

Policymakers need to avoid regulations and policies that unnecessarily damage the global economy and trading system.

Introduction

Advocates of aggressive measures to combat climate change have settled on a cap-and-trade approach for controlling the greenhouse-gas emissions that are supposedly responsible for climate change.¹ Under a cap-and-trade program, firms would lower their greenhouse-gas emissions in response to a government-imposed cap on total national emissions. Those emitting less than their allotted cap would be able to sell their excess emission allowances to firms exceeding their emissions quotas. As the overall emissions cap is tightened over time, the price of emissions increases and incentives to cut emissions intensifies.

Even assuming that aggressive actions to reduce greenhouse gas emissions are necessary, however, a national cap-and-trade program presents a fundamental quandary: this national solution is inadequate to address what is an essentially international problem. That is, U.S. emissions amounted to about 20 percent of global emissions in 2006, and are forecast to fall to about 10 percent by 2050, even without any active emissions policy.¹ Clearly, U.S. actions alone will not be sufficient to combat global warming.

This mismatch between the international scope of the problem and the proposed solution presents several difficulties. First, in terms of policy effectiveness, the comprehensive climate change bill recently passed by the House of Representatives (dubbed the Waxman-Markey bill, after its cosponsors) will have only negligible effects on global temperatures. Using a model developed by the National Center for Atmospheric Research, climate researcher Chip Knappenberger estimates that after the full emissions reductions envisioned by the Waxman-Markey bill take effect, global temperatures would fall by only nine hundredths of one degree Fahrenheit, compared to business-as-usual projections for 2050.²

Second, cap-and-trade presents political obstacles: convincing energy-intensive industries to take on extra costs in the name of reversing climate change has proven to be controversial. Concerned that their efforts to reduce emissions will put them at a competitive disadvantage com-

pared with firms located in jurisdictions with more lenient emission policies, energy-intensive industries have called for government assistance.

The prospect of inaction by others while the United States acts—and pays—to reduce emissions has produced misguided proposals as politicians attempt to assuage competitiveness concerns and exert leverage on the rest of the world. Proposals have included provisions that domestic action on climate change be conditional upon similar regulations in competing countries; that especially energy-intensive and/or “trade-vulnerable” industries receive free emissions permits; and that policymakers introduce import barriers on imports from “uncapped” countries to offset energy-cost differences. The Waxman-Markey bill, for example, has incorporated some of these proposals. It attempts to address competitiveness concerns by giving up to 85 percent of emission permits away free to certain industries and by implementing border measures to restrict imports from jurisdictions with fewer restrictions on greenhouse gas emissions.

In so doing, however, the bill creates a host of other problems, notably by running afoul of global trade rules and exposing U.S. industry to retaliation and copycat regulations that would negatively affect U.S. exports. Furthermore, by irritating large developing countries that are most crucial to securing an international agreement on climate change, the bill may undermine the very purpose for which it was ostensibly designed.

This paper will not attempt to outline the case for or against actions to curb climate change, or to debate the relative merits of different types of greenhouse-gas abatement policies.³ But the discussion that follows should make it clear that policymakers need to avoid regulations and policies that unnecessarily damage the global economy and trading system. Policies that support a more open and prosperous global economy will ultimately provide a cleaner path to a healthier environment.

Unfounded Fears about “Competitiveness”

By increasing energy costs, proposals to

reduce greenhouse gas emissions have drawn criticism that American firms will be at a competitive disadvantage compared to their “uncapped” counterparts (i.e., firms producing in countries that have not adopted equivalent emission-abatement strategies). These competitiveness concerns are based on the theory that asymmetrical commitments on climate change regulations will affect the relative competitiveness of U.S. producers compared to others, particularly developing country trade partners or competitors. As firms move to countries with lower emissions caps, total global emissions could increase. Academic lawyers Robert Howse and Antonia Eliason summarize the position as follows:

If developed countries reduce their emissions while developing countries are exempted from making reductions, the cost disparity between goods produced in developed and developing nations could increase further, giving developing countries a competitive edge and harming the balance of trade for developed countries. Furthermore, companies in developed countries may choose to move production to countries where reducing emissions is not mandatory, thus undermining the reductions achieved in the developed country.⁴

The (theoretical) tendency of firms to move their production facilities to less stringent jurisdictions, thus undermining economic growth and efforts to control greenhouse gas emissions, has been dubbed “leakage.”

During testimony to the House Science and Technology Committee hearing in March, Energy Secretary Steven Chu invoked carbon tariffs as a way to “level the playing field” if trade partners don’t impose greenhouse gas reduction measures. In response to a question about the consequences if China refuses to limit emissions, Secretary Chu clarified that “We talked about, in terms of international trade, of adjusting duties as a way. Because again, we don’t want to disadvantage our indus-

tries at home.”⁵ More recent statements from President Obama suggest some welcome rethinking on the part of the administration about the harmful effects of carbon tariffs. Policymakers concerned about economic recovery in the United States and abroad would do well to resist the siren song of protectionism under any guise.

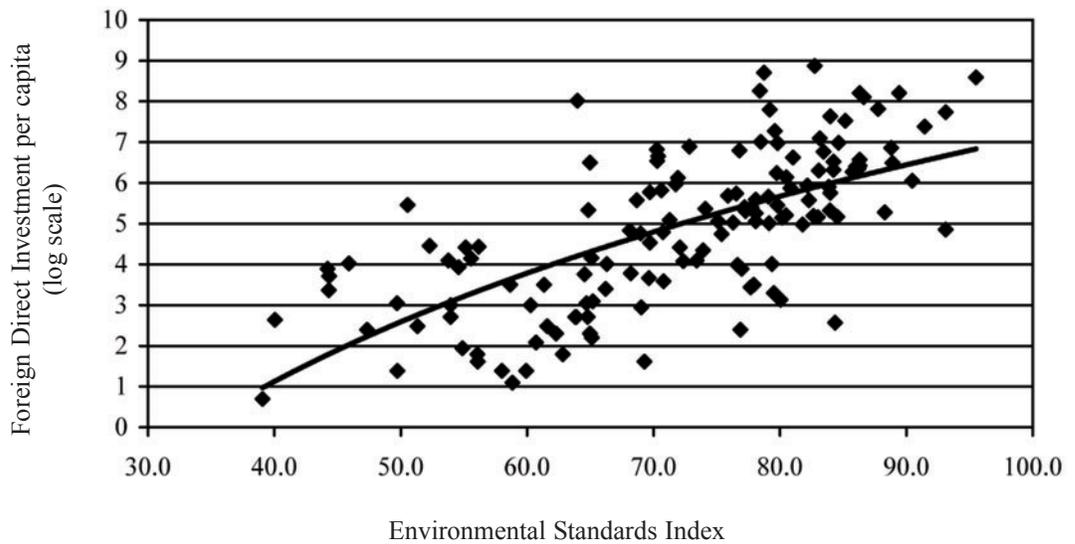
Fears about loss of competitiveness are not limited to the United States. Canada has recently delayed implementing greenhouse gas emissions caps until the U.S. regime is settled, citing concerns about industrial competitiveness and Canadian reliance on the U.S. market as a reason for the delay.⁶ Australia’s carbon emissions scheme, which includes a cap-and-trade system and giveaways to certain industries, is currently held up in the Australian Senate over competitiveness concerns.⁷

