

The Climate Change and Trade Regimes: Conflict or Compatibility?

Introduction

At the outset, it would appear that multilateral efforts to combat climate change on the one hand and expand international trade on the other are motivated by divergent goals. The United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol seek largely to stem the potentially negative effects of energy-intensive activity on the atmosphere; the World Trade Organization/Global Agreement on Trade and Tariffs (WTO/GATT) are based on the premise that it is the expansion, not contraction, of economic activity through trade that will benefit all concerned. The climate regime endeavors to correct market failure and negative externalities on the environment through economic instruments. By contrast, a key motivation of the trade regime is to correct government failure, or the inefficiencies arising from protectionist trade policy (Charnovitz 2003). The climate regime operates on the precautionary principle, deploying science to predict future climate fluctuations and policies to respond to these effects. With the exception of the Sanitary and Phytosanitary Measures Agreement for agriculture, science does not play a central role in the trade regime (Charnovitz 2003).

However, there are also similarities between the two regimes. Both anticipate long-run benefits in the face of short-term compliance costs. Importantly, both regimes are still evolving and are attentive of the differentiated interests and obligations of developed and developing countries (Murase 2003). Given these similarities and differences, there is much room to discuss the potential for discord or synergy between the two regimes. In recent past, such discussion has focused largely on the terms laid out

in the Kyoto Protocol, particularly regarding emissions trading and domestic policies that may violate WTO principles of non-discrimination (see for instance Brack et al. 1999, Cosbey 1999, Charnovitz 2003, Jinnah 2003, Brewer 2003, and Zhang and Assuncao 2004). In this paper, I assess how implementation of certain clean energy policies called for in Article 2 of the Kyoto Protocol may come into conflict with the WTO, while others may in fact be WTO-compatible. I also review the propositions by which synergies between the trade and climate regimes can be increased.

Article 2 of the Kyoto Protocol calls on nations to implement policies that enhance energy efficiency, promote research and development on renewable energy or carbon dioxide sequestration technologies, reduce market imperfections and subsidies in all greenhouse gas emitting sectors, and encourage reform in relevant sectors aimed at reducing greenhouse gases (UN 1997). The Kyoto Protocol and Framework Convention on Climate Change texts also emphasize that measures to counteract climate change should not interfere with international trade.¹ On the other hand, within the formal negotiating framework of the WTO, there are no provisions for safeguarding our climate. The preamble to the Marrakesh Agreement² establishing the WTO as well as Article XX³ of the GATT refer only very generally to the objective of sustainable development.

¹ E.g.: Article 2:3 of the Kyoto Protocol notes that parties should “strive to implement policies and measures...in such a way as to minimize adverse effects, including the adverse effects ...on international trade” while Article 4.2 of the FCCC notes that “measures taken to combat climate change...should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade”.

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² In the preamble to the Marrakesh Agreement, it is stated that trade among parties 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”.

³ Article XX of the GATT/WTO states that certain classes of measures can be exempt from the structures of other GATT articles, such as those “necessary to protect human, animal or plant life or health” and

The word “environment” is in fact omitted all together in these two documents, although it appears in the Doha Communiqué (Trebilock and Howse 1998).⁴

Still, while there is no *de jure* convergence of trade and climate change policy, accession to the WTO has recently been used as a negotiating tool for bringing the Kyoto Protocol into force. The recent ratification of the Kyoto Protocol by Russia in November 2004 under strong pressure by the European Union (EU) is a case in point. Had the EU not backed Russia’s accession to the WTO so strongly, it is likely that Russia would have continued to prevaricate its decision to sign on to the climate change treaty. This decision signals an important *de facto* convergence of the climate change and trade regimes, and demonstrates the use of international political pressure in achieving the dual goals of environmental protection and trade liberalization. It is also noteworthy that the EU pressured Russia into raising its subsidized domestic natural gas prices to five times current rates, into allowing foreign companies access to its pipeline network, and into ending the gas export monopoly of the state-controlled Gazprom (Wall Street Journal, May 21 2004). Removal of subsidies to fossil fuels is one area where there is potential agreement between the WTO and Kyoto Protocol (Brewer 2003). In this paper, I treat two major categories of energy policies that are likely to reduce anthropogenic greenhouse gas emissions: i) energy efficiency standards and labeling and ii) “leveling the playing field” for renewable energy through fossil fuel taxation and subsidy reform.

“relating to the conservation of exhaustible natural resources” so long as they do not constitute a means of disguised protectionism.

