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**TRADE AND CLIMATE:
POTENTIAL CONFLICTS AND SYNERGIES**

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This paper is one of six in the Beyond Kyoto series examining core challenges in mobilizing an effective international response to global climate change. The Pew Center welcomes comments on the working drafts of the papers through September 1, 2003. Please forward comments to beyondkyoto@pewclimate.org.

INTERNATIONAL trade and global climate change are closely linked. To date, multilateral efforts to liberalize trade and to prevent global warming have proceeded largely on separate paths. Increasingly, however, these parallel regimes—one defined by the Agreement Establishing the World Trade Organization (WTO) and its annexes, the other by the U.N. Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol (not yet in force)—are likely to come into closer contact as climate policies lead to significant economic effects. Already, a significant potential for conflict exists between the regimes and the interests they represent (Brewer 2003). Yet there are also a number of important synergies that can be better developed.

This paper explores the interplay between the trade and climate regimes, the potential areas of conflict, and what can be done to promote mutual gains.

- Part I introduces the key issues and examines the conceptual underpinnings of the two regimes, revealing important symmetries as well as some divergence.
- Part II analyzes the implications of WTO rules for various national climate policies.
- Part III analyzes the implications of WTO rules for multilateral climate efforts.
- Part IV looks at future opportunities for improving harmony between the two regimes.

The paper concludes that while there are no fundamental incompatibilities between expanding trade and reducing greenhouse gas (GHG) emissions, the two goals can come into conflict, and may increasingly do so unless the interactions are better managed.

I. INTRODUCTION

Trade liberalization has significant ramifications for the effort to control climate change. On the one hand, lowering trade barriers and opening markets boosts economic growth, which tends to increase GHG emissions. On the other hand, bigger markets spur technological innovation and diffusion, which can reduce the GHG intensity of economic growth. Moreover, as trade promotes higher national incomes, some countries will find themselves better able to afford emission abatement efforts.

Just as trade policy will have climate effects, climate policy will have significant implications for trade relations and for the trade regime (Gibbs 2003, p. 16–17). By raising the cost of energy and energy-intensive goods, climate policies will affect economic competitiveness—both among countries undertaking climate efforts, due to different mitigation costs, and between those countries that undertake significant action and those that do not. To protect vulnerable sectors, governments may seek to compensate for the costs of domestic climate action by imposing comparable costs on imported products or by reducing costs on exported products. Either approach is likely to invite challenge in the WTO. Apart from efforts to address competitiveness, national policies to reduce GHG emissions may also come into conflict with trade rules to the extent they affect domestic and imported products differently. In an acknowledgement of these possibilities, Article 2.3 of the Kyoto

Protocol states that the parties shall strive to implement policies and measures in such a way as to minimize adverse effects, including effects on international trade.¹ Moreover, the Protocol authorizes the Parties to take further action to promote implementation of this provision.²

Another potential source of tension would be the use of trade measures to induce other countries to participate in a climate regime or to enforce compliance among those that do participate. The idea that governments participating in the Kyoto Protocol should act together to impose trade measures against the United States (in view of its decision not to join the Protocol) is a recurrent image in writings about the climate regime, particularly by Europeans (e.g., Legrain 2002, p. 253). Some analysts have also suggested that the evolving climate regime employ trade sanctions to hold parties to their commitments. Both uses of trade measures could be challenged in the WTO.

Although no climate-related dispute has yet reached the WTO, potential conflicts appear on the horizon. Following the U.S. rejection of the Kyoto Protocol, the European Parliament called for new initiatives “within supranational structures (in particular the World Trade Organisation) . . . designed to prevent countries which do not ratify the Kyoto Protocol from obtaining unfair competitive advantages, particularly where energy products are concerned.”³ Venezuela has told a WTO committee that measures taken to implement the Protocol could run afoul of trade rules and raise trade concerns (WTO 2002, para. 198). Saudi Arabia has cited “a number of areas in which countries pursuing environmental objectives (such as climate change policy) may contravene their WTO obligations and seek to protect their domestic interests” (Saudi Arabia 2002, para. 57). That no dispute has bubbled up is encouraging, but could also be a sign of a constriction underneath the surface. Worries about infringing trade rules, reportedly, have led to a “chilling effect” in some environmental negotiations in which prospective treaty measures are taken off the table because of concerns that such measures might violate the WTO.

The good news is that opportunities exist for making the trade and climate regimes more complementary and, potentially, synergistic. At a minimum, the two regimes could work independently and together to anticipate and avoid conflicts between their mandates. The climate regime, for instance, could facilitate a uniform approach to energy/GHG taxation, and particularly, the application of taxes to imports and exports. Opportunities may also exist to promote climate objectives actively through the WTO, for instance by launching negotiations to phase out fossil fuel subsidies.

THE TRADE AND CLIMATE REGIMES

To assess the potential for promoting greater cohesion between world trade and global climate policy, one should start by considering the nature of the two regimes. Obviously, they pursue distinct functional aims. Yet the question is whether the two regimes share a common orientation, at a fundamental level, that can form the basis for greater accord.

Although the trade and climate regimes have different aims and organization, they do in fact enjoy many common features. Both regimes aim to promote greater economic efficiency in order to enhance public welfare. Both regimes recognize linkages between the economy and the environment.⁴ Both look to the future and advocate actions that, while bringing on short-term adjustment costs, anticipate long-run benefits. Both regimes are worried about free riders and devote considerable attention to securing compliance. Both regimes are deferential to the volitions of

developing countries, and follow principles of “special and differential treatment” or “common but differentiated responsibilities.” Lastly, both regimes are dynamic works-in-progress, continuing institutional improvements during successive negotiations (Murase 2003).

Nevertheless, some fundamental differences exist. The climate regime is driven by the need to correct market failure. Therefore, governments want maximum flexibility at the national level in using economic instruments to influence individual behavior. By contrast, the trade regime is not a response to market failure; it is a response to government failure, that is, the distortions of policy fomented by mercantilism and protectionism.⁵ Thus, the trading system often seeks to disable economic instruments at the national level. Unlike the climate regime, the trading system does not aspire to change the behavioral incentives for individual economic actors. Another difference between the two regimes is cultural. In the climate regime, science plays a central role in measuring the problem, and in evaluating policy responses. In the trading system, science plays no role in rulemaking.⁶

Because of their distinctive motivations, successful outcomes in the two regimes are defined differently. Although the trading system prefers to move ahead with joint cooperation, the reality is that trade liberalization is often in each country’s own interest, and so countries can move at different speeds. By contrast in the climate regime, a high degree of inter-governmental cooperation is necessary if GHG emissions reduction is to be obtained. As a result, non-participation in the climate regime is ultimately a more serious matter than in the trade regime. Even if countries did not trade with each other, the climate regime would need cooperation in order to succeed. The fact that countries do trade brings the WTO into the picture.

A PRIMER ON THE WTO

The WTO is the international organization overseeing the multilateral trading system.⁷ It commenced operations in 1995 following the Uruguay Round of trade negotiations that converted the institutional aspects of the General Agreement on Tariffs and Trade (GATT) into the WTO. The WTO is also a treaty consisting of the umbrella Agreement Establishing the WTO plus 17 subsidiary agreements containing detailed rules. One of those agreements is the GATT, which contains obligations regarding trade in goods. For readers unfamiliar with the WTO, this section and the Appendix provide background.

Although WTO rules pertain only to the 146 governments that are Members, most of the countries in the UNFCCC are WTO Members, or candidates to join the WTO (such as the Russian Federation). Not all UNFCCC parties plan to ratify the Kyoto Protocol, however, and the membership of any future climate agreement is difficult to predict.

The WTO has the strongest compliance system of any global organization today, the Dispute Settlement Understanding (DSU). An allegation of a violation can be brought to a WTO panel, which issues a ruling on whether the measure being complained about is consistent with WTO law. Either side may appeal the decision to the WTO Appellate Body whose findings are to be “unconditionally accepted” by all parties to the dispute.⁸ A losing defendant government is given an allotted period of time to bring its measure into compliance, and that implementation is monitored by the WTO’s Dispute Settlement Body. If the defendant government fails to comply, the complaining party may seek authority from the Body to impose trade sanctions on the defendant

country. Such authority is automatically granted unless all governments disapprove.

Because the WTO dispute system is oriented toward correcting treaty violations, it does not provide much of a disincentive to avoid a violation in the first place. Recognizing that WTO remedies lack deterrent power, many governments engage in trade or economic policies that test the limits of WTO law. This pattern of behavior should be kept in mind in considering the extent to which WTO rules lacking clarity should constrain the design of climate policies.

