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Carbon Intensity Standards: A Distraction and a Danger to Real Action on Climate Change

*Andrew Greene**

I. Introduction

It is only a matter of time, if not during the 111th Congress then certainly within the next presidential term, before Congress passes major legislation addressing climate change. Public perception about the scale of the problem and the need for commensurate action has shifted momentarily while legislators, business leaders and environmentalists have collaborated on a multitude of proposals without achieving a consensus. Proposals have ranged from imposing a carbon tax to promoting voluntary conservation. However, the approach that has gained the most traction so far is implementing an absolute cap on greenhouse gas (GHG) emissions and allowing major emitters to trade allowances according to their needs. Similar cap-and-trade programs have already been introduced around the world and in regions of the U.S. The popularity of these policies stems from their efficiency – the costs of complying with a cap are lowered because market forces ensure that reductions occur wherever they can be made most cheaply. This approach is contained in Senate Bill 2191, sponsored by Senators Lieberman and Warner, titled America’s Climate Security Act of 2007.

Fearing that this means of addressing climate change would put U.S. producers of energy-intensive products at a competitive disadvantage, the steel industry, as represented by the American Iron and Steel Institute and Nucor Steel, has presented an alternative proposal – establishing “carbon intensity standards,” or limits on the amount of CO₂ emissions allowed in the production of certain products. Carbon intensity is a ratio of the amount of carbon released into the atmosphere per unit of production or amount of economic value created.¹ The steel industry’s idea is to apply performance

* J.D., UC Hastings, 2008; B.A., English, UC Berkeley, 1998. I would like to thank Professor Joel Paul for introducing me to international trade law and encouraging me to pursue publication of this note, President-elect Barack Obama for ushering in a renewed sense of patriotism and diminishing the prospect that carbon intensity standards will form any part of America’s environmental policy, and my wife, Seema, and son, Teja, for continuing to inspire me to strive for a better future for us all.

standards that U.S. producers could easily meet to both domestically produced and imported goods. Goods produced less efficiently than the standards demanded would be banned from the U.S. market. This approach, say its advocates, would lower emissions worldwide without harming U.S. industry the way a cap-and-trade system would. As the merits of each proposal have been debated in congressional hearings, it has also been suggested that carbon intensity standards could complement a national cap-and-trade program.

This article argues that carbon intensity standards represent a diversion on the path to the low-carbon economy of the future. Indeed, in addition to being extremely vulnerable to an attack in the WTO, they discourage the kind of global cooperation that is needed to address climate change seriously. This most recent reincarnation of energy intensity standards is eerily reminiscent of the Bush administration's pledge, made shortly after the President announced that the U.S. did not intend to ratify the Kyoto Protocol, to combat climate change by setting voluntary targets for energy intensity that would likely be met while continuing to conduct business as usual.² Not only did U.S. GHG emissions continue to increase at a steady rate under this policy, but the approach exemplifies the profound unwillingness of the U.S. to provide genuine leadership on what many believe to be the most important issue of our time and the ways in which U.S. approaches to the problem are out of step with the rest of the world. Furthermore, carbon intensity standards in this context represent the type of unilateralism that has already earned the U.S. disapproval from the WTO.³

Part II of this article provides a brief overview on the difficulties of instigating international action on this issue and the disincentives for nations to act independently. Part III describes key features of the Lieberman-Warner bill, which had already been reported out of the Committee on Environment and Public Works when the last Congress adjourned. Elements of the proposal are then analyzed under the general provisions of the GATT and the Agreement on Technical Barriers to Trade (TBT Agreement), as well as under Article XX, the environmental exceptions provision of the GATT. Additionally, the broader policy implications of this

1. Timothy Herzog, Kevin B. Baumert & Jonathan Pershing, Word Resources Institute, *TARGET: INTENSITY: AN ANALYSIS OF GREENHOUSE GAS INTENSITY TARGETS* 3 (2006).

2. *Id.* at 12. Energy intensity in developed countries (based on GDP) tends to decline over time. This is due in part to more stringent environmental controls, but also to shifts in the economy which result in greater wealth creation with lower emissions, e.g., from manufacturing to computer services. Bush's goal of reducing intensity by 18 percent from 2002 to 2012 mirrored the 17-percent reduction that had occurred between 1990 and 2002. *Id.* at 7.

3. See Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 186, WT/DS58/AB/R (Oct. 12, 1998) [hereinafter US – Shrimp].

approach are evaluated. Part IV first discusses features of the carbon intensity standards approach. After briefly addressing why such an approach contravenes the general provisions of the GATT, it goes on to analyze the claim that this proposal is consistent with the TBT Agreement⁴ and to evaluate whether carbon intensity standards could be justified under Article XX. The broader limitations of this policy are discussed as well. Part V elaborates on some additional considerations that would make a cap-and-trade program successful, including ways to solidify the U.S. position should the program be challenged in a WTO dispute and to decrease the costs to U.S. producers while increasing the environmental benefits to the planet. This article concludes with a sort of eulogy to carbon intensity standards, in the hopes that the U.S. will put to rest an arbitrary and patently self-serving approach that has tended to animate only policymakers averse to taking real action on climate change while garnering minimal support from environmentalists and the international community.

II. Free Trade and Climate Change – International Approaches

Climate change has been called the greatest and widest ranging market failure ever seen.⁵ Though economists continue to debate the extent to which greater trade over the last few decades has increased or redistributed wealth,⁶ few observers doubt that it has raised the specter of environmental problems on a scale never before witnessed by humankind. Thus far, international bodies have had limited success at assuaging concerns that protecting the environment and promoting trade are incompatible goals, or that countries can cooperate to restrain anthropogenic contributions to climate change as effectively as they have to promote freer trade. That the U.S. has been unwilling to ratify the Kyoto Protocol exacerbates these concerns, but even those countries that have

4. See *Climate Change: Competitiveness Concerns and Prospects for Engaging Developing Countries: Hearing Before the Subcomm. on Energy and Air Quality of the H. Comm. on Energy and Commerce*, 110th Cong. (2008) (statement of James Slattery, Counsel, American Iron and Steel Institute (AISI), Steel Manufacturers Association) [hereinafter *Hearing*].

5. Nicholas Stern, *THE STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE* 1 (Cambridge University Press 2007).

6. See, e.g., Joel R. Paul, *Do International Trade Institutions Contribute to Economic Growth and Development?*, 44 VA. J. INTL. L. 285, 303 (2003) (“The political reality in the United States makes it unlikely that the winners will be taxed to compensate the losers.”); Jeff Faux, *How NAFTA Failed Mexico: Immigration is Not a Development Policy*, AM. PROSPECT, July-Aug. 2003, at 35, 37.

begun reductions under Kyoto have not made the degree of progress that scientists say is necessary to avert global disaster.⁷

The first international treaty to address climate change was the United Nations Framework Convention on Climate Change, entered into force in 1994. The UNFCCC obligated signatory nations to take action to combat climate change, but it did not set specific targets on emissions or prescribe a particular approach to reducing them.⁸ After President George H.W. Bush signed the treaty, the Senate gave its advice and consent on October 7, 1992.⁹ Meetings among the signatory nations, known as Conventions of the Parties (COPs), led to the creation of the Kyoto Protocol, which did impose specific caps on developed nations.¹⁰ Though the U.S. initially signed the Protocol, the Senate later passed the Byrd-Hagel Resolution by 95-0, indicating that it would not ratify a treaty that did not impose caps on developing countries.¹¹ The treaty was never submitted to Congress, and

7. Intergovernmental Panel on Climate Change, *CLIMATE CHANGE 2007: SYNTHESIS REPORT*, 62 (2007) [hereinafter *SYNTHESIS REPORT*].

8. It has been suggested that under the UNFCCC other nations could successfully challenge the U.S. for its lack of action on climate change. See Liana G.T. Wolf, Note, *Countervailing a Hidden Subsidy: The U.S. Failure to Require Greenhouse Gas Emissions Reductions*, 19 *GEO. INT'L ENVTL. L. REV.* 83, 115 (2006) (arguing that "the failure of the United States to impose the costs of reducing greenhouse gas emissions on its energy intensive industries should be classified as a hidden subsidy subject to countervailing duties" under the Agreement on Subsidies and Countervailing Measures). Once the U.S. has taken some action on the issue, however, such claims are weakened considerably. Indeed, the Lieberman-Warner proposal includes a "Statement of Policy" declaring, "It is the policy of the United States to work proactively under the United Nations Convention on Climate Change and, in other appropriate forums, to establish binding agreements committing all major greenhouse gas-emitting nations to contribute equitably to the reduction of global greenhouse gas emissions." *America's Climate Security Act of 2007*, S. 2191, 110th Cong. § 6002(b)(1) (2007).

9. David M. Ackerman, *Global Climate Change: Selected Legal Questions About the Kyoto Protocol*, CONG. RESEARCH SERV. DOC. NO. 98-349, at 1 (2002).

10. See Charles Hanley, *U.N. Scientist Urges U.S. to Cut Emissions*, *ORLANDO SENTINEL*, Dec. 8, 2007, at A17. Kyoto required industrialized countries to reduce their emissions by an average of 5 percent below 1990 levels by 2012.

11. The resolution, though not legally binding, deterred President Clinton from ever submitting the Kyoto Protocol to the Senate for ratification. Specifically, the resolution stated:

the United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or

though there is no procedure by which the U.S. can remove its signature from the Protocol, President George W. Bush later announced that his administration did not intend to pursue ratification.¹²

Since then the U.S. has pursued a policy of lax emissions reduction targets and voluntary action. In 2006, it helped form the Asia-Pacific Partnership on Clean Development and Climate (APP).¹³ This international body was created to facilitate the sharing of environmental technologies between its partner members. Similarly, an agreement by the G-8 nations to improve technology sharing, the Gleneagles Plan of Action, iterates a policy of voluntary action in the interest of energy efficiency.¹⁴ At best, such policies have achieved a modicum of progress on climate change, at worst they have undermined more serious efforts undertaken pursuant to the goals of the UNFCCC by obfuscating the need for more meaningful international commitments. Some commentators have suggested that efforts such as the Gleneagles Plan divert momentum from working within the Kyoto framework.¹⁵ But regardless of the intent behind the Gleneagles Plan and the APP, it appears that most of the world is committed to a mandatory framework, at least for developed nations. At the 2007 COP in Bali, the parties pressed for a successor treaty to Kyoto and encouraged the U.S. to get on board or to get out of the way.¹⁶ It has become apparent to

thereafter, which would – (A) mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or (B) would result in serious harm to the economy of the United States.

S. Res. 98, 105th Cong. (1997).

12. Ackerman, *supra* note 9, at 2-3.

13. The APP Charter states that one of the Partnership's goals is to "[c]reate a voluntary, non-legally binding framework for international cooperation to facilitate the development, diffusion, deployment, and transfer of existing, emerging and longer term cost-effective, cleaner, more efficient technologies and practices among the Partners through concrete and substantial cooperation so as to achieve practical results." Available at <http://www.asiapacificpartnership.org/charter.pdf>.