Potential adverse effects on domestic output and employment in energy-intensive industries is only one half of the “leakage” problem. As production moves from “capped” to “uncapped” countries to take advantage of cost differences, goes the argument, efforts to combat climate change are undermined. Evidence suggests that concerns about carbon leakage are overblown. Brookings Institution policy scholar Jason Bordoff points out that most U.S. emissions of greenhouse gases come from nontradeable sectors (e.g., transport and housing) that could not, by definition, move offshore in search of more lenient jurisdictions.⁸ Furthermore, despite the popularity of the “race to the bottom” theory of firm migration, the evidence does not support the notion that investment flows to countries that impose relatively few environmental restrictions. On the contrary, as Figure 1 shows, there is in fact a weak *positive* relationship between environmental standards and net inflows of foreign direct investment. Firms apparently place relatively little weight on environmental compliance costs when making their investment decisions.

Surveying the literature on carbon leakage specifically, Bordoff suggests that only about 10 percent of reduced U.S. emissions would “leak” to other countries. In other words, a 20 percent reduction in U.S. emissions would see only a 2 percent offsetting increase in emissions abroad. Because energy costs

Evidence suggests that concerns about carbon leakage are overblown.

Figure 1
Environmental Standards and Foreign Direct Investment



Sources: Yale Center for Environmental Law and Policy, and Center for International Earth Science Information Network, Columbia University; the World Economic Forum, and the Joint Research Centre of the European Commission (2008). 2008 Environmental Performance Index, <http://sedac.ciesin.columbia.edu/es/epi/>; and UNCTAD (2007 data), <http://stats.unctad.org/FDI/TableViewer/tableView.aspx>.

are typically only about 2 percent of total costs of manufacturing industries, moreover, any leakage that does occur is seemingly impervious to the efforts of lawmakers to shield domestic competitors from competition: firms apparently make decisions about location based on more important factors. Bordoff quotes an EPA study on the border adjustment program of a previous climate change bill, which estimates that border measures would prevent only half a percentage point of the 10 percent leakage that would otherwise occur.⁹ In other words, border measures would see the offsetting increase in emissions in the above example fall to 1.9 percent. Border measures to prevent “leakage” are apparently as ineffective as they are hazardous to the global trading system.

Once again, compelling economic logic has not prevented politicians from talking about using trade measures as a weapon. Carbon tariffs and other trade measures can, by their reasoning, be used as “leverage” to encourage errant countries to adopt climate change reduction measures: by dangling the carrot of increased access to markets if the trade partner adopts the “correct” poli-

cy, countries will want to reduce their emissions for the supposed benefit of all.

Gary Hufbauer, Steve Charnovitz, and Jisun Kim, scholars at the Peterson Institute for International Economics, make an important point on this score, at least as it relates to the “leverage” available to the United States. Most carbon-intensive imports come from other developed countries with lower total and per-capita emissions than the United States and, in the case of the European Union, with stricter greenhouse gas regulations.

Following the example provided by Hufbauer et al., and updating for the latest figures, Table 1 shows that China—a key target of those keen for the United States to exert “leverage” over errant climate regimes—accounts for only a small share of U.S. imports of carbon-intensive products. China’s largest import share is in steel, and even there it accounted for only 17 percent of total imports in 2008. Meanwhile, aside from chemicals (and here China’s share of imports is negligible), at least 62 percent of imports of energy-intensive goods comes from other industrialized countries, most of which have signed up to emis-

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Table 1
Energy-Intensive Imports by Country, 2008 (millions of dollars)

Steel			Cement			Chemicals								
Rank	Country	Value	% Share	Rank	Country	Value	% Share	Rank	Country	Value	% Share			
1	Canada	7,094	18.3%	1	Canada	338	42.8%	1	Algeria	2,693	18.3%			
2	China	6,604	17.0%	2	China	106	13.4%	2	Saudi Arabia	2,056	14.0%			
3	Mexico	3,361	8.7%	3	Mexico	87	11.0%	3	Iraq	1,651	11.2%			
4	Korea	2,319	6.0%	4	Colombia	68	8.6%	4	Venezuela	1,383	9.4%			
5	Japan	2,179	5.6%	5	Korea	54	6.8%	5	Trin & Tobago	1,199	8.2%			
6	Germany	2,031	5.2%	6	Taiwan	36	4.6%	6	Canada	1,040	7.1%			
7	India	1,967	5.1%	7	France	22	2.8%	7	Korea	750	5.1%			
8	Taiwan	1,222	3.1%	8	Sweden	13	1.6%	8	Libya	616	4.2%			
9	Ukraine	1,189	3.1%	9	Greece	12	1.5%	9	Brazil	441	3.0%			
10	Brazil	1,121	2.9%	10	Croatia	10	1.3%	10	Russia	419	2.8%			
Total Imports				Total Imports				Total Imports						
EU-27:			7,984	20.6%	EU-27:			63	8.0%	EU-27:			591	4.0%
OECD:			24,174	62.3%	OECD:			549	69.6%	OECD:			2,683	18.2%

Paper			Aluminum						
Rank	Country	Value	% Share	Rank	Country	Value	% Share		
1	Canada	9,509	52.6%	1	Canada	7,629	58.8%		
2	China	2,274	12.6%	2	Russia	1,053	8.1%		
3	Finland	993	5.5%	3	China	741	5.7%		
4	Germany	954	5.3%	4	Germany	648	5.0%		
5	Mexico	844	4.7%	5	Brazil	299	2.3%		
6	Japan	485	2.7%	6	Venezuela	293	2.3%		
7	Korea	412	2.3%	7	Argentina	278	2.1%		
8	Indonesia	291	1.6%	8	United Arab Em241	209	1.6%		
9	Brazil	245	1.4%	9	Mexico	209	1.6%		
10	France	229	1.3%	10	South Africa	183	1.4%		
Total Imports				Total Imports					
EU-27:			3,200	17.7%	EU-27:			1,180	9.1%
OECD:			14,703	81.4%	OECD:			9,410	72.6%

Source: US International Trade Commission, Interactive Tariff and Trade Database, available from <http://dataweb.usitc.gov> (accessed on July 7, 2009). SITC codes available from author on request.

