "like" regardless of the material that was distilled into the alcohol.[157] Also like Mexico, the sugar cane used in the Philippines was almost exclusively produced domestically, while "the vast majority of distilled spirits imported into the Philippines are processed from [other] raw materials."[158] This led the Appellate Body to conclude that the measure was designed to afford protection to domestic production, in violation of the second sentence of Article III:2.[159]

Thus, significantly, in Mexico and the Philippines, the starting point prior to any domestic taxing policy was a level playing field between cane sugar and other sweeteners, and between sugar cane and certain raw materials for distilling alcohol, respectively. BTAs implementing the domestic taxing policy tilted the playing field in favor of the domestically produced sugar. In contrast, in the *Superfund* decision where the BTA was upheld, the domestic policy actually tilted the playing field *against* domestic production.[160] The idea behind the BTA in the *Superfund* case was that domestic manufacturers of the substances made from the taxable feedstock chemicals would have higher costs, and importers of substances produced from those same chemicals would be unfairly advantaged if they were not also required to absorb the higher costs.[161] Such a BTA is consistent with Article III:2.[162] The *Superfund* Panel suggested that the drafters contemplated a BTA on imports that is equivalent to the domestic tax imposed on product inputs: "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

155 *Id.* ¶¶ 8.56, 8.58.

156 Appellate Body Report, *Philippines – Taxes on Distilled Spirits*, ¶¶ 98–99, WT/DS396/AB/R, WT/DS403/AB/R (Dec. 21, 2011), *available at* http://www.worldtradelaw.net/reports/wtoab/philippines-distilledspirits(ab).pdf.

157 *Id.* ¶¶ 170–71.

158 *Id.* ¶¶ 100, 261.

159 *Id.* ¶ 261. The second sentence of Article III:2 specifically prohibits charges that violate Article III:1, and Article III:1 prohibits charges that are applied "so as to afford protection to domestic production." GATT art. III, para. 1.

160 *Superfund*, ¶ 5.2.10, L/6175 (June 17, 1987), GATT B.I.S.D. (34th Supp.) at 19 (1988).

161 *See id.* ¶ 2.5.

162 *Id.* ¶ 5.2.10.

on certain chemicals the tax [met] the national treatment requirement of Article III:2."[163]

A production-based carbon BTA is far more akin to the BTA upheld in the *Superfund* decision. It starts with a playing field that is tilted *against* domestic production; the domestically manufactured widget is at a competitive disadvantage compared with a foreign manufactured widget *because* of the domestic carbon pricing policy. The production-based carbon BTA is simply an attempt to level the playing field; that is to equalize the competitive relationship between the domestic and imported products.

The overarching purpose of the general trading provisions of GATT is to assure equality in the competitive relationship between domestic and imported products, to not favor domestic products over impors, or favor imports from one nation over another.[164] As the *Japan – Taxes on Alcoholic Beverages II* panel explained, "Article III protects expectations not of any particular trade volume but rather of the equal competitive relationship between imported and domestic products."[165] If a particular domestic policy causes a domestic manufacturer to pay more than a foreign manufacturer to make the same product, then that additional cost can permissibly be captured by a BTA.[166]

That manufacturers in carbon-dependent nations may have to pay more than manufacturers in less carbon-dependent nations (including the BTA-imposing nation itself) does not render the BTA impermissible. The central purpose of Article III is to prevent protectionism.[167] As the Panel in *United*

163 *See id.* ¶ 5.2.8. In so finding, the Panel highlighted an example provided by the drafters of GATT: "If a [BTA] is imposed on perfume because it contains [domestically taxed] alcohol, the [BTA] to be imposed must take into consideration the value of the alcohol and not the value of the perfume, that is to say the value of the content and not the value of the whole." *Id.* ¶¶ 5.2.7–5.2.8.

164 *See* Panel Report, *U.S. Automobiles*, ¶ 3.4, DS31/R (*not adopted*, Oct. 11, 1994) ("[T]he purpose of Article III was to ensure effective equality of competitive opportunity"); *see also* GATT, pmbl. (describing as one of its goals the "elimination of discriminatory treatment in international commerce").

165 Appellate Body Report, *Japan – Taxes on Alcoholic Beverages II*, 16, WT/DS8/AB/R (Oct. 4, 1996), *available at* http://www.worldtradelaw.net/reports/wtoab/japan-alcohol(ab).pdf.

166 This analysis assumes that the BTA is properly designed such that the amount collected at the border is no more than the increased costs associated with a domestic carbon pricing policy. The logistical hurdles to actually designing such an adjustment—discussed briefly in Section V.D., *infra*, but largely beyond the scope of this Article—should not be underestimated. But, theoretically, so long as the charges at the border do not exceed the excess costs caused by the domestic policy, Article III:2 does not prohibit such a BTA. GATT art. III, para. 2. A legally permissible production-based carbon BTA would also have to be designed, similarly to the proposed E.U. rule, to allow an importer the opportunity to demonstrate that 1) its actual GHG emissions (or carbon consumed) during production was less than that of similar domestically-produced items, or 2) domestic policies in the nation of origin have already imposed costs on its GHG emissions such that to collect the BTA would actually amount to a total assessment against the imported product that is greater than that of its domestic counterpart. *See* discussion *infra* Part V.D.