14. The Gleneagles Plan of Action lays out "forward actions" countries can take in the areas of energy use, research and development and monitoring illegal logging, without imposing specific obligations on any country.

15. See, e.g., Robert Novak, *Bush Withstands G-8 Heat on Kyoto*, CHICAGO SUN-TIMES, July 14, 2005, at 43.

16. *Climate Change Conference Plants Small Seed; Industry Will Be Better Equipped to Deal with New Regulations Following Bali Meeting*, HAMILTON SPECTATOR, Dec. 22, 2007, at D13

many that the U.S. has stayed out of the game long enough and that because the costs of dealing with climate change could double if action is delayed even two years,¹⁷ the time to act is now.

Most policymakers understand that the only effective solution to this global issue is global cooperation. Problems with free-riders and leakage make it difficult, if not foolhardy, for individual nations to address climate change on their own.¹⁸ If the U.S. acted alone, for instance, all countries would receive at least a theoretical benefit from U.S. reductions in GHG emissions, whether or not they made any sacrifices or reductions of their own. Although U.S. historical emissions far surpass those of any other country, the prospect of paying dearly to confer a benefit on the rest of the world jars U.S. voters and policymakers, as the Byrd-Hagel Resolution clearly indicates. Moreover, the leakage problem ensures that such benevolence would be futile. Because production tends to migrate to where the regulations are the weakest, well-intentioned domestic efforts may produce the unintended consequence of moving manufacturing jobs outside the country, where lax environmental controls result in greater amounts of GHG emissions to produce the same output.

The unopposed passage of the Byrd-Hagel Resolution indicates how firmly U.S. politicians oppose taking action in the absence of action by developing countries. Internationally, the U.S. has relinquished its leadership role in this area by waiting for countries such as China and India to make commitments to reducing GHG emissions.¹⁹ Domestically, it has impeded efforts by states that are eager to begin taking action now.²⁰ But as the rising costs of delay become increasingly apparent, using the developing world's inaction as an excuse for further delay makes less sense every day. In addition, as developing countries become more receptive to some

(stating that while the parties were not able to draft an agreement, they committed to completing one by 2009).

17. *International Aspects of a Cap and Trade Program: Hearing Before the S. Comm. on Finance*, 110th Cong. (2008) (statement of Jennifer Haverkamp, Senior Counsel, Environmental Defense Fund).

18. See Laura Thoms, *A Comparative Analysis of International Regimes on Ozone and Climate Change with Implications for Regime Design*, 41 COLUM. J. TRANSNAT'L L. 795, 798-99 (2003) (discussing how the global nature of the climate change coupled with "tragedy of the commons" problems creates incentives for free riding and uncertainty about whether parties will keep whatever commitments they make).

19. Though initially they too resisted the Kyoto Protocol, Australia and Canada ratified it in December 2007. See Peter N. Spotts, *Bali Climate Deal Sparks a Geopolitical Shift*, CHRISTIAN SCIENCE MONITOR, Dec. 17, 2007, at 1.

20. Individual states have successfully sued to force the federal government to regulate CO₂ emissions as it is required to do by the Clean Air Act. See *Massachusetts v. EPA*, 549 U.S. 497 (2007).

restrictions on their GHG emissions, this excuse for procrastination by the U.S. may soon expire.

At long last, concern in the U.S. about climate change has reached the level where legislators have begun to agree on the need for genuine action. After years of efforts designed to create the illusion that the U.S. is taking action through voluntary reductions and energy intensity pledges, U.S. legislators are turning to mandated emissions restrictions and market-based solutions. Proposals have been made ranging from the command-and-control variety to the imposition of a tax on carbon,²¹ but the approach most likely to garner the necessary political support is a cap-and-trade program. U.S. industry groups, perhaps attempting to postpone any change in the status quo or perhaps recognizing that some mandatory regulation is inevitable, are weighing in on how such a program could be implemented without adversely affecting their interests. Recent legislative hearings have focused on three main issues: (1) how the U.S. can encourage developing countries to participate in reducing their emissions, (2) how U.S. industries can remain on a level playing field with businesses in countries without emissions caps, and (3) how a program can be structured and implemented so that it will not violate the GATT or draw retaliatory action from U.S. trading partners.²²

Despite a broad and growing consensus that action needs to be taken, considerable disagreements remain on how best to meet these objectives. Unlike negotiating trade agreements which promise that the benefits will outweigh the costs for all parties involved,²³ reducing GHG emissions will have an economic cost for all parties as environmental costs are internalized.²⁴ Though the Intergovernmental Panel on Climate Change (IPCC) estimates the cost of meaningfully addressing climate change at less than three percent of world GDP in 2030, the crucial question is how those costs will be divided equitably and efficiently.²⁵ An allowance trading system

21. See John A. Barrett, Jr., *The Global Environment and Free Trade: A Vexing Problem and a Taxing Solution*, 76 IND. L.J. 829 (2001) (analyzing the advantages and disadvantages of these approaches from a policy standpoint).

22. *Hearing*, *supra* note 4 (statement of Rep. John Dingell).

23. See generally, Nita Ghei, *Evaluating the WTO's Two Step Test for Environmental Measures Under Article XX*, 18 COLO. J. INT'L ENVTL. L. & POL'Y 117, 120-21 (2007) (discussing how the economic models developed by Adam Smith and David Ricardo support the proposition that international trade is a positive sum game).

24. Some have suggested that shifting to a low-carbon economy will be a net gain for the U.S.; however, this argument has yet to persuade a critical mass of policymakers. See, e.g., Eric Shaffner, *Repudiation and Regret: Is the United States Sitting Out the Kyoto Protocol to Its Economic Detriment?*, 37 ENVTL. L. 441 (2007).

25. SYNTHESIS REPORT, *supra* note 7, at 69.

minimizes the cost of complying with an imposed cap, despite some administrative costs and the potential for volatility in the price of allowances. However, energy-intensive industries in the U.S. perceive any additional cost as putting them at a competitive disadvantage with importers who are not subject to the same restrictions as they are. This has been the basis for industry and labor's usual opposition to national proposals to address climate change and the reason why climate change negotiations have stalled since Byrd-Hagel.

III. Cap-and-Trade Under the Lieberman-Warner Proposal

Senate Bill 2191 appears to offer a way past this traditional confluence of opposition. As the approach that has garnered the most political support so far, it portends what U.S. climate change legislation will probably look like. Even the American Electric Power Company and the International Brotherhood of Electrical Workers now support creating a domestic cap-and-trade program that would require importers to submit "international reserve allowances" equivalent in value to the permits domestic producers had to buy under the program. Countries that took "comparable action" on reducing GHG emissions would be exempt from the allowance requirement. Thus, the real aspiration behind this approach is that it will prompt developing countries to take action, obviating the need to assess the allowances. However, some lawmakers have pointed out that resistance from other countries is likely to be quite strong.²⁶ In addition, whether importers adopt more stringent environmental standards or pass on the costs of allowances to consumers, U.S. consumers and importers of raw materials will in any event face higher prices. Though this approach has its complexities and is likely to be challenged in a WTO proceeding, legislators are hoping that it never reaches the crucible of a WTO panel – that the pull of the U.S. market and the push of international opinion will encourage developing countries that are major emitters to adopt a comparable emissions regime well before any type of trade sanction gets assessed or imposed.

This bold strategy carries risks. There is the possibility that affected countries will impose retaliatory tariffs or other trade measures that could trigger a trade war.²⁷ Of course, there is no absolute certainty how a WTO panel will rule in such a situation. Thus, it is important to understand where such proposals could run afoul of U.S. obligations under the WTO for two

26. *Hearing, supra* note 4 (statement of James Slattery) (suggesting that just as the U.S. has been unable to persuade China on the issue of currency reform, it could not persuade China to adopt GHG emissions measures by requiring international reserve allowances).

27. *Green Protectionism*, *ECONOMIST*, Nov. 17, 2007, at 58.

reasons: To make the sanction of having to purchase allowances more credible, and to provide a firm foundation for protecting U.S. interests in a WTO proceeding, should it have to defend itself before a Dispute Settlement Body (DSB) or challenge another country's retaliatory action as inconsistent with the GATT.

A. International Reserve Allowances

To stabilize the playing field for domestic energy-intensive industries, importers would be required to purchase allowances similar to the ones U.S. producers would purchase under a cap-and-trade program.²⁸ These would be assessed solely on energy-intensive imports such as steel, aluminum, cement, glass, and paper.²⁹ Energy-intensive imports from countries that take comparable action on restricting GHGs would be exempt from having to be accompanied by allowances. In addition, imports from countries emitting less than 0.5 percent of global GHG emissions would be exempt.³⁰ Title VI of the bill would allow the President to make an assessment of whether measures adopted in a particular country were "comparable in effect to actions carried out by the United States" to limit GHGs,³¹ while the Administrator would be required to determine a baseline emission level for each importing country as well as the price of allowances.³² Under the latest version of the bill, emissions for U.S. producers would be capped beginning in 2012, the fee amounts would be determined beginning in 2019 and importers from countries that have not taken comparable action would be charged beginning in 2020. Ideally, this would encourage other countries with large emissions of GHGs to implement a cap or regulate their energy-intensive industries within the near future. The eight-year delay may also facilitate WTO compliance. However, industry advocates support reducing the delay to as short as possible so as not to disadvantage U.S. producers in the short term.

28. The proposal co-authored by the International Brotherhood of Electrical Workers and American Electric (IBEW-AEP proposal) would apply to products such as iron, steel, aluminum, cement, glass and paper. Rosalie Westenskow, *Trade Worries Tangle CO₂ Plan*, UPI ENERGY, Mar. 10, 2008, at 1.

29. *Developing Countries Singled Out As Growing Climate Issue*, CONGRESS DAILY, Mar. 6, 2008, at 1.

30. America's Climate Security Act of 2007, S. 2191, 110th Cong. § 6006(b) (2007) [hereinafter Climate Security Act].

31. *Id.* § 6001(2).

32. Climate Security Act, *supra* note 30, at §§ 6001(1), 6006(a).

B. General Provisions of the GATT

The goal of free trade is to eliminate restrictions on trade so that each country concentrates its production where it has a comparative advantage.³³ Thus, a guiding principle of the GATT is that “like products” are not discriminated against in international trade, regardless of the policy reasons for distinguishing between them. This core requirement poses a formidable obstacle to justifying international reserve allowances under both the national treatment and most-favored nation (MFN) provisions of the treaty.