It should also be remembered that WTO law is not immutable. If WTO rules do not meet the needs of WTO Members, the rules can be altered. Nevertheless, the difficulty of waiving or changing WTO rules should not be underestimated. Under current decisionmaking practice, such actions require a consensus of all WTO member governments (although voting remains a possibility).

The WTO is now sponsoring a major multilateral negotiation, begun at Doha in 2001. For the first time in a trade round, the environment is on the agenda. Although climate per se is not a negotiating issue, governments are considering issues that have implications for climate policy such as: the elimination of barriers to trade in environmental goods and services, the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements among parties to the agreement, the overall developmental and environmental aspects of the negotiations, and the relationship between trade and technology transfer.⁹ The new WTO negotiations, when completed, will bring some changes in WTO rules.

II. NATIONAL GOVERNMENT POLICIES

Part II of this paper discusses ways in which WTO rules might constrain governmental climate policies. Section A examines *domestic* policies, that is, policies principally aimed at controlling internal emissions. Section B *trade* policies, that is, policies aimed at influencing behavior in foreign countries.

In asking how trade law might constrain climate policy, one should not lose sight of the obverse question—namely, whether environmental law could constrain trade policy. Although some trade cognoscenti might dismiss this as an impertinent query, the notion that international trade law trumps international environmental law is wrong. Both bodies of law exist on the same level. The fact that trade law is largely negative in orientation—meaning that governments give up discretion to take certain kinds of economic action—makes it hard for trade rules to violate the positive norms of international environmental law, and much easier for environmental action to violate trade rules.

DOMESTIC POLICIES

This Section considers whether various climate domestic policies are compatible with WTO rules. Four policy areas will be discussed: Energy/GHG Taxes, Product Regulations and Standards, Subsidies, and Domestic Emissions Trading. Note that any of these might be perceived by someone as a “trade barrier.” But they are categorized as “domestic” policies in this study because they are not premised on treating imports differently from homeland products.

For many policies, the most relevant GATT law constraints will be Article III, which bars a government from discriminating against “like” products from other countries, and Article XX,

which allows General Exceptions for several purposes, including measures necessary to protect human, animal or plant life and health, and measures relating to the conservation of exhaustible natural resources. Article III imposes the obligation of “national treatment,” requiring imported goods to be treated no less favorably than “like” domestic goods. In a dispute, the two key questions will be: (1) whether the domestic product and the competing import are “like” and (2) whether the treatment of the import is less favorable (Regan 2002; Ehring 2002). A government measure that violates Article III can be excused under Article XX when the policy fits within one of the General Exceptions provided that the measure is not applied in an arbitrary or unjustifiable manner and is not a disguised restriction on international trade. In the first eight years of the WTO, Article XX has been interpreted more flexibly than in previous GATT jurisprudence (Wiers 2002, pp 361–64).

ENERGY/GHG TAXES

A tax may be an appropriate instrument to address climate change because it can reduce demand for energy, promote more efficient technologies, and, with GHG taxes, lead to the adoption of cleaner energy. Because a tax conveys the same incentive to all emitters, those who can reduce emissions at a low cost will do so.

WTO rules have many implications for how a government may employ domestic taxes. If a government refrained from rebating any tax on exports and refrained from applying any tax to imports, then no WTO legal problems would be encountered. But such tax restraint is unlikely. Governments will usually seek to apply domestic taxes symmetrically to imported products in order to prevent distortions and seek a level playing field (Westin 1997, pp. 111–14). Similarly, governments may want to unburden exports from taxes in order to prevent double taxation. Such governmental concerns about fairness can, in general, be carried out in conformity with WTO rules. Nevertheless, many potential points of tension exist. To explain the application of WTO rules to energy/GHG taxes, the study presents several hypotheticals below.

Gasoline Tax. Start with a tax on gasoline at the retail level. As long as the tax is imposed identically on gasoline produced from domestic and imported sources, that would be in accord with the “national treatment” requirement in GATT Article III.

Automotive Fuel Economy Tax. Consider a tax on automobiles based on the fuel economy of each model type. If such a tax is applied in an origin-neutral manner, it could be in accord with GATT Article III. Yet complications can arise if it turns out that the brunt of the tax is borne by imported vehicles. The exporting country can argue that the tax amounts to de facto discrimination because the tax accords protection to domestic production. Should a dispute panel agree, the taxing government would have an opportunity to defend the difference by invoking the exceptions in Article XX. How successful such a defense would be would depend on the precise facts of the case including how the tax is being administratively applied. In the 1994 *Automobile Taxes* case, a GATT panel ruled that high-fuel efficient cars are not “like” gas guzzling cars, but whether the contemporary WTO jurisprudence would lead to the same result is unclear.

Fuel Carbon Tax. Another hypothetical is a tax based on the carbon content of fuel. In a recent submission to the WTO Committee on Trade and Environment,¹⁰ Saudi Arabia advocated basing fossil fuel taxes on carbon content in order to reduce energy market distortions (Saudi Arabia 2002, paras. 17, 58-59). A key legal judgment would be whether

differential taxes on fuel (e.g., natural gas versus coal) give less favorable treatment to imports, in violation of GATT Article III. If so, then the government applying the tax would seek to offer a defense under GATT Article XX. Some analysts doubt that such a defense would be successful (e.g., Zarrilli 2003, p. 393).

Process-Based Electricity Tax. Greater legal complexity would ensue with a tax on electricity based on the amount of GHG emissions during the generation of the power. For example, electricity produced from hydropower could be taxed lower than electricity produced from oil. The discussion below assumes that electricity is a good rather than a service.¹¹

A 1998 case arising under European Union law is instructive because of its similarity to WTO law. In the *Outokumpu Oy* proceeding, Finland taxed electricity using different rates depending on the source of the energy.¹² Because of the practical difficulty of determining how imported energy was produced, Finland taxed imports at a flat rate set to approximate an average of the domestic rates.¹³ The importer complained that this flat rate was a violation of the European Communities Treaty, which requires forbids direct and indirect discrimination against imported products. The Court agreed, and explained that Finland's law did not give the importer the opportunity of demonstrating that its electricity was produced by a particular method in order to qualify for the rate applicable to domestic electricity produced by the same method.¹⁴ It is unclear how the Court would have ruled had Finland provided importers the same variable rates (see Krämer 2002, p. 125).

Tax on Energy Used. Instead of a gasoline tax at the consumer level, a government might impose a tax at the producer level based on the amount of energy used in production. If set at high rates, such a tax can reduce the international competitiveness of energy-intensive industries. Two responses to this loss of competitiveness are in use. One is to grant tax exemptions to the most energy-intensive industries. This is the approach sometimes used in Europe for high energy taxes. The other is to provide for a border tax adjustment on imports and exports. Because it is the energy inputs that are being taxed, the addition of a tax to an imported product constitutes a border adjustment because the tax is not a straight levy on an imported product. It is interesting to recall that when the U.S. House of Representatives passed a Btu tax in 1993, it included a provision for a border tax adjustment, which was criticized by the European Communities as a GATT violation.

Both responses to a loss of competitiveness—tax exemptions and border tax adjustments—present trade law concerns. If a government generally imposes a high energy tax but then exempts particular industries, such an exemption might be viewed as a specific subsidy that would be actionable under the WTO Agreement on Subsidies and Countervailing Measures (SCM). Furthermore, if an exemption is targeted to industries that export, it might be viewed as an export subsidy illegal under the SCM. The other option, a border tax adjustment, is problematic for energy because that is a murky area of trade law.

To understand the legal uncertainty regarding border adjustments for energy, one should start with the basic contours. According to the GATT, nothing prevents a government from imposing at the time of importation a charge equivalent to an internal tax on a like article from which the imported product has been manufactured “in whole or in part.”¹⁵ This principle became a key issue in the *Superfund* case of 1987.¹⁶ This was the first GATT-based legal challenge to a domestic environmental

tax. The United States had imposed an excise tax on some harmful chemicals produced domestically. In addition, the U.S. government taxed imported substances based on the content of “chemicals used as materials in the manufacture or production of the imported substance” when those chemicals were subject to U.S. taxation.¹⁷ The European Economic Community challenged this border adjustment on several grounds, but the GATT panel dismissed this effort to prevent border adjustments for an environmental tax.¹⁸ The panel held that whether a tax is enacted for revenue or to encourage rational use of environmental resources is irrelevant to the legality of the border adjustment.¹⁹ The holding in *Superfund* permitting the border adjustment would apply, in principle, to any ingredient physically present in the imported product.

