Proposals on Carbon-related Border Adjustments: Prospects for WTO Compliance

Kateryna Holzer*

Recently the practice of border adjustment in international trade has attracted much interest in the context of climate change. The risk of carbon leakage, the competitive disadvantage of industries in countries introducing a cap on emissions and the desire to induce large greenhouse gases emitting countries to join international climate change mitigation actions are the main reasons for considering import restrictions on products with high carbon footprint originating from uncapped nations. The aim of this paper is to examine current proposals on emissions-related border adjustment measures – tabled in the EU and the US – using the WTO legal framework on border adjustment and detect possible legal flaws which could lead to conflict with WTO law in the future. Special scrutiny is given to the proposals on the requirement for importers to submit emission allowances at the border and allowance rebates on exportation. The key questions are whether regulatory distinction between products based on their carbon content is permissible under the national treatment obligation of Article III of the GATT and whether an emission allowance requirement can qualify as an indirect tax acceptable for adjustment. The test on WTO compliance presented in this paper shows that proposals to include imports in national cap-and-trade systems and suggestions on emissions allowance rebates on exports are vulnerable to WTO challenge. The weaknesses of an emission allowance requirement for importers lie in the peculiarities of an emission allowance requirement as a quasi-tax linked to non-incorporated Processes and Production Methods (PPMs), in the criteria chosen for import coverage or exclusions and in the implementation details. Proposals on allowance rebates contradict environmental objectives and risk getting in conflict with WTO rules on subsidies.

I. Introduction

The possibly devastating consequences of climate change make immediate action to stabilize global temperature, through reductions in emissions of greenhouse gases resulted from human activities, extremely important. Delay in reaching an international agreement on a future global climate regime increases the likelihood that industrialized countries will act on climate change unilaterally, curbing not only domestic industrial emissions but also introducing restrictions on emissions associated with the production of imported products abroad.

In the current negotiations of a post-Kyoto international climate deal, developed and developing countries have different standpoints on basic elements of the future climate change regime, such as new emission reduction targets for developed countries and nationally appropriate mitigation actions.
for developing ones. Bringing forward an issue of trade restrictions on carbon-intensive products, which is perceived as a stick for the "bad" emission performance of developing countries, might be disastrous for the outcome of climate negotiations. However, apart from the complexity of negotiations on a global climate change action, the application of carbon restrictions at the border is currently held back by legal uncertainties concerning such measures.

This paper explores the issue of WTO-compatibility of various border adjustment measures recently proposed in existing or pending national emission reduction systems. Section II briefly introduces the concept of border adjustment as it is perceived by the WTO, gives some examples from existing practice and outlines the WTO legal framework for border adjustment. Section III addresses the issue of carbon-related border adjustment measures highlighting their peculiarities and discussing their pros and cons on the basis of existing legislative proposals. Section IV presents a test on WTO compliance of the proposed carbon-related border adjustment measures. Section V concludes with a brief summary of the results of the test on compliance and some recommendations for policymakers on the design and application of border adjustment measures for climate purposes.

II. WTO Legal Framework for Border Adjustment Measures

1. Concept of Border Adjustment

The idea behind border adjustment is to level taxation and domestic regulation systems among countries according to the destination principle: “taxes are paid where goods are consumed.” Universal application of this principle can create equal competitive conditions for goods from different countries in the world market and avoid double taxation. It is interesting to note that if instead of the destination principle the origin principle were applied and taxes were paid where goods were produced, there would be no need for border adjustment at all.1

One of the definitions of border adjustment of a fiscal measure, called a border tax adjustment (BTA), which was elaborated by the OECD and is often used in the WTO, is as follows:

"any fiscal measures which put into effect, in whole or in part, the destination principle (i.e., which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products)."2

Hence, border adjustments can be applied both to importation, by way of applying internal taxes to imports, and to exportation, by way of giving tax rebates on exportation. However, taxes and other fiscal measures are not the only domestic policy measures used for border adjustment. There are also non-fiscal internal measures, such as standards, regulations and requirements, which countries may apply to imported products at the border.

A number of terms are used in literature to discuss border adjustment measures related to climate policy. Pauwelyn (2009) calls them "carbon equalization measures", while Cossee (2008) uses the term "border carbon adjustments."3 In this paper, the terms "border adjustment measures" (BAMs) and "carbon-related border adjustment measures" (carbon-related BAMs) are used, which embrace both fiscal and non-fiscal measures.

2. Existing Practices

BTAs for value-added taxes and excise duties, especially on cigarettes and alcohol, is a widespread and normal practice, often as part of bilateral trade

---


Proposals on Carbon-related Border Adjustments

agreements to prevent double taxation.\(^4\) Border adjustment is, in fact, an inherent characteristic of a tax system and is usually perceived as fair.\(^5\)

In the 1960's BTA was a hot topic in Europe incited by the introduction of a border adjustment for an EC-wide value-added tax on exportation. The border adjustment was found to be not efficient enough to restore a competitive edge for European exporters vis-à-vis their foreign counterparts, particularly American producers. It was argued that BTAs for VATs, if a VAT was introduced on a broad scale (i.e. for all goods), did not give an advantage to the exporter because this advantage was offset by an increase in general price level in the country, including wages and exchange rates.\(^6\)

In the last few decades, a number of environment-related border adjustment practices have been introduced. For instance, in 1986 the US adopted a Superfund Amendments and Reauthorization Act, which, inter alia, introduced export and import border adjustment for an excise tax on certain chemicals used as inputs for producing chemical derivative products. The revenue collected from the domestic excise tax and its BTA equivalent was to be used to clean up toxic waste disposals associated with these chemicals.\(^7\)

Another example of BTAs for environmental taxes is export and import border adjustment of an excise tax on certain ozone-depleting chemicals, introduced by the US in 1989 to meet its obligations under the Montreal Protocol.\(^8\) The taxed chemicals were either present in the final product or were themselves a finished product. As in the case with the Superfund excise tax, the calculation of border adjustment for an excise tax on ozone-depleting chemicals was based either on the information about the amount of chemicals in a final product provided by the importer, or it was based on the predominant production method in the US.