1. National Treatment

National treatment is a primary obligation under the WTO – imports from other Members are to be treated the same as the domestic products with which they compete. Taxes, regulations and other measures “should not be applied to imported or domestic products so as to afford protection to domestic production.”³⁴ Moreover, Article III:2 states that imports “shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products.” In *Japan – Alcoholic Beverages II*, the Appellate Body laid out a two-part test for determining whether an internal measure violates Article III:2: “first, whether the taxed imported and domestic products are ‘like’ and, second, whether the taxes applied to the imported products are ‘in excess of’ those applied to the like domestic products.”³⁵

Under Title VI of the Lieberman-Warner proposal, a “covered good” is an imported primary product that results in a substantial quantity of GHG emissions and is “closely related” to a U.S. good that is more costly to produce under the U.S. cap-and-trade regime.³⁶ There is little doubt that any “closely related” good under Lieberman-Warner would meet the definition of a “directly competitive or substitutable” product within the meaning of the second sentence of Article III:2. Such imports might even be considered “like” domestic products within the meaning of the first prong of the Article III:2 test laid out in *Japan – Alcoholic Beverages II*, even though the meaning of “like products” is construed narrowly there.³⁷ Under either standard, if an import were not “directly competitive” with or “like” a domestic product,

33. See Ghei, *supra* note 23, at 123.

34. General Agreement on Tariffs and Trade art. III:1, Oct. 31, 1947 [hereinafter GATT].

35. Appellate Body Report, *Japan – Taxes on Alcoholic Beverages* (*Japan – Alcoholic Beverages II*), at 17-18, WT/DS8, 10 & 11/AB/R (Oct. 4, 1996) [hereinafter *Japan – Alcoholic Beverages II*].

36. Climate Security Act, *supra* note 30, at § 6001(5).

37. *Japan – Alcoholic Beverages II*, *supra* note 35, at 20.

there would be no basis for requiring international reserve allowances in the first place.

The key issue then is whether the allowance requirement would impose a charge on imports “in excess of” the cost to U.S. producers. The complaining party would bear the burden of proving that the price of allowances exceeded the cost U.S. producers had to pay.³⁸ Any excess at all would be deemed a violation of the GATT, as “[e]ven the smallest amount of ‘excess’ is too much. The prohibition of discriminatory taxes in Article III:2, first sentence, is not conditional on a “trade effects test” nor is it qualified by a *de minimis* standard.”³⁹ Furthermore, in *Indonesia – Autos*, the Panel found that tax differences based on national origin are inherently inconsistent with Article III:2, even if they result in an overall balance of less favorable treatment and more favorable treatment that is not in excess of the overall cost to domestic producers.⁴⁰ Finally, the form of an internal charge and the policy purposes behind it are irrelevant for Article III:2 purposes.⁴¹

Given the strict standard which applies to excess costs, a DSB would likely scrutinize the cost of allowances closely. Because any added cost for importers would be inconsistent with Article III:2, the allowance requirement could lead to litigious wrangling over the appropriate price of allowances. The requirement mandates that the Administrator does not err on the side of over-charging importers for allowances. Importing Members could also argue that because the allowance requirement is based on the national origin of the products, if the price of allowances as to a single product is greater than the corresponding domestic costs, the entire scheme violates the GATT, as “averaging” is not permitted under WTO precedent. Lastly, the laudable goal of reducing GHG emissions would not save the allowance requirement if it were found to result in any less favorable treatment toward imports.⁴² Thus, though the burden would be on the Member challenging the allowance requirement, there are numerous pathways to demonstrate that the measure is inconsistent with Article III:2.

38. Panel Report, *Japan – Taxes on Alcoholic Beverages*, ¶ 6.14, WT/DS8, 10 & 11/R (July 11, 1996).

39. *Japan – Alcoholic Beverages II*, *supra* note 35, at 24.

40. Panel Report, *Indonesia – Certain Measures Affecting the Automobile Industry (Indonesia – Autos)*, ¶ 14.112, WT/DS54, 55, 59 & 64/R (July 2, 1998).

41. Panel Report, *Argentina – Measures Affecting the Export of Bovine Hides and the Import of Finished Leather (Argentina – Hides and Leather)*, ¶ 11.144, WT/DS155/R (Dec. 19, 2000).

42. *Id.* Under the chapeau of Article XX, measures do not have to meet this high standard. See *infra* Part III.D.

2. MFN

Article I:1 states that “any advantage, favor, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originated in or destined for the territories of all other contracting parties.”⁴³ In other words, the GATT requires Members to treat one another’s like products equally. Under Lieberman-Warner, some countries presumably would not have to purchase allowances because they had enacted comparable domestic measures to address GHG emissions while others would because the President would have determined that they had not enacted such measures. This would constitute an advantage to some Members that is not accorded “immediately and unconditionally to the like product” from another Member. Supporters of international reserve allowances argue that because the U.S. would be imposing roughly the same regulatory requirements on each country, such requirements are consistent with the GATT. However, even though the proposal allows both the President and the Administrator a substantial amount of discretion in determining whether to require allowances and how much they will cost, the unequivocal language in Article I indicates that this discretion would still be bound by the general principles of the GATT.

Furthermore, by crafting obligations which focus on the products themselves, the WTO eschews infringing upon the sovereignty of its Members and attempts to maintain a sense of objectivity with regard to internationally traded goods. Though the WTO has not categorically rejected production and process measures (PPMs) as a legitimate means for distinguishing between what would otherwise be considered “like products,” the language of the GATT does not support such an approach under either its national treatment or most-favored nation provisions. Requiring importers to tender international reserve allowances would probably be found to conflict with the MFN requirement for two reasons. First, it is clear that the energy-intensive goods at issue, e.g., concrete, glass and steel, are “like products” within the meaning of the MFN provision, just as they are for national treatment purposes. Second, because “customs duties and charges of any kind” trigger MFN treatment, requiring countries to submit allowances purchased from the U.S. government is likely to be found illegal. In short, the allowance requirement is likely to violate MFN and national treatment obligations in the GATT. If international reserve allowances are not consistent with the general provisions of the GATT, a dispute brought by another Member would probably hinge upon whether the program could be justified under the TBT Agreement or the exceptions listed in Article XX.

43. GATT, *supra* note 34, art. I:1.

C. TBT Agreement

The TBT Agreement delineates exceptions to the general WTO rules – an express acknowledgement by its Members that technical regulations and standards can facilitate international trade.⁴⁴ Under the TBT Agreement, Members may impose technical regulations to fulfill legitimate objectives as long as they do not create unnecessary obstacles to international trade and are not more trade-restrictive than necessary.⁴⁵ In addition, regulations must comply with Article 2.1, which reiterates the theme of non-discrimination found throughout the GATT.⁴⁶

A Member seeking to challenge the international reserve allowances requirement under the TBT Agreement would first have to show that it was part of a “technical regulation,” bringing the measure within the purview of the TBT Agreement. Then the challenging Member would have to show that the measure does not fulfill a “legitimate objective” or that it is “more trade-restrictive than necessary.” If either of these conditions is met, the allowance requirement could not be justified under the TBT Agreement. Only one dispute, EC – *Sardines*, has required detailed analysis of the TBT Agreement, which suggests that novel interpretations by the U.S. of its provisions are likely to generate disputes and litigation.

I. Technical Regulations

If a measure is not a “technical regulation,” it does not fall within the scope of the TBT Agreement.⁴⁷ Annex 1, paragraph 1, of the Agreement defines a technical regulation as a “[d]ocument which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory.” This language creates three distinct requirements: (1) the document must apply to an identifiable product or group of products, (2) the document must lay down at least one characteristic of the product, and (3) compliance with the characteristic or characteristics must be

44. Agreement on Technical Barriers to Trade art. 2.2, Apr. 15, 1994 [hereinafter TBT Agreement]; see generally Alan O. Sykes, *Regulatory Protectionism and the Law of International Trade*, 66 U. CHI. L. REV. 1 (1999).

45. TBT Agreement, *supra* note 44, at art. 2.2.

46. Article 2.1 mandates that imports “shall be accorded treatment no less favorable than that accorded to like products of national origin and to like products originating in any other country.”

47. Appellate Body Report, *European Communities – Trade Description of Sardines* (EC – *Sardines*), ¶ 175, WT/DS231/AB/R (Sept. 26, 2002) [hereinafter *Appellate EC – Sardines*].

mandatory.⁴⁸ Finally, specific provisions of a regulation are not to be evaluated independently but rather “as an integrated whole.”⁴⁹

Currently, whether the allowance requirement would qualify as a technical regulation is uncertain. First, though a product does not have to be expressly identified within a measure to be considered identifiable,⁵⁰ the measure does have to provide other Members with notice as to which products are covered.⁵¹ Under the Lieberman-Warner bill, a “covered good” is a primary product that generates a substantial quantity of GHG emissions in the course of its manufacture and is closely related to a domestic good whose cost is affected by the cap-and-trade program.⁵² Even if this somewhat abstract language is held not to definitively identify the products at issue by a DSB, it would not be difficult for the Administrator to promulgate a more concrete list of affected products. Thus, the “identifiable product” requirement will not pose an insurmountable obstacle to enforcing the Lieberman-Warner proposal as it is currently written.

Second, the characteristics of the product do not have to be intrinsic to the product itself – they can be merely “related to it.”⁵³ The relevant characteristics here would be that a product fits the above definition of a covered good and comes from a country that has not taken comparable action on reducing GHG emissions. On the one hand, the concepts of “related processes and production methods” and “applicable administrative provisions” might be stretched to the breaking point if they encompassed a Member’s entire energy policy. For instance, suppose the U.S. required allowances on China’s steel imports because it had not taken comparable action on reducing GHG emissions. China could respond that even though it has imposed no regulations on the steel industry, it has taken other measures to reduce GHG emissions, such as rationing fuel for heating and transportation, or perhaps it has planted a new forest in Indonesia to offset its emissions. Therefore, according to China, the allowance requirement is

48. *Id.* ¶ 176.

49. Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (EC – Asbestos), ¶ 64, WT/DS135/AB/R (Mar. 12, 2001) [hereinafter Appellate EC – Asbestos]. In EC – Asbestos, Canada contended that French measures banning certain products containing asbestos fell within the scope of the TBT Agreement; the Appellate Body agreed, finding that the measure constituted a technical regulation when properly considered “as an integrated whole.” *Id.* That is, because the measure permitted some uses of asbestos, it was not a total prohibition – it contained permissive elements as well. *Id.*

50. *Id.* ¶¶ 180, 183.

51. *Id.* ¶ 185.

52. Climate Security Act, *supra* note 30.

53. EC – Asbestos, *supra* note 49, ¶ 89.

not really about production methods or applicable administrative provisions but rather an attempt by the U.S. to hoist the burdens of its own broad policies onto another Member. On the other hand, the terms “production methods” and “applicable administrative provisions” might cover a wide spectrum as they are not patently limited by the terms of the TBT Agreement. Thus, a DSB could decide either way on this issue, and today the outcome can only be deduced by speculation.

DSBs have not devoted much attention to the third element, and it is not necessary to do so here. The allowances clearly would be mandatory for countries that do not take comparable action on climate change. Nonetheless, assuming a DSB concluded that the allowance requirement qualifies as a technical regulation, it does not necessarily follow that it would be upheld.

