

I. Introduction

Congress will likely adopt comprehensive climate change legislation in the near future to prevent inflexible greenhouse gas (GHG) regulations from taking effect. The US Environmental Protection Agency (EPA) has begun the process of promulgating command and control regulations to reduce domestic GHG emissions.¹ This regulatory effort will intensify pressure, already exerted by the executive branch, industry, and environmentalists, on Congress to adopt a more flexible and less expensive regulatory program, such as a cap or tax on GHG emissions.²

A cap-and-trade approach is the most popular and likely form of federal regulation.³ Cap-and-trade regulation involves placing a definite nationwide cap on emissions. Allowances or permits are created at the level of the cap and auctioned or distributed to polluters. Firms must redeem these allowances for the right to emit GHGs. They may also reduce internal emissions below their mandated level and sell their allowances. The free market prices the allowances,

¹ The Environmental Protection Agency (EPA) recently proposed “to find that greenhouse gases in the atmosphere endanger the public health and welfare”. Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18,886 (proposed Apr. 24, 2009) (to be codified at 40 C.F.R. ch. 1). See also U.S. EPA, *Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act*, <http://epa.gov/climatechange/endangerment.html> (last visited April 28, 2009). If finalized, this endangerment finding would require the EPA to reduce greenhouse gas (GHG) concentrations and emissions by regulation under the Clean Air Act. Press Release, U.S. EPA, *EPA Finds Greenhouse Gases Pose Threat to Public Health, Welfare* (Apr. 17, 2009), available at <http://yosemite.epa.gov/opa/admpress.nsf/0/0EF7DF675805295D8525759B00566924>. According to the proposed finding, regulation of GHG emissions under the Clean Air Act would initially address vehicle emissions. *Id.*

² “President Obama and [EPA] Administrator Jackson have repeatedly indicated their preference for comprehensive legislation”. See Press Release, US EPA, *supra* note 1. Industry is lobbying for national climate change action to avoid piecemeal state action on the issue. Eric Lipton & Gardiner Harris, *In Turnaround, Industries Seek U.S. Regulations*, N.Y. TIMES, Sept 15, 2007, available at http://www.nytimes.com/2007/09/16/washington/16regulate.html?_r=1&pagewanted=all. Insurance companies are aligning themselves with environmentalists to contain climate change business risks. Press Release, Travelers, *Leading Insurers, Public Officials and Environmental Groups Call for Bold Action to Adapt to Changing Climate Trends to Protect America's Coastlines* (April 23, 2009), available at <http://investor.travelers.com/phoenix.zhtml?c=177842&p=irol-newsArticle&ID=1279972&highlight=>.

³ Last year, the cap-and-trade Lieberman-Warner Climate Security Act was the first bill proposing federal GHG emissions regulation to survive the committee process and arrive at the Senate floor for debate. U.S. Senator Joe Lieberman: *Climate Change*, <http://lieberman.senate.gov/issues/globalwarming.cfm> (last visited March 22, 2009). The EPA is also developing options for an economy-wide cap-and-trade program to reduce GHG emissions to “approximately 83 percent below 2005 levels by 2050.” *Environmental Protection Agency, in A NEW ERA OF RESPONSIBILITY: BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 2010 100*, available at <http://www.whitehouse.gov/omb/budget/> (last accessed March 22, 2009).

thereby determining which firms will mitigate GHG emissions and how they will accomplish emission reductions. Cap-and-trade is popular among industry and politicians because compliance costs are perceived to be lower than with command and control regulations.⁴

With lower compliance costs, US industry can better maintain its competitive edge against foreign competitors. If compliance costs are unusually high, lawmakers fear potential adverse impacts on the competitiveness of US industry as against unregulated foreign manufacturers. Cited concerns include the potential loss of US output, market share, jobs, investment, or firms.⁵ Emissions leakage is an environmental concern triggered by certain economic competitiveness impacts. Emissions leakage occurs when firms relocate to unregulated nations due to competition and net global emissions remain the same or increase, which dilutes the environmental effectiveness of a federal emissions cap.⁶

In order to address competitiveness and leakage concerns, US lawmakers have proposed border adjustments to accompany an emissions cap in recent climate change legislation. Border

⁴ For example, a cap-and-trade program “reduced acid rain at much lower costs” than past regulatory efforts. *Environmental Protection Agency, supra* note 3, at 100.

⁵ TREVOR HOUSER, ET AL., *LEVELING THE CARBON PLAYING FIELD: INTERNATIONAL COMPETITION AND US CLIMATE POLICY 2* (Peterson Institute for International Economics and World Resources Institute 2008); JASON E. BORDOFF, *International Trade Law and the Economics of Climate Policy: Evaluating the Legality and Effectiveness of Proposals to Address Competitiveness and Leakage Concerns*, in *CLIMATE CHANGE, TRADE AND COMPETITIVENESS: IS A COLLISION INEVITABLE?* (Brookings forthcoming) (manuscript at 3, available at http://www.brookings.edu/events/2008/0609_climate_trade.aspx (last accessed January 7, 2009)); Bernd G. Janzen, *International Trade Law and the “Carbon Leakage” Problem: Are Unilateral U.S. Import Restrictions the Solution?*, 8 *SUST. DEV. L. & POL’Y* 22, 22 (2008); Joost Pauwelyn, *U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law 2* (Duke University, Working Paper, 2007), available at <http://www.nicholas.duke.edu/institute/internationaltradelaw.pdf>; Moustapha Kamal Gueye, *Trade, Climate Change and Global Competitiveness*, in *TRADE, CLIMATE CHANGE AND GLOBAL COMPETITIVENESS 1* (ICTSD 2008); Muthukumara Mani, *The Effects of Climate Change Policies on International Trade and Competitiveness: the China Factor*, in *TRADE, CLIMATE CHANGE AND GLOBAL COMPETITIVENESS 10* (ICTSD 2008); World Resources Institute, *International Trade, THE BOTTOM LINE ON...*, Aug. 2008, at 1; Pew Center on Global Climate Change, *Addressing Competitiveness in U.S. Climate Change Policy*, CONGRESSIONAL POLICY BRIEF, Fall 2008, at 3 [Hereinafter *Pew Congressional Policy Brief*]; JOSEPH E. ALDY & WILLIAM A. PIZER, *ISSUES IN DESIGNING U.S. CLIMATE POLICY 18* (Resources for the Future, June 2008); AARON COSBEY & RICHARD TARASOFSKY, *CLIMATE CHANGE, COMPETITIVENESS AND TRADE 3-4* (Chatham House June 2007).

⁶ *TRADE AND CLIMATE CHANGE: ISSUES IN PERSPECTIVE 21-22* (Aaron Cosbey, ed., International Institute for Sustainable Development 2008) [hereinafter *ISSUES IN PERSPECTIVE*]; Janzen, *supra* note 5, at 22; Pauwelyn, *supra* note 5, at 2, 4; World Resources Institute, *supra* note 5, at 1.

adjustments are trade measures intended to level the playing field by reflecting the cost of domestic regulation in imported products. Recent climate change bills propose a cap on national emissions supplemented by border adjustment mechanisms that regulate the embodied emissions⁷ of certain imported products.

As written, these border adjustments are incompatible with the non-discrimination obligations of the General Agreement on Tariff and Trade (GATT)⁸ but may be justifiable under the GATT Article XX environmental exceptions. The proposed border adjustments are based on the amount of GHGs emitted during the manufacture of an imported product, which is a process and production method (PPM) regulation. PPMs are an impermissible means for distinguishing products for tax or regulatory purposes under the National Treatment⁹ and Most Favored Nation¹⁰ non-discrimination obligations of GATT. Because the proposed border adjustments employ PPMs to distinguish products, they violate GATT obligations. The border adjustments may survive a legal challenge by invoking GATT's environmental exceptions, but only if they are found to be "necessary to protect human, animal or plant life or health"¹¹ or related "to the conservation of exhaustible natural resources".¹²

This paper evaluates whether recently proposed border adjustments can be justified under GATT's Article XX environmental exceptions. Part II frames this investigation by further exploring the concept of competitiveness, its potential adverse impacts, and ways to mitigate

⁷ Embodied emissions refers to the amount of "carbon dioxide [and other GHGs] emitted at all stages of a good's manufacturing process, from the mining of raw materials through the distribution process, to the final product provided to the customer." ISSUES IN PERSPECTIVE, *supra* note 6, at 40.

⁸ General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. 11, 55 U.N.T.S. 194 [hereinafter GATT].

⁹ GATT art. III. The National Treatment obligation prohibits regulatory programs that discriminate between like domestic and imported products in a way that affords protection to domestic products.

¹⁰ GATT art. I. The Most Favored Nation obligation requires the same treatment as between like imported products from different nations.

¹¹ GATT art. XX(b). To invoke this exception, the border adjustment must also satisfy the requirements of the Article XX chapeau, as discussed later.

¹² GATT art. XX(g). To invoke this exception, the border adjustment must also satisfy the requirements of the Article XX chapeau, as discussed later.

these impacts. Part III explains the border adjustments incorporated in recently proposed federal cap-and-trade regulation. Part IV explains why these border adjustments are not compliant with GATT. Part V evaluates whether the border adjustments are justified under GATT's environmental exceptions. Part VI concludes by suggesting ways to improve the proposed border adjustments in order to qualify for the GATT Article XX exceptions.

II. Competitiveness

All nations are concerned with the potential competitiveness impacts of domestic climate change regulation. Economic competitiveness concerns and their potential environmental consequences are tied to unusually high regulatory compliance costs. Therefore, competitiveness losses resulting from climate change regulation are not a concern for most US industry. Competitiveness losses are likely only a concern for six energy-intensive industries that would incur unusually high costs for compliance with climate change requirements.

A. Economic and Environmental Competitiveness Concerns.

For a firm, competitiveness concerns resulting from climate change regulation are “adverse business impacts related to domestic GHG regulation *and* the absence of regulation on international competitors.”¹³ For a nation, economic competitiveness fears refer to a potential loss of global productivity for national industry due to higher than usual regulatory compliance costs.¹⁴ If regulated US goods cannot compete with unregulated foreign goods, the US may suffer a loss of output, market share, jobs, investment, or even firms to unregulated nations.¹⁵

¹³ Aldy & Pizer, *supra* note 5, at 24.

¹⁴ ISSUES IN PERSPECTIVE, *supra* note 6, at 20, 22; Janzen, *supra* note 5, at 23; Gueye, *supra* note 5, at 1; World Resources Institute, *supra* note 5, at 1.

¹⁵ See *supra* note 5.