⁴ The Doha Communiqué states “the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive”

Energy efficiency standards and labeling

Mandatory fuel or electricity consumption standards on appliances, vehicles, industrial equipment and other technology are one manner in which countries may reach their emissions reductions targets. However, if a country's decision to impose higher efficiency standards for products effectively penalizes foreign producers in favor of domestic producers, this may be cause for conflict under the WTO. More specifically, the decision can be challenged as violating the WTO's Technical Barriers to Trade (TBT) Agreement which only allows regulations that are "not more trade-restrictive than necessary to fulfill a legitimate objective" (the legitimate objective being human health and/or animal or plant life as stated in GATT Article XX) and that conform to the "relevant international standard (WTO 1995)". A case in point concerns the Japanese Ministry of Transport's proposed preferential tax treatment to smaller and lighter passenger vehicles with higher fuel efficiency. In 1998, the EU protested that since 90% of car exports to Japan from Europe fall in the medium to heavy weight categories, the Japanese standard was unfairly penalizing their cars (Zhang and Assuncao 2002). Although the case was never brought in front of the WTO, it will be a likely source of clash in the future, especially since Japan has stood its ground in claiming that the policy does not violate the TBT and is a legitimate means through which to cope with rising emissions and climate concerns (WTO 1999).

It is obvious from this example that in the hyper-sensitive international trade arena, almost any measure taken by a country that has differential impacts on foreign producers can be construed as violating the TBT Agreement, even if the standard is genuinely instituted to protect animal and/or plant life. Some have suggested that

harmonization of standards through the International Standards Organization (ISO) may avoid this conflict, although the scale and effort needed for global standardization of thousands of consumer products is not without its costs (Brack 2000). Zhang and Assuncao argue that ISO 14000 environmental standards could be increasingly adopted, which instead of imposing pre-specified standards on a range of products, provide a more flexible system of guidelines for parties to define their own standards. In order for these to be accepted by the WTO, however, they should conform to the “Code of Good Practice” contained in Annex 3 of the TBT Agreement, which provides rules for the transparent preparation, adoption and application of standards by all governmental, non-governmental and regional standardizing bodies (WTO 2004). The plethora of texts concerning rules and exceptions to the TBT Agreement, international standardization, and any given domestic standardization process certainly does not make the task of ensuring policy consistency any easier!

I turn next to labeling: the mandatory or voluntary use of a label on a product identifying its energy and environmental impacts. Climate-related product labels themselves are unlikely to interfere with WTO rules. For instance, the European Commission has directed its members to label new cars with information on fuel consumption and carbon dioxide emissions. As long as both imported and domestically produced cars bear identical labels, this is not a violation of WTO/GATT rules. However, where it would be a violation is if information provided on the label concerns the energy intensity of the *process* through which a product was made, *i.e.* if it was mandated that information be provided on the “non product-related processes and production methods (PPMs)”. Such information, would in effect, provide a life-cycle assessment of

environmental damage, and would represent the total embodied energy of a product as well as the energy consumed during operation. PPMs are an extremely contentious issue under the WTO and most parties who have attempted a trade restriction through PPMs have lost their case. For instance, in the face of criticism by several European and non-European governments, the Dutch government declined to impose a labeling scheme indicating whether timber was sustainably harvested or not (Charnovitz 2002).

Such cases have not yet arisen in the case of energy intensity process labeling, since the task of providing such information in the first place is not trivial, not to mention socially and politically problematic even on domestic turf. However, if a government were to consider enforcing eco-labels as part of its Kyoto obligation, it would have problems justifying the legality of the label under WTO.

“Leveling the playing field”: Fossil fuel taxation and subsidy reform

In this section, I treat two policy approaches that are often discussed in conjunction as a means of “leveling the playing field” for alternative, zero- or low-carbon energy⁵: taxation and subsidy reform. Since the early 90s, a number of OECD countries have instituted ecological tax reform, whereby the environmental costs are included in the tax. Although both the US and Europe have experimented with a carbon tax – specifically instituted to reduce carbon dioxide emissions – neither have been successful to date. However, some Northern European countries have implemented carbon taxes independent of the EU’s internal disagreement on the issue.

⁵ From a sustainability point of view, these typically exclude nuclear and large hydro due to the environmental risks associated with and social aversion to these two forms of energy in some countries.