2. Legitimate Objectives

Under the TBT Agreement, a technical regulation must serve a legitimate purpose. The Preamble to the TBT Agreement recognizes the right of Members to take measures necessary “for the protection of human, animal or plant life or health, [or] of the environment.” An inclusive list of “legitimate objectives” is found in Article 2.2, including “protection of human health or safety, animal or plant life or health, or the environment.” The Agreement permits Members to consider the risks of non-fulfillment based on, *inter alia*, “available scientific and technical information, [or] related processing technology.”⁵⁴ These provisions and the growing body of scientific data on climate change suggest that “legitimate objectives” would be construed broadly enough by a DSB to support the U.S. position in a dispute over international reserve allowances.

3. Least Trade-Restrictive Manner

Finally, when a Member departs from a relevant international standard, it must do so in the least trade-restrictive manner so as not to create an unnecessary obstacle to trade.⁵⁵ Article 2.5 states that regulations consistent with relevant international standards shall be presumed not to create an unnecessary obstacle to international trade, implying that regulations not in accordance with international standards will not be entitled to such a presumption. Where relevant international standards exist, Members are required to use them “as the basis for” their own technical regulations, except that Members can depart from a relevant international standard if it is an “ineffective or inappropriate means for the

54. TBT Agreement, *supra* note 44, art. 2.2.

55. *Id.*

fulfillment of the legitimate objective pursued.”⁵⁶ The TBT Agreement does not expressly address regulations where there are no relevant international standards. Therefore, the status of a technical regulation that serves a legitimate purpose could depend on (1) whether or not a relevant international standard exists, and if so, (2) whether that standard was used “as a basis for” the challenged regulation, and (3) whether that standard is effective and appropriate. Also, how a DSB chooses to evaluate a Member’s regulation when there are no relevant international standards remains to be seen.

a. Relevant International Standard

The term “standard” is defined in Annex 1, paragraph 2 of the TBT Agreement as a “[d]ocument approved by a recognized body, that provides . . . guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory.” In *EC – Sardines*, the Appellate Body upheld the Panel’s conclusion that a standard established by “a recognized body” does not have to be approved by consensus.⁵⁷ Thus, a Member challenging the allowance requirement might assert that the relevant international standard is the Kyoto Protocol, which was created by a recognized body, the COP, to address GHG emissions, and which embodies the principle of “common but differentiated responsibilities.”⁵⁸ If a DSB accepted this argument, the complaining Member would still have to show that the U.S. departure from the relevant international standard (i.e., from common but differentiated responsibilities to comparable action) was not justified, even though the U.S. had never agreed to be bound by the Protocol.⁵⁹ The remainder of the analysis in this subpart assumes a Kyoto-type agreement would provide a relevant international standard with which to contrast the allowance requirement. The possibility that a DSB would conclude that there is no relevant international standard in this context is discussed below in Part III.C.3.d.

b. “As a Basis For”

If the Kyoto Protocol were found to provide a relevant international standard, an even murkier question is whether it would be used “as a basis for” the U.S. allowance requirement in accordance with Article 2.4. Again,

56. *Id.* art. 2.4.

57. Appellate *EC – Sardines*, *supra* note 47, ¶ 227.

58. Kyoto Protocol to the United Nations Framework Convention on Climate Change, art. 10, Dec. 11, 1997, 37 I.L.M. 22 (1998) [hereinafter *Kyoto Protocol*].

59. See Marisa Martin, *Trade Law Implications of Restricting Participation in the European Union Emissions Trading Scheme*, 19 *GEO. INT’L ENVTL. L. REV.* 437, 468-74 (2007) (analyzing on the role of non-WTO agreements in interpreting WTO agreements).

the burden would be on a challenging Member to show that that the relevant international standard had *not* been used as a basis for the allowance requirement.⁶⁰ In EC – *Sardines*, the Appellate Body held that a technical regulation must not “contradict” a relevant international standard,⁶¹ but neither is a “rational relationship” between the regulation and the international standard required.⁶² Though there is plenty of room between these bookends, a challenging party could argue that the allowance requirement contradicts a fundamental principle of the Kyoto Protocol by placing a higher obligation on developing countries. Conversely, the U.S. could argue that the allowance requirement is based on the subjective notion of common but differentiated responsibilities and that the regulation allows for a similar amount of discretion while seeking the same ends as the Protocol. It is nearly impossible to predict how a DSB would resolve these issues without the benefit of additional disputes clarifying the TBT Agreement, so this requirement does not foreclose the possibility that the allowance requirement would be upheld.

c. Effectiveness and Appropriateness

Members are justified in deviating from international standards when those standards are deemed ineffective or inappropriate. In EC – *Sardines*, the Panel and Appellate Body disagreed over which party had the burden of showing that a relevant international standard was ineffective or inappropriate to achieve a legitimate purpose. The Panel concluded that once Peru had shown that the measure at issue was a technical regulation and that a relevant international standard existed, the burden was on the European Communities to demonstrate that that standard was “an ineffective or inappropriate means to fulfill the legitimate objectives pursued by the Regulation.”⁶³ The Appellate Body reversed the Panel on this point, concluding that to prove its claim, Peru had to establish that the relevant international standard was effective and appropriate to fulfill the legitimate objectives of the E.C. regulation.⁶⁴ Put another way, if the relevant international standard is an effective and appropriate way to

60. See Appellate EC – *Sardines*, *supra* note 47, ¶ 242 (agreeing with the Panel and stating that “an international standard is used ‘as a basis for’ a technical regulation when it is used as the principal constituent or fundamental principle for the purpose of enacting the technical regulation”).

61. *Id.* ¶ 248.

62. *Id.* ¶ 247.

63. Panel Report, *European Communities – Trade Description of Sardines* (Panel EC – *Sardines*), ¶ 7.52, WT/DS231/R (May 29, 2002) [hereinafter Panel EC – *Sardines*].

64. Appellate EC – *Sardines*, *supra* note 47, ¶ 275.

achieve the same objective, the Member's deviation from it cannot be justified under the TBT Agreement.

As of this note, it is too early to tell how effective the Kyoto Protocol and its successor will be at addressing climate change. In large part, this will depend on the outcome of future COPs, where the next Kyoto-style agreement is to be completed in 2009.⁶⁵ The appropriateness of the Protocol under the WTO is less uncertain. Because DSBs have disapproved of unilateral environmental measures, it is highly likely that multilateral agreements such as Kyoto would receive more favorable treatment.⁶⁶

d. In the Absence of a Relevant International Standard

Alternatively, a DSB might determine that the allowance requirement is a technical regulation with a legitimate objective but that no relevant international standard exists. It is still unclear how the U.S. regulation would fair, but for different reasons. The language of the TBT Agreement suggests that a regulation can be evaluated on its own merits, rather than in the shadow of a relevant international standard, to determine whether it creates an unnecessary obstacle to trade or is more trade-restrictive than necessary.⁶⁷ However, these parameters have yet to be fleshed out in disputes between WTO Members. Another possibility is that a relevant international standard could come into existence, for instance, once the next round of COP negotiations is completed. In *EC – Sardines*, the Appellate Body held that Members have “a continuing obligation” to ensure that their technical regulations are consistent with the TBT Agreement.⁶⁸ Thus, WTO Members' obligations under the TBT Agreement occupy a shifting terrain.

As this preliminary analysis indicates, the TBT Agreement does not provide a solid basis for defending the allowance requirement contained in the Lieberman-Warner bill. Though there are arguments that can and probably will be made regarding their validity as technical regulations, for the scheme to motivate developing countries such as China and India to take comparative action, it needs to have a more credible justification under the WTO. As discussed in the next section, Article XX could fortify the U.S. allowance requirement in a way that the other provisions of the GATT cannot.

65. See Spotts, *supra* note 19, at 1.

66. See Cinnamon Carlarne, *The Kyoto Protocol and the WTO: Reconciling Tensions Between Free Trade and Environmental Objectives*, 17 *COLO. J. INT'L ENVTL. L. & POL'Y* 45, 56-57, 84-86 (2006) (suggesting that current WTO rules are probably compatible with multilateral environmental agreements but that its Members should clarify the role of such agreements either by amending Article XX or adopting an interpretive decision).

67. TBT Agreement, *supra* note 44, art. 2.2.

68. Appellate *EC – Sardines*, *supra* note 47, ¶ 205.

D. Article XX

“Sustainable development” is one of the clear objectives of the WTO.⁶⁹ It is iterated throughout the GATT, most specifically in the provisions of Article XX, where WTO Members have acknowledged the importance of coordinating trade and environmental policies.⁷⁰ The provisions of Article XX have been recognized as “exceptions to substantive obligations established in the GATT,”⁷¹ and the chapeau of Article XX is intended to mark out “a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions” of the GATT.⁷² Hence, in *U.S. – Gasoline*, the Appellate Body described a two-tiered test for analyzing Article XX claims: First, the measure must fit comfortably within one of the listed exceptions; and second, the measure must comply with the chapeau of Article XX.⁷³ DSBs have applied the first part of the test permissively, but overcoming the requirements of the chapeau has proved more difficult for Members defending various measures before the WTO.

I. Paragraph (g)

Article XX(g) provides an exception for measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” Generally, the exception has been construed broadly. “Exhaustible natural resources” is meant to be interpreted “in light of contemporary concerns of the community of nations about the protection and conservation of the environment.”⁷⁴ As a result, the Panel in *US – Gasoline* had no trouble conceiving of clean air as an exhaustible resource.⁷⁵ Nor is it particularly challenging to show that a measure is “primarily aimed” at the conservation of the environment.⁷⁶ A DSB looks to a regulation as a

69. Marrakesh Agreement Establishing the World Trade Organization, pmbl, Apr. 15, 1994, 33 I.L.M. 1144 (1994).

70. See Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline* at 30, WT/DS2/AB/R (Apr. 29, 1996) [hereinafter Appellate US – Gasoline].

71. *US – Shrimp*, *supra* note 3, ¶ 121.

72. *Id.* at ¶¶ 156, 159.

73. Appellate US – Gasoline, *supra* note 70, at 22.

74. *US – Shrimp*, *supra* note 3, ¶ 129.

75. Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, ¶ 6.37, WT/DS2/R (Jan. 29, 1996) [hereinafter Panel US – Gasoline].

76. See *id.* ¶ 6.40.

whole, not just its trade-specific provisions, to determine whether it has a legitimate objective within the meaning of this provision. In practice, showing that a measure fits within the scope of one of the Article XX exceptions has not proven difficult.⁷⁷

The first prong of the two-tiered analysis discussed in *US – Gasoline* would not impose a significant obstacle for the Lieberman-Warner allowance requirement; the U.S. would not have much difficulty demonstrating that the measure is encompassed by paragraph (g). Based on contemporary concerns of the international community about addressing climate change, a cap-and-trade program falls squarely within the scope of measures “relating to the conservation of exhaustible natural resources.” In addition, because clean air has already explicitly been labeled an exhaustible natural resource, a GHG emissions regulation is not likely to be found outside the scope of Article XX. Furthermore, the objective of the regulation is fairly clear in this case, so it will easily satisfy the requirement that it be “primarily aimed at” achieving a legitimate environmental purpose. Again, the requirements of the chapeau raise tougher questions.