There are also environmental consequences to economic competitiveness losses. For example, emissions leakage occurs when a firm relocates to an unregulated nation due to competition. Leakage may occur when “*output of energy-intensive industries*” relocates to nations without climate change regulation, either by a firm moving abroad or through a reduction of domestic production that increases production in unregulated nations.¹⁶ Leakage may also result as climate change regulation alters world energy prices. As prices for renewable energy increase in regulated nations, unregulated nations are free to increase consumption of fossil fuels at lower prices.¹⁷

Emissions leakage undermines the effectiveness of federal climate change regulation.¹⁸ If compliance costs increase the price of domestic goods and drive production abroad, consumption in the US will “shift to more carbon-intensive imports”.¹⁹ Instead of reducing net emissions globally, emissions leakage results in constant or increased global emission levels.²⁰

B. Competitiveness is Only a Concern for Six US Industries.

Competitiveness concerns only emerge in energy-intensive industries because of their unusually high compliance costs.²¹ A federal cap on GHG emissions will increase national

¹⁶ Jeffrey Frankel, *Options for Addressing the Leakage/Competitiveness Issue in Climate Change Proposals*, in CLIMATE CHANGE, TRADE AND COMPETITIVENESS: IS A COLLISION INEVITABLE?, *supra* note 5 (manuscript at 4) (emphasis added); Janzen, *supra* note 5, at 22; Pauwelyn, *supra* note 5, at 2; Gueye, *supra* note 5, at 1; Mani, *supra* note 5, at 10; World Resources Institute, *supra* note 5, at 1; Bordoff, *supra* note 5 (manuscript at 3). This paper does not consider that firms in other nations may have more efficient production methods than existing US firms.

¹⁷ Frankel, *supra* note 16 (manuscript at 4); ISSUES IN PERSPECTIVE, *supra* note 6, at 33; Warwick J. McKibbin & Peter J. Wilcoxon, *The Economic and Environmental Effects of Border Tax Adjustments for Climate Policy*, in CLIMATE CHANGE, TRADE AND COMPETITIVENESS: IS A COLLISION INEVITABLE?, *supra* note 5 (manuscript at 3); Thomas L. Brewer, *Addressing Climate Change Related Competitiveness Concerns: Approaches in the EU and the US and Their Implications for China*, in TRADE, CLIMATE CHANGE AND GLOBAL COMPETITIVENESS 14 (ICTSD 2008).

¹⁸ ISSUES IN PERSPECTIVE, *supra* note 6, at 21; World Resources Institute, *supra* note 5, at 1; Bordoff, *supra* note 5 (manuscript at 3); Frankel, *supra* note 16 (manuscript at 3).

¹⁹ Bordoff, *supra* note 5 (manuscript at 3); Janzen, *supra* note 5, at 22; Mani, *supra* note 5, at 10.

²⁰ See *supra* note 6.

²¹ See *supra* note 14.

energy costs²² for all US manufacturers.²³ Many firms can mitigate these compliance costs by switching to renewable energy, increasing efficiency, or passing increased costs on to customers.²⁴ Increased energy costs will not raise competitiveness concerns unless they are significant enough to disadvantage US firms against unregulated foreign competitors.²⁵

Energy-intensive industries are sensitive because their high energy use results in compliance costs that could potentially push the price of US goods above similar unregulated foreign products. Competitiveness losses are only possible where certain industries' higher regulatory compliance costs (resulting from an industry's disproportionately high emissions or energy use) cannot be passed on to consumers (because product prices set in the global marketplace are lower than can be achieved with domestic regulation).²⁶

Analysts believe that only six US industries – petroleum refining, paper and pulp, nonmetallic mineral products, chemicals, and ferrous and nonferrous metals²⁷ – face potential competitiveness losses. These six industries employ very energy intensive processes and also face tight global competition, fixed facility infrastructure, and the increasing costs of energy

²² Both facility-specific emission costs (as a result of the emission cap) and general energy costs (as a result of power plant regulation and shifting demand) will increase for manufacturers. Pew Congressional Policy Brief, *supra* note 5, at 3, 5.

²³ Pauwelyn, *supra* note 5, at 2; Pew Congressional Policy Brief, *supra* note 5, at 3, 5.

²⁴ ISSUES IN PERSPECTIVE, *supra* note 6, at 22; World Resources Institute, *supra* note 5, at 1.

²⁵ Pauwelyn, *supra* note 5, at 2; Gueye, *supra* note 5, at 1; Pew Congressional Policy Brief, *supra* note 5, at 1-2; *Response of the Pew Center on Global Climate Change to the Committee on Energy and Commerce and its Subcommittee on Energy and Air Quality U.S. House of Representatives on the Climate Change Legislation Design White Paper: Competitiveness Concerns/Engaging Developing Countries 1* (2008) (available at <http://www.pewclimate.org/competitiveness-response-030508>) [hereinafter Pew Center Response]; Aldy & Pizer, *supra* note 5, at 24. Increased energy costs are an underlying purpose of climate change regulation, which is meant to internalize the environmental and health costs of certain fossil fuels.

²⁶ Pew Congressional Policy Brief, *supra* note 5, at 2. *See also* Gueye, *supra* note 5, at 1; World Resources Institute, *supra* note 5, at 1; Cosbey & Tarasofsky, *supra* note 5, at 7-8.

²⁷ Houser, *supra* note 5, at 8. A large amount of energy is required to manufacture goods such as “steel, aluminum, cement, paper, and glass.” Pew Congressional Policy Brief, *supra* note 5, at 2. *See also* ISSUES IN PERSPECTIVE, *supra* note 6, at 22; Janzen, *supra* note 5, at 23; Pauwelyn, *supra* note 5, at 2; Gueye, *supra* note 5, at 1; Mani, *supra* note 5, at 11. If competitiveness provisions are used in national climate regulation, they should be restricted to these six industries, not used to assist with the broader economic transition. ISSUES IN PERSPECTIVE, *supra* note 6, at 22.

substitutes.²⁸ Therefore, it will be more difficult for these industries to quickly implement efficiency improvements, switch to clean energy sources, or pass increased costs on to customers,²⁹ which will result in greater regulatory compliance costs. If these costs are too high, these industries will face competitiveness losses and the US could face emissions leakage.

C. Strategies for Reducing the Competitiveness Effects of Climate Change Regulation.

For industries facing potential competitiveness losses due to unusually high compliance costs, a comprehensive climate change program can maintain competitiveness and prevent leakage by reducing the costs of domestic compliance or increasing the costs of competing imported products.³⁰ Domestic compliance costs may be contained by capping the price of domestic emissions allowances, permitting emitters to bank or borrow emissions allowances, permitting the use of offset projects to reduce allowance requirements, freely allocating allowances, using the proceeds of allowance auctions to assist the industries, or exempting fully the exposed industries from the regulation.³¹

Alternatively, competitiveness issues may be addressed by reflecting the cost of domestic regulation in imported products. This is accomplished through domestic trade measures on imported products, including the proposed border adjustments that impose costs on imported goods similar to those imposed on domestic goods by climate change regulation. Border adjustments are intended to prevent economic competitiveness losses and the potential for emissions leakage. The US must proceed with caution when using trade measures to address

²⁸ World Resources Institute, *supra* note 5, at 1; Houser, *supra* note 5, at 8; ISSUES IN PERSPECTIVE, *supra* note 6, at 22; Cosbey & Tarasofsky, *supra* note 5, at 7-8.

²⁹ *Id.*

³⁰ ISSUES IN PERSPECTIVE, *supra* note 6, at 20-21; Pauwelyn, *supra* note 5, at 3; Gueye, *supra* note 5, at 1; World Resources Institute, *supra* note 5, at 2; Aldy & Pizer, *supra* note 5, at 18. Pew Congressional Policy Brief, *supra* note 5, at 4, 8.

³¹ Houser, *supra* note 5, at 16; World Resources Institute, *supra* note 5, at 2.

competitiveness concerns and emissions leakage because unilateral trade measures are diplomatically controversial and may violate international trade obligations.

III. Competitiveness Border Adjustment Proposals in Recent US Legislation

Competitiveness concerns are the primary reason that the US did not participate in the Kyoto Protocol³² and will remain a driving force in fleshing out federal climate change regulation. While US lawmakers agree that international cooperation is the best approach to both reducing GHG emissions and addressing competitiveness concerns,³³ they are also resolute to adopt unilateral trade measures to address competitiveness concerns in national regulation.³⁴

A. Recent Federal Cap-and-Trade Climate Change Bills.

The current session of Congress only includes one cap-and-trade climate change bill³⁵ – the American Clean Energy and Security Act³⁶ (ACES Act). This bill is structurally similar to

³² The Kyoto Protocol, the first protocol under the United Nations Framework Convention on Climate Change, posed competitiveness concerns because it imposed mandatory reductions on developed nations without equivalent requirements on developing nations. The Senate unanimously resolved not to participate in the Kyoto Protocol because it believed that requiring emissions reductions of the developed (Annex I) nations but not developing nations “could result in serious harm to the United States economy, including significant job loss, trade disadvantages, increased energy and consumer costs”. Byrd-Hagel Resolution, S. Res. 98, 105th Cong. (1997). President Bush later formally rejected the protocol because it did not include China and India as well as for potential harms it would cause to the US economy. Andrew C. Revkin, *U.S. Is Taking a Back Seat In Latest Talks on Climate*, N.Y. TIMES, Oct. 29, 2001, available at <http://www.nytimes.com/2001/10/29/world/us-is-taking-a-back-seat-in-latest-talks-on-climate.html>.

³³ Lieberman-Warner Climate Security Act of 2008, S. 3036, 110th Cong. § 6003(a) (2008) [hereinafter Climate Security Act]; Climate MATTERS Act of 2008, H.R. 6316, 110th Cong. § 115 (2008) [hereinafter Climate MATTERS Act]; Investing in Climate Action and Protection Act, H.R. 6168, 110th Cong. § 76(a) (2008) [hereinafter I-CAP Act]. See also Houser, *supra* note 5, at 59.

³⁴ Each of the four cap-and-trade proposals covered by this paper address competitiveness concerns, both economic and environmental. In this Congressional session, “several Democratic senators from Rust Belt and coal-producing states have warned that they may not support legislation that lacks sufficient protections for their home-state manufacturing and mining interests.” Ian Talley & Stephen Power, *Democrats Tangle on Climate Change*, WALL STREET JOURNAL, Mar. 12, 2009, available at <http://online.wsj.com/article/SB123679042118496965.html>.