The potential conflict such a tax could have with WTO rules is not the presence of the carbon tax *per se*, but rather the means by which a government will choose to counteract the negative effects of the tax. If a government decides to implement a carbon tax, this would tend to harm the competitiveness of domestic producers vis-à-vis imported products that do not face the same tax. In order to counteract this, a border tax adjustment would be applied to imported products, and removed from exported products. However, again, if the tax adjustment is used to correct for a non-product PPM, it would be impermissible under GATT. Similarly if a government places an equivalent energy tax on an imported energy product that is seen as unfairly disadvantaging the foreign supplier, the taxation policy could be questioned.⁶

It should be noted that currently, fossil fuels in Organization for Economic Cooperation and Development (OECD) countries are not taxed for their carbon content, but where the probability of state revenue generation is greatest. This leads to the transport sector and petroleum being taxed most heavily (90% of all environmentally related taxes in 1995 (Zarilli 2003)). Petroleum-exporting countries have voiced concern that their interests will be harmed further with protectionist oil trade policies hiding behind the guise of climate change concerns. For instance, Zarrilli (2003) alleges that “high taxation on oil and oil products and direct or indirect subsidies to the coal and nuclear industries suggest that energy taxation policies in the OECD countries is oriented towards supporting domestic industries and revenue generation, while carbon abatement does not appear to be the first priority, despite the political statements affirming so.” He ascertains this after reviewing fossil fuel taxation policies in all major OECD countries

⁶ This happened to Finland who tried to put in place a carbon tax penalizing power generation from coal. Under pressure from unhappy trading partners who felt that the taxation methodology unfairly penalized them, Finland had to remove the tax.

and finds that implicit subsidies to the coal industry are actually quite high. Subsidy reform is hence considered an essential element of a more sustainable energy policy, to which I turn to next.

While fossil fuel taxation – whether motivated by legitimate concerns about the climate or not – may be challenged under the WTO, subsidy reform (especially the lowering of subsidies) has generally been viewed as being compatible with the WTO (Brewer 2003). Under the Subsidies and Countervailing Measures (SCM) Agreement, a subsidy is considered to be a “financial contribution by a government or any public body within the territory of a Member which confers a benefit (WTO 2004)”. A subsidy that is directed specifically at an enterprise, an industrial sector, or a region is presumed to have a trade-distorting effect and is therefore not allowed, whereas one that “occurs widely within the economy” is allowed. In the energy sector, the results of subsidy reform can have positive effects at the national and global scales. According to a 1999 study by the International Energy Agency (IEA), removing subsidies in the energy sector of eight key IEA countries would reduce primary energy consumption in these countries by 13%, increase the countries’ GDP through higher economic efficiency by almost 1%, lower carbon dioxide emissions by 16%, and have positive local environmental benefits such as reduced air pollution. At a global scale, subsidy removal in all eight countries would cut energy consumption by 3.5% at world level, thus reducing world carbon emissions by 4.6% (Pershing and Mackenzie 2004). As mentioned earlier, Russia was urged to raise its heavily subsidized natural gas prices in return for the EU’s backing of its accession to the WTO.

Problems arise, however, if trading partners maintain differing levels of support to their energy sectors. Imagine a case where the exporting country subsidizes its coal sector on an economy-wide scale allowing for a lower final price of goods that require a high input of electricity. The importing country may be compelled to impose a countervailing subsidy on its own goods since the foreign good would out-compete domestic products. Such a countervailing measure would be based on a PPM and hence be actionable under WTO.⁷

Subsidies for environmentally beneficial technologies are allowed under the WTO, but it is unclear whether the extent that would be required for renewable energy technologies to become competitive would be allowed. Article 8.2 (c) of the SCM Agreement allows an exception for a one-time subsidy to offset increases in production costs of firms adjusting to new environmental regulations. This could apply, for instance, to a capital subsidy for combined heat and power equipment (more energy efficient) mandated by the government. Renewable energy technologies may need more, since not only do they typically have high initial capital costs, but they also have the concomitant risks typically associated with new technologies. Pershing and Mackenzie (2004) argue that at the current rate of support, the reduced overall levels of spending will be inadequate to address the serious technical hurdles that remain to competitive pricing in the renewables sector. They suggest: i) trading systems for renewable energy certificates or greenhouse gas emissions to allow the market to more efficiently allocate costs to energy producers and consumers, and ii) full-cost pricing for all forms of energy, to

⁷ There are two existing categories of subsidies: prohibited and actionable. Prohibited subsidies are those that are contingent on export performance (export subsidies) and those that favor domestic raw materials (local content subsidies). Actionable subsidies are not prohibited but can be challenged by members in the event that they cause adverse effects. A third category, agricultural subsidies, are governed by separate rules (WTO 2004).

account for social and environmental costs and benefits as they apply. Both solutions have potential problems that are treated next.