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sions reductions targets already. That the bulk of America's imports of energy-intensive goods are sourced from relatively "clean" countries will limit the punitive effect of U.S. carbon tariffs.¹⁰

The whole point of a cap-and-trade program is to boost the cost of carbon emissions and thereby encourage American industry to specialize in "clean" sectors. The consequence of an effective program, however, would be a wrenching transition, as the cost of vital energy inputs rises and resources are reallocated. Politicians, however, shrink from embracing the painful tradeoffs that their stated policy preferences dictate, and consequently they fudge by trying to reduce emissions while still maintaining employment in "dirty" sectors. The result, as exemplified by Waxman-Markey, is a tangled mess of subsidies and mandates that threatens the U.S. economy and global commercial relations.

Damage to the Global Trading System

Certainly there is nothing wrong with wanting economic growth and a cleaner environment; indeed, the two goals are often compatible. But as world energy use is projected to increase by 44 percent between 2006 and 2030,¹¹ and the economic recovery from the current downturn appears slow, tensions between reducing greenhouse gas emissions and promoting economic growth will likely increase. It is important that those tensions do not trigger misguided policies that jeopardize gains from trade.

The climate change bill now being shepherded through Congress incorporates many trade measures potentially subject to WTO rules. Reps. Henry Waxman, (D-CA), chairman of the House Energy and Commerce Committee; and Edward Markey, (D-MA), introduced their bill in March 2009. Passed narrowly by the House of Representatives on June 26 as the American Clean Energy and Security Act (H.R. 2454), the Waxman-Markey bill has emerged as the "front-runner" in the contest to set climate change legislation. The Senate is due to consider a companion bill in the fall of 2009.

The Waxman-Markey bill is commonly referred to as a cap-and-trade program, although it is more accurately referred to as a hybrid plan since it also includes a renewable-electricity standard, free emission allowances for certain industries, energy-efficiency mandates, and vast amounts of spending initiatives (\$821 billion worth over the first ten years, according to the Congressional Budget Office).¹²

Opponents have raised many objections to the bill, including inadequate attention to agriculture (currently responsible for 7 percent of emissions in the United States and 16 percent globally,¹³ with the potential to earn credits through conservation and environmentally friendly land-use practices on farms) and the insufficiency of emissions reductions targets, as well as the cost. A bill that is over 1,400 pages long and filled with loopholes, exceptions, and special favors for certain industries, is an invitation for lobbying and corruption. A recent *Financial Times* editorial said the bill would "create a perpetual struggle for political advantage."¹⁴ Certainly those industries not politically connected will be at a disadvantage compared with those that receive their carbon ration coupons free of charge.

When it comes to the trade implications of the bill, two provisions stand out as possibly covered by World Trade Organization agreements, to which the United States is a party. First, the free allowances granted to energy-intensive industries may constitute "actionable" subsidies under the WTO Agreement on Subsidies and Countervailing Measures. Second, the imposition of import restrictions in the form of an "international reserve allowance program" may violate the nondiscrimination requirements of Article I and Article III of the General Agreement on Tariffs and Trade.

Before proceeding with the analysis, though, a caveat is in order. The WTO-consistency of any particular policy is often difficult to establish in advance. While the purpose of this study is not to anticipate the full range of claims that would be raised in a dispute, there are some fairly clear guidelines about which environmental or related measures would not likely conform to U.S. obligations under WTO rules. The discus-

sion that follows is therefore only a brief outline of the types of questions that a WTO reviewing body would consider in conducting its analysis and formulating a ruling.¹⁵

With that in mind, let us turn our attention to the free allowances granted to address the purported problem of carbon leakage. Giving assistance to certain U.S. firms to offset, or at least help them adjust to, the increased costs associated with regulations designed to reverse climate change may constitute a subsidy under WTO rules. In this regard, it is important to note here that the WTO definition of a subsidy is broader than the conventional definition, which usually refers to government outlays. Article 1.1(a)(1)(ii) of the Agreement on Subsidies and Countervailing Measures includes in its definition of a subsidy “government revenue that is otherwise due is foregone or not collected (e.g., fiscal incentives such as tax credits).” In addition to government grants and tax exemptions for certain industries, free emission allowances to certain U.S. industries, for example, would likely fit this definition of a subsidy and would therefore be subject to the other provisions of the Agreement.¹⁶ Certainly if the allowances are then resold on the carbon market, they would likely represent an actionable subsidy.¹⁷

Subsidies for nonagricultural goods are generally divided into two categories (additional rules for agricultural subsidies are provided by the Agreement on Agriculture). The first category is prohibited subsidies, which are those subsidies that are contingent on export performance or on the use of domestic content, rather than imported inputs. These are forbidden under the terms of Article 3 of the Agreement on Subsidies and Countervailing Measures. Subsidies that are not prohibited are nonetheless actionable if they cause “adverse effects” to the interests of another member, for example by “displac[ing] or impeded[ing] imports . . . in the market of the subsidizing Member,”¹⁸ or are specific (i.e., limited) to certain industries, and give a benefit to domestic producer(s) in that industry. If a subsidy is found to be actionable, the offending member must remove the subsidy or its injurious effects.

It is worth noting that in the event that free

emissions allowances are deemed an actionable subsidy, the amount of the subsidy, and hence the amount of any damages due, will be relatively easy to assess by reference to the “carbon price” established in the market for emissions permits. Any analysis of this type would likely have to consider that the carbon price would have been higher if more energy intensive, inelastic demanders of energy (those industries especially favored with free allowances under the Waxman-Markey bill) had been buying their allowances in the market and pushing the price up.

In addition to free emission allowances, any provisions that specify subsidies or consumer rebates that should go to manufactured items that are produced in the United States would be problematic, even if they might not fit the definition of a local-content scheme that automatically confers prohibition on that subsidy. The Waxman-Markey bill, for example, contains a “Vehicle Manufacturing Assistance Program,” which will provide financial assistance to automobile manufacturers to “facilitate the manufacture of plug-in electric drive vehicles . . . that are *developed and produced in the United States*” (emphasis added). Although many foreign carmakers have factories in the United States and would presumably qualify for those subsidies, denying them to imported cars (including those from U.S.-owned factories abroad) would seem to undermine the bill’s ostensible purpose of protecting the global environment by encouraging the development of fuel-efficient cars. Likewise, subsidies for users of renewable or “clean” energy technology would need to avoid discriminating against imports of “like” goods and services in order to be at least superficially safe.