³⁵ As of April 1, 2009. Several other climate change-related bills implicate competitiveness and leakage concerns. One proposed Senate resolution recognizes that reducing emissions may make the US “more competitive globally”. Cleaner, Greener, and Smarter Act of 2009, S. 5, 111th Cong. (2009). This bill also notes that climate change regulation will reduce dependence on foreign oil, secure sustainable energy sources, and reduce climate change risks. *Id.* Two House of Representatives bills propose a tax on GHG emissions. The Save Our Climate Act of 2009 seeks to tax “primary fossil fuels based on their carbon content.” Save Our Climate Act of 2009, H.R. 594, 111th Cong. (2009). The America’s Energy Security Trust Fund Act of 2009 taxes coal, petroleum products, and natural

three cap-and-trade bills from 2008. In each cap-and-trade proposal, a national cap will be placed on GHG emissions and will be lowered over time to achieve reduction targets for domestic GHG emissions. These emissions reduction targets are significant and could potentially expose energy-intensive manufacturing industries to unusually high compliance costs. It will be extremely difficult for these industries to accomplish reductions comparable to the general reduction targets over the same time period. All four bills also propose trade measures to address economic competitiveness and leakage concerns, which will be addressed below.

The ACES Act seeks to reduce GHG emissions to “3% below 2005 levels in 2012, 20% below 2005 levels in 2020, 42% below 2005 levels in 2030, and 83% below 2005 levels in 2050.”³⁷ These reductions will be difficult to accomplish for facilities in energy-intensive industries. The cap subjects 85 percent of total US emissions to the reductions.³⁸ Initially, vulnerable industry will receive certain ‘rebates’ to assist with compliance costs, including an undetermined amount of free allowances.³⁹ Interestingly, the border adjustment proposed in this bill is only implemented if the President determines that domestic industry is actually harmed or if leakage is occurring.⁴⁰

In June 2008, the Lieberman-Warner Climate Security Act (Climate Security Act) was the

gas. America’s Energy Security Trust Fund Act of 2009, H.R. 1337, 111th Cong. (2009). While this paper only addresses cap-and-trade regulatory proposals, it is important to note that a carbon tax and a cap-and-trade regulation system are not mutually exclusive.

³⁶ American Clean Energy and Security Act of 2009, *available at* http://energycommerce.house.gov/Press_111/20090331/acesa_discussiondraft.pdf (last accessed Apr. 30, 2009) [hereinafter ACES Act]. The ACES Act is based upon the climate change discussion draft released by the House Committee on Energy and Commerce in 2008. The 461-page discussion draft was the product of two years of work and was “the subject of more than two dozen hearings”. Dina Capiello, *House Democrats Unveil Draft Climate Change Bill*, USA TODAY, Oct. 8, 2008, *available at* http://www.usatoday.com/weather/climate/globalwarming/2008-10-08-house-climate-change-bill_N.htm (last updated Oct. 9, 2008).

³⁷ US House of Representatives, *Discussion Draft Summary: The American Clean Energy and Security Act of 2009* 3, *available at* http://energycommerce.house.gov/Press_111/20090331/acesa_summary.pdf (last accessed Apr. 30, 2009).

³⁸ *Id.*

³⁹ *Id.* at 1, 4.

⁴⁰ ACES Act § 414(b).

first climate change cap-and-trade bill debated on the Senate floor.⁴¹ The bill would have reduced GHG emissions to “4% below 2005 levels by 2012; 19% below 2005 levels by 2020; and 71% below 2005 levels by 2050.”⁴² The bill would have capped 87 percent of US emissions but freely distributed 75 percent of the allowances within the cap.⁴³ Free distribution of allowances was intended to assist with the potentially high regulatory costs of these reductions.

The Climate MATTERS Act of 2008 would have reduced GHG emissions to 80 percent below 1990 levels by 2050.⁴⁴ Eighty percent of the allowances would be distributed by auction at the start of the program, increasing to a full auction by 2020.⁴⁵ This program, with deep long-term reductions and an early elimination of domestic cost containment programs, could result in unusually high compliance costs, competitiveness losses, and emissions leakage if energy-intensive industries are subject to the same reduction requirements.

The Investing in Climate Action and Protection Act (I-CAP Act) would have “cut emissions 85% by the year 2050, set up a system for 100% auctions and invest[ed] money generated from polluters back to consumers and clean technology solutions.”⁴⁶ This bill covered 87 percent of US emissions and sought to “reduce covered emissions to 2005 levels by 2012, to 20 percent below 2005 levels by 2020, and to 85 percent below 2005 levels by 2050.”⁴⁷

⁴¹ Pew Center on Global Climate Change, *Analysis of the Lieberman-Warner Climate Security Act of 2008*, <http://www.pewclimate.org/analysis/l-w> (last visited Apr. 11, 2009).

⁴² Pew Center on Global Climate Change, *S. 3036—the Lieberman-Warner Climate Security Act of 2008*, <http://www.pewclimate.org/analysis/l-w> (last visited Apr. 11, 2009).

⁴³ *Id.* By 2032, the bill would transition to a 60 percent auction of allowances. *Id.*

⁴⁴ Brad Johnson, *House Democrats Introduce Climate MATTERS Act*, HILL HEAT, June 17, 2008, available at <http://www.hillheat.com/articles/2008/06/17/house-democrats-introduce-climate-matters-act>.

⁴⁵ *Id.*

⁴⁶ Congressman Ed Markey, *I-CAP: Investing in Climate Action and Protection Act*, http://markey.house.gov/index.php?option=com_content&task=view&id=3376 (last visited Apr. 11, 2009).

⁴⁷ Congressman Ed Markey, *Executive Summary of Rep. Markey's Climate Legislation*, available at http://markey.house.gov/docs/icap_exec_sum.pdf (last accessed May 4, 2009).

B. Summary of Relevant Trade Provisions in the Border Adjustments.

All recent federal cap-and-trade bills contain a border adjustment to address economic competitiveness and leakage concerns. A border adjustment requires “importers [of products] from countries without a comparable emissions reduction policy [to] purchase emissions allowances to cover the” GHGs emitted during the manufacture of the imported product.⁴⁸ A border adjustment requires importers to purchase international reserve allowances⁴⁹ to level the playing field for domestic products in the US market. The international reserve allowances are generally priced the same as domestic emission allowances because they are intended to reflect the cost of domestic regulation in imported products.⁵⁰ However, each proposed bill takes a slightly different approach.

1. Only Products from Certain Nations are Subject to Border Adjustments.

Each bill initially determines which products are subject to border adjustments according to their home nation, not according to the type of product or amount of embodied emissions. While the ACES Act initially subjects products from all foreign nations to border adjustments, previous proposed bills only apply border adjustments to products from WTO participants.⁵¹

In addition, each bill also exempts products from certain nations based on the circumstances of, or the US's relationship with, that nation. For example, all proposals exempt

⁴⁸ Bordoff, *supra* note 5 (manuscript at 4). See also Gueye, *supra* note 5, at 2; Brewer, *supra* note 17, at 14.

⁴⁹ ACES Act § 416(a)(1); Climate Security Act § 6006(a)(2); Climate MATTERS Act §§ 111(a)(1)-(2); I-CAP Act §§ 765(a)(2), (c)(1). The number of required allowances is determined annually by a complicated formula taking into account the average greenhouse gas intensity (direct and indirect emissions) to manufacture a covered product in an exporting nation, the total emissions attributable to that industry in a nation, the amount of free allowances distributed to that industry in the US, and any regulatory or other programs implemented by the exporting nation. ACES Act § 416(a); Climate Security Act §§ 6006(d)(1)(B), (d)(2); Climate MATTERS Act § 111(e); I-CAP Act § 765(d).

⁵⁰ International reserve allowances reflect the price of domestic compliance, which is determined by the free market in a cap-and-trade system. Because international reserve allowances are not capped, they must be priced the same as the capped domestic emission allowances to reflect domestic compliance costs.

⁵¹ ACES Act § 416(a); Climate Security Act §§ 6006(b), 6001(6); Climate MATTERS Act §§ 111(b)(2)-(3); I-CAP Act §§ 765(b)(3), 761(4).

products from border adjustments if they are from nations that are de minimis GHG emitters.⁵²

The 2008 proposals also exempt products from the border adjustment if a nation has taken regulatory action comparable to the US.⁵³ Three proposals exempt products from the world's least developed nations.⁵⁴ Finally, two proposals also exempt products from nations that have entered into separate agreements with the US.⁵⁵

Although the border adjustments are calculated based upon the embodied emissions of imported *products*, the border adjustments are initially applied based on whether the program administrator subjects a product's home *nation* to the regulation. As a result, border adjustments are applied to the products of certain nations while the same products from other nations are exempted. This aspect of the measure clearly addresses a protectionist purpose: it preserves economic competitiveness against targeted foreign imports and does nothing to prevent potential emissions leakage.

2. Only Certain Products are Subject to Border Adjustments.

Regulatory proposals also restrict border adjustments to certain products. All proposals subject "primary products" with high GHG emission levels to border adjustments.⁵⁶ These primary products are generally those produced from the six energy-intensive industries exposed to competitiveness and leakage, as discussed above. They typically include iron, steel,

⁵² ACES Act § 416(a)(1)(C)(ii); Climate Security Act § 6006(b); Climate MATTERS Act § 111(b)(2); I-CAP Act § 765(b)(2).

⁵³ Climate Security Act § 6006(b); Climate MATTERS Act § 111(b)(2); I-CAP Act § 765(b)(2).

⁵⁴ ACES Act § 416(a)(1)(C)(i); Climate MATTERS Act § 111(b)(2); I-CAP Act § 765(b)(2).

⁵⁵ Climate MATTERS Act § 111(b)(2); I-CAP Act § 765(b)(2).

⁵⁶ Primary product is a defined term in proposed climate change legislation. ACES Act §§ 411(1), (3); Climate Security Act § 6001(5); Climate MATTERS Act § 101(9); I-CAP Act §§ 765(c)(1), 761(7), 723(a)(4), (a)(6). A primary product is generally defined as a product that "generates... a substantial quantity of [direct and indirect] greenhouse gas emissions" and is "closely related" to a domestic good whose production cost is affected by federal climate change regulation. ACES Act § 411(1); Climate Security Act § 6001(10); Climate MATTERS Act § 101(18); I-CAP Act § 723(a)(4). The I-CAP Act further restricts covered goods to "trade exposed primary goods" that are "likely to be significantly disadvantaged in internationally competitive markets as a result of direct and indirect" compliance costs. I-CAP Act §§ 761(7), 723(a)(6).

aluminum, cement, bulk glass, paper and pulp, chemicals, and industrial ceramics.⁵⁷ Primary products go through fewer manufacturing processes so it is purportedly easier to calculate their embodied emissions.⁵⁸ Therefore, restricting border adjustments to primary products covers products with significant initial emissions or energy use while easing the measure's incredible administrative and funding obligations.