How the *Superfund* holding would apply to materials or energy *used* in manufacturing a product is uncertain. Such materials would not be physically present in the final product. Back in 1970, a GATT Working Party was constituted to examine “Border Tax Adjustments,” and this report has often been cited authoritatively in subsequent jurisprudence.²⁰ The Working Party agreed that taxes directly levied on products (e.g., a sales tax) are eligible for a tax adjustment, and taxes not levied on products (e.g., a payroll tax) are not eligible for adjustment. Yet the Working Party was unable to agree on the status of adjustments for “taxes occultes,” which are taxes on capital equipment, advertising, energy, machinery, transport, and other services.²¹ The category of “taxes occultes” includes many excise taxes that are of interest in the current climate debate, such as taxes on energy, refrigerants, cleansers, and transport used in the production process. Whether or not such a tax adjustment on imports would meet the WTO’s border adjustment rules would seem determinative of its legality. While one can easily see a competitiveness rationale to use a border tax adjustment, it is difficult to visualize a valid environmental reason under GATT Article XX in support of a border adjustment.

In sum, upstream or downstream taxes on energy can be a valuable climate instrument, and, so far, WTO case law has not diminished options for determining the best point of compliance (Fischer, Hoffman & Yoshino 2002, p. 18). Governments considering such taxes and border adjustments should design them carefully, taking into account WTO law and using any space created by legal ambiguities (Biermann & Brohm 2003).

PRODUCT REGULATIONS AND STANDARDS

In the WTO lexicon, “regulations” are defined as mandatory instruments and “standards” are defined as non-mandatory. The analysis below will follow WTO usage. Both regulations and standards are important components of climate policy, and may be increasingly so in the future. Some examples are regulations/standards on automobile fuel economy, emissions reduction in manufacturing, and energy efficiency in homes. Being mandatory, regulations are imposed by governments. Standards, however, can be authored by numerous actors—governments, international organizations, private bodies, nongovernmental organizations, etc. Furthermore, an economic or social actor can impose a standard upon itself. For example, an Olympic Committee or a corporation can commit to emission reduction goals.

The best way to explain the application of WTO rules to climate regulations and standards is through hypotheticals, as will be done below.

Fuel Economy Regulation. A fuel economy regulation will be subject to the same National Treatment requirements as a fuel economy tax. More importantly, however, such a

regulation will also be subject to the disciplines of the WTO Agreement on Technical Barriers to Trade (TBT), which are more stringent than those in the GATT.²² The most onerous substantive requirements are that a regulatory measure be the least-trade-restrictive way to fulfill a legitimate objective and that the measure be based on an international standard (should one exist) unless that standard would be an ineffective or inappropriate means to fulfill a legitimate objective. The TBT Agreement includes the protection of the environment in an illustrative list of legitimate objectives.

Consider the example of Japan's automotive fuel efficiency law. In 1998, Japan announced that it would be promulgating binding regulations for energy efficiency of nine classes of automobiles grouped by weight of the vehicle. The target in the year 2010 for each class was pegged at the "top runner," which happened to be a Japanese vehicle. Manufacturers selling vehicles in a weight class that cumulatively perform less well on average than the top runner are to be assessed a penalty. Several governments complained about this regulation, and called it a violation of the TBT Agreement (Yamaguchi 2003). The dispute was never brought to the WTO, however, and Japan expressed confidence that its regulation conforms to TBT.

One lesson from this episode is that any national regulation having a disparate trade effect on foreign producers will raise concerns under TBT. The underlying problem is that the regulator may center attention on one attribute that may be relatively less important in other countries. In this episode, Japan was most concerned about fuel economy, but imported vehicles that are heavier may reflect competing concerns in the country of manufacture about pollution or safety.

HFC Regulation. Some regulations are based on product characteristics or the absence thereof. An example is the Danish law to prohibit after 2007 the sale or importation of products containing hydrofluorocarbons (HFCs), a potent greenhouse gas used in refrigerators (Atlantic Council 2002, pp. 22–23). European and U.S. trade associations expressed concern that this legislation could violate of the TBT Agreement. One argument made was that HFCs are harmless if they do not leak, and therefore, the legitimate climate objectives of Denmark can be achieved in a less trade-restrictive way.

Voluntary Standard. Corporate action to adopt voluntary climate standards has become increasingly salient. A standard that is exclusively internal to a company is not covered by the TBT Agreement even if it has transborder effects. Yet when a standard-setting organization devises a standard, it can come within the scope of these rules. The TBT Agreement permits any standardizing body (in a WTO Member country) to accept the TBT Code of Good Practice for the Preparation, Adoption and Application of Standards.²³ Some of the most important norms in the Code for climate standard-setting are the procedural provisions. For example, the requirement that interested parties be given 60 days to submit comments can assist in the design of fair and effective standards.²⁴

Climate Labeling. Labeling is a key instrument of environmental policy implemented via the market. Because everyone on Earth contributes to GHG emissions, encouraging individual responsibility can be an important component of an overall climate policy. In order to act knowledgeably, however, individuals need information about the environmental impact of production and consumption. If it turns out that the WTO inhibits such

information flows, that would present a serious problem. In recent years, the trade community has criticized eco-labels—even private, voluntary ones (see Vitalis 2002).

Labels that describe the characteristics of a good are unlikely to conflict with WTO rules. For example, the European Community has directed Member States to require a label for new automobile models that would display information about fuel consumption and CO₂ emissions. So long as such a label applies equally to domestic and imported cars, it would seem to be consistent with GATT and TBT rules.

By contrast, mandatory labels regarding the production process could trigger a WTO-based challenge. Many climate-related life cycle labels are imaginable. Suppose that a government requires a product to be labeled as to the GHG emitted during its production process. How TBT obligations would apply to such a label is not settled in WTO law. Because the scope of the TBT Agreement is limited to regulations/standards on product characteristics and their *related* processes, many trade law experts had assumed that so-called unrelated processes—such as the type and quantity of energy used in manufacturing—were beyond the TBT’s purview (see Petersmann 1995, p. 46).²⁵ But in 1997, the WTO’s TBT Committee asked governments to provide notification of all new labeling schemes by standardizing bodies, including process-related labels (Lopez-Hurtado 2002, p. 737). If the WTO moves to assert jurisdiction over all labels, then the various TBT requirements will become more constraining factors in designing and applying climate-related labeling.

Some trade law experts argue that WTO law would almost certainly prohibit a government from requiring a label specifying the level of GHG emitted in the production process (e.g., Appleton 2001, p. 17). An analogous issue that arose in the WTO was a proposal by The Netherlands to require a label identifying whether timber was harvested under sustainable forestry management. When this measure was notified to the WTO, several governments raised objections on the grounds that such a measure would violate trade rules.²⁶ The proposal was also criticized within the European Union. In face of these objections, the Dutch government did not finalize the proposal.

SUBSIDIES

Governmental subsidies are helpful to whoever receives the subsidy, but have a variable value for the commonweal. When poorly conceived or designed, subsidies can make societies worse off by exacerbating market or government failures. The environmental community often criticizes perverse subsidies that aggravate environmental damage (e.g., subsidies to coal extraction) and distort markets. The trade community often criticizes subsidies that distort international trade, both within the subsidizing country and in other markets if the subsidized products are exported.

The WTO rules on subsidies are contained in the SCM Agreement and the Agreement on Agriculture. Non-agricultural subsidies can raise WTO concerns if they are “specific”—that is, if they are channeled to certain enterprises. If a specific subsidy causes adverse effects to competing entities in foreign countries, then it can be actionable in the WTO.²⁷ The best way to illustrate the potential implications for climate subsidies is by example. Government funding for new technologies to control wildfires would not meet the “specificity” test in the SCM Agreement, and any non-agricultural subsidy that is not specific would not be illegal under the WTO.²⁸ Government grants to the automobile industry to develop new technologies, or subsidies for afforestation, could

be “specific,” especially in the absence of objective criteria for eligibility. An agricultural subsidy to provide sinks in soil, or to reduce carbon emissions from rice cultivation or raising cattle, would be permitted under the “Green Box” (in the Agreement on Agriculture) so long as the subsidy did not have more than minimal effects on production.²⁹

The transborder applicability of the WTO’s export subsidy rules may also be important in climate policy. If Government A subsidizes entities in Country B so as to promote exports from Country A, such a subsidy may be prohibited by the SCM Agreement.³⁰ These disciplines will need to be examined in designing climate partnership programs between industrial and developing countries.

DOMESTIC EMISSIONS TRADING

Because of the wide range of implementation costs in reducing GHG emissions, domestic programs with flexible emissions trading can reduce overall costs. Emissions trading can be carried out under the aegis of an international treaty, under national regulation, or in voluntary programs. Emissions trading between economic actors in the same country does not raise any WTO-related concerns. The WTO problems, if they exist, are in the interface between the trading programs in two countries. If Country A’s trading rules make it harder for an economic actor in Country B to do business with actors in Country A, that could trigger a complaint to the WTO by Country B.