167 *See, e.g.*, Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* ¶¶ 96, 98, WT/DS135/AB/R (Mar. 12, 2001) ("[T]he 'general principle' in Article III seeks to prevent Members from applying internal taxes and regulations in a manner which affects the competitive relationship, in the marketplace, *between the domestic and imported products involved*, 'so as to afford protection to domestic production.'");

States – Taxes on Automobiles (*U.S. Automobiles*) explained, "[i]ts purpose is not to prohibit fiscal and regulatory distinctions applied so as to achieve other [non-protectionist] policy goals."[168]

While GHG emissions during production do not change the end product for consumers—the end products are still "like"—pricing those emissions does affect the cost to make the domestic product. This, in turn, affects the "competitive relationship" between two like products.[169] So long as a BTA is merely an attempt to put domestic production on equal footing with foreign production, and it is not an attempt to recoup a tax of general applicability such as payroll or social security taxes, then it is not prohibited by Article III:2. Previous analyses miss the forest for the trees by focusing on whether the domestic charge is imposed on the product itself, on how the product is produced, or on whether an "article" is "physically incorporated" into the finished product.[170] What is prohibited is a BTA that is in excess of a domestic charge applied "directly or indirectly" to the domestically manufactured equivalent. When a domestic price on carbon makes the energy used in the production of a widget more expensive, and therefore makes a domestically manufactured widget more expensive, a BTA should be able to capture that increased cost. Much of the commentary to date has strayed from the obvious competitiveness concern underlying permissible BTAs under GATT.

4. The E.U. Rule Does Not Result In "Less Favourable" Treatment Under Article III:4

> Article III:4 prohibits according treatment to imports that is "less favourable than that accorded to like products of national origin."

This part of the analysis is different for the E.U. proposal than it is for a broader production-based BTA. Since the E.U. proposal does not impose a "charge" on imports, the only issue is whether it treats imports less favorably than domestic products under Article III:4; Article III:2 is not implicated.[171] The broader BTA would implicate the prohibition of Article III:2, as well as

see also Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled, and Frozen Beef*, ¶ 137, WT/DS161/AB/R, WT/DS169/AB/R (Dec. 11, 2000), *available at* http://www.wto.org/english/tratop_e/dispu_e/161-169abr_e.pdf (noting that Article III only prohibits discriminatory treatment that "modifies the conditions of competition in the relevant market place to the detriment of imported products."); *U.S. Automobiles*, ¶ 5.7, DS31/R.

168 *U.S. Automobiles*, ¶ 5.7, DS31/R; *see also id.* ¶¶ 5.23, 5.27. Low and some other analysts read decisions such as *Mexico – Taxes on Soft Drinks* and *Philippines – Taxes on Distilled Spirits* as holding that, if products compete, they are like and therefore cannot be treated differently. *See* Low et al., *supra* note 70, at 7. A better reading is, if they compete, domestic policy that distorts competition (by increasing domestic cost) can be captured in a BTA.

169 Low et al., *supra* note 69, at 6–8.

170 The "physical incorporation" argument relates to the prescription of Article II:2(a), discussed below. *See infra* Part IV.D.5; GATT art. II.

171 *See, e.g.*, Panel Report, *U.S. Automobiles*, ¶¶ 5.42–5.43, DS31/R (considering domestic CAFÉ regulations under Article III:4 rather than a tax or charge under Article III:2).

the prescription of Article II:2(a). The Most Favored Nation principle of Article I would apply to both.

The proposed E.U. rule does not violate the National Treatment principle of Article III:4. That principle only prohibits less favorable treatment of imports as compared to like products of national origin. So long as the proposed rule treats all crude oil the same regardless of where it comes from—oil sands crude from Canada will be treated the same as oil sands crude from Poland, and shale oil from North Dakota will be treated the same as shale oil from Estonia—the E.U. can successfully argue that this is no less favorable treatment of imports. Indeed, one of the E.U.'s member states, Estonia, is opposed to the proposed rule precisely because it is going to be applied domestically to Estonia's shale oil.[172]

Where the E.U. rule could run afoul of the National Treatment principle of Article III:4 is if it allows E.U. domestic producers to show that their production emissions were lower than the default GHG-intensity level, while at the same time strictly applies the default level to imports. That would clearly seem to be less favorable treatment.[173] It appears, however, that the proposed E.U. rule avoids that theoretical violation. The rule as proposed specifically contemplates that upstream suppliers can have their fuel assigned a GHG-intensity level that is lower than the default level by showing that their upstream emissions were less than those used to calculate the default GHG-intensity level.[174]

Alberta could also argue that, since it already taxes the emissions of its oil sands producers, these producers are being penalized, or treated less favorably, than E.U. producers. While this too may have some merit in theory, in fact, the E.U. also "charges" its producers for their emissions by requiring them to acquire emission allowances as part of the E.U. ETS.[175] So both E.U. and Canadian producers pay their own internal charge for GHG emissions, and the products of both would be subject to the same rule assigning them a default GHG-intensity level. Thus, they would not be treated differently and the proposed E.U. rule does not run afoul of Article III:4.

Once we get past the product vs. process issue, the legal analysis of the E.U. rule under Article III truly is that straightforward. Canada's cage-rattling notwithstanding, the E.U. was clearly aware of the potential pitfalls of its policy and carefully crafted its rule to avoid them. While, as explained in

172 *See* Campbell, *supra* note 27.

173 *See, e.g.*, Panel Report, *U.S. Reformulated Gasoline*, ¶¶ 6.10–6.16, WT/DS2/R (Jan. 29, 1996), *available at* http://www.wto.org/english/tratop_e/dispu_e/2-9.pdf (finding less favorable treatment where domestic producers were able to establish "individual" baselines for the quality of their product, while importers had to comply with a prescribed statutory baseline).

174 *2012 Draft Commission Directive*, *supra* note 22, at 17; *see also* GATT Working Party, *supra* note 44, ¶ 9 (discussing the Working Party's concerns with border tax adjustments generally).