However, the Climate MATTERS Act also covers any “manufactured item for consumption” that “generates a substantial quantity of greenhouse gas emissions” and is “closely related” to a domestic good whose production cost is affected by federal climate change regulation.⁵⁹ These goods typically go through more manufacturing processes so calculating embodied emissions and administering a border adjustment will be more complex and costly. The most effective border adjustment would be applied only to primary products.

3. *Pricing International Reserve Allowance Requirements.*

Importers must purchase international reserve allowances to meet their allowance requirements under each border adjustment.⁶⁰ In each proposal, the methodology for calculating the price for an international reserve allowance is set by an executive official.⁶¹ Two proposals cap the maximum price for an international allowance at the price of domestic allowances.⁶² One proposal sets the price at the fair market value of emissions allowances over the last year.⁶³ The ACES Act does not put forth a method for determining the price of an international reserve

⁵⁷ ACES Act § 411(3)(A); Climate Security Act § 6001(10); Climate MATTERS Act § 101(18); I-CAP Act § 723(a)(4). These definitions also include any other manufactured product “sold in bulk for purposes of further manufacture”. *Id.*

⁵⁸ Aldy & Pizer, *supra* note 5, at 20.

⁵⁹ Climate MATTERS Act § 101(9).

⁶⁰ ACES Act § 415, Climate Security Act § 6006(c); Climate MATTERS Act § 111(d); I-CAP Act § 765(c).

⁶¹ ACES Act § 416(a)(1)(A); Climate Security Act § 6006(a)(3); Climate MATTERS Act § 111(a)(3); I-CAP Act § 765(a)(3).

⁶² Climate Security Act § 6006(a)(3); Climate MATTERS Act § 111(a)(3).

⁶³ I-CAP Act § 765(a)(3).

allowance; the act defers to the administrator.⁶⁴ To truly level the playing field and reflect domestic regulatory costs in imported goods, the international reserve allowance prices should be tied to current domestic allowance prices.

4. Flexibility to Alter Regulations.

Three bills designate an administrator to determine the level of the border adjustment and to adjust the international reserve allowance requirements annually to increase the effectiveness of the program.⁶⁵ In some proposals, the administrator could also adjust the programs as necessary to comply with trade or international agreements.⁶⁶

The three 2008 proposals address competitiveness concerns in significant detail, laying out the likely framework for future trade measures and regulations. They require importers of goods to purchase international emission allowances to account for the embodied emissions of each regulated imported product. The ACES Act assigns the creation of the detailed plan to the administrator, but only after the President has made a finding that a border adjustment is necessary.⁶⁷ Given the similarity between these proposals, the ACES Act would likely result in a similar program, if the President found it necessary.

⁶⁴ ACES Act § 416(a)(1)(A).

⁶⁵ Climate Security Act § 6007(b); Climate MATTERS Act § 112; I-CAP Act § 766. The Climate Security Act of 2008 also grants the President the power to “temporarily adjust, suspend, or waive” these regulation, after notice and comment, in the interest of national security. Climate Security Act § 9001(a). Under the Climate MATTERS Act, this includes the power to “address greenhouse gas emissions that are... not subject to the international reserve allowance requirements” in order to address potential carbon leakage. Climate MATTERS Act § 112(b)(2).

⁶⁶ Climate Security Act § 6006(g); Climate MATTERS Act § 111(h); I-CAP Act § 765(g).

⁶⁷ ACES Act § 414(b).

IV. Each Bill Violates GATT's National Treatment and Most Favored Nation Principles

The General Agreement on Tariffs and Trade (GATT)⁶⁸ was designed to reduce national tariff and nontariff barriers to world trade in goods.⁶⁹ The World Trade Organization (WTO) administers the GATT, settles member disputes,⁷⁰ and can authorize retaliatory tariffs for GATT violations.⁷¹ Although GATT dispute-settlement is not bound by a system of *stare decisis*, dispute-settlement bodies consistently rely upon previous decisions.⁷² Therefore, weighing the proposed border adjustments against previous WTO decisions is important to predict a measure's compliance with the GATT. Here, both the impermissible use of PPMs to distinguish which products are subject to a border adjustment and the scope and application of each proposed border adjustment violate GATT non-discrimination obligations.

Non-discrimination is a central tenant of the GATT. Non-discrimination obligations are framed by the National Treatment principle (Article III) and the Most Favored Nation principle (Article I). The National Treatment principle prohibits discrimination between *like* domestic and imported products in a way that treats imported products less favorably.⁷³ The Most Favored Nation principle requires that any advantage granted by a WTO member "to any product originating in... any other country shall be accorded immediately and unconditionally to the"

⁶⁸ While a comprehensive analysis would also examine individual trade agreements between the US and other nations, like the North American Free Trade Agreement, this paper will only analyze the multilateral GATT.

⁶⁹ Ruth Wallick, *GATT and Preemption of State and Local Laws*, GOVERNMENT FINANCE REVIEW, Oct. 1994, available at http://findarticles.com/p/articles/mi_hb6642/is_n5_v10/ai_n28648118/.

⁷⁰ In 1995, the implementation of the Uruguay Round created the WTO and a new dispute settlement mechanism. Jeanne J. Grimmett, *WTO Dispute Settlement: Status of U.S. Compliance in Pending Cases*, CRS REPORT FOR CONGRESS 2, Aug. 14, 2007, available at <http://www.nationalaglawcenter.org/assets/crs/RL32014.pdf>. If a participating nation objects to another member's national laws affecting trade, it may lodge a complaint with the WTO.

⁷¹ Bordoff, *supra* note 5 (manuscript at 7).

⁷² JASON POTTS, THE LEGALITY OF PPMs UNDER THE GATT: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE TRADE POLICY 9 (International Institute for Sustainable Development 2008).

⁷³ GATT art. III:4. Differential treatment between domestic and imported goods is permitted unless a regulation adversely impacts the competitive opportunities of the imported product. ENVIRONMENT AND TRADE: A HANDBOOK 35 (International Institute for Sustainable Development and United Nations Environment Programme: Economics and Trade Branch, 2d ed. 2005) [hereinafter *Handbook*]. See also Potts, *supra* note 72, at 76.

like products of other parties.⁷⁴ In essence, GATT non-discrimination principles prevent WTO members from discriminating between like domestic and imported products and between like products imported from different foreign nations.

A. The Use of PPMs in the Proposed Border Adjustments Violates GATT Obligations.

Under Article I and III of the GATT,⁷⁵ two products are *like* products if they have the same or similar physical properties or characteristics, end uses, consumer preferences, or tariff classifications.⁷⁶ Like products cannot be differentiated based on processes or production methods (PPMs) because PPMs do not affect products.⁷⁷ GATT permits tax and regulatory distinctions for products that can be physically distinguished but not between products that are manufactured differently but still physically indistinguishable.

GHG emissions occur during the manufacturing of an imported product. The emissions are not reflected in a product's physical properties or characteristics, end uses, or tariff classifications.⁷⁸ Even if US consumers strongly preferred products with low GHG emissions,

⁷⁴ GATT art I:1. ANUPAM GOYAL, *THE WTO AND INTERNATIONAL ENVIRONMENTAL LAW: TOWARDS CONCILIATION* 102-03 (Oxford Press 2006).

⁷⁵ The same test for like products if used for Article I and III. Panel Report, *Indonesia – Certain Measures Affecting the Automobile Industry*, ¶ 14.141, WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R (July 2, 1998) [hereinafter *Indonesia – Autos Panel Report*].

⁷⁶ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, ¶ 101, WT/DS135/AB/R (Mar. 12, 2001) [hereinafter *EC – Asbestos AB Report*]. Under Article III:4, the “competitive relationship between and among products” is a likeness consideration and “evidence relating to health risks may be relevant in assessing the *competitive relationship in the marketplace* between allegedly “like” products.” *Id.* at ¶¶ 103, 115. However, the health risks from GHG emissions in manufacturing processes do not yet distinguish products in a market in the same way that the health risks of asbestos distinguished it from substitute products in this case. Again, GHG emissions – unlike asbestos crystals – are not a physical characteristic of products.

⁷⁷ Article III and Note Ad Article III only cover “measures affecting products as such.” Panel Report, *United States – Restrictions on Imports of Tuna*, ¶¶ 5.11, 5.14, WTO/DS21/R (Sept. 3, 1991) (unadopted). Article I also specifically refers to products. PPM regulations do not affect the physical characteristics of a product so they cannot distinguish like products. CHRIS WOLD, ET AL., *TRADE AND THE ENVIRONMENT: LAW AND POLICY* 208 (Carolina Academic Press 2005). WTO members discourage PPM distinctions in trade because PPM regulations allow one government “to dictate environmental policy to another.” *Id.* at 167.

⁷⁸ Steel manufactured in a climate-friendly manner cannot be distinguished from steel manufactured in a way that harms the climate because they are considered like products. Bordoff, *supra* note 5 (manuscript at 11). Although tariff classifications do not currently distinguish goods based on GHG emissions, this is an option being discussed

the WTO cannot overlook the other factors of a *likeness* test.⁷⁹ The proposed border adjustments are PPM regulations because they are applied based on the embodied GHG emissions of imported products. As PPM measures, the border adjustments cannot be used to distinguish between otherwise like products without violating GATT's non-discrimination principles.⁸⁰ Unfortunately, this is exactly what the border adjustments do.

B. The Proposed Border Adjustments Violate the National Treatment Principle.

Trade measures violate the National Treatment principle if they are regulations affecting the internal sale of like products that accord less favorable treatment to imported products.⁸¹ Less favorable treatment results where there is inequality in competitive opportunities.⁸² Here, as in *United States – Standards for Reformulated and Conventional Gasoline (US-Gasoline)*, less favorable treatment is accorded to imported products because their emission allowance requirements are determined by national statutory baselines while domestic producers of like products can use individual baselines to calculate emission allowance requirements.⁸³

Similarly, the disparity between the domestic regulatory structure and the border adjustment violates the National Treatment principle. Imported products are treated less favorably because they are denied the flexibility of a market mechanism to address embodied

pursuant to a project to liberalize trade in environmentally preferable products. *See generally* ISSUES IN PERSPECTIVE, *supra* note 6.