So far, there have been no BAMS applied for climate purposes. Neither the UNFCCC, nor its Kyoto Protocol authorize the application of border adjustment measures or any other restrictions on trade in carbon-intensive products, nor do they ban them. However, their application was foreseen by climate negotiators.\(^9\) Article 3.5 of the UNFCCC says 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."

3. WTO Provisions Relevant to Border Adjustment

There are no provisions in the WTO agreements which specifically deal with BAMS. Moreover, different rules apply to exports and imports. WTO provisions relevant to border adjustments on importation are contained in GATT Articles II and III. Export-side border adjustments are subject to the disciplines contained in GATT Articles VI-14. Note Ad Article XVI and in the Agreement on Subsidies and Countervailing Measures (the SCM Agreement). Furthermore, the MFN principle of GATT Article I, as well as provisions of GATT Articles VI and VII, are also applied to BAMS.

Table 1 presents in a systematic order WTO provisions applicable to border adjustment. According to GATT Article II:1, it is prohibited to impose import duties over binding ceilings fixed in the country's schedule of concessions, but Article II:2 (a) allows the imposition of a charge on imports equivalent to an internal tax, provided that it is done according to the national treatment principle of Article III:2: not "in excess of those applied ... to like domestic products." Non-fiscal measures should be adjusted in compliance with Article III:4: imported products "shall be accorded treatment no less favourable than that accorded to like products of national origin."

Adjustment on exportation is possible if tax exemptions or rebates do not exceed those borne by

---

4 Frank Biermann and Rainer Brohm, "Implementing the Kyoto Protocol without the USA: The Strategic Role of Energy Tax Adjustments at the Border", 4 Climate Policy 2005, 289, at 291-292.
6 This line of argumentation is based on the "equivalence theorem". See Ben Lockwood and John Whalley, "Carbon-motivated Border
8 Biermann and Brohm, supra, note 4, at 294.
9 Ibid.
Table 1. WTO provisions applicable to border adjustment

<table>
<thead>
<tr>
<th>Border adjustment on/of</th>
<th>An internal tax</th>
<th>An internal regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importation</td>
<td>GATT Ad Article III and Article II:2 (a) plus Article III:2 (NT for fiscal measures) and Article I:1 (MFN). If non-compliant – prohibited under GATT Article II:1 (b) as in excess of a bincing tariff ceiling</td>
<td>GATT Ad Article III and Article III:4 (NT for non-fiscal measures) plus the TBT Agreement and GATT Article I:1 (MFN). If non-compliant – prohibited under GATT Article XI:1 as a quantitative restriction</td>
</tr>
<tr>
<td>Exportation</td>
<td>GATT Article VI:4 and Ad Article XVI plus the SCM Agreement (incl. its Annex I) and GATT Article I:1 (MFN on exportation). If non-compliant – prohibited under Article 3.1 of the SCM Agreement as an export subsidy</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Table 1. WTO provisions applicable to border adjustment

like products if destined for domestic consumption. Otherwise, such adjustment will qualify under GATT Ad Article XVI and the SCM Agreement as a prohibited export subsidy. Furthermore, border adjustment on importation and exportation is subject to the MFN principle.

It is important to note that provisions relevant to adjustment of fiscal measures deal with taxes or charges imposed on products and not on producers. It means that only consumption (indirect) taxes (VATs, excise duties etc.) can be adjusted. Adjustment of taxes imposed on producers (direct taxes), such as a payroll tax or a corporate tax, would not be permissible.

In summary, border adjustment is an acceptable practice in the WTO, with certain limitations. First, not all types of domestic policy measures are eligible for adjustment at the border: as regards fiscal measures, indirect taxes are adjustable, whereas direct taxes not. Second, application of BAMs is subject to substantial non-discrimination rules of the GATT: national treatment and the most-favored nation principles. It should also be noted that only domestic measures which are applied to goods are acceptable for adjustment at the border. The WTO agreements do not foresee BAMs being applied to services.10

III. Options for Climate Policy

1. Emissions-related Border Adjustment Measures: Opportunities and Challenges for Policymakers

BAMs are currently viewed as a way to address competitiveness and carbon leakage concerns associated with a cap-and-trade or any other emission reduction system which imposes additional costs on domestic producers. Import-BAMs for carbon taxes or carbon-related requirements level the playing field between domestic and foreign firms in the home market by imposing the same costs on imports as the costs imposed by climate legislation on domestic products. Export-BAMs eliminate competitive disadvantages of domestic firms in the world markets by reimbursing carbon costs when they export their products. Putting domestic and foreign producers on an equal footing prevents relocation of emission-intensive production to countries without emissions restrictions and supports the efficiency of climate change mitigation actions.

In the US, BAMs are perceived as a “price of passage” of any ambitious climate bill establishing a cap-and-trade system at a federal level.11 In other words, without sharing the burden of curbing emissions with foreign competitors it seems impossible to gain support from business and society for climate change mitigation actions. And this seems to be fair according to the “polluter pays” principle, calling for correction of a negative market externality of pollution costs for society.