175 To the extent the E.U. distributes free allowances to particular segments of the fossil fuel industry (as it has done with Poland's coal industry), this objection would have merit. If imported crude is both taxed in the producing nation and given a higher default value, but E.U.-produced crude is not required to pay for E.U. ETS allowances, the classification system does begin to look like differential treatment.

Part V.D. below, there can certainly be challenges to the applicability of the E.U. rule in practice, the rule on its face complies with the general trading provisions of GATT.

5. A Properly Crafted Production-Based Carbon BTA is Specifically Permitted Under Article II:2(a)

> Article II:2(a) specifically allows charges on imports that are "equivalent to an internal tax imposed . . . in respect of an article from which the imported product has been manufactured in whole or in part."

As explained above, a production-based carbon BTA imposed in conjunction with a domestic carbon-pricing policy is not prohibited by Article III:2.[176] That conclusion should end the inquiry. Nonetheless, in analyzing a broader production-based carbon BTA, most commentators read the prohibition in Article III:2 in conjunction with the prescription of Article II:2(a). According to this reading, if an imported product is manufactured at least in part by an article that is subject to a domestic tax, then an equivalent BTA can be assessed against the imported product, notwithstanding the prohibition of Article III:2.

After years of analyses building on themselves, two questionable assumptions have emerged when interpreting Article II:2(a)'s phrase "an article from which the imported product has been manufactured in whole or in part."[177] The first dubious assumption, made by many, takes the question of whether an import is "manufactured from" a particular article and reframes it as whether the article is "physically incorporated" into or embedded in the finished import. The second questionable assumption, made by virtually all analysts, is that "article" refers to carbon or CO_2 emissions. Both of these assumptions need to be reconsidered.

While Professor Pauwelyn suggests that a non-discriminatory tax or charge on imports based on their *carbon content* could be a permissible BTA under the GATT, he questions the GATT-legality of a BTA based on increased input costs to domestic producers where the inputs are not "physically incorporated" into the final product.[178] This viewpoint is common among the analyses, since much of the academic debate over the language of Article II:2(a) has focused on whether the "article" has to be physically

176 Because the proposed E.U. rule does not seek to impose a tax or charge on imported oil sands crude, and instead seeks only to give the crude a different classification that will affect its internal sale, it does not implicate Article II:2(a) and was properly considered in the preceding section under Article III:4. *See supra* Part IV.D.4; GATT art. III, para. 4.

177 GATT art. II, para. 2.

178 Pauwelyn, *supra* note 124, at 19 ("On the other hand, it remains unclear whether a tax on inputs which are *not* physically incorporated into the final product (such as a tax on carbon emitted in, say, China but not, of course, physically present in the steel imported into the United States) can be adjusted at the border." (emphasis in original)).

incorporated into the finished product, or whether it is sufficient that the "article" be utilized in making the product, even if it is not embedded in it.[179]

The *Superfund* Panel did not concern itself with whether the taxed feedstock chemicals were physically incorporated into the imported substance or whether they were merely used in the production process—the Panel simply did not address this issue. This obviously limits the precedential value of *Superfund* in considering a production-based carbon BTA.[180] The decision certainly does not answer the question of whether "physical incorporation" is truly some legally dispositive analysis for input-based BTAs—a question that commentators routinely raise but almost always leave unanswered.

Those who argue that "physical incorporation" is the test invariably point to the "equally valid" French version of GATT, which uses the phrase "*une marchindise qui a ete incorporee dans l'article importe*," suggesting merchandise that is incorporated into ("*incorporee dans*") the imported product.[181] But the converse is also true—the existence of the French version does not make the English version any less valid. The analysts never mention that there also exists a third equally valid Spanish version, which, like the English version, does not support a "physical incorporation" test. In comparing the three versions, a nation can impose on imported products:

179 *See id.* at 19–20 (discussing "hidden taxes" that target the production process, rather than the physical features of the product itself); Javier de Cendra, *Can Emissions Trading Schemes Be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law*, 15 REV. EUR. COMMUNITY & ENVTL. L. 131, 141 (2006) (discussing the meaning of Article II:2(a)).

180 What does seem clear is that the combination of the GATT drafters' perfume example, *supra* note 165, and the Appellate Panel's *Superfund* decision would support a charge on imported fossil fuels based on their carbon content (in conjunction with a domestic policy that charges domestic fossil fuel producers consistently). It could be argued that, unlike the *Superfund* chemicals and alcohol in perfume, carbon is not an "input" because it is not added by the producer to make the finished product. Perfume is manufactured, and producers use alcohol to make it. The *Superfund* substances were manufactured, and producers use the taxable feedstock chemicals to make them. Fossil fuel is not manufactured in that sense, and carbon is not something that producers are responsible for using in the creation of the fuel product.

Despite this distinction, the better reading is that the *Superfund* case and the perfume example are analogous and would support a carbon-content BTA. The domestic producers of the imports at issue in *Superfund* had greater production costs due to the domestic tax on the feedstock chemicals, and the domestic producers of perfume in the drafters' example had greater production costs due to a domestic tax on alcohol. In much the same way, domestic producers of fossil fuels have greater production costs in a system that taxes them based on their carbon content, and a BTA based on the carbon content of the imported fossil fuel would likewise be permissible in such a system. Based on the reasoning of the *Superfund* Panel and a fairly straightforward reading of GATT Article III:2, the imposition of an energy tax based on the amount of carbon in the energy source would be permissible. This, however, is not the E.U.'s basis for assigning crude from oil sands a higher default value, as that is based on the increased GHG emissions during the tar sands extraction process, nor does it answer the question of whether a broader production-based carbon BTA is permissible.