⁷⁹ *EC – Asbestos AB Report*, ¶ 109, WT/DS135/AB/R (Mar. 12, 2001).

⁸⁰ Bordoff, *supra* note 5 (manuscript at 11).

⁸¹ Appellate Body Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, ¶ 133, WT/DS161/AB/R, WT/DS169/AB/R (Dec. 11, 2000). Border adjustments are regulations that affect the internal sale of imported products as against like domestic products.

⁸² Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, ¶ 6.10, WT/DS2/R (Jan. 29, 1996) [hereinafter *US – Gas Panel Report*]. Here, the bills propose a national cap on domestic emissions while imposing a border adjustment on like imported products based on their embodied emissions. Under Article III:4, a “formally different treatment” is permissible “if that treatment results in maintaining conditions of competition for the imported product [that are] no less favourable than those of the like domestic product.” *Id.* at ¶ 6.25. It is “the actual effects of the contested measure in the marketplace” must be considered. Appellate Body Report, *United States – Tax Treatment for “Foreign Sales Corporations” (Recourse to Article 21.5 of the DSU by the European Communities)*, ¶ 215, WT/DS108/AB/RW (Jan. 14, 2002)(citation omitted).

⁸³ *US – Gas Panel Report*, ¶ 6.10, WT/DS2/R (Jan. 29, 1996).

emissions. The US can reduce actual emissions nationally using a flexible market mechanism (the cap-and-trade program), without ever addressing the embodied emissions of its own products. At the same time, the border adjustment denies foreign firms the flexibility of a market mechanism and stringently accounts for the embodied emissions of imported products at the US border. In practice, the border adjustment favors domestic products because it uses a PPM measure to distinguish imported like products in a way that affects the internal sale of the products.

C. The Proposed Border Adjustments Violate the Most Favored Nation Principle.

Trade measures violate the Most Favored Nation principle when *any* customs benefit is not extended to like products from *all* WTO members unconditionally.⁸⁴ Article I applies to discrimination in law and in fact.⁸⁵ The proposed border adjustments facially discriminate between otherwise like products of different foreign nations by exempting products of least developed nations and nations with de minimis emissions. Because this exemption – certainly a benefit – is not extended to all WTO members, the proposed border adjustments violate the Most Favored Nation obligations.

Even if the proposals for PPM-based border adjustments do not on their face discriminate based on national origin – that is, they are facially neutral – they in fact result in different treatment for like products from different foreign nations.⁸⁶ The border adjustments will be

⁸⁴ *Indonesia – Autos Panel Report*, ¶ 14.138, WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R (July 2, 1998). *Any* advantage accorded to *any* product must be granted to the like products of all WTO members. Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry*, ¶ 79, WT/DS139/AB/R, WT/DS142/AB/R (May 31, 2000) [hereinafter *Canada – Autos AB Report*]. Each bill violates the Most Favored Nation principle by applying border adjustments disparately to products from different foreign nations. However, the problems with each bill's initial scope and exemptions could be altered to apply the border adjustment equally to like products from all foreign nations. This section examines whether the use of PPMs in the structure of the border adjustments violates Article I because this aspect of the measures cannot be brought into compliance without a new bill.

⁸⁵ *Canada – Autos AB Report*, ¶ 78, WT/DS139/AB/R, WT/DS142/AB/R (May 31, 2000).

⁸⁶ Bordoff, *supra* note 5 (manuscript at 15, 17).

determined according to a standard calculation and applied to all imported products uniformly.⁸⁷ However, because the standard calculation takes into account country-specific factors, including a product's emissions (PPMs), it will result in differential treatment between imported like products from different foreign nations. This is impermissible because PPMs cannot be used to distinguish otherwise like products.⁸⁸ To comply with Most Favored Nation obligations, the lowest calculated border adjustment would have to be extended to all imported products.

Each of the proposed border adjustments violates the GATT non-discrimination principles by using PPMs to distinguish otherwise like products. The scope and application of the proposed border adjustments also violates the National Treatment and Most Favored Nation principles. The border adjustments will only be GATT compliant if they successfully invoke one of GATT's environmental exceptions (Article XX).⁸⁹

V. Article XX Environmental Exceptions to GATT Obligations

If a border adjustment proposed in recent federal climate change legislation does not satisfy the requirements of GATT, it may still be justified by the environmental exceptions in GATT Article XX.⁹⁰ WTO members recognize that a nation may need to regulate in violation of

⁸⁷ The proposed bills determine the adjustment due at the US border based on a foreign nation's GHG emissions baseline for each product. The number of required allowances is determined annually by a complicated formula taking into account the average greenhouse gas intensity (direct and indirect emissions) to manufacture a covered product in an exporting nation, the total emissions attributable to that industry in a nation, the amount of free allowances distributed to that industry in the US, and any regulatory or other programs implemented by the exporting nation. Climate Security Act §§ 6006(d)(1)(B), (d)(2); Climate MATTERS Act § 111(e); I-CAP Act § 765(d).

⁸⁸ PPMs do not regulate a product as such and cannot distinguish otherwise like products in order to apply border adjustments differently to foreign nations. *See supra* text accompanying notes 75-77.

⁸⁹ Bordoff, *supra* note 5 (manuscript at 11).

⁹⁰ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 121, WT/DS58/AB/R (Oct. 12, 1998) [hereinafter *US – Shrimp AB Report*]; Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, p. 24, WT/DS2/AB/R (Apr. 29, 1996) [hereinafter *US – Gas AB Report*]; Pauwelyn, *supra* note 5, at 3.

GATT rules in order to protect important health, safety or environmental interests.⁹¹ Two main health and environmental exceptions may be applicable. They are:

1. Measures necessary to protect human, animal or plant life or health (XX(b)); and
2. Measures relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption (XX(g)).⁹²

The analysis of environmental exceptions is two-tiered; a law must first fall under a specific exception and then satisfy the preamble (“chapeau”) requirements of Article XX.⁹³ The chapeau only permits environmental measures that “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”.⁹⁴ The burden falls to the party invoking the exception.⁹⁵

A. Exception Article XX(b).

To fall under exception XX(b), the border adjustment must be “*necessary* to protect human, animal or plant life or health”.⁹⁶ This requirement is fulfilled when 1) a measure furthers a policy “designed to protect human, animal or plant life or health” and 2) a measure is necessary to achieve the policy objective.⁹⁷

⁹¹ *US – Gas AB Report*, p. 30-31, WT/DS2/AB/R (Apr. 29, 1996). “[I]t is within the authority of a WTO member to set the public health or environmental objectives it seeks to achieve, as well as the level of protection that it wants to obtain, through the measure of the policy it chooses to adopt.” Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, ¶ 140, WT/DS332/AB/R (Dec. 3, 2007) [hereinafter *Brazil – Tyres AB Report*] (citations omitted).

⁹² GATT art. XX(b), (g).

⁹³ *US – Gas AB Report*, p. 22, WT/DS2/AB/R (Apr. 29, 1996). Further, the order of analysis cannot be reversed. *US – Shrimp AB Report*, ¶¶ 119-20, WT/DS58/AB/R (Oct. 12, 1998).

⁹⁴ GATT art. XX.

⁹⁵ *US – Gas AB Report*, p. 22, WT/DS2/AB/R (Apr. 29, 1996).

⁹⁶ GATT art. XX(b) (emphasis added).

⁹⁷ *US – Gas Panel Report*, ¶ 6.20, WT/DS2/R (Jan. 29, 1996); Panel Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, ¶ 8.184, WT/DS135/R (Sept. 18, 2000); Panel Report, *European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries*, ¶¶ 7.198-7.199, WT/DS246/R (Dec. 1, 2003).

A dispute panel will first examine whether the measure's policy objective reduces a risk or threat to human, animal or plant life or health.⁹⁸ Trade measures may be used to protect against local emission effects⁹⁹ and to tackle global environmental problems¹⁰⁰ so it is not a stretch for a policy to reduce the effects of climate change by preventing emissions leakage. If the border adjustment's objective is to reduce global GHG emissions, prevent leakage and slow the effects of climate change (both in the US and globally), it serves to protect the life and health of humans, animals, and plants from the risks of climate change caused by GHG emissions. However, if the policy objective of the border adjustment is to address economic competitiveness concerns, the border adjustment will not qualify for the Article XX(b) exception.

The necessity of the measure is based on a "weighing and balancing" of 1) the importance of the interests protected by a measure, 2) the measure's contribution to the achievement of its objective, and 3) the measure's trade restrictiveness.¹⁰¹ Again, if the border adjustments are intended to protect US economic competitiveness, the interests protected may not qualify as important under GATT's Article XX(b) environmental exception. Protecting human, animal, and plant life and health from climate change impacts is surely important.

The contribution factor is not a significant obstacle for a necessity finding. Any contribution that achieves the environmental policy objective or "a reduction of exposure to the

⁹⁸ Panel Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, ¶ 7.43, WT/DS332/R (June 12, 2007). Given the international concern over climate change, a WTO dispute panel would likely find that a risk to life or health exists.

⁹⁹ In *US-Gasoline*, a panel found that a measure protected human, animal and plant life or health by regulating the composition and *emission effects* of gasoline in order to address air pollution caused by the consumption of gasoline. *US – Gas Panel Report*, ¶ 6.21, WT/DS2/R (Jan. 29, 1996).

¹⁰⁰ In *US-Shrimp*, the appellate body allowed US trade measures to protect the lives of migratory sea turtles under the Article XX(g) environmental exception. *US – Shrimp AB Report*, ¶¶ 131, 133, WT/DS58/AB/R (Oct. 12, 1998); Frankel, *supra* note 15 (manuscript at 9). Tackling global environmental problems under a policy goal of life and health protection (Article XX(b)) should receive the same favorable treatment as tackling global environmental problems to conserve exhaustible natural resources (Article XX(g)).

¹⁰¹ *Brazil – Tyres AB Report*, ¶ 178, WT/DS332/AB/R (Dec. 3, 2007). "[T]he contribution of the measure has to weighed against its trade restrictiveness, taking into account the importance of the interests or the values underlying the objectives pursued by it." *Id.* at ¶ 210.

targeted risks” is sufficient: an action may be necessary without being indispensable.¹⁰² In *Brazil – Measures Affecting Imports of Retreaded Tyres*, the Panel held that if the actual accumulation of waste is “the very essence of the problem” and results in occurrence of the risks at issue, then “a reduction in this accumulation, even if it does not eliminate it, can reasonably be expected to constitute a step towards the reduction of the occurrence of” the risks at issue.¹⁰³ Here, the border adjustments address accumulating GHG emissions in the atmosphere, which is the very essence of the climate change problem and resulting risks. The border adjustment does contribute to the policy objective by reducing emissions, leakage, and the effects of climate change.