A threshold question is whether “emissions trading” (as discussed in Article 17 of the Kyoto Protocol) is even covered by WTO rules. Sometimes analysts mistakenly assume that WTO rules would ineluctably govern world trade in climate units. Despite its name, the WTO does not govern trade itself. What it governs are the trade restrictions that nations impose on transborder trade in goods and services.

Marketable rights created via an emissions trading regime are unlikely to be a “service” or “good” that fits under the scope of the WTO’s General Agreement on Trade in Services (GATS) or the GATT (Werksman 1999; Peterson 1999, pp. 197–200; Wisner 2002, pp. 295, 304). So far, governments have not suggested that trade in rights created by a government are within the purview of the WTO. For example, regulations on the transborder sale of a land title, a license, a patent, sovereign debt, and currency are not covered by WTO rules.³¹

Yet even though emissions trading *per se* is not supervised by WTO rules, these rules may come into play when: (1) there is government involvement in the emissions trading system and (2) emissions trading affects the flow of trade in goods and services. Thus, emissions trading can have indirect effects on commerce that might lead to a violation of trade rules (Werksman 2001, p. 156). For example, suppose that Country A has a GHG trading system that does not recognize emission units originating in countries outside the Kyoto Protocol.³² Such a requirement might make it harder to import energy products from non-Parties because fuel producers therein might not have emission units to accompany sales. That could infringe the GATT Article III national treatment rule because it would destabilize competition between imported and domestic products, giving less favorable treatment to the foreign product.³³ In that scenario, Country A might seek to offer a defense under GATT Article XX, such as the impracticality of verifying foreign units.

Another concern regarding emissions trading is whether the free transfer by governments of units to private companies would be considered a subsidy. One analyst has cogently argued that the allocation of an allowance is not a “financial contribution” by a government within the definition of

subsidy in the SCM Agreement (Petsonk 1999, pp. 208–09). Recent WTO jurisprudence has planted some doubts however. In the WTO *Lumber* decision, the panel ruled that a financial contribution is not limited to a money-transferring action, but also encompasses an in-kind transfer of resources that can be valued, such as the “right” to harvest public trees.³⁴ This ruling might suggest that the giveaway of a valuable emission right by a government is a subsidy. Of course, the lumber precedent is distinguishable from a GHG emission because lumber itself is a traded good in a way that an emission is not.

TRADE MEASURES

In a global economy, the line between domestic and trade measures is fuzzy. The policies discussed in the first subsection are called domestic—rather than trade—because they are ostensibly aimed at regulating internal production and/or consumption.³⁵ By contrast, the trade measures in the second subsection have a primary purpose of influencing behavior in other countries.

The GATT has two rules that curtail the use of outwardly-directed trade measures. First, GATT Article XIII forbids the imposition of quantitative restrictions on imports and exports that discriminate between countries. Second, GATT Article I requires most-favoured-nation (MFN) treatment, meaning that a product from a WTO member country should be accorded treatment no less favorable than the like product from any other country. By forbidding trade discrimination, the GATT makes it hard to employ trade restrictions that treat two countries differently depending on an internal policy in one of the countries. The rules in GATT Articles I and XIII are subject to the General Exceptions in GATT Article XX.

Should a complaint occur, the attitude of a WTO panel may depend on whether the disputed trade measure stems from a treaty obligation or a national policy. Neither the UNFCCC nor the Kyoto Protocol has language that can be reasonably interpreted to require or authorize a trade measure as a strategy to promote membership, make the climate regime more effective, or enforce the treaty.³⁶ Thus, any use of a climate trade measure would be considered a national-level action.

It is sometimes suggested that governments might impose unilateral trade measures or sanctions against countries that are not a party to the Kyoto Protocol. Many hypotheticals are imaginable—for example, a punitive tax on imports from those non-parties. What would be the status of such a sanction under WTO rules? Certainly, it would violate the non-discrimination requirement in GATT Article I, and the question would be whether such an action is defensible under a GATT environmental exception in Article XX.

It may be difficult to justify such an action under Article XX. Some analysts have argued that the WTO *Shrimp* decision points to the legality of a discriminatory trade measure—such as a punitive tax on imports—to influence environmental policies in other countries (e.g., Aldy, Orszag & Stiglitz 2001, p. 15). In the most recent proceeding in the *Shrimp* dispute, the WTO panel acknowledged the WTO-consistency of a U.S. ban on the import of shrimp from countries that had not adopted practices to protect turtles comparable to practices required of U.S. trawlers (Charnovitz 2002a, pp. 98–99). Nevertheless, important differences exist between the situation in *Shrimp* and a hypothetical punitive tax. In *Shrimp*, the Appellate Body held that banning shrimp from countries that had not sufficiently regulated harvesting practices injurious to turtles bore a “means and end relationship” that was “close and real.”³⁷ An analogous relationship would seem to be missing with

an across-the-board tax. Arthur Appleton makes another telling point: He posits that the existence of a climate treaty is a strike against a unilateral action. As he explains, “It is unreasonable to expect that the WTO panels or the Appellate Body would do more to address climate change issues than the parties to the Kyoto Protocol and Bonn Accord have agreed” (Appleton 2001, pp. 15–16).

While many governments might avoid using trade controls against nonparties to the Kyoto Protocol out of a concern that such action could violate WTO rules, another important reason why such unilateral measures are unlikely is that governments can instead rely upon domestic measures that would stand a much greater chance of passing muster in the WTO. For example, rather than using trade bans or tariffs to induce other countries to join the Kyoto Protocol, concerned governments (e.g., in Europe) may seek to use border tax adjustments to undo the competitive advantage of countries that are not undertaking emissions reductions. The domestic measure could be as disadvantageous to a target foreign country as a trade measure. In a recent study, a prominent U.S. business group points to that scenario as problematic for U.S. companies (U.S. Council for International Business 2002).

III. MULTILATERAL CLIMATE POLICIES

Part III discusses ways in which WTO rules might pose constraints on multilateral action to combat climate change. In addressing this issue separately from the governmental actions in Part II, the underlying assumption is that it will matter to the WTO dispute resolution system whether the contested action arises from a multilateral obligation. A recurrent theme in the trade-and-environment debate over the past 13 years has been the desirability of approaching global environmental problems through multilateral cooperation. Therefore, it seems likely that in adjudicating the GATT environmental exceptions, a dispute panel would be sympathetic to a defense based on a parallel obligation under a climate treaty.

At present, however, the WTO lacks any specific provisions of deference to environmental regimes. Such deference does exist for a few other regimes, however. For example, the GATT provides that nothing in its rules would inhibit the use of exchange restrictions in accordance with the Articles of Agreement of the International Monetary Fund.³⁸ The GATS Annex on Air Transport Services affirms that the GATS does not reduce or affect obligations under bilateral or multilateral air transport agreements in effect on January 1, 1995. An analogous provision on the environment could have been written into the WTO, but was not.

Part III examines the WTO implications of five topics in multilateral climate policy – international emissions trading; the Clean Development Mechanism; clean energy export credit; trade controls on parties and nonparties; and trade sanctions for enforcement.

INTERNATIONAL EMISSIONS TRADING

The trade law implication of domestic emissions trading was discussed in Part II, and international trading would be analyzed similarly. Under the Kyoto Protocol and the Marrakech Accords, governments may permit private economic actors to engage in domestic or transborder trades of emissions reduction units (ERUs), certified emissions reductions (CERs), and assigned amount units (AAUs) of national allocations. The conclusion in Part II that trade in government-created rights is

not covered by the WTO would be even stronger for rights created at the international level, such as an emissions unit or a fishery quota. When governments create obligations among themselves, such as reducing GHG emissions, a subsequent rearrangement of these obligations is not a trade in goods or services.

Thus, WTO rules would not dictate whether a Kyoto Protocol Annex B party has to permit climate unit trading with a non-Annex B party, or with a non-party to the Kyoto Protocol, or with a party that is out of compliance. WTO rules would also be inapplicable to the question of whether the climate regime can limit the amount of traded units creditable to meet a national target. Of course, it would always be possible for the WTO to adopt an official interpretation of its rules that would bring trade in allowances within the scope of WTO disciplines (Stewart & Wiener 2003, p. 119).