BAMs, by leveling the playing field, might enable deeper and wider reduction of GHG emissions in a country. They address leakage concerns in emission

---

trading systems with full auctioning of allowances. A combination of full auctioning of emission allowances with border adjustment would achieve emission reduction targets without the distortions intrinsic for cap-and-trade systems which include the free allocation of allowances.\(^{12}\)

With BAMs in place, domestic industries might likely be less reluctant to participate in emission reduction schemes. The same stimulus to cut emissions arises also for foreign producers: the smaller the carbon content of their goods, the lower charges they have to pay at the border when they export to a country applying BAMs. It may also push the governments of exporting countries to put caps on emissions or introduce carbon taxation. Arguably, BAMs might be used as a stick to induce third countries, including leading developing countries, to get on board the international emission reduction system and take comparable actions to combat climate change.

Although the opportunities offered by border adjustment of domestic carbon related measures are quite promising, imposition of such trade-restrictive measures might cause negative consequences and even risks undermining the multilateral trading system. BAMs on carbon-intensive imports from developing countries might trigger retaliatory measures.\(^{13}\) Nothing would prevent developing countries from imposing carbon-related BAMs in support of their national emission control systems. BAMs of developing countries might be based on per capita emissions, which would target imports from developed countries having per capita rates of emissions much higher than those of developing countries. If necessary, they can use GATT Article XX to justify such measures. Under the worst scenario, retaliatory measures could grow into trade wars which would devastate the whole trading system of the WTO.

As an alternative to BAMs, the carbon leakage problem can be addressed with financial and technological assistance to developing countries.\(^{14}\) BAMs as a stick alone might not suffice to induce developing countries to take on emission reduction commitments, unless they are accompanied by carrots (i.e. financial aid and technology transfer).\(^{15}\) A strong argument that border adjustment measures of developed countries against carbon-intensive imports from developing ones could hardly be a driving force for developing countries to join the rest of the world in emission reductions is the fact that the Chinese export of aluminum, steel and paper to the EU and the US was only 2% of the total Chinese production of these products in 2007, and the Chinese export of cement to these countries was only 1% of all cement produced in China that year.\(^{16}\)

Furthermore, border adjustment of domestic measures linked to carbon might get in conflict with a country's obligations under the WTO Agreements. A violation of WTO provisions can happen at the very beginning resulted from the design of a measure or it can happen later, at the implementation stage. For instance, if the same carbon tax is not levied on like domestic products, or if instead of a carbon tax there is an emissions trading system in a country obliging national producers to surrender emission allowances, a carbon tax on imports might be deemed a violation of the WTO national treatment principle. Likewise, if the price at which importers buy allowances at the border exceeds the average carbon costs for domestic producers, or if collection of a carbon tax at the border requires a very complicated bureaucratic procedure, it might also be found to be a violation of WTO non-discrimination rules. Some issues of WTO-compliance are discussed in more detail below.

Even if a carbon-related BAM could withstand the WTO challenge, it might be an inefficient measure to stimulate global emission reductions and fight climate change. Foreign producers might adjust their costs respectively and choose to pay a
carbon tax or surrender emission permits at the border rather than invest in low-carbon technologies and lobby their governments to establish a comparable emission reduction system. 17

In sum, climate-related border adjustment measures offer both opportunities and challenges. Countries planning to impose carbon-related BAMs in support of their national emissions reduction systems should be aware of economic and environmental efficiency constraints of these measures and of their possible negative effects on relations with trading partners and on multilateral trading system as a whole.

2. Current Proposals on Border Adjustment Measures in Emission Reduction Systems

Currently, different designs of border adjustments are being proposed in the countries with existing or pending emissions trading systems. The most popular idea with respect to BAMs for climate change is to include imports into national emission trading schemes. This means that importers would have to submit at the border emission allowances in the quantity corresponding to carbon footprint of imported products, i.e. on emissions occurred during the production. The importer allowance requirement has been included in a number of legislative proposals on cap-and-trade systems for the US and as amendments to the existing emissions trading scheme of the EU. 18

The allowances might be bought either from the special international reserve of an importing country (as foreseen by US legislative proposals), or might even be used from those received by a producer in the carbon market of exporting country with a cap-and-trade system equivalent to an importing country or from those earned in CDM projects under the international UNFCCC system. Proposals on an importer allowance requirement usually provide for exemptions for certain products/sectors or countries which have taken comparable actions or are bound by international commitments, including sectoral agreements, or are classified as a least developed country.

While the revised EU ETS Directive does not directly prescribe the use of border adjustment measures, it does not reject such an option for the future as a possible action for redress. 19 Article 10(b) of the Directive states that by 30 June 2010 the Commission shall submit an analytical report accompanied by appropriate proposals in support of energy-intensive industries in the event of carbon leakage. These proposals may suggest, inter alia, inclusion of imports in the ETS, i.e. a requirement for importers to surrender emission allowances at the border. However, the final decision on inclusion of imports into EU ETS will depend upon the outcome of the ongoing international climate change negotiations on a post-Kyoto agreement and risk assessments of carbon leakage.

It should be mentioned that one of the earlier drafts of amendments to the EU ETS Directive contained a more definitive proposal on allowance requirements for EU importers. The so-called FAIR (a future allowance import requirement) program would include imports in the EU ETS beginning 31 December 2014. 20

---


19 The Directive 2003/87/EC establishing an ETS was amended by the Directive 2009/29/EC to improve and extend the EU ETS, which, inter alia, provides for increasing auctioning of allowances to 100% by 2027, starting with 100% of auctioning for power plants from 2013. It also introduces emission-intensity standards for passenger cars and petrol from 2012 and 2011 respectively. The improved EU ETS is aimed at 20% reduction of GHG emissions and 20% share of renewable energy in consumption by 2020.