2. The Chapeau

The chapeau of Article XX expresses the general principle of good faith in international law.⁷⁸ Analysis of a measure under the chapeau is meant to limit abuse of the Article XX exceptions by Members wishing to engage in protectionism. To this end, the chapeau contains three overlapping yet distinct prohibitions regarding the ways that a measure may be applied. Namely, measures cannot arbitrarily discriminate between countries where the same conditions prevail, unjustifiably discriminate between such countries or restrict international trade in a disguised way.⁷⁹ The chapeau applies to discrimination where the same conditions prevail in the importing and exporting countries as well as discrimination where the same conditions prevail in various exporting countries.⁸⁰ Thus the equalized treatment required to satisfy the chapeau is analogous to the principles of national treatment and MFN embodied in the rest of the GATT, though these principles are applied differently in the context of Article XX.

If the allowance requirement is challenged, after showing that the measure is encompassed by paragraph (g), the U.S. would have the burden of making a *prima facie* showing that that measure does not constitute

77. Appellate *US v. Gasoline*, *supra* note 70, at 18 (discussing the “heavier task” of proving abuse of an exception compared to provisionally justifying it under the Article XX exceptions).

78. *Id.* at 13-14.

79. *Id.* at 23.

80. *Id.*

abuse of the Article XX exceptions as defined in the chapeau. If the U.S. can make this initial showing, which seems quite feasible, the burden would be on the challenging Member to put forth arguments and evidence which rebut U.S. claims that the measure is not arbitrarily or unjustifiably discriminatory or a disguised restriction on trade. Here, a number of likely challenges are apparent, but if the U.S. is cautious about how it enacts and applies its cap-and-trade program, it will have strong arguments in support of its position.

a. Arbitrary Discrimination

When presented with claims of discrimination, DSBs have looked to the manner in which a measure was enacted as well as the ways in which it was applied and the outcomes it produced. Thus, a finding of discrimination might be based on a measure's procedural or substantive failings. In *US – Shrimp*, the Appellate Body disapproved of the manner in which the U.S. had enacted legislation dealing with shrimp harvesting and the use of turtle excluder devices (TEDs).⁸¹ After having required U.S. shrimp trawlers to use TEDs, Congress passed a law banning shrimp imports from countries that were not certified by the U.S. The policy did not address differing conditions in each country and implemented a uniform standard for other Members' imports. In other words, the U.S. arbitrarily prescribed its own TED regulations for importing countries. Noting that the U.S. had not considered the possibility that different conditions might prevail in those countries, the Appellate Body expressed vehement disapproval of the measure: "[I]t is not acceptable, in international trade relations, for one WTO Member to use an economic embargo to require other Members to adopt essentially the same comprehensive regulatory program, . . . without taking into consideration different conditions which may occur in the territories of those other Members."⁸² Therefore, a program may violate the GATT because of procedural shortcomings if it is enacted without regard for other Members' interests.

A country challenging the allowance program would likely analogize it with the TED regulation, another performance standard which the U.S. adopted first and then tried to coerce other countries into adopting. Part of the problem with the TED rules was that there was no means for countries to appeal the initial decisions of U.S. officials charged with implementing the law.⁸³ It is unclear how much process must be made available to

81. *US – Shrimp*, *supra* note 3, ¶ 164.

82. *Id.* at ¶¶ 164-65.

83. One could argue that the reason procedural safeguards are not provided is typically not that they are onerous in themselves, but that they make it impossible for an entity to deny that it "knew better." Thus, a DSB might require procedure as a

international trading partners, but providing the hallmarks of due process – notice of the details of the allowance requirement and an opportunity to be heard – would not be burdensome. Some duly provided means to appeal decisions and have them reviewed would probably suffice. Though this might extend the time before the U.S. could impose the allowance requirement and entail additional negotiation and litigation costs, the U.S. could minimize these costs by putting countries on notice as soon as possible about the allowance requirement and providing a clear process for countries to raise their concerns before it takes effect.

In *US – Shrimp*, the application of the TED regulation also caused problems. U.S. officials rigidly required countries to adopt “essentially the same” program that the U.S. had in order to become certified.⁸⁴ Officials responsible for implementing the TED regulation did not follow a transparent, predictable certification process, nor did they implement a procedure for review or appeal once an application for certification was denied.⁸⁵ As discussed above, the Lieberman-Warner bill would grant the President and the Administrator a considerable amount of discretion but does not contain provisions regarding procedural review for countries affected by the exercise of that discretion. While granting leeway to the President and the Administrator may not in itself create substantial trade issues, the care with which these officials use or abuse that discretion could raise questions for a DSB.

In addition to finding that the “intended and actual coercive effect on other governments” rendered U.S. rules on TEDs discriminatory,⁸⁶ the Appellate Body noted that the U.S. regulation created arbitrary results. For example, even a vessel equipped with a TED could not import shrimp into the U.S. if the country it hailed from had not enacted a regulatory framework comparable to the one the U.S. had.⁸⁷ Thus, discrimination occurred because, as it was applied by U.S. officials, the TED regulation led to arbitrary outcomes. Consequently, the U.S. will have to be wary of causing arbitrary results when it requires importers to purchase allowances. For instance, if a “green” foreign steel producer had to buy allowances because its government had not taken comparable action to address climate change, the result could be seen as arbitrary. Clean factories in developing countries present a unique problem because under the Kyoto Protocol’s Clean Development Mechanism (CDM), many developed nations are meeting their targets by implementing programs in developing countries which reduce

stand-in for consideration, as it cannot actually force WTO Members to care about one another’s interests.

84. *US – Shrimp*, *supra* note 3, ¶ 161.

85. *Id.* ¶ 180.

86. *Id.* at 161.

87. *Id.* ¶ 165.

GHG emissions around the globe. To require allowances from a clean foreign producer might be seen as an arbitrary result. On the other hand, in the case of CDM projects at least, the U.S. could argue that emissions reductions lack “additionality.”⁸⁸ That is, they are essentially being counted twice because a developed country is already getting credit for the reductions, and counting them again as the equivalent of allowances made in the U.S. industry defeats the legitimate objective behind having them. The U.S. should craft clear guidelines in this area to avoid having to defend against an apparently arbitrary result.⁸⁹

b. Unjust Discrimination

The Appellate Body in *US – Gasoline* found unjust discrimination by the U.S. because it implemented measures relating to gasoline refiners without sufficiently cooperating with other governments to try to mitigate the effects of the measure.⁹⁰ *US – Gasoline* concerned EPA regulations on reformulated gasoline that gave domestic refiners an option for compliance that was not available to foreign refiners.⁹¹ Whereas domestic refiners could establish individual baselines, which could be quite beneficial in the new regulatory scheme, or were subject to a statutory baseline, foreign refiners were *automatically* subject to a statutory baseline.⁹² Discriminating between domestic and foreign refiners was unjust in that case because the U.S. had not even attempted to collaborate with other countries to mitigate the effects of the measure on their refiners. Here again, the process of enacting the measure was part of what made it objectionable under the GATT. Moreover, the U.S. did not consider the costs foreign refiners would face under its rules for establishing baselines.⁹³ Combined, these two flaws in the U.S. legislative process resulted in unjust discrimination against its international trading partners.

A challenging country could argue that the allowance requirement is unjust because in the process of enacting its cap-and-trade regulations the U.S. failed to cooperate with other countries or to give adequate consideration to the costs of their compliance. A DSB is likely to be unsympathetic if the U.S. fails to cooperate with foreign governments to

88. See Jennifer P. Morgan, *Carbon Trading Under the Kyoto Protocol: Risks and Opportunities for Investors*, 19 *FORDHAM ENVTL. L. REV.* 151, 177 (2006) (discussing the additionality requirement in the context of gaining approval for CDM projects).

89. International offsets present other potential complications that are discussed in Part V.B.

90. Appellate *US – Gasoline*, *supra* note 70, at 27.

91. *Id.* at 6.

92. *Id.*

93. *Id.* at 28.

mitigate the costs of the allowances, such as by allowing foreign companies the same opportunities that domestic ones have to purchase allowances and to earn them through additional reductions and offsets. In other words, it would be uncooperative of the U.S. to impose a statutory allowance requirement on importers if it makes options available to domestic producers that are not available internationally, as this was part of what made the U.S. gasoline regulations illegal.⁹⁴ Moreover, though this shortcoming alone might not be sufficient to invalidate the allowance requirement, a DSB might look to the cumulative effects of the regime, as it did in *US – Shrimp*, to determine whether free trade had been unjustifiably restricted.⁹⁵

Alternatively, a challenging country could argue that the U.S. failed to give adequate consideration to its costs, which were foreseeable when the U.S. imposed the additional requirement. The “comparable action” provisions of an allowance scheme could also draw fire from international trading partners. Though the Executive Branch would have discretion to determine whether comparable action had been taken in another country, exercising such discretion too narrowly could violate the GATT. Though the U.S. would likely point to the level of GHG emissions in a developing country such as China, China might point to different considerations that the U.S. failed to adequately address. Such considerations include its overall level of development, its significantly greater population or its lower historical emissions, to argue that it did not receive due consideration because of its different prevailing conditions. Or, if the U.S. applied a rule in such a way that only an emissions cap could qualify as comparable action, another country might point to per capita emissions as a more equitable basis for comparison. Thus, decisions about comparable action in other countries need to be based on flexible criteria, made with consideration for the interests of U.S. trading partners and, ideally, preceded by discussions with officials from the affected countries. This will offer a defense to claims of arbitrary U.S. unilateralism.

c. Disguised Restrictions on Trade

Finally, whether a measure constitutes a “disguised restriction on international trade” depends on many of the same factors that indicate

94. Appellate *US – Gasoline*, *supra* note 70, at 28.

95. *US – Shrimp*, *supra* note 3, ¶ 176 (“When the foregoing differences in the means of application of Section 609 to various shrimp exporting countries are considered in their cumulative effect, we find, and so hold, that those differences in treatment constitute ‘unjustifiable discrimination’ between exporting countries desiring certification in order to gain access to the United States shrimp market within the meaning of the chapeau of Article XX.”).

arbitrary or unjust discrimination.⁹⁶ Determining whether a measure is “necessary” may be relative to the specific circumstances of a case. DSBs are especially wary of protectionist measures couched as exceptions under Article XX. Thus, a challenging country might argue that the allowance program constituted a disguised restriction on trade because it protects U.S. energy-intensive industries at the expense of other Members’ industries. To the extent that the U.S. imposes allowance regulations that are out of sync with the rest of the world, which continues to cooperate on ways to combat climate change, its approach will appear to be designed to achieve other objectives. By taking a flexible view of comparable action in other countries and by allowing international offsets on terms similar to those of the EU emissions trading system (ETS), the U.S. can avoid fashioning the allowance requirement as an arbitrary restriction on trade.