181 Low et al., *supra* note 69, at 8; *see, e.g.*, McLure, Jr., *supra* note 113, at 250 n.65 (discussing differing views as to the French version).

- "[A] charge equivalent to an internal tax imposed . . . in respect of the like domestic product or in respect of an article from which the imported product has been manufactured in whole or in part"[182]
- "[U]na carga equivalente a un impuesto interior aplicado . . . a un producto nacional similar o a una mercancía que haya servido, en todo o en parte, para fabricar el producto importado"[183]
    - Translation: "A charge equivalent to an internal tax applied . . . to a similar national product or to merchandise that has served, in whole or in part, to make the imported product"
- "[U]ne imposition équivalent à une taxe intérieure frappant . . . un produit national similaire ou une marchandise qui a éte incorporée dans l'article importé"[184]
    - Translation: "A taxation equivalent to an internal tax striking . . . a similar national product or merchandise that has been built-in into the imported article"

While some have suggested that there may have been difficulty directly translating the English version into French, the converse is not true. It would have been a simple matter to say that charges could be assessed against imports in an amount equivalent to internal taxes on "articles that are physically incorporated into [or built into] the imported product." But that is not what the English or Spanish versions of GATT say.

Moreover, there is no WTO decision that uses this "physical incorporation" language as a test for acceptable BTAs under Article II:2(a). The phrase does not appear anywhere in GATT or in the Working Party's Report. While it may be based on the perfume/alcohol example recited by the *Superfund* Panel,[185] that Panel was not even considering whether "physical incorporation" was a relevant test for deciding the applicability of Article II:2(a) (or Article III:2). The "physical incorporation" test appears to have been made up by commentators, with each one feeding off those that came before. Other than the isolated French language version, there simply is no support for the proposition that a domestically taxed "article" must be "physically incorporated" or embedded in an imported product before the import could be properly subjected to a BTA.

Professor Pauwelyn and others make the dubious "physical incorporation" test even harder to meet by assuming that carbon is the "article" to be considered under Article II:2(a). Others argue that the relevant article is CO_2 emissions—however, since CO_2 emissions are not an "article from which" the widget is made, a BTA cannot be based on emissions during production.[186] Using parlance from unrelated WTO case law, they argue that

182 GATT art. II, para 2.

183 Acuerdo General Sobre Aduaneros Y Comercio (GATT de 1947) art. II para 2.

184 Accord General Sur Les Tarifs Douaniers Et Le Commerce (GATT de 1947) art. II., para 2.

185 *See supra* note 163.

186 *See* Low et al., *supra* note 69, at 5.

CO_2 emissions are not an "input" into production as contemplated by Article II:2(a), but rather an output resulting from the production.[187]

While it is difficult to disagree with the contention that carbon in, or CO_2 emissions from, the energy source running the widget-making machines are not "physically incorporated" or embedded into the finished widget, the physical input that imposes costs on the widget maker is not carbon, it is energy. The widget maker does not buy carbon, he buys energy that he needs in order to manufacture the widget; it just so happens that energy costs more (in some countries) because it has carbon in it. Energy, unlike carbon, is something that a manufacturer actually has on its balance sheets as something for which it must pay to keep its manufacturing operations running. While carbon may not be an input into the production of the widget, and GHG emissions certainly are not, energy is an actual input. And what is being adjusted at the border is the price of the widget based on government-imposed charges on the energy used to make the widget. The real question under the GATT language, then, is whether energy (not carbon, or CO_2 emissions) is an "article" (or a "mercancia" or "merchandise") from which a widget is made. It most certainly is. Only an unreasonably narrow definition of the word "article" could exclude energy. Energy is certainly something from which all manufactured products are made in whole or in part.

Finally, the discussion in Part IV.D.3 above concerning the overarching concern of GATT to equalize the competitive relationship between domestic and imported products applies also to the interpretation of Article II:2(a). So long as there is a nexus between the "internal tax" and the relevant product, and that tax makes the product more expensive in relation to like imports, it should not matter whether the tax is applied to an item that is physically incorporated into the finished product. In sum, a properly crafted production-based carbon BTA is not prohibited by Article III:2 and is permissible under Article II:2(a).

6. Neither the E.U. Rule nor a Production-Based Carbon BTA Violates Article I

Article I requires that any advantage granted to a product from one country "shall be accorded immediately and unconditionally to the like product originating in . . . all other contracting parties." While the proposed E.U. rule and a production-based carbon BTA would, as explained above, be analyzed under different sections of Article III, both are subject to the Most Favored Nation principle of Article I:1. The principle prohibits any disparate treatment based on where a product is coming from or where it is heading. The foregoing analyses under Articles II and III largely show that neither the proposed E.U. rule nor a production-based carbon BTA would result in the disparate treatment prohibited under Article I. Nonetheless, there are a couple arguments under Article I that need to be addressed.

The production-based carbon BTA analyzed in prior sections contemplates that it would be assessed only on imports from nations that do

187 *Id.*

not have a carbon pricing system similar to that of the BTA-imposing country. Indeed, that is exactly what the Waxman-Markey bill contemplated.[188]

In addition, in order to comply with the Panel's direction in *United States – Standards for Conventional and Reformulated Gasoline* (*U.S. Reformulated Gasoline*), it has been assumed that any such BTA would allow an exporter or exporting nation to show that less carbon was used in the production of the assessed product than the assigned default value.[189] The proposed E.U. rule complies with this requirement by allowing a nation, say Canada, to show that its tar sands production method results in a smaller carbon footprint than the assigned default value.[190] If such a showing is made, the Alberta tar sands oil would be assigned a carbon intensity value lower than tar sands oil from, say, Estonia.