These two factors are balanced against the trade restrictiveness of a measure, which is determined by evaluating the proposed border adjustments against possible alternatives that are proposed by a complaining member.¹⁰⁴ If any alternative 1) is less trade restrictive than the border adjustment, 2) allows the US to achieve the same level of protection desired, and 3) is “reasonably available”,¹⁰⁵ the proposed border adjustment will no longer be a necessary means to achieve the environmental objective.¹⁰⁶ The WTO will keep in mind that “certain complex public health or environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures.”¹⁰⁷ According to lawmakers, the border adjustment is an essential part of a long-term comprehensive US GHG reduction program. The border adjustment would most likely be qualified as provision within a comprehensive program that is necessary to achieve the policy goal under Article XX(b).

¹⁰² *Brazil – Tyres AB Report*, ¶¶ 149, 151, WT/DS332/AB/R (Dec. 3, 2007). An import ban must make a material contribution, not a “marginal or insignificant” contribution. *Id.* at ¶ 210. Because a border tax adjustment is less trade restrictive, a lesser contribution to achieving emissions reductions will suffice.

¹⁰³ *Id.* at ¶ 136 (citations omitted).

¹⁰⁴ *Id.* at ¶ 156.

¹⁰⁵ A WTO panel determined an alternative is reasonably available if the US is capable of taking the alternative action without undue burdens, prohibitive costs, or substantial technical difficulties. *Id.*

¹⁰⁶ *Id.* A dispute panel will consider whether “[s]ubstituting one element of [a] comprehensive policy... would weaken the policy by reducing the synergies between its components, as well as its total effect.” *Id.*

¹⁰⁷ *Id.* ¶ 151.

The border adjustment will qualify under the Article XX(b) exception if the policy goal it furthers relates to reducing emissions, preventing leakage, and addressing climate change in order to protect human, animal or plant life or health. However, as currently drafted, the provisions in the border adjustment primarily address economic competitiveness concerns and are ineffective to prevent leakage, ensuring they do not qualify for the Article XX(b) exception. Section VI of this paper suggests several alterations to better qualify the proposed border adjustments for the environmental exceptions.

B. Exception Article XX(g).

Article XX(g) permits measures *relating to* the conservation of exhaustible natural resources, if enacted concurrently with domestic measures.¹⁰⁸ To qualify under exception XX(g), a border adjustment must 1) protect an exhaustible natural resource, 2) be primarily aimed at the conservation of that resource, and 3) be enacted concurrently with domestic conservation measures.¹⁰⁹

The proposed border adjustments protect exhaustible natural resources. A WTO Appellate Body held that the “exhaustible natural resources” determination should be dynamic and informed by “concerted bilateral or multilateral action”, environmental “concerns of the community of nations”, and the WTO’s “objective of sustainable development”.¹¹⁰ In *US-*

¹⁰⁸ GATT art. XX(g).

¹⁰⁹ *US – Gas Panel Report*, ¶ 6.35, WT/DS2/R (Jan. 29, 1996). See generally *US – Shrimp AB Report*, WT/DS58/AB/R (Oct. 12, 1998); *Handbook*, supra note 73, at 37; Potts, supra note 72, at 25.

¹¹⁰ *US – Shrimp AB Report*, ¶¶ 129, 131, 152-55, WT/DS58/AB/R (Oct. 12, 1998). The UNFCCC and Kyoto Protocol demonstrate international concern and action to address climate change and reduce emissions of GHGs. 192 nations have ratified the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC, *Essential Background*, http://unfccc.int/essential_background/convention/items/2627.php (last visited Mar. 22, 2009) (these members, including the U.S., seek to reduce GHG emissions). 184 UNFCCC members have adopted and ratified the Kyoto Protocol, the first international agreement including mandatory GHG emission reductions for certain members. The UNFCCC, *Kyoto Protocol*, http://unfccc.int/kyoto_protocol/items/2830.php (last visited Mar. 22, 2009) (these members seek binding GHG emission reductions on developed nations). Action to address climate change also meets the WTO’s goal of sustainable development.

Gasoline, clean air was declared an exhaustible natural resource, even though it is renewable and was defined by its qualities (cleanliness).¹¹¹ The atmospheric balance – as well as preventing climate change impacts to sea level, species, biodiversity, or glacier formations – should also qualify as an exhaustible natural resource under exception XX(g).

The border adjustment directly relates to the protection and conservation of the atmosphere because it aims to reduce leakage, which could result in sustained or increased GHG emissions and harm to the atmosphere. Although the border adjustments primarily address economic competitiveness and are ineffective to prevent leakage, the effectiveness of a measure does not matter under Article XX(g).¹¹² The proposed border adjustments provisionally qualify under Article XX(g) unless a WTO panel determines that protecting and conserving the atmosphere cannot be a measure's secondary purpose.

Any exemptions or other differential treatment under the border adjustment must also directly relate to the policy goal. For instance, measures that exempt nations from coverage are permitted, if the exemptions “relate clearly and directly to the policy goal” of conserving natural resources.¹¹³ Each US proposal exempts nations certified as taking comparable action to reduce GHG emissions. These exemptions for comparable action will be permitted under XX(g) because they relate to the conservation policy goal.¹¹⁴

However, not all proposed exemptions relate to the conservation goal. This may lead a panel to determine that the overall aim of the border adjustment is economic, not environmental.

Exempting nations with de minimis GHG emissions does not “clearly and directly” relate to the

¹¹¹ *US – Gas Panel Report*, ¶ 6.37, WT/DS2/R (Jan. 29, 1996). See also Bordoff, *supra* note 5 (manuscript at 17).

¹¹² *US – Shrimp AB Report*, ¶ 144, WT/DS58/AB/R (Oct. 12, 1998). See also Bordoff, *supra* note 5 (manuscript at 18). Even though some studies suggest there will be little leakage and that border adjustments will not effectively address it, the measure will have the desired effect of reducing leakage. *Id.*

¹¹³ *US – Shrimp AB Report*, ¶ 138, WT/DS58/AB/R (Oct. 12, 1998).

¹¹⁴ In *US Shrimp*, the Appellate Body permitted the US to require nations to adopt national regulation with comparable results of effects to qualify for the exemption. *US – Shrimp AB Report*, ¶ 140, WT/DS58/AB/R (Oct. 12, 1998).

conservation policy goals of reducing GHG emissions and eliminating leakage.¹¹⁵ Similarly, four proposals exempt least developed countries from the border adjustment. The fact that a nation is a de minimis emitter or least developed country does not mean there is no risk of emissions leakage and indicates that the US is only concerned with potential economic competitiveness losses. Although the effectiveness of a measure is not relevant to determine if it relates to the conservation goal,¹¹⁶ creating exemptions like these increase the potential for emissions leakage and may destroy the ability of the US to invoke the Article XX(g) exception in good faith.

The third requirement of the Article XX(g) exception is that a trade measure must be “made effective in conjunction with restrictions on domestic production or consumption”.¹¹⁷ This is satisfied if the final regulation is even-handed “in the imposition of restrictions... upon the production or consumption of exhaustible natural resources.”¹¹⁸ In *US-Shrimp*, the Appellate Body held a product import ban based on harvesting methods was “effective in conjunction with the restrictions on domestic harvesting of shrimp”.¹¹⁹ This is analogous to the proposed border adjustments, which charge a fee based on production methods (how the product is “harvested”) in conjunction with a cap on domestic GHG emissions (like regulating acceptable shrimping methods domestically). Both impose trade measures on imported *products* based on PPMs while *directly* regulating the dangerous activity (shrimp harvesting and GHG emissions) in the US. Although the border adjustment is not the same regulation as the domestic reduction program, the WTO would likely find them to be even-handed and comparable.

¹¹⁵ Each proposals’ exemption of nations with de minimis emissions is similar to *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US-Shrimp)*, where the Appellate Body permitted exemptions of nations with fishing environments that were determined and certified to pose “no risk, or only a negligible risk,” to sea turtles. *US – Shrimp AB Report*, ¶ 139, WT/DS58/AB/R (Oct. 12, 1998).

¹¹⁶ See *supra* note 110.

¹¹⁷ GATT art XX(g).

¹¹⁸ *US – Shrimp AB Report*, ¶ 143, WT/DS58/AB/R (Oct. 12, 1998) (citing *US – Gas AB Report*, pp. 20-21, WT/DS2/AB/R (Apr. 29, 1996)).

¹¹⁹ *Id.* at ¶ 145.

Because the US is also enacting comprehensive domestic GHG emission regulations, the border adjustment will be considered a comparable regulation. However, unless the proposed border adjustments remove all exceptions or other provisions that do not further the environmental goal of the regulation, the border adjustments may not qualify for the Article XX(g) exception.

C. Requirements of the Article XX Chapeau.

The border adjustment must also satisfy the chapeau requirements to invoke an environmental exception. The chapeau prevents abuse of the Article XX exceptions.¹²⁰ Analysis of a measure under the chapeau centers on whether the discriminatory “application of [a measure] had a legitimate cause or rationale in the light of the [environmental] objectives listed in the paragraphs of Article XX.”¹²¹ Any discrimination in the application of the border adjustment must further the environmental goals of the regulation rather than protect US industry against competitiveness impacts.¹²²

The chapeau prohibits the *application*¹²³ of a measure in a way that 1) constitutes arbitrary or unjustifiable discrimination between countries where the same conditions prevail or 2) constitutes a disguised restriction on international trade.¹²⁴ Discrimination between countries

¹²⁰ “[T]he function of the chapeau is the prevention of abuse of the exceptions specified in the paragraphs of Article XX.” *Brazil – Tyres AB Report*, ¶ 224, WT/DS332/AB/R (Dec. 3, 2007) (citations omitted); *US – Shrimp AB Report*, ¶ 116, WT/DS58/AB/R (Oct. 12, 1998) (citation omitted).

¹²¹ *Brazil – Tyres AB Report*, ¶ 225, WT/DS332/AB/R (Dec. 3, 2007) (citations omitted). The design of a measure is analyzed to determine if it falls within a paragraph of Article XX; the manner in which a measure is applied is analyzed to determine if it satisfies the requirements of the chapeau. *US – Shrimp AB Report*, ¶ 116, WT/DS58/AB/R (Oct. 12, 1998).

¹²² Trade measures cannot be used to address domestic price or cost increases. Pauwelyn, *supra* note 5, at 26.