Bordoff makes the case that since firms make production decisions based on marginal costs and revenues, a simple transfer from the government in the form of free emissions allowances will not influence production decisions. A firm that uses all its free allowances will, after all, forgo the opportunity to sell those allowances on the market, and will pass those opportunity costs on to consumers. The domestic firm and its downstream consumers are thus *not* exempted from paying the full cost of emissions even if the allowance is “free” and will not have a competi-

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tive advantage over taxed importers. Importers may, as a consequence, escape the sort of “adverse effects” that would render the subsidy actionable. If free allowances are “production-decision neutral,” though, giving free allowances will not be effective in preventing the reductions in output and emissions that the plan aims to achieve, even as it transfers taxpayer money to the firms’ shareholders.¹⁹

The Waxman-Markey bill provides free emission permits to particular U.S. industries thought to be at special risk of competition from noncompliant countries, and whose energy use is relatively high, and therefore particularly vulnerable to increased energy costs. However, it may not be the benign sort of free allowance scheme outlined by Bordoff. For one thing, the bill specifies that electricity companies must use the proceeds from selling emission allowances to keep prices low for consumers. If prices to consumers do not increase, demand will not fall, and the firms’ output will remain constant (or possibly increase).

For another, it appears that emissions allowances would be given on the basis of output to a certain subset of industries. Under this type of allocation, a certain number of allowances are set aside for specified industries and each firm in the industry would receive allowances based on its share of industry output. Bordoff refers to this being “the functional equivalent of auctioning off allowances and then using the revenue to subsidize production.”²⁰ Beneficiary firms would have less incentive to decrease output absent the de facto production subsidy (indeed, they may increase production) and therefore would potentially harm importers’ interests.

It is worth noting here that rebates on energy taxes or charges (or their functional equivalent) relating to emissions allowances have no environmental justification: the taxes were presumably put in place to discourage the production of environmentally damaging goods or, more accurately, to discourage producing them in environmentally damaging ways. Rebating those taxes on the basis of output therefore reduces the price signal effect and undermines the argument that policies are aimed at protecting the environment. As Bordoff says, “. . . the more effective

free allocation is in protecting employment and output in adversely affected sectors, the more likely it may be to violate WTO law.”²¹ It appears that free emission allowances can be WTO-compliant or they can be effective in preventing carbon “leakage,” but not both.

Border Tax Adjustments: Carbon Tariffs in Disguise

In sum, the program of free allowances set up under Waxman-Markey offers special favors to select industries in response to overblown concerns about a loss of international competitiveness. This favoritism not only undermines the legislation’s ultimate objective of creating a price for carbon emissions, but also creates the risk of sparking trade tensions if industries abroad, burdened by what is effectively subsidized American competition, invoke WTO rules to slap compensatory tariffs on U.S. goods.

A far greater threat to the world trading system, though, is posed by Waxman-Markey’s creation of a system of import restrictions that could go into effect as early as 2020. These import restrictions, like the free-allowance program, purport to deal with carbon leakage, but their broader goal is the far more ambitious one of using trade restrictions to encourage other countries to enact carbon-control policies. Restricting market access in order to force other countries to do this or that is a longstanding problem in trade policy, and Waxman-Markey now threatens to apply this discredited strategy to an entirely new realm—and to open a can of worms in the process.

The latest scheme for using trade as a weapon under Waxman-Markey would direct the president to enter into negotiations for an international agreement on controlling carbon emissions. If no such agreement has been reached by January 1, 2018, the president is required to set up an “international reserve allowance program.” The only escape hatch is if the president determines that such a program would not be in the national economic or environmental interest, and a resolution approving the president’s determination is passed by both houses of Congress.

The international reserve allowance program would be applied on a sector-by-sector basis. Specifically, the program would apply to a particular industrial sector unless at least 85 percent of imports in that sector are produced in countries that: (1) have signed an international agreement with the United States that imposes economy-wide restrictions on greenhouse-gas emissions that are at least as stringent as those in the United States; (2) have signed a multilateral or bilateral emission-reduction agreement with the United States for the sector in question; or (3) have an annual energy or greenhouse-gas intensity in that sector that is less than or equal to that of the equivalent U.S. sector.²² As early as 2020, imports in a covered sector would be prohibited unless the importer has obtained an “appropriate” amount of emission allowances from the international reserve allowance program. That requirement would not apply, however, to imports from: (1) countries that have met one of the three criteria above; (2) countries that are classified as the least-developed of developing countries; or (3) countries that are responsible for less than 0.5 percent of total global greenhouse gas emissions and less than 5 percent of U.S. imports of covered goods in the sector.

How restrictive would the requirement to obtain emission allowances be in practice? Unsurprisingly, none of the details have been worked out yet, but the legislative language does offer a few clues. First, the price of international reserve allowances would be set to equal the price for domestic emissions allowances in the most recent auction. Second, while the legislation provides no direct criteria for how to determine the appropriate quantity of allowances that a given importer would be required to obtain, it does specify that the purpose of the international reserve allowance program is to minimize carbon leakage as a result of differences between the costs of complying with Waxman-Markey and the costs of complying with other countries’ carbon-emission regulations. In that regard, the legislation specifies that the quantity of allowances required would be adjusted (down to as low as zero) to take account of free allowance provided to U.S. firms in the relevant sector.

Assessing the trade impact of Waxman-

Markey’s system of import restrictions can be broken down into two interrelated but distinct questions. First, if it is actually put into effect, would it violate U.S. obligations under World Trade Organization agreements? Second, even if it is permissible under WTO rules, would it otherwise do harm to the world trading system? The answer to the first question is a very fuzzy “maybe.” The answer to the second question is a clear and emphatic “yes.”

Let’s examine the complicated legal questions of WTO consistency. Some supporters of Waxman-Markey engage in wishful thinking and argue breezily that the import restrictions in question constitute uncontroversial “border-tax adjustments” that comply with WTO rules. Indeed, some even go so far as to say that the WTO has already basically given a green light for the restrictions. Here, for example, is Nobel Prize-winning economist and *New York Times* columnist Paul Krugman, writing in his weblog:

The WTO has looked at the issue, and suggests that carbon tariffs may be viewed the same way as border adjustments associated with value-added taxes. It has long been accepted that a VAT is essentially a sales tax—a tax on consumers—which for administrative reasons is collected from producers. Because it’s essentially a tax on consumers, it’s legal, and also economically efficient, to collect it on imported goods as well as domestic production; it’s a matter of leveling the playing field, not protectionism. And the same would be true of carbon tariffs.²³

Krugman may be gifted at simplifying complex economic issues, but he has grossly oversimplified the legal issue here. When he says that the WTO has “looked at the issue,” he is referring to a joint WTO/United Nations Environmental Programme report that merely summarizes the relevant provisions, precedents, and existing literature on the question of WTO consistency—without reaching any prescriptive conclusion at all.