20 Provisions on FAIR would be found in Art. 29 of the revised EU ETS Directive if the draft Proposal of 10 December 2007 amending ETS Directive would have been adopted. See supra, note 18.
In June 2009 the American Clean Energy and Security Act (ACESA), also known as Waxman-Markey Bill, establishing a cap-and-trade system on a federal level passed a vote in the U.S. House of Representatives. Section 401 of Part IV of the bill provides for inclusion of imports to the US cap-and-trade starting from 2020. Border adjustments for imports might include a requirement for US importers to buy "international reserve allowances" to offset lower energy and carbon costs of manufacturing covered goods.

ACESA draft legislation, as well as the EU FAIR proposal, provide for rebates for energy-intensive and trade-exposed industries which would have to bear costs of compliance with cap-and-trade system. Under ACESA, beginning from 2014, US entities from eligible sectors would receive a certain amount of the emission allowance rebate per unit of production. Eligible sectors would presumptively include sectors that meet energy or GHG intensity criteria and trade exposure criteria, or that have very high energy or GHG intensity. Under the FAIR proposal, starting from 31 December 2014 exporters from the EU would receive emissions allowances from the Community registry with respect to their exports. For this purpose 2% of the total EU wide quantity of allowances would have been set aside. These proposals on allowance rebates might be an example of the opposite side of border adjustments – adjustments on exportation.

Other options for BAMs in climate policy may include a carbon-intensity standard for imports and an import carbon tax. A carbon-intensity standard is a technical regulation which requires from producers of imported products the same level of emissions per unit of production as is required from a domestic industry. A carbon tax can be levied either on fuel consumption during production of goods and calculated based on the carbon content of combusted fossil fuels, or can be imposed on measured emissions created during the production process (for instance, in production of steel or cement). For instance, an intention to impose a carbon tax on imports originating from countries not complying with the Kyoto regime was announced by the French government in November 2006 and reiterated several times by the French president. However, these options have not yet been materialized in legislative proposals.

In the next section, the legislative proposals on carbon-related BAMs will be tested on WTO-compliance within the legal framework set forth in the previous section.

IV. Test on WTO Compatibility

As follows from the analysis of the WTO legal framework, border adjustment can be seen as an allowed practice under WTO law provided that certain conditions are met. However, border measures linked to emissions are viewed from the WTO perspective as special measures due to its PPM nature (the fact that they are linked to production methods and not to prod-


22 The design of these border offsetting measures is still in process of elaboration in the Kerry-Boxer climate bill (a legislative initiative of the US Senate), which is a very similar to the Waxman-Markey bill, but still competing with it, border adjustment measures have not been proposed yet, but such an option is not excluded either. See Kerry-Boxer bill, S.1733: It create clean energy jobs, promote energy independence, reduce global warming pollution, and transition to a clean energy economy, 30 September 2009, available on the Internet at <kerry.senate.gov/cleanenergyjobsandanamericanpower/pdf/bill.pdf> (last accessed on 18 February 2010).

23 It is still to be defined what industry can be considered carbon-intensive. For instance, under the EU draft legal directive on a Europe-wide carbon/energy tax proposed in 1992, an activity was deemed energy-intensive when total energy cost was at least 8 percent of value added. See Hoerner and Muller, "Carbon Taxes for Climate Protection", supra, note 5, at 7.

24 For a sector to be deemed trade-exposed, its ratio of imports plus exports to shipments plus imports should be above 10 and 15 percent in the EU and in the US, respectively. See "Carbon Allowance Rebates seen as Possible Export Subsidies", 27 Inside U.S. Trade (2009), 1, at 2.

25 Waxman-Markey bill, supra, note 18, Section 401.


ucts directly) and its extraterritorial status (an importing country imposes on an exporting country its environmental policy as well as production methods on foreign producers). 29

The PPM nature of carbon-related BAMs makes their legality disputable. The legal status of non-product related PPMs is not clear. The main issues here are likeness of PPM-different products and a product-process distinction. It raises a number of legal questions. For instance: Can taxes levied not on products but on production methods qualify as indirect taxes and thus be adjusted? Or can two PPM non-identical products be considered not like? In other words, is it possible to treat products differently depending on the amount of GHGs emitted during their production abroad?

It is not the intention of this paper to go into the details of PPM dispute in the WTO with the analysis of the related WTO jurisprudence. It will suffice to signal the possible legal flaws in the design and application of the proposed BAMs for climate purposes giving due amount of consideration to the PPM controversy, which in the end might be a key factor in their legality. Possibilities of justification of carbon-related BAMs under general exceptions clauses of GATT Article XX and conceptual and institutional solutions to the incompatibility of carbon-BAMs with WTO law are also a subject for a separate paper.

1. Inclusion of Imports in a National Emissions Trading Scheme

Compatibility of an importer allowance requirement with WTO rules will depend, apart from the status of PPM-related measures under WTO law, upon whether such a requirement can be considered an "internal tax or other internal charge of any kind applied indirectly to products" foreseen by Article III:2 of the GATT for imposition on imports and whether its design and application satisfies non-discrimination rules of GATT Articles I and III.