McLure makes a somewhat surprising argument that both of these carve-outs would violate Article I. According to McLure, a system that bases the adjustment amount on whether the exporting nation has a meaningful carbon-pricing system would "clearly violate" the Most Favored Nation principle of GATT Article I:1.[191] McLure is incorrect.

To understand the fallacy of McLure's hasty conclusion, consider a challenge to a production-based carbon BTA by a nation that also has a carbon-pricing system. Assuming some rough equivalency between the price of carbon allowances in, say, the E.U. and Japanese cap-and-trade systems, if the E.U. tried to impose a BTA on a Japanese import based on carbon emissions during production, the Japanese manufacturer could rightfully complain that it had already *paid* for carbon emissions domestically. For the E.U. to assess a production-based carbon BTA on a Japanese import would violate Article I (and Article III:2) because it would unfairly favor domestic producers who only have to pay for their carbon once.

The corollary is that a nation such as one from the E.U. must be able to apply a production-based carbon BTA to imports from nations that do not have a comparable carbon pricing system (e.g. China, the U.S.), while not imposing the BTA on imports from other nations (e.g. Japan, Australia). Rather than violating Article I, such differential treatment actually bolsters it. The "privilege," "advantage," or "immunity" of avoiding the BTA would and must be extended to any nation that adopts a comparable carbon pricing system. As Joseph Stiglitz has powerfully argued, manufacturers in nations that do not impose a price on carbon are presently enjoying a subsidy, or at least a competitive advantage, over competitors from nations that do price carbon.[192] A production-based carbon BTA imposed only on nations that do

188 *See supra* note 7.

189 Panel Report, *U.S. Reformulated Gasoline*, ¶¶ 6.10–6.16, WT/DS2/R (Jan. 29, 1996), *available at* http://www.wto.org/english/tratop_e/dispu_e/2-9.pdf.

190 *See supra* note 38 and accompanying text.

191 McLure, Jr., *supra* note 113, at 293.

192 *See* Stiglitz, *supra* note 70, at 2; discussion *supra* Part III.C.

not have a comparable carbon-pricing system actually achieves the leveling goal of Article I rather than violating it.[193]

E. The E.U. Rule, But Likely Not A Production-Based Carbon BTA, Would Also Be Permissible Under Article XX

No analysis of the proposed E.U. rule or a carbon BTA would be complete without considering GATT Article XX. This Article is a catch-all list of "exceptions," allowing border measures that fall within one of the ten enumerated justifications, regardless of whether they would be permitted under the other sections of GATT. The analysis in preceding sections concludes that both the proposed E.U. rule and a broader production-based carbon BTA would be permissible under the general trading provisions of GATT, such that resort to Article XX would not be necessary. Nonetheless, in the absence of a dispositive WTO decision and consensus among scholars for that conclusion, the Article XX exceptions should at least be considered. As explained below, the proposed E.U. rule fits far more clearly within the Article XX exceptions than a broader production-based carbon BTA does.

1. Analytical Framework

The first step in determining whether border measures are permissible under Article XX is to determine if they "constitute a means of *arbitrary or unjustifiable discrimination* between countries where the same conditions prevail, or a disguised restriction on international trade[.]"[194] If so, then Article XX will not afford legal protection. This limitation in the preamble of Article XX is called the "chapeau."

If a measure satisfies the chapeau, the next step is whether it falls within one of the enumerated exceptions. The most pertinent Article XX justification is section (g), which allows measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."[195] The proposed E.U. rule would likely satisfy this

193 There are a couple nuances of a production-based carbon BTA that could implicate the prohibitions of Article I. For instance, if imports from developing or undeveloped nations are somehow exempted from the BTA, this would arguably violate the dictates of the Article. Regional and bilateral trade agreements that eliminate tariffs represent another situation that could implicate Article I. The analysis of these nuances is more complex, however, as special treatment for least developed nations and the recognition of regional preferential trade agreements are both recognized and in many ways encouraged under GATT. *See, e.g.*, GATT art. XXIV (recognizing regional preferential treatments as an important exception to the Most Favored Nation principle, and allowing carbon pricing nations to agree among themselves not to impose a BTA on imports/exports). Full analysis of these situations is simply beyond the scope of this Article.

194 GATT art. XX (emphasis added).

195 GATT art. XX(g). Also arguably implicated is Article XX(b), which permits measures that are "*necessary* to protect human, animal or plant life or health" (emphasis added). While there is abundant evidence that the global reduction of GHGs is "necessary" to preserve biological life and health, it would be difficult to argue that a particular border measure is "necessary" to

environmental exception; a broader production-based carbon BTA likely would not.

2. The Proposed E.U. Rule

Canada, in objecting to the proposed E.U. rule, seems to be assuming that the proposed E.U. rule would be considered under Article XX (implicitly suggesting, perhaps wishfully, that it would not be permissible under Article III). In letters from Canada's Natural Resources Minister and its Ambassador to Europe, Canada urged that the rule would violate the E.U.'s trade obligations if "the final measures single out oil sands crude in a discriminatory, arbitrary or unscientific way."[196] The stated objections track the chapeau language in that trade measures cannot amount to "arbitrary or unjustifiable discrimination."[197]

The proposed E.U. rule would likely satisfy the chapeau of Article XX. There is little significant conventional E.U. crude that the proposed E.U. rule is designed to protect, so it is not disguised protectionism. Moreover, as it treats all unconventional crude the same, the proposed rule is not discriminatory on its face. The disparate treatment between conventional and unconventional crude is neither arbitrary nor unjustified; it is based on a long line of scientific analyses culminating in the 2011 Stanford report.[198] The proposed E.U. rule should satisfy the chapeau requirements.