CLEAN DEVELOPMENT MECHANISM

The Kyoto Protocol includes a Clean Development Mechanism (CDM) in which a UNFCCC Annex I party can earn CERs when its government or private actors invest in a climate project inside a non-Annex I party. CDM projects might contradict GATS rules if a government discriminates against service suppliers from particular countries. Would a CDM rule requiring project developers to be from Kyoto Protocol parties be permissible? The question would require considerable analysis. One affirmative consideration is that the GATS allows governments to recognize the qualifications of service suppliers according to multilaterally agreed criteria (Wiser 2002, pp. 297–98).³⁹

CLEAN ENERGY EXPORT CREDIT

The volume of energy trade between contiguous countries could lead to problems when such countries follow different climate policies. The most obvious example is trade between Canada and the United States if the Kyoto Protocol goes into force with Canada inside and the United States outside. Canada has unsuccessfully sought approval of a clean energy export provision to give it credit for exports to the United States (Page 2002, pp. 63–64). If the climate regime were to provide some accommodation to Canada in a manner that promotes exports, there would be an issue of conformity with SCM rules. A key question would be whether the Canadian government transfers a benefit directly to its energy sector contingent on exports to the United States. If so, that would violate the SCM Agreement.

TRADE CONTROLS ON PARTIES AND NONPARTIES

A consideration of trade controls should start with the distinction between a treaty-based control and a trade sanction. A trade control is an instrument used in a regular way to regulate the product addressed in the treaty. Trade controls have been employed in a wide array of environmental treaties—such as hazardous waste, fisheries, endangered species, and ozone depletion—over many decades. By contrast, a trade sanction is a police-like, specific action to coerce governmental behavior. It is a response to non-compliance or non-conformity to an international norm. A sanction is clearly being used when the targeted products are arbitrary and unrelated to the noncompliant act (GATT Secretariat 1992, p. 36; Esty 1994, p. 132). The only two international organizations that impose trade sanctions against non-compliance are the U.N. Security Council and the WTO.

The Kyoto Protocol does not seek to control trade in climate-related goods and services among parties, and no government has publicly proposed such controls as a way to make the Protocol more effective. Governments have considered limits on trade in emissions units, but, as noted in Part II, such units are neither goods nor services.

The positive experience with trade controls in the Montreal Protocol on Ozone has led analysts to consider an analogous use of trade controls in a future climate agreement. In the Ozone regime, parties are required to ban trade with non-parties of ozone-depleting substances and products containing them. Surveying that experience, Duncan Brack points out that similar controls for most greenhouse gases would be difficult to apply and could lead to a severe restriction on trade, and an accompanying high welfare loss (Brack 2000, pp. 132-38). Nonetheless, Brack argues that by the same token, such controls would be highly effective and should be contemplated as part of the evolving climate regime. More limited measures such as the application of duties or taxes against various categories of imports from non-parties could also be employed, according to Brack.

Suppose a climate agreement were to adopt controls on trade with non-parties. Would such a measure be consistent with WTO law? Several analysts have cautioned that even multilateral measures against non-parties could violate WTO rules (e.g., Sampson 2000, p. 87). The resolution of any ensuing dispute would depend on how a WTO panel applies the environmental exceptions in GATT Article XX to the facts of the case, and how much weight the panel gives to the norm in the climate treaty. If the complaining government is the nonparty to the treaty, it would argue against giving any weight.

This situation can be called the non-party conundrum: Although the WTO itself does not disallow trade discrimination against countries that are not WTO Members (and indeed promotes new membership in the WTO as a way to avoid such discrimination), WTO rules could prevent other regimes from making use of discrimination against non-parties.

The most recent development in trade controls occurred in May 2003, when the WTO granted a temporary waiver for the Kimberley Process Certification Scheme.⁴⁰ The Scheme requires participating governments to ban trade in rough diamonds with non-participants. This episode marks the first time that the GATT or WTO granted a waiver for a trade control in a multilateral agreement. The waiver states that this WTO action does not prejudge the WTO-legality of trade actions in the Kimberley Scheme, but rather is a step taken to achieve legal certainty.

TRADE SANCTIONS FOR ENFORCEMENT

At present, no environmental treaty employs trade sanctions as an instrument of enforcement in a manner similar to WTO practice.⁴¹ Suppose that the parties to a future climate agreement were to do so, perhaps even modeling the compliance sanction on the one in the WTO. Could such a system be implemented consistently with WTO rules? Several analysts have expressed doubts (e.g., Chambers 2001, p. 104).

Perhaps a more important question than the WTO legality of using trade measures to enforce a climate treaty is whether such enforcement would be effective (because if the measures would be effective, then WTO rules could be changed if needed). David Victor contends that enforcement in the climate regime could fruitfully be linked to the WTO (Victor 2001, pp. 87–88). Specifically, he

suggests a program of penalty tariffs and trade sanctions to counteract the economic advantage gained through noncompliance. Olav Schram Stokke has also argued that trade measures could be an effective instrument against non-compliance (Stokke 2003). Stokke predicts that such sanctions would work best if they were carried out multilaterally against the country at fault.

In general, research on the role of economic sanctions in international organizations does not point to a high efficacy. Based on their comprehensive study, Abram and Antonia Handler Chayes downgraded the usefulness of coercive sanctions in favor of “interacting processes of justification, discourse, and persuasion” (Chayes & Chayes 1995, p. 28). In the WTO, evidence of the pro-compliance effect of trade sanctions is mixed, at best (Charnovitz 2002b).

Although trade measures for enforcement should not be categorically ruled out, the climate regime should look for alternative enforcement techniques. One possibility would be to enhance transparency and public participation in the international supervisory system in the hope of putting internal political pressure on governments to comply. The climate regime could also consider the use of monetary assessments against non-complying governments, a technique employed in the European Union, and being tested in new free trade agreements (e.g., U.S.–Singapore). Certainly, some type of sophisticated legal enforcement strategy will be needed (Nakatani 2002).

IV. PROMOTING HARMONY BETWEEN THE TRADE AND CLIMATE REGIMES

Although the trade and climate regimes are charged with different mandates, the goals of open trade and reduced GHG emissions are not inconsistent. This points to an opportunity for the two regimes to move ahead in tandem, in contrast to current trends of low cooperation. At a minimum, the two regimes should be working together to prevent trade conflicts over the use of climate policies and measures at the national level.

Part IV of this study looks at seven ways in which greater cooperation between the two regimes could be promoted. They are: catalyzing international standards; facilitating taxes on energy; opening markets for environmental and energy goods and services; expanding subsidy law; safeguarding eco-labeling; improving climate and trade regime coordination; and integrating climate and trade bargaining.

CATALYZING INTERNATIONAL STANDARDS

Achieving minimum international standards on energy efficiency or definitions of clean energy would provide several benefits. One is trade facilitation stemming from harmonization. Another is inducing technological breakthroughs from larger potential markets. Taking note of the role of the catalytic converter in promoting the phaseout of leaded gasoline, Scott Barrett has suggested that common technology standards can be used to reduce GHG emissions from automobiles or from fossil-fuel power plants (Barrett 2001).

International product standards are proposed in many fora, the most prominent of which is the International Organization for Standardization (ISO). In recent years, the ISO has set up a Climate Change Task force and begun developing standards for GHG measurement and verification. For energy efficiency, there are several international standards programs, such as the International

Energy Conservation Code and the work of the Berkeley Lab. For automotive standards, the Economic Commission for Europe's World Forum for Harmonization of Vehicle Regulations is starting to consider standards for hybrid and hydrogen fuel cell vehicles.

TBT Article 2.4 promotes the expanded use of international standards, stating that:

Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.⁴²

Other than the availability of dispute settlement, the WTO has not done much to implement this rule. Even back in 1965, the GATT adopted a discipline in favor of the harmonization of standards, but the trading system failed to follow through.⁴³ Perhaps the cause of the inaction is that trade officials are ill suited to promote international standards in the abstract. What is needed is a policy context so that trade ministries can work together with kindred ministries.

Building on the above TBT rule, the WTO could collaborate with the UNFCCC to promote minimum international (or regional) standards pertinent to climate.⁴⁴ Addressing global warming would be an ideal objective to test the possibilities of new efforts to bring together trade, energy, and environmental officials at the national and international levels. The governments could encourage standard-setting institutions to accelerate the development of climate-related standards, and once such international standards are devised in a suitable manner, governments could use them as a basis for technical regulations.

Developing countries, of course, warrant special assistance. The WTO has a mandate to help developing countries pursuant to the TBT rule stating that "Members shall take into account the special development, financial, and trade needs of developing country Members in the implementation of this Agreement, both nationally and in the operation of this Agreement's institutional arrangements."⁴⁵ One might hypothesize that developing countries are most in need of international standards because they do not have resources to squander on reinventing standards that are already working well in comparable countries.

FACILITATING TAXES ON ENERGY

In view of the negative environmental externalities caused by the production and consumption of energy, strong grounds exist to subject energy to greater taxation. Several governments have made energy or GHG taxes a major part of strategies to combat climate change. A coordinated approach to national energy taxes could be an effective and flexible way to control emissions without leading to inter-country distortions (Victor 2001, pp. 79–86). Although the idea of getting governments to agree on a uniform rate of energy taxation has been discussed for years, very little progress in that

direction has been made at the global level, or even within customs unions and free trade agreements. Looking ahead, the outlook for such agreements remains poor.