Concerning the first classification question, there are different opinions. Defining a tax as, "an unrequited payment to the government," or, "a compulsory contribution imposed by the government for which taxpayers receive nothing identifiable in return," both De Cendra (2006) and Pauwelyn (2007) argue that a requirement to surrender emission allowances is such an unrequited payment or compulsory contribution, which gives nothing in return, and, hence, can qualify as a tax. 30 Moreover, it is argued that even if the allowances were received by domestic producers for free in case of free allocation of allowances, they still impose an opportunity cost on companies: allowances could be sold on the market, if a company had managed to cut its emissions. 31 Thus, a requirement to submit allowances might qualify as a quasi-tax and can be arguably adjusted at the border. 32

However, Quick (2009) is of the contrary opinion. 33 He argues that such an allowance requirement for importers cannot be qualified as a charge imposed also on like domestic products for two reasons. First, the majority of allowances are still distributed in the EU for free. 34 Second, EU installations covered by the emissions trading scheme bear different costs with respect to allowances. The covered installations have enough flexibility to adjust their costs of compliance. Some can reduce emissions by cutting their production volumes and then sell extra allowances on the carbon market making a profit from it. Others can invest in low-carbon technologies enabling them to produce at a lower emissions level and also sell the remainder of allowances on the market. These different strategies can in the end lead to different costs for a firm. In this sense, it would be difficult to qualify an emission allowance obligation under EU ETS as a

32 Ibid.
34 "Free allocation comprised 95% in the first phase of EU ETS (2005–2007), 50% in the second phase (2008–2012), and will constitute up to 70% of allowances for processing installations at the beginning of the third phase (2013–2020). See revised Directive 2003/87/EC, supra, note 18, Article 10a."
"charge indirectly applied to products" within the ordinary meaning of a charge.35 Consistency of an importer allowance requirement with the WTO most-favored nation principle and acceptability of the measure by trading partners would largely depend upon particularities of its import coverage. Most of legislative proposals on inclusion of imports into a national cap-and-trade system provide for exemptions from coverage of certain imported products, sectors and even countries. Exclusion of certain imports from coverage runs contrary to the most favored nation principle of GATT Article I. However, certain exemptions of imports are normally required for a measure to fall under general exceptions clauses of GATT Article XX. And criteria set for such exemptions will likely determine chances for justification of a measure.

Exclusions of certain goods from importer allowance requirements are foreseen by a number of US legislative proposals on border adjustment measures for climate change purposes. Under Bingaman-Spector, and Lieberman-Warner bills, which were considered in the US Congress in previous years, excluded from coverage36 would be the countries (i.e. the goods imported from these countries would not be supposed to be accompanied by emissions allowances) which a) would have taken "comparable action" to the US, b) are "least-developed", or c) would have had GHG emissions below de minimis level (0.5% of world emissions).37 Such conditions for exclusion will likely have chances to withstand a challenge of the WTO dispute settlement for the following reasons. First, the requirement of a "comparable" and not the same or "as stringent as" action will likely be viewed as "intended and actual coercive effect on the specific policy decisions made by foreign governments."38 In US-Shrimp (Article 21.5) after the US changed its policy from requiring from its trading partners the adoption of essentially the same program to, "the adoption of a program comparable in effectiveness," the US import ban passed the Appellate Body test as one which "allows for sufficient flexibility in the application of the measure so as to avoid 'arbitrary or unjustifiable discrimination.'"39 It should be noted that the term "comparability of efforts" was also used in the Ball Action Plan with respect to developed countries' mitigation actions.40 Second, exclusion of imports from least developed countries satisfies the GATT provisions on special and differential treatment of developing countries. Under GATT Article XXXVII:1 (b) and (c), developed countries shall refrain from imposing new fiscal measures and also refrain from introducing non-tariff import barriers on products currently or potentially of particular export interest to less-developed WTO members. Derogations with respect to developing and least developed countries to the most-favored nation treatment are possible under a Generalized System of Preferences (GSP).41 Under a GSP, developed countries can give differential and more favorable treatment, and particularly preferential tariffs, to imports from developing countries on a non-reciprocal basis and without granting such preferences to all other WTO-members.

Under the US ACESA proposal, excluded would be sectors which would have more than 85% of imports coming from countries that 1) would have been parties to international agreements requiring economy-wide binding national commitments at least as stringent as those of the US, 2) would have had annual energy or GHG intensities for the sector comparable or better than the equivalent US sector, and 3) would have been parties to an international or bilateral emission reduction agreement for that sector.42

35 Pursuant to Art. 31 of the Vienna Convention on the Law of Treaties, interpretation of the language of a treaty should primarily be made in accordance with the ordinary meaning of its terms. See also Patrick Edgar Holzer, Die Ermittlung der innerstaatlichen Anwendbarkeit völkerrechtlicher Vertragsbestimmungen (Zürich: 104 Swiss Studies on International Law, 1998), at 56-58 with further references.

36 "Covered goods" would include GHG intensive goods (primary products: iron, steel, aluminum, cement, bulk glass, or paper; or other manufactured product sold in bulk for a further manufacture and manufacture of which generates GHG emissions comparable, on emissions-per-dollar basis, to those produced in the US.


41 A GSP is allowed by the "Decision on Differential and More Favorable Treatment, Reciprocity and Fuller Participation of Developing Countries" of 1979, the so-called Enabling Clause.

42 Waxman-Markey bill, supra, note 18, Part IV, Section 401.
ACESA exclusions seem to be very vulnerable to the challenge in the WTO. The requirements to be bound by commitments “as stringent as those of the US,” and energy-efficiency and carbon-intensity standards “comparable or better than the equivalent US sector” will likely be viewed as compelling other country to adopt US policy.