D. Additional Policy Aspects of an Effective Cap-and-Trade Regime

The concept of sustainable development is consistent with the notion that promoting trade and protecting the environment need not be viewed as a zero-sum game. A cap-and-trade approach to mitigating climate change, particularly one that is negotiated multilaterally, is consistent with the objectives of the GATT.⁹⁷ Moreover, in the international context, the narrow type of command-and-control regulations that have reduced environmental dangers in other areas, such as curtailing the use of ozone-depleting chemicals, are poorly suited for meeting the broad challenge of climate change.⁹⁸ Each country values its sovereignty. A cap-and-trade approach gives countries flexibility in how they achieve emissions targets that benefit everyone, and this flexibility is crucial to gaining the worldwide acceptance and support that is necessary to tackle this problem. The sheer magnitude of the changes necessary to switch to a low-carbon economy suggests that the preferred approaches of individual countries will vary dramatically and that a command-and-control scheme will meet with limited success.

Furthermore, the WTO has become a credible place for resolving the world’s disputes, some of which deal only tangentially with trade.⁹⁹ It is

96. See Appellate US v. Gasoline, *supra* note 70, at 25. There, the Appellate Body concluded that the gasoline measures constituted both “unjustifiable discrimination” and a “disguised restriction on international trade.” *Id.*

97. See Carlarne, *supra* note 66, at 54 (noting that GATT Panels have implied that internationally negotiated environmental measures related to trade could provide reasonable grounds for invoking Article XX’s exceptions).

98. Barrett, *supra* note 21, at 835.

99. See Andrew L. Strauss, *From GATTzilla to the Green Giant: Winning the Environmental Battle for the Soul of the World Trade Organization*, 19 U. PA. J. INT’L ECON. L.

important that environmental regulation, which traditionally lacks strong enforcement mechanisms, be compatible with it.¹⁰⁰ In addition, bringing market forces to bear on the problem will help meet targets efficiently by providing broad incentives for finding ways to reduce GHG emissions. Whereas under a command-and-control regulatory approach emitters have the incentive to reduce emissions only to a certain extent and to go no further than necessary, a market approach with tradable allowances provides an incentive to reduce emissions and to innovate as much as possible.¹⁰¹ Furthermore, as markets grow bigger they become more efficient, and creating a program that has the capability of linking with the E.U. ETS, as has been suggested by some commentators, will lead to lower costs of compliance.¹⁰² Under a broad cap-and-trade program, reductions will first be made where there is comparable reduction advantage. In other words, the most cost effective changes will be made first, which should benefit some countries and reduce costs for all.

IV. Carbon Intensity Standards

Shortly after declaring that the U.S. would not ratify the Kyoto Protocol in 2001, President Bush announced plans that the U.S. would lower its nationwide *carbon intensity* by 18 percent between 2002 and 2012.¹⁰³ As commentators have been quick to point out, however, unless emissions intensity improves faster than the economy grows, under this framework total GHG emissions will continue to rise.¹⁰⁴ Indeed, the National Resources Defense Council (NRDC) projects GHG emissions will continue to increase by 14 percent per decade even if the plan's voluntary intensity targets are

769, 775 (1998) (arguing that the WTO could be "an effective forum for the creation and enforcement of harmonized international standards relating to process production methods . . . in such areas as clean air, clean water, hazardous waste, occupational health and safety, and national resource preservation.").

100. See *id.* at 815-16 (noting that environmental agreements often face stiff opposition from certain corporate sectors but that comprehensive trade negotiations that include environmental measures are likely to face less opposition because they offer an overall benefit to those sectors).

101. *Hearing, supra* note 17 (statement of Kjell Olav Kristiansen, Director, Advisory Services, Point Carbon North America).

102. See *Hearing, supra* note 17 (statement of Jennifer Haverkamp).

103. NATIONAL RESOURCES DEFENSE COUNCIL, "EMISSIONS INTENSITY" – POLLUTION BY ANY OTHER NAME? 2 (2005), <http://www.nrdc.org/globalWarming/fintensity.asp> [hereinafter NRDC]; see also, Mary Anne Sullivan, *Voluntary Plans Will Not Cut Greenhouse Gas Emissions in the Electricity Sector*, 6 SUSTAINABLE DEV. L. & POL'Y 47, 47 (2006).

104. NRDC, *supra* note 103, at 1.

met.¹⁰⁵ In addition, because the steel industry makes many non-standardized products, applying carbon intensity standards in this area poses extra administrative and accounting difficulties. Alternatively, emissions could be measured against economic output (e.g., by dollar value created), but this poses another set of difficulties. Finally, there seems to be little point in going through these calculations because, ultimately, “the atmosphere doesn’t care about emissions intensity.”¹⁰⁶

Although both Argentina and the U.K. have experimented with intensity commitments, no developed country other than the U.S. currently relies on this model to reduce its GHG emissions.¹⁰⁷ Nevertheless, carbon intensity standards have been resurrected by the steel industry in congressional debates about GHG regulations. Members of the steel industry do not support the Lieberman-Warner approach because they feel it does not provide enough protection for domestic producers in energy-intensive industries such as cement and steel. Some business leaders and legislators evoke the specter of a worst-of-both-worlds scenario in which GHG regulation leads to exportation of U.S. jobs and an actual increase in emissions as countries without comparable emissions standards produce abroad what was once made domestically with fewer GHG emissions.¹⁰⁸ Carbon intensity standards, they argue, are designed to stem the export of U.S. jobs, while encouraging foreign producers to adopt cleaner technologies in the most energy-intensive sectors of the economy. They argue further that their approach would lead to greater reductions in GHG emissions than are likely to result from a cap-and-trade regime. However, this approach also presents apparent conflicts with WTO obligations, and intensity standards themselves, while not inherently lax, have yet to produce meaningful progress on climate change.

A. Elements of the Proposal

The U.S. steel industry is advocating “carbon intensity standards” as an alternative to or a component of national GHG legislation.¹⁰⁹ Noting that Chinese steel production results in emissions estimated to be two to three times higher than U.S. production, the industry would like to see products that fail to meet carbon intensity requirements banned from import into the

105. *Id.*

106. *Id.* at 4.

107. HERZOG ET AL., *supra* note 1, at 10-11.

108. In addition, some legislators profess not to believe that climate change is real. *See Hearing, supra* note 4 (statement of Rep. Joe Barton).

109. U.S. Steel Makers Push Carbon-Intensity Approach to Climate Change. INSIDE US-CHINA TRADE, Mar. 12, 2008, at 1.

U.S. market.¹¹⁰ The industry argues that these performance standards would be consistent with the GATT because they qualify as a “technical regulation” under the TBT Agreement. Their approach could also be applied to domestic and foreign producers simultaneously, they claim, which means it would protect U.S. jobs in ways that temporally staggered provisions of the Lieberman-Warner bill would not.¹¹¹ However, the lack of a delay provision raises further questions about compliance with WTO obligations.¹¹² Though the TBT Agreement provides a conceivable rationale under which carbon intensity standards could be viewed as legitimate to a DSB, it would be imprudent for the U.S. to rely exclusively on such a legal theory. Furthermore, it is important to remember that even if such standards are eventually upheld by a WTO panel, the possibility that they might not be takes away from the credibility of the standards and their effectiveness at prompting exporting countries to adopt comparable measures.

Carbon intensity standards have an even less colorable claim at being compatible with the general provisions of the GATT than the Lieberman-Warner approach. Article XI’s prohibition on quantitative restrictions on trade is unequivocal: “No prohibitions or restrictions other than duties, taxes or other charges, . . . shall be instituted or maintained . . . on the importation of any product of the territory of any other contracting party.”¹¹³ Quantitative restrictions are the least-favored restrictions on trade, and a ban on goods based on their carbon intensity is clearly inconsistent with this provision of the GATT. Furthermore, the MFN provision of the GATT presents another obvious obstacle to enforcing carbon intensity standards because the U.S. would be subjecting goods from countries that did not abide by the standards to less favorable treatment. Under current WTO doctrine, the term “like product” in Article I is interpreted broadly, and DSBs have not embraced differences based on PPMs. Nonetheless, proponents of carbon intensity standards say they could be justified under the TBT Agreement or Article XX.

B. Carbon Intensity Standards and the TBT Agreement

As discussed above in Part III.C., should a Member wish to challenge U.S. carbon intensity standards, it would first have to show that the standards constitute a “technical regulation.” Then the challenging Member would have to show that the regulation does not fulfill a “legitimate

110. *Hearing, supra* note 4 (statement of James Slattery).

111. According to the current bill, international reserve allowances would not be required of importers until 2020, whereas U.S. producers’ emissions would be capped beginning in 2012. Climate Security Act, *supra* note 30, at § 6001 *et seq.*

112. *Hearing, supra* note 17, at 14 (statement of Jennifer Haverkamp).

113. GATT, *supra* note 34, art. XI.

objective” or that it is “more trade-restrictive than necessary.” In addition, the TBT Agreement contains particular notification provisions, which are designed to give Members time to become acquainted with regulations before they take effect. DSBs have had limited occasion to interpret the TBT Agreement; perhaps the dearth of precedent analyzing its various provisions makes it well suited as a screen upon which the steel industry can project its own legal interpretations and draw theoretical legal conclusions that have yet to be tested in practice. However, there is no guarantee that U.S. trading partners will accede to such interpretations.

1. Technical Regulations

Carbon intensity standards meet the requirements of a technical regulation much more easily than international reserve allowances do. As discussed in Part III.C.1, a technical regulation must apply to an identifiable product, lay down characteristics of that product and be mandatory. Unlike the broadly defined products and characteristics in the Lieberman-Warner bill, the products and characteristics of carbon intensity standards would presumably be more specific. Because a technical regulation can be based on either “product characteristics” or “processes and production methods,” it is irrelevant to this analysis that the amount of carbon emitted in the production of a product is not an inherent characteristic of the product itself. And of course the standards would be mandatory. Furthermore, like the incomplete ban in *EC – Asbestos*,¹¹⁴ under a carbon intensity regime, the U.S. would not be instituting a complete ban on imports from specified industries. Rather, only those products that did not meet the performance standards would be excluded from U.S. markets. Thus, it appears likely that carbon intensity standards would be analyzed as a technical regulation in a WTO proceeding.

2. Legitimate Objectives

Again, the inclusive list of “legitimate objectives” found in Article 2.2, including “protection of human health or safety, animal or plant life or health, or the environment,” suggests that this requirement would be construed liberally. There is little doubt that “legitimate objectives” would be construed broadly enough by a DSB to support the validity of carbon intensity standards taken as a whole, just as it would be in the event the allowance requirement were challenged.