How does the proposed E.U. rule invoke Article XX(g)? The "exhaustible natural resource" is the atmosphere, or at least a clean and human-safe atmosphere that has a sustainable balance of gases. The WTO recognized in *U.S. Reformulated Gasoline* that "clean air" is a natural resource that can be depleted.[199] That the great majority of the world's nations have entered into climate change treaties like the UNFCCC and the Kyoto Protocol supports recognition of the atmosphere as an exhaustible resource.[200]

achieve that aim. This Article XX(b) exception seems more appropriately designed to address measures implemented to prevent the loss of particular species (such as turtles and dolphins) caused by the practices of importing nations. *See* Appellate Body Report, *U.S. Shrimp-Turtle*, ¶¶ 135–38, 140–42, WT/DS58/AB/R (Oct. 12, 1998); Appellate Body Report, *U.S. Tuna-Dolphin*, ¶¶ 186, 224, 226, WT/DS381/AB/R (May 16, 2012). Thus, Article XX(b) is, at best, an imperfect fit for measures considered in this analysis.

196 *EU Oilsands*, *supra* note 2; Carrington, *supra* note 1.

197 Canada's objections also track language from the UNFCCC, the comprehensive climate treaty agreed to by nearly all nations. Under the UNFCCC: "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." UNFCCC, *supra* note 75, art. 3 para. 5.

198 *See generally* BRANDT, *supra* note 36, at 2–3 (discussing the oil sands extraction process, analyzing estimates for GHG emissions from oil sands, and comparing those estimates to conventional fuels in context of the E.U.).

199 Panel Report, *U.S. Reformulated Gasoline*, at 11–12, WT/DS2/R (Jan. 29, 1996), *available at* http://www.wto.org/english/tratop_e/dispu_e/2-9.pdf.

200 *See* McLure Jr., *supra* note 113, at 271; Frank Biermann & Rainer Brohm, *Border Adjustments on Energy Taxes: A Possible Tool for European Policymakers in Implementing the Kyoto Protocol?* 74 VIERTELJAHRSHEFTE ZUR WIRTSCHAFTSFORSCHUNG 249, 254 (2005).

The next question is whether the measure under consideration "relate[s] to" the conservation of that resource. In both *U.S. Shrimp-Turtle* and *U.S. Reformulated Gasoline*, the WTO explained that there must be a "substantial relationship," a close and genuine relationship of ends and means, between the measure and the conservation of the natural resource.[201] In those cases, the measures satisfied this requirement because the gasoline standard was "primarily aimed at" conserving the resource, and the shrimping measure had a "close and genuine relationship of ends and means."[202] The proposed E.U. rule is indisputably designed to protect the atmosphere. It relies on reports that try to quantify the atmospheric harm caused by various crude oil sources, and assigns a value to each type of crude accordingly. It is difficult to even articulate a goal for the proposed E.U. rule other than preserving the atmosphere.

As far as the final provision of Article XX(g)—that the measure be implemented in conjunction with domestic restrictions—the proposed E.U. rule is part of a broader domestic policy that would similarly classify domestic crude production such as tar sands from Estonia (an E.U. member-state).

In sum, not only is the proposed E.U. rule permissible under the general trading provisions of GATT, it would also be blessed under the environmental exception of Article XX(g).[203]

3. The Broader Production-Based Carbon BTA

Despite finding that the legality of a production-based carbon BTA is uncertain under Articles I–III, both Pauwelyn and McLure offer hope that a carefully crafted BTA may be allowed under the environmental exceptions of Article XX(g).[204] With respect to a BTA based on carbon consumed or GHGs emitted during production, this result seems unlikely.

Although a production-based carbon BTA, implemented in conjunction with a domestic carbon pricing policy, could, if properly designed, satisfy the chapeau requirements, its primary motivation is not to preserve the atmosphere. In contrast to the proposed E.U. rule, a production-based carbon BTA is primarily designed to "level the playing field." Article XX does not have a "competitiveness" exception.[205] While a side benefit of such a BTA could be the reduction of GHG emissions, and thus, the preservation of the exhaustible safe atmosphere, this is not why such BTAs are typically

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201 *U.S. Shrimp-Turtle*, ¶¶ 135–38, 140–42, WT/DS58/AB/R (Oct. 12, 1998); *U.S. Reformulated Gasoline*, at 19, WT/DS2/R, (Jan. 29, 1996); *see also U.S. Automobiles*, ¶ 5.56, DS31/R (*not adopted*, Oct. 11, 1994).

202 *U.S. Reformulated Gasoline*, at 18, WT/DS2/R; *U.S. Shrimp-Turtle*, ¶ 136, WT/DS58/AB/R; *see also* McLure, Jr., *supra* note 113, at 272 n.140.

203 Article XX would also support a general import tariff on fossil fuels based on their carbon content (in the unlikely event that it is found to violate Article III), since it too would be based solely on climate damage.

204 Pauwelyn, *supra* note 124, at 3, 34; McLure, Jr., *supra* note 113, at 293. *But see* HOLZER, *supra* note 66, at 3 (citing Pauwelyn and others for the proposition that it would be "quite difficult" to design a measure that "would satisfy the conditions of Article XX").