It is true, as Krugman states, that WTO rules permit the collection of domestic “indi-

Waxman-Markey's creation of a system of import restrictions poses a threat to the world trading system.

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rect taxes”—value-added, sales, and excise taxes—on imported products. Accordingly, if a country were to impose a domestic tax on products based on the amount of carbon emitted in their production, and it then levied a corresponding tax on imports, there would be a plausible case that such a border-tax adjustment complies with WTO rules. Even here, though, there is a major complication. Under Article II:2(a) of the General Agreement on Tariffs and Trade, a border-tax adjustment is permissible only when it constitutes “a charge equivalent to an internal tax . . . in respect of the like domestic product or in respect of *an article from which the imported product has been manufactured or produced in whole or in part*” (emphasis added). So the question arises: does a tax on carbon emissions constitute a tax on an article from which a product “has been manufactured or produced in whole or in part”? Normally, border adjustments pertain to taxes on products or on inputs physically incorporated into products, as opposed to a waste product emitted during production. While there is some WTO precedent to suggest that taxes on items not physically incorporated into the product can still be subject to a border adjustment, the question remains unresolved.²⁵

However, Waxman-Markey doesn't impose a carbon tax; instead, it creates a cap-and-trade regime. And the alleged border adjustment doesn't consist of a tax, either, but rather a requirement under certain circumstances to obtain emission allowances. It is possible, of course, to argue that the requirement to obtain emission allowances domestically and for imports is the economic equivalent of a tax, but that is a novel and untested argument that stretches the WTO's border-tax adjustment provisions far beyond their currently understood scope. All things considered, it seems a long shot that Waxman-Markey's international reserve allowance program would be deemed a border-tax adjustment under WTO rules.

The most straightforward characterization of Waxman-Markey's import restrictions is that they consist of regulations that apply to imports from some countries but not others. And that kind of discrimination between WTO members

seems to run afoul of the “most favored nation” principle incorporated in Article I of the GATT.²⁶ According to Article I, “any advantage, favour, privilege or immunity granted by any contracting party to any product originating in . . . any other country shall be accorded immediately and unconditionally to the like product originating in . . . the territories of all other contracting parties.” In other words, if imports from the European Union are exempt from the requirement to obtain emission allowances, imports of “like products” from China should receive the same exemption.

So the big question is: are widgets from the EU and China “like products” despite differences in the amount of carbon emitted in producing them (or differences in the emissions-control regulations that apply to producing them)? While there is room for debate, the answer really ought to be yes. Academic lawyer Javier de Cendra points out that no WTO ruling so far has explicitly accepted that the way in which a good is produced (called “processing and production methods” in WTO jargon) is a legitimate basis for determining that goods are “unlike.”²⁷ And as the WTO Appellate Body (the final authority on interpreting WTO rules) stated in an important ruling on the criteria for determining like products, “a determination of ‘likeness’ . . . is, fundamentally, a determination about the nature and extent of a competitive relationship between and amongst products.”²⁸ Even if physically identical or similar goods are made with varying levels of carbon emitted in the process, or under different regulatory regimes, the fact is that they still compete head-to-head with each other in the marketplace. Indeed, the fact that they do is what gives rise to concerns about carbon leakage and competitiveness in the first place.

Accordingly, there is a very strong *prima facie* case that Waxman-Markey's system of import restrictions would violate Article I of the GATT.²⁹ That does not necessarily mean, however, that Waxman-Markey would violate the United States' WTO obligations. The reason is that Article XX of the GATT allows for exceptions from other WTO rules under certain circumstances. The exception that would most

plausibly apply to Waxman-Markey is Article XX(g), which reads as follows:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures . . .

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

Under existing WTO precedent, there are good arguments that, in principle, a cap-and-trade regime with an international reserve allowance program could fit within the language of Article XX(g).³⁰ Under that same precedent, there are also good arguments that the specific import restrictions imposed by Waxman-Markey would *not* qualify for this exception to normal WTO rules.

In the celebrated “shrimp-turtle” case, the WTO Appellate Body ruled that unilateral trade measures that condition market access on adopting policies to conserve a natural resource (in that case, a ban on imported shrimp from countries that had not adopted policies designed to protect sea turtles from being accidentally caught in shrimp nets) can, in principle, fall under Article XX(g). However, the Appellate Body also ruled that the initial U.S. import ban on shrimp as *applied* constituted “arbitrary or unjustifiable discrimination” and thus violated WTO rules.

Looking at the details of the Appellate Body’s reasoning in that case, two questions stand out as especially important in assessing the import restrictions that would be imposed under Waxman-Markey. First, will due process be observed in determining how trade restric-

tions are imposed? In other words, will the process be transparent and will affected countries have the right to participate in the process? Consider in this regard the Appellate Body’s disapproving characterization of the process for determining which countries would be subject to the U.S. import ban on shrimp:

The certification processes . . . consist principally of administrative ex parte inquiry or verification by [U.S. government officials]. . . [T]here is no formal opportunity for an applicant country to be heard, or to respond to any arguments that may be made against it, in the course of the certification process before a decision to grant or to deny certification is made. Moreover, no formal written, reasoned decision, whether of acceptance or rejection, is rendered on applications. . . . Countries whose applications are denied also do not receive notice of such denial (other than by omission from the list of approved applications) or of the reasons for the denial. No procedure for review of, or appeal from, a denial of an application is provided.³²

If the implementing regulations for imposing trade restrictions under Waxman-Markey follow a similar pattern, an adverse ruling by the WTO is likely.

Second, will the methodology for determining the amount of international reserve allowances required take due account of different conditions in other countries? Here again, the shrimp-turtle case is instructive. The Appellate Body found that a blanket ban on all shrimp imported from a given country amounted to unjustifiable discrimination:

[S]hrimp caught using methods identical to those employed in the United States have been excluded from the United States market solely because they have been caught in waters of countries that have not been certified by the United States. . . . We believe that

There are good arguments that the specific import restrictions imposed by Waxman-Markey would *not* qualify for an XX(g) exception to normal WTO rules.