It may be possible, however, to seek harmonization on technique rather than tax level. As Part II explained, while many energy taxes and border tax adjustments can be applied without contradicting WTO rules, some forms of taxation may lead to trade disputes. Such disputes may be fomented when governments engineer taxes to favor homegrown energy sources and to gratify public biases against particular energy sources, such as nuclear. In other words, what will seem a reasonable method of taxation within Country A may, when applied to imports from Country B, seem unfair to economic actors in Country B. Right now, there is considerable uncertainty within the WTO as to the rules for border tax adjustments on energy. If these uncertainties are left to resolution by a WTO panel, the results may be unsatisfactory for environmentalists.

Therefore, the climate regime could assume greater responsibility for promoting a uniform approach to energy/GHG taxation, and particularly, the application of taxes to imports and exports. Such an effort could prevent the problem of a hodgepodge of energy/GHG taxes that will confound exporters and lead to trade disputes. The reason why the climate regime might take the lead is that the trade regime is unlikely to solve this problem. Such futility is indicated by the fruitless discussions in the WTO Committee on Trade and Environment, which has had the issue of “charges and taxes for environmental purposes” on its agenda since 1994 without producing any result.

The product of a new harmonization effort would be guidelines for the form of energy/GHG taxes applied to imports and exports. A core principle might be to not discriminate based on the country of origin whether taxes are calculated by the type of fuel, its carbon content, or otherwise. If process-based criteria are employed, the tax rules should provide for recognition of similar processes used in other countries.

OPENING MARKETS FOR ENVIRONMENTAL AND ENERGY GOODS AND SERVICES

Liberalization of trade in environmental goods and services is on the negotiating agenda for the Doha Round. The climate imperative is to convince governments, particularly in developing countries, to eliminate unjustified barriers to technology and services related to climate change mitigation and CDM. One obstacle to fruitful negotiations on environmental technology is that this sector is poorly mapped in WTO classifications, and so the scope for beneficial liberalization is often not appreciated (Andrew 2003). WTO negotiations on the movement of natural persons supplying services can also be important for climate policy by facilitating the entry of foreign technicians to offer de-carbonization services in developing countries.

In addition, the climate community has an interest in the ongoing WTO negotiations on energy goods and services. Recently, Qatar offered a suggestion that the focus on environmental goods and services be broadened to include trade barriers to less GHG-emitting fuels, and technologies related to natural gas (Qatar 2003). Yet while it is true that the substitution of cleaner fuels can contribute to climate goals, that does not transform energy goods/services into environmental goods/services.

Instead, the WTO should explicitly recognize the goal of liberalizing energy trade. Countries with closed, uncompetitive markets are unlikely to be leaders in clean energy. New rules are needed to gain transborder access to energy networks, and to assure free energy transit without excessive fees (Wälde & Gunst 2002). So far, attention to energy within the WTO has occurred mainly in negotiations for accession (see Gibbs & Mamedov 2001) in which governments applying for

membership have been pressed to eliminate dual pricing (i.e., low domestic prices in energy-exporting countries).

EXPANDING SUBSIDY LAW

The WTO has complex rules on subsidies that are stronger than in the GATT era, yet still far from comprehensive. If there is any conceptual thread that knits the rules together, it would be a distaste for subsidies that potentially distort international trade. Yet while that is an appropriate purpose, the WTO could aspire to do more by helping governments eliminate subsidies with high negative externalities. It is interesting to recall that during the Uruguay Round, the negotiations on intellectual property began with a narrow focus on counterfeit goods, but later expanded to a much broader set of legal norms.

Although one strain of the ecological critique of trade law over the past decade has been that GATT/WTO rules are too stringent, environmentalists have also observed that on some issues, trade rules are too weak. After all, many government subsidies harmful to the global environment are *not* impeded by WTO rules. The worst offenders are the subsidies for the development of fossil fuels and for unsustainable harvesting of timber. Some agricultural subsidies by the richest countries are also deplorable in making it harder for poor countries to gain income through exports.

Perhaps the most significant environmental achievement in the Doha Declaration was the mandate for negotiations on fisheries subsidies. If this initiative is successful in curtailing such subsidies, it would establish an important precedent for WTO action on other environmentally damaging subsidies. For example, a future trade initiative could address perverse subsidies that worsen climate change. At a recent meeting of the WTO Committee on Trade and Environment, Saudi Arabia advocated the removal of coal and gas subsidies.⁴⁶ Such discourse shows the potential for some convergence with the Kyoto Protocol which calls on Annex I parties to implement “policies and measures” including: “Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions, and subsidies in all greenhouse gas emitting sectors that run counter to the objection of the [UNFCCC] Convention and application of market instruments...”⁴⁷

By contrast, the Doha Declaration is silent on the status of the one environmental achievement of the Uruguay Round. In the early 1990s, suggestions were made that subsidy disciplines could provide a carve-out for environment-enhancing government aid (Jackson 1992, p. 1248). This was accomplished in the Round when the SCM Agreement was constructed to include a category of Non-Actionable subsidies that would neither be prohibited by the WTO nor subjected to countervailing duties. One such Non-Actionable subsidy was government assistance to promote adaptation of existing facilities to new environmental requirements.⁴⁸ But the entire Non-Actionable category expired at the end of five years. Now even the most justified subsidies redressing market failure are potentially actionable in the WTO. The current WTO negotiations could renew the Non-Actionable category, particularly subsidies to address global problems, such as climate change. So far, no government has proposed a plan for renewal.

SAFEGUARDING ECO-LABELING

Environmental labeling is on the WTO’s Doha Agenda, with a decision due in September 2003 as to whether negotiations should be launched. The underlying problem is that trade rules cast a shadow

over mandatory and voluntary labeling systems because, as explained in Part II, the meaning of those rules is unclear. The trade regime has a valid interest in assuring that labels do not impede trade through misinformation or unjustified inferences. The climate regime has a valid interest in assuring that labels and seals can be used to inform the public about the ecological footprint of products, in order to encourage market-based solutions to environmental challenges.

Thus, the two regimes have a basis to work together to assure that WTO law does not constrain well-designed climate labels. Right now, it seems doubtful that climate interests are being voiced in the WTO. If the WTO launches negotiations on labeling, those missing interests need to be factored in. Whatever negotiations the WTO commences could be facilitated by the ISO, which is developing a series of standards (ISO 14020) for environmental labeling.

IMPROVING CLIMATE AND TRADE REGIME COORDINATION

So far, the WTO has remained largely aloof from efforts to address climate change. Other organizations, such as the World Bank, the Organization for Economic Co-operation and Development, and the U.N. Conference on Trade and Development (UNCTAD), have recognized that climate change is an important global issue, and have responded constructively. Despite the fact that the WTO is trying to increase its attention to development, the WTO, as an intergovernmental organization, has not yet connected climate issues to trade and investment.

Some analysts question whether the WTO *should* do so. The case for such engagement is that greater attention by the WTO to problems of poverty, employment, health, and environment could improve the coherence of global governance and perhaps enhance public support for the WTO. The case against engagement is that the trade diplomats and bureaucrats in the WTO system have too narrow a mindset to make constructive contributions to non-trade issues. Yet even within the traditional trade centrism of the GATT/WTO, the trade regime could benefit from stronger institutional linkages with the climate regime in order to seek mutual supportiveness and prevent conflict. The current baseline is that the UNFCCC Secretariat has been granted observer status in the WTO Committee on Trade and Environment and is being invited to its negotiating sessions. Furthermore, WTO Secretariat officials attend intergovernmental climate sessions.

Although these observerships are useful in improving mutual understanding, much more institutional cooperation could be attempted. The WTO General Council and the various WTO subsidiary bodies (such as the TBT Committee) could explore ongoing relationships with the Conferences and Meetings of the Parties of the climate regime, and its subsidiary bodies. This would allow climate and trade officials from numerous countries to work together. One possibility might be a joint WTO/UNFCCC working group (Assunção & Zhang 2002, p. 25). The fact that the states in the WTO are not the same as in the UNFCCC is no barrier to holding joint meetings. Certainly, adequate authority exists under WTO rules for such inter-regime cooperation.⁴⁹

Recognizing that WTO Members are unlikely to agree to such an arrangement—which would have to be approved by consensus—an alternative strategy would be to get parliamentarians from different countries to cooperate in holding “trade and climate” meetings. In recent years, there has been an increase in inter-parliamentary cooperation along functional lines. One initiative would be to highlight opportunities for carrying out joint trade/climate capacity-building on issues like energy standards. If parliamentarians were to regularly meet to discuss the trade and climate linkages, that

would put some pressure on executive officials to devote more attention to this nexus.