Furthermore, according to Quick (2009), the weak point of the US proposals on inclusion of imports into a cap-and-trade is that they all require from other countries actions on climate change which are either as stringent as or comparable to those taken by an importing country. The question is whether a country can demand from other countries commitments which are higher than those undertaken under an international agreement.43 Indeed, if commitments of developing countries to take nationally appropriate mitigation actions (NAMAs), which exclude achieving concrete emission reduction targets would be accepted by all parties of a new climate change agreement, to demand from these countries more through threatening by sanctions including BAMs would be illegitimate. It is doubtful that such unilateral demands will be justified under GATT Article XX.44

The EU FAIR proposal on inclusion of imports into the EU ETS would provide for exemptions from an obligation at the border to surrender emission permits on carbon footprint of products for imports from countries which would have taken binding and verifiable actions to reduce GHG emissions comparable to the action taken by the EU, pursuant to the UNFCCC principle of common but differentiated responsibilities.45 In practice, this would imply that countries would be exempted if they have ratified an international climate change agreement and those whose carbon markets would have been linked with the EU ETS.

To base the exemptions on the UNFCCC principle of common but differentiated responsibilities seems to be a sound decision. This approach acquires legitimacy from its support by 192 countries, parties to the UNFCCC Convention, the overwhelming majority of which are also WTO members. Furthermore, it can satisfy the requirements of the chapeau of GATT Article XX to take into account conditions in different countries. Another positive feature of the design of FAIR program is its link to the UNFCCC international cap-and-trade system and carbon markets of other countries through acceptance for compliance of ERU and CER credits earned in Joint Implementation and CDM projects, as well as emission permits from carbon markets of other countries, provided that their emission trading schemes have been recognized as equivalent to the EU ETS.

However, the problems with WTO-consistency, particularly with the principle of national treatment, can occur at the implementation stage. A measure can be found discriminatory against imports in the way it is implemented. One of the main practical challenges is the correct determination of the level of adjustment, i.e. the number of allowances which importers have to surrender at the border.

To comply with the requirements of national treatment provisions of GATT Article III, the number of allowances surrendered by importers on a dollars/ton of embedded carbon basis should be equal to the number of allowances surrendered by domestic producers for the same amount of carbon footprint when the like products are produced in the importing country. However, the number of allowances due for submission at the border can hardly be correctly calculated, as the emissions which happened during the product at various stages of the production process and the value chain cannot be easily traced in the final product, especially if all the production takes place abroad. The calculation of the adjustment level should be based on the relevant information about the carbon content of an imported product. The requirement to provide such information from a foreign producer can constitute discrimination in itself, to say nothing of the complexity of required bureaucratic procedures and impossibility of verification of the provided information. As an alternative, the customs authority of an importing country can use as a reference an emissions level under the predominant method of production in the corresponding industry of an importing country or even the average level of costs of emissions reductions incurred by domestic producers of the like product.

The calculation of adjustment based on the predominant method of production was used in the US for the Superfund excise tax on chemicals and was not challenged by the WTO panel in the GATT

44 Ibid.
US-Superfund dispute.\textsuperscript{46} Calculation of taxed inputs of a final product for border adjustment purposes on the basis of a predominant method of production was later applied in the Ozone-Depleting Chemicals Tax, originally intended also for chemical inputs not necessarily physically present in the final product.\textsuperscript{47} The ODC tax has been in place in the US since 1989, and so far there have been no complaints from other countries to the WTO. However, all these facts do not give the green light for the use of this method.

Usually subject to the emission allowance requirement at the border will be the imported products which are like products to the most carbon-intensive goods produced in the importing country. However, such imported products would not necessarily be carbon intensive themselves. The same industry in two different countries might significantly differ in carbon intensity of production, depending on a fuel or technology it uses. In this case, if a carbon footprint of the imported product is imputed based on a predominant method of production of the like product in an importing country and not on the information on the actual carbon footprint provided by an importer, foreign products will be charged more than the like domestic products, which will be considered a violation of provisions of GATT Article III:2.

Furthermore, the use of the predominant method of production as a reference for a carbon footprint of an imported product contradicts the classic economic theory of international trade which assumes that difference in natural resources, labor and technologies available in the country determines its specialization and its place in international division of labor. Intrusion into this process will lead to market distortions and economic inefficiencies. It may also raise a question whether a country has the right to shape the technological policy of another country.

An alternative approach to a predominant method of production is determination of an adjustment level based on the average level of emissions in a sector across the importing country. This approach was followed in the EU FAIR proposal on inclusion of imports into the EU ETS.\textsuperscript{48} The amount of allowances which importers would be required to submit at the border on importation, or exporters entitled to get back on exportation of products, should be equivalent to the level of emissions occurring on average during production of these products in the EU multiplied by the quantity of goods imported or exported. However, due to different costs of compliance under the ETS for different EU installations, the level of adjustment for imports will be impossible to adequately calculate. Even if the decision were to charge importers with an average cost incurred by EU installations, to determine the precise average in the situation of different possibilities of compliance available for domestic firms would be very difficult if not impossible. Consequently, such adjustment, apart from requiring complex bureaucratic procedures, will most likely be challenged in the WTO by exporting countries as one which discriminates against imports.\textsuperscript{49}

Whatever methodological approach to calculation of adjustment were chosen, it would be important to allow importers to challenge the imputed carbon content of their product taken as a basis for calculating the number of allowances due to submission and give them the possibility to provide the actual information on carbon footprint of their products.

Other aspects of implementation which might be found discriminatory against imports are the price at which the allowances would be available for importers and the selection of imported products which would be subject to an emission allowance requirement. Higher prices of allowances for importers would constitute an infringement of provisions on national treatment under GATT Article III. Such a situation will inevitably occur in a cap-and-trade system with free allocation of allowances, such as currently in the EU. To maintain non-discriminatory conditions for imported products, if all allowances to domestic producers are distributed for free, allowances for importers should also be given for free, and if part of allowances is distributed free of charge and part is sold in the auction, importers should be charged a price equal to the average costs of allowances for domestic producers.\textsuperscript{50}

\textsuperscript{46} "United States – Taxes on Petroleum and Certain Imported Substances", Report of the Panel, GATT, paras. 2.6 and 5.2.9-5.2.10, Doc. US175, 17 June 1987.