205 *See* McLure, Jr., *supra* note 113, at 273; Bordoff, *supra* note 8, 49–50.

proposed. Rather, they are used to prevent domestic manufacturers from being unfairly disadvantaged in the global marketplace. Considering GATT as a whole, it seems clear that Articles II and III were specifically designed to address trade measures that are enacted to "level the playing field"; in many respects, this is what those sections are all about. Article XX must have been intended to address different concerns.

The WTO has cautioned that, for purposes of Article XX(g), it is not sufficient for the measure to be "incidentally or inadvertently aimed at" conservation; the measure must be "primarily aimed at and substantially related to" the goal of reducing GHG emissions.[206] McLure argues that, "[s]ince BTAs on carbon embedded in imports form an integral part of a policy to reduce CO_2 emissions, there seems to be little doubt that they would pass this [Article XX(g)] test."[207] It should be clear that McLure is considering a narrower BTA, one based on the *carbon content* of the imported fuel source or other product, than the production-based BTA considered in this Article. If a nation adopts a carbon tax to be applied at every mine, wellhead, and point of entry based on the carbon content of the fuel source, the BTA component is an integral part of the policy and likely would satisfy Article XX. However, a production-based carbon BTA is not so clearly aimed at emission reduction. Although it is possible that a production-based carbon BTA would cause an exporting nation to either reduce production or change its production processes to reduce emissions, it is also possible that the nation would simply find other markets and continue producing as it always has.[208] As explained in Part III above, production-based BTAs are primarily aimed at addressing competitiveness objections to a domestic carbon pricing policy; the fact that they may incidentally cause an emissions reduction does not bring them within the ambit of Article XX(g).[209]

A broader production-based carbon BTA, designed as it is to allay competitiveness and leakage concerns, would have a much harder time satisfying Article XX(g) than the proposed E.U. rule. Such a BTA would likely survive or fall solely under the general trading provisions of GATT Articles I–III.

V. INTERNATIONAL NEGOTIATIONS SHOULD BE PREFERRED OVER THE UNILATERAL IMPOSITION OF BTAS

The foregoing analysis concludes that both the proposed E.U. rule and a broader production-based carbon BTA are permissible under GATT. While

206 *U.S. Shrimp-Turtle*, ¶¶ 135–36, WT/DS58/AB/R; *U.S. Reformulated Gasoline*, at 19, WT/DS2/R; *see also* Bordoff, *supra* note 8, at 50.

207 McLure, Jr., *supra* note 114, at 272 (citing Pauwelyn, *supra* note 124, at 35).

208 Reinhard Quick, *Border Tax to Combat Carbon Leakage: A Myth*, 3 GLOBAL TRADE & CUSTOMS J. 353, 354 (2009).

209 If this conclusion is incorrect, and a production-based BTA is deemed to be motivated by a desire to conserve the atmosphere, then such a BTA could—if properly designed in conjunction with a domestic scheme—satisfy the final requirement of Article XX(g).

the E.U. has shown a willingness to try to reach beyond its borders to encourage carbon reduction efforts, even the E.U. would agree that an international accord is preferable to such unilateral action. This is true for several reasons.

A. Avoiding Trade Wars

As the headlines cited at the beginning of this Article threaten,[210] and the letters supporting such headlines suggest,[211] a unilateral effort to tax imports from less carbon-conscious nations will likely cause serious objection. Regardless of the legal legitimacy of duties or tariffs, their imposition almost always results in some countervailing measures by the exporting nation.[212]

B. Legal Uncertainty

The conclusions in this analysis as to the legality of properly crafted carbon BTAs may not be adopted by the WTO. As noted, many commentators have reached contrary conclusions.[213] An international agreement legitimizing such BTAs would remove all doubt as to the legality of such measures.

C. Fully Counteracting the Effects of Leakage and Competitiveness

While both the proposed E.U. rule and a production-based carbon BTA would go a long way in addressing political objections to domestic carbon pricing policies based on competitiveness and leakage, neither would completely eliminate them. A BTA imposed by the E.U., for example, would "level the playing field" between E.U. and Chinese manufacturers for products sold in the E.U., but there is nothing the E.U. could do to address the disparity of products sold in another nation like the United States. E.U. manufacturers have to pay more for energy because of the E.U. ETS, as compared with what Chinese manufacturers pay.[214] Only if *all* consumer nations adopted a production-based carbon BTA could this disparity be fully addressed. Realistically, that could only happen with an international treaty.

D. Devil in the Details

Perhaps the greatest reason why international negotiations are preferable to unilateral BTAs is that the logistics of the latter can seem overwhelming. Who is to say that carbon pricing is the most effective method for achieving CO_2 emission reductions? The United States, for

210 Carrington, *supra* note 1; *EU Oilsands*, *supra* note 2.

211 *See supra* note 3 and accompanying text.

212 Anuradha R.V., *supra* note 7.

213 *See supra* Part IV.D.I.

214 *See supra* notes 53–54, 58, 64 and accompanying text.

example, is likely to argue that its commitment to efficiency measures, tax credits, and research and development support for renewables is as effective as a carbon-pricing system for reducing emissions. The properly crafted BTA contemplated in this analysis would be applied only to imports from nations that do not have a comparable emission reduction policy. But who will determine what is comparable?[215]

Relatedly, in today's "flat" and interconnected world, many products go through multiple stops in different nations on their way to the consumer.[216] If widget component A comes from a nation with a carbon pricing system, but component B comes from a developing nation that does not have such a system, and these components meet and are put together in yet a third country which has a mixed bag of emission reduction mechanisms, then what is the proper BTA level?