¹²³ *US – Shrimp AB Report*, ¶ 156, WT/DS58/AB/R (Oct. 12, 1998). (The chapeau by its express terms addresses the manner in which a measure is applied). “The provisions of the chapeau cannot logically refer to the same [discrimination] standard(s) by which a violation of a substantive rule has been determined to have occurred. To proceed down that path would be both to empty the chapeau of its contents and to deprive the exceptions in paragraphs (a) to (j) of meaning.” *US – Gas AB Report*, p. 23, WT/DS2/AB/R (Apr. 29, 1996).

¹²⁴ *US – Shrimp AB Report*, ¶ 150, WT/DS58/AB/R (Oct. 12, 1998). The WTO considers factors for a *disguised restriction on international trade* finding to be similar to those expressed for *arbitrary or unjustifiable*

where the same conditions prevail refers to either discrimination between exporting nations or between an exporting nation and importing nation.¹²⁵

Discriminatory application under the chapeau is different from the discrimination found to violate GATT Article I and III obligations.¹²⁶ For discrimination to exist under the chapeau, it “must have been foreseen... not merely inadvertent or unavoidable.”¹²⁷ The proposed border adjustments may discriminate under the chapeau by entirely exempting certain nations from regulation or pricing international reserve allowances differently than domestic allowances. For instance, the border adjustment violates the non-discrimination obligations by distinguishing like products based on PPMs but may not be discriminatory under the chapeau analysis.

Assuming that discriminatory treatment between exporting nations or between the US and an exporting nation could be foreseen, the discriminatory application of the border adjustment must still be arbitrary or unjustifiable. The WTO has not articulated a specific test for arbitrary or unjustifiable discrimination. However, examples given in previous decisions indicate that a trade measure must generally 1) be flexible, 2) provide similar opportunities to all members, and 3) be implemented only after an attempt at international negotiation to survive the chapeau requirements.

discrimination because the “fundamental theme is to be found in the purpose and object of avoiding abuse or illegitimate use of the exceptions to substantive rules”. *US – Gas AB Report*, pp. 25, 28-9, WT/DS2/AB/R (Apr. 29, 1996) (“[T]he kinds of considerations pertinent in deciding whether the application of a particular measure amounts to ‘arbitrary or unjustifiable discrimination’, may also be taken into account in determining the presence of a ‘disguised restriction’ on international trade.”) This paper does not separately analyze whether the border adjustment is a disguised restriction on international trade.

¹²⁵ *US – Shrimp AB Report*, ¶ 150, WT/DS58/AB/R (Oct. 12, 1998); *US – Gas AB Report*, pp. 23-4, WT/DS2/AB/R (Apr. 29, 1996).

¹²⁶ *Id.*

¹²⁷ *US – Gas AB Report*, pp. 28-9, WT/DS2/AB/R (Apr. 29, 1996).

1. *Flexibility.*

Border adjustments may condition domestic market access on compliance with “policies unilaterally prescribed by the importing member.”¹²⁸ However, the WTO Appellate Body determined there must be flexibility in the application of the unilateral measures.¹²⁹ It held that requiring exporting nations to adopt *essentially the same* practices and procedures is arbitrary or unjustifiable discrimination.¹³⁰ It also held that the US may require exporting nations to adopt regulatory programs *comparable in effectiveness* to US domestic regulation.¹³¹ Requiring regulations to be comparable in effectiveness provides flexibility to exporting nations and accounts for specific conditions prevailing in foreign nations.¹³² Compliance with this guideline depends on how a border adjustment is implemented, but generally, any foreign program comparable in effectiveness should be exempt.

2. *Similar Opportunities.*

The Appellate Body also required trade measures to provide similar opportunities to all members. Any border adjustment must provide each nation with similar amounts of time to

¹²⁸ *US – Shrimp AB Report*, ¶ 121, WT/DS58/AB/R (Oct. 12, 1998). “Paragraphs (a) to (j) comprise measures that are recognized as *exceptions to substantive obligations* established in the GATT 1994, because the domestic policies embodied in such measures have been recognized as important and legitimate in character.” *Id.* (emphasis in original). A “balance must be struck between the *right* of a Member to invoke an exception under Article XX and the *duty* of that same Member to respect the treaty rights of the other Members.” *Id.* at ¶ 156.

¹²⁹ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (Recourse to Article 21.5 of the DSU by Malaysia)*, ¶¶ 139, 143, WT/DS58/AB/RW (Oct. 22, 2001) [hereinafter *US – Shrimp Recourse AB Report*].

¹³⁰ *US – Shrimp Recourse AB Report*, ¶¶ 143-44, WT/DS58/AB/RW (Oct. 22, 2001). Even if the border adjustments were “designed to influence countries to adopt national regulatory programs”, they are permitted as long as they do not require essentially the same policy. *US – Shrimp AB Report*, ¶ 138, WT/DS58/AB/R (Oct. 12, 1998). The Appellate Body permits a nation to require exporting nations to implement regulatory measures of comparable effectiveness as long as it does not require essentially the same policy. *Id.* at ¶ 161.

¹³¹ *US – Shrimp Recourse AB Report*, ¶¶ 143-44, WT/DS58/AB/RW (Oct. 22, 2001).

¹³² *Id.* ¶ 144. The US does not need to account “explicitly for the specific conditions prevailing” in each exporting nation; requiring regulations comparable in effectiveness accounts allows exporting nations to account for their own prevailing conditions. *Id.* at ¶¶ 145, 149. See also *US – Shrimp AB Report*, ¶¶ 164-65, WT/DS58/AB/R (Oct. 12, 1998); Pauwelyn, *supra* note 5, at 3. This may include exempting nations that take comparable action from the border adjustments. See Climate Security Act § 6006(d)(2)(B)(ii); Climate MATTERS Act § 111(e)(5); I-CAP Act § 765(d)(2)(B).

implement comparable action, similar opportunities for technology transfer and assistance, and similar opportunities for certification or exemption.¹³³ Certification procedures, whether for a comparable action or national baseline determination, cannot be an administrative *ex parte* process.¹³⁴ The chapeau requires a “transparent, predictable certification process”, including an opportunity to be heard and respond, a “formal written, reasoned decision,” notification of approval or denial, and a procedure for review or appeal of a denial of certification.¹³⁵ Again, compliance with this requirement will depend on how Congressional guidelines are promulgated.

3. *Duty to Conduct International Negotiations.*

To avoid unjustifiable or arbitrary discrimination, the Appellate Body required an implementing nation to conduct any international negotiations using similar and comparable effort as between all participants.¹³⁶ *US-Shrimp* implies a duty to engage in international negotiations to address the environmental problem before enacting unilateral trade measures.¹³⁷ The *US-Shrimp* Appellate Body implied that nations should engage in “serious, good faith” “across-the-board negotiations” to further the environmental policy goal.¹³⁸ The negotiations or results “need not be identical” but a nation should invest comparable efforts, resources, and energies among all nations when seeking a multilateral solution.¹³⁹ Although the duty to

¹³³ *US – Shrimp AB Report*, ¶¶ 172-75, WT/DS58/AB/R (Oct. 12, 1998).

¹³⁴ *Id.* at ¶ 180.

¹³⁵ *Id.* Administration of trade measures should conform to “minimum standards for transparency and procedural fairness” even when being applied as an environmental exception under GATT Article XX. *Id.* at ¶ 183. *See also* Potts, *supra* note 72, at 26 (on how to avoid arbitrary application in a measure).

¹³⁶ *US – Shrimp AB Report*, ¶ 166, WT/DS58/AB/R (Oct. 12, 1998). Arbitrary or unjustifiable discrimination occurs if the US provides WTO members with different opportunities to negotiate international agreements. *US – Shrimp Recourse AB Report*, ¶ 119, WT/DS58/AB/RW (Oct. 22, 2001). In *US Shrimp*, the US cooperated with some nations, resulting in a multilateral agreement, but did not attempt to negotiate an agreement with other exporting nations. *Id.*

¹³⁷ Potts, *supra* note 72, at 26.

¹³⁸ *US – Shrimp AB Report*, ¶¶ 133-34, 166, WT/DS58/AB/R (Oct. 12, 1998).

¹³⁹ *US – Shrimp Recourse AB Report*, ¶ 122, WT/DS58/AB/RW (Oct. 22, 2001).

negotiate with other nations continues after implementing unilateral measures, a nation must only *conduct* international negotiations, not conclude agreements with all exporters.¹⁴⁰

The Appellate Body in *US-Shrimp* only required international negotiations concerning the general environmental problem, not negotiations concerning specific unilateral measures.¹⁴¹ While the US has not conducted negotiations on border adjustments,¹⁴² it has continued serious, good faith, across-the-board negotiations within the UNFCCC to secure binding reduction commitments in order to address leakage in emission reduction schemes. Although the US rejected the Kyoto approach, it continued to address emissions reductions and leakage by forming a major emitters program to secure voluntary emission reductions from the highest-emitting nations.¹⁴³ The US attempted to negotiate both emissions reductions and leakage in the past and is renewing its commitment by seeking to pass comprehensive climate change legislation. In addition, most proposals delay border adjustments to allow for additional time for international negotiations.

As long as any discriminatory application in the border adjustment furthers the environmental policy objectives of reducing emissions and eliminating leakage, the border adjustment may qualify for one of the environmental exceptions. The proposed border adjustments could be altered to satisfy the requirements of Articles XX(b) and XX(g) by eliminating protectionist provisions. Although the border adjustment may be discriminatorily applied, it likely meets the flexibility, similar opportunity, and international negotiation

¹⁴⁰ *US – Shrimp Recourse AB Report*, ¶ 123, WT/DS58/AB/RW (Oct. 22, 2001).

¹⁴¹ *US – Shrimp AB Report*, ¶ 166, WT/DS58/AB/R (Oct. 12, 1998).

¹⁴² In fact, until the US considered employing its own border adjustments for economic competitiveness purposes, it criticized the proposed use of border adjustments by other nations. Janzen, *supra* note 5, at 22, 24; Pew Congressional Policy Brief, *supra* note 5, at 9.

¹⁴³ Richard Harris, 'Major Emitters' Meet to Tackle Climate Change, N.P.R., Apr. 27, 2009, available at <http://www.npr.org/templates/story/story.php?storyId=103465542>.

guidelines of the Appellate Body. The next section presents several opportunities to improve the border adjustment's chance of meeting the requirements of the environmental exceptions.