INTEGRATING CLIMATE AND TRADE BARGAINING

Some analysts have suggested that governments could bargain simultaneously on climate and trade in order to achieve deals that would be unattainable in separate fora (e.g., Whalley & Zissimos 2002, pp. 175-76). This proposal should not be dismissed outright on grounds of imagined regime purity. Instead, such interlacing should be assessed on its own merits.

One clear impediment is the MFN rule. If Country A agrees to lower its trade barriers in return for Country B's agreement to regulate internal emissions, then A will have to give the same trade benefit not only to B, but also to C, D, etc., even though those countries have not agreed to reduce emissions. This is not a fatal problem, because MFN is already inherent in trade negotiations. Nevertheless, MFN does undermine the viability of "climate for trade" deals.

While there could well be pairs of governments willing to exchange action to liberalize trade for action to combat global warming, no example leaps to mind. The most obvious deal would be a promise by developing countries to undertake climate commitments in return for a promise by developed countries to give more market access. But that swap seems impractical. Since low-income countries have been demanding greater market access for its own virtue, they would surely resist the notion of "paying" for it through a costly link to climate. At the same time, few high-income countries would be interested in such a deal because there would be no anticipated trade gains to offset the trade losses, and trade gainers may be needed to sustain a domestic political coalition.

Although the challenges of climate/trade *multilateral* bargaining are daunting, some possibilities could exist in regional or bilateral free trade negotiations. This may seem paradoxical since few single-nation climate commitments would be weighty enough to make a noticeable contribution. But offsetting that math may be the ability of governments in a small negotiation to particularize their bargains and to experiment with new ideas. For example, the Europe Association Agreement with the Czech Republic combines provisions on trade with other issues, including a commitment to cooperate on global climate change and its prevention.⁵⁰

V. CONCLUSION

Reducing trade barriers and greenhouse gas emissions can be complementary objectives, and the trade and climate regimes should be looking for opportunities for mutual supportiveness. This study presents several ideas for how that might be done on issues including international standards, energy taxes, subsidies and institutional coordination between the WTO and the UNFCCC. The trade regime should be thinking about how it can help to head off global warming, and the climate regime should be thinking about how environmental policy can benefit from trade liberalization.

If implementation of climate policies threatens to reduce national competitiveness, the governments in the regime will be driven to take actions to offset that disadvantage. This study identifies several potential legal conflicts between WTO rules and national policies to meet emission targets. Although no trade disputes have yet occurred, the onset of such conflicts is only a matter of time, especially when WTO rules remain unclear. The most contentious issue will probably be the application of process-based energy taxes to imported products. Whether such measures can pass WTO muster

will depend on how carefully they are written to avoid arbitrary discrimination, and whether a future climate agreement incorporates such a tax.

This study also considers whether multilateral climate agreements should adopt trade controls or sanctions. One problem is that such measures will raise legal concerns in the WTO. Equally or more important, however, is the unlikelihood that trade measures would prove useful in enhancing cooperation on climate policy. Of course, the difficult challenges of gaining international cooperation dictate that no instruments be ruled out.

Any advocate of more dialogue between the trade and climate regimes has surely heard the retort that the two regimes are too single-minded to have anything to talk about. One hopes that this study demonstrates the fertile ground for collaborative efforts. Although such collaboration is hardly an antidote for all of the pathologies of the WTO or the Kyoto Protocol, much good can come from seeking to forestall trade-climate conflicts and building more environmental sensitivity into the trading system.

APPENDIX ON WTO RULES

This Appendix provides a brief survey of the most important WTO rules with ramifications for climate policy.

I. GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

Article I:1 – General Most-Favoured-Nation Treatment. With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.

Article III – National Treatment on Taxes and Regulations for Goods.

Article III:2. The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall apply internal taxes in a manner contrary to the principle that such taxes should not be applied to imported or domestic products so as to afford protection to domestic production.

Article III:4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.

Article XI – General Elimination of Quantitative Restrictions. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

Article XIII – Non-discriminatory Administration of Quantitative Restrictions. No prohibition or restriction shall be applied by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation of any product destined for the territory of any other contracting party, unless the importation of the like product of all third countries or the exportation of the like product to all third countries is similarly prohibited or restricted.

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

- (a) necessary to protect public morals;
- (b) necessary to protect human, animal or plant life or health; . . .

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

II. AGREEMENT ON TECHNICAL BARRIERS TO TRADE (TBT)

Article 2 – Preparation, Adoption and Application of Technical Regulations.

Article 2.2. Technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create.

Article 2.4. Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

Article 2.9.1. Whenever a relevant international standard does not exist or the technical content of a proposed technical regulation is not in accordance with the technical content of relevant international standards, and if the technical regulation may have a significant effect on trade of other Members, Members shall: publish a notice in a publication at an early appropriate stage, in such a manner as to enable interested parties in other Members to become acquainted with it, that they propose to introduce a particular technical regulation.

III. AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES (SCM)

Article 2 – Specificity. Where the granting authority explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific. Where the granting authority establishes objective criteria or conditions governing the eligibility for, and the amount of, a subsidy, specificity shall not exist. Notwithstanding any appearance of non-specificity, if there are reasons to believe that the subsidy may in fact be specific, other factors may be considered.

Article 3.1 – Prohibited Subsidies. Except as provided in the Agreement on Agriculture, the following subsidies, within the meaning of Article 1, shall be prohibited: (a) subsidies contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance.

Article 5.1 – Actionable Subsidies. No WTO Member should cause, through the use of any subsidy, adverse effects to the interests of other Members.

Article 8.2 – Non-Actionable Subsidies. The following subsidies shall be non-actionable:

- (a) assistance for research activities conducted by firms or by higher education or research establishments,
- (b) assistance to disadvantaged regions,

(c) assistance to promote adaptation of existing facilities to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on firms, provided that the assistance:

- (i) is a one-time non-recurring measure; and
- (ii) is limited to 20 per cent of the cost of adaptation; and
- (iii) does not cover the cost of replacing and operating the assisted investment, which must be fully borne by firms; and
- (iv) is directly linked to and proportionate to a firm's planned reduction of nuisances and pollution, and does not cover any manufacturing cost savings which may be achieved; and
- (v) is available to all firms which can adopt the new equipment and/or production processes.

IV. AGREEMENT ON AGRICULTURE

For agricultural subsidies, a “peace clause” to forestall WTO complaints was agreed to for the period of 1995 through 2003. In the meantime, governments agreed to reduce “domestic support” to agriculture, but designated the so-called “Green Box” of support policies that would be exempt from reduction commitments until 2004. Agreement on Agriculture, art. 6.1, Annex 2. (The green is as in *go*, not as in *eco*.) To qualify for the Green Box, the support must not cause more than minimal trade distortion or effects on production, and must fit into one of 12 categories. Among the categories are environmental programs and environmental infrastructure.

V. GENERAL AGREEMENT ON TRADE IN SERVICES (GATS)

The General Agreement on Trade in Services (GATS) pertains to government restrictions on trade in services. GATS is a bottom-up agreement in which governments, through negotiations, can agree to liberalize trade in services sector by sector. Transborder trade in services is carried out through four different modes, including Mode 4 which covers an individual crossing a border to provide a service. This Mode may be the most important for climate policy because many governments sometimes make it hard for foreign technicians to supply services.

ENDNOTES

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¹Kyoto Protocol, art. 2.3. Relatedly, the UNFCCC (art. 3.5) states that “Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade” (see Cameron & Makuch 1994, p. 117).

²Kyoto Protocol, art. 3.14.

³European Parliament Resolution on the European Union’s Strategy for the Bonn Conference on Climate Change, B5-0473/2001, para. 9.

⁴For example, the UNFCCC states that “The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth in all Parties, particularly developing country parties, thus enabling them better to address the problems of climate change” (art. 3.5). This is mirrored in the Preamble of the WTO Agreement which recognizes that “relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living . . . while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so”

⁵In climate policy, the negative externality is at the individual level, viz., emitting GHG without regard to the aggregate costs of such emissions. The market on its own will not correct that. In trade policy, no negative externality exists at the individual level. Trade is a market success, not a market failure.

⁶Science does play a role in some WTO dispute settlement. The WTO Agreement on the Application of Sanitary and Phytosanitary Measures, Article 2.2, states that measures should be based on scientific principles, and not maintained without sufficient scientific evidence (subject to an exception). In disputes where the scientific validity of a trade barrier is in question, WTO panels have sought advice from scientists. In general, however, the WTO does not draw upon scientists in WTO subsidiary bodies or in negotiations.