Firstly, if emissions trading is seen as a trade in "goods," then trade solely between Annex 1 countries violates the WTO's Most Favored Nation principle, wherein WTO members cannot discriminate between "like" goods from different WTO members. If on the other hand, emissions credits are "securities" or transferable financial instruments, then they are not governed by GATT's rules. Instead, the institutions that would be needed to oversee the transfer of these securities would have to comply with the General Agreement on Trade in Services, or GATS. In this case, domestic and international companies that deal with emissions trading must be treated the same. Countries may also need to allocate emissions rights to various industries, which can be seen as providing subsidies to certain industries, especially if they are export-oriented, and hence illegal under the SCM Agreement (Cosbey 1999).

Secondly, full-cost pricing may have similar problems to life cycle assessment: if energy imports are adjusted against domestic renewable energy on the basis of the negative externalities incurred during their production for instance, it would, once again, constitute a non-product related PPM-based tax. If, on the other hand, they were solely applied on the basis of the externalities they produce when consumed, they may be permissible (Zhang and Assuncao 2002).

In these two sections, I have outlined some of the major conflicts that could arise under the multilateral trade regime when countries choose to fulfill their Kyoto obligations. There are still others that have been addressed by the literature not covered here, such as government procurement policies for "climate friendly" products, and other

flexibility mechanisms such as the Clean Development Mechanism. A common feature is that policy responses to meet Kyoto emission targets will largely require a fundamental change in the way energy is produced and consumed, and will thus center on *energy-using PPMs*, a sore point within the WTO. Mandating and using information on the energy intensity in the manufacturing of a given product, the type of fuel used in its manufacture, its life-cycle impacts, and full-cost pricing of energy are all ways of internalizing the costs associated with fossil fuels, and are all energy-using PPMs. Viewed in this light, it would seem that there is an inherent inconsistency between clean, market-based energy policies and the international trade regime. This does not necessarily have to be the case. Zhang and Assuncao (2002) and Charnovitz (2003) both provide suggestions for promoting synergies between the climate and trade regimes, which can be “translated into a strong plea for multilateralism”.

Increasing the synergies between the climate and trade regimes

Both Zhang and Assuncao (2002) and Charnovitz (2003) argue that, at minimum, there should be more cooperation between Geneva and Bonn – that is, the two regimes should work together to prevent future conflict. This could take the form of a joint WTO-UNFCCC working group charged with the task of increasing the coherence between trade, climate change, and development objectives. This argument is reminiscent of Guzman’s thesis that the WTO should be expanded to include non-trade interests in order to increase its acceptance and legitimacy and to remove the “trade bias” that it currently holds (Guzman 2002).

Another solution is to move towards harmonization of energy efficiency standards, which could also lead to technological breakthroughs from larger markets (e.g. the case of the catalytic converter). One avenue, as mentioned already, would be through the ISO. In recent years, the ISO has set up a Climate Change Task Force and begun developing standards for measuring and verifying greenhouse gases. Several other institutions have energy efficiency and transportation standards. Abiding by the TBT rule that considers standards more legitimate if they have been determined by an international body, both the WTO and UNFCCC could collaborate with such organizations to design climate-pertinent standards.

A third suggestion urges the broader treatment of subsidies within the WTO. There has been much discussion about the extent of agricultural subsidies in OECD countries and their negative impacts on the environment and on poorer countries. Similar discussions should encompass distorting fossil fuel subsidies and their negative environmental impacts. Finally, one way to increase synergy between the two regimes is to promote trade liberalization in environmentally sound technologies, particularly energy efficient and renewable energy technologies. The increased flow of goods that are environmentally sound is particularly important for developing countries. For instance, post-liberalization reforms in the 1990s, certain Indian sugar factories have been able to import efficient and competitively priced boilers, greatly improving their environmental and economic performance (Jawahar, Personal communication, 2004).⁸

This paper has discussed the energy-related areas where the trade and climate regimes may come into conflict and be compatible. No case has actually been brought in

⁸ The sugar industry in India uses particularly inefficient boilers. Personal interviews with a number of sugar factories determined that they had imported efficient equipment from Brazil and the Czech Republic after India opened its doors to trade.

front of the WTO to date. But if the climate protection agenda is ultimately to move forward (because there is little doubt that the trade agenda will), the former must not only face these conflicts head on, but must also tap the possible synergies.

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