Assessing the carbon footprint of a product on the basis of national averages will potentially work against the ostensible purpose of climate-change regulations.

discrimination results not only when countries in which the same conditions prevail are differently treated, but also when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in those exporting countries.³³

Among the possibly relevant local conditions in the present context are the emission-control policies of the country of origin (is the exporting country getting due credit for its policies even if they differ from the U.S. model?); the historical carbon emissions of the country of origin (should developing countries be held to a different standard to account for the fact that developed countries have produced most of the carbon emissions to date?); and the actual carbon emissions of the producing firm (should a firm with clean production technology be punished just because its country's policies are less rigorous than its own practices?).

It should also be noted that assessing the carbon footprint of a product on the basis of national averages will potentially work against the ostensible purpose of climate-change regulations. To the extent that efforts to produce goods more cleanly impose costs on a firm, if those efforts are not recognized by a trade partner that discriminates on a country-level basis rather than a firm-level basis, unilateral trade restrictions could in fact *discourage* the adoption of cleaner technologies. Why produce at higher cost if you cannot gain improved market access as a result?

The alternative carries risks, also. Policies aimed at recognizing different production methods *within* countries in an attempt to satisfy WTO obligations promise to be an administrative nightmare. As Howse and Eliason point out, international supply chains make this task even more difficult: "The difficulty . . . [is] one of determining accurately whether a particular imported product is produced with significantly higher carbon emissions than a particular domestic product. This refers to the challenge . . . of ascertaining the carbon footprint of a particular imported product, which may have gone

through production stages in several different facilities at different locations."³⁴ Pity the poor customs official tasked with assigning emission allowance requirements for even something as simple as a pencil on the basis of not only the country, but also the *firm*, of origin.

In addition to the risk of violating Article XX's injunctions against "unjustifiable or arbitrary discrimination," the Waxman-Markey scheme faces a further and serious hurdle. Specifically, there is a real question as to whether the import restrictions would be found to be "relating" to the conservation of exhaustible natural resources—and, even if they are, whether they nonetheless amount to a "disguised restriction on international trade." Although the details are yet to be worked out, it appears that the "appropriate" quantity of international reserve allowances is to be based on differences in the cost of production between the U.S. industry and the foreign industry—as opposed to differences in carbon emissions. Thus, it seems that the import restrictions would be designed primarily to protect U.S. producers from foreign competition, not to encourage the adoption of carbon emission regulations abroad. As a practical matter, requiring importers to buy allowances based on the latest auction price is not guaranteed to equalize carbon costs if the competing domestic firm paid a different price when it bought its emission allowance.

From the perspective of consistency with WTO rules, any import restrictions designed to alleviate the burden borne by domestic firms (*vis-à-vis* their uncapped competitors) of environmental regulation are a shaky proposition indeed. All of the available WTO jurisprudence to date would caution governments against framing their climate-related policies in terms of fairness to domestic producers that face competition from uncapped firms abroad. The key, it seems, is to ensure environmental policies are focused squarely on protecting the environment. While Waxman-Markey certainly contains language that links the imposition of trade restrictions to encouraging other countries to adopt emission control policies, environmental protection—as opposed to trade protection—is clearly not the only, or even primary, focus. This mix-

ture of motives could ultimately prove decisive in a WTO review.

Whether or not Waxman-Markey's import restrictions would end up violating WTO rules is thus a distinctly murky question. Regardless of how that issue would ultimately be decided, though, there is little doubt that unilateral U.S. import restrictions like those in Waxman-Markey would be a major setback for the world trading system—as well as international cooperation on climate change.

First of all, the United States would face harsh condemnation from other countries. For a taste of how our trading partners would react, consider this recent statement by Canada's environment minister Jim Prentice:

Trade protectionism in the name of environmental protection would be a prescription for disaster for both the global economy and the global environment. . . . Border carbon adjustments would be a thinly disguised restriction on trade and an impediment both to wealth creation and to the attainment of our collective objective, which is to address greenhouse gas emissions and to reduce them. They would constitute arbitrary discrimination. They won't work and they threaten constructive negotiations.³⁵

The United States would find itself diplomatically isolated precisely when it was seeking to encourage closer international cooperation to combat climate change. Even advocates of aggressive action on climate change recognize this. Matthew Yglesias, a prominent blogger at the Center for American Progress, shrewdly analyzes how self-defeating Waxman-Markey-style trade restrictions would be:

The bottom line about the international aspects of climate change is that the very idea of an effective response *assumes* the existence of a generally cooperative international environment. It doesn't assume the nonexistence of the odd "rogue" state here or there, but it assumes

the absence of any kind of serious great power rivalries. Not just China, but also India and probably Russia, Brazil, and Indonesia, as well, are going to need to cooperate in a serious way with the OECD nations on this. And I just don't see how you're going to get where you need to get through coercion. If anything, I think attempted economic coercion of China is more likely to wind up breaking down solidarity between the US, EU, and Japan than anything else. First, we impose our carbon tariff. Then suddenly Airbus and European car companies are getting all kinds of sales because the EU hasn't followed suit. Now not only are the Chinese mad at us, we're mad at the Europeans.³⁶

Furthermore, the negative international reaction is unlikely to be confined to angry words and noncooperation. Retaliation is also a real threat. According to former U.S. trade representative Susan Schwab:

The greater risk, however, is that import measures emanating from U.S. legislation could prompt mirror action (or simple trade retaliation) by other countries—with U.S. exports being among the targets. This scenario could unfold long before any potential disputes were concluded in the WTO.³⁷

As Table 2 indicates, should other countries choose to discriminate against trade partners on the basis of, say, higher level of per capita emissions, U.S. exports and jobs would be in grave peril. On a per capita basis, U.S. emissions will be more than twice as high as China's by 2030, 13 times Indian per capita emissions, and over 6 times as high as those of Brazil.

Past emissions would also seem to be an equally justified basis for carbon-based trade measures, since it is, after all, *cumulative* emissions that supposedly have done the damage. Indeed, Brazil recently joined India and China in advocating for basing emissions commitments on past emissions.³⁸

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Table 2
Carbon Dioxide Emissions Projections by Selected Countries, 2006–2030
Emissions in million metric tons of carbon dioxide, per capita emissions in tons per annum

Country/Region	2006 (actual)	2006 per capita	2010 per capita	2020 per capita	2030 per capita	2030 per capita	Average annual % change (2006–30)		
USA	5902.8	19.8	6011	18.9	6384	18.3	6851	18.2	0.6
OECD Europe	4435.6	8.0	4512	8.2	4760	8.4	4834	8.4	0.4
China	6017.7	4.6	6898	5.1	9475	6.6	12007	8.3	2.9
Russia	1704.4	12.0	1789	1.3	1984	14.8	2117	16.9	0.9
Japan	1246.8	9.8	1196	9.4	1195	9.7	1170	10.0	–0.3
India	1293.2	1.2	1349	1.1	1818	1.3	2238	1.4	2.3
Brazil	377.2	2.0	451	2.3	541	2.5	633	2.8	2.2
Canada	614.3	18.8	669	19.7	727	19.7	784	19.9	1.0
World	29195.4	4.5	31100	4.5	37035	4.7	42325	4.8	1.6

Sources: Energy Information Administration, *International Energy Annual 2006* (release date June–Dec. 2008), tables H1 and B1, www.eia.doe.gov/iea; and Energy Information Administration *Annual Energy Outlook 2008*, www.eia.doe.gov/oiat/aeo. Population data used to calculate per capita emissions from 2010 onward are from the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2008 Revision*, <http://esa.un.org/unpp>.