Even more fundamental is how the level of a particular BTA would be set—for example, how much would the imported car or imported TV or imported shirt be taxed? To satisfy the analyses above, the amount of the tax could only be based on carbon consumed or CO_2 emitted, since this would equal the additional charges domestic products face. Presumably, a nation could develop—much as the E.U. has with respect to crude oil—a default value for each imported product that represents CO_2 emissions if the product is produced using some standard method or best practices for production. But products may be "like" in their finished characteristics while some are hand-made and others are mass-produced at a carbon belching factory. As discussed above, in order to pass GATT muster, an exporting country (or a manufacturer from that country) must be afforded the opportunity to show that its production method resulted in fewer emissions than the default value.[217] And what to make of nations with different energy portfolios—should a product from a nation that gets 80% of its electricity from nuclear and renewable sources be taxed as much as an import from a coal-dependent nation, regardless of their carbon-pricing policy?[218]

These are just some of the more obvious challenges raised by the unilateral imposition of a production-based carbon BTA. There are entire studies devoted solely to the logistics of implementing a production-based BTA system. While these challenges are daunting, it is hard to believe they cannot be overcome, albeit with massive effort. Nonetheless, the nuances of just these identified challenges will provide plenty of fodder for claims that certain nations and manufacturers are facing discrimination in practice. It is

215 *See, e.g.*, Low et al., *supra* note 69, at 9 (noting that comparing carbon savings from different nations' policies "is a significant complication in the Article III context, even if the same policy instrument were being used in both the jurisdictions concerned, particularly in a sector where there are multiple producers, and the difficulty is simply compounded if comparisons are necessary between entirely different policies").

216 *See* THOMAS L. FRIEDMAN, THE WORLD IS FLAT: A BRIEF HISTORY OF THE TWENTY-FIRST CENTURY 6–7 (2005).

217 *See supra* Part V.D.

218 *See, e.g.*, Low et al., *supra* note 69, at 9 ("It is important to note that in the context of climate change border measures, the calculation of the precise level of the border adjustment will be difficult to determine and thus claims of less favourable treatment will be difficult to contest.").

easy to fathom an unprecedented number of trade complaints arising from unilateral efforts to impose such a BTA, yet the adequacy of the WTO dispute resolution mechanism to deal with such conceptual issues is unclear.[219]

E. A (Wishful?) Path Forward for International Negotiations

What the foregoing discussion amounts to is that, although the unilateral imposition of adjustments at the border could survive a WTO challenge if the measure were properly crafted, international negotiations would be a far better course. Only international negotiations could head off disputes and address the intricacies of setting default emission values and carbon prices, determining best manufacturing practices, giving credit for lower carbon energy usages, and assessing what national policies sufficiently reduce emissions, etc.[220] The proposed E.U. rule represents a first step with respect to a particular carbon-intensive industry, fossil fuels. Perhaps there are other low-hanging, carbon-intensive fruit to which production-based BTAs can be applied and their legality established (cement and steel production come to mind). It may be wishful thinking, but perhaps this is just the impetus and change of focus needed to re-energize international climate negotiations. After two decades of negotiations focused on gaining emission reduction commitments from the various nations, with mixed results at best, future negotiations focused instead on a global carbon price could offer fresh hope.

VI. CONCLUSION

As post-Kyoto climate negotiations fail to result in an agreement that legally binds most nations to reduce their GHG emissions, nations that have adopted or are considering carbon-pricing policies find themselves at an economic disadvantage. Manufacturers in such countries must pay more for energy than manufacturers in nations that do not put a price on carbon. A production-based carbon BTA that taxes imports based on the carbon consumed or GHGs emitted during production is one way these carbon-pricing nations can level the playing field. Not only would such a BTA bring some production cost equality, it would also combat leakage, whereby producers simply relocate to non-carbon-pricing nations and continue to emit as before. Moreover, such a BTA, especially if adopted by a number of consumer nations, should significantly influence exporting nations to reduce their emissions, either by developing less carbon intensive production methods or by adopting their own carbon pricing systems.

In early 2013, the E.U. will vote on a proposed rule that seeks to classify crude oil based on the GHGs emitted during extraction. Canada, rich with crude derived from Alberta's bitumen deposits, has threatened to challenge

219 *See* ANURADHA R.V., *supra* note 7, at 27.

220 For a more detailed analysis of why international negotiations are preferable to unilateral measures, see ANURADHA R.V., *supra* note 7, at 25–28.

the legality of the proposed E.U. rule. The proposed E.U. rule would likely pass muster under GATT. In many respects, finding the proposed E.U. rule legal under GATT is much easier than a broader production-based carbon BTA, because the proposed rule cannot be seen as protectionist, is not a "tax," and indisputably treats imported crude the same as domestic crude. Nonetheless, resolution of the legal dispute over the proposed E.U. rule could go a long way towards answering the question of whether nations can tax imports based on carbon consumed or GHGs emitted during production in another country.

Although there is considerable uncertainty as to whether BTAs can be assessed on imports based on how they are produced (as opposed to their physical characteristics at the time of import), the better reading of GATT and pertinent WTO decisions is that such BTAs can be permissible so long as they are properly crafted and they treat imports no less favorably than domestic products. The implications of such a conclusion are significant, at least if accompanied by political will. If a nation that is aggressively pursuing emission reductions has consumer power leverage, as the E.U. does, it could seriously influence other countries such as the United States and China to adopt comparable policies, at least with respect to exported products headed for the E.U. market. The unilateral imposition of a production-based carbon BTA could, and arguably should, reframe the flailing international negotiations for a post-Kyoto accord. Finally, the next time a carbon tax or cap-and-trade proposal is debated in the United States, the complement of a production-based carbon BTA would successfully blunt the most legitimate objections by business and political opponents.