⁷Of course, the trade regime is broader than WTO law. Because of space constraints, there will be only brief mention of bilateral free trade agreements and European Union treaties. Another exclusion is the Energy Charter Treaty, which includes some WTO rules as disciplines, and also contains a Protocol on Energy Efficiency and Related Environmental Aspects. Several countries that are not yet WTO Members are parties to the Energy Charter Treaty.

⁸Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU), art. 17.14.

⁹See World Trade Organization (2001). Consideration of the relationship between the Kyoto Protocol and the WTO is generally thought to be excluded from the mandate since the Doha Declaration only refers to multilateral environmental agreements that have “specific trade obligations.” In a recent paper, Korea has raised the question of whether the Kyoto Protocol contains obligations regarding emissions trading that might be considered “specific trade obligations” for purpose of the WTO negotiating mandate. See Korea (2002), para. 10.

¹⁰The Committee on Trade and Environment was established at the outset of the WTO to consider several issues related to the trade/environment linkage. The Committee is composed of all WTO member governments, and does not have a policymaking role.

¹¹Whether electricity is a good or a service in the WTO is unclear. Little elucidation can be found in the GATT which explains that the term “goods” is limited to products as understood in commercial practice and does not include services. See GATT Ad Article XVII, para. 2. The GATT’s negotiating history includes a statement that it was generally agreed that electricity is a service, not a good (Jackson 1969, p. 745). But since then, commercial practice has evolved to treat electricity as a good (Pierros & Nüesch 2000). When it considered this question in 1994, the European Court of

Justice reached that conclusion. *Municipality of Almelo and others v NV Energiebedrijf Ijsselmij*, Case C-393/92 (Apr. 27, 1994), para. 28.

¹²*Outokumpu Oy*, C-213/96 (Apr. 2, 1998).

¹³Finland's assumption was that because only some of the foreign electrical generator's production is exported, there is no way for the importing country to determine how that particular electricity was generated, given that electricity is fungible. By contrast, because the total amount of domestic electrical generation is taxed, the tax can be calculated using the proportions of various production processes.

¹⁴*Outokumpu Oy*, *id.*, para. 39.

¹⁵GATT art. II:2(a).

¹⁶*United States – Taxes on Petroleum and Certain Imported Substances*, GATT, BISD 34S/136 (June 17, 1987).

¹⁷*Id.*, paras. 2.5, 5.2.8.

¹⁸*Id.*, paras. 5.2.7–5.2.8.

¹⁹*Id.*, para. 5.2.4. The *Superfund* decision did not consider GATT Article XX.

²⁰*Border Tax Adjustments*, GATT, BISD 18S/97.

²¹*Id.*, para. 15.

²²It should be noted that the stringency gap between TBT and the GATT is narrowing. In the *Asbestos* case, the WTO Appellate Body interpreted the GATT Article XX(b) exception to require the use of a less trade restrictive alternative, if available, to achieve the same end. *European Communities - Measures Affecting Asbestos and Asbestos-Containing Products*, Report of the Appellate Body, WT/DS135/AB/R, para. 172 (adopted Apr. 5, 2001). This was the first time that any GATT or WTO panel had imposed such a stringent requirement on a government seeking to rely on the GATT's life or health exception.

²³TBT Code of Good Practice for the Preparation, Adoption and Application of Standards (art. 4.1). The Code was written by governments during the Uruguay Round without conducting any multilateral consultation with standard-setting bodies.

²⁴TBT Code, *id.*, para. L.

²⁵If such labels are not covered by TBT, they would be governed only by the GATT. See Marceau & Trachtman 2002, p. 862.

²⁶WTO, Committee on Technical Barriers to Trade, Specific Trade Concerns related to Labelling brought to the Attention of the Committee since 1995, G/TBT/W/184, Item 18 (Oct. 4, 2002).

²⁷An actionable subsidy is a specific subsidy that either (1) injures the domestic industry of another country, (2) nullifies or impairs WTO benefits, or (3) causes serious prejudice to another country. SCM Agreement, art. 5. A country harmed by such a subsidy could challenge it in the WTO or impose a countervailing duty on imports of goods benefiting from such a subsidy if the required domestic injury can be shown.

²⁸The complex definition of Specificity appears in SCM Article 2. When subsidies are granted through objective criteria and are not limited to certain enterprises, they are probably not specific.

²⁹Agreement on Agriculture, Annex 2, paras. 2(g), 12.

³⁰SCM Agreement, arts. 3, Annex I, paras. (j), (k); Agreement on Agriculture, art. 10.4. In the *Foreign Sales Corporation* case, the WTO panel assumed (in accord with both parties) that a subsidy under the SCM Agreement could include a subsidy that confers a benefit exclusively outside the territory of the government providing the subsidy. The panel reserved judgment on this legal point however. United States – Tax Treatment for “Foreign Sales Corporations,” Recourse to Article 21.5 of the DSU by the European Communities, Report of the Panel, WT/DS108/RW, para. 8.63 (adopted Jan. 29, 2002).

³¹Nevertheless, there may be scope in GATS Article XVIII (Additional Commitments) for a government to make a commitment on government-created rights, including perhaps emissions trading.

³²For example, the European Community’s Greenhouse Gas Emission Trading system provides for mutual recognition of allowances from non-EC countries that have ratified the Kyoto Protocol. The Directive says nothing about non-ratifying countries. See Council Directive 96/61/EC (amended Dec. 9, 2002), arts. 12.1, 24, and Communication from the Commission to the European Parliament, SEC(2003) 364 (Mar. 25, 2003), para. 3.2.1.

³³Another claim would be a violation of GATT Article I (Most Favoured Nation) on the grounds that it is easier to import products from Kyoto Protocol parties than from non-parties.

³⁴United States – Preliminary Determinations with Respect to Certain Softwood Lumber from Canada, Report of the Panel, WT/DS236/R, paras. 7.17–7.29 (adopted Nov. 1, 2002).

³⁵Of course, the impact of domestic policies will go beyond territorial borders, as many of the examples in Section A demonstrated.

³⁶Nevertheless, it is interesting to note that the Government of Switzerland recently presented a position paper to the WTO suggesting that the Kyoto Protocol conveys an obligation to achieve results, and so trade measures used by a government should be viewed as a specific trade obligation (Switzerland 2003).

³⁷United States – Import Prohibition of Certain Shrimp and Shrimp Products, Report of the Appellate Body, WT/DS58/AB/R, para. 141 (adopted Nov. 6, 1998).

³⁸GATT art. XV:9(a).

³⁹Such an analysis assumes that project developers are service suppliers. For the rule, see GATS art. VII:5.

⁴⁰Waiver Concerning Kimberley Process Certification Scheme for Rough Diamonds, WT/L/518 (May 27, 2003). See WTO Okays Kimberley Process, PanAfrican News Agency, May 26, 2003.

⁴¹The noncompliance procedure in the Montreal Protocol contemplates sanctions, but any trade measure would only involve ozone-depleting substances (see Yoshida 1999). Similarly, the noncompliance procedure of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) can use trade measures against non-complying parties and nonparties, but only regarding trade in covered species.

⁴²Relatedly, TBT Article 12.4 states a recognition that developing countries should not be expected to use international standards that are not appropriate to their development, financial, and trade needs.

⁴³The GATT calls on parties to collaborate through international harmonization and adjustment of national policies through technical and commercial standards affecting production (art. XXXVIII:2(e)).

⁴⁴In noting this option, I am not suggesting that the WTO itself develop environmental standards.

⁴⁵TBT art. 12.1. Relatedly, the TBT Agreement (art. 2.6) directs WTO governments to play a full part in the preparation of international standards.

⁴⁶WTO Committee on Trade and Environment, Report of the Meeting Held on 8 October 2002, WT/CTE/M/31, para. 63 (Dec. 2, 2002). Saudi Arabia is a WTO observer. A penalty on coal would lead to more demand for oil and gas.

⁴⁷Kyoto Protocol, art. 2.1(v).

⁴⁸SCM Agreement, art. 8.2(c). Eligible environmental subsidies must: (i) be a one-time measure, (ii) be limited to 20 percent of the cost of adaptation, (iii) exclude costs of replacing and operating the investment, (iv) be linked to and proportionate to a firm's planned reductions of nuisances and pollution, and (v) be available to all firms that can adopt the new equipment and/or production processes.

⁴⁹Marrakesh Agreement Establishing the World Trade Organization, art. V:1; GATT arts. XXXVI:7, XXXVIII:2(b).

⁵⁰Europe Agreement Establishing an Association between the European Communities and their Member States, of the one part, and the Czech Republic, of the other part, art. 81, available at http://europa.eu.int/comm/enlargement/pas/europe_agr.htm.

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