Fortunately, President Obama recognizes the dangers of using trade as a weapon even in a well-meaning cause. Commenting on the passage by the House of Representatives of Waxman-Markey, Obama observed:

At a time when the economy worldwide is still deep in recession and we've seen a significant drop in global trade, I think we have to be very careful about sending any protectionist signals out there. . . . I think we're going to have to do a careful analysis to determine whether the prospects of tariffs are necessary, given all the other stuff that was done and had been negotiated on behalf of energy-intensive industries.³⁹

It remains to be seen, however, whether cooler heads will prevail in the end. Although Obama was clearly expressing skepticism about Waxman-Markey's trade restrictions, he phrased that skepticism in relatively muted terms. It is unclear whether or how vigorously the administration will attempt to pressure the Senate to

avoid such provocative measures. Meanwhile, U.S. industry lobbyists are reportedly pushing for an even more protectionist bill in the Senate. In particular, representatives of the steel industry and the United Steelworkers are calling for immediate imposition of trade restrictions rather than waiting until 2020 as would be the case under Waxman-Markey.⁴⁰

Policy Response: Freer Trade, Cleaner Environment

Rather than caving to the demands of special interests, policymakers should adopt policies that encourage free trade and investment flows. Insofar as trade leads to growth, and growth leads to an increased willingness and ability to pay for a cleaner environment, freer trade and investment flows will enable countries to adapt better to any adverse effects of climate change and to mitigate emissions. Specialization, encouraged by freer trade, will lead to a more efficient use of resources.

The link between increasing growth and

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prosperity through open trade is well established. Economists James Gwartney and Robert Lawson, in their *Economic Freedom of the World: Annual Report 2008*, show once again that countries relatively open to trade are more prosperous and grow faster than relatively closed countries. Moreover, nations in the top quartile of a broadly defined measure of economic freedom score considerably higher on environmental performance than those in the bottom quartile of economic freedom.⁴¹ It certainly makes intuitive sense that people worried about when they will next eat are relatively unfazed about environmental quality. Development brings not only material prosperity, but an improved ability on the part of firms to control emissions, and an increased willingness and ability on the part of a growing middle class to pay for environmentally friendly goods and services. Expanding trade will improve environmental quality.⁴²

Beyond liberalizing trade generally, WTO members can make extra efforts to liberalize goods and services that have special applications for improving the environment. Removing barriers to trading these goods and services across borders, including unnecessarily restrictive technical standards, will give firms and consumers access to cheaper and better technologies. Recognizing this, the Doha mandate includes language in paragraph 31(iii) of the Doha ministerial declaration that agrees to negotiations on “the reduction or, as appropriate, elimination of tariff and nontariff barriers to environmental goods and services.”⁴³ Although no WTO definition of an environmental good or service appears to exist, material on the WTO website indicates that the definition hinges on the proposed use of the product. For example, on a page entitled “Activities of the WTO and the Challenge of Climate Change,” there is reference to “goods and services that can benefit the environment . . . [including] wind and hydropower turbines, solar water heaters, tanks for the production of biogas, and landfill liners for methane collection.”⁴⁴ In other words, goods produced in an environmentally friendly manner (for example, with minimal carbon footprint) appear not to fit the definition of an environ-

mental good for the purpose of negotiations. Similarly, in the section on environmental services, they refer to “activities which may be directly relevant to policies aimed at mitigating climate change,” such as “cleaning of exhaust gases” and “nature and landscape protection services.”⁴⁵ Although the negotiations on environmental goods and services liberalization are hamstrung along with the rest of the Doha round, governments can—and should—remove tariffs and nontariff barriers unilaterally, without waiting for other nations to do the same.

Another “two-fer” is available to lawmakers who reduce subsidies that encourage the production and consumption of goods beyond what the market would dictate. Fuel subsidies and subsidies that encourage the overuse of fertilizer and the overproduction of agricultural goods have contributed negatively to environmental conditions. A recent United States Geological Survey indicates that nutrient delivery to the Gulf of Mexico, caused in part by fertilizer runoff from Midwestern farms, contributes to an environmental “dead zone” and is among the highest levels measured in the last 30 years.⁴⁶ Soil erosion, deforestation, and water waste are other environmental side-effects of overfarming, and can contribute to increased carbon dioxide and other greenhouse gases in the atmosphere. Reducing incentives to burn more fossil fuels than is efficient, or to farm in globally suboptimal ways, would go some way to correcting environmental damage.

As the above discussion should make clear, there are many landmines in the path of trade-related measures to combat climate change. In addition to interrupting the free flow of goods across borders, increased litigation would place pressure on a global trading system already exhibiting signs of strain in the economic downturn. Indeed, as the Cato Institute’s Dan Griswold wrote in a broader study on labor and environmental standards, “If labor and environmental standards were foisted on the WTO, its dispute settlement system could easily be overwhelmed to the point of breakdown by the sheer number and complexity of non-trade cases brought before it.”⁴⁷

Decisions by WTO reviewing bodies are

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Building a global consensus on environmental quality should be the ultimate objective of policymakers.

always contentious, especially when members believe that the ruling hinges on reasoning outside of the bodies' areas of expertise. If countries are unable to negotiate a global agreement on climate change, rulings from an unelected body of jurists are likely to cause irritation. The WTO has, contrary to opinion, a relatively weak enforcement mechanism. The retaliatory tariffs that normally follow a decision of the WTO are harmful enough to the implementing and the "target" country, to be sure, but the WTO ultimately has no power to compel a country to adopt climate-change policies. A ruling from a legal body on an issue of science, followed by permission to block trade, is unlikely to aid international cooperation on climate change or the smooth operation of the global trading system.