\textsuperscript{47} Hoerner and Muller, “Carbon Taxes for Climate Protection”, supra, note 5, at 36.


\textsuperscript{49} Quick, “Border Tax Adjustment: 'Naked' Protectionism?” supra, note 33, at 166.

\textsuperscript{50} Pauwelyn, “U.S. Federal Climate Policy”, supra, note 50, at 42.
Pursuant to the national treatment principle as formulated in GATT Article III:2, internal taxes or charges applied to imports should not be in excess of those applied to like domestic products. It means that the list of imported products/sectors included to the national emissions trading scheme and hence subject to an emission allowance requirement should correspond to the list of domestic products subject to the same requirement. In the context of the EU ETS, it is important to note that the ETS covers installations and not products or sectors. Therefore, the scope of products subject to adjustment at the border should cover only those products which are produced by EU installations covered by the ETS, and only at that stage of production (usually at the start of the value chain) which is controlled by the scheme.51

Thus, existing legislative proposals on inclusion of imports into a national cap-and-trade system are quite vulnerable to WTO challenge. Their main weaknesses lie in the peculiarities of an importer allowance requirement as a quasi-tax or an indirect charge linked to non-incorporated PPMs, the criteria chosen for import coverage or exclusions and the details of implementation.

2. Export Rebates

As was shown above, border adjustment on exportation of internal taxes and charges is an acceptable practice under WTO law if the amount of compensation does not exceed the amount of taxes and charges levied on the same products when they are sold in the domestic market. Yet, compensation of costs resulted from carbon-restrictive domestic measures to national producers when their products are exported involves a number of issues which put in question the legality of such practice. These issues should be outlined before proceeding with the analysis of existing legislative proposals on emission allowance rebates.

First of all, the uncertainty about the status of PPM measures under WTO law makes it impossible to give a definite answer to the question about the legality of the adjustment of carbon-related internal measures on exportation. The question is again whether charges on emissions can qualify as indirect taxes, i.e. taxes levied on products, and thus, can be adjusted on exportation. Can the costs of allowances which are the charges on emissions and not directly on products be considered "taxes borne by products" mentioned in GATT Article VI:4, Note Ad Article XVI and footnote 1 to the SCM Agreement and hence be reimbursed on exportation? Here again opinions differ reflecting the complexity of the PPM-dispute. Some argue that the term "taxes borne by products", used in these provisions, requires arguably in its ordinary meaning a less direct relationship between a tax and a product and has a broader scope of operation than the term "taxes applied to products": it could imply not only taxes imposed on products or on their inputs physically present in a final product, but also taxes linked to non-physical aspects, including production processes.52 Others claim unacceptability of emissions charges for adjustment on exportation arguing that emissions charges are neither "indirect taxes levied in respect with the production" under item (g) nor "prior stage cumulative indirect taxes" under item (h) of the Illustrative List of Export Subsidies in Annex I of the SCM Agreement, the more so as the related to item (h) footnote 61 of Annex II of the SCM Agreement explains that "inputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain the exported product."53 This question will remain unanswered so long as the status of PPM-measures has not been clarified by the WTO adjudicative bodies.

Furthermore, the rule governing border adjustment on exportation says that the rebates shall not be made in excess of taxes which are levied on like products when they are destined for domestic consumption. It means that the money which has been paid as taxes is either returned by the government when products are exported or, if the taxes have not yet been paid, exported products are exempted from the taxes which would be paid if these products were sold in domestic market. In present, 90 % of emission allowances in the EU are issued to cov-

52 See e.g. Note by the WTO Secretariat, "Taxes and Charges for Environmental Purposes – Border Tax Adjustments", para. 100(1), WTO Doc. WT/CTE/W/47, 2 May 1997.
53 See e.g. Hoener and Muller, "Carbon Taxes for Climate Protection", supra, note 5, at 33; De Cendra, "Can Emissions Trading Schemes be Coupled with Border Tax Adjustments?" supra, note 30, at 140; Lodefalk and Storj, "Climate Measures and WTO Rules on Subsidies", 39,1 Journal of World Trade (2005), 23, at 39.
ered installations free of charge and up to 70% of allowances will be issued free of charge for processing installations after 2012. According to legislative proposals on a cap-and-trade system in the US, American covered entities will also receive emission allowances within their quotas for free. Export rebates under free initial allocation of allowances might constitute compensation of costs "in excess of those which have accrued" and, pursuant to GATT Ad Article XVI, might qualify a subsidy.

Apart from the above-mentioned legal mismatches, carbon-related export rebates run against environmental and moral principles. It is sheer nonsense to rebate the costs of emissions if the whole purpose of an emissions reduction system is to create such costs for selected firms or industries in order to reduce emissions. Rebates of the costs of allowances on exportation would undermine the efficiency of climate policy. Moreover, it would disarm a country making such rebates of the last argument that carbon restrictions on imports are imposed with the sole purpose of climate protection. Inability to apply this argument would result in the failure to invoke GATT Article XX for justification of a measure if it were found to violate substantive rules of the GATT.