114. See Panel Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (EC – Asbestos), ¶ 8.72, WT/DS135/R (Sept. 18, 2000).

3. Least Trade-Restrictive Manner

The biggest problem with carbon intensity standards in a WTO dispute is that they appear to be more trade restrictive than necessary or to create an unnecessary obstacle to trade. Though the U.S. would have to explain the justification for taking this approach,¹¹⁵ a challenging Member would have to show that the measure was not necessary. Under the three-part test laid out in *EC v. Sardines* and discussed in Part III.C.3, carbon intensity standards would face formidable obstacles in a DSB dispute. First, either the relevant international standard will be found within a multilateral agreement addressing climate change such as the Kyoto Protocol or its progeny, which raises one set of problems, or no such relevant standard will be found to exist, which raises another set of problems. Second, even if there is such a standard, it would not very likely be seen as the basis for carbon intensity standards. Third, a standard developed through multilateral negotiation is probably an effective and appropriate way to address climate change.

a. Relevant International Standard

As international negotiations on environmental agreements move forward, they do not seem to be embracing the concept of carbon intensity standards. Rather, there is a growing consensus that global GHG emissions need to be capped to avert a global disaster.¹¹⁶ Thus, if there is a relevant international standard or if one is emerging, it is based on absolute caps on emissions, at least for developed countries. Although Argentina and the U.K. have experimented with national energy-intensity standards,¹¹⁷ there are no relevant international standards similar to those the U.S. steel industry would promulgate. This is not fatal to carbon intensity standards, but it does suggest that it could be difficult to defend this approach against charges that it creates an unnecessary obstacle to trade. As discussed in Part III.C.3.d, one can only speculate about how the TBT Agreement will be interpreted in the absence of a relevant international standard.

b. “As a Basis For”

If a DSB finds there is a relevant international standard on GHG emissions, a Member challenging carbon intensity standards would next have to establish that it was not used “as a basis for” the U.S. measure to prove that it is inconsistent with the GATT. It is difficult to reconcile the principle of “common but differentiated responsibilities” with carbon

115. See TBT Agreement, *supra* note 44, art. 2.2.

116. SYNTHESIS REPORT, *supra* note 7, at 69.

117. HERZOG ET AL., *supra* note 1, at 10-11.

intensity standards, which would impose the same level of efficiency and responsibility on all producers of certain products. Moreover, it is fanciful to suggest that the notion of capping emissions and trading allowances, which the global community is embracing, is the basis for a command-and-control type of regulation, which other Members are likely to believe infringes upon their sovereignty. On the other hand, the U.S. might point to the Preamble to the UNFCCC, which calls for “taking into account the possibilities for achieving greater energy efficiency . . . through the application of new technologies,” to argue that there are competing international standards in the area of GHG regulation and that it has in fact used relevant international standards as the basis for its approach. Still, it is much easier to imagine a DSB agreeing with a Member’s assertion that relevant international standards were not used as a basis for a U.S. measure implementing carbon intensity standards.

c. Least Trade-Restrictive Means

Finally, Article 2.4 of the TBT Agreement permits Members to depart from a relevant international standard if it would be an “ineffective or inappropriate means for the fulfillment of the legitimate objective pursued.” In *EC v. Sardines*, the Panel described an *ineffective* means as “a means which does not have the function of accomplishing the legitimate objective pursued.”¹¹⁸ In comparison, an *inappropriate* means is “a means which is not specially suitable for the fulfillment of the legitimate objective pursued.”¹¹⁹ The Panel elaborated: “The question of effectiveness bears upon the *results* of the means employed, whereas the question of appropriateness relates more to the *nature* of the means employed.”¹²⁰ Although multilateral agreements addressing climate change are still evolving, the increasingly apparent urgency of the problem combined with the understanding that major emitters cannot be left out of the solution suggest that future agreements will probably be the most effective and appropriate means of addressing climate change given certain geopolitical realities.

While it is too early to judge the effectiveness of the Kyoto Protocol, it appears to be reducing GHG emissions to less than they would have been in its absence.¹²¹ Given the scope of the problem and the timeframes involved, a DSB would likely have to rely on projections to determine whether particular measures are effective, which will depend on the specific international agreements in place at the time carbon intensity standards take effect. In terms of appropriateness, US – *Shrimp* strongly suggests that

118. Panel EC – Sardines, *supra* note 63, ¶ 7.116.

119. *Id.*

120. *Id.*

121. SYNTHESIS REPORT, *supra* note 7, at 62.

multilateral environmental agreements can fit comfortably with the WTO framework.¹²² Again, predictions on how a DSB would rule can only be speculative until there is more litigation involving the TBT Agreement. However, there seem to be many paths to successfully challenging the legality of carbon intensity standards.

4. Notification Provisions

The TBT Agreement also contains transparency-promoting provisions that require Members to notify other Members about proposed regulations whenever a relevant international standard does not exist or the regulation is not in accordance with relevant international standards.¹²³ Notifications shall “take place at an early appropriate stage, when amendments can still be introduced and comments taken into account.”¹²⁴ Moreover, Members are to “allow reasonable time for other Members to make comments in writing, discuss these comments upon request, and take these written comments and the results of these discussions into account.”¹²⁵ Similar provisions address conformity assessment procedures¹²⁶ and enquiry points.¹²⁷ Additionally, “Members shall allow a reasonable interval between the publication of technical regulations and their entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products or methods of production to the requirements of the importing Member.”¹²⁸ Though these procedural requirements do not pose substantive barriers to enacting carbon intensity standards, they do create the potential for delay.

According to the steel industry, a major advantage of carbon intensity standards over requiring international reserve allowances from importers is that they could be implemented contemporaneously for importers and domestic producers.¹²⁹ In contrast, the Lieberman-Warner bill envisions a delay of eight years between the imposition of the domestic cap on GHG emissions and the requirement that importers from non-capped countries

122. US – Shrimp, *supra* note 3, ¶ 166.

123. TBT Agreement, *supra* note 44, art. 2.9.

124. *Id.* art. 2.9.2.

125. *Id.* art. 2.9.4.

126. *See id.* art. 5.

127. *See id.* art. 10.

128. TBT Agreement, *supra* note 44, art. 2.12.

129. *Hearing, supra* note 17 (statement of Abraham Breehey, Assistant Director of Government Affairs, International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers).

provide international reserve allowances.¹³⁰ However, there is a high likelihood that carbon intensity standards will entail some delay before they apply to any producers, domestic or foreign. These delays increase the overall cost of reducing GHG concentrations to safe levels, according to the IPCC's Fourth Assessment Report.¹³¹

Furthermore, the provisions of the TBT Agreement are meant to ensure that the concerns of developing countries in particular are considered when Members adopt technical regulations.¹³² Although there are no precedents elucidating the test to measure whether a Member had adequately considered the concerns of developing countries, in light of the express language of Article 2.12, blatant disregard for those concerns is likely to draw criticism from a DSB.¹³³ Thus, although the notification provisions are not likely to be the basis on which a DSB invalidates a technical regulation, a lack of transparency along with other problematic aspects in the application of a regulation could contribute to its cumulative effects, which could, in sum, violate the GATT.¹³⁴

A. Carbon Intensity Standards and Article XX

In contrast to the lack of interpretative decisions regarding the TBT Agreement, there is ample WTO precedent indicating that carbon intensity standards would have significant barriers to overcome to be justified under Article XX. In *US – Shrimp*, for example, the U.S. regulation regarding TEDs was applied in a way that had a coercive effect on other nations because it required a regulatory scheme that was “essentially the same” as the U.S. approach to protecting sea turtles. Although U.S. officials are now forewarned about applying the carbon intensity requirement according to a rigid and unbending standard, there is less room for flexibility with carbon intensity standards, which would require essentially the same production methods for many products, than there is with international allowances. This would depend on a more lenient standard, i.e., “comparable action” by other WTO Members. Indeed, a fundamental reason why carbon intensity standards appeal to various industry groups is that they can be tailored to favor domestic industries. Further, they are rigid, making it onerous for trading partners to comply with them. But this is not efficient, and therefore this approach is fundamentally at odds with the WTO's goal of promoting market efficiency through liberalized trade policies.

130. *Hearing*, *supra* note 17 (statement of Jennifer Haverkamp).

131. SYNTHESIS REPORT, *supra* note 7, at 62.

132. *See* TBT Agreement, *supra* note 44, pmb1.

133. *See id.* art. 2.12.

134. *See* *US v. Shrimp*, *supra* note 3, ¶ 176 (discussing transparency and procedural fairness in trade regulations).

Moreover, one of the purported justifications for the TED regulations that the Appellate Body rejected was that it would enhance the transfer of technology to developing countries.¹³⁵ The same argument is being made by the steel industry today in support of carbon intensity standards.¹³⁶ However, WTO precedent makes it clear that even if a measure can be justified on policy grounds, it will not satisfy the requirements of the chapeau if it results in arbitrary or unjust discrimination or is a disguised restriction on trade. There is a strong likelihood that carbon intensity standards would fail to satisfy the requirements of the chapeau to Article XX. Given the numerous arguments that could be made as to their arbitrariness and inappropriateness, it is not surprising that the steel industry is looking to the TBT Agreement rather than Article XX as a basis for defending their preferred approach.

B. Policy Features Related to Carbon Intensity Standards

Aside from the legal aspects of carbon intensity standards that make them less than ideal, yet another, more fundamental, difficulty with this approach is that reducing carbon intensity does not necessarily cut total emissions. The Bush administration's 2002 pledge to reduce carbon intensity by 18 percent through voluntary efforts illustrates why a WTO panel might look skeptically at carbon intensity standards. Because such measures do not necessarily lead to reductions, it is hard to argue that they are necessary to achieve a legitimate purpose. Furthermore, "because performance standards do not encourage end users to reduce their consumption of carbon intensive goods, they will leave behind some low cost abatement opportunities, thereby raising the overall cost to all the rest of us of achieving a particular emissions target."¹³⁷

Though carbon intensity standards are not inherently ineffective, neither are they inherently effective. As most of the world has opted to combat climate change by adopting regulatory schemes with absolute targets, one can anticipate that a DSB may be critical of a Member advocating a different approach that has not proven effective in the past. In its assessment of intensity targets, the World Resources Institute concluded that "[i]ntensity targets can work alongside absolute targets [but] data and experience suggest that there is not a clear advantage of doing so."¹³⁸ The steel industry has argued that the lure of U.S. markets will entice foreign manufacturers to quickly adopt carbon-efficient technology that they

135. *Id.* ¶¶ 22, 51, 175.

136. *Hearing*, *supra* note 4 (statement of James Slattery).

137. *Id.* (statement of Richard Morgenstern, Senior Fellow, Resources for the Future).

138. HERZOG ET AL., *supra* note 1, at 24.

otherwise would not have, at least with regard to the products made for the U.S. market.¹³⁹ Other Members may soon adopt similar measures, the argument goes, furthering the effectiveness at reducing GHG emissions via performance standards. This line of argument remains rather speculative. At the same time, a key feature of intensity targets is that “the ultimate environmental outcome cannot be known in advance with certainty.”¹⁴⁰ Such theoretical results are unlikely to be persuasive before a DSB. In addition, carbon intensity standards have a shabby track record for reducing GHG emissions in the U.S. Though it is true that this has more to do with their lack of stringency than the form the emission targets have taken, this could raise more concerns with a DSB, particularly as other Members are achieving meaningful reductions in GHG emissions through other means.