Hufbauer et al. have therefore suggested a voluntary code on trade-related carbon-abatement measures, in an effort to reduce the potential burden on the WTO dispute-settlement mechanism. Signatories to the code would be permitted to enact climate change measures that may technically violate WTO rules, so long as they are broadly consistent with WTO principles. Measures enacted in accordance with the code would get a temporary reprieve from possible challenge under WTO dispute settlement, and signatories would agree to hold off on applying border measures for a defined period while negotiations continue.

While Hufbauer et al. tout the voluntary nature of the code as a positive feature—and indeed a compulsory code would be misguided, if not impossible—it could also be an impediment to its effectiveness. Developing countries, as a rule, are reluctant to widen the scope of the WTO to include environmental (and labor) standards. China and India have already made it clear that they see themselves as needing to contribute far less to the Doha agenda than do developed countries, and indeed have said that developing country cuts in emissions should be voluntary, and conditional on aid from developed countries.⁴⁸ Likewise, they are unyielding in their opposition to incorporating climate change policies into an already-burdened WTO agenda. India's Environment Minister Jairam Ramesh

said recently that India "categorically reject[s] any attempt to introduce climate change as an issue at the [World Trade Organization]."⁴⁹ Far from "stimulating" the talks, as Hufbauer et al. suggest, including climate change in the Doha mandate could be fatal to an already struggling round. In any case, the existence of a code is unlikely to significantly curtail the use of the WTO's dispute-settlement mechanism. WTO members can be expected to pursue litigation vigorously whenever commercial interests are at stake.

Ultimately, the best course of action is to encourage a freer global economy. The ensuing increased prosperity will yield more resources to combat and adapt to the effects of climate change, an increased likelihood that developing countries will be more willing partners in environmental goals, and a more rapid spread of environmental technologies. New Zealand trade minister Tim Groser indicated in a recent speech that international climate change negotiations may, in any case, reduce the need for the sorts of trade-related measures so damaging to the cause of free trade:

The increasing comprehensiveness of the global climate regime . . . will reduce the pressure for governments to feel they need to consider unilateral action to protect their firms' competitiveness.⁵¹

Building a global consensus on environmental quality should be the ultimate objective of policymakers wishing to find an international solution to this international problem. Unilateral increases in trade barriers are counterproductive to that goal.

Conclusion

In principle, domestic efforts to combat climate change are not inherently in conflict with global trade rules. In an attempt to get out of the bind in which they find themselves, however, politicians have proposed a complex array of measures—some trade related—to keep favor with certain energy-intensive and trade-exposed industries that are crying foul at increased ener-

gy costs. Those trade-related measures put the United States at risk of retaliation, litigation, or both from its global trading partners.

Any trade-related measures (such as tariffs on goods from noncapped countries) need to be based strictly on the goal of protecting the environment, rather than an attempt to level the playing field for domestic competitors shackled by climate change regulations. Breaking the link between the trade measure and the goal of protecting the environment is a sure invitation to WTO dispute-settlement proceedings. Attempts to coerce other countries into implementing similarly stringent regulations are also problematic. Alienating our trade partners by unilaterally imposing tariffs and subsidies that flout global trade rules will undermine efforts to obtain global cooperation on climate change and inflict unnecessary damage on the U.S. economy.

Notes

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13. Hufbauer, Charnovitz, and Kim Table 1.3.

14. “Cap and Horse Trading Will Corrupt USA,” *Financial Times*, May 18, 2009.

15. Many legal articles and books have been written on the interface between WTO rules and climate-change policies. See, for example, Chaps. 2 and 3 of Hufbauer, Charnovitz, and Kim: Howse and Eliason.

16. If all emission allowances were given freely to all industries, it is less likely that the WTO definition of a subsidy would be met. For one thing, if the government charges no one for emission allowance, it is not clear that any revenue has been forgone. For another, the “subsidy” would not be specific to certain industries—another test of whether a subsidy is actionable. The problem appears to occur when only a subset of allowances is given away, and given on a nonrandom basis. Indeed, giving allowances away randomly would, through Coasean bargaining, reduce emissions without the unseemly lobbying that the proposed policy has created.

17. Howse and Eliason.

18. World Trade Organization, “Agreement on Subsidies and Countervailing Measures,” Article 6.3(a).

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19. Bordoff.
20. *Ibid.*, p. 25.
21. *Ibid.*, p. 26.
22. As Table 1 shows, China accounts for less than 15 percent of imports in all “energy-intensive” goods categories except steel. Based on current import levels, then, the threshold for avoiding the imposition of the international reserve allowance program could, in theory, be met without China fulfilling any of the conditions that follow.
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24. World Trade Organization and United Nations Environmental Programme, “Trade and Climate Change,” 2009, http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf.
25. In a dispute on taxes levied under the U.S. Superfund law, a GATT panel ruled that the United States could apply a domestic tax on certain chemicals to imports as well when those imports used the same chemicals in the process of their production. The panel did not specify that the taxed chemicals had to be physically incorporated into the imported products. *United States—Taxes on Petroleum and Certain Imported Substances* (L/6175 - 34S/136), June 17, 1987, <http://www.worldtradelaw.net/reports/gattpanels/superfund.pdf>.
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28. *EC—Measures Affecting Asbestos and Asbestos-Containing Products* (WT/DS135/AB/R), March 12, 2001, http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds135_e.htm.
29. A similar, if less straightforward, case can be made that Waxman-Markey might also violate the “national treatment” requirement of Article III of the GATT. While Article I forbids discrimination between imports from one country and imports from another country, Article III forbids discrimination between imports and domestically produced goods. Once again, the issue turns on the “like product” question: specifically, whether imports produced in a process that emits more carbon (and for which importers are therefore required to obtain more emission allowances) are “like” domestic products produced in a process that emits less carbon (and for which domestic producers are therefore required to obtain fewer allowances). If the imports and domestic goods are judged to be like products, then the more burdensome requirement imposed on the imports would violate the national treatment requirement of Article III.
30. Also potentially applicable is Article XX(b), which provides an exception for measures “necessary to protect human, animal, or plant life or health.” The requirement that the measures be “necessary,” however, is a relatively stringent one compared to Article XX(g)’s exception for measures merely ‘relating to’ conserving exhaustible natural resources. Accordingly, the analysis here focuses on the comparatively wider loophole of Article XX(g).
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Scholars at the Cato trade policy center recognize that open markets mean wider choices and lower prices for businesses and consumers, as well as more vigorous competition that encourages greater productivity and innovation. Those benefits are available to any country that adopts free-trade policies; they are not contingent upon "fair trade" or a "level playing field" in other countries. Moreover, the case for free trade goes beyond economic efficiency. The freedom to trade is a basic human liberty, and its exercise across political borders unites people in peaceful cooperation and mutual prosperity.

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