VI. Proposed Solutions: Improving the Chance for Success Under Article XX

PPM-based measures violate GATT non-discrimination requirements. This type of regulation distinguishes between otherwise like products from different exporting nations based on their embodied emissions. Invoking an environmental exception is the only way for a border adjustment to be GATT-compliant. If a border adjustment can qualify for an environmental exception, it may be able to distinguish products based on their PPMs and resulting emissions.¹⁴⁴ Invoking an environmental exception is not an easy task. This section proposes some changes that may improve the chances of success for the type of border adjustment US lawmakers seek.

To successfully invoke the environmental exceptions, the border adjustment must have an environmental purpose, objective, and effect, rather than provisions meant to address economic competitiveness concerns. The requirements of Article XX(b), XX(g), and the chapeau specifically require both the text and application of the border adjustment, as well as any deviations from a party's GATT principles, to be primarily and clearly aimed at, or directly related to, the environmental policy objective.¹⁴⁵

Many provisions of the current bills are written to address economic competitiveness concerns. Congress should rework these provisions to focus on preventing emissions leakage in order to better qualify for GATT's environmental exceptions. Congress should at least revisit

¹⁴⁴ See generally *US – Shrimp AB Report*, WT/DS58/AB/R (Oct. 12, 1998). See also Frankel, *supra* note 16 (manuscript at 8).

¹⁴⁵ See *supra* text accompanying notes 91, 97, 108, 118-20. Further, the WTO prevents the use of trade measures to address domestic price or cost increases, which is the same as addressing competitiveness concerns. Pauwelyn, *supra* note 5, at 26.

which nations and products are subject to the border adjustment, and the pricing and calculation of the international reserve allowance requirements.

A. Nations Subject to the Border Adjustment.

A border adjustment based on PPMs already violates the non-discrimination principles so lawmakers should take care to treat all exporting nations equally elsewhere in the regulation. Initially, all nations should be subject to the border adjustment. Limiting border adjustments to WTO trading partners does not further the environmental goal of reducing global emissions and preventing leakage.¹⁴⁶

Exemptions from the border adjustment should also further the environmental goals of reducing net global emissions and preventing emissions leakage. Exemptions for de minimis emitters or least developed nations cannot be maintained because they are not related to preventing emissions leakage. If nations that enter into separate agreements with the US are exempted, the separate agreements should address binding reductions comparable to US targets and preventing leakage.

US proposals may still exempt nations that take comparable action to reduce emissions and prevent leakage because this exemption furthers the environmental policy goals.¹⁴⁷ If the US continues to use this exemption, it must follow GATT guidelines when determining which nations have taken comparable action to the US. GATT requires the US to consider *any* climate change action that is comparable in effectiveness when determining if a nation is exempt from the border adjustment.¹⁴⁸ The US may not exempt only nations with market mechanisms or

¹⁴⁶ See *supra* pp. 11-12. Although this ensures all WTO participants are initially subject to border adjustments, it demonstrates a lack of good faith in trying to fully prevent emissions leakage to unregulated foreign nations.

¹⁴⁷ See *supra* text accompanying notes 118-20.

¹⁴⁸ See *supra* pp. 28-29.

nations with binding emissions targets.¹⁴⁹ The US must consider all national programs to address climate change, whether the nation is in compliance with an international program, and maybe even how the nation compares to the US according to historical emissions or per capita emissions.¹⁵⁰

B. Goods Subject to the Border Adjustment.

Imposing a border adjustment on all products would theoretically prevent any leakage. However, this is administratively and monetarily prohibitive. Most US proposals enact a border adjustment on primary products (raw materials and bulk goods intended for further manufacture) in order to prevent leakage in the most energy-intensive industries. One proposal also regulates manufactured goods meant for consumption that have greater embodied emissions. Instead of using a leakage prevention goal, this regulation determines additional goods subject to border adjustments on the basis of whether domestic production could be harmed.¹⁵¹ This would likely prevent the US from invoking an environmental exception.

Primary products encompass the most energy intensive products and largest GHG emissions for US manufactured goods¹⁵² so it is the most effective place to draw the regulatory line. It also reduces the administrative and monetary requirements of the border adjustment because the embodied emissions of raw materials and bulk goods are more easily identifiable.¹⁵³ Although this line also addresses general competitiveness concerns, it will prevent the greatest amount of leakage in the most effective and transparent way. Absent an international agreement

¹⁴⁹ Bordoff, *supra* note 5 (manuscript at 21-22).

¹⁵⁰ *Id.*

¹⁵¹ Climate MATTERS Act § 101(9).

¹⁵² For a complete emissions analysis, *see* Houser, *supra* note 5.

¹⁵³ *See supra* note 57.

that addresses the problems of leakage, there is not likely to be a “reasonable alternative” available that is less trade restrictive.

C. The Price of the International Reserve Allowances.

Lawmakers should guard against foreseeable arbitrary and unjustified discrimination between the US and any importing nation by capping the price of international reserve allowances at the current price of domestic allowances.¹⁵⁴ If the purpose of the border adjustment is to reflect the costs of domestic climate change regulation in imported products (to prevent leakage), then the international allowance price must match current market prices for domestic allowances. Any other calculation would result in a discriminatory application or protectionist finding.

In addition, any transitional assistance, from sector exemptions and free allocation to banking and borrowing should be extended to foreign producers.¹⁵⁵ The US cannot charge imported products for embodied emissions if it exempts processes that manufacture like domestic products from the emissions cap. If the imported product is not fully exempted, the benefits provided to the like domestic products can be valued and deducted from the price of the international reserve allowances. Any distinctions between the national cap-and-trade program and the border adjustment scheme that may favor domestic products (or production) should be extended to imported products or reflected in the international allowance requirement calculation.

¹⁵⁴ See *supra* p. 13; text accompanying note 124.

¹⁵⁵ See *supra* p. 13; text accompanying notes 82-83, 124.

4. Calculating the International Reserve Allowance Requirements.

A climate change border adjustment will be based on the amount of GHG emissions occurring during the manufacture of the product. Recent bills propose calculating national emission baselines for each type of product coming from each different nation. However, national baselines for products may lead to discriminatory application problems.¹⁵⁶ They are not flexible and provide no incentive for firms to improve efficiencies, reduce leakage or lower emissions.¹⁵⁷ The current method of calculating the border adjustment prevents leakage only if US firms moving abroad must export products back to the US. In reality, the global market will shift: the US will receive products from nations with lower emissions and US firms may still leave to supply primary products to other nations.¹⁵⁸

The border adjustment can only further the environmental objective of lower emissions and reduced leakage if it addresses actual emissions.¹⁵⁹ A default national emissions baseline may be acceptable where no data is available, but the border adjustment should permit individual firms to substitute their actual emission figures.¹⁶⁰ However, this results in a unique embodied emissions calculation for each product from each nation, which is administratively prohibitive. In crafting this provision, the US must be sure it does not shift its administrative burdens to other nations, individual firms, or factories. Unilaterally shifting one's own administrative difficulties

¹⁵⁶ Emissions calculations set for an entire nation and incorporating a broad swath of that nation's exports may be seen as a sanction. Frankel, *supra* note 16 (manuscript at 15). Also, using national baselines for imports while calculating allowance requirements domestically based on a facility's actual emissions violates the National Treatment principle. *See supra* text accompanying note 89. Structuring a border adjustment to operate like this may be found to discriminate based on national origin, especially if the purpose of the border adjustment is to address the actual embodied emissions of a product.

¹⁵⁷ Bordoff, *supra* note 5 (manuscript at 21).

¹⁵⁸ ISSUES IN PERSPECTIVE, *supra* note 6, at 25-26.

¹⁵⁹ *Id.* at 24; Bordoff, *supra* note 5 (manuscript at 21).

¹⁶⁰ A WTO panel suggested that a standard baseline may be appropriate if an absence of data exists. *US – Gas Panel Report*, ¶ 6.28, WT/DS2/R (Jan. 29, 1996). *See also* Bordoff, *supra* note 5 (manuscript at 13, 21).

(like formulating or verifying individual figures) has already been found to be unjustifiable discrimination.¹⁶¹

To qualify the proposed border adjustments for GATT's environmental exceptions, restructuring is required. This restructuring, including the above suggestions, will result in a regulatory program that is administratively complex and costly. The US may be better off using other channels to address competitiveness and leakage concerns.

VII. Conclusion

The US proposes to enact a border adjustment that reflects the costs of a domestic climate change regulation in imported products. While the border adjustment is meant to avoid competitiveness impacts and emissions leakage, it may also backfire and lead to retaliatory trade measures, WTO challenges, and abuse by industry and politicians.¹⁶² In addition, the costs of border adjustments are expected to outweigh the benefits.¹⁶³

As proposed, a border adjustment based on a PPM would violate the non-discrimination principles of GATT. This measure could only survive a dispute in the WTO if justified by one of the environmental exceptions in Article XX. While success under the exceptions is rare, a border adjustment that is primarily aimed at the environmental objective of preventing emissions leakage to address climate change may qualify for the Article XX(b) or (g) exceptions. If the US has attempted international good faith negotiations to address climate change and leakage, and the border adjustment is applied in a manner that is flexible, even handed, objective and transparent, then the measure may also satisfy the requirements of the Article XX chapeau.

¹⁶¹ *US – Gas AB Report*, p. 23, WT/DS2/AB/R (Apr. 29, 1996).

¹⁶² Bordoff, *supra* note 5 (manuscript at 2).

¹⁶³ *Id.*

This paper raised several red flags to current and recent border adjustment proposals. To improve the chance that a border adjustment can rely on an environmental exception, lawmakers should systematically rework the legislation to target environmental goals (preventing leakage) and not competitiveness fears. Any provision in the border adjustment that is inconsistent with GATT rules should relate to the environmental goal in order to qualify for an environmental exception. Provisions should not be applied in a discriminatory manner. The use of an exception does not permit a nation to abuse the exception and violate another member's treaty rights. Lastly, lawmakers should provide for individual emission calculations when determining international reserve allowance requirements. This method of allowance calculation is more aligned with the non-discrimination principles, the prevention of leakage, and the use of an embodied emission benchmark for imported products.

Drafting a border adjustment mechanism that is GATT-compliant and effective will be extremely difficult. Environmental leakage will only occur as a result of economic competitiveness losses, which are also uncertain and limited to six US industries. A legitimate border adjustment will be administratively complex and expensive. It will increase the costs of already scarce resources for other US manufacturers, impede liberalization and expansion of world trade in goods, and could result in retaliatory tariffs or legal challenges in the WTO. Before approving comprehensive climate change legislation that includes a border adjustment, Congress should reevaluate whether economic competitiveness and emissions leakage is worth addressing. If they are, Congress should explore other channels, ideally within the existing international framework established to address climate change concerns.