Moreover, there is a growing consensus that global cooperation is necessary to combat climate change, and carbon intensity standards are at odds with the approach that has been favored internationally. General principles of international law obligate nations to ensure that their actions “conform to generally accepted international rules and standards for the prevention, reduction, and control of injury to the environment of another state or of areas beyond the limits of national jurisdiction.”¹⁴¹ Additionally, the TBT Agreement requires that international standards be selected when they are available. The carbon intensity approach does not conform to the internationally recognized approach already underway with the Kyoto Protocol. Another principle of international law is that nations who enter international agreements should “refrain from acts that would defeat the object and purpose of the agreement.”¹⁴² Not only would carbon intensity standards possibly conflict with the UNFCCC, which obligates all nations to take action to combat climate change, it is also at odds with basic principles of the GATT. Article XX requires environmental measures to avoid arbitrary and unjust discrimination, but there are many indications that this is precisely why they are favored by certain industry groups in the U.S. Especially in the realm of environmental protection and when the U.S. until recently carried the banner of the world’s greatest emitter of GHGs, adherence to general principles of international law is key to promoting earnest negotiation and cooperation.

Even if carbon intensity standards would be effective at reducing GHG emissions, an even larger problem is their apparent inappropriateness. In

139. *Hearing, supra* note 4 (statement of James Slattery).

140. HERZOG ET AL., *supra* note 1, at 15. Indeed, the tradeoff of greater economic certainty for less environmental certainty is precisely why intensity standards appeal to certain industry groups.

141. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 601(1)(a) (1987) [hereinafter Restatement].

142. Restatement, *supra* note 141, § 312(3).

EC – *Asbestos*, the Panel noted that “when a relevant international standard is found to be an effective means, it does not automatically follow that it is also an appropriate one.”¹⁴³ Although protecting the environment by limiting GHG emissions may be a legitimate objective, adopting measures that ninety percent of U.S. industry already complies with and that are costly for other Members to comply with would generate skepticism before a DSB. Furthermore, the complexity of carbon intensity standards poses additional administrative costs, which are difficult to justify in the absence of their proven effectiveness. One way that technical regulations can inhibit international trade is when demonstrating conformity with the regulation results in undue costs.¹⁴⁴ Because developing countries are less likely to have adequate regulatory agencies and equipment in place, these costs would be significant. When most of the cost of a technical regulation is borne by countries least able to pay, a DSB is more likely to find the measure to be an inappropriate means of achieving a legitimate objective. Particularly when other regulatory schemes already in place such as emissions trading reduce the costs associated with limiting GHG emissions, a U.S. scheme that mandates those costs be borne by specified industries in specified countries is likely to face intense scrutiny.

V. Some Additional Considerations for GHG Policy Design

Lawmakers agree that there is no silver bullet to stop the relentless advance of climate change. Every approach to addressing this problem is an imperfect one, but perhaps the least perfect one of all is to maintain the status quo, in a perpetual staring contest with the developing world to see who will blink first. The key is to stop blindly following a policy that continues to make the problem worse and to take action that will open the eyes of the market to the many available solutions. Senators Bingaman and Specter¹⁴⁵ sponsored a bill competing with Lieberman-Warner that offers a suggestion of a few of the variations that are possible in a cap-and-trade program that may be helpful to lawmakers seeking a politically feasible approach. In addition, environmental groups such as the Environmental Defense Fund (EDF) and the NRDC have testified before congressional committees as to how the cap-and-trade framework can be adjusted to produce the greatest results in terms of the environment at the least cost. Other government agencies in the U.S. and abroad have analyzed the issue in depth as well. Their collective contributions deserve mention here so as

143. Panel EC – *Sardines*, *supra* note 63, ¶ 7.116. *See also* Appellate EC – *Asbestos*, *supra* note 49, ¶ 289 (noting that “it is conceptually possible that a measure could be effective but inappropriate, or appropriate but ineffective”).

144. *See* Sykes, *supra* note 44, at 3-4.

145. Low Carbon Economy Act of 2007, S. 1766, 110th Cong. (2007).

to make it clear that even if carbon intensity standards are taken off the table, lawmakers nevertheless have ample flexibility in designing an effective GHG emissions program.

A. Safety Valve

A safety valve is a price limit on allowances – emitters can buy as many allowances as they want at a particular price. The Lieberman-Warner bill does not contain a safety valve; the hope is that this will provide greater incentives for emitters to reduce their GHG emissions. Environmental groups oppose having a price cap, noting that this would provide insufficient incentives for businesses to innovate and reduce emissions.¹⁴⁶ The IPCC's Fourth Assessment Report estimates that an effective carbon-price signal would have to be around \$20-80, though technological advances might reduce that range to \$5-65.¹⁴⁷

The Bingaman-Specter proposal has garnered support from industry groups such as the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers & Helpers because it includes a price cap on emissions credits, which it calls "technology accelerator payments."¹⁴⁸ The fees collected would go to developing additional technology or assisting workers who were displaced under a carbon-regulated economy. Under their proposal, the cap would start at \$12 per metric ton of carbon, increasing 5 percent above the rate of inflation each year.¹⁴⁹ The National Commission on Energy Policy recommended a similar policy in its August 2007 report.¹⁵⁰ At first glance, a steadily increasing cap seems like a good way to accommodate the concerns of each side; however, a safety valve would preclude the U.S. from linking its trading system with the E.U. ETS.¹⁵¹ Because larger markets are inherently more efficient, the U.S. should not pass on this opportunity to reduce costs.

B. Offsets

Offsets are emissions credits earned by those who reduce emissions. In its latest form, the Lieberman-Warner bill would allow emitters to submit

146. *Hearing, supra* note 17 (statement of Jennifer Haverkamp).

147. JANE A. LEGGETT, CLIMATE CHANGE: SCIENCE UPDATE 2007, CONG. RESEARCH SERV. DOC. NO. RL34266, at 13-14 (2007).

148. *Hearing, supra* note 17 (statement of Abraham Breehey).

149. LARRY PARKER & BRENT D. YACOBUCCI, GREENHOUSE GAS REDUCTION: CAP-AND-TRADE BILLS IN THE 110TH CONGRESS, CONG. RESEARCH SERV. DOC. NO. 33846, at 3 (2007).

150. NATIONAL COMMISSION ON ENERGY POLICY, ENERGY POLICY RECOMMENDATIONS TO THE PRESIDENT AND 100TH CONGRESS 12 (2008).

151. *Hearing, supra* note 17 (statement of Jennifer Haverkamp).

domestic offsets for up to 15 percent of their required allowances.¹⁵² Another 15 percent of their allowances could be earned from international offsets.¹⁵³ All offsets would have to be verified according to the regulations promulgated by the Administrator.¹⁵⁴ The E.U.'s experience with emissions trading indicates how important offsets can be to achieving emissions targets on schedule and at a reasonable cost. Interestingly, the allowance of international offsets was a hard-won concession by the U.S. in the Kyoto negotiations. As the first commitment period under the Kyoto Protocol gets underway, it is already apparent to many European countries that the CDM is the most important means for the EU to comply with its obligations.¹⁵⁵

Members of the EDF have proposed amending the Lieberman-Warner proposal to create an international market for GHG emissions credits and allowing even countries without caps to participate, at least for a time, and albeit their emissions would not be accepted on a one-to-one ratio with reductions in countries where emissions are capped.¹⁵⁶ Therefore, countries without caps would still have an incentive to impose them. An additional benefit for U.S. producers is that the access to international credits would significantly reduce their compliance costs. Provisionally allowing international offsets would reduce compliance costs for U.S. industry in the short term and pave the way for lower emissions worldwide in the long term. Furthermore, accepting offsets as an international currency in emissions trading would give importers an alternative to purchasing credits directly from the U.S. This would add legitimacy to the requirement that international reserve allowances accompany imports into the U.S. and possibly preclude a DSB from finding unjust discrimination has resulted from the program.

C. Targets and Scope

As with the multitude of allowance schemes in proposed bills, there have been a number of proposed reduction targets based on various percentages and baseline years. The Fourth Assessment Report suggests that an appropriate target for developed countries would be a 60 percent to 80 percent reduction in GHG emissions by 2050.¹⁵⁷ The target set in the current version of the Lieberman-Warner proposal will not achieve this level of reductions; the goals of the Bingaman-Specter bill are less ambitious.

152. See Climate Security Act, *supra* note 30, § 2402 *et seq.*

153. See *id.* § 2501 *et seq.*

154. *Id.*

155. See Morgan, *supra* note 88, at 158.

156. Jutta Hennig, *Congress Weighs Competing Requirements in Climate Change Bills*, INSIDE U.S. TRADE, Mar. 7, 2008, at 2.

157. LEGGETT, *supra* note 147, at 14.

Because of the cumulative effect of GHGs in the atmosphere, current reductions significantly reduce the amount of reductions that will eventually be needed. However, most commentators agree that any movement in the right direction by setting an absolute cap now will pay dividends.

Many commentators also agree that the lowest cost for reducing GHG emissions would be achieved if all emissions were included in a cap-and-trade proposal, or alternatively, if a carbon tax were imposed across the board on all energy consumption. The task of creating such a system is so large that it might never happen. Meanwhile, a cap-and-trade program on energy-intensive industries is a good place to start. This will address about half of U.S. emissions from the outset, and the program is readily expandable because allowances are tradable.

VI. Conclusion

Legislators who are reluctant to address the problem of climate change will always be able to list reasons to “wait and see” before enacting such a major piece of legislation. But it is abundantly clear that the costs of addressing climate change increase exponentially with delay. Furthermore, to be effective, a policy needs to have broad bipartisan appeal. Otherwise the vicissitudes of the electorate will not provide the market stability and adequate incentives to induce investment in innovation on the scale that is needed. So now is the time to begin.

The cap-and-trade program embodied in Liberman-Warner is a good place to start the transition into a low-carbon economy because it is based on markets and probably consistent with WTO rules. This approach provides incentives to move in the right direction and spreads the costs of implementing major changes across a large portion of U.S. industry. Furthermore, a U.S. cap-and-trade program would build on the progress of the WTO in resolving international disputes on trade without having to develop a separate enforcement regime as DSBs already have the recognized authority to make sovereign governments act or face the threat of economic sanctions from other Members. In contrast, though a performance standards approach might offer a temporary respite for a few domestic industries, in the long run it increases the costs of halting climate change because it is narrower in scope and administratively costly. Moreover, the close association of carbon intensity standards with lax environmental policies of the past and present is likely to deter international cooperation where it is crucial. Carbon intensity standards represent the latest in a series of ineffective approaches that have enticed policymakers with the proposition that the problem can be addressed without any real sacrifice on the part of their constituents. It is time to make a clean break from such policies. American citizens have shown an increasing willingness to make some sacrifices in the global fight against climate change if they are evenly

shared and produce real results – two outcomes that are least likely to result from carbon intensity standards.