Pursuant to Article 29:5 of the EU draft Directive of 2007 (FAIR proposal), starting from 31 December 2014, EU exporters would receive emission allowance rebates in respect of their exports based on the reports on the verified level of emissions associated with the production of their goods. The proposed formula of rebates will likely get in conflict with the provisions of GATT Ad Article XVI both on the grounds of their PPM nature and the fact that the majority of allowances are distributed for free. In addition, it would run contrary to the environmental objective of GHG emissions reduction.

According to Section 401 of Waxman-Markey bill (ACESA), starting from 2014, US enterprises from carbon-intensive and trade-exposed industrial sectors would get emission allowance rebates per unit of their production. The proposed emission allowances rebates have sparked a debate among WTO experts on whether they would constitute a prohibited export subsidy.\(^{54}\)

The first point to be made is that the proposed rebates do not fit into the legal framework for typical export rebates. Export rebates are usually provided in the form of compensation of costs of taxes paid by companies in the amount which does not exceed such costs. US companies eligible for rebates would have initially received emission allowances for free. Thus, the question is: would there be anything that these companies could be compensated for? And even if to admit that emissions are a company’s resource and that, by creating scarcity of resources, allowances put additional costs on a company, compensation by means of allowance rebates might still be over-emissions-related costs incurred by a company. The allowance rebates would not necessarily be given in the amount equal to the amount of allowances surrendered by a firm on its annual emissions’ basis. It seems that they would simply be an extension of the emissions quota which would have been initially allocated to a company. Consequently, allowance rebates proposed in Waxman-Markey bill would not be consistent with the WTO rules on border adjustment on exportation.

Indeed, the rebates mentioned in Waxman-Markey bill have *prima facie* nothing to do with export rebates as they are perceived by the WTO. They are not directly conditioned on exports or, in other words, the right to receive them does not occur on or by virtue of exportation.\(^{55}\) The main conditions for receiving them, as stated in the bill, are GHG-intensity and trade exposure of industries in which receiving companies work. It means that not only exporting enterprises but also non-exporting enterprises may get such rebates.

The main question which the foreseen allowance rebates raise, therefore, is whether they may constitute a prohibited export subsidy. According to Article 3.1 (a) of the SCM Agreement, prohibited is a subsidy which is, in law or in fact, export contingent. One of the criteria in the Waxman-Markey bill for eligibility of enterprises for rebates is trade exposure of an industry. Trade exposure is a ratio of imports plus exports to total sales plus imports of a company. The fact that the eligibility of rebates depends upon an industry’s level of exports can already be viewed as a clear case of export contingency. Footnote 4 to the SCM Agreement states that if a subsidy is in fact tied to actual or anticipated

---

54 Inside U.S. Trade, supra, note 24, at 1-2.

55 This was the language used by the Appellate Body in China-Auto Parts to distinguish between customsoffborder charges on importation and internal charges.
exportation or export earnings, such a subsidy falls within the meaning of a prohibited export subsidy under Article 3.1 of the SCM Agreement, even if the subsidy has not been made legally contingent upon export performance. Thus, the foreseen rebates might be deemed to be export contingent in fact. It should be recalled that the panel in *Australia-Automotive Leather* used quite a loose test of "close connection between" a subsidy and an export performance and set quite a low threshold for defining export contingency on the basis of the facts.

Furthermore, the fact that the rebates would be made available not only to exporting but also to non-exporting (carbon-intensive) industries would not be sufficient to rebut the export contingency of a subsidy. As was held by the AB in *US FSC (Article 21.5 - EC)* and upheld by the AB in *US-Upland Cotton*, there might be two circumstances in which domestic producers would be eligible to use subsidies: in our case, when they belong to trade-exposed sectors and when they belong to GHG-intensive sectors; and "the fact that the subsidies granted in the second set of circumstances might not be export contingent does not dissolve the export contingency arising in the first set of circumstances".

The only defense that the proposed allowance rebates might have is the fact that they are triggered based on an industry's exports and not on an individual firm's exports, which, in the view of both Charnovitz and Pauwelyn, makes a conclusion about their illegality less categorical. The line of argument is that if the eligibility for rebates depends on export volumes of the entire industry, an individual firm would not receive an incentive to export more and, thus, it would not increase export volumes and cause trade distortions.

In sum, the legislative proposals on allowance rebates to domestic carbon-intensive and trade-exposed industries, which so far have been made in the EU and the US in support of their national cap-and-trade systems, are not entirely consistent with WTO law. They risk falling foul of WTO rules on subsidies, and undermine environmental objectives.

V. Conclusion

Adjustment of internal measures, such as value-added taxes and excise duties, at the border is a widespread practice, and provided that certain conditions are met the practice is fully consistent with WTO rules. However, application of carbon-related border adjustment measures, due to some of their characteristics, such as their PPM-nature and the indefinite legal status of emission allowances, may get in conflict with WTO law.

Proposals on inclusion of importers in the EU ETS and the pending federal cap-and-trade system of the US are quite vulnerable to WTO challenge. Their main weaknesses lie in the peculiarities of an importer allowance requirement as a quasi tax or an indirect charge linked to non-incorporated PPMs, the criteria chosen for import coverage or exclusions and the details of implementation.

Proposals on allowance rebates to domestic carbon-intensive and trade-exposed industries, which so far have been made in the EU and the US in support of their national cap-and-trade systems, are not entirely consistent with WTO law. They risk getting in conflict with WTO rules on subsidies and would undermine environmental objectives.

Policy makers designing carbon-related border-adjustment measures in support of national emissions reduction systems should be aware of legal, economic and environmental constraints of these measures and of their possible negative effects on relations with trading partners and on the multilateral trading system as a whole. Also, it should be remembered that problems with WTO-consistency, particularly with the principle of national treatment, might occur at the implementation stage.

